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February 1, 2005

Mr. Derek Widmayer
Low-Level Waste & Decommissioning Projects Branch
Division of Waste Management
Office of Nuclear Materials Safety & Safeguards
US Nuclear Regulatory Commission
Washington, DC 20555

Re: Docket No. 70-3073; License No. SNM-1999
Final Status Survey Report for Sector 4

Dear Mr. Widmayer:
Kerr-McGee (KM) received your comments on the Final Status Survey Report (FSSR) for Sector 4 in a letter dated January 6, 2005. KM's responses to NRC comments follow. Revision 1 to the FSSR contains the corrections and clarifications described below, and is submitted herein.

NRC Comment #1:
Section 2.4.1.4, page 8: The document should provide additional information regarding the analytical methods. This section of the report defines how total uranium is calculated for samples less than the minimum detectable activity (MDA) level; however, the document does not provide this information for samples greater than the MDA. Also refer to comment no. 5.

KM Response:
Section 2.4.1.4, page 8: KM has revised this paragraph to clarify the process by which the concentration of U-234 is corrected when computing the Fractional Maximum Permissible Concentration (FMPC) value for each soil sample. The counter systems derive the U-234 value from the measured concentrations of U-235 and U-238 using an algorithm built into the software. This algorithm generates large, random fluctuations in the computed value for U-234 when concentrations of the measured isotopes on which it is based are below the Minimum Detectable Activity (MDA) of the counter. Whenever the uranium isotopes measured are above the MDA (i.e. uranium is present in measurable amounts) the algorithm is reliable and is used. Only when the uranium isotopes measured are below detectable amounts is U-234 set equal to U-238. The assumption is that, at these levels below the MDA, U-234 is in equilibrium with U-238.

NRC Comment #2:
Section 2.7.2.6.1, page 13: Insert "meter" following the number 10 in the last sentence of this paragraph.

KM Response:
Section 2.7.2.6.1, page 13: The typographical error has been corrected in Revision 1.

NMSS01

NRC Comment #3:
Section 3.4.2, page 18: ESSAP interprets this section to mean that samples collected from the bottoms of excavations were remediation control samples rather than final status survey (FSS) samples. The section then states that the FSS samples were collected after backfilling the trench. Please confirm that samples from the bottom of the trenches and subsequent analyses were sufficient to satisfy FSS requirements.

KM Response:
Section 3.4.2, page 18: Paragraph 3.4.2 has been revised to emphasize that bottom samples reported in the FSSR were collected at completion of remediation under the same procedures and quality controls as surface FSS samples.

NRC Comment #4:
Section 3.5.4, page 19: ESSAP has concerns with the statement "...manual scan data normally supercede the unshielded cart scan values since it is considered to be more reliable and thorough." ESSAP interprets that the cart scans were the primary method used during the FSS. What are the implications of this statement relative to the adequacy of the FSS scans?

KM Response:
Section 3.5.4, page 19: A footnote was added to the report in paragraph 3.5.4 clarifying how manual scans were used to resolve elevated cart scan readings in the field and why they superceded cart scan readings. Cart scan readings are automatically recorded every 2 seconds during the cart scan process as described in paragraph 3.2.2 of the FSSR. Normally a very small number of readings will show up above the threshold even though no contamination is present due to the statistical nature of the detectors. Each one of these was considered a potential indicator of contamination and was investigated more closely with a manual scan instrument. Because the manual scan involved an alerted, experienced operator, a shielded detector operating in closer proximity to the ground, and a much lower MDC, the results of the manual scans were used to distinguish between false alarms and genuine detections of contaminated soil. The use of the cart and manual scans in this way was described in the FSS Plan (FSSP) and in the Hot Spot Evaluation Protocol included with the FSSR.

NRC Comment #5:
Tables 1 through 5: The data tables only present the total thorium and total uranium results for samples. The report should include the results for each of the individually measured radionuclides. Without these data, the reviewer is unable to validate the appropriateness of the total isotopic calculations, especially for total uranium.

KM Response:
Appendix E, Tables 1-5: In accordance with our discussions over the phone, the written tables in the report have remained as they were initially published. However the digital data tables provided with the report have been expanded to include specific nuclide concentration values and the system uncertainties (sigma values) associated with each nuclide. Section 3.11 on page 21 has been added to clarify this in the FSSR and the tables have been included as an excel data file on the data CD enclosed with Revision 1 to the FSSR for Sector 4.

Additional Changes:
During the revision process some additional changes were made to improve the report's accuracy and to correct minor errors discovered in review. These corrections had no effect on the overall results and conclusions of the report. They are:

- In processing the tables for Appendix E, KM has also increased the number of significant figures carried through intermediate calculations to eliminate apparent discrepancies due to rounding. This affects primarily the values displayed in the table for total U and natural Th. All the values included in the digital tables on CD show the data to four decimals. Summary tables in the report are still rounded to two and value labels in the figures are rounded to one decimal.

- In the process of recalculating the tables KM has also corrected an error in calculating natural Thorium for the surface grid samples (Th232 was not multiplied by 2). The tables have been corrected and other thorium calculations have been checked. This had no impact on the reported FMPC values.

- 51 additional μR measurements were appended to Appendix E, Table 4. These values represent dose rate measurements for which there is no corresponding soil sample. These were not included in the original tables (Rev. 0) although they were displayed in Figure 4.7. Table 4.8 was corrected to show the μR data for these locations as well as all those associated with soil samples.

If you have questions or comments, please call me at 405-270-2694.

Sincerely,

Jeff Lux
Project Manager

Cc: NRC Public Document Room
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February 1, 2005

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Re: Submittal of the Sector 4 Final Status Survey Report Revision 1

Dear Mr. Lux:

The Sector 4 Final Status Survey Report Revision 1 has been distributed to the following individuals:

1. Terry Keane/NEXTEP Environmental, Cushing (Two Hard Copies)
2. NRC Washington/Public Document Room
3. Derek Widmayer/NRC Washington (Two Hard Copies)
4. Blair Spitzberg/NRC Region IV
5. Michael Broderick/ODEQ
6. NEXTEP Environmental/Corporate Office, Louisville, KY. (Two Hard Copies)
7. NEXTEP Environmental/Cushing Site

Sincerely,

Treva Pearce

Treva Pearce
NEXTEP Environmental

FINAL STATUS SURVEY REPORT
SECTOR 4

KERR-MCGEE CUSHING FACILITY
DECOMMISSIONING PROJECT

JANUARY 2005
REVISION 1

Kerr-McGee Corporation
Oklahoma City, Oklahoma

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KERR-McGEE
CUSHING REFINERY SITE
DECOMMISSIONING PROJECT

SECTOR 4
FINAL STATUS SURVEY REPORT

PREPARED BY:

NEXTEP Environmental, Inc.

January 2005
Revision 1

SUBMITTED BY:
KERR-McGEE

APPROVAL PAGE

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TABLE OF CONTENTS

1 INTRODUCTION 4

1.1 PURPOSE 4
1.2 BACKGROUND 4

2 SCOPE OF THE FINAL STATUS SURVEY 6

2.1 SURVEY UNIT DESCRIPTION 6
2.2 PRE-EXISTING DATA 7
2.3 REPRESENTATIVE BACKGROUND REFERENCE AREAS 8
2.4 RESIDUAL RADIOACTIVITY LIMITS 8
2.5 MINIMUM DETECTABLE CONCENTRATIONS (MDC) 9
2.6 ACTION THRESHOLDS FOR NAI SCANS 12
2.7 SURFACE AND VOLUMETRIC AVERAGING CRITERIA 12
2.8 QUALITY CONTROL 14

3 FINAL STATUS SURVEY METHODS 16

3.1 PROCEDURES 16
3.2 INSTRUMENTATION 16
3.3 GEOGRAPHICAL REFERENCE 16
3.4 SOIL SAMPLE SURVEYS 18
3.5 SOIL SCANS 18
3.6 EXPOSURE RATE MEASUREMENTS 19
3.7 ALPHA/BETA-GAMMA SURFACE MEASUREMENTS 19
3.8 RESPONSE TO ELEVATED READINGS 20
3.9 AVERAGING ELEVATED LOCATIONS 20
3.10 DATA COLLECTION FORMS 20

4 FINAL STATUS SURVEY RESULTS AND DISCUSSION 22

4.1 SECTOR 4 SOIL SAMPLES 22
4.2 GAMMA SCAN MEASUREMENTS ON SOIL SURFACES 27
4.3 SECTOR 4 EXPOSURE RATE MEASUREMENTS 28
4.4 SECTOR 4 BUILDINGS AND STRUCTURAL SURFACES 28

5 CONCLUSIONS AND RECOMMENDATIONS 31

5.1 CONCLUSIONS 31
5.2 RECOMMENDATIONS 31

APPENDIX A - FIGURES 32
APPENDIX B - AREA AVERAGING WORKSHEET 56
APPENDIX C - CUSHING SITE GRID NUMBERING SYSTEM 59
APPENDIX D - HOT SPOT EVALUATION PROTOCOL 61
APPENDIX E - DATA TABLES 63
APPENDIX F - METHOD OF SURVEYING AND AVERAGING CONCENTRATIONS OF THORIUM IN CONTAMINATED SUBSURFACE SOIL (NRC, 1995) 134
APPENDIX G - NEXTEP TM 04-21, DECOMMISSIONING CRITERIA FOR SUBSURFACE SOILS AT CUSHING 143

Kerr-McGee

CUSHING REFINERY SITE DECOMMISSIONING PROJECT

FINAL STATUS SURVEY REPORT SECTOR 4

1 INTRODUCTION

1.1 PURPOSE

1.1.1 This Final Status Survey Report (FSSR) is being submitted by Kerr-McGee Corporation (KMC) to the Nuclear Regulatory Commission (NRC) for the area on the KMC Cushing Refinery Decommissioning Site (Cushing Site) designated as Sector 4. The location of Sector 4 on the Cushing Site is depicted in Appendix A, Figure 1.1. This FSSR demonstrates that the residual radioactivity in the sector complies with decommissioning criteria stipulated in License SNM-1999, the Site Decommissioning Plan (SDP), and NUREG/CR 5849[1].

1.1.2 Kerr-McGee requests a license amendment from NRC releasing Sector 4 from License SNM-1999.

1.2 BACKGROUND

1.2.1 The Cushing refinery site operated from approximately 1915 until 1972, when the oil refinery was closed and dismantled. KMC operated the refinery at this site from 1956 to 1972 and processed nuclear fuel materials at the Cushing site from 1963 to 1966 under two AEC[2] licenses, both terminated in 1966. A detailed description of the history of operations at the Cushing Site is presented in Section 2 of the SDP.

1.2.2 During operations at the Cushing site, KMC converted pure feed materials, primarily uranium and thorium concentrates and uranium hexafluoride (UF_6), into usable chemical and physical forms of nuclear fuel materials for use by customers.

1.2.3 As stated in Section 3 of the SDP, the radiological contaminants on the Cushing Site consist of natural thorium and isotopes of uranium (Th-228, Th-232, U-234, U-235, U-238). Since almost 40 years have passed since thorium process operations ceased at

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[1] NRC Publication, *Manual for Conducting Radiological Surveys in Support of License Termination* (NUREG/CR-5849)

[2] Atomic Energy Commission

the site, the thorium series radionuclides have by now established equilibrium with Th-232.

1.2.4 During operations, thorium process wash water was routinely discharged in the northeast corner of the property, just above Pit 4.

1.2.5 Additional sources of contamination in Sector 4 are associated with subsequent decommissioning activities which took place at the Cushing site in 1966 (original license termination with the AEC), 1972 (refinery closure), 1979-1982, and 1991-1993 (ODEQ[3] consent order activities). Contaminated soil and materials were placed in Pit 4 (located at the center of Sector 4) in 1972. During the 1979-82 period, soil and materials measuring 30-50 μR/hr[4] were buried in trenches at the northeast corner of Sector 4 (shown in Appendix A, Figure 1.2). At the same time, other soil measuring less than 30 μR/hr was deep plowed into approximately 20 acres of land in the affected portion of Sector 4 and terraced to distribute residual contamination and to control surface runoff and erosion.

1.2.6 During 2000-2001, the acid sludge in Pit 4 and Waste Pits (WP) 30 and 39 were neutralized and materials exceeding the release criteria were removed and placed in the radioactive materials storage area (RMSA) which occupied all of Sector 7 (Appendix A, Figure 1.1) pending disposal. In 2002-2003 all of the Pit 4 materials in the RMSA and some contaminated materials in partially characterized areas were excavated and shipped offsite for disposal at Envirocare of Utah.

1.2.7 Characterization of Sector 4 was completed in 2003 and the results were published in the Radiological Characterization Report (RCR).[5] Decommissioning activities followed in the spring of 2004 completing the removal of all licensed materials which exceeded the release criteria. The Final Status Survey (FSS) was performed from March thru June of 2004 to demonstrate that Sector 4 complies with the release criteria.

[3] Oklahoma Department of Environmental Quality.
[4] Micro-R per hour exposure rate.
[5] *Sector 4 Radiological Characterization Report, Kerr-McGee Cushing Remediation Site,* NEXTEP and Burns & McDonnell, November 2003.

2 SCOPE OF THE FINAL STATUS SURVEY

2.1 SURVEY UNIT DESCRIPTION

2.1.1 Sector 4 consists of approximately 24 acres located in the northeast corner of the Cushing Refinery Site as depicted in Appendix A, Figure 1.1. Sector 4 contains WP-30, WP-33A, WP-33B, WP-39, Pit 4, and the Pit 4 retention pond area.

2.1.2 WP-33A and WP-33B are in the northern section of the sector and WP-30, WP-39, and Pit 4 related areas dominate the central section of the sector. Seven burial trenches covered by approximately four feet of fill and extending as deep as 13 feet were identified during characterization and are located in the northeast section of the sector (see Appendix A, Figure 1.2). Four of these (T-2, 3, 6, and 7) were excavated during characterization in 2002 as part of the ELLWaR[6] Project. Pit 4, the Pit 4 retention pond, WP-30, and WP-39 were characterized, remediated, and surveyed as part of the Pit 4 project in 2000-2001.

2.1.3 WP-33B was shown on historic maps containing a burial trench (T-7) that was believed to be in this area. During the Characterization survey, T-7 was never found in WP-33B. Instead, the burial trench was found to be located just to the west of WP-33A. Thus, the survey unit containing WP-33A has been expanded to include burial trench T-7, and WP-33B was not treated as a separate survey unit during the FSS for Sector 4.

2.1.4 Characterization of Sector 4 was performed from 1992 to 2003. During characterization, soil samples were collected on 5x5m grids in all areas except for Undesignated Areas (UDA), where soil samples were collected on 10x10m grids. Exposure rate measurements were taken at the location of each soil sample. 100% of the sector was scanned for gamma radiation with a 3x1/2" NaI instrument. All samples and measurements were taken in accordance with the SDP, and the results of characterization were summarized in the RCR for Sector 4[7].

2.1.5 The areas to be surveyed were divided into 14 survey units to facilitate planning and data analysis. Survey unit size was limited to less than 10,000 m^2 as prescribed by NUREG/CR-5849[8]. A map of a portion of the Cushing Site showing Sector 4 and the survey unit boundaries is presented in Appendix A, Figure 1.2. The survey units are also listed in Table 2.1 below.

2.1.6 27 structures and structural surfaces were identified for survey in Sector 4. 19 well pads, 4 air sampler pads, and an equipment decontamination pad were included as were three other structures: a field storage and operations trailer (Access Control Point (ACP) trailer), a small wood storage shed (HEPA shack), and a tinhorn containing a water control valve. A listing of the structural items surveyed is presented in Section 4, Table 4.9 and their geographic locations are presented in Appendix A, Figure 4.8.

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[6] Expedited Low-Level Waste Removal
[7] Ibid.
[8] Ibid.

Table 2.1
Defined FSS Survey Units for Sector 4

Survey Unit	Physical Description	Area (Sq. Meters)
401	Affected Area including WP-33B	8,699
402	Affected Area	8,819
403	WP-33A Extended	4,969
404	Affected Area	8,162
405	Affected Area	7,965
406	Affected Area	8,543
407	UDA*	7,279
408	WP-30 and WP-39	6,456
409	Pit 4- North	9,873
410	Affected Area	6,771
411	Affected Area	6,371
412	Pit 4- Retention Pond	3,016
413	UDA	8,272
414	UDA	9,329

*Undesignated Area

2.2 PRE-EXISTING DATA

2.2.1 Characterization soil samples collected from 1992 through 2003 exist for Survey Units 401-414. Soil samples which fell within the excavations performed during decommissioning have been removed from the data set as have samples from areas which have been sufficiently disturbed to warrant re-sampling.

2.2.2 The Micro-R (exposure rate) data associated with soil points removed from the data set have been replaced.

2.2.3 Characterization scan data have been rejected for all excavation areas and areas which have been disturbed or altered enough to call the scans into question. 100% of Sector 4 was rescanned during the final status survey.

2.2.4 All soil sample and μR characterization data not removed from the data set as described in the foregoing paragraphs are suitable for use in the FSS and were used in preparation of this report.

2.2.5 Throughout Sector 4, haul roads have been constructed and expanded to service the decommissioning efforts through the years. Because surface samples on top of the gravel roads were impracticable and would serve no purpose[9], no FSS surface grid samples are reported in the areas covered by the haul roads. Pre-existing soil data, however, do exist for areas underneath these roads and are reported separately to confirm that the soil beneath them met the release criteria.

[9] Gravel used for the roads was purchased and brought in from off site. These roads subsequently were 100% scan surveyed for release as part of the FSS.

2.3 REPRESENTATIVE BACKGROUND REFERENCE AREAS

2.3.1 A summary of the background levels of radioactivity in soil and background exposure rate measurements is presented in Section 6 of the SDP.

2.4 RESIDUAL RADIOACTIVITY LIMITS

2.4.1 Release Criteria for Radionuclides in Soil

2.4.1.1 The release criteria for uranium and thorium contamination in soil are stipulated in license condition 11.N.

2.4.1.2 All nuclide activities are expressed in pCi/g. The limit for total uranium is 30 pCi/g and the limit for natural thorium is 10 pCi/g. These limits are net of background activity.

2.4.1.3 In order to compare soil sample activities with the criteria, the average of the background radioactivity for each nuclide was subtracted and a Fractional Maximum Permissible Concentration (FMPC) was calculated according to the following equation:

Equation 1

$$FMPC = \frac{[U^{235} + U^{238} + U^{234} - 2.77]}{30} + \frac{[2*(Th^{232} - 0.96)]}{10}$$

2.4.1.4 For this FSS, Kerr-McGee's established practice of setting the value for U-234 equal to U-238 whenever U-235 or U-238 concentrations are below the Minimum Detectable Activity level for the soil counter was followed. When concentrations of both U-235 and U-238 exceeded the MDA for the soil counter, the value for U-234 generated by the counter software was used. The software employs an algorithm interpreted from uranium isotopic ratios in uranium enriched by the gaseous diffusion process during the early 1960s. These methods produce results in statistical agreement with the NRC split samples analyzed by ORISE by both alpha and gamma spectroscopy.

2.4.1.5 All materials with concentrations less than 1.0 FMPC meet the soil release limit.

2.4.1.6 Materials with concentrations greater than 1.0 FMPC but less than 3.0 FMPC may be accepted if they meet the averaging criteria contained in License SNM-1999, the Cushing Site Decommissioning Plan and in NUREG/CR-5849[10].

2.4.2 Release Criteria for Gamma Exposure Rate

2.4.2.1 The gamma exposure rate may not exceed 20 μR/hr above background at one meter above the ground as measured by a Pressurized Ion Chamber (PIC) instrument. The exposure rate may not exceed 10 μR/hr above background when averaged over $100m^2$.

2.4.2.2 Exposure rates taken in the field were compared with an adjusted dose rate limit in order to compensate for the variance observed between field instruments and

[10] Ibid.

the PIC. Using the ratio of average background readings[11], the exposure rate limit of 10μR/hr was adjusted by the following factor:

Equation 2

$$\frac{7.5}{8.4} = 0.89$$

2.4.2.3 Using an average background of 7.5 μR/hr, the gross exposure rate thresholds for field measurements have been computed and are presented in Table 2.2.

Table 2.2
Maximum Exposure Rate

Measurement	Max Value
Averaged over 100 m^2	16.4 μR/hr*
Maximum Exposure Rate	25.3 μR/hr

* For field μR instruments. Includes background.

2.4.3 Release Criteria for Buildings and Structural Surfaces

2.4.3.1 Concrete slabs and building structures in the sector were surveyed for alpha and beta-gamma surface emissions using the Ludlum 43-89 detector (direct readings and scans) and the Tennelec LB5100-W Gas Proportional Counter (smears). Criteria for release of these surfaces are given in Section 3 of the SDP and are summarized in Table 2.3. The most conservative release criteria (thorium) were used exclusively for the FSS.

Table 2.3
Alpha and Beta-Gamma Surface Release Criteria
For Scans, Direct Measurements, and Smears

Nuclide	Average (dpm/100 cm^2)	Maximum (dpm/100 cm^2)	Removable (dpm/100 cm^2)
Uranium	5,000	15,000	1,000
Thorium	1,000	3,000	200

2.5 MINIMUM DETECTABLE CONCENTRATIONS (MDC)

2.5.1 Soil radioactivity was measured by collecting soil samples for HP laboratory analysis and by taking Exposure Rate (μR) and Sodium Iodide (NaI) gamma scan readings in the field. The MDC for all the instrumentation used should, if practical, be less than 25% of the release limit.[12]

2.5.2 Soil Spectroscopy

[11] Exposure rate was measured at the center node of the sample locations for soil background samples using both a Ludlum Model 19 μR meter and a Reuter Stokes Model RSS 112 pressurized ion chamber (PIC). Source of the data is *HP Technical Evaluation 02-002, Background Exposure Rate*, Enercon Services, Inc., April 2002.

[12] *Cushing SDP* Section 6.4.2

2.5.2.1 Calculated MDC values for HP Lab equipment are compared to the desired MDC in Table 2.4.

Table 2.4
Minimum Detectable Concentrations for Lab Gamma Spectroscopy (pCi/g)

	Natural Thorium	Total Uranium (U-238, U-235, U-234)	Count time (min.)
Desired MDC (pCi/g)	*2.5*	*7.5*	
HP Lab Soil Counters (typical)	0.3	4.8*	7.5

* The reported value represents the summation of the MDC for the three isotopes

2.5.3 Soil Gamma Scans

2.5.3.1 The Minimum Detectable Count Rate (MDCR) for NaI scans should be less than 100% of the corresponding soil release limit translated into counts per minute. Where practical, the MDCR should be less than 25% of the release limit.[13] The scan thresholds are dependent upon the mix of nuclides in the soil. Table 2.5 shows the conversion factors[14] used to convert the soil release limits for thorium and uranium into counts per minute (cpm) and the release limit in cpm, for both configurations of the 3"x1/2" NaI detector. The calculated MDCR[15] for each detector configuration is also given in Table 2.5.

Table 2.5
NaI Scan Detector Release Limits[a] and MDCR (cpm)

Nuclide	Conversion Factor (cpm/pCi/g)	Release Limit (cpm)
6" Shielded	MDCR = 1,260 cpm	
Thorium	1,000	10,000
Uranium	49	1,470
24" Unshielded	MDCR = 1,020 cpm	
Thorium	430	4,300
Uranium	20	600

[a] net of background

[13] The term "limit" as used in this section refers to the expected scan reading of the NaI detector when passed over soil contaminated at 1.0 FMPC levels. This "limit" is used only for purposes of calculating MDCR to determine if the detector is sensitive enough to identify soil contamination at or above the release limits expressed in the license.

[14] NEXTEP Tech Memo 03-11, *NaI Scan Survey Thresholds for Uranium and Thorium in Soil at the Kerr-McGee Cushing Site*, N. Zhang.

[15] NEXTEP Tech Memo 03-11, Ibid.

2.5.3.2 Comparison of the data in Table 2.5 reveals that, for the unshielded scan cart[16], the MDCR is less than 25% of the release limit for thorium but is considerably above the release limit for uranium.

2.5.3.3 To ensure that elevated concentrations of uranium coupled with low levels of thorium can be detected with the gamma detector, soil samples were screened for areas where the uranium component dominates the sample. Wherever a soil sample analysis indicates a net total uranium concentration above 20 pCi/g and a net natural thorium concentration below 1.5 pCi/g[17], the area surrounding that soil sample was scanned manually with the shielded detector at 6" height above ground. Table 2.5 shows that the shielded detector is capable of detecting uranium at the release limit.

2.5.4 Exposure Rate Measurements

2.5.4.1 The MDC for field μR instruments should be less than 2.2 μR/hr (25% of the averaged limit for the Ludlum 19). The MDC of the Ludlum 19 may be calculated from Equation 3 using a value of 0.5 μR/hr for the standard deviation term (σ)[18].

Equation 3

$$MDC = 2.71 + 3.29\sigma = 4.4\mu R / hr$$

2.5.4.2 The MDC for the field exposure rate instruments is less than 50% of the averaged release limit and is adequate to detect exposure rates in excess of the SDP limits.

2.5.5 Alpha/Beta-Gamma Surface Measurements

2.5.5.1 Building structures and other structural surfaces were surveyed and released using the Ludlum 43-89 (L43-89) alpha/beta scintillation detector. The MDC for this detector is calculated in accordance with NX-RO-340[19]. For direct readings, the MDC should, if practicable, be less than 25% of the average limit for thorium listed in Table 2.3. For scan readings, the MDC should be less than 100% of the release limit. A comparison of the calculated MDC values for the L43-89 detector with the requirements is given in Table 2.6.

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[16] 24 inches above ground level (see Section 3.2.2)

[17] (20 pCi/g U)*(20 cpm/pCi/g) + (1.5 pCi/g Th)*(430 cpm/pCi/g) = 1,045 cpm at the unshielded detector 24" above ground.

[18] *Final Radiation Survey of Four Unaffected Areas of the Cushing Refinery Site*, Morton Associates, April 1995, Table 12.

[19] NX-RO-340, *Sample Activity Determination.*

Table 2.6
MDC Comparison for Alpha/Beta Detectors

Measurement Type	Instrument	MDC (dpm/100 cm^2)		Desired MDC (dpm/100 cm^2)
		Alpha	Beta	
Scan	L43-89	240	620	1,000
Direct	L43-89	46	430	250
Removable	LB5100-W	3	7	50

2.5.5.2 All MDC values calculated for the L43-89 were less than the desired 25% except for direct beta which is less than 50% of the release limit. Since both alpha and beta measurements were gathered on concrete and structural surfaces, the L43-89 detector is adequate to detect surface radioactivity above the release limits.

2.5.5.3 Removable contamination measurements were collected using smears counted in a Tennelec LB5100-W automatic gas proportional counter. The most conservative limit (thorium) for removable contamination listed in Table 2.3 is 200 dpm/100 cm^2. A comparison of typical MDC values for the Tennelec counter with 25% of the thorium release limit is presented in Table 2.6 and shows that the Tennelec LB5100-W counter is adequate to measure removable alpha and beta-gamma radioactivity at the release limits called for in the SDP.

2.6 ACTION THRESHOLDS FOR NAI SCANS

2.6.1 Action levels for each configuration of the NaI detector have been calculated[20] and are presented in Table 2.7.

Table 2.7
NaI Scan Thresholds[a]

Configuration	Threshold (cpm)
Unshielded, 24"	12,500
Shielded, 6"	10,000

[a] Gross cpm including background.

2.7 SURFACE AND VOLUMETRIC AVERAGING CRITERIA

2.7.1 Surface Averaging

2.7.1.1 Soil samples on the undisturbed surface or on the bottom surface of a disturbed area were averaged over square blocks of 100 m^2 area in accordance with Section 6.5 of the SDP if they fell between 1.0 and 3.0 FMPC.

2.7.2 Volumetric Averaging

2.7.2.1 Sub-surface soil samples at or above 1.0 FMPC were averaged in accordance with the SDP[21] and Section 11.N of the license. The methods used were in accordance

[20] NEXTEP Tech Memo 03-11, Ibid.

with NRC Methods[22] and are detailed for this application in TM 04-21[23], which is attached as Appendix G.

2.7.2.2 Section 11.N of the license states in relation to volumetric averaging, "When multiple radionuclides are present, the sum of the ratios of the concentration of each radionuclide to its respective limit must not exceed 1." Therefore, composite limits expressed in terms of FMPC were calculated in TM 04-21.

2.7.2.3 The criteria for volumetric averaging are normally applied to open land areas containing subsurface contamination. In Sector 4, there were two scenarios, or cases, requiring evaluation: 1) open land areas with FSS data collected in accordance with normal grid patterns (i.e., 5m x 5m); and 2) burial trenches with a width of 2m and of variable length. Each of these cases is identified and release criteria (guideline values) in terms of FMPC were developed in TM 04-21.

2.7.2.4 TM 04-21 states that calculation of the allowable subsurface residual contamination at a particular location can be performed in practice by first evaluating soil sample results in the borehole of interest. If no subsurface samples are observed exceeding 1 FMPC, there is no need for volumetric averaging and the area is suitable for release in accordance with the guideline criteria.

2.7.2.5 In the case where samples are observed exceeding 1 FMPC, the first action should be to divide the borehole of interest into 3 foot layers, starting at ground surface. Averaging over the six, half-foot intervals included in each 3 foot layer is then performed. If the computed average in each 3 foot layer containing soil sample results exceeding 1 FMPC is less than 1 FMPC, the area meets the subsurface criteria for release and no further analysis is required.

2.7.2.6 For areas which fail the above test, further evaluation is required to determine if they meet the subsurface criteria as outlined in the NRC Method. The criteria defined in the NRC Method, as applied to Cushing, are:[24]

2.7.2.6.1 The average FMPC in any 10 m^3 volume beginning at ground surface (10m length x 1m width x 3 foot depth) should be less than the guideline criterion calculated for that volume. For Case 2, samples collected over any 10m length to a depth of 3 feet will be averaged. If the average over any 10m length is greater than the guideline criteria, the area fails.

2.7.2.6.2 The average FMPC in any 100 m^3 volume beginning at ground surface (10m length x 10m width x 3 foot depth) should be less than the guideline criterion calculated for that volume. For burial trenches, this will be conservatively applied using the same as criterion 1 above, except using the guideline value associated with a 100 m^3 volume. The actual volume represented is 20 m^3 in

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[21] Section 6.5.

[22] NRC Paper, *Volumetric Averaging of Thorium Contaminated Subsurface Soils*, (NRC,1995) (portions included in Appendix F)

[23] NEXTEP Tech Memo 04-21, *Decommissioning Criteria for Subsurface Soils at Cushing*, N. Zhang (Included as Appendix G).

[24] NEXTEP Tech Memo 04-21, Ibid.

this case. However, application of the criterion in this manner will ensure that the FMPC for adjoining trenches will not exceed the 100 m^3 criteria.

2.7.2.6.3 The average FMPC in a 75 m^3 volume beginning at ground surface (5m length x 5m width x 9 foot depth) should be less than the guideline criterion calculated for that volume. Case 2 will be conservatively applied the same as Case 1, by averaging all measurements obtained in any borehole over a 9 foot depth. The actual soil volume represented by any individual sample is 12m^3 for Case 2.

2.7.2.6.4 The average FMPC in a 50 m^3 volume beginning at ground surface (5m length x 5m width x 6 foot depth) should be less than the guideline criterion calculated for that volume. Case 2 will be conservatively applied the same as Case 1, by averaging all measurements obtained in any borehole over a 6 foot depth. The actual soil volume represented by any individual sample is 8m^3 for Case 2.

2.7.2.6.5 The average FMPC in a 300 m^3 volume beginning at ground surface (10m length x 10m width x 9 foot depth) should be less than the guideline criterion calculated for that volume. For Case 2, this will be conservatively implemented over any trench length of 10m, similar to criterion 2, except to a depth of 9 feet. The actual soil volumes being compared using this method for Case 2 will be 60 m^3.

2.7.2.6.6 The average FMPC in a 1 m^3 volume at any depth (1m x 1m x 3 foot) should be less than the guideline criterion calculated for that volume. For Case 2, this will be applied identically to Case 1.

2.7.2.6.7 The average FMPC in a 100 m^3 volume representing a surface layer after excavation (10m x 10m x 3 foot depth) should be less than the guideline criterion calculated for that volume. For Cases 1 and 2, this is applied at the 3'-6' layer (for houses without basements) and at the 9'-12' layer (for houses with basements). For Case 2, this criterion will be conservatively applied over any 10m length, representing an actual soil volume of 20 m^3.

2.7.2.6.8 The average FMPC in any survey unit should be less than 1 FMPC. For Cases 1 and 2, this will be applied over any contiguous area within the same survey unit which contains subsurface contamination. For example, it may be applied over areas as small as 5m x 5m in Case 1, and over any burial trench area in Case 2.

2.8 QUALITY CONTROL

2.8.1 Soil Sample Duplicates

2.8.1.1 In addition to the routine monitoring of the soil counters using in-process standards and calibration standards, the duplicate data pairs from the Sector 4 FSS were also analyzed using criteria described in TM 03-16[25]. The results are

[25] NEXTEP Tech Memo 03-16, *Criteria for Soil Duplicate Sample Comparison Kerr-McGee - Cushing, Oklahoma Decommissioning Project*, H. Newman & S. Shelton.

published in TM 04-15[26] and show that the data set for Sector 4 meets all the established quality control criteria of TM 03-16.

2.8.2 Statistical Test Calculations

2.8.2.1 After the data set for each survey unit was evaluated against the release criteria, further statistical calculations were performed in accordance with Section 6.5 of the SDP to ensure that the survey units, or groups of data with the same classification of contamination potential, provide a 95% confidence level that the true mean activity level meets the release criteria.

2.8.2.2 The following equation, from NUREG/CR/5849[27] for testing data relative to a guideline value at a desired level of confidence, was applied to the soil sample, dose rate, and surface activity data used for the FSS.

Equation 4

$$\mu_\alpha = \bar{x} + t_{1-\alpha,df}\left(\frac{\sigma}{\sqrt{n}}\right)$$

Where:

μ_α = 95% confidence level mean of the data set.

$t_{1-\alpha,df}$ = 95% confidence level, $t_{95\%}$, obtained from Appendix B, Table B-1 of NUREG/CR-5849[28] for df, the degrees of freedom = n-1.

n = number of individual data points in the data set used to determine the average and standard deviation.

σ = standard deviation of the data set.

$\bar{x}$ = calculated mean for the data set.

2.8.2.3 If μ_α is less than the release criterion, the area being tested meets the guideline at a 95% confidence level. This means that the probability is less than 5% that μ_α will pass the test, when the true mean activity level exceeds the guideline value.

[26] NEXTEP Tech Memo 04-15, *Evaluation of Cushing FSS Sector 4 Duplicate Samples*, N. Zhang.
[27] Ibid.
[28] Ibid.

3 FINAL STATUS SURVEY METHODS

3.1 PROCEDURES

3.1.1 The Sector 4 Final Status Survey was implemented in conformance with all KMC plans, procedures and other requirements.

3.2 INSTRUMENTATION

3.2.1 **Soil Sample Laboratory Analysis.** Analyses for the uranium and thorium series were performed using the gamma spectroscopy soil counters at the Cushing facility. Laboratory count time was sufficient to achieve the desired MDC as listed in Table 2.4.

3.2.2 **Soil Scanning Instrumentation.** Initial gamma scans were performed in accordance with NX-RO-370[29] using a 3" x ½" NaI detector operating in a gross counting mode in the unshielded configuration. The detector was mounted 24 inches above the ground on a vehicle equipped with a Global Positioning System (GPS) navigation system and a data logger and the vehicle was operated at speeds at or below 1 ft/sec. Measurements were recorded every two seconds. Where the terrain was too rough for the vehicle, a man-portable pack with the same equipment was used or manual scans were performed. When the scan threshold for unshielded scans was exceeded the local area was re-scanned by hand using the same type of detector in the shielded configuration elevated to approximately six inches above the ground.

3.2.3 **Alpha/Beta-Gamma Instrumentation.** Structural surfaces such as well pads, foundations, and remnants of buildings and other structures were surveyed using a Ludlum 43-89 scintillation alpha/beta detector. It was paired with a Ludlum 2224 scaler /ratemeter for both alpha and beta/gamma measurements. Both integrated and scan measurements were taken in accordance with NX-RO-342.[30] Removable contamination was collected on swipes and counted in a Tennelec LB5100-W low background gas flow proportional counter in accordance with NX-RL-220[31].

3.2.4 **Exposure Rate (μR/hr) Instrumentation.** All μR data were taken using Ludlum Model 19 (L19) field instruments. The release limits were adjusted to calibrate the field instrument to the PIC standard as described in Section 2.4.2.

3.3 GEOGRAPHICAL REFERENCE

3.3.1 Buildings and structural surfaces were surveyed on a 1m grid system as described in Section 3.7. Locations were laid out manually and are documented on the original data sheets on file at the Cushing Site.

3.3.2 **GPS.** Soil sample, μR, and scan locations were surveyed using GPS equipment to navigate to the required locations. Scan locations were recorded using a Trimble PRO XRS Submeter GPS survey system either carried by the operator or mounted on a vehicle. Soil samples and μR readings were located using a Trimble Model 4800

[29] NX-RO-370, *Performing Radiological Soil Surveys*
[30] NX-RO-342, *Contamination Surveys.*
[31] NX-RL-220, *Operation of the LB5100-W Automatic Gas Proportional Counter*

differential GPS surveying system consisting of a field unit coupled with a surveyed ground station to provide the needed accuracy. According to manufacturer's specifications scan locations are accurate to within one meter in X and Y (East and North), and soil sample locations are accurate to within two inches in three dimensions: X,Y and height above mean sea level (MSL).

3.3.3 **Reference Coordinate System.** The Cushing Site has an established block grid coordinate system with numbered blocks beginning at the NW corner of the property. Within each 100m by 100m block, locations are referenced in meters east and south starting at the northwest corner of the block. In the process of developing the Radiation Database System (RDS) additional block numbers were added to the array to provide reference to off-site locations. The block numbers which are recognized within the data collection system are presented in Appendix C and are labeled in the figures in Appendix A.

3.3.4 The Cushing Site grid system is not aligned precisely with the Oklahoma State Plane (SP) Coordinate System but is rotated by a small angle. Since grid points were defined in the Cushing block grid system and the GPS equipment and mapping software used SP coordinates it is often necessary to transform one type of reference into the other. This transformation has been automated within the database software.

3.3.5 Each sample location is normally referenced by a locator ID (LocID) which conforms to the following standard format:

BmmmEnnSnn

where m is the block number and n is the distance to the nearest meter (East and South) from the NW corner of the block. To assist in differentiating survey data from other count records, the LocID always begins with "B".

3.3.6 When a sample location is surveyed, the GPS coordinates, LocID and μR reading are all stored within the data logger and later downloaded to a file. GPS coordinates are expressed as X&Y in feet East and North of the SP origin plus Z in feet MSL. When sample locations have been surveyed and logged, the data logger file is uploaded into the database and checked for correlation between the LocID and the GPS coordinates. If a record for this location already exists, the samples are referenced to the existing location record. If not, one is created for it.

3.3.7 If a sample is offset relative to a certain grid location for some reason, the LocID is modified by adding a single letter at the end. In this case the system recognizes the LocID as a special location and records a separate locator record for it with the exact coordinates.[32] Other non-standard LocID's entered into the database are treated in the same way. For example, burial trench locations are recorded as BT-nn and are separated from the other data that way.

3.3.8 Soil samples collected as the result of elevated scan readings use the following standard LocID convention and are recorded as special locations:

BmmmSCnnn

[32] Offsets due to obstacles and some expansion patterns are examples of this kind of LocID.

Where nnn is a sequential number used to track the number of such locations in a block.

3.3.9 Sample identifiers (SIDs) normally consist of the LocID plus the depth in feet multiplied by ten and are normally of the form:

BmmmEnnSnnx-jjj DUP

where x is the optional offset suffix and jjj consists of the depth in feet times ten. DUP, when present, denotes a QC duplicate sample and is applied automatically by the database software when the labels are produced. These are considered in the analysis data set along with the regular measurements.

3.3.10 Depth of the sample is expressed in feet and tenths from the local surface to the top of the composite sample. Thickness refers to the length of the core, proceeding down from the top of the sample, which has been mixed together to form a homogeneous sample, a portion of which is bottled and sent to the lab for analysis.

3.4 SOIL SAMPLE SURVEYS

3.4.1 Surface soil samples were obtained to complete the required grids in Sector 4. Characterization soil samples were used as described in Section 2.2. A five meter grid of surface samples was completed in all the affected areas and a 10 meter grid was completed in the UDA.

3.4.2 Bottom samples were collected in all the excavations to confirm completion of the remediation process. Sample density was equal to or greater than the surface FSS sample density. All bottom samples including the FSS data set were collected and analyzed upon completion of the remediation effort and were handled and processed with the same procedures and quality controls as surface grid samples. They are appropriately included in the report as FSS bottom surface data.

3.4.3 Backfill material samples were collected sufficient to characterize the material placed back into the excavated areas. Surface grid points were taken on the final backfilled surface to complete the required grids on the surface.

3.4.4 Soil sample records taken from soil that was removed during excavation have been retained within the database but coded to denote that they have been removed and no longer apply to the data set for FSS.

3.5 SOIL SCANS

3.5.1 NaI gamma scans were completed to cover 100% of all survey units in Sector 4. As with soil sample data, the old characterization scan data remain in the database but are coded to exclude them from the FSS data set of record.

3.5.2 Data logger files from the scanning equipment were uploaded into the RDS database system and processed using a utility which records the maximum and average values for each 10m x 10m square in order to provide a high level summary of the results. The raw scan data files were stored in a protected directory and indexed to the summary information in the database.

3.5.3 Data logger scan files presented for processing were in .dbf file format and the filenames conform to the following convention:

AnnnpppB.dbf

where A is the sector number (using the letters T and E for Sectors 10 and 11); nnn is the block number that contains most of the scan data; ppp is the julian day on which the scans were performed; and B is a letter designating the detector used for the scan. The filename always contains exactly eight characters.

3.5.4 Manual scan information was entered into the database as the maximum value in the area scanned[33]. For data analysis, manual scan data normally supercede the unshielded cart scan values since it is considered to be more exhaustive and thorough for exact pin-pointing of elevated measurement locations[34].

3.6 EXPOSURE RATE MEASUREMENTS

3.6.1 Exposure rate measurements were taken 1 meter above the surface of the ground at every systematic grid sample location as a minimum. Exposure rate measurements were uploaded into the database as part of the GPS location survey files.

3.6.2 For building structures, occupational exposure rate data were taken inside the structure only and are reported in the data tables in Appendix E along with the floor measurements.

3.7 ALPHA/BETA-GAMMA SURFACE MEASUREMENTS

3.7.1 Direct measurements of alpha and beta-gamma surface contamination were performed at selected locations on all concrete slabs and structural surfaces. One direct data point was surveyed on each square meter of surface area.

3.7.2 On the building surfaces[35] and the concrete decontamination pad direct data measurements were collected to achieve a 95% confidence level result as described in Section 2.8. In both building structures, the floor and wall surfaces extending up to 2 meters height were surveyed with alpha/beta-gamma direct measurements on a systematic 1m grid as a minimum. Upper walls, ceilings and roof were surveyed on a 2m grid.[36] The decontamination pad was surveyed on a 1m grid.

3.7.3 The other slabs and structural surfaces were surveyed for free release in accordance with NX-RO-342[37] and were scanned over 100% of their surfaces.

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[33] The maximum area covered by a single manual scan was $100m^2$.

[34] Manual scans were performed by an alert operator scanning a small portion of ground where the cart scans delivered a reading in excess of the threshold. Manual scans were used to thoroughly investigate the area using a shielded detector held only six inches from the ground. Table 2.5 shows that the MDCR of the detector used for manual scans was 10% of the release limit while the unshielded cart scan MDCR was 25% of the release limit. If a manual scan investigation of an elevated cart scan reading showed no contamination in excess of threshold, the cart scan reading was attributed to random noise which was due to the statistical nature of the detector.

[35] In Sector 4 this included the ACP Trailer and the HEPA shack.

[36] Where appropriate on small surface areas, instead of the 2m grid, random locations were surveyed sufficient to provide an adequate number of measurements to characterize the survey unit. A set of at least 30 measurements was considered adequate.

[37] Ibid. Although "free-released" items are covered by the license and not normally subject to NRC approval under the FSS, the data are included in this report for completeness.

3.7.4 Smear samples for removable contamination were collected on all surfaces where direct readings were collected and all structures surveyed were scanned over 100% of their surface area.

3.8 RESPONSE TO ELEVATED READINGS

3.8.1 When elevated readings above the limits for soils discussed in the preceding paragraphs were encountered either in the field or after analysis of soil sample results, action was taken in accordance with the Hot Spot Evaluation Protocol, Appendix D. No hot spots on building structural surfaces were identified.

3.9 AVERAGING ELEVATED LOCATIONS

3.9.1 General

3.9.1.1 Soil samples on the undisturbed surface or on the bottom surface of a disturbed area were averaged over square blocks of $100m^2$ area in accordance with Section 6.5 of the SDP if they fell between 1.0 and 3.0 FMPC.

3.9.1.2 Any samples in excess of 1.0 FMPC that were left in place below the surface are subject to the volumetric averaging rules described in Section 2.7.

3.9.2 Trench Samples

3.9.2.1 Samples above 1.0 FMPC left beneath the surface in the burial trenches are subject to the volumetric averaging criteria described in Section 2.7.

3.10 DATA COLLECTION FORMS

3.10.1 The forms used for the FSS are listed in Table 3.1. Sample collection locations were filled out in accordance with the applicable procedures.

3.10.2 Free release surveys and surveys of buildings and structural surfaces were documented in accordance with NX-RO-304[38]. No such data were recorded in the RDS.

[38] NX-RO-304, *Survey Identification and Control.*

Table 3.1
Data Collection Forms

Form Number	Title	Purpose
235-1 (NX-RL-235)	Label Package Request	Controls GPS survey and collection of soil samples
Computer Equivalent (KM-SAP-113)	Chain of Custody	Generated by the database software. Controls receipt, transfer and custody of samples
0309-SP-007	Manual Scan Form	Manual scans are recorded on this form or its equivalent.

3.10.3 Since practically all of the soil activity, gamma scan and μR data were recorded and downloaded automatically, no survey data forms outside of the logs and records called for in the procedures were required.

3.10.4 The RDS data tables are maintained on the main Cushing server as a POSTGRES SQL database named HPL_Data. The files containing the primary scan and GPS/μR data are maintained in directories as shown in Table 3.2.

Table 3.2
Data Locations

Data Files	Location*
Database Data Tables	DSN:CUDBSVR_PGSQL Database: HPL_Data
GPS Logger Files (after upload)	Q: \Barcode \GPSDone
Scan Logger Files (after upload)	Q: \Barcode \ScanDone

* DSN is the name of the database server. Q: refers to the server directory reserved for the RDS source Data Files.

3.11 ELECTRONIC DATA TABLES

3.11.1 All of the soil samples, μR, and alpha/beta surface measurement data have been included in tables in Appendix E. Soil data in these tables has been limited to total uranium and natural thorium concentrations for the purpose of conserving space. These tables are also reproduced electronically in a Microsoft Excel file on the enclosed data CD. Soil sample data on the CD includes specific nuclide values and the system uncertainties (sigma values) in addition to the values reported in the tables.

4 FINAL STATUS SURVEY RESULTS AND DISCUSSION

4.1 SECTOR 4 SOIL SAMPLES

4.1.1 Analysis of the soil sample data is presented in this section beginning with the areas that have been excavated including the Pit 4 project, the burial trenches in RMA-3 and the final decommissioning excavations performed in 2004. Bottom samples are documented and mapped and any required surface or volumetric averaging data are presented. Samples underneath the gravel roads are documented to confirm that the ground surfaces prior to gravel placement meet the release criteria. Lastly, the final surface grid sample data set covering the entire sector as it existed after backfill and contouring is presented and summarized to show that the current surface grid samples meet the release criteria.

4.1.2 Pit 4 Area Excavation[39]

4.1.2.1 The Pit 4 area was remediated in 2000-2001. During the excavation soil was removed in layers, the acid content was neutralized, and the area was surveyed for radioactivity. Approximately 15,000 cubic yards of soil which exceeded the release criteria were relocated to the Radioactive Materials Storage Area (RMSA) and subsequently disposed of during the ELLWaR project in 2002.

4.1.2.2 NRC confirmatory surveys were conducted in June and September 2001. The results were documented as follows:

4.1.2.2.1 IR 03073/2001-002; Inspection June 25 – 27, 2001; 16 samples by ORISE under contract. **Conclusions:** "The confirmatory gamma scans, exposure-rate measurements, and soil sample analysis results were all below the applicable NRC release criteria. The confirmatory measurements verified the licensee's determination that Pit 4 of the Cushing Refinery Site meets the criteria established in NRC License SNM-1999 Condition 11.N for unrestricted use."

4.1.2.2.2 IR 03073/2001-003; Inspection September 18 – 20, 2001; 20 samples by NRC. **Conclusions:** "Confirmatory exposure-rate measurements and soil sample analysis results were all below the applicable NRC release criteria and were consistent with the licensee's determination that Pit 4 of the Cushing Refinery Site meets the criteria established in NRC License SNM-1999 Condition 11.N for unrestricted use."

4.1.2.3 After determining that no contamination above the release limits remained in the Pit 4 excavation, the area was backfilled with clean soil, graded and contoured.

4.1.2.4 1,706 soil samples were collected on the bottom surfaces of the excavation and on the original surfaces covered as a result of grading and contouring. These samples are shown on a map of the sector in Appendix A, Figure 4.1[40].

4.1.2.5 A summary of the soil sample results from the surveys of the bottom of the Pit 4 excavation and under the surrounding topsoil is presented in Table 4.1 It shows

[39] The Pit 4 Excavation includes Pit 4, WP-30, WP-39, the Pit 4 retention pond and several smaller related areas.

[40] Since all figures have been included in Appendix A, only the figure number will be referenced for the remainder of this report.

that the maximum activity measured, net of background, was 0.88 FMPC which is below the release criterion of 1.0 FMPC. The average value for Pit 4 was 0.02 FMPC and the 95% confidence level was 0.03 FMPC. The measurements for each sample are listed individually in Appendix E, Table 1.

4.1.2.6 The soil samples on the bottom of the excavations and beneath the backfill in the Pit 4 Excavation met the criteria in the SDP for unconditional release.

Table 4.1
Pit 4 Excavation
Bottom Soil Samples Summary

Number of Samples	FMPC 95% Confidence (μ_α)	FMPC		Net U_{tot} (pCi/g)		Net Th_{nat} (pCi/g)	
		Max	Avg	Max	Avg	Max	Avg
1,706	0.03	0.88	0.02	22.84	-0.83	7.74	0.48

4.1.3 Burial Trench Excavations

4.1.3.1 The burial trenches in the northeast corner of Sector 4 were located and their extent documented during characterization. The location of the trenches, numbered T1 through T7 (east to west) is shown in Figure 1.2.

4.1.3.2 During characterization, soil samples were taken along the center line of each of the seven burial trenches at intervals of two meters extending beyond the trench to the north and south by at least one meter. Six-inch composite samples were taken beginning at the surface and extending down into native soil beneath the waste or to the underlying rock. Additional lateral samples were also taken to the east and west alongside contaminated cells to confirm that no spreading of radioactivity had occurred outside the lateral boundaries of the trenches.

4.1.3.3 Only burial trenches T-2, 3, 6 and 7 in SU-403 were excavated during ELLWaR activities in 2002. Soil that was contaminated above SDP limits was removed and shipped to the Envirocare facility in Utah for disposal. Excavated soil which was below the release criteria was returned to the trench as backfill. Additional uncontaminated (background level) soil from off-site or on-site soil stock piles was added to complete the restoration.

4.1.3.4 Before the trenches were filled in, NRC representatives were given the opportunity to inspect and take split samples from the excavations. The results were documented as follows:

4.1.3.4.1 IR 03073/2002-003; Sept 17 – Oct 10, 2002; 23 samples (18 from Burial Trenches) by NRC. **Conclusions:** "The results of samples collected ... indicate that total uranium (U) and thorium (Th) concentrations reported in soils were within the range of environmental levels associated with naturally occurring radioactivity. In addition, the results were below cleanup criteria approved for the site."

4.1.3.4.2 All except one of the initial confirmatory measurement results were below the applicable NRC release criteria. The exception was a sample from Burial Trench 2 that exceeded the limit. Consequently, after sampling, this area was

excavated down to bedrock. After splits were collected and compared the trenches were backfilled.

4.1.3.5 A complete listing of the data from the seven trenches (not including the backfill) is presented in Appendix E, Table 2 and a summary of the trench data is presented in Table 4.2.

Table 4.2
Burial Trenches
Unexcavated Soil Samples Summary

Number of Samples	FMPC 95% Confidence (μ_α)	FMPC		Net U_{tot} (pCi/g)		Net Th_{nat} (pCi/g)	
		Max	Avg	Max	Avg	Max	Avg
1,672	0.29	1.75	0.30	20.35	0.31	16.93	2.77

4.1.3.6 Cross sectional data for each of the burial trenches are presented in Figures 4.2a – 4.2g. The figures show the FMPC value of each sample that was left in place and document the extent of the backfilled areas. Inspection of the figures reveals that 42 samples greater than or equal to 1.0 FMPC were allowed to remain in place and are therefore subject to volumetric averaging.

4.1.3.7 The results of the averaging calculations applied as described in Section 2.7 are shown in Figures 4.2a – 4.2g and in Table 4.3. Table 4.3 shows that no sample results exceeded 1 FMPC after averaging over a 3 foot soil layer and therefore all trenches met the guideline value of 1 FMPC for release.

Table 4.3
Maximum Volumetric Averaging Results (FMPC)
Sector 4 Burial Trenches

Layer	Trench 1	Trench 2	Trench 3	Trench 4	Trench 5	Trench 6	Trench 7
0-3'	0.23	0.27	0.46	0.33	0.10	0.27	0.27
3-6'	0.59	0.82	0.92	0.72	0.77	0.49	0.66
6-9'	0.73	0.63	0.76	0.60	0.54	0.79	0.52
9-12'	0.31	0.75	0.67	0.49	---	0.51	---
12-15'	---	0.27	---	-0.03	---	0.11	---

4.1.4 Final Decommissioning Excavations

4.1.4.1 During the ELLWaR program in 2002 and decommissioning activities in 2003 an additional 7,000 cubic yards of material were removed from the excavated portions of the northern half of Sector 4. NRC conducted confirmatory surveys in November/December 2003 and in January 2004. The results of these surveys were documented as follows:

4.1.4.1.1 IR 03073/2003-005; Nov 13-Dec 9, 2003; 30 samples (26 from Sector 4) by NRC. **Conclusions:** "The decommissioning activities completed in Sector 4 were in compliance with the SDP. Independent confirmatory radiological surveys and sample analysis results supported the licensee's determination that these areas met the criteria for unrestricted release."

4.1.4.1.2 IR 03073/2004-001; January 5-27, 2004; 50 samples (5 from Sector 4) by NRC. **Conclusions:** "The NRC's confirmatory measurements supported the licensee's determination that total uranium and total thorium concentrations in soils met the criteria for unrestricted release. Results of confirmatory surveys and statistical comparison of soil sample analytical results performed by NRC were consistent with measurements taken by the licensee."

4.1.4.2 After determining that no licensed material exceeding the criteria remained in these areas, the excavations were filled with clean soil, and the areas were graded and contoured. 920 soil samples were collected on the bottom surface of the excavation and on the original surface covered as a result of the grading and contouring. These samples are shown on a map of the sector in Figure 4.1, and a complete listing of the data is presented in Appendix E, Table 3.

4.1.4.3 A summary of the soil sample results for the final decommissioning excavations is presented in Table 4.4 and shows that the maximum activity measured was 1.66 FMPC, the average activity was 0.17 FMPC, and the 95% confidence level was 0.18 FMPC. All save two of these samples were less than 1.0 FMPC.

Table 4.4
Final Decommissioning Excavations Bottom Soil Samples Summary

Number of Samples	FMPC 95% Confidence (μ_α)	FMPC		Net U_{tot} (pCi/g)		Net Th_{nat} (pCi/g)	
		Max	Avg	Max	Avg	Max	Avg
920	0.18	1.66	0.17	34.50	0.60	8.49	1.51

4.1.4.4 Two samples in excess of 1.0 FMPC were left in place and are shown in the expanded inserts of Figure 4.1.

4.1.4.5 One sample at LocID B011E35S60 is located on the bottom surface of the area under the backfill and is subject to area averaging. The area averaging calculations for this soil sample are presented in the corresponding worksheet in Appendix B. They show that the area-weighted average activity was 0.18 FMPC and the sample meets the criteria for area averaging.

4.1.4.6 One sample at LocID B011E80S05A is located at depth below the bottom surface of the excavation and is subject to volumetric averaging in accordance with Section 3.9. A listing of all the samples used in the averaging calculations and the results are presented on the corresponding worksheet in Appendix B. The calculations show that LocID B011E80S05A meets the criteria for volumetric averaging.

4.1.4.7 Since all the rest of the bottom samples in the decommissioning excavations were less than 1.0 FMPC, all of the soil surfaces underneath backfill in the decommissioning excavations meet the criteria of the SDP for unconditional release.

4.1.5 FSS Surface Grid Samples

4.1.5.1 After backfill and contouring were complete, soil samples were collected on top of the disturbed areas to complete a Final Status Survey data set of 3,286 grid

samples. These samples are shown on a map of the sector in Figure 4.3. A detailed listing of all the FSS surface grid samples is provided in Appendix E, Table 4.

4.1.5.2 Detailed maps of the survey units showing the location of each grid point and the values for FMPC, net total uranium, and net natural thorium are presented in Figures 4.4a through 4.4h.

4.1.5.3 A summary of the FSS surface grid samples for each survey unit in Sector 4 is presented in Table 4.5. All samples on the surface of Sector 4 measured less than 1.0 FMPC and the 95% confidence level for all the survey units was less than 0.19 FMPC. The FSS surface grid samples in Sector 4 meet the criteria of the SDP for unconditional release.

Table 4.5
Sector 4 Final Surface Soil Samples Summary

Survey Unit	# Samples	FMPC 95% Conf. (μ_α)	FMPC		Net U_{tot} (pCi/g)		Net Th_{nat} (pCi/g)	
			Max	Avg	Max	Avg	Max	Avg
SU-401	342	0.11	0.93	0.10	18.12	0.30	5.52	0.93
SU-402	307	0.09	0.40	0.08	5.29	0.05	4.40	0.83
SU-403	190	0.17	0.82	0.15	8.24	0.19	7.17	1.43
SU-404	253	0.05	0.33	0.04	4.70	-0.39	3.21	0.58
SU-405	226	0.12	0.83	0.10	19.59	0.23	5.10	0.96
SU-406	299	0.19	0.88	0.17	14.03	0.52	6.22	1.54
SU-407	62	0.13	0.49	0.10	5.76	0.07	6.29	0.95
SU-408	267	0.05	0.27	0.05	5.07	-0.60	1.84	0.65
SU-409	405	0.08	0.37	0.07	5.93	-0.44	2.21	0.89
SU-410	281	0.05	0.33	0.05	6.30	0.03	2.19	0.44
SU-411	351	0.10	0.35	0.09	4.80	-0.29	3.46	0.99
SU-412	127	0.10	0.24	0.09	4.90	-0.06	2.09	0.88
SU-413	86	0.08	0.27	0.06	4.93	-0.15	2.21	0.68
SU-414	90	0.08	0.41	0.06	6.32	-0.21	2.82	0.68

4.1.5.4 Surface samples on the gravel haul roads are not displayed in Figure 4.4 since the haul roads are covered with up to a foot of gravel brought in subsequent to the cessation of nuclear operations. Surface samples taken before the haul road system was installed are available from historical records. These samples are shown on a map of the sector in Figure 4.5 and are summarized in Table 4.6. No samples under the haul road exist which exceed 0.84 FMPC.

4.1.5.5 Although these samples are not part of the final surface of the survey sector, they demonstrate that no indication exists of elevated radioactivity underneath the haul roads and are included in this report for completeness.

Table 4.6
Surface Soil Samples Summary
Beneath the Haul Roads

# Samples	FMPC 95% Conf. (μ_g)	FMPC		Net U_{tot} (pCi/g)		Net Th_{nat} (pCi/g)	
		Max	Avg	Max	Avg	Max	Avg
270	0.13	0.84	0.11	11.72	0.22	7.90	1.08

4.2 GAMMA SCAN MEASUREMENTS ON SOIL SURFACES

4.2.1 Gamma scans were performed on 100% of the accessible areas of the sector as presented in Section 3. The scan thresholds used for these surveys are presented in Table 2.7.

4.2.2 No soil sample data in Sector 4 met the criterion of Paragraph 2.5.3.3 for uranium dominance. Therefore no special scans for uranium contamination were conducted in Sector 4.

4.2.3 Obstacles such as trees, overgrowth, standing water, and hazardous conditions such as extremely steep slopes prevented the scanning of some areas of the sector. Where trees and overgrowth prevented scanning with the cart-mounted detectors, the area was scanned to the perimeter of the obstacle and manual scans were taken wherever possible within the obstacle. Where standing water prevented reliable performance of scans, soil sediment samples were collected to ensure that the release criteria were met. 100% coverage of the base of each steep slope was scanned as well. The unscannable hazards and obstacles account for about 3% of the surface area of Sector 4.

4.2.4 Where scans exceeded the scan threshold, the area was manually rescanned, and soil samples were taken at the maximum scan readings.

4.2.5 A drawing of the areas scanned is presented in Figure 4.6 showing the average and maximum observed values summarized by $100m^2$ blocks. The average value of all the scan data taken in Sector 4 was 6,720 cpm.

4.2.6 The maximum scan reading observed was 12,800 cpm (slightly above the threshold) and fell in SU-404. This area was manually scanned in accordance with the Hot Spot Evaluation Protocol (Appendix D) and two soil samples were collected at the local maximum readings. The location of the two scan confirmation soil samples are shown in Figure 4.6. These samples both measured 0.12 FMPC, and details are presented in Table 4.7. The elevated scan readings were attributed to elevated concentrations of K-40 (18-31pCi/g) in surrounding soil samples. The scan data and scan confirmation soil samples that were observed in Sector 4 revealed no areas of contamination in excess of the release limits.

Table 4.7
Scan Confirmation Soil Samples

SID	FMPC	Total U_{net} (pCi/g)	Total Th_{net} (pCi/g)
B024E38S70-000	0.12	-2.47	2.08
B024E39S71-000	0.12	-2.57	2.08

4.3 SECTOR 4 EXPOSURE RATE MEASUREMENTS

4.3.1 Exposure rate measurements were collected at 100% of the accessible grid locations in the sector. The individual μR readings collected in Sector 4 are listed in Appendix E, Table 4. A summary of the exposure rate measurements by survey unit is presented in Table 4.8. The maximum exposure rate measurement (13 μR/hr) is less than the $100m^2$ average limit given in Table 2.2. A drawing of the exposure rate measurements taken in the sector is presented in Figure 4.7. No exposure rate measurement data were observed in Sector 4 above the release criteria.

Table 4.8
Sector 4 Exposure Rate Measurements Summary[a]

Survey Unit	# Measurements	Maximum (μR/hr)	Average (μR/hr)	95% Conf. (μ_α)
SU-401	342	13	9.42	9.48
SU-402	307	12	9.07	9.15
SU-403	190	12	9.49	9.61
SU-404	253	12	8.70	8.80
SU-405	226	12	8.97	9.08
SU-406	299	13	9.91	10.01
SU-407	62	12	9.41	9.71
SU-408	267	10	8.45	8.52
SU-409	405	10	8.72	8.76
SU-410	281	10	7.93	7.99
SU-411	351	11	8.85	8.93
SU-412	127	10	8.80	8.87
SU-413	86	11	9.87	10.02
SU-414	90	12	9.84	10.04

[a] Field measurements including background..

4.4 SECTOR 4 BUILDINGS AND STRUCTURAL SURFACES

4.4.1 Concrete slabs, equipment and building structural surfaces such as monitoring well pads, trailers, and shacks were surveyed for alpha and beta-gamma contamination as described in Section 3.7. Each item surveyed in Sector 4 was identified and given a number. A drawing showing the location of these structures and surfaces is presented in Figure 4.8.

4.4.2 The surface and μR data points taken in connection with buildings and structural surfaces in Sector 4 are presented in Appendix E, Table 6.

4.4.3 A summary of the measurements obtained on building structures and surfaces is also presented in Table 4.9. The well pads (S04-01 through 18) and the air sampler pads (S04-23 through 26) were surveyed for free release and are summarized in the table under Miscellaneous Small Pads. The building structures (ACP trailer and HEPA shack) are broken down and summarized by internal walls, floors, and external surfaces in the table. Exposure rate data are reported with the floor measurements inside each building structure.

4.4.4 The table shows that the 95% confidence level and all the direct and removable measurements obtained were below the release limits listed in Table 2.3.

4.4.5 All surfaces were scanned 100% for beta-gamma and no hot spots in excess of the release limits were identified.

4.4.6 The data summary and statistical test results demonstrate that all the building and structural surfaces in Sector 4 meet the criteria stipulated in the license and SDP for unconditional release.

Table 4.9
Sector 4 Building Structures and Surfaces
Net Surface Alpha/Beta-Gamma Measurements Summary

Area Surveyed (ID)	Points	Contamination Component	Net Activity (dpm/100cm²)				Max Net Exp Rate[a] (uR/hr)
			Min	Max	Avg	Avg (95% CL)	
ACP Trailer Ext Walls (S04-21)	101	Direct α	-13	200	36	42	N/A
		Direct β	-389	390	59	70	
		Loose α	0	19	3	4	
		Loose β	0	44	5	6	
ACP Trailer Int Walls (S04-21)	120	Direct α	-20	20	-2	-1	N/A
		Direct β	-484	489	36	59	
		Loose α	0	6	0	0	
		Loose β	0	15	2	3	
ACP Int Floor (S04-21)	42	Direct α	-7	20	2	3	0
		Direct β	-111	416	228	297	
		Loose α	0	6	1	1	
		Loose β	0	10	1	1	
HEPA Shack Ext Walls (S04-22)	34	Direct α	-13	13	-2	1	N/A
		Direct β	-240	258	11	55	
		Loose α	0	6	1	2	
		Loose β	0	14	2	3	
HEPA Shack Int Walls (S04-22)	34	Direct α	-7	13	3	5	N/A
		Direct β	-115	225	-2	28	
		Loose α	0	6	1	2	
		Loose β	0	10	1	2	
HEPA Shack Int Floor (S04-22)	8	Direct α	0	7	3	5	0
		Direct β	-100	95	2	3	
		Loose α	0	6	1	2	
		Loose β	0	6	2	3	
Decon Pad (S04-20)	66	Direct α	-20	47	4	8	0
		Direct β	-479	284	-12	20	
		Loose α	0	13	1	2	
		Loose β	0	19	3	4	
23 Misc Small Pads (see App.E, Table 6)	23	Direct α	0	200	47	68	1
		Direct β	-321	158	-24	34	
		Loose α	0	0	0	0	
		Loose β	0	0	0	0	
Tin Horn Valve Box (S04-27)	8	Direct α	0	227	50	100	0
		Direct β	32	683	258	383	
		Loose α	<50	<50	<50	N/A	
		Loose β	<50	<50	<50	N/A	

[a] Background subtracted and converted to PIC standard readings.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

5.1.1 No soil samples beneath the backfill in the Pit 4 Excavation were found to be in excess of the release criteria. (Par. 4.1.2.6)

5.1.2 All seven burial trenches in Sector 4 meet the volumetric averaging criteria specified in the SDP for unconditional release. (Par. 4.1.3.7)

5.1.3 All of the soil surfaces underneath backfill in the final decommissioning excavations meet the release criteria of the SDP. (Par. 4.1.4.7)

5.1.4 All soil samples on the surface of Sector 4 measured less than 1.0 FMPC and therefore meet the criteria of the SDP for unconditional release. (Par. 4.1.5.3)

5.1.5 All of the soil samples on the surface of the ground underneath the haul roads in Sector 4 were less than the release criteria of the SDP. (Par. 4.1.5.5)

5.1.6 The scan data and scan confirmation soil samples that were observed in Sector 4 revealed no areas of contamination in Sector 4. (Par. 4.2.6)

5.1.7 No exposure rate measurement data were observed in Sector 4 above the release limits. (Par. 4.3.1)

5.1.8 None of the scan data measurements collected on building structures and surfaces revealed contamination and no direct measurement data on these surfaces were observed in Sector 4 above the release limits. (Par. 4.4.6)

5.1.9 Sector 4 meets all conditions for unconditional release from license SNM-1999.

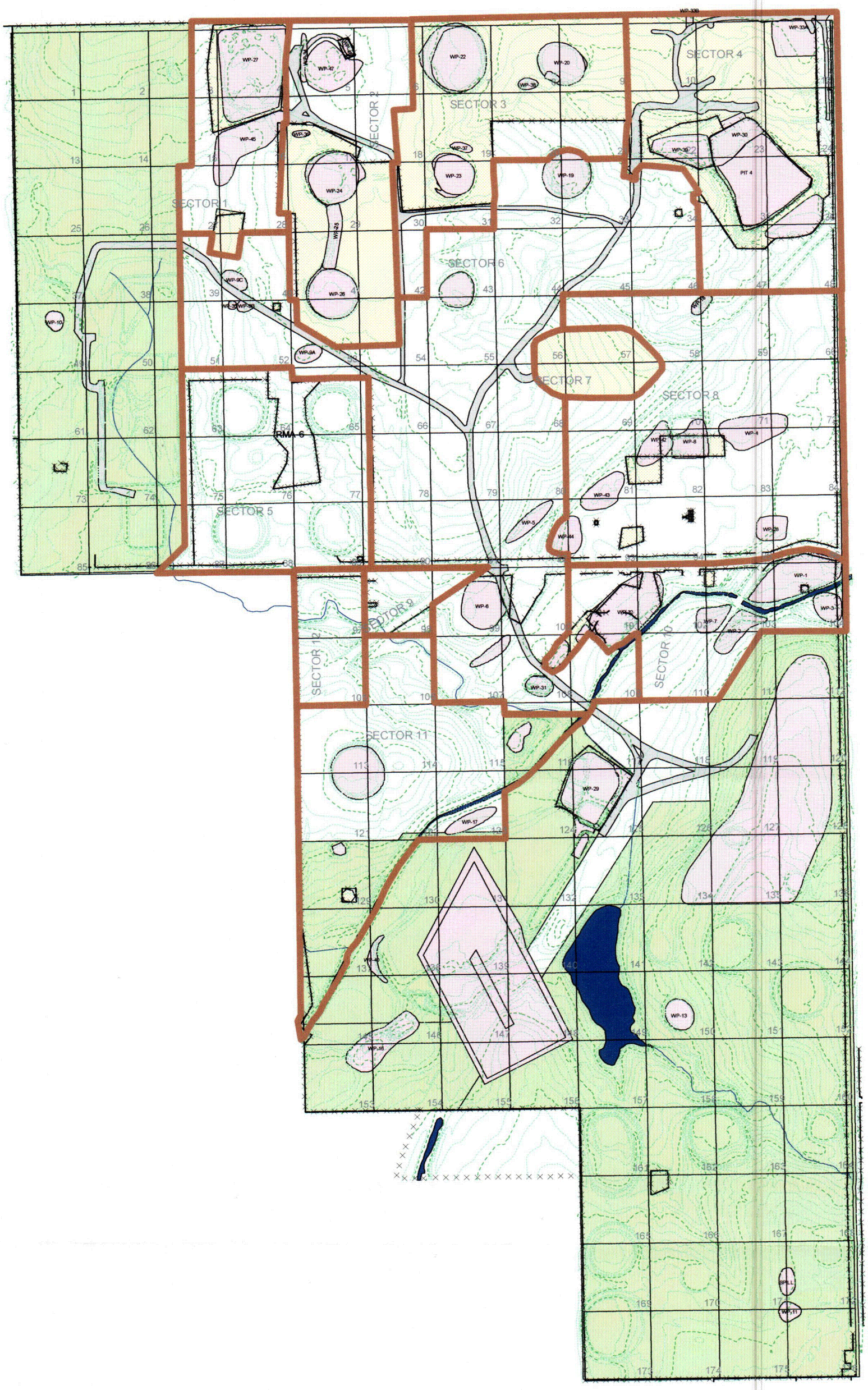
5.1.10 The soil samples in Sector 4 passed all the quality control requirements for duplicates. (Par. 2.8.1)

5.1.11 The Sector 4 soil samples, surface radioactivity measurements, and exposure rate data met the statistical requirements for a 95% confidence level.

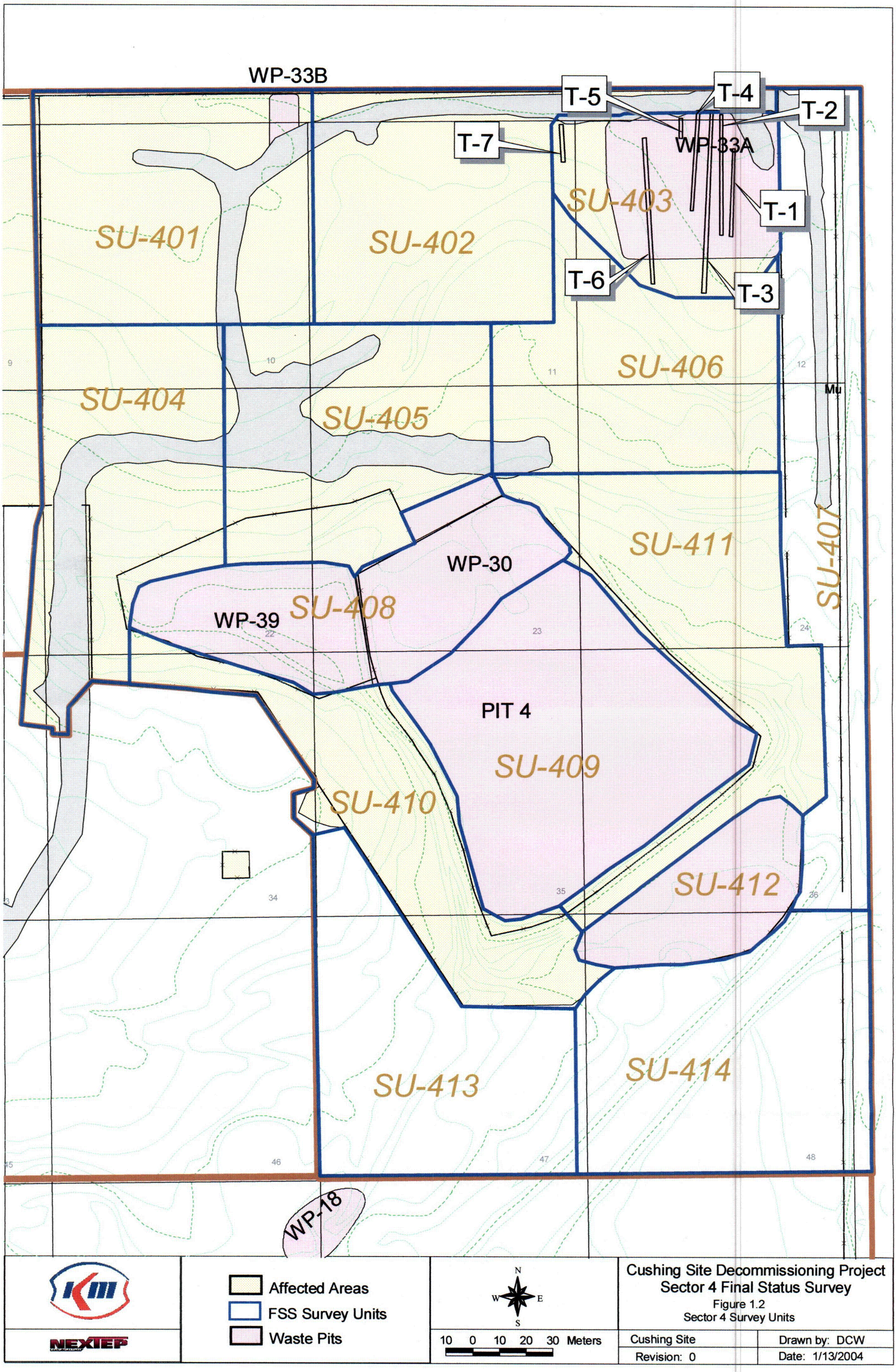
5.2 RECOMMENDATIONS

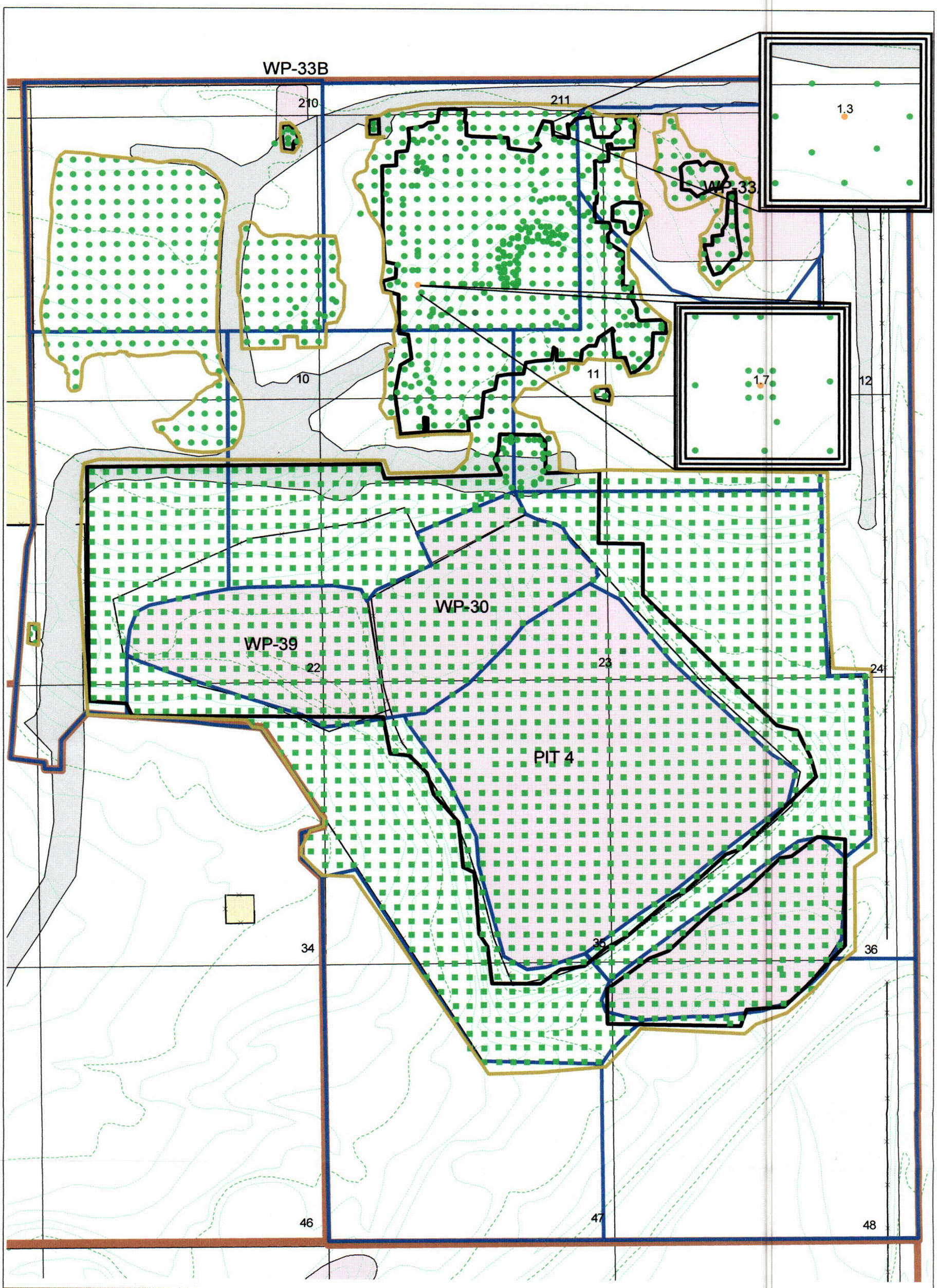
5.2.1 Sector 4 should be released from license SNM-1999.

APPENDIX A
FIGURES



KM / NEXTEP	Affected Areas Survey Sectors Unaffected Areas Waste Pits	N W E S 40 0 40 80 120 Meters	Cushing Site Decommissioning Project Sector 4 Final Status Survey Figure 1.1 Site Sector Map Cushing Site — Drawn by: DCW Revision: 0 — Date: 1/30/2004


WP-33B
T-5
T-4
T-2
T-7
WP-33A
SU-403
T-1
SU-401
SU-402
T-6
T-3
SU-406
SU-404
SU-405
Mu
SU-411
SU-407
WP-30
WP-39
SU-408
PIT 4
SU-409
SU-410
SU-412
SU-413
SU-414
WP-18
Affected Areas
FSS Survey Units
Waste Pits
N
W
E
S
10 0 10 20 30 Meters
Cushing Site Decommissioning Project
Sector 4 Final Status Survey
Figure 1.2
Sector 4 Survey Units
Cushing Site
Drawn by: DCW
Revision: 0
Date: 1/13/2004


WP-33B
210
211
1.3
WP-33
10
11
1.7
12
WP-30
WP-39
22
23
24
PIT 4
34
35
36
46
47
48
Excavation Areas
Disturbed Areas
Soil Samples (FMPC)
< 0.75
0.75 - 1.00
1.00 - 3.00
> 3.00
Pit 4 Samples
Final Decommissioning Samples
N
W
E
S
10 0 10 20 Meters
Cushing Site Decommissioning
Project Sector 4 Final Status Survey
Figure 4.1
Sector 4 Bottom Samples
and Areas for Averaging
Cushing Site
Drawn by: DCW
Revision: 0
Date: 7/1/2004
NEXTEP

C03

Trench #1 Soil Samples (FMPC)

	Depth (ft)	BT-1	BT-2	BT-3	BT-4	BT-5	BT-6	BT-7	BT-8	BT-9	BT-10	BT-27	BT-28	BT-29	BT-30	BT-31	BT-32	BT-33
Layer 1	0.0	0.10	0.10	-0.02	0.14	0.06	0.30	0.16	0.18	0.26	0.05	0.29	0.21	0.32	0.06	0.08	0.02	0.10
	0.5	0.11	-0.12	0.07	0.09	0.03	0.05	0.01	0.13	0.15	-0.04	0.17	0.08	0.16	-0.02	-0.01	-0.02	-0.05
	1.0	0.28	-0.05	0.07	-0.01	0.31	0.10	0.01	0.08	0.01	0.06	0.20	0.23	0.22	0.32	0.07	0.08	-0.02
	1.5	0.04	-0.08	0.20	0.06	0.30	-0.03	0.26	0.06	0.06	0.00	0.28	0.22	0.07	0.04	0.07	0.25	0.08
	2.0	0.16	-0.04	0.12	-0.01	0.21	0.10	0.00	0.04	0.20	0.31	0.15	0.20	0.24	0.00	-0.09	0.04	0.23
	2.5	0.00	-0.09	0.16	-0.07	0.01	0.05	0.06	-0.05	0.28	0.52	0.08	0.43	0.28	0.15	0.10	0.02	0.14
Layer 2	3.0	-0.04	-0.08	0.66	0.32	-0.03	-0.01	0.25	0.17	0.15	0.15	0.40	0.14	0.23	0.16	0.36	0.24	0.06
	3.5	0.05	0.20	0.75	0.68	0.43	0.39	0.28	0.44	0.52	0.30	0.58	0.12	0.31	0.76	0.70	0.33	0.01
	4.0	0.01	0.64	0.21	0.58	0.51	0.42	0.46	0.47	0.30	0.39	0.40	0.15	0.19	0.80	0.56	0.24	0.02
	4.5	0.28	0.38	0.08	0.30	0.20	0.31	0.46	-0.01	0.46	0.21	0.66	0.29	0.41	0.45	0.42	0.71	-0.04
	5.0	0.01	0.55	0.07	0.21	0.35	0.47	0.50	0.46	0.40	0.30	0.44	0.49	0.86	0.66	0.28	0.68	0.03
	5.5	0.04	0.45	0.17	0.14	0.67	0.38	0.39	0.34	0.60	0.36	0.35	0.47	0.54	0.72	0.78	0.73	0.00
Layer 3	6.0	0.06	0.26	0.51	0.15	0.26	0.51	0.47	0.46	0.27	0.32	0.14	0.47	0.40	0.33	0.97	0.62	
	6.5	0.00	0.08	1.14	0.11	0.35	0.55	0.14	0.20		0.47	0.06	0.98	0.50	0.32	0.17	0.42	
	7.0	-0.14	0.49	1.00	0.51	0.14	0.15	0.23			0.38	0.08		0.42	0.06	0.27	0.24	
	7.5	-0.10	0.17	0.14	0.34	0.39	0.06	0.11			0.55			0.39	0.21			
	8.0	-0.01	0.20		0.31	0.17	0.48	0.11			0.47							
	8.5	-0.06	0.21		0.26	0.37	0.32	0.34			0.40							
Layer 4	9.0				0.27	0.13	0.17	0.13										
	9.5				0.58	0.17		0.17										
	10.0				0.19	0.04		0.04										
	10.5				0.19			0.44										
	11.0							0.38										
	11.5							0.38										

< 1.0 FMPC
≥1.0 FMPC
Layer Boundary

Trench #1 Soil Samples Averaged Over 3' Layers (FMPC)

	Depth (ft)	BT-1	BT-2	BT-3	BT-4	BT-5	BT-6	BT-7	BT-8	BT-9	BT-10	BT-27	BT-28	BT-29	BT-30	BT-31	BT-32	BT-33
Layer 1	0-3	0.12	-0.05	0.10	0.03	0.15	0.10	0.08	0.07	0.16	0.15	0.20	0.23	0.22	0.09	0.04	0.07	0.08
Layer 2	3-6	0.06	0.36	0.32	0.37	0.36	0.33	0.39	0.31	0.41	0.29	0.47	0.28	0.42	0.59	0.52	0.49	0.01
Layer 3	6-9	-0.04	0.24	0.70	0.28	0.28	0.35	0.23	0.33	0.27	0.43	0.09	0.73	0.43	0.23	0.47	0.43	
Layer 4	9-12				0.31	0.11	0.17	0.26										

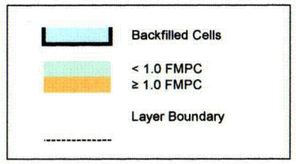
All Composited Layer Samples < 1 FMPC. No Further Action Required

Figure 4.2a
Volumetric Averaging
Burial Trench T-1

COC

Trench #2 Soil Samples (FMPC)

	Depth (ft)	BT-11	BT-12	BT-13	BT-14	BT-15	BT-16	BT-17	BT-18	BT-19	BT-20	BT-21	BT-22	BT-23	BT-24	BT-25	BT-26	BT-34	BT-35	BT-36	BT-37	BT-38	BT-39	BT-40
Layer 1	0.0	0.62	0.03				0.01	0.16	0.14													0.17	0.29	0.13
	0.5	0.14	0.19				0.03	0.06	0.09													0.11	0.13	0.00
	1.0	-0.03	0.12				0.04	0.04	0.05													0.04	0.31	-0.04
	1.5	0.29	0.21				-0.06	0.15	0.16													0.12	0.17	0.02
	2.0	0.21	0.17				-0.06	0.13	0.12													0.18	0.06	0.02
	2.5	0.23	0.31				-0.05	0.02	-0.01													0.14	-0.04	0.08
Layer 2	3.0	0.16	0.10				-0.12	0.08	0.08													0.41	0.21	0.00
	3.5	0.06	0.39	0.27			-0.08	0.00	0.47	0.27												1.12	0.17	0.29
	4.0	0.13	0.13				0.80	0.48	0.15													0.54	0.33	0.07
	4.5	0.06	0.42				0.70	0.67	0.37													0.45	0.42	0.74
	5.0	0.05	1.06				0.49	0.14	0.28													1.62	0.27	0.10
	5.5	-0.08	0.72				0.03	0.11	0.51													0.79	0.25	0.02
Layer 3	6.0	0.06	0.44				0.69	0.50	0.36													0.84	0.25	
	6.5	0.06	1.09				0.62	0.90	0.43										0.74			0.53	0.58	
	7.0	-0.12	0.36				0.66	0.57	0.44													-0.04		
	7.5	-0.03		0.66		0.59	0.19	0.58	0.40	0.49				0.27	0.27	0.27	0.01							
	8.0	0.00		0.53		0.81		0.47	0.77	0.64				0.27	0.27	0.27	-0.11							
	8.5	-0.05		0.55		0.46		0.43		0.46				0.27	0.27	0.27	-0.03							
Layer 4	9.0	0.04		0.14		0.83		0.67					0.72				0.12							
	9.5					0.78		0.38			-0.03		1.18			0.20	-0.01							
	10.0					0.63					1.12		0.18		0.29	0.74								
	10.5										0.04	0.36	0.23			0.10								
	11.0										-0.02		0.15			0.07								
	11.5												0.89			0.10								
Layer 5	12.0												0.35											
	12.5												0.28											
	13.0												0.17											
	13.5												0.26											
	14.0																							
	14.5																							



Trench #2 Soil Samples Averaged Over 3' Layers (FMPC)

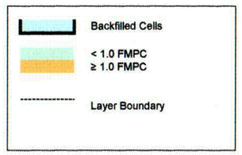
	Depth (ft)	BT-11	BT-12	BT-13	BT-14	BT-15	BT-16	BT-17	BT-18	BT-19	BT-20	BT-21	BT-22	BT-23	BT-24	BT-25	BT-26	BT-34	BT-35	BT-36	BT-37	BT-38	BT-39	BT-40
Layer 1	0-3	0.24	0.17	0.27	0.27	0.27	-0.02	0.09	0.09	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.13	0.15	0.04
Layer 2	3-6	0.06	0.47	0.27	0.27	0.27	0.30	0.25	0.31	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.82	0.28	0.20
Layer 3	6-9	-0.01	0.63	0.43	0.27	0.45	0.54	0.58	0.48	0.40	0.27	0.27	0.27	0.27	0.27	0.27	0.11	0.27	0.51	0.27	0.27	0.44	0.42	
Layer 4	9-12	0.04		0.14		0.75		0.53			0.28	0.29	0.56	0.27	0.28	0.25	0.06							
Layer 5	12-15												0.27											

All Composited Layer Samples < 1 FMPC. No Further Action Required

Figure 4.2b
Volumetric Averaging
Burial Trench T-2

Trench #3 Soil Samples (FMPC)

	Depth (ft)	BT-41	BT-42	BT-43	BT-44	BT-45	BT-46	BT-47	BT-48	BT-49	BT-50	BT-51	BT-52	BT-53	BT-54	BT-55	BT-56	BT-57	BT-58	BT-59	BT-60	BT-61	BT-62	BT-63	BT-64	BT-65	BT-66	BT-67	BT-68	BT-69	BT-70	BT-71	BT-72	BT-73	BT-74
Layer 1	0.0	0.01		0.02	0.14						-0.01	0.12	0.05	0.08	0.12			0.12			0.22	0.26	0.25		0.01	0.09	0.03	0.35	0.12							0.00
	0.5	0.05		0.05	0.03						0.28	0.23	0.01	0.11	0.04			0.06			0.07	0.18	-0.04		0.19	0.11	-0.02	0.26	0.09							0.06
	1.0	-0.04		0.13	0.00						0.07	0.05	0.02	0.20	0.02			0.05			0.08	0.22	0.13		1.03	0.12	0.10	0.07	0.06							0.00
	1.5	-0.01		0.05	0.07						0.09	0.15	-0.02	0.18	0.28			0.13			0.04	0.19	0.05		0.68	0.21	0.14	0.03	0.31							0.05
	2.0	-0.11		0.00	-0.09						0.12	0.06	-0.09	0.05	0.00			0.10			0.12	0.45	0.01		0.17	0.11	0.12	0.26	0.06							0.10
	2.5	-0.06		0.05	-0.05						0.18	0.55	0.10	-0.04	0.07			0.42			0.16	0.41	0.16		0.66	0.32	0.18	0.81	0.13							0.04
Layer 2	3.0	-0.05		0.65	0.26						0.60	0.89	0.29	0.31	0.62			1.15			0.18	0.36	0.24		0.82	0.20	0.57	0.80	0.82							0.22
	3.5	-0.03		0.89	0.63						0.70	0.62	0.57	0.65	0.91			0.83			0.90	1.11	0.82		1.07	0.74	0.85	1.01	0.99							0.64
	4.0	-0.07		0.54	0.16						0.24	0.17	0.23	0.55	0.95			0.32			0.91	0.43	0.39		0.71	0.12	0.19	0.85	0.39							0.04
	4.5	-0.02		0.32	0.76						0.37	0.77	0.55	0.61	0.88			0.36			0.66	0.84	0.75		0.54	0.09	0.11	1.15	0.65							0.18
	5.0	-0.03		0.52	0.48						0.61	0.68	0.49	0.39	0.93			0.68			0.58	0.98	0.96		0.59	0.76	0.59	0.51	0.60							0.70
	5.5	0.53		0.68	0.58						0.39	0.41	0.50	0.57	1.45			0.73	0.71	0.86	0.88	0.58	1.29	0.20	1.46	0.57	1.10	0.95	1.06						0.38
Layer 3	6.0	0.83		0.64	0.59					0.38	0.06	0.46	0.42	0.74	0.43	0.36		0.20	0.04	0.43	1.12	0.25	0.76	0.94	0.16	0.65	0.47	0.45	0.60				0.58	0.77	
	6.5	0.01		0.55	0.66					-0.02	0.18	0.46	0.14	0.55	0.77	0.33				0.09	0.90			0.24		0.51			0.12		0.23	0.56		0.23	
	7.0	-0.02		0.44	0.28		0.44	0.81		-0.06	0.00	0.57	0.19	0.37	-0.01	0.23	0.38			0.06	0.40			0.09		0.56			0.75		0.08				
	7.5	0.03		1.16	0.48		0.32	0.03	0.89	-0.13	-0.05	0.52		0.41	0.03	0.26	0.19				0.09			0.10		0.78			0.73						
	8.0	-0.02	0.61	0.57	0.55	0.61	0.67	0.02	0.91	-0.15	-0.03	0.18		1.26	0.18	0.24					0.00					0.67			0.22						
	8.5	-0.07	1.13	0.81	0.63	0.42	-0.10	-0.08	0.47	-0.09	0.06	0.15		0.16	0.18	0.22					0.04								0.02						
Layer 4	9.0	-0.04	0.24	0.59	0.25	0.67	-0.14		-0.08	0.07	0.12			0.07	0.73	0.11					0.00								0.16						
	9.5	-0.14		0.09	-0.08				-0.06	0.06	0.08			0.54	0.35														0.01						
	10.0	-0.17							0.24	0.20	0.03			0.19	0.07														0.14						
	10.5								0.39	0.18				0.19	0.33																				
	11.0								0.18	0.18				0.22																					
	11.5																																		
Layer 5	12.0																																		
	12.5	NORTH																																	SOUTH



Trench #3 Soil Samples Averaged Over 3' Layers (FMPC)

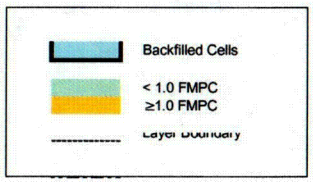
	Depth (ft)	BT-41	BT-42	BT-43	BT-44	BT-45	BT-46	BT-47	BT-48	BT-49	BT-50	BT-51	BT-52	BT-53	BT-54	BT-55	BT-56	BT-57	BT-58	BT-59	BT-60	BT-61	BT-62	BT-63	BT-64	BT-65	BT-66	BT-67	BT-68	BT-69	BT-70	BT-71	BT-72	BT-73	BT-74
Layer 1	0-3	-0.03	0.27	0.05	0.02	0.27	0.27	0.27	0.27	0.27	0.12	0.19	0.01	0.10	0.09	0.27	0.27	0.15	0.27	0.27	0.12	0.29	0.09	0.27	0.46	0.16	0.09	0.30	0.13	0.27	0.27	0.27	0.27	0.27	0.04
Layer 2	3-6	0.06	0.27	0.60	0.48	0.27	0.27	0.27	0.27	0.27	0.49	0.59	0.44	0.51	0.92	0.27	0.27	0.68	0.34	0.37	0.69	0.72	0.74	0.26	0.87	0.41	0.57	0.88	0.75	0.27	0.27	0.27	0.27	0.27	0.36
Layer 3	6-9	0.13	0.47	0.70	0.53	0.35	0.31	0.22	0.51	-0.01	0.04	0.39	0.25	0.58	0.26	0.27	0.28	0.20	0.04	0.19	0.43	0.25	0.76	0.34	0.16	0.63	0.47	0.45	0.41	0.27	0.19	0.42	0.58	0.50	
Layer 4	9-12	-0.12	0.24	0.34	0.09	0.67	-0.14		0.13	0.14	0.08			0.24	0.37	0.11					0.00								0.10						
Layer 5	12-15																																		

All Composited Layer Samples < 1 FMPC. No Further Action Required

Figure 4.2c
Volumetric Averaging
Burial Trench T-3

Trench #4 Soil Samples (FMPC)

	Depth (ft)	BT-75	BT-76	BT-77	BT-78	BT-79	BT-80	BT-81	BT-82	BT-83	BT-84	BT-85	BT-86	BT-87	BT-88	BT-89	BT-90	BT-91	BT-92	BT-93
Layer 1	0.0	0.05	0.02	0.03	-0.07	0.08	0.02	0.10	-0.01	-0.02	0.19	0.01	-0.09	0.01	-0.01	-0.01	0.13	-0.01	0.08	-0.01
	0.5	0.17	0.15	0.06	0.05	0.10	0.12	0.13	0.09	0.09	0.02	0.14	0.03	0.12	0.08	0.13	0.54	0.45	0.17	0.06
	1.0	0.22	0.10	0.13	-0.04	0.21	0.23	0.13	0.10	0.14	0.10	0.14	0.10	0.35	0.06	0.51	0.15	0.18	0.57	0.22
	1.5	0.14	-0.03	-0.02	-0.03	0.30	0.21	0.14	0.10	0.01	0.11	0.29	0.04	-0.03	0.20	0.13	0.11	0.41	0.36	0.89
	2.0	0.00	0.04	0.00	0.02	0.21	0.08	0.15	0.00	0.08	0.05	0.05	-0.08	0.19	0.08	0.16	0.12	0.15	0.27	0.12
	2.5	-0.04	0.03	-0.07	0.57	0.43	0.58	0.15	0.00	0.13	0.11	0.39	0.25	0.83	0.18	0.54	0.57	0.24	0.53	0.50
Layer 2	3.0	0.15	-0.01	0.33	0.53	0.35	0.67	0.52	0.22	0.23	0.26	0.77	0.40	0.76	0.92	0.28	0.41	0.35	0.53	0.28
	3.5	0.16	-0.06	0.28	0.63	0.50	0.83	0.38	0.25	0.22	0.54	0.57	0.59	0.59	0.73	0.41	0.19	0.67	0.57	0.54
	4.0	0.00	-0.02	0.10	0.41	0.19	0.27	0.24	0.06	0.45	0.31	0.03	0.36	1.46	0.31	1.75	0.30	0.19	0.42	0.26
	4.5	-0.12	0.07	0.57	0.67	0.57	0.77	0.36	0.11	0.42	0.43	0.56	0.47	0.43	0.33	0.43	0.20	0.33	0.40	0.44
	5.0	0.02	0.26	0.85	0.62	0.68	0.53	0.40	0.40	0.21	0.51	0.36	0.42	0.64	0.22	0.54	0.68	0.85	0.34	0.16
	5.5	-0.12	0.49	0.62	0.44	0.84	0.72	0.40	0.39	0.51	0.35	0.20	0.48	0.42	0.46	0.42	0.87	0.57	0.39	0.42
Layer 3	6.0	-0.10	0.01	0.23	0.23	0.14	0.48	0.32	0.07	0.12	0.37	0.25	0.58	0.35	0.12	0.30	0.55	0.40	0.18	
	6.5	0.10	0.07	0.84	0.48	0.87	0.49	0.26	0.33	0.47	0.68	0.44	0.49	0.31	0.29	0.59	0.57	0.32		
	7.0	-0.08	0.33	0.76	0.41	0.84	0.53	0.31	0.39	0.42	0.50	0.25	0.27	0.26	0.25	0.60				
	7.5	-0.02	0.49	0.38	0.57	1.06	0.20	0.17	0.41	0.35	0.59	0.62	0.11	0.12	0.32	0.05				
	8.0	0.11	0.56	0.43	0.45	0.56	0.34	0.26	0.22	0.37	0.65	0.40	0.26	0.43	0.15	0.06				
	8.5	0.14	-0.02		0.42	0.12	0.29	0.20	0.11	0.34	0.42	0.38	0.22	0.69	0.37	0.16				
Layer 4	9.0	-0.11			0.12	0.32	-0.12	0.27			0.52			0.21	0.67	0.14				
	9.5	-0.05					-0.21	-0.15			0.45			0.01	0.29	0.13				
	10.0						-0.14	0.16						0.12	0.33	0.13				
	10.5						0.12	0.08						0.19	0.25	-0.04				
	11.0						-0.01	0.13						0.25	0.17					
	11.5						0.16	0.07						0.24	0.34					
Layer 5	12.0														-0.03					
	12.5																			
	13.0																			
	13.5																			



Trench #4 Soil Samples Averaged Over 3' Layers (FMPC)

	Depth (ft)	BT-75	BT-76	BT-77	BT-78	BT-79	BT-80	BT-81	BT-82	BT-83	BT-84	BT-85	BT-86	BT-87	BT-88	BT-89	BT-90	BT-91	BT-92	BT-93
Layer 1	0-3	0.09	0.05	0.02	0.08	0.22	0.21	0.13	0.05	0.07	0.10	0.17	0.04	0.25	0.10	0.24	0.27	0.24	0.33	0.30
Layer 2	3-6	0.02	0.12	0.46	0.55	0.52	0.63	0.38	0.24	0.34	0.40	0.42	0.45	0.72	0.50	0.64	0.44	0.49	0.44	0.35
Layer 3	6-9	0.03	0.24	0.53	0.43	0.60	0.39	0.25	0.26	0.35	0.54	0.39	0.32	0.36	0.25	0.29	0.56	0.36	0.18	
Layer 4	9-12	-0.08			0.12	0.32	-0.03	0.09			0.49			0.17	0.34	0.09				
Layer 5	12-15														-0.03					

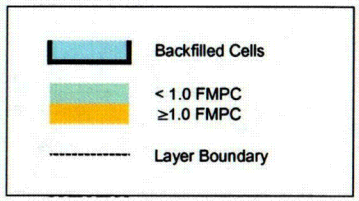
All Composited Layer Samples < 1 FMPC. No Further Action Required

Figure 4.2d
Volumetric Averaging
Burial Trench T-4

Trench #5 Soil Samples (FMPC)

		LocID			
	Depth (ft)	BT-94	BT-95	BT-96	BT-97
Layer 1	-	-0.01	0.04	0.13	0.07
	0.5	-0.05	0.02	0.12	0.04
	1.0	-0.01	0.02	0.05	0.00
	1.5	0.09	0.13	0.07	0.10
	2.0	0.01	-0.02	0.09	0.10
	2.5	0.05	0.05	0.14	0.02
Layer 2	3.0	0.33	0.75	0.90	0.10
	3.5	0.46	1.01	0.44	0.24
	4.0	0.38	0.79	0.38	0.24
	4.5	0.87	0.64	1.03	0.10
	5.0	0.47	0.18	0.93	-0.01
	5.5	0.14	0.43	0.96	-0.05
Layer 3	6.0	0.38	0.02	0.64	-0.02
	6.5	0.10	0.90	0.59	0.07
	7.0	0.47	0.52	0.40	0.02
	7.5	0.03	0.63		-0.06
	8.0				-0.09

NORTH SOUTH



Trench #5 Soil Samples Averaged Over 3' Layers (FMPC)

	Depth (ft)	BT-94	BT-95	BT-96	BT-97
Layer 1	0-3	0.01	0.04	0.10	0.06
Layer 2	3-6	0.44	0.63	0.77	0.10
Layer 3	6-9	0.25	0.52	0.54	-0.02

All Composited Layer Samples < 1 FMPC. No Further Action Required

Figure 4.2e
Volumetric Averaging
Burial Trench T-5

Trench #6 Soil Samples (FMPC)

	Depth (ft)	BT-98	BT-99	BT-100	BT-101	BT-102	BT-103	BT-104	BT-105	BT-106	BT-107	BT-108	BT-109	BT-110	BT-111	BT-112	BT-113	BT-114	BT-115	BT-116	BT-117	BT-118	BT-119	BT-120	BT-121	BT-122	BT-123	BT-124	BT-125
Layer 1	0.0	0.05												0.09	-0.01	0.02	0.09	0.12	0.10	0.20	0.01	0.01	0.12	0.11	0.02	0.27	0.12	0.17	0.31
	0.5	0.11												0.13	0.04	0.01	0.30	0.17	0.11	0.12	0.09	-0.03	0.06	0.16	0.08		0.02	0.02	0.16
	1.0	0.02												0.06	-0.03	-0.02	0.05	0.03	0.02	0.00	0.16	0.00	0.14	-0.02	0.21		0.11	-0.01	0.22
	1.5	0.00												0.06	0.18	0.07	0.10	0.09	0.19	0.08	0.12	0.07	0.08		0.25		0.10	0.17	0.16
	2.0	0.09												0.12	0.13	0.20	0.19	0.12	0.15	0.07	0.03	0.13	0.14		0.14		0.07	0.08	0.16
	2.5	0.12												0.16	0.02	0.04	0.09	0.09	0.09	0.00	0.06	0.05	0.07		0.07		0.09	0.71	0.05
Layer 2	3.0	0.15												0.10	0.12	0.00	0.06	0.15	0.07	0.05	0.10	0.10	-0.02		0.30		0.60	0.62	-0.02
	3.5	0.07												0.02	0.15	0.05	0.15	0.02	0.11	0.06	0.25	0.21	0.13		0.17	0.27	1.00	0.19	-0.01
	4.0	-0.07												0.07	0.11	0.12	0.03	0.16	0.04	0.01	0.24	0.66	0.05	0.18	0.10		0.06	0.30	0.15
	4.5	0.03												0.22	0.18	0.86	0.22	0.21	0.06	0.52	0.50	0.77	0.02	0.35	0.00		0.15	0.83	0.04
	5.0	0.99												0.34	0.29	0.66	0.93	0.53	1.54	0.38	0.71	0.37	0.90	0.70	0.16		0.64	0.41	0.22
	5.5	-0.09												0.07	0.91	1.06	0.65	0.15	0.43	0.90	0.21	0.56	0.74	0.65	1.05		0.49	0.59	0.05
Layer 3	6.0	0.02												-0.01	1.00	0.46	0.43	0.56	0.31	0.44	0.51	0.08	1.25	0.70	1.17		0.25	0.13	0.07
	6.5													-0.06	1.20	0.73	0.72	0.77	0.51	0.17	0.25	0.13	0.67	1.28	0.77		0.04	0.58	0.44
	7.0													-0.06	0.19	0.65	0.64	0.57	0.97	0.41	0.70	0.34	0.11	0.98	0.28		0.10	-0.01	0.10
	7.5													-0.03	0.21	0.56	0.61	0.64	1.01	0.16	0.72	1.34	0.19	0.69	0.05		0.10	0.04	
	8.0		0.31		0.75	0.26	0.33					0.14	0.17	0.05	0.12	1.32	0.26	0.54	0.01	0.82	0.30	0.04	0.15	0.21	-0.05		0.08	0.14	
	8.5		0.13		0.80	0.20	0.17					0.03	0.05	0.04	0.13	1.00	0.75	0.52	0.15	0.80	0.33	0.05	0.08	0.11	0.08	0.27	0.21	0.06	
Layer 4	9.0		0.13		0.33	0.28	0.23	0.06	0.27		0.00	0.01	0.11		0.10	0.49	0.38	0.83	0.51	0.05	0.05	0.07	0.07		-0.06	0.31	0.00	0.04	
	9.5				0.31	0.28	0.27	0.06		0.21	0.05	0.11				-0.07		0.09		0.01		0.10	0.10		0.02	0.37	0.07		
	10.0				0.28		0.16	0.09		0.31	-0.04							0.14		0.24		0.08					0.16		
	10.5				0.20		0.15	0.17	0.09	0.02								0.16		0.13									
	11.0				0.14			0.15	0.20	0.10								0.42		0.21									
	11.5				0.10				0.18	0.07								0.22		0.12									
Layer 5	12.0								0.10																				
	12.5								0.04																				
	13.0								0.19																				

0.27

NORTH

SOUTH

Backfilled Cells

< 1.0 FMPC

≥ 1.0 FMPC

Layer Boundary

Trench #6 Soil Samples Averaged Over 3' Layers (FMPC)

	Depth (ft)	BT-98	BT-99	BT-100	BT-101	BT-102	BT-103	BT-104	BT-105	BT-106	BT-107	BT-108	BT-109	BT-110	BT-111	BT-112	BT-113	BT-114	BT-115	BT-116	BT-117	BT-118	BT-119	BT-120	BT-121	BT-122	BT-123	BT-124	BT-125
Layer 1	0-3	0.07	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.10	0.06	0.05	0.14	0.10	0.11	0.08	0.08	0.04	0.10	0.08	0.13	0.27	0.09	0.19	0.18
Layer 2	3-6	0.18	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.14	0.29	0.46	0.34	0.20	0.38	0.32	0.34	0.45	0.30	0.47	0.30	0.27	0.49	0.49	0.07
Layer 3	6-9	0.02	0.25	0.27	0.44	0.26	0.26	0.27	0.27	0.27	0.27	0.21	0.22	-0.01	0.48	0.79	0.57	0.60	0.49	0.47	0.47	0.33	0.41	0.66	0.38	0.27	0.13	0.16	0.20
Layer 4	9-12		0.13		0.23	0.28	0.20	0.11	0.21	0.16	0.00	0.06	0.11		0.10	0.21	0.38	0.31	0.51	0.13	0.05	0.08	0.09		-0.02	0.34	0.08	0.04	
Layer 5	12-15								0.11																				

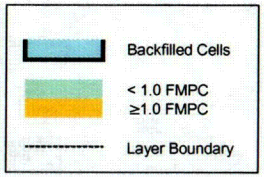
All Composited Layer Samples < 1 FMPC. No Further Action Required

Figure 4.2f
Volumetric Averaging
Burial Trench T-6

Trench #7 Soil Samples (FMPC)

	Depth (ft)	BT-126	BT-127	BT-128	BT-129	BT-130	BT-131	BT-132
Layer 1	-		0.20		0.07	0.06	0.09	0.14
	0.5		0.11		0.07	0.04	0.14	0.34
	1.0		0.06		0.05	0.15	0.19	0.04
	1.5		-0.05	0.27	0.01	0.06	0.14	-0.03
	2.0		0.07		0.10	-0.02	0.00	0.11
	2.5		0.93		0.62	0.61	-0.01	0.05
Layer 2	3.0		0.53		1.23	0.93	-0.11	0.05
	3.5		0.77		-0.02	0.85	0.07	0.21
	4.0	0.27	0.10		0.91	0.21	0.08	0.19
	4.5		0.97		0.56	0.24	0.14	0.19
	5.0		0.95		1.05	1.01	0.09	0.10
	5.5		0.65	0.46	0.18	0.05	-0.01	0.41
Layer 3	6.0	0.24	0.52			0.00	-0.12	0.22
	6.5	0.05				-0.09	0.36	0.20
	7.0	0.26					0.15	0.24
	7.5	0.20					0.10	0.12
	8.0						0.07	
	8.5							

NORTH SOUTH

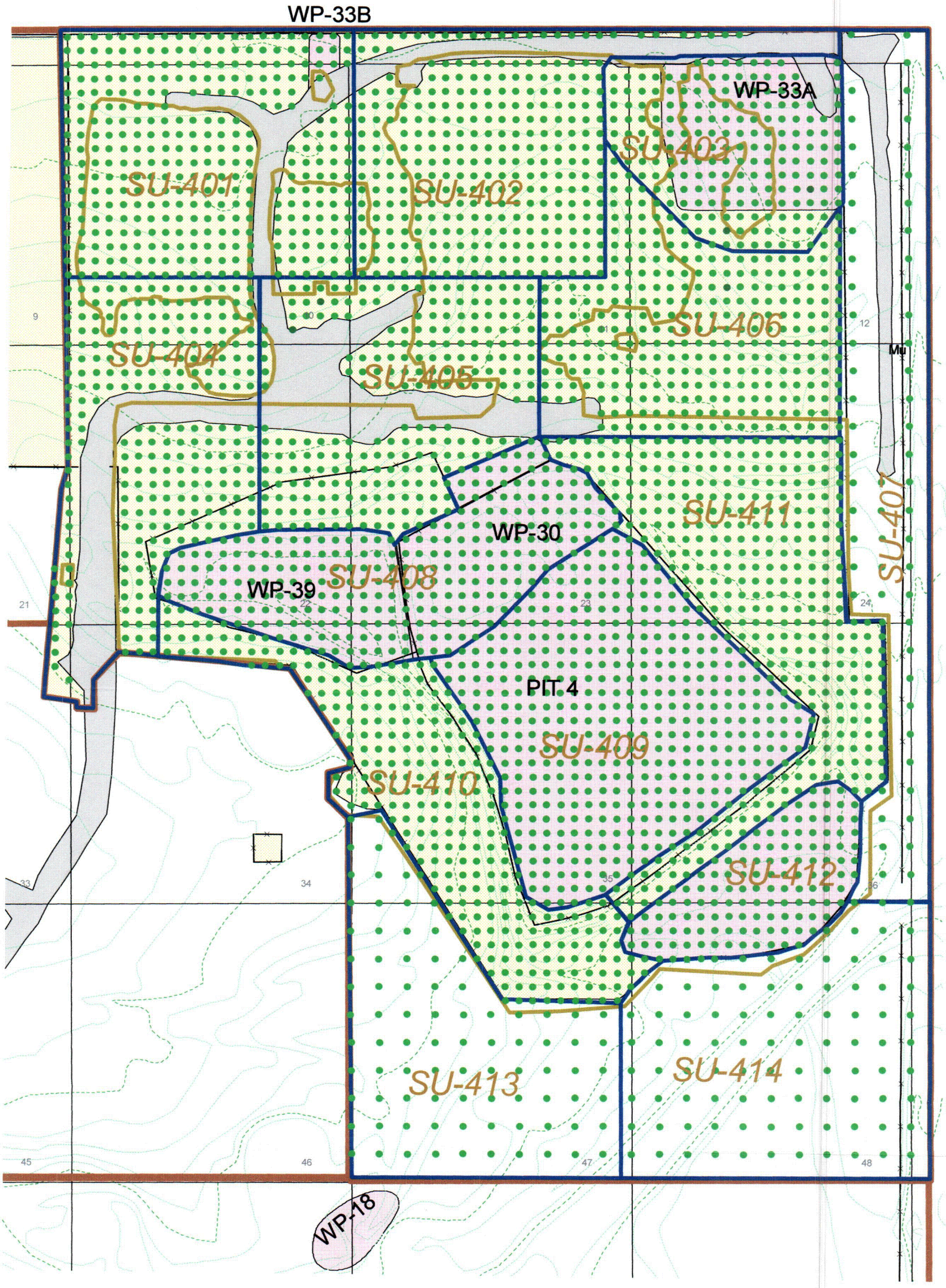


Trench #7 Soil Samples Averaged Over 3' Layers(FMPC)

	Depth (ft)	BT-126	BT-127	BT-128	BT-129	BT-130	BT-131	BT-132
Layer 1	0-3	0.27	0.22	0.27	0.15	0.15	0.09	0.11
Layer 2	3-6	0.27	0.66	0.30	0.65	0.55	0.04	0.19
Layer 3	6-9	0.19	0.52			-0.05	0.11	0.20

All Composited Layer Samples < 1 FMPC. No Further Action Requrired

Figure 4.2g
Volumetric Averaging
Burial Trench T-7


WP-33B
WP-33A
SU-401
SU-402
SU-403
SU-404
SU-405
SU-406
SU-407
SU-408
SU-409
SU-410
SU-411
SU-412
SU-413
SU-414
WP-30
WP-39
PIT 4
WP-18
Mu
9
10
11
12
21
22
23
24
33
34
35
36
45
46
47
48
Topsoil Areas
Soil Samples (FMPC)
< 0.75
1 - 3
0.75 - 1
> 3
N
W
E
S
9 0 9 18 Meters
Cushing Site Decommissioning
Project Sector 4 Final Status Survey
Figure 4.3
Sector 4 Surface Grid Samples
Cushing Site
Drawn by: DCW
Revision: 0
Date: 7/2/2004

Survey Units

Soil Samples (FMPC)

- < 0.75
- 0.75 - 1.00
- 1.00 - 3.00
- > 3.00

FMPC
Net U(tot) } (pCi/g)
Net Th(nat) }

N
W E
S

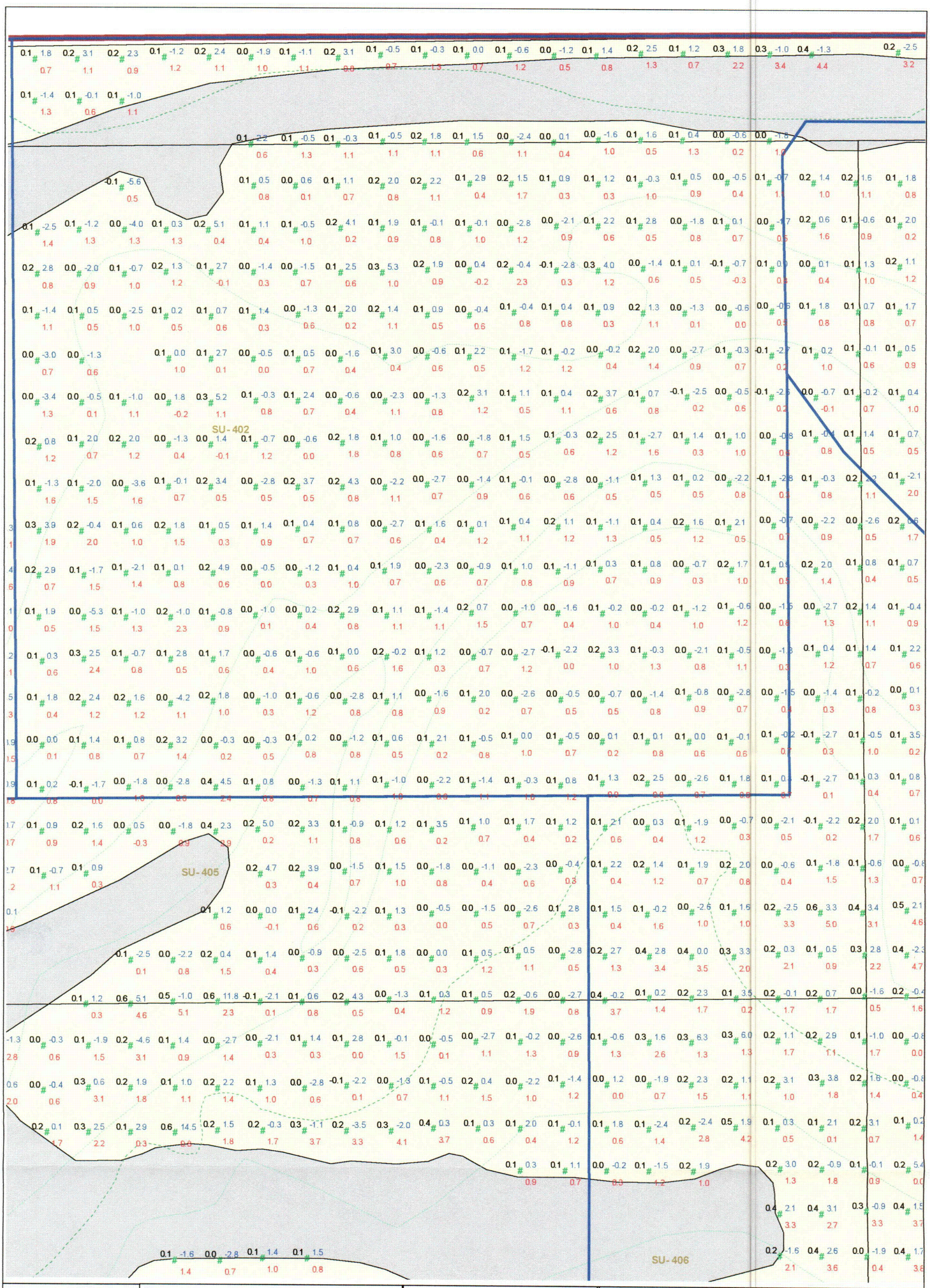
5 0 5 10 Meters

Cushing Site Decommissioning Project Sector 4 Final Status Survey

Figure 4.4a
Survey Unit 401, 404, 405 Grid Samples

Cushing Site	Drawn by: DCW
Revision: 0	Date: 1/10/2005

C12



Survey Units

Soil Samples (FMPC)

< 0.75
0.75 - 1.00
1.00 - 3.00
> 3.00

FMPC
Net U(tot) } (pCi/g)
Net Th(nat) }

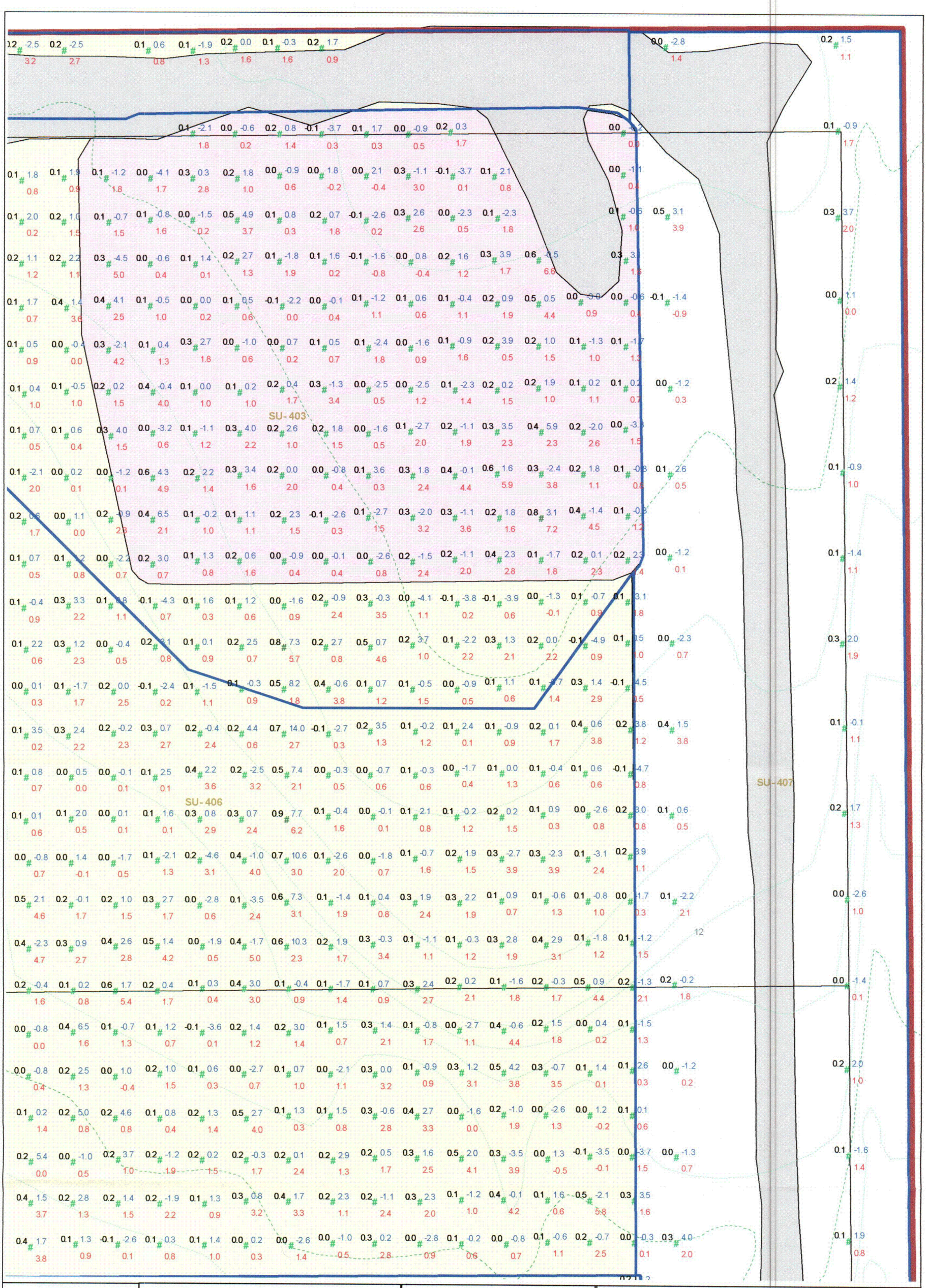
N
W E
S

5 0 5 10 Meters

Cushing Site Decommissioning Project
Sector 4 Final Status Survey

Figure 4.4b
Survey Unit 402, 403, 405, 406 Grid Samples

Cushing Site	Drawn by: DCW
Revision: 0	Date: 1/10/2005



Survey Units

Soil Samples (FMPC)

- < 0.75
- 0.75 - 1.00
- 1.00 - 3.00
- > 3.00

FMPC
Net U(tot) } (pCi/g)
Net Th(nat) }

N
W E
S

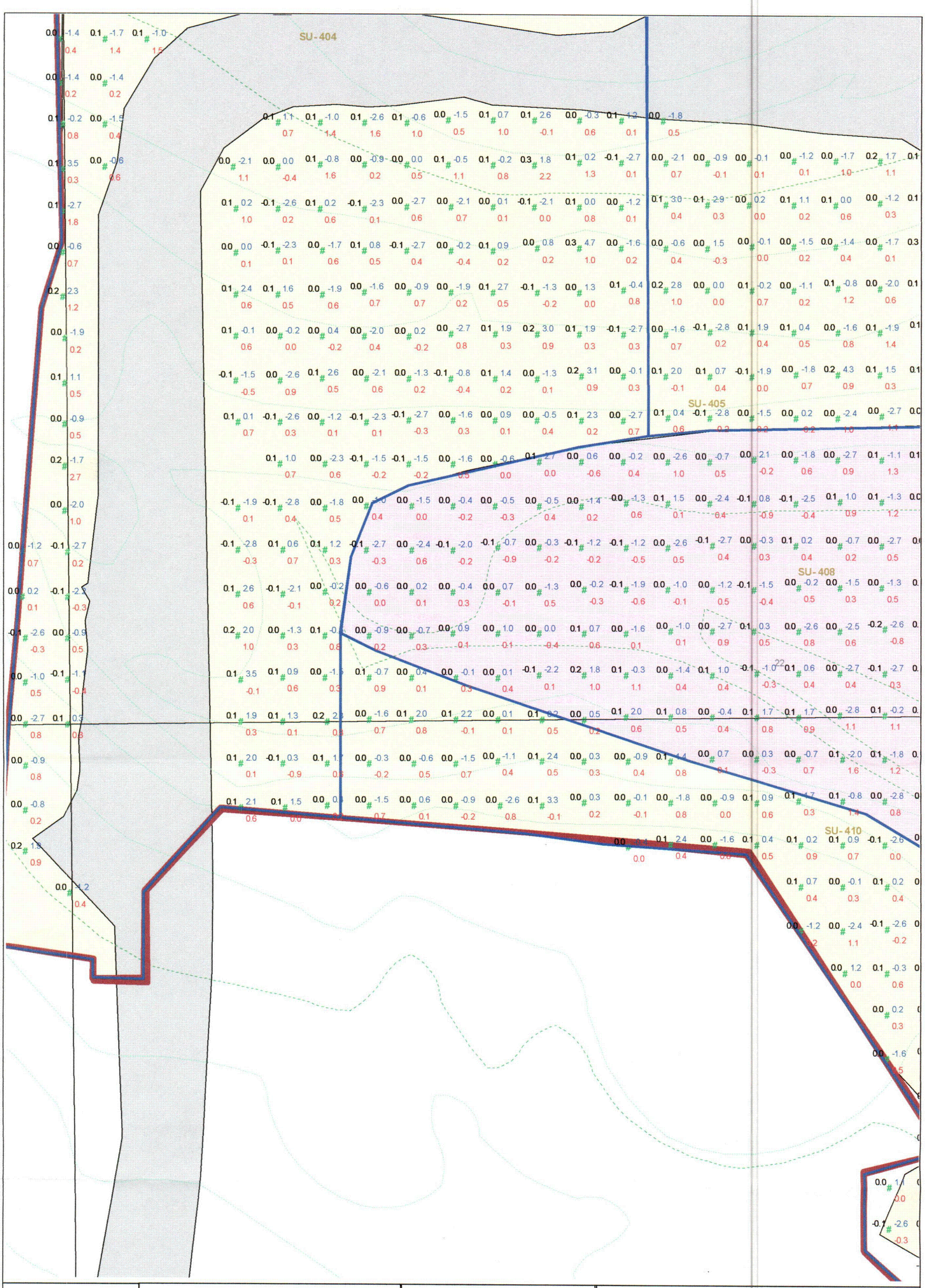
5 0 5 10 Meters

Cushing Site Decommissioning Project
Sector 4 Final Status Survey

Figure 4.4c
Survey Unit 402, 403, 407 Grid Samples

Cushing Site	Drawn by: DCW
Revision: 0	Date: 1/10/2005

C14



Survey Units

Soil Samples (FMPC)

< 0.75
0.75 - 1.00
1.00 - 3.00
> 3.00

FMPC
Net U(tot)
Net Th(nat) } (pCi/g)

N
W E
S

5 0 5 10 Meters

Cushing Site Decommissioning Project
Sector 4 Final Status Survey

Figure 4.4d
Survey Unit 404, 405, 408, 410 Grid Samples

Cushing Site	Drawn by: DCW
Revision: 0	Date: 1/10/2005

Survey Units

Soil Samples (FMPC)

< 0.75
0.75 - 1.00
1.00 - 3.00
> 3.00

FMPC
Net U(tot) } (pCi/g)
Net Th(nat) }

N
W E
S

5 0 5 10 Meters

Cushing Site Decommissioning Project
Sector 4 Final Status Survey

Figure 4.4e
Survey Unit 405, 408-9, 410, 411 Grid Samples

Cushing Site	Drawn by: DCW
Revision: 0	Date: 1/10/2005

C16

Survey Units

Soil Samples (FMPC)

< 0.75
0.75 - 1.00
1.00 - 3.00
> 3.00

FMPC
Net U(tot) } (pCi/g)
Net Th(nat) }

N
W E
S

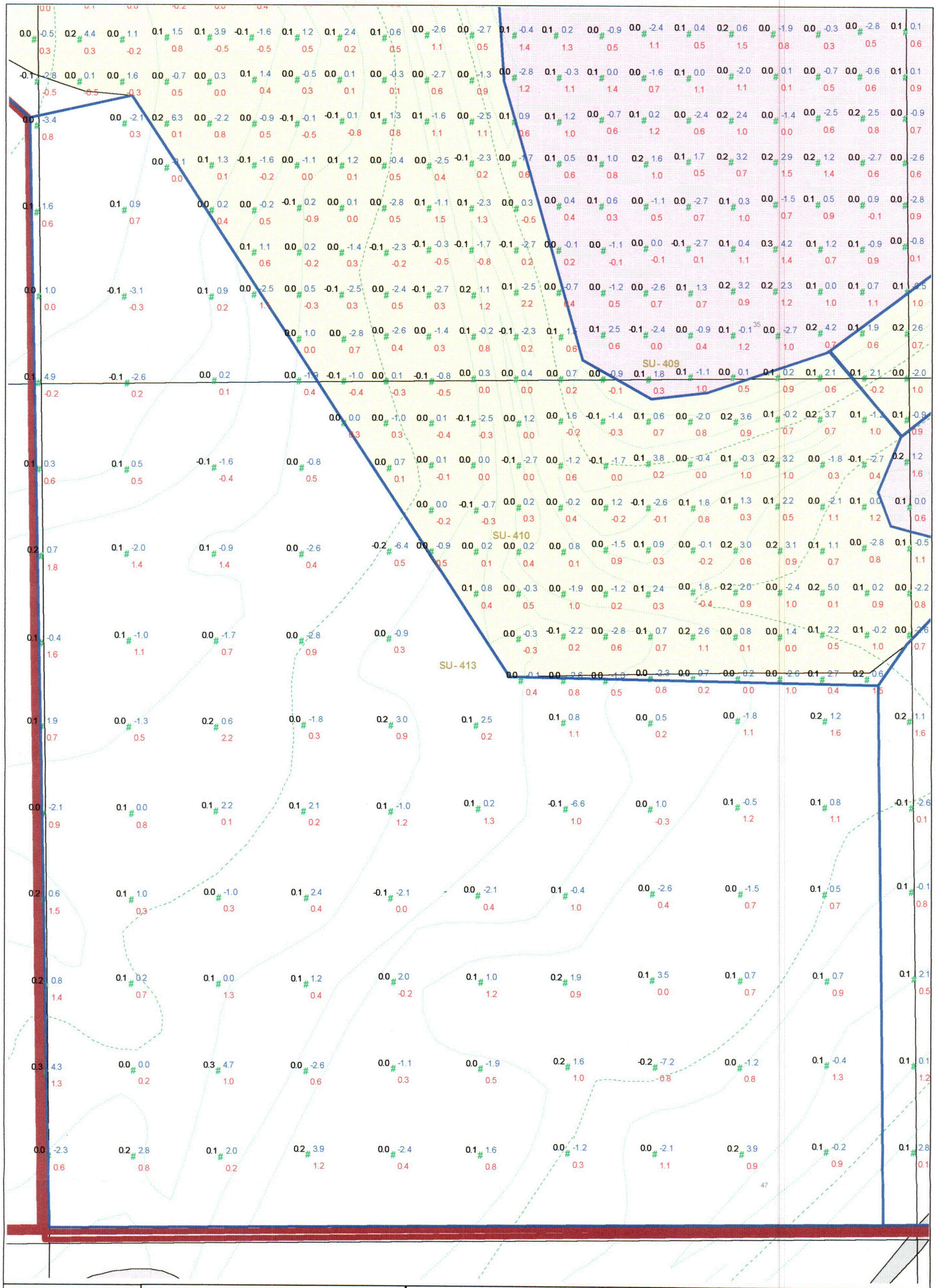
5 0 5 10 Meters

Cushing Site Decommissioning Project
Sector 4 Final Status Survey

Figure 4.4f
Survey Unit 406-7, 409, 411-12 Grid Samples

Cushing Site	Drawn by: DCW
Revision: 0	Date: 1/10/2005

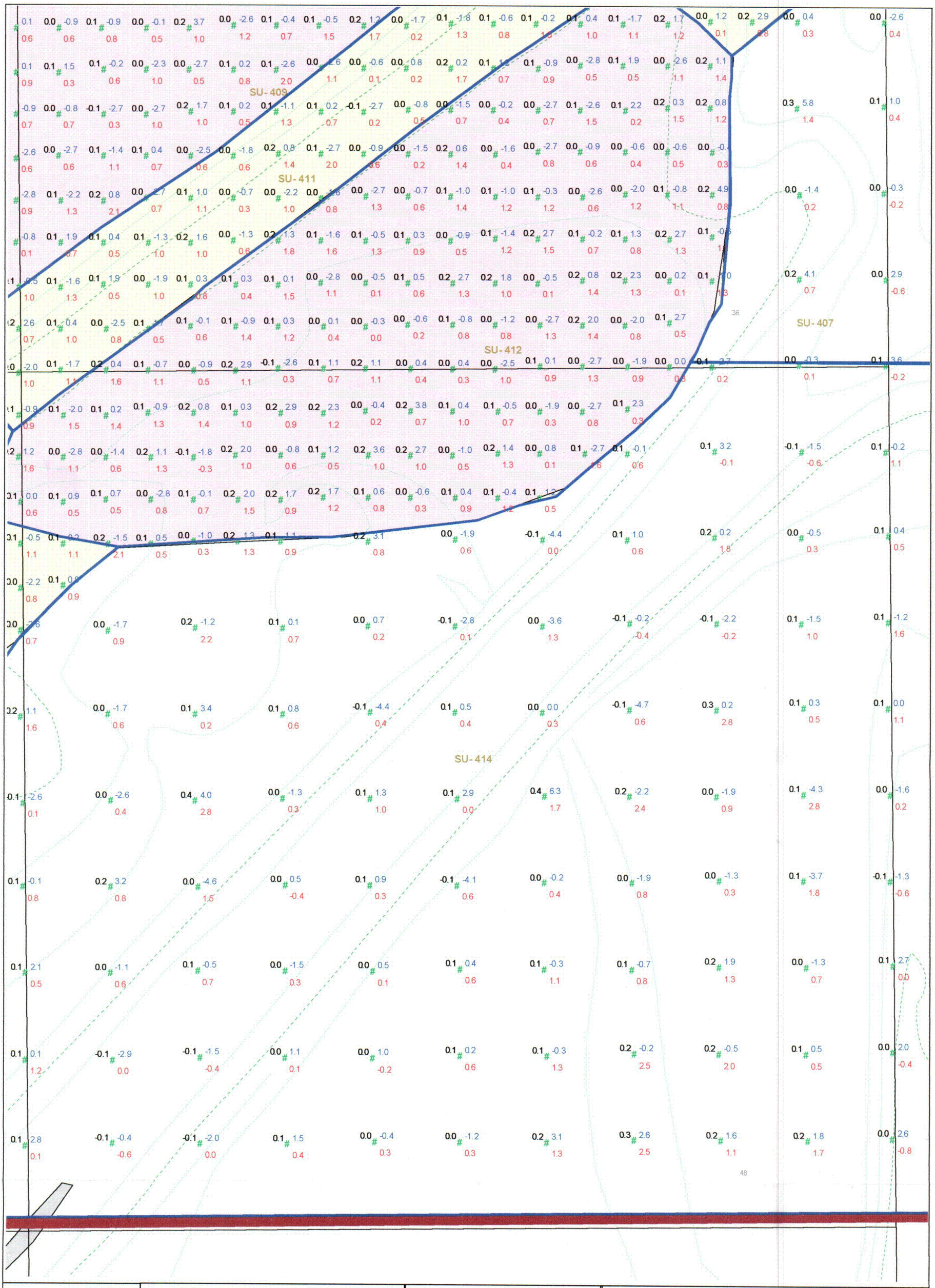
C17



Cushing Site Decommissioning Project
Sector 4 Final Status Survey

Figure 4.4g
Survey Unit 409, 410, 413 Grid Samples

Cushing Site	Drawn by: DCW
Revision: 0	Date: 1/10/2005



Survey Units

Soil Samples (FMPC)

< 0.75
0.75 - 1.00
1.00 - 3.00
> 3.00

FMPC
Net U(tot)
Net Th(nat) } (pCi/g)

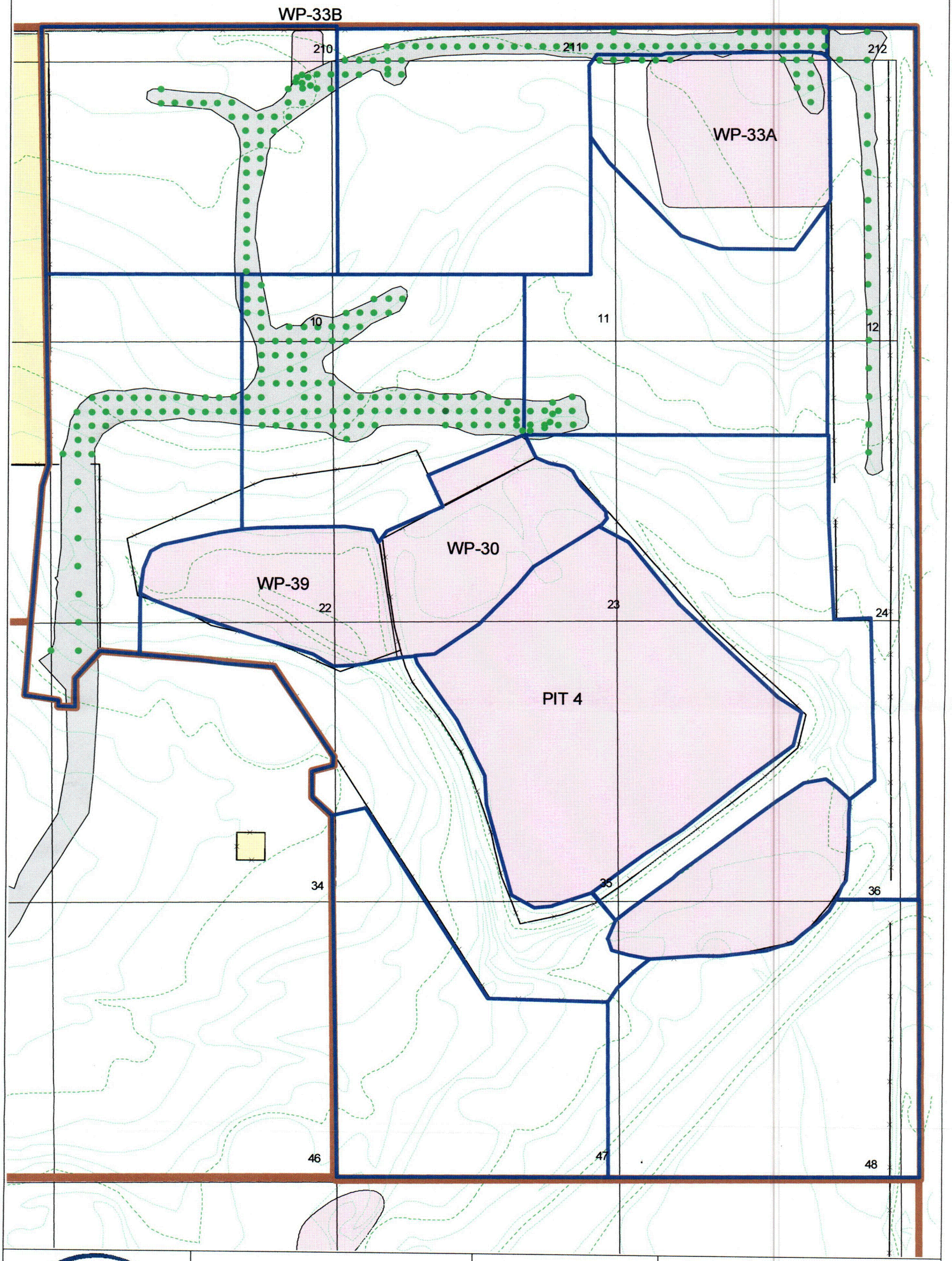
N
W E
S

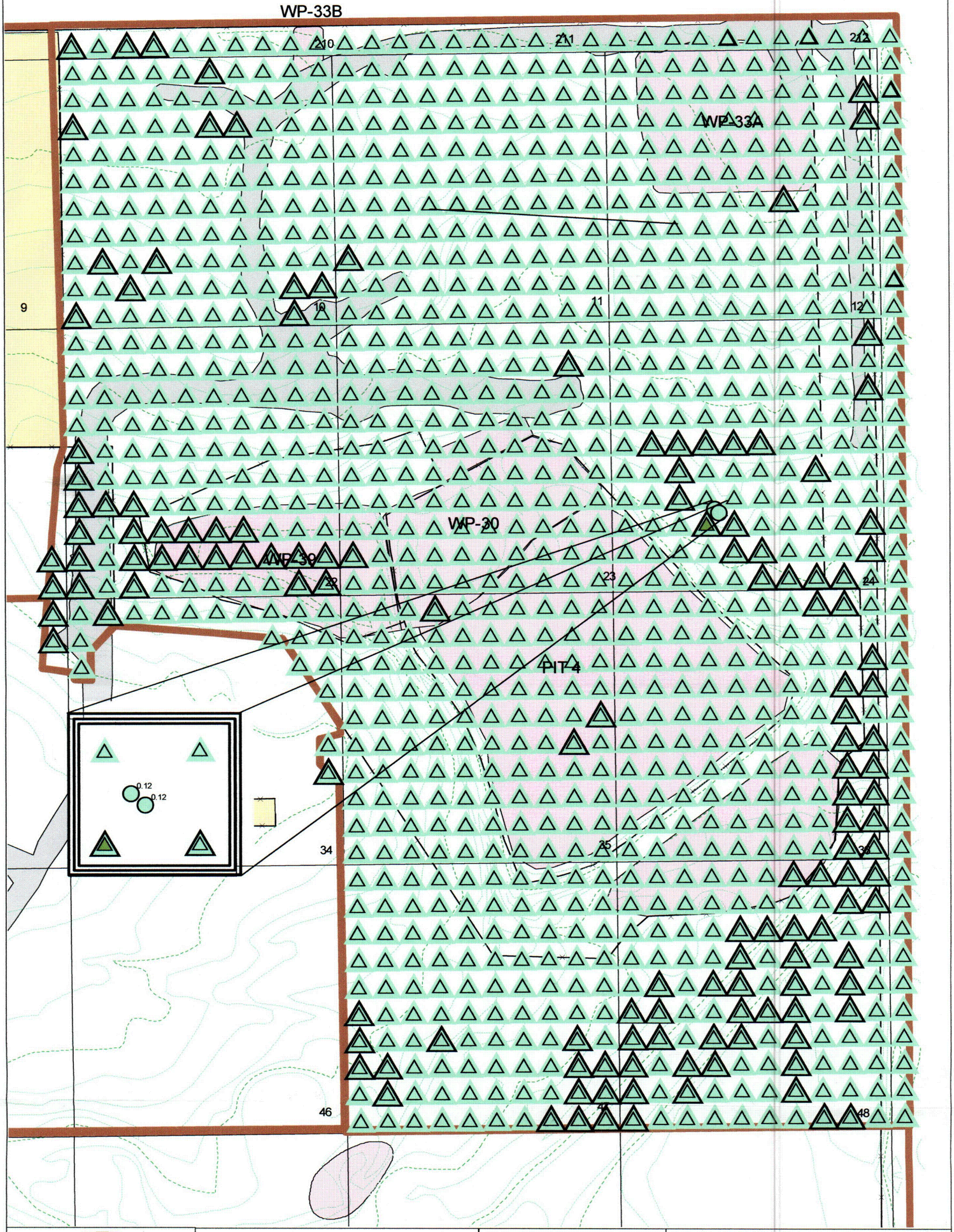
5 0 5 10 Meters

Cushing Site Decommissioning Project
Sector 4 Final Status Survey

Figure 4.4h
Survey Unit 407, 409, 411-12, 414 Grid Samples

Cushing Site	Drawn by: DCW
Revision: 0	Date: 1/10/2005

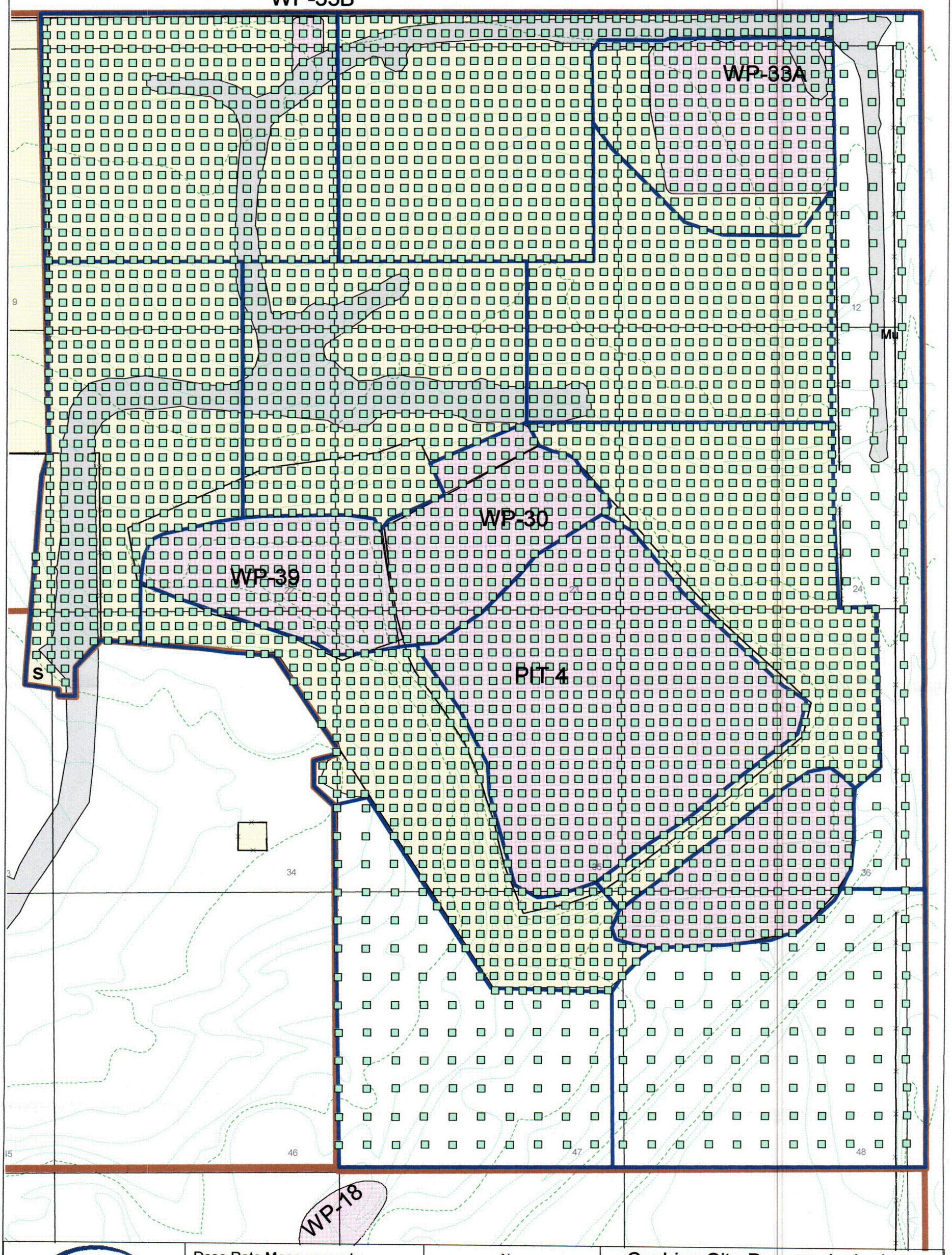

WP-33B
210
211
212
WP-33A
10
11
12
WP-30
WP-39
22
23
24
PIT 4
34
35
36
46
47
48
Haul Road
Soil Samples (FMPC)
< 0.75
0.75 - 1.00
1.00 - 3.00
> 3.00
N
W
E
S
10 0 10 20 Meters
Cushing Site Decommissioning
Project Sector 4 Final Status Survey
Figure 4.5
Sector 4 Existing Soil Samples
Under Roadways
Cushing Site
Drawn by: DCW
Revision: 0
Date: 7/4/2004

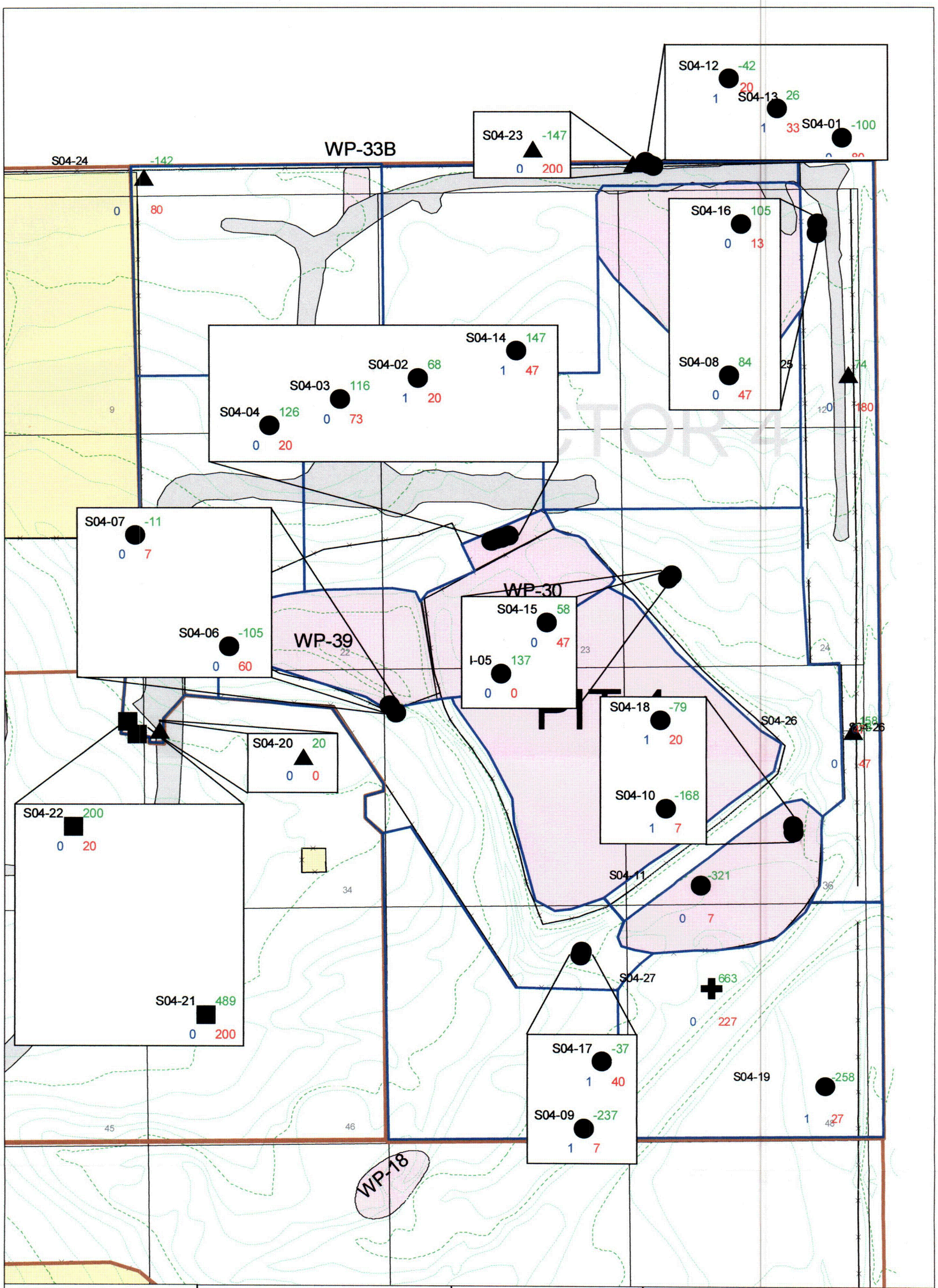


Cushing Site Decommissioning
Project Sector 4 Final Status Survey

Figure 4.6
Sector 4 Nal Scan Measurements

Cushing Site	Drawn by: DCW
Revision: 0	Date: 7/6/2004

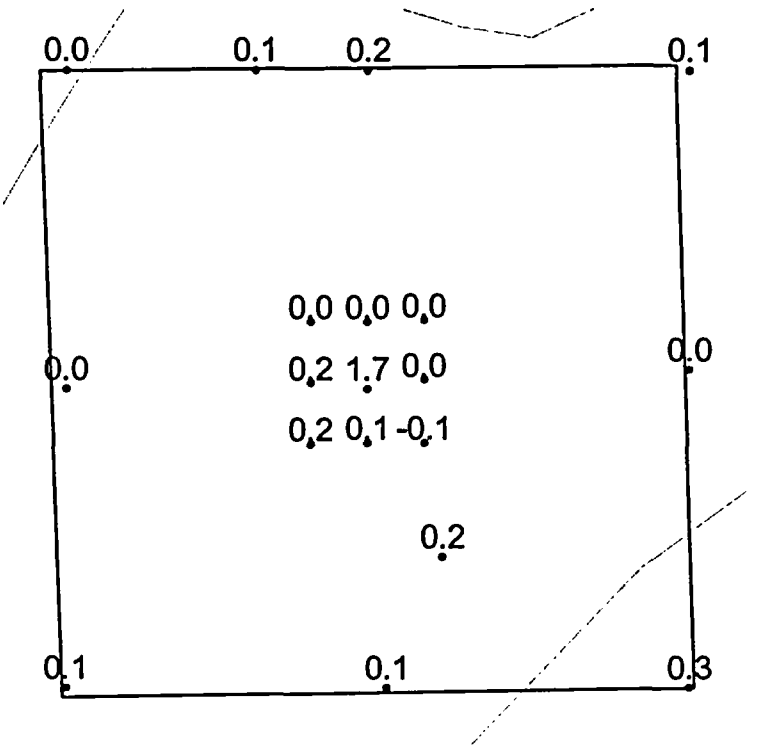

WP-33B
WP-33A
WP-30
WP-39
PIT 4
WP-18
S
Mu
9
10
11
12
21
22
24
34
35
36
3
45
46
47
48
Dose Rate Measurements
(μR/hr)
< 16
16 - 25
> 25
S -Structure
N
W
E
S
10 0 10 20 Meters
Cushing Site Decommissioning
Project Sector 4 Final Status Survey
Figure 4.7
Sector 4 Dose Rate Measurements
Cushing Site
Revision: 0
Drawn by: DCW
Date: 7/6/2004


WP-33B
S04-24 -142
0 80
S04-23 -147
0 200
S04-12 -42
20
1
S04-13 26
1 33
S04-01 -100
S04-16 105
0 13
S04-14 147
1 47
S04-02 68
1 20
S04-03 116
0 73
S04-04 126
0 20
S04-08 84
0 47
S04-07 -11
0 7
S04-06 -105
0 60
WP-39
WP-30
S04-15 58
0 47
I-05 137
0 0
S04-20 20
0 0
S04-18 -79
1 20
S04-10 -168
1 7
S04-26
S04-22 200
0 20
S04-21 489
0 200
S04-11 -321
0 7
S04-27 663
0 227
S04-17 -37
1 40
S04-09 -237
1 7
S04-19 -258
1 27
WP-18
Building Structures
Concrete Pads
Monitoring Wells
Other Structures
S04-## Object ID
Max Direct Beta (dpm/100cm²)
Max Direct Alpha (dpm/100cm²)
Max Exposure Rate (μR/hr)
N
W E
S
10 0 10 20 30 Meters
Cushing Site Decommissioning
Project Final Status Survey
Figure 4.8
Sector 4 Structure Locations
Cushing Site
Drawn by: DCW
Revision: 0
Date: 6/18/2004

APPENDIX B
AREA AVERAGING WORKSHEET

AREAVERAGING WORKSHEET

Location B011E35S60



Elevated sample activity: 1.7 FMPC

Area occupied by the elevated sample: 1 m^2
Average of non-elevated activity measurements: 0.08

Weighted average calculation:[41]

$$\overline{X}_w = 0.08\left(\frac{100-1}{100}\right)+1.7\left(\frac{1}{100}\right)=0.18\,FMPC$$

Maximum individual value calculation[42]:

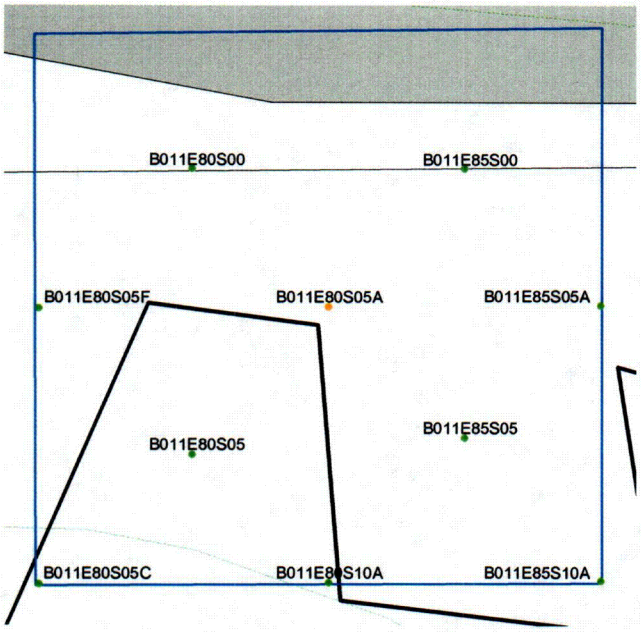
$$FMPC_{max}=\sqrt{\frac{100}{1}}=10.0$$

Meets Release Criteria

[41] Over 100 m^2. See NUREG/CR-5849, Section 8.5.2
[42] Per license condition 11.N, soil activity in all cases may not exceed 3.0 FMPC regardless of surface averaging considerations.

VOLUMETRIC AVERAGING WORKSHEET

Location B011E80S05A; Current depth 1.6 m



1-2, 2-3 m Depth Composite Samples
Borehole B011E80S05A

Layer	Sample Depth (ft)*	FMPC
0 - 1 m	0	0.11
	0.5	0.23
	1	0.65
	1.5	0.17
	2	0.03
	2.5	0.03
	Average	**0.20**
1 - 2 m	3	0.23
	3.5	1.27
	Average	**0.75**

* Depth to top of 6" sample.

Elevated sample value: 1.27 FMPC

Samples included in 100 m^2 area: 82

Layer containing the elevated sample: 1-2m

Maximum Value in layer: 1.27 FMPC
Average of composite sample: 0.75 FMPC

The one meter composite averages within the borehole containing the elevated sample are both less than 1.0 FMPC. Without further consideration the samples in borehole B011E80S05A meet the volumetric averaging criteria. All four samples within 3.5 meters at the same depth as the elevated sample are well below 1.0 FMPC, with a maximum calculated value of -0.02 for SID B011E85S00-035.

Meets Release Criteria

APPENDIX C
CUSHING SITE GRID NUMBERING SYSTEM

CUSHING SITE BLOCK COORDINATES

239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256
219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236
199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216
421	401	1	2	3	4	5	6	7	8	9	10	11	12	301	321	341	361
422	402	13	14	15	16	17	18	19	20	21	22	23	24	302	322	342	362
423	403	25	26	27	28	29	30	31	32	33	34	35	36	303	323	343	363
424	404	37	38	39	40	41	42	43	44	45	46	47	48	304	324	344	364
425	405	49	50	51	52	53	54	55	56	57	58	59	60	305	325	345	365
426	406	61	62	63	64	65	66	67	68	69	70	71	72	306	326	346	366
427	407	73	74	75	76	77	78	79	80	81	82	83	84	307	327	347	367
428	408	85	86	87	88	89	90	91	92	93	94	95	96	308	328	348	368
429	409	569	549	529	509	97	98	99	100	101	102	103	104	309	329	349	369
430	410	570	550	530	510	105	106	107	108	109	110	111	112	310	330	350	370
431	411	571	551	531	511	113	114	115	116	117	118	119	120	311	331	351	371
432	412	572	552	532	512	121	122	123	124	125	126	127	128	312	332	352	372
433	413	573	553	533	513	129	130	131	132	133	134	135	136	313	333	353	373
434	414	574	554	534	514	137	138	139	140	141	142	143	144	314	334	354	374
435	415	575	555	535	515	145	146	147	148	149	150	151	152	315	335	355	375
436	416	576	556	536	516	153	154	155	156	157	158	159	160	316	336	356	376
437	417	577	557	537	517	677	657	637	617	161	162	163	164	317	337	357	377
438	418	578	558	538	518	678	658	638	618	165	166	167	168	318	338	358	378
439	419	579	559	539	519	679	659	639	619	169	170	171	172	319	339	359	379
440	420	580	560	540	520	680	660	640	620	173	174	175	176	320	340	360	380
699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716
719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736
739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756

Note: The blocks shaded in yellow represent the original Cushing Site Block Grid numbers. The blocks in white represent the off-site blocks which have been added.

APPENDIX D
HOT SPOT EVALUATION PROTOCOL

HOT SPOT EVALUATION PROTOCOL

1 Scans

1.1 Scan information will be taken in the field using a cart-mounted, 3' x ½" unshielded NaI detector scanning at less than 1 ft. per sec. in accordance with NX-RO-370.[43] Cpm readings will be taken approximately every two seconds and will be recorded automatically in the data logger along with GPS location information. Raw data files will be examined by the HP analyst and areas containing readings in excess of the threshold will be rescanned manually using a shielded NaI detector to locate potential hot spots.

1.2 When manual scans are required to confirm an unshielded reading above the threshold, collect a soil sample at local maxima within each scanned region and survey its location using GPS and standard LocID and SID conventions.

2 Soil Samples Exceeding the Limit

2.1 When soil measurements exceed 1.0 FMPC, the analyst evaluating the data will issue a Supplemental Data Request to decrease the local grid spacing to 3.5 m or less and to further characterize the depth and lateral extent of elevated radioactivity. Consideration will be given to the requirements of surface averaging in requesting supplemental grid measurements.

2.2 Samples taken as part of any expansion pattern which do not fall on standard BES locations (even meters) will be identified with the LocID of the nearest hot spot with a single letter character (a,b,c,...x,y,z) appended at the end. These locations will be entered as offset location records in the database and their exact GPS coordinates will be recorded.

3 Soil Samples Indicating Predominantly Uranium Presence

3.1 Wherever a soil sample indicates a uranium concentration above 20 pCi/g and thorium less than 1.5 pCi/g, the entire area surrounding the sample will be manually scanned with a shielded 3"x1/2" NaI detector at 6" height above ground, and a scan threshold of 8,500 cpm will be used to determine where bias soil samples will be taken.

4 µR Measurement above the Release Criteria.

4.1 Any µR measurements that exceed the release criteria will be compared with surface soil sample results and surrounding scan data. Any failure of these values to correlate will be flagged and additional soil samples, scans, or µR measurements will be collected as required to resolve the discrepancy

[43] NX-RO-370, ibid.

APPENDIX E
DATA TABLES

Table 1
Pit 4 Excavation Bottom Samples

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B022E20S25	-1.88	1.22	0.06
B022E20S30	-0.31	0.67	0.06
B022E20S35	-0.31	0.86	0.08
B022E20S40	0.72	1.68	0.19
B022E20S45	-0.95	1.03	0.07
B022E20S50	-1.34	0.88	0.04
B022E20S55	-0.67	0.13	-0.01
B022E20S60	2.23	-0.39	0.04
B022E20S65	-2.03	-0.75	-0.14
B022E20S70	-2.57	-0.32	-0.12
B022E20S75	-1.14	-0.13	-0.05
B022E20S80	-2.81	-0.03	-0.10
B022E20S85	-1.36	-0.29	-0.07
B022E20S90	-1.51	0.26	-0.02
B022E20S95	0.00	0.60	0.06
B022E25S25	-0.78	1.15	0.09
B022E25S30	-1.71	0.62	0.01
B022E25S35	0.40	0.79	0.09
B022E25S40	-0.97	1.33	0.10
B022E25S45	1.30	0.60	0.10
B022E25S50	-2.28	0.69	-0.01
B022E25S55	2.29	0.55	0.13
B022E25S60	0.21	0.31	0.04
B022E25S65	-3.59	-1.20	-0.24
B022E25S70	-1.71	-0.86	-0.14
B022E25S75	-1.81	-0.03	-0.06
B022E25S80	-2.80	0.05	-0.09
B022E25S85	2.74	-0.35	0.06
B022E25S90	-0.01	0.75	0.07
B022E25S95	0.75	0.60	0.08
B022E30S25	-2.07	1.01	0.03
B022E30S30	0.47	1.43	0.16
B022E30S35	-0.62	0.25	0.00
B022E30S40	-3.67	1.77	0.05
B022E30S45	-0.13	0.53	0.05
B022E30S50	-0.86	0.64	0.04
B022E30S55	0.37	0.66	0.08
B022E30S60	-1.56	-0.30	-0.08
B022E30S65	-0.94	-0.53	-0.08
B022E30S70	-0.68	0.02	-0.02
B022E30S75	-2.83	1.15	0.02
B022E30S80	-2.27	-0.05	-0.08
B022E30S85	0.42	-1.14	-0.10
B022E30S90	1.30	0.84	0.13
B022E30S95	0.50	0.45	0.06
B022E35S25	2.61	0.65	0.15
B022E35S30	2.65	1.20	0.21
B022E35S35	-0.35	0.23	0.01
B022E35S40	1.95	0.95	0.16
B022E35S45	0.62	1.49	0.17
B022E35S50	1.40	0.54	0.10
B022E35S55	-0.96	0.28	0.00
B022E35S60	-0.81	0.56	0.03
B022E35S65	-2.53	-0.70	-0.15
B022E35S70	-1.69	-0.98	-0.15
B022E35S75	-1.81	-0.52	-0.11
B022E35S80	0.48	-0.17	0.00
B022E35S85	-1.16	-0.31	-0.07
B022E35S90	-0.47	-0.40	-0.06
B022E35S95	0.40	-1.20	-0.11
B022E40S25	-1.96	-0.07	-0.07
B022E40S30	-0.26	0.52	0.04
B022E40S35	-0.60	1.06	0.09
B022E40S40	0.05	0.75	0.08
B022E40S45	0.95	0.75	0.11
B022E40S50	1.78	0.23	0.08
B022E40S55	1.30	0.47	0.09
B022E40S60	-0.38	-0.21	-0.03
B022E40S65	-0.95	-0.54	-0.09
B022E40S70	-1.56	-0.96	-0.15
B022E40S75	-4.10	-0.24	-0.16
B022E40S80	0.04	-0.56	-0.05
B022E40S85	0.90	-1.24	-0.09
B022E40S90	0.93	-0.35	0.00
B022E40S95	1.01	-0.97	-0.06
B022E45S25	1.81	0.83	0.14
B022E45S30	-1.85	0.65	0.00
B022E45S35	-0.44	0.97	0.08
B022E45S40	0.31	0.35	0.05
B022E45S45	-3.41	0.71	-0.04
B022E45S50	-0.44	0.28	0.01
B022E45S55	0.15	0.18	0.02
B022E45S60	-1.58	-0.79	-0.13
B022E45S65	0.19	-0.68	-0.06
B022E45S70	-2.12	-0.40	-0.11
B022E45S75	-0.22	-0.87	-0.09
B022E45S80	0.23	0.04	0.01
B022E45S85	-2.32	-0.39	-0.12
B022E45S90	-0.02	1.20	0.12
B022E45S95	-2.64	-0.53	-0.14
B022E50S25	1.81	1.39	0.20
B022E50S30	-0.08	0.91	0.09
B022E50S35	0.72	1.31	0.15
B022E50S40	1.78	1.70	0.23
B022E50S45	-1.50	1.36	0.09
B022E50S50	2.19	-0.42	0.03
B022E50S55	-0.99	-0.17	-0.05
B022E50S60	-0.93	-0.07	-0.04
B022E50S65	-1.45	0.11	-0.04
B022E50S70	-0.23	-0.10	-0.02
B022E50S75	-0.24	0.66	0.06
B022E50S80	-2.84	0.18	-0.08
B022E50S85	-1.81	-0.21	-0.08
B022E50S90	1.40	-0.94	-0.05
B022E50S95	-3.91	-0.18	-0.15
B022E55S25	-2.02	0.71	0.00
B022E55S30	0.44	0.17	0.03
B022E55S35	-2.61	1.05	0.02
B022E55S40	1.20	0.96	0.14
B022E55S45	-1.20	1.23	0.08
B022E55S50	0.39	0.43	0.06
B022E55S55	-0.74	0.03	-0.02
B022E55S60	-0.96	-0.72	-0.10
B022E55S65	-0.50	0.62	0.05
B022E55S70	-0.77	-0.44	-0.07
B022E55S75	-2.50	0.64	-0.02
B022E55S80	-0.74	0.82	0.06
B022E55S85	-0.44	1.88	0.17
B022E55S90	-0.07	-0.03	-0.01
B022E55S95	2.17	1.45	0.22
B022E60S25	-1.33	1.85	0.14
B022E60S30	1.81	0.62	0.12
B022E60S35	-1.36	0.41	0.00
B022E60S40	0.87	1.27	0.16
B022E60S45	1.05	1.15	0.15
B022E60S50	0.49	0.00	0.02
B022E60S55	-1.63	-0.57	-0.11
B022E60S60	-1.45	-0.85	-0.13
B022E60S65	-0.31	-0.48	-0.06
B022E60S70	-1.12	0.47	0.01
B022E60S75	-2.97	0.85	-0.01
B022E60S80	1.92	1.40	0.20
B022E60S85	-0.38	-0.30	-0.04
B022E60S90	-1.26	-0.83	-0.12
B022E60S95	0.11	-0.72	-0.07
B022E65S25	0.57	1.72	0.19
B022E65S30	0.08	0.57	0.06
B022E65S35	0.11	1.21	0.13
B022E65S40	-2.21	0.13	-0.06
B022E65S45	-0.77	0.23	0.00
B022E65S50	-2.56	1.09	0.02
B022E65S55	-0.75	-0.20	-0.04
B022E65S60	-5.62	-0.55	-0.24
B022E65S65	-2.73	-0.75	-0.17
B022E65S70	-2.53	-1.13	-0.20
B022E65S75	-3.47	-1.06	-0.22
B022E65S80	-1.86	2.98	0.24
B022E65S85	-0.69	0.24	0.00
B022E65S90	-0.05	0.72	0.07
B022E65S95	-0.63	0.31	0.01
B022E70S25	-1.90	1.45	0.08
B022E70S30	-3.43	1.02	-0.01
B022E70S35	0.86	0.63	0.09
B022E70S40	1.77	1.44	0.20
B022E70S45	0.36	0.53	0.06
B022E70S50	-1.80	-0.10	-0.07
B022E70S55	-2.87	-0.23	-0.12
B022E70S60	1.58	0.48	0.10
B022E70S65	-2.46	-0.98	-0.18
B022E70S70	0.64	2.09	0.23
B022E70S75	-0.16	1.53	0.15
B022E70S80	-1.91	0.71	0.01
B022E70S85	0.97	0.98	0.13
B022E70S90	-0.08	1.93	0.19
B022E70S95	-0.90	0.82	0.05
B022E75S25	0.63	1.15	0.14
B022E75S30	-1.61	0.88	0.03
B022E75S35	2.82	0.87	0.18
B022E75S40	0.52	1.13	0.13
B022E75S45	-0.07	0.97	0.09
B022E75S50	-0.21	0.53	0.05
B022E75S55	0.17	-0.07	0.00
B022E75S60	-1.80	-0.81	-0.14
B022E75S65	-1.24	-1.54	-0.20
B022E75S70	-2.36	0.13	-0.07
B022E75S75	1.11	1.52	0.19

Table 1
Pit 4 Excavation Bottom Samples

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B022E75S80	-1.04	1.55	0.12
B022E75S85	-2.49	-0.94	-0.18
B022E75S90	-2.03	0.94	0.03
B022E75S95	-0.21	0.15	0.01
B022E80S25	-0.53	1.34	0.12
B022E80S30	0.89	0.91	0.12
B022E80S35	-1.45	0.83	0.04
B022E80S40	0.53	0.55	0.07
B022E80S45	0.14	2.39	0.24
B022E80S50	-1.04	1.27	0.09
B022E80S55	-2.41	-0.23	-0.10
B022E80S60	-0.24	-0.96	-0.10
B022E80S65	-3.25	-1.38	-0.25
B022E80S70	-2.29	-1.17	-0.19
B022E80S75	1.53	1.19	0.17
B022E80S80	-1.25	-0.16	-0.06
B022E80S85	-1.36	-0.42	-0.09
B022E80S90	-0.85	-0.75	-0.10
B022E80S95	-3.18	1.49	0.04
B022E85S25	-4.81	0.93	-0.07
B022E85S30	-1.41	1.28	0.08
B022E85S35	-1.07	1.33	0.10
B022E85S40	2.26	1.12	0.19
B022E85S45	0.88	0.90	0.12
B022E85S50	-1.39	1.48	0.10
B022E85S55	-3.53	-0.70	-0.19
B022E85S60	0.44	-0.70	-0.06
B022E85S65	-1.27	-1.49	-0.19
B022E85S70	-2.13	-1.61	-0.23
B022E85S75	1.57	1.15	0.17
B022E85S80	-2.97	1.79	0.08
B022E85S85	0.63	0.37	0.06
B022E85S90	1.51	-0.29	0.02
B022E85S95	-0.78	1.31	0.10
B022E90S25	-0.75	0.27	0.00
B022E90S30	0.50	0.99	0.12
B022E90S35	-3.36	0.57	-0.06
B022E90S40	-4.50	1.28	-0.02
B022E90S45	-2.92	1.61	0.06
B022E90S50	-1.74	-0.11	-0.07
B022E90S55	-0.64	-0.46	-0.07
B022E90S60	-2.01	-1.16	-0.18
B022E90S65	-1.71	-1.09	-0.17
B022E90S70	-0.93	-1.10	-0.14
B022E90S75	-1.66	1.36	0.08
B022E90S80	1.22	1.43	0.18
B022E90S85	-1.58	1.78	0.13
B022E90S90	-3.54	0.06	-0.11
B022E90S95	-1.35	-0.27	-0.07
B022E95S25	0.51	0.34	0.05
B022E95S30	-1.59	1.80	0.13
B022E95S35	-1.38	1.94	0.15
B022E95S40	-3.78	0.98	-0.03
B022E95S45	0.09	1.17	0.12
B022E95S50	-2.44	-0.31	-0.11
B022E95S55	-1.93	-0.58	-0.12
B022E95S60	-2.87	-0.91	-0.19
B022E95S65	-5.51	-1.05	-0.29
B022E95S70	1.56	-0.91	-0.04
B022E95S75	-3.41	1.11	0.00
B022E95S80	1.43	1.08	0.16
B022E95S85	-0.65	4.21	0.40
B022E95S90	-2.19	-0.56	-0.13
B022E95S95	-0.43	-0.22	-0.04
B023E00S25	0.98	0.31	0.06
B023E00S30	-2.39	1.71	0.09
B023E00S35	-0.23	1.08	0.10
B023E00S40	0.80	1.25	0.15
B023E00S45	-2.28	1.81	0.10
B023E00S50	-2.20	-0.32	-0.11
B023E00S55	-1.36	0.83	0.04
B023E00S60	-2.48	-0.75	-0.16
B023E00S65	-1.42	-1.03	-0.15
B023E00S70	1.36	1.18	0.16
B023E00S75	1.63	0.05	0.06
B023E00S80	-0.21	1.79	0.17
B023E00S85	-0.49	2.68	0.25
B023E00S90	-0.82	-0.16	-0.04
B023E00S95	-3.14	1.29	0.02
B023E05S25	-1.46	0.26	-0.02
B023E05S30	-0.33	1.24	0.11
B023E05S35	-0.92	1.29	0.10
B023E05S40	2.34	0.43	0.12
B023E05S45	-2.68	1.76	0.09
B023E05S50	-3.00	-0.52	-0.15
B023E05S55	-1.58	-0.71	-0.12
B023E05S60	-1.96	-1.48	-0.21
B023E05S65	-0.11	-0.92	-0.10
B023E05S70	-2.43	-1.05	-0.19
B023E05S75	0.35	0.95	0.11
B023E05S80	-1.58	0.96	0.04
B023E05S85	-2.62	1.06	0.02
B023E05S90	-1.56	0.89	0.04
B023E05S95	-3.15	2.05	0.10
B023E10S25	-2.44	1.20	0.04
B023E10S30	-1.01	1.30	0.10
B023E10S35	-0.12	0.91	0.09
B023E10S40	-2.18	0.55	-0.02
B023E10S45	0.11	-1.53	-0.15
B023E10S50	-1.64	0.95	0.04
B023E10S55	-0.67	3.03	0.28
B023E10S60	-0.78	0.38	0.01
B023E10S65	-0.84	3.60	0.33
B023E10S70	-1.16	0.57	0.02
B023E10S75	-0.73	1.41	0.12
B023E10S80	-2.63	2.78	0.19
B023E10S85	-0.95	0.78	0.05
B023E10S90	-2.59	-0.12	-0.10
B023E10S95	-0.01	-0.13	-0.01
B023E15S25	-0.67	1.26	0.10
B023E15S30	-0.78	0.80	0.05
B023E15S35	-1.01	0.66	0.03
B023E15S40	0.14	-0.13	-0.01
B023E15S45	-2.36	-0.92	-0.17
B023E15S50	-3.08	-0.87	-0.19
B023E15S55	-1.90	0.01	-0.06
B023E15S60	-2.33	-0.41	-0.12
B023E15S65	2.20	0.35	0.11
B023E15S70	1.19	-0.15	0.03
B023E15S75	2.53	4.35	0.52
B023E15S80	-1.45	1.30	0.08
B023E15S85	-2.71	0.72	-0.02
B023E15S90	-2.38	0.59	-0.02
B023E15S95	3.47	-0.18	0.10
B023E20S25	-0.70	0.05	-0.02
B023E20S30	0.01	0.52	0.05
B023E20S35	-3.12	0.51	-0.05
B023E20S40	-1.62	-0.72	-0.13
B023E20S45	1.43	1.28	0.18
B023E20S50	2.96	-0.34	0.06
B023E20S55	0.25	-0.62	-0.05
B023E20S60	-2.20	1.27	0.05
B023E20S65	-1.55	1.35	0.08
B023E20S70	1.58	4.89	0.54
B023E20S75	-2.58	0.00	-0.09
B023E20S80	-1.55	0.63	0.01
B023E20S85	-0.94	0.25	-0.01
B023E20S90	1.53	0.27	0.08
B023E20S95	-0.25	-0.29	-0.04
B023E25S30	0.23	0.22	0.03
B023E25S35	0.06	0.55	0.06
B023E25S40	-1.19	-0.11	-0.05
B023E25S45	-1.42	-0.03	-0.05
B023E25S50	-0.82	1.54	0.13
B023E25S55	-2.56	2.20	0.13
B023E25S60	-2.77	-0.54	-0.15
B023E25S65	-2.53	0.47	-0.04
B023E25S70	-0.73	0.57	0.03
B023E25S75	1.70	1.32	0.19
B023E25S80	1.38	0.77	0.12
B023E25S85	-2.72	-0.06	-0.10
B023E25S90	-0.15	-0.17	-0.02
B023E25S95	0.31	-0.23	-0.01
B023E30S30	-0.09	0.55	0.05
B023E30S35	-1.93	0.26	-0.04
B023E30S40	-2.87	5.33	0.44
B023E30S45	-3.76	-0.06	-0.13
B023E30S50	-2.08	5.03	0.43
B023E30S55	0.91	0.07	0.04
B023E30S60	-0.85	-0.38	-0.07
B023E30S65	-0.80	-1.34	-0.16
B023E30S70	0.14	3.11	0.32
B023E30S75	-2.64	1.04	0.02
B023E30S80	-0.30	0.33	0.02
B023E30S85	-2.54	-0.19	-0.10
B023E30S90	-1.21	0.29	-0.01
B023E30S95	1.18	0.44	0.08
B023E35S30	-2.22	-0.09	-0.08
B023E35S35	-2.59	0.00	-0.09
B023E35S40	-1.09	3.19	0.28
B023E35S45	-2.72	0.97	0.01
B023E35S50	-1.00	1.02	0.07
B023E35S55	-0.63	-0.08	-0.03
B023E35S60	-1.17	1.66	0.13
B023E35S65	-0.88	3.29	0.30
B023E35S70	0.03	5.02	0.50

Table 1
Pit 4 Excavation Bottom Samples

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B023E35S75	-0.82	0.49	0.02
B023E35S80	0.82	0.48	0.08
B023E35S85	-1.60	-0.21	-0.07
B023E35S90	-1.51	-0.38	-0.09
B023E35S95	-2.14	0.45	-0.03
B023E40S30	1.91	0.06	0.07
B023E40S35	-0.93	2.33	0.20
B023E40S40	-0.76	1.40	0.11
B023E40S45	-2.18	-0.74	-0.15
B023E40S50	-2.56	-0.66	-0.15
B023E40S55	-2.77	1.27	0.03
B023E40S60	0.61	1.48	0.17
B023E40S65	-1.89	-0.85	-0.15
B023E40S70	1.96	0.70	0.14
B023E40S75	1.49	1.01	0.15
B023E40S80	-1.51	0.24	-0.03
B023E40S85	-2.53	1.55	0.07
B023E40S90	-1.03	0.06	-0.03
B023E40S95	-0.24	-0.85	-0.09
B023E45S30	-1.40	-0.43	-0.09
B023E45S35	-1.24	3.09	0.27
B023E45S40	-1.37	0.14	-0.03
B023E45S45	-0.95	-0.50	-0.08
B023E45S50	-2.56	0.17	-0.07
B023E45S55	-2.11	-1.04	-0.17
B023E45S60	-1.40	-1.17	-0.16
B023E45S65	0.90	0.83	0.11
B023E45S70	0.84	1.78	0.21
B023E45S75	-0.90	0.56	0.03
B023E45S80	-0.09	0.32	0.03
B023E45S85	-1.83	0.45	-0.02
B023E45S90	-2.14	0.20	-0.05
B023E45S95	-0.99	-0.26	-0.06
B023E50S30	-2.69	0.68	-0.02
B023E50S35	0.60	5.59	0.58
B023E50S40	-0.14	-0.38	-0.04
B023E50S45	-0.87	-0.41	-0.07
B023E50S50	-2.65	-1.13	-0.20
B023E50S55	0.17	-1.23	-0.12
B023E50S60	-2.77	-0.08	-0.10
B023E50S65	-0.96	0.98	0.07
B023E50S70	-2.77	1.14	0.02
B023E50S75	-1.31	1.35	0.09
B023E50S80	1.37	0.33	0.08
B023E50S85	-2.26	0.64	-0.01
B023E50S90	-2.71	0.17	-0.07
B023E50S95	-2.67	-0.02	-0.09
B023E54S38	-1.77	3.82	0.32
B023E54S40	-1.49	5.96	0.55
B023E55S30	0.48	-0.42	-0.03
B023E55S35	-1.65	-0.84	-0.14
B023E55S40	-0.24	-0.53	-0.06
B023E55S45	-1.76	1.68	0.11
B023E55S50	-0.01	-1.06	-0.11
B023E55S55	-0.33	0.31	0.02
B023E55S60	-2.69	1.26	0.04
B023E55S65	-0.97	1.12	0.08
B023E55S70	-1.10	0.75	0.04
B023E55S75	-2.77	0.37	-0.06
B023E55S80	-2.60	0.35	-0.05
B023E55S85	-0.90	0.12	-0.02
B023E55S90	0.35	0.21	0.03
B023E55S95	-2.35	0.48	-0.03
B023E56S36	-2.52	0.45	-0.04
B023E58S34	-0.16	3.84	0.38
B023E60S30	-1.78	-0.46	-0.11
B023E60S35	0.29	-0.65	-0.05
B023E60S40	0.61	-0.64	-0.04
B023E60S45	-1.56	0.64	0.01
B023E60S50	-2.75	-0.22	-0.11
B023E60S55	1.38	-0.36	0.01
B023E60S60	1.21	1.06	0.15
B023E60S65	-2.32	0.81	0.00
B023E60S70	0.21	1.39	0.15
B023E60S75	-2.67	0.57	-0.03
B023E60S80	-0.87	0.28	0.00
B023E60S85	-1.90	0.46	-0.02
B023E60S90	3.34	1.05	0.22
B023E60S95	0.28	0.91	0.10
B023E65S35	0.60	0.89	0.11
B023E65S40	-1.45	0.59	0.01
B023E65S45	-0.23	-0.17	-0.02
B023E65S50	-0.20	0.28	0.02
B023E65S55	-1.42	0.59	0.01
B023E65S60	-2.67	0.56	-0.03
B023E65S65	-1.58	0.66	0.01
B023E65S70	0.90	0.63	0.09
B023E65S75	-1.29	-0.25	-0.07
B023E65S80	-1.55	0.30	-0.02
B023E65S85	-3.02	0.21	-0.08
B023E65S90	-3.26	0.86	-0.02
B023E65S95	-2.82	0.39	-0.06
B023E70S35	1.40	-0.47	0.00
B023E70S40	0.26	1.03	0.11
B023E70S45	0.25	0.55	0.06
B023E70S50	1.14	-0.43	-0.01
B023E70S55	-0.19	-0.49	-0.06
B023E70S60	-2.58	-0.12	-0.10
B023E70S65	-2.57	0.86	0.00
B023E70S70	0.45	0.29	0.04
B023E70S75	4.48	0.40	0.19
B023E70S80	-0.50	-0.15	-0.03
B023E70S85	2.34	1.67	0.25
B023E70S90	-3.32	1.07	0.00
B023E70S95	1.11	0.66	0.10
B023E75S35	-0.32	-0.22	-0.03
B023E75S40	-0.68	0.04	-0.02
B023E75S45	22.84	0.16	0.78
B023E75S50	-1.09	3.76	0.34
B023E75S55	-1.95	-0.05	-0.07
B023E75S60	-2.70	0.05	-0.08
B023E75S65	-1.63	-0.14	-0.07
B023E75S70	-1.17	0.80	0.04
B023E75S75	-0.98	-0.69	-0.10
B023E75S80	-2.52	0.40	-0.04
B023E75S85	-2.49	1.08	0.02
B023E75S90	0.74	1.30	0.16
B023E75S95	-2.72	0.20	-0.07
B023E80S30	-1.16	1.18	0.08
B023E80S35	-1.13	1.12	0.07
B023E80S40	-0.63	1.67	0.15
B023E80S45	-2.69	-0.59	-0.15
B023E80S50	-2.68	-0.29	-0.12
B023E80S55	1.75	0.07	0.07
B023E80S60	-0.59	0.49	0.03
B023E80S65	-2.72	-0.43	-0.13
B023E80S70	-2.64	2.64	0.18
B023E80S75	-1.58	-0.29	-0.08
B023E80S80	-1.71	0.19	-0.04
B023E80S85	1.43	1.90	0.24
B023E80S90	-2.07	0.42	-0.03
B023E80S95	1.87	1.46	0.21
B023E85S30	3.58	1.65	0.28
B023E85S35	-0.57	0.59	0.04
B023E85S40	2.10	2.06	0.28
B023E85S45	-2.55	-0.26	-0.11
B023E85S50	-0.80	0.57	0.03
B023E85S55	-0.92	-0.01	-0.03
B023E85S60	-0.08	0.16	0.01
B023E85S65	-2.63	0.31	-0.06
B023E85S70	0.80	0.67	0.09
B023E85S75	0.60	0.87	0.11
B023E85S80	-2.61	-0.23	-0.11
B023E85S85	-1.31	0.80	0.04
B023E85S90	-0.98	0.87	0.05
B023E85S95	0.38	0.74	0.09
B023E90S30	3.82	1.81	0.31
B023E90S35	-0.03	0.99	0.10
B023E90S40	-0.33	0.69	0.06
B023E90S45	1.86	-0.08	0.05
B023E90S50	1.95	1.04	0.17
B023E90S55	1.32	-0.19	0.03
B023E90S60	-2.13	0.89	0.02
B023E90S65	-0.71	0.28	0.00
B023E90S70	-1.32	-0.46	-0.09
B023E90S75	2.96	-0.21	0.08
B023E90S80	-1.75	0.69	0.01
B023E90S85	-2.71	0.76	-0.01
B023E90S90	-1.52	0.79	0.03
B023E90S95	-1.78	1.10	0.05
B023E95S30	0.22	1.46	0.15
B023E95S35	-2.63	2.19	0.13
B023E95S40	1.12	1.10	0.15
B023E95S45	0.81	0.27	0.05
B023E95S50	0.13	0.07	0.01
B023E95S55	0.22	-0.99	-0.09
B023E95S60	1.28	0.71	0.11
B023E95S65	-1.59	0.68	0.01
B023E95S70	-1.56	-0.58	-0.11
B023E95S75	-2.29	1.09	0.03
B023E95S80	0.54	0.81	0.10
B023E95S85	-0.12	0.14	0.01
B023E95S90	-3.21	0.82	-0.02
B023E95S95	0.68	0.17	0.04
B024E00S30	1.16	2.18	0.26
B024E00S35	0.99	2.30	0.26

Table 1
Pit 4 Excavation Bottom Samples

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B024E00S40	-0.05	1.31	0.13
B024E00S45	-1.87	0.41	-0.02
B024E00S50	-0.44	2.66	0.25
B024E00S55	0.32	-0.58	-0.05
B024E00S60	-1.32	0.05	-0.04
B024E00S65	-0.57	0.25	0.01
B024E00S85	0.04	1.44	0.15
B024E00S90	-3.06	1.81	0.08
B024E00S95	3.12	0.17	0.12
B024E05S30	1.22	1.93	0.23
B024E05S35	-1.54	3.77	0.33
B024E05S40	0.08	0.37	0.04
B024E05S45	0.38	1.47	0.16
B024E05S50	-0.78	2.10	0.18
B024E05S55	0.38	1.02	0.12
B024E05S60	-0.33	0.94	0.08
B024E05S65	-1.90	0.95	0.03
B024E05S70	-1.64	0.59	0.00
B024E05S85	5.50	0.59	0.24
B024E05S90	16.67	2.05	0.76
B024E05S95	1.29	1.11	0.15
B024E10S30	1.82	1.97	0.26
B024E10S35	-0.39	1.22	0.11
B024E10S40	-0.63	2.47	0.23
B024E10S45	0.05	0.63	0.07
B024E10S50	-1.89	0.26	-0.04
B024E10S55	2.17	1.96	0.27
B024E10S60	-1.52	0.19	-0.03
B024E10S65	2.45	-0.02	0.08
B024E10S70	0.67	1.63	0.18
B024E10S75	-1.51	1.39	0.09
B024E10S85	-3.19	0.09	-0.10
B024E10S90	-4.81	-0.01	-0.16
B024E10S95	-1.80	0.96	0.04
B024E15S30	-1.10	-0.24	-0.06
B024E15S35	-5.02	1.45	-0.02
B024E15S40	-1.87	1.74	0.11
B024E15S45	-0.35	0.51	0.04
B024E15S50	-1.53	0.89	0.04
B024E15S55	3.25	0.75	0.18
B024E15S60	1.17	1.44	0.18
B024E15S65	-0.83	1.25	0.10
B024E15S70	1.40	0.73	0.12
B024E15S75	-1.43	0.60	0.01

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B024E15S80	-0.53	0.47	0.03
B024E15S85	-2.13	-0.09	-0.08
B024E15S90	-0.36	0.87	0.08
B024E15S95	-2.10	-1.52	-0.22
B024E20S30	1.19	-0.30	0.01
B024E20S35	0.58	0.29	0.05
B024E20S40	1.89	0.44	0.11
B024E20S45	-1.91	-0.86	-0.15
B024E20S50	-0.98	1.04	0.07
B024E20S55	-1.47	2.23	0.17
B024E20S60	0.70	1.14	0.14
B024E20S65	-0.72	1.44	0.12
B024E20S70	-0.13	1.15	0.11
B024E20S75	2.55	2.22	0.31
B024E20S80	-0.31	0.57	0.05
B024E20S85	-0.29	-0.40	-0.05
B024E20S90	-0.46	1.26	0.11
B024E20S95	-4.04	-0.15	-0.15
B024E25S30	-2.62	1.54	0.07
B024E25S35	5.11	0.83	0.25
B024E25S40	0.84	-0.56	-0.03
B024E25S45	2.65	3.80	0.47
B024E25S50	4.85	1.39	0.30
B024E25S55	0.93	1.27	0.16
B024E25S60	0.18	1.79	0.18
B024E25S65	-2.42	0.96	0.02
B024E25S70	-0.40	1.78	0.16
B024E25S75	3.27	0.74	0.18
B024E25S80	-0.37	1.98	0.19
B024E25S85	1.44	-0.68	-0.02
B024E25S90	-0.31	-0.37	-0.05
B024E25S95	-3.29	0.53	-0.06
B024E30S30	0.14	0.77	0.08
B024E30S35	1.99	0.42	0.11
B024E30S40	-1.34	-0.86	-0.13
B024E30S45	-0.48	-0.57	-0.07
B024E30S50	-1.60	0.48	-0.01
B024E30S55	0.42	1.70	0.18
B024E30S60	-1.25	1.09	0.07
B024E30S65	-0.42	1.55	0.14
B024E30S70	-1.35	1.49	0.10
B024E30S75	0.50	3.06	0.32
B024E30S80	4.48	1.50	0.30
B024E30S85	-0.78	2.44	0.22

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B024E30S90	-0.47	-0.60	-0.08
B024E30S95	-1.47	-0.20	-0.07
B024E35S30	-2.63	2.13	0.13
B024E35S35	3.13	6.12	0.72
B024E35S40	-1.48	-0.43	-0.09
B024E35S45	-2.99	-0.97	-0.20
B024E35S50	-1.00	1.88	0.16
B024E35S55	0.12	0.61	0.06
B024E35S60	0.48	0.61	0.08
B024E35S65	1.63	1.30	0.18
B024E35S70	-1.16	1.09	0.07
B024E35S75	-1.93	1.48	0.08
B024E35S80	-3.67	0.92	-0.03
B024E35S85	1.44	1.50	0.20
B024E35S90	-1.53	1.71	0.12
B024E35S95	-1.71	0.81	0.02
B024E40S30	-3.43	0.43	-0.07
B024E40S35	3.33	7.74	0.88
B024E40S40	-3.58	-0.24	-0.14
B024E40S45	-4.83	0.07	-0.15
B024E40S50	-0.52	0.58	0.04
B024E40S55	-3.51	-0.05	-0.12
B024E40S60	4.11	1.49	0.29
B024E40S65	-1.01	0.51	0.02
B024E40S70	-2.61	0.53	-0.03
B024E40S75	-1.98	0.81	0.02
B024E40S80	-2.40	1.14	0.03
B024E40S85	-4.71	4.08	0.25
B024E40S90	-1.84	1.11	0.05
B024E40S95	0.67	1.67	0.19
B024E45S30	-3.72	0.91	-0.03
B024E45S35	2.66	0.14	0.10
B024E45S40	-1.50	0.71	0.02
B024E45S45	-1.59	-0.53	-0.11
B024E45S50	-2.28	-0.41	-0.12
B024E45S55	1.11	-0.62	-0.03
B024E45S60	-0.11	1.30	0.13
B024E45S65	4.08	1.32	0.27
B024E45S70	3.56	1.10	0.23
B024E45S75	-2.01	1.12	0.05
B024E45S80	-0.57	2.38	0.22
B024E45S85	-0.68	1.23	0.10
B024E45S90	1.11	1.52	0.19
B024E45S95	-1.15	0.68	0.03

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B024E50S30	-0.97	-0.58	-0.09
B024E50S35	-0.63	-0.70	-0.09
B024E50S40	0.65	-0.86	-0.06
B024E50S45	-5.02	0.74	-0.09
B024E50S50	-1.08	0.93	0.06
B024E50S55	0.70	0.70	0.09
B024E50S60	-1.29	0.77	0.03
B024E50S65	-3.89	2.38	0.11
B024E50S70	-4.67	1.66	0.01
B024E50S75	-1.46	1.90	0.14
B024E50S80	4.28	1.48	0.29
B024E50S85	-3.01	1.10	0.01
B024E50S90	-0.92	0.53	0.02
B024E50S95	-0.05	1.84	0.18
B024E55S30	-1.03	0.57	0.02
B024E55S35	-1.79	-0.92	-0.15
B024E55S40	-2.03	-1.07	-0.17
B024E55S45	-2.18	0.10	-0.06
B024E55S50	-1.09	0.85	0.05
B024E55S55	-2.10	0.09	-0.06
B024E55S60	0.32	0.90	0.10
B024E55S65	-3.96	2.26	0.09
B024E55S70	-0.09	1.38	0.14
B024E55S75	-2.46	1.09	0.03
B024E55S80	-2.97	2.39	0.14
B024E55S85	-3.57	1.70	0.05
B024E55S90	-1.03	3.17	0.28
B024E55S95	-0.19	2.07	0.20
B024E60S30	-0.86	0.22	-0.01
B024E60S35	0.39	1.27	0.14
B024E60S40	-1.93	-0.74	-0.14
B024E60S45	-0.67	1.67	0.14
B024E60S50	0.19	2.43	0.25
B024E60S55	-0.25	0.03	-0.01
B024E60S60	-0.61	1.13	0.09
B024E60S65	-0.38	0.47	0.03
B024E60S70	-1.42	1.53	0.11
B024E60S75	-2.26	0.57	-0.02
B024E60S80	-1.26	0.83	0.04
B024E60S85	-1.91	1.56	0.09
B024E60S90	-2.37	1.51	0.07
B024E60S95	0.68	0.90	0.11
B024E65S30	1.03	-0.47	-0.01
B024E65S35	-2.63	0.02	-0.09

Table 1
Pit 4 Excavation Bottom Samples

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B024E65S40	-0.37	-1.50	-0.16
B024E65S45	-4.43	0.34	-0.11
B024E65S50	-2.04	-1.06	-0.17
B024E65S55	0.03	1.28	0.13
B024E65S60	-0.79	1.24	0.10
B024E65S65	0.45	1.13	0.13
B024E65S70	-1.76	1.32	0.07
B024E65S75	0.69	1.07	0.13
B024E65S80	-2.16	0.85	0.01
B024E65S85	-2.21	1.03	0.03
B024E65S90	0.19	1.18	0.12
B024E65S95	3.17	0.96	0.20
B024E70S30	0.80	0.48	0.07
B024E70S35	-0.52	-0.73	-0.09
B024E70S40	-1.42	0.04	-0.04
B024E70S45	0.51	-0.05	0.01
B024E70S50	-1.96	0.31	-0.03
B024E70S55	0.23	0.89	0.10
B024E70S60	-4.18	-0.45	-0.18
B024E70S65	-1.72	0.01	-0.06
B024E70S70	-2.94	2.33	0.14
B024E70S75	0.12	0.96	0.10
B024E70S80	-2.90	1.33	0.04
B024E70S85	-3.03	1.31	0.03
B024E70S90	3.71	1.42	0.27
B024E70S95	-1.18	1.48	0.11
B024E75S30	-3.19	1.16	0.01
B024E75S35	-2.27	0.69	-0.01
B024E75S40	-2.88	-0.05	-0.10
B024E75S45	1.47	1.25	0.17
B024E75S50	-3.22	-0.63	-0.17
B024E75S55	0.16	1.14	0.12
B024E75S60	-4.62	1.41	-0.01
B024E75S65	-1.46	1.45	0.10
B024E75S70	-1.35	2.21	0.18
B024E75S75	-1.58	1.13	0.06
B024E75S80	-2.19	1.08	0.03
B024E75S85	-1.59	1.08	0.05
B024E75S90	0.95	4.41	0.47
B024E75S95	-2.49	0.77	-0.01
B034E20S00	2.72	0.41	0.13
B034E20S05	0.03	-1.06	-0.10
B034E25S00	-0.45	-0.31	-0.05
B034E25S05	-1.62	-1.05	-0.16

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B034E30S00	-0.78	1.18	0.09
B034E30S05	-1.79	-0.63	-0.12
B034E35S00	-2.38	0.16	-0.06
B034E35S05	0.11	0.05	0.01
B034E35S10	-0.50	1.16	0.10
B034E40S00	-0.10	-0.56	-0.06
B034E40S05	1.15	0.23	0.06
B034E40S10	-1.33	0.10	-0.03
B034E45S00	-2.19	1.22	0.05
B034E45S05	1.29	-0.48	0.00
B034E45S10	-5.53	-1.02	-0.29
B034E50S00	-1.46	-0.81	-0.13
B034E50S05	0.21	-0.94	-0.09
B034E50S10	-2.13	0.17	-0.05
B034E55S00	0.27	0.16	0.02
B034E55S05	-1.47	-1.16	-0.17
B034E55S10	-1.29	-0.38	-0.08
B034E60S00	0.94	1.25	0.16
B034E60S05	-3.26	-0.99	-0.21
B034E60S10	-0.93	0.02	-0.03
B034E65S00	-0.16	-0.04	-0.01
B034E65S05	-2.13	-0.07	-0.08
B034E65S10	-2.86	-0.84	-0.18
B034E70S00	1.79	0.88	0.15
B034E70S05	-0.20	-0.81	-0.09
B034E70S10	-1.33	-0.51	-0.10
B034E75S00	-0.05	-0.49	-0.05
B034E75S05	-4.03	-1.27	-0.26
B034E75S10	-2.19	-0.46	-0.12
B034E75S14	-1.41	-0.58	-0.10
B034E80S00	-2.35	0.62	-0.02
B034E80S05	-1.72	1.78	0.12
B034E80S10	-4.09	-0.37	-0.17
B034E80S15	-5.31	0.34	-0.14
B034E85S00	1.61	-0.40	0.01
B034E85S05	-1.40	1.64	0.12
B034E85S10	-0.26	1.12	0.10
B034E85S15	-2.86	-0.69	-0.16
B034E85S20	-1.48	-1.20	-0.17
B034E85S25	-0.13	-0.44	-0.05
B034E90S00	0.49	1.71	0.19
B034E90S05	-1.88	-0.31	-0.09
B034E90S10	-2.50	0.36	-0.05
B034E90S15	-0.86	-0.32	-0.06

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B034E90S20	1.48	-0.78	-0.03
B034E90S25	-1.44	-0.02	-0.05
B034E90S30	-1.54	-0.84	-0.14
B034E95S00	-2.23	1.47	0.07
B034E95S05	-1.39	1.08	0.06
B034E95S10	-0.48	-0.40	-0.06
B034E95S15	1.32	-0.20	0.02
B034E95S20	-0.27	-0.10	-0.02
B034E95S25	-2.22	-0.56	-0.13
B034E95S30	-1.87	-0.91	-0.15
B034E95S35	-1.54	-0.91	-0.14
B034E95S40	-0.56	-0.24	-0.04
B034E95S55	-3.98	-0.79	-0.21
B034E95S60	-1.30	0.65	0.02
B035E00S00	-1.60	0.58	0.00
B035E00S05	-1.49	-0.05	-0.05
B035E00S10	0.34	-0.40	-0.03
B035E00S15	0.39	0.13	0.03
B035E00S20	-1.97	-0.13	-0.08
B035E00S25	-2.45	-0.17	-0.10
B035E00S30	-1.20	0.12	-0.03
B035E00S35	-5.75	0.28	-0.16
B035E00S40	-2.88	-0.33	-0.13
B035E00S45	-1.70	-0.27	-0.08
B035E00S50	-0.08	1.03	0.10
B035E00S55	-1.35	0.52	0.01
B035E00S60	4.34	0.23	0.17
B035E00S65	-0.60	0.72	0.05
B035E05S00	-0.30	0.09	0.00
B035E05S05	0.26	-1.26	-0.12
B035E05S10	-1.70	-0.70	-0.13
B035E05S15	-0.56	0.38	0.02
B035E05S20	-1.63	-0.07	-0.06
B035E05S25	-0.62	-0.38	-0.06
B035E05S30	0.25	-0.28	-0.02
B035E05S35	-0.02	-0.38	-0.04
B035E05S40	-3.75	-0.50	-0.17
B035E05S45	-2.01	0.53	-0.01
B035E05S50	1.30	0.35	0.08
B035E05S55	1.47	0.66	0.12
B035E05S60	-0.34	0.43	0.03
B035E05S65	-2.46	0.51	-0.03
B035E10S00	-0.48	0.11	0.00
B035E10S05	-0.91	0.54	0.02

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B035E10S10	2.85	-0.14	0.08
B035E10S15	-0.61	0.91	0.07
B035E10S20	-0.28	0.97	0.09
B035E10S25	-1.02	-0.54	-0.09
B035E10S30	-3.23	0.09	-0.10
B035E10S35	-1.49	0.02	-0.05
B035E10S40	-1.03	-0.19	-0.05
B035E10S45	1.32	0.35	0.08
B035E10S50	-0.76	0.23	0.00
B035E10S55	-1.15	0.00	-0.04
B035E10S60	1.39	0.45	0.09
B035E10S65	-3.66	-0.16	-0.14
B035E15S00	-1.70	-0.26	-0.08
B035E15S05	-0.65	0.15	-0.01
B035E15S10	0.40	1.54	0.17
B035E15S15	1.53	2.20	0.27
B035E15S20	-4.34	0.75	-0.07
B035E15S25	-1.13	-0.49	-0.09
B035E15S30	-1.40	-0.37	-0.08
B035E15S35	1.10	-0.29	0.01
B035E15S40	0.25	-0.21	-0.01
B035E15S45	-0.50	0.10	-0.01
B035E15S50	-2.28	0.05	-0.07
B035E15S55	0.28	0.46	0.06
B035E15S60	-1.83	-0.06	-0.07
B035E15S65	-2.09	-0.62	-0.13
B035E15S70	0.73	0.80	0.10
B035E20S00	-2.74	0.49	-0.04
B035E20S05	0.38	-0.14	0.00
B035E20S10	-2.52	0.74	-0.01
B035E20S15	2.38	1.04	0.18
B035E20S20	2.29	0.41	0.12
B035E20S25	-6.89	0.04	-0.23
B035E20S30	-0.94	0.24	-0.01
B035E20S35	-1.37	0.00	-0.05
B035E20S40	-2.69	-0.21	-0.11
B035E20S45	-2.49	-0.38	-0.12
B035E20S50	-0.45	1.17	0.10
B035E20S55	-0.01	0.63	0.06
B035E20S60	-3.02	-0.19	-0.12
B035E20S65	3.00	-0.34	0.07
B035E20S70	0.22	0.35	0.04
B035E20S75	-1.39	0.21	-0.03
B035E20S80	-1.19	0.32	-0.01

Table 1
Pit 4 Excavation Bottom Samples

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B035E25S00	-0.24	1.94	0.19
B035E25S05	0.13	1.19	0.12
B035E25S10	0.67	0.89	0.11
B035E25S15	-1.32	0.71	0.03
B035E25S20	1.01	2.22	0.26
B035E25S25	-1.88	0.17	-0.05
B035E25S30	-4.24	0.04	-0.14
B035E25S35	-0.65	-0.34	-0.06
B035E25S40	1.77	0.09	0.07
B035E25S45	-0.52	-0.24	-0.04
B035E25S50	0.00	-0.16	-0.02
B035E25S55	1.76	0.43	0.10
B035E25S60	-1.55	-0.64	-0.12
B035E25S65	0.77	-0.12	0.01
B035E25S70	1.37	-0.60	-0.01
B035E25S75	-0.02	0.46	0.05
B035E25S80	-1.69	0.95	0.04
B035E25S85	-2.18	1.12	0.04
B035E30S00	5.70	0.07	0.20
B035E30S05	-0.21	-0.62	-0.07
B035E30S10	-0.14	-0.09	-0.01
B035E30S15	-2.66	1.10	0.02
B035E30S20	-2.70	0.73	-0.02
B035E30S25	-2.00	0.78	0.01
B035E30S30	-2.12	1.42	0.07
B035E30S35	-2.65	0.63	-0.03
B035E30S40	2.75	-0.34	0.06
B035E30S45	-1.59	1.55	0.10
B035E30S50	0.48	-0.09	0.01
B035E30S55	-1.95	0.32	-0.03
B035E30S60	0.52	0.14	0.03
B035E30S65	1.27	0.40	0.08
B035E30S70	-1.63	0.84	0.03
B035E30S75	1.93	0.36	0.10
B035E30S80	0.57	0.02	0.02
B035E30S85	-3.21	-0.29	-0.14
B035E30S90	0.21	0.69	0.08
B035E30S95	-2.80	0.43	-0.05
B035E35S00	-0.71	1.23	0.10
B035E35S05	-1.37	0.40	-0.01
B035E35S10	-0.62	-0.25	-0.05
B035E35S15	0.24	0.95	0.10
B035E35S20	1.66	1.08	0.16
B035E35S25	-0.05	0.47	0.05
B035E35S30	-1.62	1.40	0.09
B035E35S35	0.35	0.70	0.08
B035E35S40	-0.75	0.96	0.07
B035E35S45	-1.11	0.13	-0.02
B035E35S50	0.18	-0.40	-0.03
B035E35S55	0.07	0.04	0.01
B035E35S60	-0.44	-0.15	-0.03
B035E35S65	0.93	0.20	0.05
B035E35S70	-4.35	-0.25	-0.17
B035E35S75	-1.93	-0.68	-0.13
B035E35S80	-2.02	0.31	-0.04
B035E35S85	-1.74	0.64	0.01
B035E35S90	-5.45	0.37	-0.14
B035E35S95	-5.32	0.21	-0.16
B035E40S00	-2.77	-0.19	-0.11
B035E40S05	0.14	-0.39	-0.03
B035E40S10	-1.48	0.13	-0.04
B035E40S15	-2.14	-0.26	-0.10
B035E40S20	-0.92	0.20	-0.01
B035E40S25	-1.27	0.49	0.01
B035E40S30	-1.44	1.76	0.13
B035E40S35	1.36	1.44	0.19
B035E40S40	-3.45	-0.37	-0.15
B035E40S45	0.18	0.36	0.04
B035E40S50	-2.71	0.25	-0.07
B035E40S55	-1.31	-0.25	-0.07
B035E40S60	-3.53	-0.35	-0.15
B035E40S65	-0.98	0.21	-0.01
B035E40S70	-0.25	0.33	0.02
B035E40S75	0.51	-0.20	0.00
B035E40S80	-1.82	-0.14	-0.07
B035E40S85	-4.05	1.43	0.01
B035E40S90	-2.82	0.10	-0.08
B035E40S95	0.80	-0.01	0.03
B035E45S00	-2.57	0.53	-0.03
B035E45S05	-1.08	-0.50	-0.09
B035E45S10	-0.75	-0.14	-0.04
B035E45S15	-2.19	-0.03	-0.08
B035E45S20	-4.14	0.15	-0.12
B035E45S25	1.25	0.31	0.07
B035E45S30	-5.11	0.04	-0.17
B035E45S35	-1.82	0.50	-0.01
B035E45S40	-0.89	0.25	0.00
B035E45S45	0.62	0.03	0.02
B035E45S50	-1.35	-0.29	-0.07
B035E45S55	1.81	0.81	0.14
B035E45S60	-0.69	0.37	0.01
B035E45S65	-0.30	2.20	0.21
B035E45S70	0.22	0.08	0.01
B035E45S75	-0.58	-0.11	-0.03
B035E45S80	-1.38	0.76	0.03
B035E45S85	-2.82	0.38	-0.06
B035E45S90	3.09	0.71	0.17
B035E45S95	0.71	0.54	0.08
B035E50S00	-1.95	0.18	-0.05
B035E50S05	-0.74	0.30	0.01
B035E50S10	-2.61	0.32	-0.06
B035E50S15	-1.57	1.58	0.11
B035E50S20	2.42	0.08	0.09
B035E50S25	1.10	-0.14	0.02
B035E50S30	-1.53	0.17	-0.03
B035E50S35	-4.67	0.07	-0.15
B035E50S40	-0.99	0.20	-0.01
B035E50S45	-2.59	0.10	-0.08
B035E50S50	-2.59	1.89	0.10
B035E50S55	1.64	-0.09	0.05
B035E50S60	-2.06	-0.35	-0.10
B035E50S65	4.97	0.10	0.18
B035E50S70	-1.33	0.46	0.00
B035E50S75	-4.12	0.19	-0.12
B035E50S80	-2.81	1.65	0.07
B035E50S85	-5.37	0.58	-0.12
B035E50S90	-4.26	0.25	-0.12
B035E50S95	-0.57	0.28	0.01
B035E55S00	-2.31	0.33	-0.04
B035E55S05	1.84	-0.20	0.04
B035E55S10	3.46	1.19	0.23
B035E55S15	-1.03	0.72	0.04
B035E55S20	-2.94	1.19	0.02
B035E55S25	-1.11	0.25	-0.01
B035E55S35	1.08	1.35	0.17
B035E55S40	-5.18	-1.62	-0.33
B035E55S45	-1.70	0.57	0.00
B035E55S50	-0.18	0.30	0.02
B035E55S55	-0.55	1.50	0.13
B035E55S60	-1.87	0.34	-0.03
B035E55S65	-0.97	-0.74	-0.11
B035E55S70	-1.20	-0.37	-0.08
B035E55S75	-0.79	-0.36	-0.06
B035E55S80	3.30	0.64	0.17
B035E55S85	1.70	0.51	0.11
B035E55S90	-0.04	0.29	0.03
B035E55S95	-2.57	0.17	-0.07
B035E60S00	0.42	-0.48	-0.03
B035E60S05	4.47	1.11	0.26
B035E60S10	-0.57	0.37	0.02
B035E60S15	-0.58	0.48	0.03
B035E60S20	0.33	-0.34	-0.02
B035E60S25	1.08	-0.47	-0.01
B035E60S30	1.00	-0.21	0.01
B035E60S35	2.99	0.46	0.15
B035E60S40	-1.93	0.49	-0.02
B035E60S45	0.59	1.55	0.17
B035E60S50	-1.41	-0.14	-0.06
B035E60S55	-1.49	1.06	0.06
B035E60S60	-1.96	-0.07	-0.07
B035E60S65	-0.36	-0.19	-0.03
B035E60S70	2.56	2.10	0.30
B035E60S75	-0.61	-0.20	-0.04
B035E60S80	-5.38	-0.32	-0.21
B035E60S85	-2.08	0.30	-0.04
B035E60S90	-0.15	1.04	0.10
B035E60S95	-1.93	0.37	-0.03
B035E65S00	1.12	1.09	0.15
B035E65S05	1.61	-0.30	0.02
B035E65S10	1.55	0.60	0.11
B035E65S15	-2.42	-0.27	-0.11
B035E65S20	0.01	0.26	0.03
B035E65S25	-0.60	-0.31	-0.05
B035E65S30	0.01	-0.05	0.00
B035E65S35	-0.23	-0.13	-0.02
B035E65S40	-1.57	0.28	-0.02
B035E65S45	2.79	1.11	0.20
B035E65S50	-1.09	0.67	0.03
B035E65S55	0.45	1.05	0.12
B035E65S60	3.18	1.25	0.23
B035E65S65	2.96	1.14	0.21
B035E65S70	4.01	1.72	0.31
B035E65S75	-1.13	1.08	0.07
B035E65S80	-0.65	-0.06	-0.03
B035E65S85	-1.98	0.65	0.00
B035E65S90	-3.34	0.59	-0.05

Table 1
Pit 4 Excavation Bottom Samples

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B035E65S95	-0.80	0.17	-0.01
B035E70S00	0.27	0.48	0.06
B035E70S05	1.27	0.54	0.10
B035E70S10	-3.14	1.25	0.02
B035E70S15	0.14	0.29	0.03
B035E70S20	-0.08	-0.89	-0.09
B035E70S25	-4.42	-0.29	-0.18
B035E70S30	-2.25	-0.29	-0.10
B035E70S35	1.87	0.03	0.07
B035E70S40	0.52	0.52	0.07
B035E70S45	-5.58	0.69	-0.12
B035E70S50	0.74	0.67	0.09
B035E70S55	0.01	0.90	0.09
B035E70S60	-3.36	0.92	-0.02
B035E70S65	0.02	-1.18	-0.12
B035E70S70	-2.82	1.06	0.01
B035E70S75	-1.92	1.34	0.07
B035E70S80	0.70	0.74	0.10
B035E70S85	-2.63	0.38	-0.05
B035E70S90	0.31	1.17	0.13
B035E70S95	0.66	0.87	0.11
B035E75S00	-0.24	0.61	0.05
B035E75S05	0.78	0.37	0.06
B035E75S10	-0.65	0.26	0.00
B035E75S15	0.91	-0.30	0.00
B035E75S20	-3.57	0.48	-0.07
B035E75S25	-3.07	0.95	-0.01
B035E75S30	0.17	0.18	0.02
B035E75S35	3.05	0.06	0.11
B035E75S40	0.36	-0.62	-0.05
B035E75S45	-1.70	-0.70	-0.13
B035E75S50	0.12	0.38	0.04
B035E75S55	0.56	0.96	0.11
B035E75S60	0.29	1.01	0.11
B035E75S65	-1.01	1.64	0.13
B035E75S70	1.76	0.67	0.13
B035E75S75	-1.69	0.19	-0.04
B035E75S80	-2.43	0.08	-0.07
B035E75S85	-1.74	0.34	-0.02
B035E75S90	-3.01	0.79	-0.02
B035E75S95	1.35	0.85	0.13
B035E80S00	-1.47	0.56	0.01
B035E80S05	-0.22	0.43	0.04
B035E80S10	-1.49	-0.11	-0.06
B035E80S15	-1.73	0.69	0.01
B035E80S20	-3.28	0.74	-0.04
B035E80S25	-0.73	0.29	0.00
B035E80S30	-1.64	1.07	0.05
B035E80S35	-0.44	0.36	0.02
B035E80S40	-0.48	0.62	0.05
B035E80S45	2.65	0.97	0.19
B035E80S50	-2.39	0.43	-0.04
B035E80S55	-2.50	0.04	-0.08
B035E80S60	-0.51	1.55	0.14
B035E80S65	1.71	-0.26	0.03
B035E80S70	-1.68	1.11	0.06
B035E80S75	-1.99	0.39	-0.03
B035E80S80	-1.68	0.64	0.01
B035E80S85	-1.55	0.24	-0.03
B035E80S90	-1.35	0.26	-0.02
B035E80S95	-2.19	0.83	0.01
B035E85S00	0.91	0.20	0.05
B035E85S05	0.41	-0.28	-0.01
B035E85S10	-3.14	-2.39	-0.34
B035E85S15	0.54	0.10	0.03
B035E85S20	-1.67	-0.08	-0.06
B035E85S25	-2.96	0.98	0.00
B035E85S30	0.53	0.84	0.10
B035E85S35	-4.71	1.03	-0.05
B035E85S40	-2.95	-0.31	-0.13
B035E85S45	-1.72	0.72	0.01
B035E85S50	-2.32	0.66	-0.01
B035E85S55	-0.69	-0.45	-0.07
B035E85S60	-3.14	-0.11	-0.12
B035E85S65	-1.37	0.38	-0.01
B035E85S70	-0.05	1.37	0.13
B035E85S75	-2.06	0.69	0.00
B035E85S80	-4.03	-0.09	-0.14
B035E85S85	0.11	1.23	0.13
B035E85S90	-2.02	0.94	0.03
B035E85S95	1.26	0.52	0.09
B035E90S00	0.66	0.47	0.07
B035E90S05	0.63	1.12	0.13
B035E90S10	-0.59	0.59	0.04
B035E90S15	-5.60	-0.13	-0.20
B035E90S20	-1.74	-0.44	-0.10
B035E90S25	-2.65	-0.19	-0.11
B035E90S30	-3.25	0.74	-0.03
B035E90S35	-1.30	0.31	-0.01
B035E90S40	-0.62	0.74	0.05
B035E90S45	-4.37	-0.18	-0.16
B035E90S50	3.52	0.34	0.15
B035E90S55	-0.09	-0.76	-0.08
B035E90S60	-0.75	-0.20	-0.05
B035E90S65	-1.05	0.78	0.04
B035E90S70	-0.31	0.61	0.05
B035E90S75	-4.77	1.66	0.01
B035E90S80	-0.34	1.28	0.12
B035E90S85	-0.72	1.11	0.09
B035E90S90	-0.41	0.47	0.03
B035E90S95	0.17	0.65	0.07
B035E95S00	0.19	1.23	0.13
B035E95S05	-1.09	0.99	0.06
B035E95S10	-2.19	1.04	0.03
B035E95S15	-0.84	-0.36	-0.06
B035E95S20	-0.21	-0.11	-0.02
B035E95S25	-1.91	-0.56	-0.12
B035E95S30	-1.47	-0.93	-0.14
B035E95S35	-1.16	0.54	0.02
B035E95S40	-1.14	-0.74	-0.11
B035E95S45	-3.44	0.66	-0.05
B035E95S50	-1.75	0.17	-0.04
B035E95S55	-0.02	-0.41	-0.04
B035E95S60	1.35	1.55	0.20
B035E95S65	-0.52	0.07	-0.01
B035E95S70	1.29	0.39	0.08
B035E95S75	-6.22	1.51	-0.06
B035E95S80	-2.05	-0.11	-0.08
B035E95S85	-0.73	0.61	0.04
B035E95S90	-1.89	0.20	-0.04
B035E95S95	0.20	1.01	0.11
B036E00S00	-1.61	1.30	0.08
B036E00S05	-0.31	1.06	0.10
B036E00S10	-6.67	-0.82	-0.30
B036E00S15	-1.25	1.37	0.10
B036E00S20	-3.12	0.14	-0.09
B036E00S25	-4.11	-0.89	-0.23
B036E00S30	-2.87	-0.19	-0.11
B036E00S35	-0.94	0.99	0.07
B036E00S40	-1.88	-1.14	-0.18
B036E00S45	-2.34	-0.31	-0.11
B036E00S50	1.85	0.45	0.11
B036E00S55	-2.80	0.08	-0.09
B036E00S60	-0.98	-0.01	-0.03
B036E00S65	0.77	0.61	0.09
B036E00S70	-2.87	0.23	-0.07
B036E00S75	-2.11	0.67	0.00
B036E00S80	-2.05	0.65	0.00
B036E00S85	-3.46	-0.04	-0.12
B036E00S90	0.66	-0.02	0.02
B036E00S95	2.47	0.32	0.11
B036E05S00	-2.77	-1.92	-0.28
B036E05S05	-0.63	0.48	0.03
B036E05S10	-4.90	-1.36	-0.30
B036E05S15	-3.68	-1.32	-0.25
B036E05S20	-2.63	1.16	0.03
B036E05S25	-0.10	0.33	0.03
B036E05S30	-1.61	2.10	0.16
B036E05S35	-2.71	-0.46	-0.14
B036E05S40	-3.88	-0.77	-0.21
B036E05S45	-2.00	-0.51	-0.12
B036E05S50	-4.06	-0.81	-0.22
B036E05S55	0.13	0.03	0.01
B036E05S60	-0.94	-1.05	-0.14
B036E05S65	-1.86	0.23	-0.04
B036E05S70	-1.97	0.68	0.00
B036E05S75	-2.15	-0.45	-0.12
B036E05S80	-3.68	0.89	-0.03
B036E05S85	-1.90	1.79	0.12
B036E05S90	-2.73	-1.58	-0.25
B036E05S95	1.14	0.20	0.06
B036E10S00	-2.77	-1.92	-0.28
B036E10S05	-2.77	-1.92	-0.28
B036E10S10	-1.81	0.20	-0.04
B036E10S15	4.56	2.34	0.39
B036E10S20	-1.21	-0.85	-0.13
B036E10S25	2.99	2.61	0.36
B036E10S30	-4.94	0.17	-0.15
B036E10S35	-2.04	1.31	0.06
B036E10S40	-0.29	-1.04	-0.11
B036E10S45	-0.34	-0.55	-0.07
B036E10S50	-0.93	1.05	0.07
B036E10S55	-4.16	-0.16	-0.15
B036E10S60	-4.13	-0.27	-0.16
B036E10S65	-0.69	-0.35	-0.06
B036E10S70	-3.65	0.57	-0.06

Table 1
Pit 4 Excavation Bottom Samples

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B036E10S75	-2.41	-0.71	-0.15
B036E10S80	-0.02	1.05	0.10
B036E10S85	-2.40	0.66	-0.01
B036E10S90	-1.24	0.26	-0.02
B036E10S95	1.79	0.67	0.13
B036E15S00	-3.20	-1.30	-0.24
B036E15S05	0.34	-0.56	-0.04
B036E15S10	-2.07	-0.57	-0.13
B036E15S15	-1.31	-0.14	-0.06
B036E15S20	-0.84	0.06	-0.02
B036E15S25	0.91	2.08	0.24
B036E15S30	-1.05	1.06	0.07
B036E15S35	-2.68	-0.57	-0.15
B036E15S40	-4.46	-0.79	-0.23
B036E15S45	-1.02	-0.93	-0.13
B036E15S50	-0.94	-0.67	-0.10
B036E15S55	-0.11	-1.45	-0.15
B036E15S60	0.02	0.53	0.05
B036E15S65	-5.03	0.42	-0.13
B036E15S70	-3.29	0.57	-0.05
B036E15S75	-2.37	0.39	-0.04
B036E15S80	-2.56	0.19	-0.07
B036E15S85	-0.66	0.43	0.02
B036E15S90	0.15	1.34	0.14
B036E15S95	-1.12	0.66	0.03
B036E20S00	-0.14	1.19	0.11
B036E20S05	-1.16	0.52	0.01
B036E20S10	-4.38	1.16	-0.03
B036E20S15	-1.34	1.79	0.13
B036E20S20	-1.72	2.51	0.19
B036E20S25	0.84	0.31	0.06
B036E20S30	-5.15	-2.00	-0.37
B036E20S35	-0.14	0.20	0.02
B036E20S40	-2.61	1.69	0.08
B036E20S45	-0.54	1.65	0.15
B036E20S50	-2.79	2.30	0.14
B036E20S55	-1.18	-0.42	-0.08
B036E20S60	-1.95	0.70	0.01
B036E20S65	-2.65	0.06	-0.08
B036E20S70	0.53	-0.07	0.01
B036E20S75	-2.25	1.00	0.03
B036E20S80	3.71	0.83	0.21
B036E20S85	3.46	0.70	0.19
B036E20S90	-0.64	0.95	0.07
B036E20S95	3.94	0.93	0.22
B036E25S00	0.23	0.03	0.01
B036E25S05	-0.84	1.01	0.07
B036E25S10	-0.94	1.46	0.11
B036E25S15	-3.68	-0.55	-0.18
B036E25S20	-1.12	0.84	0.05
B036E25S25	-2.32	1.69	0.09
B036E25S30	-1.12	-0.46	-0.08
B036E25S35	-3.23	-0.49	-0.16
B036E25S40	-0.79	1.79	0.15
B036E25S45	-0.57	0.81	0.06
B036E25S50	-1.77	1.26	0.07
B036E25S55	-3.29	-0.35	-0.14
B036E25S60	-1.57	0.72	0.02
B036E25S65	-1.55	0.96	0.04
B036E25S70	0.52	-0.45	-0.03
B036E25S75	0.93	1.75	0.21
B036E25S80	1.84	0.32	0.09
B036E25S85	2.93	0.79	0.18
B036E25S90	2.54	0.55	0.14
B036E25S95	-1.13	0.07	-0.03
B036E30S00	-0.81	0.35	0.01
B036E30S05	-3.13	1.28	0.02
B036E30S10	-1.02	0.03	-0.03
B036E30S15	-1.50	-0.36	-0.09
B036E30S20	-1.97	1.11	0.05
B036E30S25	-2.71	1.10	0.02
B036E30S30	1.80	0.71	0.13
B036E30S35	-1.05	-0.01	-0.04
B036E30S40	-2.52	1.01	0.02
B036E30S45	-1.63	-0.92	-0.15
B036E30S50	-2.92	0.33	-0.06
B036E30S55	-1.89	0.63	0.00
B036E30S60	0.41	-1.06	-0.09
B036E30S65	-1.72	0.45	-0.01
B036E30S70	-0.59	0.88	0.07
B036E30S75	2.35	0.57	0.14
B036E30S80	-0.86	0.77	0.05
B036E30S85	2.53	0.14	0.10
B036E30S90	0.99	-0.37	0.00
B036E30S95	-2.56	-0.17	-0.10
B036E35S00	2.49	0.43	0.13
B036E35S05	-0.74	0.93	0.07
B036E35S10	-0.01	-0.13	-0.01
B036E35S15	-0.02	0.15	0.01
B036E35S20	1.35	1.27	0.17
B036E35S25	1.42	1.09	0.16
B036E35S30	-2.22	-1.57	-0.23
B036E35S35	1.60	1.16	0.17
B036E35S40	0.39	1.02	0.12
B036E35S45	-1.59	-0.13	-0.07
B036E35S50	-0.86	0.69	0.04
B036E35S55	-2.73	0.22	-0.07
B036E35S60	-0.14	0.18	0.01
B036E35S65	2.55	0.30	0.12
B036E35S70	0.36	0.73	0.08
B036E35S75	-1.58	0.49	0.00
B036E35S80	-0.46	0.42	0.03
B036E35S85	-2.14	0.17	-0.05
B036E35S90	-2.77	0.32	-0.06
B036E35S95	-2.77	-0.05	-0.10
B036E40S00	-2.28	1.22	0.05
B036E40S05	0.04	0.64	0.07
B036E40S10	-2.09	0.44	-0.03
B036E40S15	-1.30	-0.06	-0.05
B036E40S20	-0.41	-0.26	-0.04
B036E40S25	-0.55	0.69	0.05
B036E40S30	-0.47	1.70	0.15
B036E40S35	-3.82	0.67	-0.06
B036E40S40	-2.92	0.89	-0.01
B036E40S45	-0.89	2.02	0.17
B036E40S50	-0.90	0.39	0.01
B036E40S55	-0.85	0.76	0.05
B036E40S60	-0.94	1.15	0.08
B036E40S65	-0.06	0.84	0.08
B036E40S70	1.53	0.85	0.14
B036E40S75	-2.23	-0.12	-0.09
B036E40S80	-2.56	0.18	-0.07
B036E40S85	-2.72	0.09	-0.08
B036E40S90	0.34	0.49	0.06
B036E40S95	-2.71	0.23	-0.07
B036E45S00	0.39	0.80	0.09
B036E45S05	-0.54	-0.12	-0.03
B036E45S10	-0.72	-0.17	-0.04
B036E45S15	-0.42	0.65	0.05
B036E45S20	-2.00	2.37	0.17
B036E45S25	2.75	-0.82	0.01
B036E45S30	-3.83	0.35	-0.09
B036E45S35	-1.70	0.72	0.02
B036E45S40	-2.11	0.20	-0.05
B036E45S45	-1.72	0.01	-0.06
B036E45S50	-2.17	0.01	-0.07
B036E45S55	-2.30	0.73	0.00
B036E45S60	-0.93	0.12	-0.02
B036E45S65	2.23	0.84	0.16
B036E45S70	0.02	0.88	0.09
B036E45S75	0.90	-0.66	-0.04
B036E45S80	-1.01	-0.29	-0.06
B036E45S85	-1.27	0.13	-0.03
B036E45S90	-0.43	-0.35	-0.05
B036E45S95	-0.62	0.13	-0.01
B036E50S00	-0.80	1.81	0.15
B036E50S05	0.04	0.98	0.10
B036E50S10	-0.91	0.63	0.03
B036E50S15	2.07	0.31	0.10
B036E50S20	-2.74	0.41	-0.05
B036E50S25	-3.30	0.89	-0.02
B036E50S30	-1.95	1.17	0.05
B036E50S35	-2.40	0.73	-0.01
B036E50S40	-0.96	0.45	0.01
B036E50S45	-3.58	0.45	-0.07
B036E50S50	1.12	0.70	0.11
B036E50S55	-0.39	0.01	-0.01
B036E50S60	1.05	0.38	0.07
B036E50S65	-3.02	0.93	-0.01
B036E50S70	1.94	-0.36	0.03
B036E50S75	0.61	0.27	0.05
B036E50S80	-0.30	-0.60	-0.07
B036E50S85	1.03	-0.44	-0.01
B036E50S90	-1.39	0.31	-0.02
B036E50S95	-0.73	-0.24	-0.05
B036E55S00	-1.76	0.46	-0.01
B036E55S05	-2.56	1.90	0.11
B036E55S10	-0.83	1.67	0.14
B036E55S15	-3.09	0.59	-0.04
B036E55S20	0.27	-0.04	0.01
B036E55S25	-1.30	1.27	0.08
B036E55S30	-0.26	0.75	0.07
B036E55S35	-3.26	0.71	-0.04
B036E55S40	2.16	0.59	0.13
B036E55S45	1.84	0.11	0.07
B036E55S50	-1.73	0.58	0.00

Table 1
Pit 4 Excavation Bottom Samples

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B036E55S55	-0.89	-0.17	-0.05
B036E55S60	-2.08	0.45	-0.02
B036E55S65	-0.30	0.83	0.07
B036E55S70	-2.67	0.56	-0.03
B036E55S75	-1.13	-0.27	-0.07
B036E55S80	-0.15	0.37	0.03
B036E55S85	-0.27	0.37	0.03
B036E55S90	-1.86	0.40	-0.02
B036E55S95	-2.64	-0.08	-0.10
B036E60S00	-0.37	0.53	0.04
B036E60S05	2.14	0.89	0.16
B036E60S10	2.73	1.15	0.21
B036E60S15	-2.87	0.64	-0.03
B036E60S20	-0.99	1.32	0.10
B036E60S25	0.25	0.85	0.09
B036E60S30	-0.59	-0.17	-0.04
B036E60S35	-0.91	0.71	0.04
B036E60S40	0.54	0.09	0.03
B036E60S45	-0.01	0.02	0.00
B036E60S50	-0.99	0.36	0.00
B036E60S55	-1.42	0.76	0.03
B036E60S60	-2.93	0.75	-0.02
B036E60S65	0.61	0.19	0.04
B036E60S70	-1.04	0.50	0.02
B036E60S75	-2.24	-0.09	-0.08
B036E60S80	-2.71	0.25	-0.07
B036E60S85	-2.07	-0.42	-0.11
B036E60S90	-2.77	0.13	-0.08
B036E60S95	-1.65	0.35	-0.02
B036E65S00	1.22	1.64	0.20
B036E65S05	-0.31	1.53	0.14
B036E65S10	0.87	1.96	0.23
B036E65S15	-2.66	0.24	-0.06
B036E65S20	-2.08	0.59	-0.01
B036E65S25	0.23	0.25	0.03
B036E65S30	-0.19	0.49	0.04
B036E65S35	-2.07	-0.18	-0.09
B036E65S40	-1.23	0.84	0.04
B036E65S45	0.20	0.64	0.07
B036E65S50	-1.89	-0.04	-0.07
B036E65S55	-1.18	0.96	0.06
B036E65S60	-0.17	0.45	0.04
B036E65S65	-1.99	0.48	-0.02
B036E65S70	-2.61	0.05	-0.08

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B036E65S75	-1.70	-0.31	-0.09
B036E65S80	-2.36	0.13	-0.07
B036E65S85	-2.21	-0.31	-0.10
B036E65S90	-1.27	1.00	0.06
B036E65S95	-2.10	-0.18	-0.09
B036E70S00	-3.35	2.20	0.11
B036E70S05	2.48	1.10	0.19
B036E70S10	4.91	2.29	0.39
B036E70S15	4.87	1.03	0.27
B036E70S20	-3.63	0.16	-0.10
B036E70S25	0.38	0.91	0.10
B036E70S30	-0.51	0.32	0.01
B036E70S35	-1.91	1.07	0.04
B036E70S40	-3.39	0.94	-0.02
B036E70S45	-2.73	0.61	-0.03
B036E70S50	-4.27	-0.07	-0.15
B036E70S55	-0.62	0.48	0.03
B036E70S60	-1.81	0.69	0.01
B036E70S65	-2.10	0.42	-0.03
B036E70S70	0.45	-0.01	0.01
B036E70S75	-1.77	-0.02	-0.06
B036E70S80	-2.77	-0.07	-0.10
B036E70S85	0.45	0.08	0.02
B036E70S90	-0.58	0.11	-0.01
B036E70S95	-2.54	0.33	-0.05
B036E75S00	2.07	1.20	0.19
B036E75S05	-2.48	0.48	-0.03
B036E75S10	-3.71	0.54	-0.07
B036E75S15	-1.18	0.20	-0.02
B036E75S20	2.95	0.37	0.13
B036E75S25	-2.25	0.39	-0.04
B036E75S30	1.84	0.58	0.12
B036E75S35	-3.39	0.53	-0.06
B036E75S40	-1.31	0.90	0.05
B036E75S45	-1.41	0.36	-0.01
B036E75S50	2.51	1.40	0.22
B036E75S55	2.63	-0.22	0.07
B036E75S60	-1.69	0.36	-0.02
B036E75S65	-1.19	0.16	-0.02
B036E75S70	-1.11	0.01	-0.04
B036E75S75	-2.14	0.30	-0.04
B036E75S80	-0.73	0.32	0.01
B036E75S85	0.72	0.33	0.06
B036E75S90	-1.71	-0.32	-0.09

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B036E75S95	-1.90	0.28	-0.04
B036E80S00	-0.17	6.39	0.63
B036E80S05	2.63	0.69	0.16
B036E80S10	-1.67	1.64	0.11
B036E80S15	-0.80	1.35	0.11
B036E80S20	-3.15	0.58	-0.05
B036E80S25	4.34	0.67	0.21
B036E80S30	0.42	0.58	0.07
B036E80S35	3.11	1.13	0.22
B036E80S40	1.60	1.19	0.17
B036E80S45	1.44	0.79	0.13
B036E80S50	2.55	2.01	0.29
B036E80S55	0.13	0.62	0.07
B036E80S60	-1.74	-0.06	-0.06
B036E80S65	-2.50	0.45	-0.04
B036E80S70	-2.69	0.05	-0.08
B036E80S75	-0.30	0.28	0.02
B036E80S80	-1.02	0.21	-0.01
B036E80S85	-0.35	-0.04	-0.02
B036E80S90	-1.46	0.54	0.01
B036E80S95	-1.91	-0.13	-0.08
B036E85S00	-0.14	0.66	0.06
B036E85S05	-0.66	1.39	0.12
B036E85S10	3.32	1.14	0.22
B036E85S15	3.57	1.10	0.23
B036E85S20	-2.32	0.86	0.01
B036E85S25	1.91	1.31	0.19
B036E85S30	-0.61	1.14	0.09
B036E85S35	-0.44	0.36	0.02
B036E85S40	-1.43	1.09	0.06
B036E85S45	-3.37	0.38	-0.07
B036E85S50	-2.26	0.50	-0.03
B036E85S55	-3.85	-0.27	-0.16
B036E85S60	-0.79	0.60	0.03
B036E90S00	-1.29	0.88	0.04
B036E90S05	1.55	1.12	0.16
B036E90S10	-1.48	1.02	0.05
B036E90S15	-1.48	0.64	0.01
B036E90S20	-0.04	1.22	0.12
B036E90S25	-2.03	0.91	0.02
B036E90S30	-1.13	0.09	-0.03
B036E90S35	-1.93	1.04	0.04
B036E90S40	1.49	0.29	0.08
B036E90S45	-2.16	0.84	0.01

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B036E90S50	-5.72	0.91	-0.10
B036E90S55	-3.48	-0.08	-0.12
B036E90S60	0.40	1.55	0.17
B047E35S00	-3.95	0.70	-0.06
B047E35S05	-2.20	-0.16	-0.09
B047E40S00	-1.68	1.07	0.05
B047E40S05	1.75	0.80	0.14
B047E40S10	0.63	0.76	0.10
B047E45S00	2.32	0.66	0.14
B047E45S05	-2.49	0.68	-0.02
B047E45S10	0.76	0.50	0.08
B047E45S15	-0.18	0.63	0.06
B047E45S20	2.43	0.95	0.18
B047E50S00	2.86	1.09	0.20
B047E50S05	-2.38	0.68	-0.01
B047E50S10	-2.67	0.80	-0.01
B047E50S15	1.08	0.21	0.06
B047E50S20	1.76	0.59	0.12
B047E50S25	2.83	1.02	0.20
B047E50S30	-2.09	1.04	0.03
B047E55S00	1.25	0.39	0.08
B047E55S05	0.95	0.35	0.07
B047E55S10	2.45	-0.36	0.05
B047E55S15	1.84	0.16	0.08
B047E55S20	1.48	0.35	0.08
B047E55S25	-1.50	0.75	0.03
B047E55S30	1.98	0.23	0.09
B047E55S35	-1.12	-0.12	-0.05
B047E60S00	0.38	0.94	0.11
B047E60S05	-1.91	0.62	0.00
B047E60S10	-1.53	0.15	-0.04
B047E60S15	-3.17	0.26	-0.08
B047E60S20	-2.53	0.11	-0.07
B047E60S25	-1.69	0.19	-0.04
B047E60S30	-1.33	0.20	-0.02
B047E60S35	0.25	0.00	0.01
B047E65S00	-1.52	1.24	0.07
B047E65S05	-0.12	-0.15	-0.02
B047E65S10	-2.36	-0.06	-0.09
B047E65S15	-0.31	0.29	0.02
B047E65S20	1.18	0.01	0.04
B047E65S25	-1.32	0.35	-0.01
B047E65S30	-2.65	0.31	-0.06
B047E65S35	-2.20	0.37	-0.04

Table 1
Pit 4 Excavation Bottom Samples

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC
B047E70S00	-1.44	0.15	-0.03
B047E70S05	-0.18	0.63	0.06
B047E70S10	-0.93	0.66	0.04
B047E70S15	-0.68	-0.62	-0.08
B047E70S20	1.77	0.28	0.09
B047E70S25	-0.24	0.37	0.03
B047E70S30	-1.96	1.05	0.04
B047E70S35	0.73	0.15	0.04
B047E75S00	-3.17	0.82	-0.02
B047E75S05	-2.56	0.66	-0.02
B047E75S10	-0.37	-0.15	-0.03
B047E75S15	-2.35	0.12	-0.07
B047E75S20	-1.88	0.90	0.03
B047E75S25	-2.47	-0.18	-0.10
B047E75S30	0.30	-0.23	-0.01
B047E75S35	-3.17	0.24	-0.08
B047E80S00	0.99	0.74	0.11
B047E80S05	-1.36	-0.47	-0.09
B047E80S10	1.00	0.11	0.04
B047E80S15	0.72	0.23	0.05
B047E80S20	1.89	1.14	0.18
B047E80S25	-1.97	0.07	-0.06
B047E80S30	-1.65	-0.23	-0.08
B047E80S35	0.12	0.63	0.07
B047E85S00	-2.03	0.69	0.00
B047E85S05	2.23	0.36	0.11
B047E85S10	2.58	0.54	0.14
B047E85S15	-2.42	3.75	0.29
B047E85S20	-1.19	0.71	0.03
B047E85S25	-1.12	0.57	0.02
B047E85S30	0.94	0.73	0.10
B047E85S35	-1.18	0.47	0.01
B047E90S00	-2.77	-1.73	-0.27
B047E90S05	-0.12	0.21	0.02
B047E90S10	-0.81	0.00	-0.03
B047E90S15	0.71	1.05	0.13
B047E90S20	1.39	0.86	0.13
B047E90S25	-3.31	1.79	0.07
B047E90S30	-1.55	0.61	0.01
B047E90S35	-3.83	-0.01	-0.13
B047E95S00	-0.29	0.28	0.02
B047E95S05	-0.96	0.21	-0.01
B047E95S10	-3.81	0.72	-0.05
B047E95S15	2.22	-0.14	0.06
B047E95S20	1.39	0.60	0.11
B047E95S25	-1.03	0.79	0.05
B047E95S30	-4.58	-0.05	-0.16
B047E95S35	-0.50	-0.23	-0.04
B048E00S00	1.16	0.39	0.08
B048E00S05	-1.38	0.00	-0.05
B048E00S10	-0.80	-0.31	-0.06
B048E00S15	-2.66	0.59	-0.03
B048E00S20	-2.62	0.56	-0.03
B048E00S25	0.92	1.87	0.22
B048E00S30	-3.51	0.31	-0.09
B048E05S00	2.04	-0.21	0.05
B048E05S05	-1.50	0.05	-0.04
B048E05S10	-1.52	0.26	-0.02
B048E05S15	0.71	0.11	0.03
B048E05S20	-0.72	0.14	-0.01
B048E05S25	-1.14	0.23	-0.01
B048E10S00	4.56	0.17	0.17
B048E10S05	-0.15	0.54	0.05
B048E10S10	-2.69	-0.17	-0.11
B048E10S15	1.18	-0.02	0.04
B048E10S20	-2.07	0.43	-0.03
B048E15S00	-1.01	0.40	0.01
B048E15S05	-0.83	0.25	0.00
B048E15S10	0.06	-0.28	-0.03
B048E15S15	-0.99	0.18	-0.02
B048E15S20	-2.65	0.19	-0.07
B048E20S00	0.21	-0.11	0.00
B048E20S05	0.54	0.06	0.02
B048E20S10	0.05	0.01	0.00
B048E20S15	-0.49	0.43	0.03
B048E20S20	-1.26	0.10	-0.03
B048E25S00	-1.20	-0.07	-0.05
B048E25S05	-2.35	-0.40	-0.12
B048E25S10	0.64	0.45	0.07
B048E25S15	-0.86	0.69	0.04
B048E25S20	-0.53	0.40	0.02
B048E30S00	0.25	-0.08	0.00
B048E30S05	-0.99	-0.04	-0.04
B048E30S10	0.99	-0.09	0.02
B048E30S15	-2.71	-0.30	-0.12
B048E30S20	-1.62	0.35	-0.02
B048E34S10	-1.33	0.22	-0.02
B048E35S00	-1.20	0.01	-0.04
B048E35S05	0.10	-0.16	-0.01
B048E35S15	0.41	0.26	0.04
B048E35S20	-0.09	0.63	0.06
B048E40S00	-2.19	0.13	-0.06
B048E40S05	-1.88	-0.01	-0.06
B048E40S15	0.37	0.73	0.09
B048E40S20	0.00	-0.20	-0.02
B048E41S10	1.53	0.29	0.08
B048E41S22	-0.40	1.56	0.14
B048E45S00	-0.52	-0.20	-0.04
B048E45S05	-2.73	-0.13	-0.10
B048E45S10	-1.71	-0.40	-0.10
B048E45S15	-1.64	-0.32	-0.09
B048E45S20	-1.70	0.78	0.02
B048E50S00	-2.66	0.69	-0.02
B048E50S05	-0.90	-0.15	-0.04
B048E50S10	0.85	0.10	0.04
B048E50S15	-1.14	0.06	-0.03
B048E55S00	-0.52	0.42	0.02
B048E55S05	-1.67	-0.26	-0.08
B048E55S10	0.64	0.35	0.06
B048E55S15	0.66	-0.06	0.02
B048E59S03	-2.54	-0.22	-0.11
B048E60S00	-1.11	0.15	-0.02
B048E60S05	1.27	0.82	0.12
B048E60S10	-0.27	0.25	0.02
B048E60S15	-1.62	0.07	-0.05
B048E65S00	-0.61	0.32	0.01
B048E65S05	-2.77	-0.13	-0.11
B048E65S10	-2.77	0.66	-0.03
B048E70S00	0.10	0.67	0.07
B048E70S05	0.14	-0.23	-0.02
B048E70S10	-0.35	-0.29	-0.04
B048E75S00	-1.12	0.26	-0.01

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-1	-	0.32	0.91	0.10
BT-1	0.5	0.70	0.85	0.11
BT-1	1.0	2.93	1.79	0.28
BT-1	1.5	-0.63	0.64	0.04
BT-1	2.0	-1.76	2.22	0.16
BT-1	2.5	-2.69	0.90	0.00
BT-1	3.0	-1.83	0.21	-0.04
BT-1	3.5	-1.65	1.04	0.05
BT-1	4.0	-1.57	0.65	0.01
BT-1	4.5	2.66	1.92	0.28
BT-1	5.0	-2.04	0.82	0.01
BT-1	5.5	-1.15	0.80	0.04
BT-1	6.0	1.52	0.14	0.06
BT-1	6.5	-2.77	0.93	0.00
BT-1	7.0	-2.77	-0.49	-0.14
BT-1	7.5	-1.82	-0.40	-0.10
BT-1	8.0	-0.23	-0.07	-0.01
BT-1	8.5	-1.71	-0.06	-0.06
BT-2	-	1.95	0.30	0.10
BT-2	0.5	-2.77	-0.27	-0.12
BT-2	1.0	-2.61	0.38	-0.05
BT-2	1.5	-1.59	-0.23	-0.08
BT-2	2.0	-2.35	0.40	-0.04
BT-2	2.5	-2.60	-0.07	-0.09
BT-2	3.0	-2.70	0.09	-0.08
BT-2	3.5	-0.01	1.96	0.20
BT-2	4.0	-2.57	7.30	0.64
BT-2	4.5	-2.44	4.63	0.38
BT-2	5.0	-1.11	5.85	0.55
BT-2	5.5	0.01	4.52	0.45
BT-2	6.0	-1.10	2.96	0.26
BT-2	6.5	-0.36	0.96	0.08
BT-2	7.0	3.11	3.82	0.49
BT-2	7.5	-2.37	2.48	0.17
BT-2	8.0	-0.15	2.08	0.20
BT-2	8.5	1.59	1.56	0.21
BT-3	0.5	-2.36	0.59	-0.02
BT-3	1.0	-0.58	0.92	0.07
BT-3	1.5	-0.78	0.95	0.07
BT-3	2.0	3.89	0.72	0.20
BT-3	2.5	0.15	1.19	0.12
BT-3	3.0	-1.75	2.23	0.16
BT-3	3.5	2.91	5.63	0.66
BT-3	4.0	0.09	7.48	0.75
BT-3	4.5	0.91	1.75	0.21
BT-3	5.0	0.27	0.71	0.08
BT-3	5.5	0.81	0.45	0.07
BT-3	6.0	-1.99	2.40	0.17
BT-3	6.5	3.56	3.87	0.51
BT-3	7.0	2.16	10.69	1.14
BT-3	7.5	7.53	7.47	1.00
BT-3	8.0	-0.56	1.60	0.14
BT-4	0.5	1.40	0.91	0.14
BT-4	1.0	-1.53	1.44	0.09
BT-4	1.5	-0.87	0.18	-0.01
BT-4	2.0	-0.24	0.70	0.06
BT-4	2.5	-2.57	0.74	-0.01
BT-4	3.0	-2.71	0.23	-0.07
BT-4	3.5	-0.04	3.21	0.32
BT-4	4.0	0.73	6.58	0.68
BT-4	4.5	1.50	5.31	0.58
BT-4	5.0	1.56	2.50	0.30
BT-4	5.5	0.66	1.89	0.21
BT-4	6.0	0.59	1.18	0.14
BT-4	6.5	-2.55	2.36	0.15
BT-4	7.0	-1.02	1.45	0.11
BT-4	7.5	-0.26	5.16	0.51
BT-4	8.0	-1.74	3.99	0.34
BT-4	8.5	-0.01	3.12	0.31
BT-4	9.0	0.43	2.48	0.26
BT-4	9.5	-0.51	2.84	0.27
BT-4	10.0	2.35	5.06	0.58
BT-4	10.5	0.04	1.89	0.19
BT-4	11.0	1.75	1.33	0.19
BT-5	0.5	-0.56	0.81	0.06
BT-5	1.0	-1.76	0.86	0.03
BT-5	1.5	-0.34	3.23	0.31
BT-5	2.0	0.28	2.89	0.30
BT-5	2.5	0.67	1.91	0.21
BT-5	3.0	-1.83	0.70	0.01
BT-5	3.5	-0.44	-0.19	-0.03
BT-5	4.0	1.16	3.90	0.43
BT-5	4.5	1.05	4.71	0.51
BT-5	5.0	-1.37	2.48	0.20
BT-5	5.5	-2.74	4.37	0.35
BT-5	6.0	-0.74	6.94	0.67
BT-5	6.5	-2.74	3.48	0.26
BT-5	7.0	0.83	3.25	0.35
BT-5	7.5	0.49	1.26	0.14
BT-5	8.0	3.32	2.75	0.39
BT-5	8.5	-1.53	2.20	0.17
BT-5	9.0	-1.66	4.23	0.37
BT-5	9.5	-2.63	2.21	0.13
BT-5	10.0	1.23	1.32	0.17
BT-5	10.5	-0.25	0.48	0.04
BT-6	0.5	0.96	2.71	0.30
BT-6	1.0	0.18	0.46	0.05
BT-6	1.5	1.37	0.55	0.10
BT-6	2.0	-2.65	0.62	-0.03

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-6	2.5	-0.91	1.35	0.10
BT-6	3.0	-0.72	0.75	0.05
BT-6	3.5	-2.03	0.57	-0.01
BT-6	4.0	1.96	3.26	0.39
BT-6	4.5	-1.51	4.70	0.42
BT-6	5.0	1.40	2.66	0.31
BT-6	5.5	-0.41	4.81	0.47
BT-6	6.0	-1.21	4.25	0.38
BT-6	6.5	5.90	3.17	0.51
BT-6	7.0	2.44	4.69	0.55
BT-6	7.5	1.35	1.06	0.15
BT-6	8.0	-2.61	1.46	0.06
BT-6	8.5	2.55	3.95	0.48
BT-6	9.0	-2.05	3.88	0.32
BT-6	9.5	-1.09	2.10	0.17
BT-7	0.5	0.04	1.55	0.16
BT-7	1.0	-2.77	1.01	0.01
BT-7	1.5	-2.66	0.98	0.01
BT-7	2.0	2.36	1.80	0.26
BT-7	2.5	-1.16	0.39	0.00
BT-7	3.0	0.14	0.53	0.06
BT-7	3.5	-0.56	2.72	0.25
BT-7	4.0	-2.28	3.51	0.28
BT-7	4.5	0.22	4.58	0.47
BT-7	5.0	-1.68	5.20	0.46
BT-7	5.5	1.64	4.42	0.50
BT-7	6.0	-0.24	3.96	0.39
BT-7	6.5	0.43	4.58	0.47
BT-7	7.0	-0.15	1.43	0.14
BT-7	7.5	-2.54	3.20	0.23
BT-7	8.0	0.72	0.86	0.11
BT-7	8.5	1.33	0.64	0.11
BT-7	9.0	8.61	0.50	0.34
BT-7	9.5	2.17	0.60	0.13
BT-7	10.0	2.32	0.92	0.17
BT-7	10.5	2.04	-0.25	0.04
BT-7	11.0	3.78	3.18	0.44
BT-7	11.5	4.86	2.17	0.38
BT-7	12.0	5.18	2.02	0.38
BT-8	1.0	1.00	1.42	0.18
BT-8	1.5	2.00	0.62	0.13
BT-8	2.0	-2.60	1.64	0.08
BT-8	2.5	-0.86	0.84	0.06
BT-8	3.0	-2.64	1.23	0.04
BT-8	3.5	-2.71	0.41	-0.05
BT-8	4.0	-1.54	2.19	0.17
BT-8	4.5	0.53	4.18	0.44
BT-8	5.0	-1.32	5.13	0.47
BT-8	5.5	-2.70	0.77	-0.01
BT-8	6.0	1.09	4.24	0.46
BT-8	6.5	2.09	2.66	0.34
BT-8	7.0	0.88	4.33	0.46
BT-8	7.5	-0.73	2.27	0.20
BT-9	1.0	2.64	1.71	0.26
BT-9	1.5	1.13	1.12	0.15
BT-9	2.0	-0.53	0.28	0.01
BT-9	2.5	-0.74	0.87	0.06
BT-9	3.0	0.38	1.88	0.20
BT-9	3.5	3.63	1.62	0.28
BT-9	4.0	1.74	0.91	0.15
BT-9	4.5	3.95	3.84	0.52
BT-9	5.0	1.74	2.45	0.30
BT-9	5.5	-0.24	4.70	0.46
BT-9	6.0	0.83	3.70	0.40
BT-9	6.5	4.86	4.42	0.60
BT-9	7.0	2.08	1.96	0.27
BT-10	1.0	-0.15	0.55	0.05
BT-10	1.5	-1.96	0.30	-0.04
BT-10	2.0	-2.77	1.49	0.06
BT-10	2.5	-2.66	0.86	0.00
BT-10	3.0	1.35	2.63	0.31
BT-10	3.5	3.25	4.12	0.52
BT-10	4.0	0.53	1.28	0.15
BT-10	4.5	0.37	2.86	0.30
BT-10	5.0	2.64	3.01	0.39
BT-10	5.5	-1.76	2.72	0.21
BT-10	6.0	1.33	2.53	0.30
BT-10	6.5	1.21	3.17	0.36
BT-10	7.0	0.44	3.06	0.32
BT-10	7.5	0.75	4.44	0.47
BT-10	8.0	-0.13	3.80	0.38
BT-10	8.5	1.60	4.94	0.55
BT-10	9.0	-0.48	4.91	0.47
BT-10	9.5	0.22	3.97	0.40
BT-27	0.5	3.11	1.91	0.29
BT-27	1.0	-0.14	1.76	0.17
BT-27	1.5	1.71	1.42	0.20
BT-27	2.0	4.31	1.35	0.28
BT-27	2.5	2.85	0.59	0.15
BT-27	3.0	-0.52	0.97	0.08
BT-27	3.5	3.18	2.96	0.40
BT-27	4.0	2.13	5.11	0.58
BT-27	4.5	-1.07	4.35	0.40
BT-27	5.0	2.10	5.92	0.66
BT-27	5.5	0.72	4.14	0.44
BT-27	6.0	2.35	2.76	0.35
BT-27	6.5	-1.93	2.08	0.14
BT-27	7.0	-0.59	0.82	0.06
BT-27	7.5	-2.17	1.51	0.08

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-28	0.5	2.51	1.27	0.21
BT-28	1.0	-1.26	1.23	0.08
BT-28	1.5	2.97	1.34	0.23
BT-28	2.0	0.04	2.18	0.22
BT-28	2.5	2.86	1.06	0.20
BT-28	3.0	4.39	2.80	0.43
BT-28	3.5	-0.41	1.51	0.14
BT-28	4.0	0.72	0.92	0.12
BT-28	4.5	-2.46	2.28	0.15
BT-28	5.0	-0.80	3.15	0.29
BT-28	5.5	2.70	4.00	0.49
BT-28	6.0	2.51	3.84	0.47
BT-28	6.5	1.39	4.25	0.47
BT-28	7.0	4.96	8.19	0.98
BT-29	0.5	5.32	1.38	0.32
BT-29	1.0	3.13	0.52	0.16
BT-29	1.5	2.86	1.20	0.22
BT-29	2.0	1.34	0.21	0.07
BT-29	2.5	3.87	1.07	0.24
BT-29	3.0	1.59	2.28	0.28
BT-29	3.5	2.93	1.37	0.23
BT-29	4.0	2.68	2.24	0.31
BT-29	4.5	2.12	1.21	0.19
BT-29	5.0	1.61	3.55	0.41
BT-29	5.5	6.53	6.41	0.86
BT-29	6.0	1.70	4.83	0.54
BT-29	6.5	2.40	3.17	0.40
BT-29	7.0	-0.09	5.05	0.50
BT-29	7.5	2.31	3.45	0.42
BT-29	8.0	0.41	3.74	0.39
BT-30	0.5	-0.94	0.87	0.06
BT-30	1.0	-2.40	0.64	-0.02
BT-30	1.5	0.67	2.96	0.32
BT-30	2.0	-1.61	0.92	0.04
BT-30	2.5	-2.49	0.88	0.00
BT-30	3.0	0.43	1.40	0.15
BT-30	3.5	-0.49	1.72	0.16
BT-30	4.0	1.91	6.92	0.76
BT-30	4.5	4.02	6.66	0.80
BT-30	5.0	0.38	4.35	0.45
BT-30	5.5	3.22	5.56	0.66
BT-30	6.0	2.29	6.44	0.72
BT-30	6.5	-0.24	3.35	0.33
BT-30	7.0	-1.09	3.55	0.32
BT-30	7.5	-2.77	1.55	0.06
BT-30	8.0	-2.42	2.92	0.21
BT-31	1.0	0.41	0.67	0.08
BT-31	1.5	-2.74	0.81	-0.01
BT-31	2.0	-2.09	1.40	0.07
BT-31	2.5	-0.70	0.93	0.07
BT-31	3.0	-2.74	0.04	-0.09
BT-31	3.5	-0.79	1.28	0.10
BT-31	4.0	0.31	3.51	0.36
BT-31	4.5	0.83	6.69	0.70
BT-31	5.0	0.20	5.52	0.56
BT-31	5.5	-1.01	4.51	0.42
BT-31	6.0	-0.62	2.99	0.28
BT-31	6.5	2.01	7.18	0.78
BT-31	7.0	1.41	9.22	0.97
BT-31	7.5	-1.77	2.25	0.17
BT-31	8.0	-0.67	2.89	0.27
BT-32	1.0	-1.64	0.74	0.02
BT-32	1.5	-1.26	0.25	-0.02
BT-32	2.0	0.91	0.49	0.08
BT-32	2.5	-0.62	2.75	0.25
BT-32	3.0	-2.47	1.20	0.04
BT-32	3.5	-1.06	0.56	0.02
BT-32	4.0	-0.27	2.48	0.24
BT-32	4.5	0.09	3.28	0.33
BT-32	5.0	0.33	2.32	0.24
BT-32	5.5	4.49	5.60	0.71
BT-32	6.0	1.80	6.23	0.68
BT-32	6.5	1.86	6.64	0.73
BT-32	7.0	1.73	5.61	0.62
BT-32	7.5	-2.56	5.08	0.42
BT-32	8.0	-2.62	3.31	0.24
BT-33	1.0	1.03	0.70	0.10
BT-33	1.5	-1.25	-0.08	-0.05
BT-33	2.0	-2.54	0.69	-0.02
BT-33	2.5	-0.14	0.82	0.08
BT-33	3.0	-1.07	2.70	0.23
BT-33	3.5	0.62	1.19	0.14
BT-33	4.0	-0.02	0.56	0.06
BT-33	4.5	-2.68	1.03	0.01
BT-33	5.0	-1.73	0.75	0.02
BT-33	5.5	-2.75	0.49	-0.04
BT-33	6.0	0.13	0.23	0.03
BT-33	6.5	0.82	-0.26	0.00
BT-11	-	2.81	5.29	0.62
BT-11	0.5	-0.74	1.62	0.14
BT-11	1.0	-1.97	0.37	-0.03
BT-11	1.5	5.15	1.15	0.29
BT-11	2.0	-2.25	2.85	0.21
BT-11	2.5	1.94	1.63	0.23
BT-11	3.0	0.90	1.30	0.16
BT-11	3.5	-0.26	0.69	0.06
BT-11	4.0	-2.33	2.12	0.13
BT-11	4.5	1.15	0.26	0.06
BT-11	5.0	1.88	-0.08	0.05

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-11	5.5	-1.03	-0.47	-0.08
BT-11	6.0	2.15	-0.10	0.06
BT-11	6.5	1.20	0.20	0.06
BT-11	7.0	-1.47	-0.68	-0.12
BT-11	7.5	-1.18	0.14	-0.03
BT-11	8.0	-0.85	0.24	0.00
BT-11	8.5	-1.83	0.07	-0.05
BT-11	9.0	-0.84	0.71	0.04
BT-12	0.5	-1.43	0.74	0.03
BT-12	1.0	2.88	0.93	0.19
BT-12	1.5	0.16	1.10	0.12
BT-12	2.0	1.24	1.71	0.21
BT-12	2.5	1.35	1.28	0.17
BT-12	3.0	4.87	1.46	0.31
BT-12	3.5	-0.37	1.16	0.10
BT-12	4.0	3.50	2.76	0.39
BT-12	4.5	1.02	1.00	0.13
BT-12	5.0	4.71	2.60	0.42
BT-12	5.5	11.68	6.68	1.06
BT-12	6.0	3.71	5.99	0.72
BT-12	6.5	0.77	4.11	0.44
BT-12	7.0	4.51	9.37	1.09
BT-12	7.5	3.21	2.54	0.36
BT-13	8.0	5.33	4.83	0.66
BT-13	8.5	1.97	4.65	0.53
BT-13	9.0	-0.89	5.78	0.55
BT-13	9.5	-1.50	1.93	0.14
BT-15	7.5	0.81	5.65	0.59
BT-15	8.0	4.14	6.68	0.81
BT-15	8.5	0.76	4.35	0.46
BT-15	9.0	4.89	6.64	0.83
BT-15	9.5	4.69	6.20	0.78
BT-15	10.0	1.72	5.70	0.63
BT-16	0.5	-0.48	0.23	0.01
BT-16	1.0	0.14	0.23	0.03
BT-16	1.5	0.57	0.16	0.04
BT-16	2.0	-1.84	0.04	-0.06
BT-16	2.5	-1.51	-0.11	-0.06
BT-16	3.0	-0.62	-0.26	-0.05
BT-16	3.5	-2.64	-0.31	-0.12
BT-16	4.0	-2.71	0.14	-0.08
BT-16	4.5	2.01	7.38	0.80
BT-16	5.0	0.01	6.99	0.70
BT-16	5.5	-2.43	5.72	0.49
BT-16	6.0	-1.21	0.73	0.03
BT-16	6.5	2.35	6.07	0.69
BT-16	7.0	-2.55	7.01	0.62
BT-16	7.5	0.76	6.37	0.66
BT-16	8.0	-1.70	2.44	0.19
BT-17	0.5	2.87	0.61	0.16
BT-17	1.0	0.78	0.34	0.06
BT-17	1.5	0.19	0.34	0.04
BT-17	2.0	2.87	0.59	0.15
BT-17	2.5	0.51	1.11	0.13
BT-17	3.0	-1.20	0.57	0.02
BT-17	3.5	-0.18	0.82	0.08
BT-17	4.0	0.08	-0.06	0.00
BT-17	4.5	0.80	4.50	0.48
BT-17	5.0	3.16	5.67	0.67
BT-17	5.5	1.78	0.86	0.15
BT-17	6.0	1.05	0.73	0.11
BT-17	6.5	2.41	4.24	0.50
BT-17	7.0	5.90	6.99	0.90
BT-17	7.5	-2.68	6.62	0.57
BT-17	8.0	2.19	5.12	0.58
BT-17	8.5	3.51	3.52	0.47
BT-17	9.0	-0.18	4.33	0.43
BT-17	9.5	1.85	6.13	0.67
BT-17	10.0	0.52	3.63	0.38
BT-18	1.0	2.03	0.77	0.14
BT-18	1.5	2.29	0.16	0.09
BT-18	2.0	1.99	-0.16	0.05
BT-18	2.5	2.72	0.66	0.16
BT-18	3.0	0.53	1.00	0.12
BT-18	3.5	-0.07	-0.09	-0.01
BT-18	4.0	-1.34	1.22	0.08
BT-18	4.5	-0.88	4.98	0.47
BT-18	5.0	3.08	0.43	0.15
BT-18	5.5	2.37	2.89	0.37
BT-18	6.0	0.12	2.71	0.28
BT-18	6.5	-0.55	5.29	0.51
BT-18	7.0	4.61	2.04	0.36
BT-18	7.5	2.59	3.41	0.43
BT-18	8.0	1.16	4.00	0.44
BT-18	8.5	-1.72	4.55	0.40
BT-18	9.0	3.07	6.67	0.77
BT-19	8.5	-0.31	4.97	0.49
BT-19	9.0	1.51	5.85	0.64
BT-19	9.5	3.10	3.52	0.46
BT-20	10.5	-1.77	0.25	-0.03
BT-20	11.0	1.93	10.52	1.12
BT-20	11.5	-1.36	0.83	0.04
BT-20	12.0	-0.98	0.08	-0.02
BT-21	11.5	-2.63	4.50	0.36
BT-22	10.0	3.28	6.15	0.72
BT-22	10.5	1.25	11.34	1.18
BT-22	11.0	1.87	1.16	0.18
BT-22	11.5	3.73	1.03	0.23
BT-22	12.0	5.57	-0.40	0.15

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-22	12.5	20.35	2.09	0.89
BT-22	13.0	4.90	1.88	0.35
BT-22	13.5	2.70	1.94	0.28
BT-22	14.0	-2.11	2.44	0.17
BT-22	14.5	1.41	2.11	0.26
BT-24	11.5	3.28	1.80	0.29
BT-25	11.0	-0.09	2.02	0.20
BT-25	11.5	-2.58	8.28	0.74
BT-25	12.0	-0.06	1.06	0.10
BT-25	12.5	-1.18	1.06	0.07
BT-25	13.0	0.94	0.66	0.10
BT-26	9.5	-0.88	0.43	0.01
BT-26	10.0	-2.32	-0.32	-0.11
BT-26	10.5	-2.64	0.63	-0.03
BT-26	11.0	-0.21	1.26	0.12
BT-26	11.5	-2.58	0.76	-0.01
BT35	8.0	-0.91	7.66	0.74
BT-38	1.5	-1.07	2.05	0.17
BT-38	2.0	-1.03	1.46	0.11
BT-38	2.5	0.34	0.29	0.04
BT-38	3.0	0.47	1.02	0.12
BT-38	3.5	2.49	0.98	0.18
BT-38	4.0	2.65	0.47	0.14
BT-38	4.5	0.59	3.87	0.41
BT-38	5.0	6.50	9.05	1.12
BT-38	5.5	1.23	5.04	0.54
BT-38	6.0	1.31	4.05	0.45
BT-38	6.5	-2.10	16.93	1.62
BT-38	7.0	4.26	6.49	0.79
BT-38	7.5	2.47	7.59	0.84
BT-38	8.0	0.43	5.19	0.53
BT-38	8.5	-1.16	0.00	-0.04
BT-39	2.0	2.82	1.97	0.29
BT-39	2.5	-0.11	1.29	0.13
BT-39	3.0	1.94	2.43	0.31
BT-39	3.5	0.68	1.46	0.17
BT-39	4.0	0.47	0.49	0.06
BT-39	4.5	-2.25	0.35	-0.04
BT-39	5.0	1.49	1.59	0.21
BT-39	5.5	0.24	1.67	0.17
BT-39	6.0	3.20	2.22	0.33
BT-39	6.5	2.08	3.52	0.42
BT-39	7.0	1.44	2.23	0.27
BT-39	7.5	1.20	2.13	0.25
BT-39	8.0	1.80	1.92	0.25
BT-39	8.5	2.64	4.89	0.58
BT-40	2.0	0.23	1.25	0.13
BT-40	2.5	-1.40	0.42	0.00
BT-40	3.0	-2.28	0.33	-0.04
BT-40	3.5	-2.53	1.02	0.02
BT-40	4.0	-0.44	0.33	0.02
BT-40	4.5	-1.61	1.31	0.08
BT-40	5.0	-0.79	0.23	0.00
BT-40	5.5	-2.75	3.86	0.29
BT-40	6.0	-0.32	0.82	0.07
BT-40	6.5	6.10	5.37	0.74
BT-40	7.0	-0.08	1.03	0.10
BT-40	7.5	-1.53	0.67	0.02
BT-41	-	0.77	-0.17	0.01
BT-41	0.5	0.14	0.49	0.05
BT-41	1.0	-0.66	-0.16	-0.04
BT-41	1.5	-0.28	0.03	-0.01
BT-41	2.0	-2.77	-0.20	-0.11
BT-41	2.5	-0.43	-0.41	-0.06
BT-41	3.0	-2.57	0.35	-0.05
BT-41	3.5	-1.47	0.16	-0.03
BT-41	4.0	-2.67	0.20	-0.07
BT-41	4.5	-1.21	0.17	-0.02
BT-41	5.0	-2.72	0.57	-0.03
BT-41	5.5	0.78	5.00	0.53
BT-41	6.0	0.70	8.09	0.83
BT-41	6.5	-1.98	0.80	0.01
BT-41	7.0	-0.11	-0.14	-0.02
BT-41	7.5	0.30	0.17	0.03
BT-41	8.0	-1.33	0.25	-0.02
BT-41	8.5	-0.78	-0.40	-0.07
BT-41	9.0	-0.78	-0.15	-0.04
BT-41	9.5	-2.45	-0.54	-0.14
BT-41	10.0	-2.54	-0.85	-0.17
BT-42	8.5	-2.46	6.88	0.61
BT-42	9.0	2.86	10.38	1.13
BT-42	9.5	-0.07	2.44	0.24
BT-43	0.5	-0.41	0.33	0.02
BT-43	1.0	-0.70	0.70	0.05
BT-43	1.5	1.95	0.63	0.13
BT-43	2.0	0.15	0.44	0.05
BT-43	2.5	-2.01	0.69	0.00
BT-43	3.0	0.74	0.24	0.05
BT-43	3.5	3.41	5.33	0.65
BT-43	4.0	2.65	8.07	0.89
BT-43	4.5	0.67	5.20	0.54
BT-43	5.0	-2.77	4.17	0.32
BT-43	5.5	6.63	3.01	0.52
BT-43	6.0	2.27	6.02	0.68
BT-43	6.5	4.08	5.08	0.64
BT-43	7.0	4.45	4.05	0.55
BT-43	7.5	-0.53	4.58	0.44
BT-43	8.0	2.53	10.73	1.16
BT-43	8.5	-2.36	6.46	0.57

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-43	9.0	2.27	7.36	0.81
BT-43	9.5	0.76	5.63	0.59
BT-43	10.0	-0.86	1.16	0.09
BT-44	0.5	2.21	0.71	0.14
BT-44	1.0	-1.22	0.71	0.03
BT-44	1.5	-0.22	0.06	0.00
BT-44	2.0	1.53	0.21	0.07
BT-44	2.5	-1.81	-0.26	-0.09
BT-44	3.0	-0.78	-0.24	-0.05
BT-44	3.5	1.50	2.12	0.26
BT-44	4.0	-2.25	7.10	0.63
BT-44	4.5	-0.46	1.75	0.16
BT-44	5.0	6.48	5.47	0.76
BT-44	5.5	-1.94	5.46	0.48
BT-44	6.0	0.28	5.68	0.58
BT-44	6.5	1.30	5.48	0.59
BT-44	7.0	-1.50	7.13	0.66
BT-44	7.5	0.67	2.55	0.28
BT-44	8.0	-2.52	5.60	0.48
BT-44	8.5	0.25	5.44	0.55
BT-44	9.0	1.18	5.87	0.63
BT-44	9.5	-2.65	3.39	0.25
BT-44	10.0	-0.42	-0.62	-0.08
BT-45	8.5	2.97	5.12	0.61
BT-45	9.0	-1.72	4.80	0.42
BT-45	9.5	-2.61	7.53	0.67
BT-46	7.5	-1.22	4.80	0.44
BT-46	8.0	0.74	2.94	0.32
BT-46	8.5	-2.57	7.60	0.67
BT-46	9.0	-2.64	-0.12	-0.10
BT-46	9.5	-2.77	-0.43	-0.14
BT-47	7.5	3.09	7.10	0.81
BT-47	8.0	-2.77	1.21	0.03
BT-47	8.5	-2.77	1.11	0.02
BT-47	9.0	-1.93	-0.12	-0.08
BT-48	8.0	-0.54	9.09	0.89
BT-48	8.5	-0.51	9.31	0.91
BT-48	9.0	-0.12	4.71	0.47
BT-48	9.5	-2.53	0.04	-0.08
BT-48	10.0	-0.45	-0.49	-0.06
BT-48	10.5	1.24	2.01	0.24
BT-48	11.0	-0.39	4.05	0.39
BT-48	11.5	-0.75	2.06	0.18
BT-49	7.0	1.45	3.28	0.38
BT-49	7.5	-2.67	0.70	-0.02
BT-49	8.0	-1.47	-0.11	-0.06
BT-49	8.5	-2.25	-0.59	-0.13
BT-49	9.0	-2.22	-0.72	-0.15
BT-49	9.5	-2.76	0.03	-0.09
BT-49	10.0	-1.73	1.27	0.07
BT-49	10.5	-2.26	1.40	0.06
BT-49	11.0	0.46	1.85	0.20
BT-49	11.5	0.85	1.55	0.18
BT-49	12.0	-1.10	2.12	0.18
BT-50	1.0	-2.26	0.65	-0.01
BT-50	1.5	0.99	2.44	0.28
BT-50	2.0	-0.34	0.82	0.07
BT-50	2.5	-0.02	0.90	0.09
BT-50	3.0	0.64	1.01	0.12
BT-50	3.5	-1.40	2.27	0.18
BT-50	4.0	-0.11	6.04	0.60
BT-50	4.5	0.91	6.72	0.70
BT-50	5.0	-0.24	2.48	0.24
BT-50	5.5	-2.04	4.40	0.37
BT-50	6.0	2.98	5.07	0.61
BT-50	6.5	2.12	3.23	0.39
BT-50	7.0	0.79	0.30	0.06
BT-50	7.5	-0.57	1.96	0.18
BT-50	8.0	-1.16	0.39	0.00
BT-50	8.5	0.48	-0.61	-0.05
BT-50	9.0	-0.46	-0.18	-0.03
BT-50	9.5	-1.49	1.06	0.06
BT-50	10.0	-2.76	2.16	0.12
BT-50	10.5	-2.71	1.69	0.08
BT-50	11.0	-2.63	1.15	0.03
BT-51	1.0	-0.30	1.27	0.12
BT-51	1.5	1.85	1.69	0.23
BT-51	2.0	-1.28	0.98	0.06
BT-51	2.5	-0.72	1.69	0.15
BT-51	3.0	-2.44	1.39	0.06
BT-51	3.5	2.61	4.65	0.55
BT-51	4.0	6.61	6.71	0.89
BT-51	4.5	-0.58	6.43	0.62
BT-51	5.0	-1.76	2.26	0.17
BT-51	5.5	4.40	6.27	0.77
BT-51	6.0	1.79	6.19	0.68
BT-51	6.5	-2.38	4.86	0.41
BT-51	7.0	-2.24	5.31	0.46
BT-51	7.5	-1.09	5.01	0.46
BT-51	8.0	0.77	5.48	0.57
BT-51	8.5	-1.69	5.81	0.52
BT-51	9.0	0.27	1.68	0.18
BT-51	9.5	1.48	1.03	0.15
BT-52	1.5	-2.62	1.34	0.05
BT-52	2.0	-1.71	0.68	0.01
BT-52	2.5	-2.55	1.07	0.02
BT-52	3.0	-2.62	0.65	-0.02
BT-52	3.5	-0.75	-0.60	-0.09
BT-52	4.0	-1.04	1.32	0.10

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-52	4.5	-2.12	3.63	0.29
BT-52	5.0	1.26	5.24	0.57
BT-52	5.5	1.27	1.92	0.23
BT-52	6.0	0.38	5.35	0.55
BT-52	6.5	2.75	3.97	0.49
BT-52	7.0	0.16	4.96	0.50
BT-52	7.5	1.99	3.58	0.42
BT-52	8.0	-2.24	2.17	0.14
BT-52	8.5	-0.25	1.98	0.19
BT-53	1.5	-0.78	1.07	0.08
BT-53	2.0	0.78	0.86	0.11
BT-53	2.5	0.75	1.75	0.20
BT-53	3.0	-1.03	2.11	0.18
BT-53	3.5	-2.60	1.33	0.05
BT-53	4.0	-1.73	0.13	-0.04
BT-53	4.5	-0.74	3.30	0.31
BT-53	5.0	1.32	6.06	0.65
BT-53	5.5	-1.22	5.93	0.55
BT-53	6.0	1.57	5.56	0.61
BT-53	6.5	-2.18	4.62	0.39
BT-53	7.0	-0.70	5.94	0.57
BT-53	7.5	-2.51	8.27	0.74
BT-53	8.0	1.39	5.05	0.55
BT-53	8.5	-0.53	3.90	0.37
BT-53	9.0	-2.77	5.01	0.41
BT-53	9.5	1.69	12.06	1.26
BT-53	10.0	-0.78	1.83	0.16
BT-53	10.5	0.93	0.37	0.07
BT-53	11.0	12.24	1.31	0.54
BT-53	11.5	2.23	1.15	0.19
BT-53	12.0	1.45	1.44	0.19
BT-53	12.5	0.05	2.22	0.22
BT-54	1.5	0.99	0.88	0.12
BT-54	2.0	-2.11	1.10	0.04
BT-54	2.5	-1.73	0.81	0.02
BT-54	3.0	-0.50	2.98	0.28
BT-54	3.5	-0.88	0.30	0.00
BT-54	4.0	-0.87	0.97	0.07
BT-54	4.5	0.68	5.99	0.62
BT-54	5.0	-2.20	9.83	0.91
BT-54	5.5	1.88	8.92	0.95
BT-54	6.0	-2.44	7.62	0.68
BT-54	6.5	3.58	8.11	0.93
BT-54	7.0	0.88	14.18	1.45
BT-54	7.5	-2.67	5.21	0.43
BT-54	8.0	-1.59	8.23	0.77
BT-54	8.5	-2.50	0.69	-0.01
BT-54	9.0	0.33	0.18	0.03
BT-54	9.5	0.26	1.71	0.18
BT-54	10.0	2.81	0.83	0.18
BT-54	10.5	15.63	2.04	0.73
BT-54	11.0	2.89	2.57	0.35
BT-54	11.5	-1.85	1.35	0.07
BT-54	12.0	3.15	2.26	0.33
BT-55	7.5	-1.02	3.94	0.36
BT-55	8.0	0.95	2.98	0.33
BT-55	8.5	1.55	1.80	0.23
BT-55	9.0	4.87	0.97	0.26
BT-55	9.5	0.30	2.29	0.24
BT-55	10.0	2.11	1.54	0.22
BT-55	10.5	-1.62	1.64	0.11
BT-56	8.5	3.09	2.78	0.38
BT-56	9.0	0.82	1.65	0.19
BT-57	2.0	-0.31	1.26	0.12
BT-57	2.5	-1.76	1.14	0.06
BT-57	3.0	-2.52	1.38	0.05
BT-57	3.5	-0.90	1.63	0.13
BT-57	4.0	-2.45	1.80	0.10
BT-57	4.5	-1.71	4.73	0.42
BT-57	5.0	7.17	9.09	1.15
BT-57	5.5	3.76	7.00	0.83
BT-57	6.0	-2.17	3.95	0.32
BT-57	6.5	-1.02	3.92	0.36
BT-57	7.0	0.24	6.77	0.68
BT-57	7.5	0.58	7.14	0.73
BT-57	8.0	2.51	1.13	0.20
BT-58	7.5	0.60	6.92	0.71
BT-58	8.0	-1.08	0.72	0.04
BT-59	7.5	0.51	8.46	0.86
BT-59	8.0	2.14	3.58	0.43
BT-59	8.5	1.10	0.50	0.09
BT-59	9.0	-2.50	1.46	0.06
BT-60	2.0	0.26	2.13	0.22
BT-60	2.5	-1.83	1.27	0.07
BT-60	3.0	-1.19	1.16	0.08
BT-60	3.5	-0.73	0.65	0.04
BT-60	4.0	0.09	1.14	0.12
BT-60	4.5	2.61	0.69	0.16
BT-60	5.0	1.93	1.17	0.18
BT-60	5.5	4.59	7.44	0.90
BT-60	6.0	4.94	7.47	0.91
BT-60	6.5	1.04	6.27	0.66
BT-60	7.0	1.32	5.33	0.58
BT-60	7.5	4.36	7.33	0.88
BT-60	8.0	2.53	10.37	1.12
BT-60	8.5	4.28	7.55	0.90
BT-60	9.0	1.88	3.38	0.40
BT-60	9.5	-1.25	1.28	0.09
BT-60	10.0	-1.16	0.38	0.00

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-60	10.5	-0.85	0.73	0.04
BT-60	11.0	-1.68	0.52	0.00
BT-61	2.0	0.64	2.37	0.26
BT-61	2.5	0.96	1.45	0.18
BT-61	3.0	1.28	1.77	0.22
BT-61	3.5	1.21	1.52	0.19
BT-61	4.0	0.64	4.30	0.45
BT-61	4.5	-2.77	5.04	0.41
BT-61	5.0	0.93	3.26	0.36
BT-61	5.5	4.75	9.47	1.11
BT-61	6.0	-0.18	4.36	0.43
BT-61	6.5	-0.01	8.41	0.84
BT-61	7.0	3.12	8.78	0.98
BT-61	7.5	-0.33	5.93	0.58
BT-61	8.0	1.52	1.98	0.25
BT-62	2.0	1.93	1.83	0.25
BT-62	2.5	-2.67	0.48	-0.04
BT-62	3.0	0.74	1.03	0.13
BT-62	3.5	-0.51	0.70	0.05
BT-62	4.0	-2.27	0.86	0.01
BT-62	4.5	-1.46	2.13	0.16
BT-62	5.0	-0.77	2.67	0.24
BT-62	5.5	1.82	7.63	0.82
BT-62	6.0	2.85	2.93	0.39
BT-62	6.5	4.19	6.11	0.75
BT-62	7.0	9.92	6.27	0.96
BT-62	7.5	13.80	8.27	1.29
BT-62	8.0	1.00	7.22	0.76
BT-63	7.5	1.98	1.38	0.20
BT-63	8.0	2.34	8.65	0.94
BT-63	8.5	3.42	1.26	0.24
BT-63	9.0	-0.07	0.90	0.09
BT-63	9.5	-1.59	1.57	0.10
BT-64	2.0	-1.47	0.63	0.01
BT-64	2.5	0.06	1.89	0.19
BT-64	3.0	5.41	8.47	1.03
BT-64	3.5	-1.29	7.22	0.68
BT-64	4.0	1.14	1.35	0.17
BT-64	4.5	-0.37	6.77	0.66
BT-64	5.0	3.02	7.18	0.82
BT-64	5.5	0.98	10.38	1.07
BT-64	6.0	-1.97	7.78	0.71
BT-64	6.5	0.21	5.36	0.54
BT-64	7.0	1.01	5.54	0.59
BT-64	7.5	1.50	14.06	1.46
BT-64	8.0	0.01	1.61	0.16
BT-65	2.5	-2.62	1.81	0.09
BT-65	3.0	-0.35	1.26	0.11
BT-65	3.5	1.76	0.62	0.12
BT-65	4.0	0.81	1.86	0.21
BT-65	4.5	-2.37	1.90	0.11
BT-65	5.0	-2.52	4.02	0.32
BT-65	5.5	-2.68	2.93	0.20
BT-65	6.0	0.64	7.21	0.74
BT-65	6.5	0.37	1.09	0.12
BT-65	7.0	-1.74	1.44	0.09
BT-65	7.5	4.49	6.11	0.76
BT-65	8.0	-2.63	6.57	0.57
BT-65	8.5	2.12	5.78	0.65
BT-65	9.0	-0.44	5.21	0.51
BT-65	9.5	1.92	4.94	0.56
BT-65	10.0	-0.98	8.11	0.78
BT-65	10.5	0.92	6.38	0.67
BT-66	2.5	-1.72	0.90	0.03
BT-66	3.0	-2.55	0.70	-0.02
BT-66	3.5	0.03	0.96	0.10
BT-66	4.0	1.29	1.01	0.14
BT-66	4.5	-2.58	2.02	0.12
BT-66	5.0	-0.26	1.87	0.18
BT-66	5.5	0.15	5.60	0.57
BT-66	6.0	0.35	8.42	0.85
BT-66	6.5	1.91	1.24	0.19
BT-66	7.0	-0.38	1.23	0.11
BT-66	7.5	4.60	4.37	0.59
BT-66	8.0	4.07	9.63	1.10
BT-66	8.5	2.21	3.98	0.47
BT-67	2.5	3.42	2.32	0.35
BT-67	3.0	3.08	1.61	0.26
BT-67	3.5	0.32	0.63	0.07
BT-67	4.0	-1.39	0.73	0.03
BT-67	4.5	3.90	1.28	0.26
BT-67	5.0	5.65	6.24	0.81
BT-67	5.5	0.16	7.98	0.80
BT-67	6.0	5.87	8.13	1.01
BT-67	6.5	5.38	6.68	0.85
BT-67	7.0	7.49	8.98	1.15
BT-67	7.5	0.18	4.99	0.51
BT-67	8.0	7.71	6.92	0.95
BT-67	8.5	0.77	4.25	0.45
BT-68	2.5	-0.56	1.41	0.12
BT-68	3.0	-0.76	1.16	0.09
BT-68	3.5	1.36	0.19	0.06
BT-68	4.0	-2.50	3.95	0.31
BT-68	4.5	-0.33	0.68	0.06
BT-68	5.0	-0.44	1.42	0.13
BT-68	5.5	6.66	5.99	0.82
BT-68	6.0	3.89	8.61	0.99
BT-68	6.5	3.38	2.74	0.39
BT-68	7.0	3.33	5.39	0.65

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-68	7.5	0.12	5.99	0.60
BT-68	8.0	-0.01	10.58	1.06
BT-68	8.5	2.22	5.29	0.60
BT-68	9.0	0.19	1.16	0.12
BT-68	9.5	0.08	7.49	0.75
BT-68	10.0	2.53	6.43	0.73
BT-68	10.5	-0.27	2.27	0.22
BT-68	11.0	1.50	-0.26	0.02
BT-68	11.5	-2.70	2.48	0.16
BT-68	12.0	-1.57	0.58	0.01
BT-68	12.5	2.64	0.54	0.14
BT-70	9.5	0.32	2.20	0.23
BT-70	10.0	2.06	0.16	0.08
BT-71	9.5	0.06	5.59	0.56
BT-72	9.0	3.31	4.73	0.58
BT-73	9.0	-2.77	8.61	0.77
BT-73	9.5	-2.76	3.20	0.23
BT-74	3.0	-0.89	0.27	0.00
BT-74	3.5	0.56	0.42	0.06
BT-74	4.0	-2.77	0.87	0.00
BT-74	4.5	-2.74	1.42	0.05
BT-74	5.0	0.06	0.98	0.10
BT-74	5.5	-2.03	1.10	0.04
BT-74	6.0	0.83	1.88	0.22
BT-74	6.5	2.36	5.66	0.64
BT-74	7.0	-1.86	1.02	0.04
BT-74	7.5	1.62	1.25	0.18
BT-74	8.0	1.99	6.35	0.70
BT-74	8.5	1.14	3.45	0.38
BT-75	-	-1.87	1.11	0.05
BT-75	0.5	-1.54	2.26	0.17
BT-75	1.0	0.94	1.90	0.22
BT-75	1.5	-0.35	1.50	0.14
BT-75	2.0	-2.74	0.87	0.00
BT-75	2.5	-2.36	0.40	-0.04
BT-75	3.0	0.10	1.45	0.15
BT-75	3.5	1.12	1.21	0.16
BT-75	4.0	-0.63	0.24	0.00
BT-75	4.5	-1.66	-0.63	-0.12
BT-75	5.0	0.75	-0.09	0.02
BT-75	5.5	-2.25	-0.41	-0.12
BT-75	6.0	-0.31	-0.91	-0.10
BT-75	6.5	1.54	0.45	0.10
BT-75	7.0	-1.99	-0.14	-0.08
BT-75	7.5	-0.45	-0.07	-0.02
BT-75	8.0	0.14	1.04	0.11
BT-75	8.5	1.76	0.81	0.14
BT-75	9.0	-2.03	-0.44	-0.11
BT-75	9.5	-1.10	-0.09	-0.05
BT-76	0.5	-2.15	0.88	0.02
BT-76	1.0	1.25	1.10	0.15
BT-76	1.5	1.27	0.56	0.10
BT-76	2.0	-2.58	0.58	-0.03
BT-76	2.5	-1.13	0.73	0.04
BT-76	3.0	-0.94	0.58	0.03
BT-76	3.5	-0.78	0.20	-0.01
BT-76	4.0	-2.37	0.23	-0.06
BT-76	4.5	-2.20	0.57	-0.02
BT-76	5.0	1.20	0.29	0.07
BT-76	5.5	-0.56	2.78	0.26
BT-76	6.0	2.10	4.17	0.49
BT-76	6.5	-2.17	0.79	0.01
BT-76	7.0	0.49	0.56	0.07
BT-76	7.5	0.22	3.20	0.33
BT-76	8.0	-0.79	5.19	0.49
BT-76	8.5	2.30	4.83	0.56
BT-76	9.0	-0.18	-0.16	-0.02
BT-77	-	0.66	0.05	0.03
BT-77	0.5	1.26	0.14	0.06
BT-77	1.0	-0.20	1.39	0.13
BT-77	1.5	-1.86	0.45	-0.02
BT-77	2.0	-1.07	0.35	0.00
BT-77	2.5	-2.25	0.07	-0.07
BT-77	3.0	3.21	2.26	0.33
BT-77	3.5	0.16	2.78	0.28
BT-77	4.0	-1.44	1.53	0.10
BT-77	4.5	0.85	5.46	0.57
BT-77	5.0	3.78	7.28	0.85
BT-77	5.5	-0.45	6.39	0.62
BT-77	6.0	-0.11	2.29	0.23
BT-77	6.5	0.45	8.21	0.84
BT-77	7.0	-0.47	7.77	0.76
BT-77	7.5	3.21	2.75	0.38
BT-77	8.0	-1.84	4.87	0.43
BT-78	-	-1.08	-0.35	-0.07
BT-78	0.5	-0.71	0.70	0.05
BT-78	1.0	-2.57	0.50	-0.04
BT-78	1.5	-2.61	0.54	-0.03
BT-78	2.0	-2.61	1.10	0.02
BT-78	2.5	0.99	5.35	0.57
BT-78	3.0	1.77	4.68	0.53
BT-78	3.5	2.31	5.51	0.63
BT-78	4.0	1.07	3.72	0.41
BT-78	4.5	1.00	6.36	0.67
BT-78	5.0	-1.77	6.81	0.62
BT-78	5.5	2.30	3.61	0.44
BT-78	6.0	-2.40	3.09	0.23
BT-78	6.5	-1.94	5.41	0.48
BT-78	7.0	-1.60	4.63	0.41

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-78	7.5	-0.03	5.67	0.57
BT-78	8.0	0.64	4.25	0.45
BT-78	8.5	-1.46	4.71	0.42
BT-78	9.0	-2.30	1.97	0.12
BT-79	-	0.43	0.63	0.08
BT-79	0.5	1.29	0.60	0.10
BT-79	1.0	2.95	1.12	0.21
BT-79	1.5	1.81	2.42	0.30
BT-79	2.0	1.50	1.57	0.21
BT-79	2.5	2.84	3.37	0.43
BT-79	3.0	2.39	2.66	0.35
BT-79	3.5	0.86	4.67	0.50
BT-79	4.0	1.33	1.42	0.19
BT-79	4.5	2.83	4.72	0.57
BT-79	5.0	-0.01	6.80	0.68
BT-79	5.5	2.06	7.70	0.84
BT-79	6.0	1.57	0.93	0.15
BT-79	6.5	4.04	7.39	0.87
BT-79	7.0	1.00	8.03	0.84
BT-79	7.5	1.08	10.25	1.06
BT-79	8.0	0.70	5.39	0.56
BT-79	8.5	-2.28	2.01	0.12
BT-79	9.0	1.03	2.83	0.32
BT-80	-	-2.29	0.92	0.02
BT-80	0.5	2.81	0.24	0.12
BT-80	1.0	1.43	1.78	0.23
BT-80	1.5	2.23	1.35	0.21
BT-80	2.0	1.02	0.49	0.08
BT-80	2.5	3.23	4.75	0.58
BT-80	3.0	2.77	5.82	0.67
BT-80	3.5	5.03	6.64	0.83
BT-80	4.0	1.60	2.20	0.27
BT-80	4.5	5.44	5.90	0.77
BT-80	5.0	2.72	4.40	0.53
BT-80	5.5	5.62	5.33	0.72
BT-80	6.0	4.35	3.35	0.48
BT-80	6.5	-0.52	5.10	0.49
BT-80	7.0	2.57	4.40	0.53
BT-80	7.5	-2.54	2.88	0.20
BT-80	8.0	0.56	3.25	0.34
BT-80	8.5	-2.65	3.75	0.29
BT-80	9.0	0.47	-1.33	-0.12
BT-80	9.5	-2.73	-1.14	-0.21
BT-80	10.0	-2.13	-0.65	-0.14
BT-80	10.5	2.20	0.50	0.12
BT-80	11.0	-2.75	0.86	-0.01
BT-80	11.5	1.21	1.17	0.16
BT-81	-	1.54	0.51	0.10
BT-81	0.5	1.93	0.66	0.13
BT-81	1.0	2.55	0.41	0.13
BT-81	1.5	0.74	1.12	0.14
BT-81	2.0	2.26	0.77	0.15
BT-81	2.5	-0.25	1.55	0.15
BT-81	3.0	-1.05	5.60	0.52
BT-81	3.5	-1.12	4.13	0.38
BT-81	4.0	1.95	1.74	0.24
BT-81	4.5	1.01	3.21	0.36
BT-81	5.0	2.70	3.14	0.40
BT-81	5.5	2.94	2.99	0.40
BT-81	6.0	-0.83	3.49	0.32
BT-81	6.5	1.35	2.18	0.26
BT-81	7.0	4.56	1.60	0.31
BT-81	7.5	1.62	1.19	0.17
BT-81	8.0	-0.98	2.88	0.26
BT-81	8.5	0.87	1.70	0.20
BT-81	9.0	3.17	1.63	0.27
BT-81	9.5	-1.11	-1.09	-0.15
BT-81	10.0	-0.47	1.73	0.16
BT-81	10.5	-2.67	1.72	0.08
BT-81	11.0	-1.77	1.94	0.14
BT-81	11.5	-2.36	1.47	0.07
BT-82	0.5	-1.31	0.37	-0.01
BT-82	1.0	1.19	0.50	0.09
BT-82	1.5	-0.44	1.10	0.10
BT-82	2.0	-0.29	1.06	0.10
BT-82	2.5	-2.18	0.72	0.00
BT-82	3.0	0.29	-0.14	0.00
BT-82	3.5	-0.48	2.39	0.22
BT-82	4.0	2.31	1.76	0.25
BT-82	4.5	-0.40	0.74	0.06
BT-82	5.0	-1.38	1.52	0.11
BT-82	5.5	0.94	3.70	0.40
BT-82	6.0	1.66	3.38	0.39
BT-82	6.5	0.28	0.57	0.07
BT-82	7.0	2.11	2.59	0.33
BT-82	7.5	0.66	3.69	0.39
BT-82	8.0	2.70	3.22	0.41
BT-82	8.5	-0.63	2.42	0.22
BT-82	9.0	-0.02	1.15	0.11
BT-83	0.5	-1.31	0.21	-0.02
BT-83	1.0	-0.05	0.93	0.09
BT-83	1.5	1.68	0.85	0.14
BT-83	2.0	-2.19	0.84	0.01
BT-83	2.5	-0.76	1.04	0.08
BT-83	3.0	0.04	1.26	0.13
BT-83	3.5	-0.23	2.35	0.23
BT-83	4.0	2.65	1.31	0.22
BT-83	4.5	3.45	3.38	0.45
BT-83	5.0	0.18	4.16	0.42

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-83	5.5	0.32	2.04	0.21
BT-83	6.0	2.38	4.34	0.51
BT-83	6.5	-0.94	1.54	0.12
BT-83	7.0	1.37	4.26	0.47
BT-83	7.5	-2.02	4.90	0.42
BT-83	8.0	0.16	3.44	0.35
BT-83	8.5	0.54	3.48	0.37
BT-83	9.0	1.65	2.82	0.34
BT-84	0.5	2.12	1.14	0.19
BT-84	1.0	-0.59	0.39	0.02
BT-84	1.5	-0.21	1.10	0.10
BT-84	2.0	0.12	1.03	0.11
BT-84	2.5	-1.78	1.09	0.05
BT-84	3.0	2.06	0.38	0.11
BT-84	3.5	0.43	2.47	0.26
BT-84	4.0	-2.10	6.05	0.54
BT-84	4.5	-0.88	3.39	0.31
BT-84	5.0	-0.95	4.62	0.43
BT-84	5.5	2.92	4.15	0.51
BT-84	6.0	3.25	2.39	0.35
BT-84	6.5	2.32	2.94	0.37
BT-84	7.0	3.88	5.50	0.68
BT-84	7.5	2.90	4.02	0.50
BT-84	8.0	4.22	4.47	0.59
BT-84	8.5	5.75	4.59	0.65
BT-84	9.0	2.56	3.34	0.42
BT-84	9.5	-1.14	5.58	0.52
BT-84	10.0	1.14	4.09	0.45
BT-85	1.0	-1.09	0.47	0.01
BT-85	1.5	-0.15	1.43	0.14
BT-85	2.0	-2.73	2.34	0.14
BT-85	2.5	-0.77	3.11	0.29
BT-85	3.0	0.05	0.45	0.05
BT-85	3.5	-1.50	4.39	0.39
BT-85	4.0	2.63	6.84	0.77
BT-85	4.5	0.03	5.69	0.57
BT-85	5.0	-1.91	0.96	0.03
BT-85	5.5	4.37	4.11	0.56
BT-85	6.0	-0.13	3.61	0.36
BT-85	6.5	-2.66	2.84	0.20
BT-85	7.0	2.38	1.73	0.25
BT-85	7.5	1.05	4.06	0.44
BT-85	8.0	1.20	2.10	0.25
BT-85	8.5	4.34	4.72	0.62
BT-85	9.0	-2.45	4.84	0.40
BT-85	9.5	2.45	2.97	0.38
BT-86	1.0	-2.76	0.07	-0.09
BT-86	1.5	0.16	0.25	0.03
BT-86	2.0	-1.58	1.57	0.10
BT-86	2.5	-0.46	0.55	0.04
BT-86	3.0	-2.62	0.12	-0.08
BT-86	3.5	-2.65	3.41	0.25
BT-86	4.0	-2.05	4.68	0.40
BT-86	4.5	3.33	4.78	0.59
BT-86	5.0	0.12	3.54	0.36
BT-86	5.5	3.80	3.46	0.47
BT-86	6.0	0.36	4.07	0.42
BT-86	6.5	0.05	4.78	0.48
BT-86	7.0	2.92	4.82	0.58
BT-86	7.5	-0.49	5.06	0.49
BT-86	8.0	-2.66	3.59	0.27
BT-86	8.5	-1.92	1.75	0.11
BT-86	9.0	-2.57	3.45	0.26
BT-86	9.5	3.75	0.90	0.22
BT-87	1.5	-0.42	0.22	0.01
BT-87	2.0	0.43	1.02	0.12
BT-87	2.5	2.42	2.69	0.35
BT-87	3.0	-2.65	0.63	-0.03
BT-87	3.5	2.53	1.05	0.19
BT-87	4.0	1.90	7.64	0.83
BT-87	4.5	4.83	5.95	0.76
BT-87	5.0	3.63	4.69	0.59
BT-87	5.5	0.67	14.37	1.46
BT-87	6.0	1.93	3.61	0.43
BT-87	6.5	3.62	5.24	0.64
BT-87	7.0	1.81	3.63	0.42
BT-87	7.5	-2.01	4.19	0.35
BT-87	8.0	3.64	1.84	0.31
BT-87	8.5	-0.41	2.69	0.26
BT-87	9.0	1.03	0.86	0.12
BT-87	9.5	1.36	3.86	0.43
BT-87	10.0	8.06	4.20	0.69
BT-87	10.5	1.74	1.55	0.21
BT-87	11.0	0.84	-0.17	0.01
BT-87	11.5	2.36	0.43	0.12
BT-87	12.0	3.94	0.60	0.19
BT-87	12.5	0.20	2.47	0.25
BT-87	13.0	-1.52	2.95	0.24
BT-88	1.5	-2.39	0.65	-0.01
BT-88	2.0	0.33	0.73	0.08
BT-88	2.5	-2.58	1.48	0.06
BT-88	3.0	2.38	1.20	0.20
BT-88	3.5	-0.02	0.85	0.08
BT-88	4.0	-0.18	1.83	0.18
BT-88	4.5	1.61	8.62	0.92
BT-88	5.0	0.36	7.20	0.73
BT-88	5.5	0.49	2.97	0.31
BT-88	6.0	-0.40	3.40	0.33
BT-88	6.5	-2.18	2.92	0.22

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-88	7.0	2.74	3.64	0.46
BT-88	7.5	-1.12	1.62	0.12
BT-88	8.0	-0.56	3.04	0.29
BT-88	8.5	1.18	2.07	0.25
BT-88	9.0	0.58	2.99	0.32
BT-88	9.5	-2.77	2.46	0.15
BT-88	10.0	-2.64	4.56	0.37
BT-88	10.5	15.90	1.44	0.67
BT-88	11.0	3.59	1.66	0.29
BT-88	11.5	4.79	1.74	0.33
BT-88	12.0	3.06	1.45	0.25
BT-88	12.5	3.51	0.55	0.17
BT-88	13.0	4.54	1.86	0.34
BT-88	13.5	-1.08	0.02	-0.03
BT-89	1.5	-1.45	0.39	-0.01
BT-89	2.0	-2.56	2.18	0.13
BT-89	2.5	-2.42	5.94	0.51
BT-89	3.0	-2.45	2.14	0.13
BT-89	3.5	0.89	1.33	0.16
BT-89	4.0	-2.53	6.27	0.54
BT-89	4.5	-1.50	3.28	0.28
BT-89	5.0	-0.57	4.26	0.41
BT-89	5.5	2.50	16.70	1.75
BT-89	6.0	-1.92	4.93	0.43
BT-89	6.5	1.01	5.02	0.54
BT-89	7.0	-1.07	4.54	0.42
BT-89	7.5	0.58	2.78	0.30
BT-89	8.0	0.60	5.69	0.59
BT-89	8.5	3.17	4.95	0.60
BT-89	9.0	-0.56	0.69	0.05
BT-89	9.5	-2.63	1.53	0.06
BT-89	10.0	-1.80	2.19	0.16
BT-89	10.5	-1.74	2.02	0.14
BT-89	11.0	-2.12	2.03	0.13
BT-89	11.5	-0.24	1.39	0.13
BT-89	12.0	-2.48	0.42	-0.04
BT-90	1.5	0.21	1.19	0.13
BT-90	2.0	-0.22	5.46	0.54
BT-90	2.5	-1.89	2.12	0.15
BT-90	3.0	1.47	0.59	0.11
BT-90	3.5	-0.49	1.35	0.12
BT-90	4.0	1.15	5.34	0.57
BT-90	4.5	-2.52	4.92	0.41
BT-90	5.0	1.19	1.48	0.19
BT-90	5.5	-1.77	3.56	0.30
BT-90	6.0	1.31	1.61	0.20
BT-90	6.5	4.56	5.31	0.68
BT-90	7.0	0.98	8.33	0.87
BT-90	7.5	-2.38	6.28	0.55
BT-90	8.0	4.90	4.06	0.57
BT-91	1.5	-1.08	0.26	-0.01
BT-91	2.0	0.70	4.23	0.45
BT-91	2.5	-0.22	1.84	0.18
BT-91	3.0	-1.90	4.74	0.41
BT-91	3.5	-0.35	1.62	0.15
BT-91	4.0	-2.47	3.21	0.24
BT-91	4.5	1.89	2.85	0.35
BT-91	5.0	-0.23	6.80	0.67
BT-91	5.5	-0.22	1.93	0.19
BT-91	6.0	-0.24	3.42	0.33
BT-91	6.5	3.83	7.20	0.85
BT-91	7.0	-1.17	6.06	0.57
BT-91	7.5	0.60	3.81	0.40
BT-91	8.0	-1.29	3.64	0.32
BT-92	1.5	0.02	0.75	0.08
BT-92	2.0	1.09	1.38	0.17
BT-92	2.5	-0.85	5.97	0.57
BT-92	3.0	-1.74	4.15	0.36
BT-92	3.5	0.15	2.63	0.27
BT-92	4.0	1.19	4.88	0.53
BT-92	4.5	4.15	3.90	0.53
BT-92	5.0	1.07	5.35	0.57
BT-92	5.5	1.29	3.76	0.42
BT-92	6.0	1.60	3.50	0.40
BT-92	6.5	-1.18	3.79	0.34
BT-92	7.0	0.23	3.86	0.39
BT-92	7.5	-0.37	1.94	0.18
BT-93	1.5	-0.89	0.20	-0.01
BT-93	2.0	-2.39	1.44	0.06
BT-93	2.5	-1.85	2.83	0.22
BT-93	3.0	2.36	8.08	0.89
BT-93	3.5	-1.80	1.78	0.12
BT-93	4.0	2.59	4.14	0.50
BT-93	4.5	-0.78	3.05	0.28
BT-93	5.0	3.10	4.37	0.54
BT-93	5.5	0.11	2.61	0.26
BT-93	6.0	0.48	4.20	0.44
BT-93	6.5	0.05	1.62	0.16
BT-93	7.0	2.40	3.35	0.42
BT-94	-	-0.66	0.09	-0.01
BT-94	0.5	-2.40	0.26	-0.05
BT-94	1.0	-1.58	0.47	-0.01
BT-94	1.5	-0.68	1.15	0.09
BT-94	2.0	-1.23	0.55	0.01
BT-94	2.5	-0.03	0.53	0.05
BT-94	3.0	0.82	3.05	0.33
BT-94	3.5	0.33	4.53	0.46
BT-94	4.0	0.92	3.45	0.38
BT-94	4.5	0.98	8.35	0.87

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-94	5.0	0.73	4.47	0.47
BT-94	5.5	-2.49	2.23	0.14
BT-94	6.0	1.24	3.35	0.38
BT-94	6.5	-0.52	1.16	0.10
BT-94	7.0	1.08	4.36	0.47
BT-94	7.5	-0.41	0.44	0.03
BT-95	-	0.35	0.32	0.04
BT-95	0.5	-1.10	0.53	0.02
BT-95	1.0	-1.29	0.60	0.02
BT-95	1.5	0.78	1.02	0.13
BT-95	2.0	-2.06	0.47	-0.02
BT-95	2.5	0.88	0.17	0.05
BT-95	3.0	0.93	7.21	0.75
BT-95	3.5	1.20	9.68	[redacted]1.01
BT-95	4.0	-2.47	8.69	0.79
BT-95	4.5	2.05	5.73	0.64
BT-95	5.0	-0.47	1.94	0.18
BT-95	5.5	2.99	3.32	0.43
BT-95	6.0	-2.65	1.13	0.02
BT-95	6.5	4.65	7.48	0.90
BT-95	7.0	-2.51	6.07	0.52
BT-95	7.5	3.24	5.23	0.63
BT-96	-	0.88	1.00	0.13
BT-96	0.5	2.22	0.49	0.12
BT-96	1.0	-0.20	0.53	0.05
BT-96	1.5	-1.15	1.08	0.07
BT-96	2.0	1.66	0.37	0.09
BT-96	2.5	-2.09	2.07	0.14
BT-96	3.0	2.24	8.29	0.90
BT-96	3.5	1.37	3.95	0.44
BT-96	4.0	-0.42	3.95	0.38
BT-96	4.5	2.09	9.56	[redacted]1.03
BT-96	5.0	4.48	7.77	0.93
BT-96	5.5	3.09	8.53	0.96
BT-96	6.0	2.28	5.63	0.64
BT-96	6.5	2.08	5.25	0.59
BT-96	7.0	-0.21	4.11	0.40
BT-97	-	1.35	0.26	0.07
BT-97	0.5	-2.52	1.29	0.04
BT-97	1.0	-0.36	0.11	0.00
BT-97	1.5	0.75	0.79	0.10
BT-97	2.0	1.79	0.36	0.10
BT-97	2.5	-0.79	0.49	0.02
BT-97	3.0	1.61	0.44	0.10
BT-97	3.5	2.54	1.51	0.24
BT-97	4.0	0.89	2.13	0.24
BT-97	4.5	0.62	0.79	0.10
BT-97	5.0	0.43	-0.22	-0.01
BT-97	5.5	-1.23	-0.06	-0.05
BT-97	6.0	-1.82	0.44	-0.02
BT-97	6.5	-0.02	0.69	0.07
BT-97	7.0	0.74	-0.04	0.02
BT-97	7.5	-0.87	-0.34	-0.06
BT-97	8.0	0.84	-1.14	-0.09
BT-98	-	-1.61	1.03	0.05
BT-98	0.5	0.24	0.99	0.11
BT-98	1.0	-1.49	0.69	0.02
BT-98	1.5	1.22	-0.38	0.00
BT-98	2.0	-0.91	1.21	0.09
BT-98	2.5	0.88	0.89	0.12
BT-98	3.0	0.36	1.36	0.15
BT-98	3.5	0.52	0.54	0.07
BT-98	4.0	-2.68	0.22	-0.07
BT-98	4.5	-0.22	0.37	0.03
BT-98	5.0	2.85	8.90	0.99
BT-98	5.5	-1.30	-0.42	-0.09
BT-98	6.0	0.25	0.10	0.02
BT-99	8.5	-1.35	3.59	0.31
BT-99	9.0	-1.69	1.86	0.13
BT-99	9.5	0.63	1.05	0.13
BT-101	8.5	3.12	6.44	0.75
BT-101	9.0	7.15	5.64	0.80
BT-101	9.5	8.76	0.40	0.33
BT-101	10.0	1.68	2.58	0.31
BT-101	10.5	1.41	2.33	0.28
BT-101	11.0	-1.11	2.39	0.20
BT-101	11.5	-1.21	1.84	0.14
BT-101	12.0	-1.84	1.63	0.10
BT-102	9.0	3.01	1.58	0.26
BT-102	9.5	2.44	1.17	0.20
BT-102	10.0	3.60	1.58	0.28
BT-102	10.5	2.34	2.03	0.28
BT-103	9.0	2.57	2.40	0.33
BT-103	9.5	-0.87	2.04	0.17
BT-103	10.0	0.88	2.00	0.23
BT-103	10.5	0.97	2.38	0.27
BT-103	11.0	-1.18	2.02	0.16
BT-103	11.5	-1.13	1.89	0.15
BT-104	10.0	0.74	0.32	0.06
BT-104	10.5	-1.94	1.29	0.06
BT-104	11.0	0.13	0.84	0.09
BT-104	11.5	1.14	1.36	0.17
BT-104	12.0	-1.67	2.07	0.15
BT-105	11.5	-0.52	1.12	0.09
BT-105	12.0	1.21	1.62	0.20
BT-105	12.5	0.09	1.81	0.18
BT-105	13.0	0.94	0.71	0.10
BT-105	13.5	-1.35	0.81	0.04
BT-105	14.0	1.76	1.33	0.19

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-106	10.5	-0.07	2.15	0.21
BT-106	11.0	2.78	2.14	0.31
BT-106	11.5	-2.60	1.06	0.02
BT-106	12.0	-0.80	1.26	0.10
BT-106	12.5	-2.60	1.53	0.07
BT-107	10.5	-2.77	0.96	0.00
BT-107	11.0	-1.77	1.05	0.05
BT-107	11.5	-1.37	0.05	-0.04
BT-108	9.0	1.86	0.74	0.14
BT-108	9.5	-0.10	0.34	0.03
BT-108	10.0	-2.07	0.80	0.01
BT-108	10.5	2.45	0.24	0.11
BT-109	9.5	2.84	0.72	0.17
BT-109	10.0	-1.64	1.09	0.05
BT-109	10.5	-0.83	1.42	0.11
BT-110	1.5	-1.98	1.52	0.09
BT-110	2.0	2.26	0.58	0.13
BT-110	2.5	-2.56	1.45	0.06
BT-110	3.0	-1.75	1.17	0.06
BT-110	3.5	0.86	0.88	0.12
BT-110	4.0	0.81	1.35	0.16
BT-110	4.5	-1.04	1.30	0.10
BT-110	5.0	-2.67	1.09	0.02
BT-110	5.5	0.18	0.68	0.07
BT-110	6.0	-0.37	2.34	0.22
BT-110	6.5	-2.66	4.24	0.34
BT-110	7.0	-1.76	1.29	0.07
BT-110	7.5	-2.51	0.75	-0.01
BT-110	8.0	-2.00	0.09	-0.06
BT-110	8.5	-2.09	0.10	-0.06
BT-110	9.0	-2.77	0.64	-0.03
BT-110	9.5	-2.19	1.26	0.05
BT-110	10.0	-1.21	0.79	0.04
BT-111	1.5	-1.65	0.42	-0.01
BT-111	2.0	-2.40	1.17	0.04
BT-111	2.5	-2.62	0.62	-0.03
BT-111	3.0	0.17	1.70	0.18
BT-111	3.5	-0.23	1.39	0.13
BT-111	4.0	-1.56	0.70	0.02
BT-111	4.5	-0.27	1.31	0.12
BT-111	5.0	0.45	1.33	0.15
BT-111	5.5	1.34	0.63	0.11
BT-111	6.0	-0.36	1.93	0.18
BT-111	6.5	-1.98	3.58	0.29
BT-111	7.0	3.53	7.93	0.91
BT-111	7.5	5.97	7.98	1.00
BT-111	8.0	2.04	11.36	1.20
BT-111	8.5	-0.38	2.08	0.19
BT-111	9.0	-2.57	2.95	0.21
BT-111	9.5	0.13	1.18	0.12
BT-111	10.0	-0.99	1.58	0.13
BT-111	10.5	2.84	0.07	0.10
BT-112	1.5	-1.85	0.86	0.02
BT-112	2.0	-1.66	0.61	0.01
BT-112	2.5	-2.49	0.67	-0.02
BT-112	3.0	-0.48	0.86	0.07
BT-112	3.5	0.72	1.72	0.20
BT-112	4.0	-1.79	1.04	0.04
BT-112	4.5	-0.87	0.31	0.00
BT-112	5.0	1.30	0.08	0.05
BT-112	5.5	0.51	1.00	0.12
BT-112	6.0	2.82	7.68	0.86
BT-112	6.5	2.89	5.67	0.66
BT-112	7.0	1.97	9.98	1.06
BT-112	7.5	1.09	4.27	0.46
BT-112	8.0	2.08	6.57	0.73
BT-112	8.5	-0.09	6.55	0.65
BT-112	9.0	-0.13	5.67	0.56
BT-112	9.5	-2.77	14.11	1.32
BT-112	10.0	4.42	8.54	1.00
BT-112	10.5	0.81	4.66	0.49
BT-112	11.0	-2.73	0.20	-0.07
BT-113	1.5	-2.73	1.78	0.09
BT-113	2.0	1.90	2.34	0.30
BT-113	2.5	-2.71	1.40	0.05
BT-113	3.0	0.26	0.94	0.10
BT-113	3.5	0.66	1.65	0.19
BT-113	4.0	-1.43	1.33	0.09
BT-113	4.5	0.19	0.50	0.06
BT-113	5.0	-2.20	2.26	0.15
BT-113	5.5	-2.58	1.21	0.03
BT-113	6.0	-1.51	2.70	0.22
BT-113	6.5	-0.27	9.36	0.93
BT-113	7.0	-1.50	7.02	0.65
BT-113	7.5	1.21	3.93	0.43
BT-113	8.0	2.22	6.49	0.72
BT-113	8.5	-1.35	6.85	0.64
BT-113	9.0	-0.29	6.24	0.61
BT-113	9.5	0.86	2.28	0.26
BT-113	10.0	3.67	6.28	0.75
BT-113	10.5	1.99	3.12	0.38
BT-114	1.5	-0.10	1.19	0.12
BT-114	2.0	1.17	1.36	0.18
BT-114	2.5	-2.42	1.06	0.03
BT-114	3.0	-1.76	1.46	0.09
BT-114	3.5	0.80	0.97	0.12
BT-114	4.0	-0.41	1.02	0.09
BT-114	4.5	0.76	1.23	0.15
BT-114	5.0	-2.57	1.09	0.02

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-114	5.5	0.92	1.29	0.16
BT-114	6.0	-0.52	2.24	0.21
BT-114	6.5	1.49	4.79	0.53
BT-114	7.0	-2.69	2.42	0.15
BT-114	7.5	3.29	4.50	0.56
BT-114	8.0	3.67	6.52	0.77
BT-114	8.5	1.30	5.29	0.57
BT-114	9.0	3.90	5.14	0.64
BT-114	9.5	-1.28	5.86	0.54
BT-114	10.0	3.13	4.14	0.52
BT-114	10.5	-0.13	8.31	0.83
BT-114	11.0	-2.64	1.73	0.09
BT-114	11.5	0.08	1.33	0.14
BT-114	12.0	-0.69	1.84	0.16
BT-114	12.5	4.30	2.74	0.42
BT-114	13.0	0.19	2.15	0.22
BT-115	1.5	-0.26	1.10	0.10
BT-115	2.0	0.32	0.96	0.11
BT-115	2.5	-1.24	0.66	0.02
BT-115	3.0	-0.47	2.08	0.19
BT-115	3.5	-2.57	2.37	0.15
BT-115	4.0	1.17	0.52	0.09
BT-115	4.5	-0.83	1.02	0.07
BT-115	5.0	0.17	1.06	0.11
BT-115	5.5	-1.93	1.09	0.04
BT-115	6.0	-1.73	1.15	0.06
BT-115	6.5	2.49	14.57	1.54
BT-115	7.0	1.66	3.79	0.43
BT-115	7.5	4.26	1.67	0.31
BT-115	8.0	-1.51	5.63	0.51
BT-115	8.5	1.64	9.14	0.97
BT-115	9.0	6.73	7.83	1.01
BT-115	9.5	-2.50	0.92	0.01
BT-115	10.0	-0.52	1.68	0.15
BT-115	10.5	-0.71	5.31	0.51
BT-116	1.5	4.17	0.62	0.20
BT-116	2.0	-0.86	1.50	0.12
BT-116	2.5	-2.71	0.89	0.00
BT-116	3.0	-1.65	1.33	0.08
BT-116	3.5	-1.06	1.04	0.07
BT-116	4.0	-0.88	0.34	0.00
BT-116	4.5	-2.72	1.44	0.05
BT-116	5.0	-0.17	0.65	0.06
BT-116	5.5	-0.45	0.29	0.01
BT-116	6.0	-2.63	6.10	0.52
BT-116	6.5	4.29	2.33	0.38
BT-116	7.0	2.05	8.34	0.90
BT-116	7.5	-0.36	4.48	0.44
BT-116	8.0	0.11	1.67	0.17
BT-116	8.5	-0.50	4.29	0.41
BT-116	9.0	0.82	1.32	0.16
BT-116	9.5	3.21	7.17	0.82
BT-116	10.0	0.30	7.94	0.80
BT-116	10.5	-0.86	0.80	0.05
BT-116	11.0	-0.69	0.34	0.01
BT-116	11.5	-0.69	2.61	0.24
BT-116	12.0	-0.83	1.57	0.13
BT-116	12.5	0.67	1.87	0.21
BT-116	13.0	0.66	0.97	0.12
BT-117	1.5	-2.77	0.98	0.01
BT-117	2.0	-1.18	1.31	0.09
BT-117	2.5	1.82	1.03	0.16
BT-117	3.0	-2.67	2.10	0.12
BT-117	3.5	-0.27	0.37	0.03
BT-117	4.0	-1.85	1.21	0.06
BT-117	4.5	-0.03	0.97	0.10
BT-117	5.0	0.45	2.39	0.25
BT-117	5.5	1.88	1.81	0.24
BT-117	6.0	2.23	4.23	0.50
BT-117	6.5	5.24	5.32	0.71
BT-117	7.0	1.29	1.65	0.21
BT-117	7.5	0.11	5.04	0.51
BT-117	8.0	-2.55	3.37	0.25
BT-117	8.5	-1.14	7.37	0.70
BT-117	9.0	2.47	6.37	0.72
BT-117	9.5	-0.40	3.17	0.30
BT-117	10.0	-1.97	4.00	0.33
BT-117	10.5	-2.34	1.32	0.05
BT-118	2.0	-2.23	0.87	0.01
BT-118	2.5	-2.13	0.44	-0.03
BT-118	3.0	-0.33	0.13	0.00
BT-118	3.5	0.49	0.59	0.07
BT-118	4.0	1.61	0.80	0.13
BT-118	4.5	-0.89	0.76	0.05
BT-118	5.0	-0.62	1.18	0.10
BT-118	5.5	-2.77	3.03	0.21
BT-118	6.0	-0.54	6.80	0.66
BT-118	6.5	1.80	7.08	0.77
BT-118	7.0	-2.12	4.44	0.37
BT-118	7.5	-1.24	5.99	0.56
BT-118	8.0	0.68	0.52	0.08
BT-118	8.5	-0.90	1.55	0.13
BT-118	9.0	-1.03	3.78	0.34
BT-118	9.5	-0.77	13.63	1.34
BT-118	10.0	-2.71	1.33	0.04
BT-118	10.5	-2.00	1.15	0.05
BT-118	11.0	1.75	0.16	0.07
BT-118	11.5	-1.10	1.39	0.10
BT-118	12.0	-0.21	0.83	0.08

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-119	2.0	1.12	0.81	0.12
BT-119	2.5	-2.77	1.51	0.06
BT-119	3.0	-0.41	1.49	0.14
BT-119	3.5	0.30	0.75	0.08
BT-119	4.0	0.17	1.31	0.14
BT-119	4.5	-0.53	0.86	0.07
BT-119	5.0	-0.74	0.03	-0.02
BT-119	5.5	-0.16	1.37	0.13
BT-119	6.0	-1.82	1.08	0.05
BT-119	6.5	-2.31	1.00	0.02
BT-119	7.0	-0.65	9.26	0.90
BT-119	7.5	5.34	5.59	0.74
BT-119	8.0	0.81	12.28	1.25
BT-119	8.5	1.52	6.22	0.67
BT-119	9.0	-2.66	1.99	0.11
BT-119	9.5	1.47	1.45	0.19
BT-119	10.0	-0.15	1.52	0.15
BT-119	10.5	-1.35	1.26	0.08
BT-119	11.0	-1.03	1.08	0.07
BT-119	11.5	-0.29	1.09	0.10
BT-120	2.0	-0.65	1.30	0.11
BT-120	2.5	-0.73	1.87	0.16
BT-120	3.0	-2.63	0.71	-0.02
BT-120	6.0	-0.76	2.05	0.18
BT-120	6.5	1.78	2.88	0.35
BT-120	7.0	-0.67	7.24	0.70
BT-120	7.5	0.64	6.32	0.65
BT-120	8.0	-2.66	7.93	0.70
BT-120	8.5	5.73	10.88	1.28
BT-120	9.0	2.95	8.87	0.99
BT-120	9.5	3.47	5.71	0.69
BT-120	10.0	-0.03	2.14	0.21
BT-120	10.5	-0.28	1.19	0.11

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-121	2.5	-1.73	0.74	0.02
BT-121	3.0	-0.52	1.00	0.08
BT-121	3.5	0.28	2.02	0.21
BT-121	4.0	4.03	1.15	0.25
BT-121	4.5	0.97	1.05	0.14
BT-121	5.0	-1.39	1.21	0.07
BT-121	5.5	1.89	2.38	0.30
BT-121	6.0	1.28	1.27	0.17
BT-121	6.5	-0.03	1.00	0.10
BT-121	7.0	-1.46	0.49	0.00
BT-121	7.5	-0.33	1.66	0.16
BT-121	8.0	4.86	8.90	1.05
BT-121	8.5	9.33	8.64	1.17
BT-121	9.0	2.59	6.79	0.77
BT-121	9.5	1.94	2.11	0.28
BT-121	10.0	-1.61	0.99	0.05
BT-121	10.5	-2.73	0.40	-0.05
BT-121	11.0	0.32	0.74	0.08
BT-121	11.5	-2.57	0.28	-0.06
BT-121	12.0	0.05	0.19	0.02
BT-122	11.5	2.41	2.30	0.31
BT-122	12.0	3.55	2.49	0.37
BT-123	2.5	0.01	1.25	0.13
BT-123	3.0	-2.59	1.08	0.02
BT-123	3.5	-0.17	1.16	0.11
BT-123	4.0	0.17	0.96	0.10
BT-123	4.5	-2.27	1.42	0.07
BT-123	5.0	-2.68	1.83	0.09
BT-123	5.5	-2.60	6.83	0.60
BT-123	6.0	5.06	8.34	1.00
BT-123	6.5	-1.56	1.13	0.06
BT-123	7.0	-1.60	2.06	0.15
BT-123	7.5	1.13	6.01	0.64

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-123	8.0	0.45	4.70	0.49
BT-123	8.5	-0.31	2.64	0.25
BT-123	9.0	-2.67	1.31	0.04
BT-123	9.5	0.27	0.86	0.10
BT-123	10.0	-0.08	1.01	0.10
BT-123	10.5	-1.06	1.20	0.08
BT-123	11.0	1.66	1.50	0.21
BT-123	11.5	-2.30	0.75	0.00
BT-123	12.0	-1.14	1.08	0.07
BT-123	12.5	2.55	0.73	0.16
BT-124	3.0	0.99	1.39	0.17
BT-124	3.5	-2.37	0.95	0.02
BT-124	4.0	-2.69	0.82	-0.01
BT-124	4.5	0.33	1.60	0.17
BT-124	5.0	-0.21	0.85	0.08
BT-124	5.5	-1.07	7.46	0.71
BT-124	6.0	-2.03	6.87	0.62
BT-124	6.5	2.55	1.00	0.19
BT-124	7.0	-1.06	3.35	0.30
BT-124	7.5	1.69	7.78	0.83
BT-124	8.0	0.56	3.96	0.41
BT-124	8.5	-0.93	6.21	0.59
BT-124	9.0	-2.77	2.23	0.13
BT-124	9.5	1.10	5.41	0.58
BT-124	10.0	-2.73	0.82	-0.01
BT-124	10.5	-1.83	0.96	0.04
BT-124	11.0	-1.42	1.87	0.14
BT-124	11.5	-0.97	0.89	0.06
BT-124	12.0	-2.62	1.30	0.04
BT-125	3.0	1.49	2.57	0.31
BT-125	3.5	2.32	0.80	0.16
BT-125	4.0	0.93	1.88	0.22
BT-125	4.5	-0.28	1.67	0.16

Table 2
Burial Trench Samples

LOCID	Depth Index	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
BT-125	5.0	-0.16	1.68	0.16
BT-125	5.5	-0.32	0.65	0.05
BT-125	6.0	-2.01	0.51	-0.02
BT-125	6.5	-2.44	0.71	-0.01
BT-125	7.0	0.10	1.42	0.15
BT-125	7.5	-0.85	0.69	0.04
BT-125	8.0	4.08	0.79	0.22
BT-125	8.5	-0.01	0.52	0.05
BT-125	9.0	-1.46	1.17	0.07
BT-125	9.5	1.58	3.88	0.44
BT-125	10.0	-0.26	1.05	0.10
BT-126	6.0	2.88	1.46	0.24
BT-126	6.5	0.29	0.43	0.05
BT-126	7.0	2.07	1.89	0.26
BT-126	7.5	0.87	1.66	0.20
BT-127	0.5	1.41	1.51	0.20
BT-127	1.0	0.10	1.09	0.11
BT-127	1.5	-0.24	0.68	0.06
BT-127	2.0	-2.59	0.41	-0.05
BT-127	2.5	-0.26	0.76	0.07
BT-127	3.0	1.87	8.69	0.93
BT-127	3.5	0.43	5.13	0.53
BT-127	4.0	2.03	7.00	0.77
BT-127	4.5	-0.23	1.11	0.10
BT-127	5.0	1.51	9.24	0.97
BT-127	5.5	-0.47	9.70	0.95
BT-127	6.0	1.18	6.06	0.65
BT-127	6.5	0.66	4.95	0.52
BT-128	6.5	1.20	4.17	0.46
BT-129	1.0	0.54	0.50	0.07
BT-129	1.5	0.27	0.57	0.07
BT-129	2.0	-0.72	0.75	0.05
BT-129	2.5	-1.45	0.56	0.01
BT-129	3.0	0.65	0.75	0.10
BT-129	3.5	1.71	5.66	0.62
BT-129	4.0	1.91	11.64	1.23
BT-129	4.5	-2.59	0.66	-0.02
BT-129	5.0	-0.17	9.19	0.91
BT-129	5.5	2.10	4.91	0.56
BT-129	6.0	-1.16	10.91	1.05
BT-129	6.5	-2.45	2.60	0.18
BT-130	1.0	-2.77	1.48	0.06
BT-130	1.5	0.68	0.15	0.04
BT-130	2.0	-1.44	1.98	0.15
BT-130	2.5	-2.67	1.47	0.06
BT-130	3.0	-2.25	0.54	-0.02
BT-130	3.5	0.60	5.85	0.61
BT-130	4.0	-0.13	9.35	0.93
BT-130	4.5	3.13	7.44	0.85
BT-130	5.0	2.40	1.27	0.21
BT-130	5.5	-2.67	3.32	0.24
BT-130	6.0	-2.48	10.92	1.01
BT-130	6.5	-1.16	0.89	0.05
BT-130	7.0	1.08	-0.36	0.00
BT-130	7.5	-1.83	-0.28	-0.09
BT-131	1.0	-0.17	0.96	0.09
BT-131	1.5	0.21	1.36	0.14
BT-131	2.0	0.54	1.69	0.19
BT-131	2.5	0.58	1.16	0.14
BT-131	3.0	-0.49	0.12	0.00
BT-131	3.5	-1.78	0.51	-0.01
BT-131	4.0	-2.70	-0.16	-0.11
BT-131	4.5	0.22	0.61	0.07
BT-131	5.0	-2.55	1.64	0.08
BT-131	5.5	0.98	1.05	0.14
BT-131	6.0	0.96	0.55	0.09
BT-131	6.5	0.00	-0.12	-0.01
BT-131	7.0	-2.49	-0.41	-0.12
BT-131	7.5	4.45	2.13	0.36
BT-131	8.0	-0.93	1.85	0.15
BT-131	8.5	-2.60	1.83	0.10
BT-131	9.0	-2.50	1.55	0.07
BT-132	1.5	-1.45	1.84	0.14
BT-132	2.0	0.13	3.34	0.34
BT-132	2.5	0.37	0.29	0.04
BT-132	3.0	-2.35	0.44	-0.03
BT-132	3.5	-0.75	1.33	0.11
BT-132	4.0	-2.56	1.40	0.05
BT-132	4.5	-2.62	1.42	0.05
BT-132	5.0	0.35	1.96	0.21
BT-132	5.5	-0.82	2.16	0.19
BT-132	6.0	2.72	0.99	0.19
BT-132	6.5	0.80	0.72	0.10
BT-132	7.0	3.80	2.79	0.41
BT-132	7.5	1.44	1.73	0.22
BT-132	8.0	1.04	1.64	0.20
BT-132	8.5	1.77	1.84	0.24
BT-132	9.0	1.10	0.83	0.12

Table 3
Final Decommissioning Excavation Bottom Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
B010E05S60	-0.44	1.19	0.10
B010E05S65	0.14	0.84	0.09
B010E05S70	-1.58	2.03	0.15
B010E05S75	-1.62	0.50	0.00
B010E05S80	0.40	1.08	0.12
B010E10S15	-0.27	0.70	0.06
B010E10S20	1.30	5.82	0.63
B010E10S25	-1.04	1.42	0.11
B010E10S30	1.96	2.42	0.31
B010E10S35	5.08	2.25	0.39
B010E10S40	2.48	2.24	0.31
B010E10S45	0.00	0.88	0.09
B010E10S50	0.97	1.03	0.14
B010E10S55	-5.28	4.51	0.28
B010E10S60	0.79	4.91	0.52
B010E10S65	-0.99	1.21	0.09
B010E10S70	1.38	1.47	0.19
B010E10S75	-1.47	0.45	0.00
B010E10S80	1.12	1.75	0.21
B010E10S85	-0.29	0.45	0.04
B010E15S15	-1.10	0.74	0.04
B010E15S20	0.99	3.37	0.37
B010E15S25	-1.64	1.73	0.12
B010E15S30	-1.48	4.00	0.35
B010E15S35	-4.00	1.13	-0.02
B010E15S40	-0.67	0.66	0.04
B010E15S45	0.73	2.41	0.27
B010E15S50	3.70	4.19	0.54
B010E15S55	-1.07	2.17	0.18
B010E15S60	-0.09	1.81	0.18
B010E15S65	0.94	0.99	0.13
B010E15S70	-1.92	2.85	0.22
B010E15S75	-4.13	0.60	-0.08
B010E15S80	-1.92	1.22	0.06
B010E15S85	1.92	0.92	0.16
B010E15S90	0.15	0.79	0.08
B010E15S95	2.43	0.49	0.13
B010E20S15	1.91	1.17	0.18
B010E20S20	1.99	1.56	0.22
B010E20S25	1.51	0.63	0.11
B010E20S30	0.69	1.47	0.17
B010E20S35	-0.45	0.40	0.03
B010E20S40	1.31	2.79	0.32
B010E20S45	-0.60	3.57	0.34
B010E20S50	-0.82	0.98	0.07
B010E20S55	1.89	4.37	0.50
B010E20S60	1.33	2.64	0.31
B010E20S65	-1.10	1.90	0.15
B010E20S70	-3.80	0.90	-0.04
B010E20S75	-0.66	2.76	0.25
B010E20S80	-3.33	0.03	-0.11
B010E25S15	-4.33	1.89	0.04
B010E25S20	-0.87	1.63	0.13
B010E25S25	-3.24	1.86	0.08
B010E25S30	-0.12	2.86	0.28
B010E25S35	-5.52	2.55	0.07
B010E25S40	-0.31	1.88	0.18
B010E25S45	-0.17	1.83	0.18
B010E25S50	0.26	2.39	0.25
B010E25S55	-0.31	2.90	0.28
B010E25S60	-1.47	2.29	0.18
B010E25S65	-0.45	2.32	0.22
B010E25S70	-1.77	1.02	0.04
B010E25S75	1.27	0.49	0.09
B010E25S80	0.27	0.30	0.04
B010E30S15	0.49	0.92	0.11
B010E30S20	-0.25	1.25	0.12
B010E30S25	-3.38	2.56	0.14
B010E30S30	1.36	1.38	0.18
B010E30S35	-0.85	1.00	0.07
B010E30S40	0.02	0.16	0.02
B010E30S45	-0.80	2.13	0.19
B010E30S50	-0.54	3.50	0.33
B010E30S55	-3.37	0.85	-0.03
B010E30S60	-0.61	1.03	0.08
B010E30S65	0.33	1.40	0.15
B010E30S70	-0.43	0.73	0.06
B010E30S75	-1.54	1.11	0.06
B010E30S80	0.87	1.14	0.14
B010E35S15	0.45	0.80	0.10
B010E35S20	-1.30	-0.32	-0.08
B010E35S25	-0.92	0.69	0.04
B010E35S30	-0.30	0.39	0.03
B010E35S35	0.28	0.96	0.11
B010E35S40	-1.38	0.72	0.03
B010E35S45	-0.70	1.16	0.09
B010E35S50	0.89	0.30	0.06
B010E35S55	0.14	0.04	0.01
B010E35S60	-1.12	-0.03	-0.04
B010E35S65	3.29	0.74	0.18
B010E35S70	-1.00	0.64	0.03
B010E35S75	-1.04	0.22	-0.01
B010E35S80	-2.86	-0.56	-0.15
B010E40S20	-0.18	0.94	0.09
B010E40S25	2.93	1.18	0.22
B010E40S30	0.16	0.31	0.04
B010E40S35	-1.79	0.67	0.01
B010E40S40	0.34	0.38	0.05
B010E40S45	1.47	0.69	0.12
B010E40S50	5.45	-0.51	0.13
B010E40S55	-0.44	0.43	0.03
B010E40S60	4.13	0.41	0.18
B010E40S65	-1.59	0.09	-0.04
B010E40S70	-3.34	0.36	-0.08
B010E40S75	0.21	1.56	0.16
B010E40S80	-1.69	0.66	0.01
B010E45S20	2.28	0.26	0.10
B010E45S25	-2.51	0.55	-0.03
B010E45S30	0.01	0.46	0.05
B010E45S35	-0.45	-0.15	-0.03
B010E45S40	1.36	0.01	0.05
B010E45S45	0.84	0.38	0.07
B010E45S50	0.83	0.57	0.09
B010E45S55	1.59	0.19	0.07
B010E45S60	0.64	-0.14	0.01
B010E45S65	4.23	0.88	0.23
B010E45S70	1.24	0.01	0.04
B010E45S75	-0.55	0.97	0.08
B010E45S80	0.27	0.28	0.04
B010E50S20	-3.05	0.70	-0.03
B010E50S25	-2.73	1.04	0.01
B010E50S30	-1.09	0.94	0.06
B010E50S35	0.65	0.51	0.07
B010E50S40	-0.57	1.15	0.10
B010E50S45	1.11	1.27	0.16
B010E50S50	-0.66	0.65	0.04
B010E50S55	0.84	0.82	0.11
B010E50S65	-3.22	0.95	-0.01
B010E50S70	-1.85	0.65	0.00
B010E50S75	0.19	1.54	0.16
B010E50S80	-0.21	2.08	0.20
B010E55S20	0.63	0.87	0.11
B010E55S25	0.75	1.68	0.19
B010E55S30	2.38	1.32	0.21
B010E55S35	1.92	0.41	0.11
B010E55S40	-4.19	0.66	-0.07
B010E55S45	-0.48	0.99	0.08
B010E55S50	-2.30	0.68	-0.01
B010E55S55	5.21	0.80	0.25
B010E55S60	5.31	1.38	0.32
B010E55S65	-0.55	0.39	0.02
B010E55S70	-0.62	0.31	0.01
B010E55S75	4.21	1.33	0.27
B010E55S80	-1.72	0.23	-0.03
B010E60S20	-0.75	0.78	0.05
B010E60S25	0.17	0.82	0.09
B010E60S30	0.69	0.80	0.10
B010E60S35	-1.15	0.10	-0.03
B010E60S40	-1.27	0.59	0.02
B010E60S45	3.59	1.52	0.27
B010E60S50	-1.64	0.70	0.02
B010E60S55	-2.94	1.39	0.04
B010E60S60	-1.09	1.73	0.14
B010E60S65	1.50	2.06	0.26
B010E60S70	0.62	0.86	0.11
B010E60S75	3.44	1.11	0.23
B010E60S80	-3.12	0.46	-0.06
B010E60S85	-1.91	1.05	0.04
B010E65S25	3.59	0.85	0.20
B010E65S30	3.87	0.73	0.20
B010E65S35	-2.37	0.83	0.00
B010E65S40	-0.86	0.51	0.02
B010E65S45	-1.01	0.95	0.06
B010E65S50	-0.89	0.99	0.07

Table 3
Final Decommissioning Excavation Bottom Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
B010E65S55	-0.71	0.94	0.07
B010E65S60	-0.42	1.57	0.14
B010E65S85	1.01	0.44	0.08
B010E65S90	-1.89	-0.97	-0.16
B010E65S95	-1.76	-0.12	-0.07
B010E75S40	-4.02	0.64	-0.07
B010E75S45	-0.04	1.09	0.11
B010E75S50	2.18	1.09	0.18
B010E75S55	-0.79	0.62	0.04
B010E75S60	-0.73	1.35	0.11
B010E75S65	2.78	0.76	0.17
B010E75S70	1.34	1.69	0.21
B010E75S75	6.28	1.05	0.31
B010E75S80	0.80	-0.22	0.01
B010E80S45	-0.59	1.59	0.14
B010E80S50	1.25	1.50	0.19
B010E80S55	2.33	0.46	0.12
B010E80S60	0.29	0.34	0.04
B010E80S65	2.35	0.62	0.14
B010E80S70	0.97	0.99	0.13
B010E80S75	3.99	1.32	0.26
B010E80S80	2.82	1.36	0.23
B010E85S10A	-1.74	2.25	0.17
B010E85S45	-0.72	0.88	0.06
B010E85S50	1.78	0.91	0.15
B010E85S55	1.93	0.60	0.12
B010E85S60	2.47	0.25	0.11
B010E85S65	0.68	0.41	0.06
B010E85S70	3.30	1.44	0.25
B010E85S75	5.26	2.15	0.39
B010E85S80	0.53	0.61	0.08
B010E88S06	-1.31	0.46	0.00
B010E90S05	-1.24	0.79	0.04
B010E90S08	3.13	0.74	0.18
B010E90S10	2.85	1.06	0.20
B010E90S45	10.43	2.66	0.61
B010E90S50	0.50	0.59	0.08
B010E90S55	1.87	1.58	0.22
B010E90S60	-1.65	0.73	0.02
B010E90S65	-2.68	1.02	0.01
B010E90S70	-2.35	0.65	-0.01
B010E90S75	1.51	0.97	0.15
B010E92S06	3.13	0.57	0.16
B010E92S68	0.86	2.39	0.27
B010E93S09	-2.60	0.96	0.01
B010E95S45	1.98	0.94	0.16
B010E95S50	0.12	1.01	0.11
B010E95S55	-0.44	0.94	0.08
B010E95S60	-2.26	1.72	0.10
B010E95S65	-1.41	1.57	0.11
B010E95S70	1.01	1.71	0.21
B010E95S73	1.59	2.10	0.26
B010E95S75	1.57	0.89	0.14
B010E95S80	0.31	1.31	0.14
B010E99S73	1.46	1.67	0.22
B011E00S45	4.92	0.48	0.21
B011E00S50	-1.58	0.54	0.00
B011E00S55	1.65	2.51	0.31
B011E00S60	2.73	2.16	0.31
B011E00S65	-0.12	3.80	0.38
B011E00S70	1.04	1.79	0.21
B011E00S75	5.64	1.04	0.29
B011E00S80	-2.72	0.62	-0.03
B011E02S71	-2.55	2.47	0.16
B011E05S45	-1.47	0.66	0.02
B011E05S50	0.68	1.89	0.21
B011E05S55	1.73	3.81	0.44
B011E05S60	3.56	1.45	0.26
B011E05S65	3.17	2.41	0.35
B011E05S70	3.67	1.54	0.28
B011E06S66	3.49	0.79	0.20
B011E15S25	2.20	1.18	0.19
B011E15S35A	-2.39	0.31	-0.05
B011E20S03	-0.60	0.41	0.02
B011E20S05	0.56	1.09	0.13
B011E20S15	-2.17	1.38	0.07
B011E20S20	-3.00	3.60	0.26
B011E20S25	-0.20	1.40	0.13
B011E20S25A	-0.35	1.23	0.11
B011E20S25E	-1.19	1.67	0.13
B011E20S30	2.39	0.77	0.16
B011E20S35	-0.25	0.99	0.09
B011E24S28	3.52	0.84	0.20
B011E25S00	0.73	2.46	0.27
B011E25S05	1.28	2.52	0.29
B011E25S10	-1.51	0.93	0.04
B011E25S15	2.73	0.99	0.19
B011E25S20	3.78	0.98	0.22
B011E25S25	0.66	0.97	0.12
B011E25S30	2.53	0.99	0.18
B011E25S35	2.66	0.42	0.13
B011E25S40	0.11	0.99	0.10
B011E25S45	3.51	1.41	0.26
B011E25S55	2.49	2.27	0.31
B011E25S60	2.16	1.12	0.18
B011E25S85	-0.92	0.30	0.00
B011E25S90	0.23	6.57	0.66
B011E25S95	5.55	2.84	0.47
B011E27S98	0.63	1.64	0.19
B011E28S53	-2.50	1.57	0.07
B011E28S59	-1.37	1.22	0.08
B011E30S00	4.39	3.54	0.50
B011E30S05	1.46	3.60	0.41
B011E30S10	-0.58	1.97	0.18
B011E30S15	7.44	4.55	0.70
B011E30S20	1.52	0.50	0.10
B011E30S25	1.13	0.58	0.10
B011E30S30	-1.04	1.02	0.07
B011E30S32	-0.24	0.96	0.09
B011E30S35	3.57	2.01	0.32
B011E30S40	-0.09	1.90	0.19
B011E30S42	2.10	1.19	0.19
B011E30S45	0.27	1.50	0.16
B011E30S50	2.04	1.00	0.17
B011E30S55	-1.13	0.72	0.03
B011E30S60	-0.26	0.18	0.01
B011E30S65	1.45	0.18	0.07
B011E30S70	0.43	5.29	0.54
B011E30S75	3.99	0.70	0.20
B011E30S80	2.16	2.91	0.36
B011E30S80C	1.04	1.72	0.21
B011E30S80F	0.07	1.12	0.11
B011E30S85	-2.19	1.11	0.04
B011E30S90	15.56	0.95	0.61
B011E30S95	1.24	1.38	0.18
B011E32S88	-0.10	1.20	0.12
B011E32S96	-0.51	1.92	0.18
B011E33S25	2.15	1.35	0.21
B011E33S55	1.99	0.64	0.13
B011E34S09	-0.02	3.00	0.30
B011E34S92	-1.61	1.16	0.06
B011E35S00	2.75	1.22	0.21
B011E35S05	1.64	0.12	0.07
B011E35S10	2.38	2.41	0.32
B011E35S15	1.94	1.96	0.26
B011E35S17	1.70	0.74	0.13
B011E35S20	19.02	1.80	0.81
B011E35S25	0.29	0.36	0.05
B011E35S30	-0.04	0.57	0.06
B011E35S35	-1.21	1.00	0.06
B011E35S40	-2.52	1.13	0.03
B011E35S45	1.41	1.47	0.19
B011E35S48	-0.79	0.58	0.03
B011E35S49	1.86	0.98	0.16
B011E35S50	2.33	1.71	0.25
B011E35S55	2.62	1.05	0.19
B011E35S60	34.50	5.13	1.66
B011E35S65	-0.31	0.85	0.07
B011E35S70	-0.28	2.32	0.22
B011E35S75	-0.91	1.82	0.15
B011E35S80	-1.78	0.63	0.00
B011E35S85	0.06	0.93	0.10
B011E35S95	-2.58	2.28	0.14
B011E36S63	-0.61	1.99	0.18
B011E37S09	-0.45	0.74	0.06
B011E37S17	-2.47	1.04	0.02
B011E37S19	3.74	1.13	0.24
B011E38S19	-0.81	0.86	0.06
B011E38S21	-0.96	0.66	0.03
B011E38S88	-0.60	1.52	0.13
B011E38S90	-2.05	1.60	0.09
B011E38S97	0.70	0.89	0.11
B011E39S71	-0.21	2.04	0.20
B011E39S93	-2.22	1.58	0.08
B011E39S98	0.68	1.51	0.17
B011E40S00	1.54	2.01	0.25
B011E40S05	0.40	1.53	0.17
B011E40S10	2.46	0.13	0.09
B011E40S15	1.08	2.59	0.29
B011E40S20	-0.34	0.73	0.06
B011E40S25	2.33	1.49	0.23
B011E40S30	0.20	1.38	0.14

Table 3
Final Decommissioning Excavation Bottom Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
B011E40S35	-0.92	0.55	0.02
B011E40S40	-1.98	1.15	0.05
B011E40S45	2.39	0.66	0.15
B011E40S50	0.09	1.18	0.12
B011E40S55	0.64	0.98	0.12
B011E40S60	0.24	0.34	0.04
B011E40S65	1.18	2.16	0.26
B011E40S69	1.06	1.88	0.22
B011E40S70	1.72	2.14	0.27
B011E40S75	1.43	1.08	0.16
B011E40S80	-2.76	0.54	-0.04
B011E40S85	0.54	0.76	0.09
B011E40S95	1.22	1.03	0.14
B011E41S75	3.81	1.36	0.26
B011E42S08	1.00	2.39	0.27
B011E43S71	4.30	1.64	0.31
B011E45S00	-0.34	1.10	0.10
B011E45S05	2.12	1.82	0.25
B011E45S10	4.09	1.12	0.25
B011E45S15	26.93	0.98	1.00
B011E45S16	-0.89	1.11	0.08
B011E45S20	0.14	1.62	0.17
B011E45S25	3.59	1.14	0.23
B011E45S30	-0.55	0.94	0.08
B011E45S35	1.11	0.86	0.12
B011E45S40	1.63	0.81	0.14
B011E45S45	-0.85	1.02	0.07
B011E45S50	2.44	1.00	0.18
B011E45S55	0.72	0.76	0.10
B011E45S60	5.45	0.55	0.24
B011E45S65	4.63	2.25	0.38
B011E45S70	1.55	1.22	0.17
B011E45S75	1.57	1.32	0.18
B011E45S80	2.71	1.44	0.23
B011E45S85	-2.36	1.65	0.09
B011E45S90	0.26	1.04	0.11
B011E45S95	-0.56	0.89	0.07
B011E46S69	0.73	2.16	0.24
B011E50S00	1.39	0.91	0.14
B011E50S03	-2.07	1.55	0.09
B011E50S05A	-0.67	2.87	0.26
B011E50S05B	-1.55	0.45	-0.01
B011E50S10	-0.58	8.49	0.83
B011E50S15	-0.65	1.70	0.15
B011E50S20	-1.10	7.67	0.73
B011E50S21	1.24	1.12	0.15
B011E50S25	4.93	0.88	0.25
B011E50S30	0.58	0.65	0.08
B011E50S35	1.14	0.29	0.07
B011E50S40	0.01	1.25	0.13
B011E50S45	0.40	1.63	0.18
B011E50S50	0.91	0.59	0.09
B011E50S55	-1.51	0.91	0.04
B011E50S60	0.00	0.75	0.07
B011E50S65	0.11	0.74	0.08
B011E50S70	0.41	0.89	0.10
B011E50S75	2.27	1.77	0.25
B011E50S80	5.71	1.42	0.33
B011E50S85	1.10	1.35	0.17
B011E50S90	4.60	0.62	0.22
B011E50S95	-0.36	1.70	0.16
B011E51S60	-0.43	1.45	0.13
B011E51S70	0.35	1.26	0.14
B011E52S12	3.25	0.31	0.14
B011E55S00	-0.51	1.53	0.14
B011E55S05	3.53	1.33	0.25
B011E55S10	3.71	2.67	0.39
B011E55S15	-2.00	1.02	0.04
B011E55S20	0.89	1.04	0.13
B011E55S25	-1.61	0.96	0.04
B011E55S30	-0.26	1.18	0.11
B011E55S35	1.24	0.66	0.11
B011E55S40	2.93	1.19	0.22
B011E55S45	1.80	0.18	0.08
B011E55S46	-1.03	1.09	0.07
B011E55S50	0.67	-0.05	0.02
B011E55S53	-1.57	1.35	0.08
B011E55S55	2.40	1.06	0.19
B011E55S60	1.62	0.00	0.05
B011E55S65	3.76	-0.30	0.10
B011E55S70	19.60	1.91	0.84
B011E55S75	3.32	1.48	0.26
B011E55S80	4.53	1.50	0.30
B011E55S85	-0.84	0.60	0.03
B011E55S90	1.48	0.76	0.13
B011E55S95	7.37	4.73	0.72
B011E57S60	-2.58	1.89	0.10
B011E58S63	-2.57	0.74	-0.01
B011E60S00	1.00	0.42	0.08
B011E60S05	1.75	0.81	0.14
B011E60S10	-0.90	5.05	0.48
B011E60S15	-1.72	1.12	0.06
B011E60S20	0.30	1.25	0.13
B011E60S25	-0.86	1.20	0.09
B011E60S30	-2.77	2.73	0.18
B011E60S35	-1.82	2.32	0.17
B011E60S40	-0.30	1.04	0.09
B011E60S45	-1.70	1.54	0.10
B011E60S50	1.60	0.91	0.14
B011E60S55	-0.13	1.29	0.12
B011E60S60	0.58	1.08	0.13
B011E60S65	-2.17	1.18	0.05
B011E60S70	-1.30	1.49	0.11
B011E60S75	7.60	1.11	0.36
B011E60S80	7.64	0.46	0.30
B011E60S85	1.64	0.53	0.11
B011E60S90	3.03	-0.10	0.09
B011E60S95	2.95	2.57	0.36
B011E60S95E	-2.48	1.51	0.07
B011E63S40	-2.77	1.67	0.07
B011E63S48	-1.19	1.34	0.09
B011E63S51	1.12	0.89	0.13
B011E63S54	3.46	1.64	0.28
B011E64S08	1.06	0.54	0.09
B011E64S56	1.24	0.60	0.10
B011E64S58	2.61	0.61	0.15
B011E65S00	-3.63	2.28	0.11
B011E65S05	-0.70	1.89	0.17
B011E65S10	2.43	4.16	0.50
B011E65S15	2.89	2.82	0.38
B011E65S20	1.12	0.88	0.13
B011E65S25	-0.42	1.64	0.15
B011E65S30	0.44	1.80	0.19
B011E65S35	-1.99	1.28	0.06
B011E65S40	2.00	1.61	0.23
B011E65S45	1.43	1.23	0.17
B011E65S46	0.54	1.23	0.14
B011E65S49	-2.29	1.18	0.04
B011E65S50	-1.03	0.39	0.00
B011E65S53	0.39	1.19	0.13
B011E65S55	-0.17	-0.27	-0.03
B011E65S56	1.27	1.20	0.16
B011E65S60	0.93	0.98	0.13
B011E65S61	6.09	0.85	0.29
B011E65S65	4.40	1.78	0.32
B011E65S70	1.44	1.99	0.25
B011E65S75	-2.26	0.79	0.00
B011E65S80	0.68	0.44	0.07
B011E65S85	3.67	1.06	0.23
B011E65S90	1.04	0.41	0.08
B011E65S95	3.69	2.33	0.36
B011E66S58	0.95	1.13	0.14
B011E66S60	-2.02	1.84	0.12
B011E66S61	-0.17	2.75	0.27
B011E67S46	2.82	2.09	0.30
B011E67S50	1.75	2.24	0.28
B011E67S53	0.68	1.91	0.21
B011E68S44	0.62	0.65	0.09
B011E68S56	1.73	1.70	0.23
B011E68S60	-0.32	0.65	0.05
B011E69S52	4.67	0.62	0.22
B011E69S56	0.77	0.04	0.03
B011E69S57	1.96	0.20	0.08
B011E69S61	1.19	0.95	0.13
B011E70S00	-2.11	2.44	0.17
B011E70S05	1.34	0.51	0.10
B011E70S10	2.88	2.50	0.35
B011E70S10A	-1.36	-0.46	-0.09
B011E70S15	-0.40	2.24	0.21
B011E70S20	-2.65	1.31	0.04
B011E70S25	0.15	2.05	0.21
B011E70S30	0.77	1.77	0.20
B011E70S35	-0.86	1.66	0.14
B011E70S40	0.14	2.07	0.21
B011E70S43	-2.43	1.26	0.04
B011E70S44	1.24	1.72	0.21
B011E70S47	-0.97	1.69	0.14
B011E70S50	4.97	0.80	0.25
B011E70S53	1.20	2.52	0.29
B011E70S55	-1.75	1.14	0.06
B011E70S59	4.23	1.21	0.26
B011E70S60	-2.54	0.97	0.01

Table 3
Final Decommissioning Excavation Bottom Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
B011E70S65	1.51	0.79	0.13
B011E70S70	4.40	1.07	0.25
B011E70S75	-2.48	0.99	0.02
B011E70S80	1.53	0.34	0.08
B011E70S85	-2.77	1.54	0.06
B011E70S90	0.79	4.73	0.50
B011E70S90C	-1.82	2.11	0.15
B011E70S95	-0.65	7.35	0.71
B011E71S41	1.29	1.33	0.18
B011E71S49	-1.70	1.83	0.13
B011E72S17	0.03	0.92	0.09
B011E72S38	-0.59	-0.29	-0.05
B011E72S47	1.40	1.53	0.20
B011E73S40	1.86	1.19	0.18
B011E73S44	-0.43	0.79	0.06
B011E73S45	1.47	1.11	0.16
B011E74S42	0.18	0.43	0.05
B011E75S00	-0.12	2.38	0.23
B011E75S05	-0.14	1.76	0.17
B011E75S10	-1.74	1.03	0.05
B011E75S15	-2.01	1.79	0.11
B011E75S16	4.22	1.69	0.31
B011E75S17	3.20	1.27	0.23
B011E75S20	-2.68	2.20	0.13
B011E75S25	0.21	0.43	0.05
B011E75S30	-2.17	1.07	0.03
B011E75S35	0.52	0.95	0.11
B011E75S40	0.59	1.95	0.21
B011E75S45	-0.42	1.64	0.15
B011E75S50	0.14	1.91	0.20
B011E75S55	1.16	2.52	0.29
B011E75S60	6.08	2.29	0.43
B011E75S65	0.49	0.33	0.05
B011E75S70	3.08	0.96	0.20
B011E75S75	1.58	1.34	0.19
B011E75S80	3.83	1.40	0.27
B011E75S85	1.29	0.57	0.10
B011E75S90	2.94	4.65	0.56
B011E75S95	0.43	4.13	0.43
B011E76S27	-0.73	2.01	0.18
B011E77S09	2.03	0.92	0.16
B011E77S38	0.54	1.94	0.21
B011E77S43	-1.95	0.49	-0.02
B011E77S44	5.24	1.62	0.34
B011E78S31	-0.30	0.92	0.08
B011E78S40	-2.77	1.58	0.07
B011E79S21	-1.16	0.95	0.06
B011E79S45	0.69	1.17	0.14
B011E80S00	-1.28	3.25	0.28
B011E80S05	-0.21	0.53	0.05
B011E80S05A	-0.44	1.25	0.11
B011E80S05F	1.11	1.84	0.22
B011E80S15	-1.83	1.58	0.10
B011E80S20	-1.19	2.10	0.17
B011E80S25	-0.04	1.04	0.10
B011E80S30	-2.14	1.85	0.11
B011E80S35	-2.67	1.49	0.06
B011E80S40	0.73	1.76	0.20
B011E80S42	-0.42	1.02	0.09
B011E80S45	-1.64	0.97	0.04
B011E80S50	0.45	2.88	0.30
B011E80S55	2.49	0.53	0.14
B011E80S60	1.64	1.24	0.18
B011E80S65	1.81	2.08	0.27
B011E80S70	2.75	1.24	0.22
B011E80S75	0.58	0.84	0.10
B011E80S80	-1.40	0.44	0.00
B011E80S85	3.83	3.72	0.50
B011E80S90	1.18	2.68	0.31
B011E80S90A	3.44	-0.32	0.08
B011E80S90F	1.95	3.41	0.41
B011E81S40	0.12	0.99	0.10
B011E81S44	-1.61	0.42	-0.01
B011E82S30	-2.65	0.87	0.00
B011E82S42	0.33	1.06	0.12
B011E82S46	-0.57	1.16	0.10
B011E83S09	-0.03	0.28	0.03
B011E83S43	0.10	1.01	0.10
B011E83S74	-1.19	0.70	0.03
B011E84S41	-0.32	1.02	0.09
B011E84S46	-1.27	1.08	0.07
B011E85S00	-2.56	1.19	0.03
B011E85S05	0.81	1.43	0.17
B011E85S05A	-1.28	-0.60	-0.10
B011E85S10	-1.15	1.15	0.08
B011E85S15	3.89	4.39	0.57
B011E85S20	0.11	2.19	0.22
B011E85S25	-0.75	2.67	0.24
B011E85S30	-2.60	0.40	-0.05
B011E85S35	-1.50	1.05	0.05
B011E85S40	1.50	0.73	0.12
B011E85S43	1.26	1.04	0.15
B011E85S50	-0.80	2.19	0.19
B011E85S55	1.13	1.75	0.21
B011E85S60	-1.25	1.71	0.13
B011E85S65	1.38	2.82	0.33
B011E85S70	-1.83	-0.34	-0.10
B011E85S75	-2.45	1.70	0.09
B011E85S80	0.79	0.63	0.09
B011E85S85	-2.67	0.27	-0.06
B011E85S90	4.54	1.38	0.29
B011E86S30	-0.11	1.87	0.18
B011E86S44	-0.32	1.40	0.13
B011E86S48	-2.77	0.58	-0.03
B011E87S43	-0.51	0.57	0.04
B011E87S72	1.29	3.57	0.40
B011E88S32	2.02	1.18	0.18
B011E89S34	-0.70	1.66	0.14
B011E90S00	0.19	3.88	0.39
B011E90S05	2.17	1.88	0.26
B011E90S10	1.76	0.62	0.12
B011E90S15	1.01	0.76	0.11
B011E90S20	-0.28	2.04	0.19
B011E90S25	2.97	1.89	0.29
B011E90S30	-0.52	1.75	0.16
B011E90S35	-2.53	0.84	0.00
B011E90S40	-0.98	0.71	0.04
B011E90S45	-0.23	0.96	0.09
B011E90S50	0.57	-0.05	0.01
B011E90S55	1.69	-0.32	0.02
B011E90S60	-0.38	1.36	0.12
B011E90S65	0.13	0.58	0.06
B011E90S70	-1.78	0.87	0.03
B011E90S75	3.05	1.15	0.22
B011E90S80	-0.65	1.34	0.11
B011E90S85	-0.77	0.78	0.05
B011E90S90A	-2.40	1.88	0.11
B011E90S90F	0.59	0.66	0.09
B011E93S22	0.12	1.94	0.20
B011E93S36	-0.09	0.75	0.07
B011E95S00	-0.06	3.42	0.34
B011E95S05	0.59	2.00	0.22
B011E95S10	2.02	1.36	0.20
B011E95S15	1.30	-0.12	0.03
B011E95S20	-2.02	1.22	0.05
B011E95S30	-1.61	7.63	0.71
B011E95S30A	0.17	2.23	0.23
B011E95S30E	0.65	2.06	0.23
B011E95S35	1.85	2.99	0.36
B011E95S40	-2.72	1.50	0.06
B011E95S45	2.36	0.92	0.17
B011E95S50	-2.37	0.70	-0.01
B011E95S55	1.77	1.57	0.22
B011E95S60	0.87	0.97	0.13
B011E95S65	1.92	4.70	0.53
B011E95S70	-0.21	1.01	0.09
B011E95S75	-0.52	1.96	0.18
B011E95S80	-0.14	4.39	0.43
B011E95S85	-3.12	2.18	0.11
B011E96S38	-2.18	0.64	-0.01
B011E97S28	2.91	2.10	0.31
B011E97S98	0.73	0.84	0.11
B011E99S16	2.79	0.87	0.18
B012E00S05	-2.31	1.79	0.10
B012E00S05E	2.49	2.41	0.32
B012E00S10	-2.19	4.48	0.37
B012E00S15	1.65	1.31	0.19
B012E00S15C	-2.54	0.83	0.00
B012E00S15E	3.33	1.27	0.24
B012E00S20	-0.27	2.54	0.24
B012E00S25	-2.68	0.35	-0.05
B012E00S30	2.31	1.81	0.26
B012E00S35	-0.10	3.90	0.39
B012E00S35A	-2.18	1.04	0.03
B012E00S40	-0.68	0.51	0.03
B012E00S44	-0.80	0.89	0.06
B012E00S45	-1.98	0.75	0.01
B012E00S50	-0.11	0.59	0.06
B012E00S55	-1.53	0.20	-0.03
B012E00S60	3.48	1.50	0.27
B012E00S65	-0.64	2.80	0.26
B012E00S70	-1.30	4.73	0.43

Table 3
Final Decommissioning Excavation Bottom Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
B012E00S75	0.27	0.25	0.03
B012E00S80	0.57	4.47	0.47
B012E00S80A	6.38	7.87	1.00
B012E00S85	3.04	1.18	0.22
B012E01S40	2.17	1.10	0.18
B012E02S47	0.25	1.45	0.15
B012E05S05	-0.58	0.71	0.05
B012E05S10	3.32	0.99	0.21
B012E05S15	0.68	0.38	0.06
B012E05S20	2.32	1.77	0.25
B012E05S25	-1.43	0.51	0.00
B012E05S30	-3.29	3.14	0.20
B012E05S30A	-0.44	3.51	0.34
B012E05S35	-1.19	3.16	0.28
B012E05S40	-4.34	2.40	0.10
B012E05S40C	-1.37	2.17	0.17
B012E05S40F	-0.93	1.23	0.09
B012E05S45	0.35	1.68	0.18
B012E05S50A	12.34	4.27	0.84
B012E05S55A	0.10	1.91	0.19
B012E05S60	4.51	2.24	0.37
B012E05S65	-2.01	2.43	0.18
B012E05S70	-0.87	2.69	0.24
B012E05S75	-2.64	1.59	0.07
B012E05S80	-2.29	0.14	-0.06
B012E05S85	-0.32	2.08	0.20
B012E05S90A	-2.43	2.59	0.18
B012E06S03	-0.40	0.44	0.03
B012E06S50	0.99	4.67	0.50
B012E06S53	1.68	0.68	0.12
B012E06S58	4.22	2.44	0.39
B012E07S10C	-2.30	0.30	-0.05
B012E07S10E	0.45	1.18	0.13
B012E07S10H	-2.42	0.63	-0.02
B012E07S62	1.19	0.98	0.14
B012E07S72	-0.67	1.99	0.18
B012E08S75	0.59	5.12	0.53
B012E09S62	0.40	1.63	0.18
B012E09S65	3.04	7.18	0.82
B012E09S70	1.19	1.29	0.17
B012E10S02	-0.51	0.76	0.06
B012E10S05	-1.05	1.53	0.12
B012E10S10	4.35	0.32	0.18
B012E10S25	-0.72	0.54	0.03
B012E10S30	-0.21	3.65	0.36
B012E10S35	-2.57	1.51	0.07
B012E10S40	0.29	0.68	0.08
B012E10S40C	-0.91	1.12	0.08
B012E10S60	-1.31	2.02	0.16
B012E10S65	-3.02	1.64	0.06
B012E10S75	1.60	7.38	0.79
B012E10S80	-0.24	5.80	0.57
B012E10S85	2.69	1.99	0.29
B012E10S90	4.89	1.52	0.32
B012E12S75	0.41	1.86	0.20
B012E12S87	-1.95	2.97	0.23
B012E15S35	-2.09	3.52	0.28
B012E15S70	-1.36	2.35	0.19
B012E15S75	6.38	3.01	0.51
B012E15S80	-0.33	3.54	0.34
B012E15S85	1.20	1.77	0.22
B012E15S90	0.44	0.96	0.11
B012E20S10	-5.22	0.97	-0.08
B012E20S15	-3.27	1.92	0.08
B012E20S20	0.71	2.14	0.24
B012E20S75	1.99	2.36	0.30
B012E20S76	1.59	1.43	0.20
B012E20S80	0.28	0.59	0.07
B012E20S85	-1.16	1.89	0.15
B012E24S03	0.55	1.59	0.18
B012E25S05	2.46	1.63	0.25
B012E25S05C	-2.67	0.48	-0.04
B012E25S05D	0.21	0.44	0.05
B012E25S05E	-2.68	1.48	0.06
B012E25S05F	-0.85	1.62	0.13
B012E25S05G	1.50	7.40	0.79
B012E25S05H	-2.59	0.60	-0.03
B012E25S10	-1.50	0.41	-0.01
B012E25S15	0.15	7.05	0.71
B012E25S15A	0.29	1.03	0.11
B012E25S15B	-1.42	1.43	0.10
B012E25S15C	0.83	1.19	0.15
B012E25S15D	3.15	1.56	0.26
B012E25S15E	-1.94	0.99	0.03
B012E25S15F	-0.81	1.43	0.12
B012E25S15G	0.94	0.29	0.06
B012E25S15H	0.91	1.73	0.20
B012E25S20	2.01	1.41	0.21
B012E25S25	1.57	1.24	0.18
B012E25S25A	-1.20	5.78	0.54
B012E25S25B	-2.77	1.37	0.05
B012E25S25C	-2.45	0.99	0.02
B012E25S25D	-1.39	2.41	0.19
B012E25S25E	3.42	5.34	0.65
B012E25S25F	1.11	0.82	0.12
B012E25S25G	-1.93	1.74	0.11
B012E25S25H	-2.54	0.18	-0.07
B012E25S30	5.94	1.05	0.30
B012E30S15	0.41	4.21	0.43
B012E30S20	0.93	0.69	0.10
B012E30S25	2.18	1.73	0.25
B012E30S30	-1.99	1.55	0.09
B012E30S30B	-1.95	2.17	0.15
B012E30S30D	1.52	2.43	0.29
B012E31S21	0.02	1.57	0.16
B012E35S15	0.88	1.01	0.13
B012E35S15B	-2.69	2.33	0.14
B012E35S15D	0.64	2.04	0.23
B012E35S15H	-1.95	1.62	0.10
B012E35S20	-0.03	1.25	0.12
B012E35S25	3.34	1.19	0.23
B012E35S25E	0.03	4.74	0.47
B012E35S30	3.22	3.56	0.46
B012E35S30B	2.18	2.12	0.28
B012E35S30C	-0.05	4.43	0.44
B012E35S45	4.92	1.58	0.32
B012E35S45A	-0.34	0.96	0.08
B012E35S45B	3.28	4.29	0.54
B012E35S45H	-1.31	4.40	0.40
B012E35S50	6.29	2.12	0.42
B012E35S55	5.55	2.31	0.42
B012E40S20	4.06	1.15	0.25
B012E40S25	1.12	1.50	0.19
B012E40S25B	-2.77	0.91	0.00
B012E40S25E	-2.43	1.89	0.11
B012E40S25H	-1.23	7.86	0.75
B012E40S35A	0.22	5.89	0.60
B012E40S40	-2.52	2.73	0.19
B012E40S45	-0.61	1.25	0.10
B012E40S50	-1.14	0.03	-0.04
B012E40S55	3.11	2.04	0.31
B012E40S55C	0.98	1.67	0.20
B012E40S55E	0.62	3.73	0.39
B012E40S60	1.44	3.37	0.39
B012E45S20	0.70	0.49	0.07
B012E45S25	-3.54	0.30	-0.09
B012E45S30	3.26	1.02	0.21
B012E45S35	-0.06	1.59	0.16
B012E45S35A	-2.27	1.00	0.02
B012E45S40	0.45	5.54	0.57
B012E45S45	6.30	0.84	0.29
B012E45S50	3.43	0.52	0.17
B012E45S55	3.17	3.71	0.48
B012E50S25	-1.43	0.25	-0.02
B012E50S30	1.07	1.86	0.22
B012E50S35	1.75	1.50	0.21
B012E50S40	-1.50	2.16	0.17
B012E50S45	1.48	1.00	0.15
B012E50S50	2.25	2.24	0.30
B021E98S82	-1.65	1.34	0.08
B022E00S80	0.91	-0.10	0.02
B022E00S85	-0.89	1.00	0.07
B022E45S10	1.18	0.16	0.05
B022E50S10	-1.12	0.53	0.02
B022E50S15	-3.13	0.09	-0.10
B022E55S05	-4.31	0.52	-0.09
B022E55S10	-0.90	0.09	-0.02
B022E55S15	-2.52	0.14	-0.07
B022E60S00	0.06	1.08	0.11
B022E60S05	1.64	0.37	0.09
B022E60S10	-0.64	0.32	0.01
B022E60S15	-0.75	-0.23	-0.05
B022E65S00	-0.67	-0.15	-0.04
B022E65S05	-1.77	0.31	-0.03
B022E65S10	1.81	0.13	0.07
B022E65S15	-1.20	0.21	-0.02
B022E70S00	3.49	0.20	0.14
B022E70S05	-4.51	0.47	-0.10
B022E70S10	-1.60	0.75	0.02
B022E70S15	4.12	0.66	0.20
B023E25S00	20.39	2.54	0.93
B023E25S05	-0.21	3.26	0.32

Table 3
Final Decommissioning Excavation Bottom Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC
B023E30S00	5.66	0.85	0.27
B023E30S05	0.73	0.84	0.11
B023E34S01	0.20	1.40	0.15
B023E35S00	-0.71	1.87	0.16
B023E35S04	1.11	1.42	0.18
B023E35S05	-1.76	1.17	0.06
B023E35S10	0.37	0.67	0.08
B023E39S03	0.29	0.59	0.07
B023E40S00	-0.96	1.03	0.07
B023E40S05	3.12	0.72	0.18
B023E40S05C	3.35	3.64	0.48
B023E40S10	1.36	0.71	0.12
B023E45S00	1.53	0.24	0.07
B023E45S05	1.07	0.74	0.11
B023E45S10	2.30	0.08	0.08
B023E50S00	1.65	2.73	0.33
B023E50S05	1.59	2.72	0.32
B023E50S10	0.98	0.10	0.04
B023E50S25	-1.68	0.91	0.04
B023E51S07	6.24	2.79	0.49
B023E55S00	-0.57	3.45	0.33
B023E55S05	4.65	3.60	0.51
B023E55S10	2.45	2.97	0.38
B023E55S15	3.19	2.65	0.37
B023E55S20	2.03	2.61	0.33
B023E55S25	-1.62	1.35	0.08
B023E60S00	2.49	1.29	0.21
B023E60S05	4.22	6.32	0.77
B023E60S10	-2.28	1.24	0.05
B023E60S15	0.39	2.33	0.25
B023E60S20	1.72	2.87	0.34
B023E60S25	0.62	4.82	0.50
B023E62S22	-0.83	1.01	0.07
B023E64S18	0.39	0.42	0.06
B023E65S00	0.77	1.56	0.18
B023E65S05	-1.00	2.01	0.17
B023E65S10	-1.09	-0.02	-0.04
B023E65S15	2.50	-0.10	0.07
B023E65S20	0.87	1.16	0.14
B023E65S25	1.38	0.93	0.14
B023E65S28	0.94	3.52	0.38
B023E65S30	3.77	-0.07	0.12
B023E67S14	3.19	3.51	0.46
B023E67S16	-1.23	1.51	0.11
B023E67S32	-0.61	0.30	0.01
B023E69S15	1.59	0.70	0.12
B023E70S10	0.67	1.12	0.13
B023E70S20	0.50	1.83	0.20
B023E70S25	0.92	1.15	0.15
B023E70S30	-0.73	1.50	0.13
B023E70S32	-1.57	0.40	-0.01
B023E73S15	0.19	1.89	0.20
B023E75S10	6.31	5.37	0.75
B023E75S15	2.84	4.32	0.53
B023E75S20	2.49	0.89	0.17
B023E75S25	-1.86	1.80	0.12
B023E75S30	-1.87	0.72	0.01
B023E75S31	-2.32	0.92	0.01
B023E77S15	2.60	3.41	0.43
B023E77S29	5.02	4.73	0.64
B023E78S17	2.58	2.34	0.32
B023E78S20	2.60	1.29	0.22
B023E78S22	2.28	1.94	0.27
B023E78S26	2.81	2.80	0.37
B023E80S15	6.87	5.32	0.76
B023E80S20	2.52	4.54	0.54
B023E80S25	1.07	1.82	0.22
B024E00S00	-0.35	0.85	0.07

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
SU-401				
B010E00S00	1.40	0.54	0.10	9
B010E00S05	1.51	1.50	0.20	9
B010E00S10	-6.45	2.03	-0.01	10
B010E00S15	2.06	4.23	0.49	10
B010E00S20	1.01	3.98	0.43	11
B010E00S25	0.87	1.79	0.21	9
B010E00S30	-0.13	0.94	0.09	10
B010E00S35	-0.13	1.60	0.16	10
B010E00S40	1.02	2.30	0.26	10
B010E00S45	-2.33	1.69	0.09	10
B010E00S50	-2.09	0.65	0.00	10
B010E00S55	-3.80	0.87	-0.04	11
B010E00S60	0.91	0.51	0.08	10
B010E00S65	3.29	1.26	0.24	10
B010E00S70	-0.35	0.82	0.07	11
B010E00S75	-0.03	4.45	0.44	11
B010E05S00	0.18	0.31	0.04	10
B010E05S05	0.92	0.79	0.11	10
B010E05S10	4.47	2.82	0.43	11
B010E05S15	0.82	3.96	0.42	13
B010E05S20	3.95	2.78	0.41	11
B010E05S25	1.84	0.96	0.16	10
B010E05S30	-5.38	2.52	0.07	10
B010E05S35	-0.01	0.75	0.08	11
B010E05S40	3.49	1.63	0.28	11
B010E05S45	2.92	1.80	0.28	11
B010E05S50	-1.80	2.81	0.22	11
B010E05S55	-4.41	4.08	0.26	13
B010E05S60	0.70	1.61	0.18	10
B010E05S65	0.11	1.02	0.11	10
B010E05S70	-1.21	1.43	0.10	9
B010E05S75	-2.46	1.65	0.08	10
B010E10S00	0.04	0.16	0.02	10
B010E10S05	1.00	0.25	0.06	10
B010E10S10	2.41	1.00	0.18	10
B010E10S15	-0.86	1.31	0.10	9
B010E10S20	0.75	1.55	0.18	9
B010E10S25	-0.53	1.77	0.16	10
B010E10S30	1.32	0.38	0.08	10
B010E10S35	1.34	1.31	0.18	10
B010E10S40	0.69	1.91	0.21	9
B010E10S45	4.01	1.14	0.25	9
B010E10S50	-2.63	0.93	0.01	9
B010E10S55	-0.06	0.32	0.03	9
B010E10S60	-1.89	0.75	0.01	9
B010E10S65	1.94	0.38	0.10	9
B010E10S70	-2.15	1.67	0.09	9
B010E10S75	-2.77	2.37	0.14	10
B010E15S00	-3.12	0.98	-0.01	11
B010E15S05	-3.32	1.68	0.06	10
B010E15S10	-1.84	1.15	0.05	10
B010E15S15	-0.46	0.01	-0.01	9
B010E15S20	-0.21	1.21	0.11	9
B010E15S25	0.26	0.60	0.07	9
B010E15S30	0.64	0.67	0.09	9
B010E15S35	3.31	0.54	0.16	9
B010E15S40	-1.49	1.34	0.08	9
B010E15S45	1.39	0.33	0.08	9
B010E15S50	-0.49	0.46	0.03	9
B010E15S55	-0.25	-0.07	-0.02	9
B010E15S60	0.79	0.30	0.06	9
B010E15S65	0.44	0.92	0.11	9
B010E15S70	1.25	1.65	0.21	9
B010E15S75	0.35	1.96	0.21	10
B010E20S00	-1.47	1.24	0.08	10
B010E20S05	-0.49	0.31	0.01	10
B010E20S10	0.88	0.60	0.09	9
B010E20S15	-0.60	0.33	0.01	9
B010E20S20	-1.40	0.29	-0.02	9
B010E20S25	-0.64	1.30	0.11	9
B010E20S30	0.75	0.23	0.05	9
B010E20S35	3.84	0.88	0.22	9
B010E20S40	-0.32	0.33	0.02	9
B010E20S45	-2.77	0.99	0.01	9
B010E20S50	0.66	0.86	0.11	9
B010E20S55	1.10	0.42	0.08	9
B010E20S60	-2.06	1.16	0.05	9
B010E20S65	-1.91	0.50	-0.01	9
B010E20S70	-2.00	0.61	-0.01	9
B010E20S75	-2.72	2.15	0.12	10
B010E25S00	-2.53	1.50	0.07	10
B010E25S05	-0.55	1.56	0.14	10
B010E25S10	1.88	1.93	0.26	10
B010E25S15	1.34	0.32	0.08	9
B010E25S20	1.16	0.88	0.13	8
B010E25S25	0.62	1.26	0.15	9
B010E25S30	1.54	1.86	0.24	9
B010E25S35	1.52	0.86	0.14	9
B010E25S40	-1.02	1.26	0.09	9
B010E25S45	0.77	0.98	0.12	9
B010E25S50	0.98	0.42	0.08	9
B010E25S55	0.12	1.45	0.15	9
B010E25S60	-1.61	1.45	0.09	9
B010E25S65	1.26	2.17	0.26	10
B010E25S70	2.27	0.58	0.13	9
B010E25S75	-1.56	1.32	0.08	9
B010E30S00	0.53	0.51	0.07	10
B010E30S05	-0.61	0.41	0.02	10
B010E30S10	2.00	0.50	0.12	10
B010E30S15	-0.80	0.08	-0.02	9
B010E30S20	3.07	0.80	0.18	9
B010E30S25	-2.77	1.26	0.03	9
B010E30S30	0.37	0.74	0.09	9
B010E30S35	0.58	1.13	0.13	9
B010E30S40	-0.94	0.57	0.03	9
B010E30S45	-2.71	1.12	0.02	9
B010E30S50	0.64	0.12	0.03	9
B010E30S55	-0.46	0.04	-0.01	9
B010E30S60	2.45	0.41	0.12	9
B010E30S65	1.67	0.41	0.10	10
B010E30S70	2.57	0.31	0.12	9
B010E30S75	0.25	1.30	0.14	9
B010E35S00	-1.36	1.69	0.12	11

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B010E35S05	0.58	0.63	0.08	11
B010E35S10	-1.75	1.52	0.09	10
B010E35S15	-1.21	0.63	0.02	9
B010E35S20	-1.39	0.66	0.02	8
B010E35S25	1.34	0.28	0.07	9
B010E35S30	3.02	0.98	0.20	9
B010E35S35	2.70	1.45	0.23	9
B010E35S40	1.29	-0.11	0.03	9
B010E35S45	-1.21	0.36	0.00	9
B010E35S50	0.68	0.65	0.09	10
B010E35S55	-2.26	1.03	0.03	9
B010E35S60	4.19	0.14	0.15	9
B010E35S65	-0.68	0.27	0.00	9
B010E35S70	0.66	0.17	0.04	9
B010E35S75	0.41	0.87	0.10	9
B010E40S00	-0.95	-0.57	-0.09	11
B010E40S05	0.03	0.86	0.09	10
B010E40S20	0.36	0.89	0.10	9
B010E40S25	0.72	0.40	0.06	8
B010E40S30	-0.21	0.65	0.06	9
B010E40S35	1.40	-0.09	0.04	9
B010E40S40	-1.42	0.29	-0.02	8
B010E40S45	1.93	0.98	0.16	9
B010E40S50	-0.82	0.11	-0.02	9
B010E40S55	-1.69	0.05	-0.05	9
B010E40S60	1.49	0.52	0.10	10
B010E40S65	2.62	-0.25	0.06	9
B010E40S70	1.52	0.79	0.13	9
B010E40S75	0.31	0.77	0.09	8
B010E45S00	-2.18	1.06	0.03	10
B010E45S05	-2.00	-0.19	-0.09	10
B010E45S10	-3.92	1.82	0.05	11
B010E45S20	0.95	-0.33	0.00	8
B010E45S25	1.00	-0.20	0.01	9
B010E45S30	1.34	0.97	0.14	9
B010E45S35	-0.13	0.43	0.04	9
B010E45S40	2.19	0.88	0.16	9
B010E45S45	0.06	1.32	0.13	9
B010E45S50	-2.66	0.45	-0.04	8
B010E45S55	-1.33	0.30	-0.01	9
B010E45S60	0.54	-0.65	-0.05	9
B010E45S65	1.40	0.16	0.06	9
B010E45S70	-0.52	1.32	0.12	9
B010E45S75	-0.63	0.14	-0.01	9
B010E50S00	2.54	0.36	0.12	10
B010E50S05	0.53	0.10	0.03	10
B010E50S10	1.76	0.47	0.11	9
B010E50S20	-0.77	0.90	0.06	9
B010E50S25	-1.96	0.71	0.01	8
B010E50S30	0.42	0.03	0.02	8
B010E50S35	1.63	0.20	0.07	8
B010E50S40	-0.59	0.77	0.06	8
B010E50S45	2.56	0.97	0.18	9
B010E50S50	-2.36	0.58	-0.02	9
B010E50S55	0.24	0.39	0.05	9
B010E50S60	0.25	1.05	0.11	9
B010E50S65	-1.00	0.99	0.07	8
B010E50S70	-2.77	1.10	0.02	9
B010E50S75	-1.32	0.57	0.01	9
B010E55S00	1.19	1.56	0.20	11
B010E55S05	0.76	1.29	0.15	9
B010E55S10	1.93	0.69	0.13	9
B010E55S20	-0.87	0.43	0.01	9
B010E55S25	-0.67	0.75	0.05	8
B010E55S30	0.35	0.73	0.08	8
B010E55S35	-0.71	1.23	0.10	9
B010E55S40	0.23	1.15	0.12	9
B010E55S45	-0.54	0.39	0.02	9
B010E55S50	1.54	1.01	0.15	9
B010E55S55	1.87	0.80	0.14	9
B010E55S60	1.55	0.81	0.13	9
B010E55S65	0.64	1.43	0.16	9
B010E55S70	1.50	0.90	0.14	9
B010E55S75	3.57	0.88	0.21	9
B010E60S00	-0.07	1.10	0.11	10
B010E60S05	2.67	0.06	0.10	11
B010E60S10	0.46	1.73	0.19	10
B010E60S20	-0.37	0.94	0.08	9
B010E60S25	2.29	0.51	0.13	9
B010E60S30	0.91	0.35	0.07	9
B010E60S35	1.83	0.96	0.16	9
B010E60S40	0.41	0.65	0.08	9
B010E60S45	1.45	0.62	0.11	8
B010E60S50	1.10	0.85	0.12	9
B010E60S55	-1.05	0.49	0.01	9
B010E60S60	2.98	1.12	0.21	8
B010E60S65	-1.06	1.13	0.08	8
B010E60S70	1.79	0.90	0.15	8
B010E60S75	0.01	0.52	0.05	9
B010E65S00	-0.33	1.74	0.16	10
B010E65S05	-3.94	0.62	-0.07	10
B010E65S10	-1.51	-0.35	-0.09	10
B010E65S25	3.59	0.17	0.14	9
B010E65S30	2.11	0.68	0.14	9
B010E65S35	3.24	0.17	0.13	9
B010E65S40	1.29	0.12	0.05	8
B010E65S45	-1.57	1.01	0.05	8
B010E65S50	0.74	0.25	0.05	8
B010E65S55	3.72	0.52	0.18	9
B010E65S60	-0.42	1.57	0.14	9
B010E65S65	-2.53	1.48	0.06	9
B010E65S70	1.31	1.18	0.16	8
B010E65S75	-2.19	2.01	0.13	9
B010E70S00	1.16	1.09	0.15	10
B010E70S05	-0.24	0.48	0.04	10
B010E70S10	2.65	0.68	0.16	10
B010E70S15	-1.72	0.23	-0.03	9
B010E75S00	-0.61	0.24	0.00	10
B010E75S05	-0.61	2.02	0.18	10
B010E75S10	-0.39	0.14	0.00	10
B010E75S15	-1.72	1.36	0.08	10
B010E75S45	3.04	0.06	0.11	9
B010E75S50	2.28	0.66	0.14	9
B010E75S55	2.82	1.04	0.20	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B010E75S60	0.96	1.04	0.14	9
B010E75S65	-1.35	0.80	0.03	9
B010E75S70	3.38	2.39	0.35	10
B010E75S75	7.03	0.94	0.33	10
B010E80S00	-1.07	0.65	0.03	10
B010E80S05	0.13	1.21	0.13	11
B010E80S10	2.95	1.47	0.25	10
B010E80S15	-2.16	0.87	0.01	10
B010E80S30	-0.91	0.38	0.01	9
B010E80S35	6.35	0.88	0.30	9
B010E80S40	6.22	1.20	0.33	10
B010E80S45	1.04	0.01	0.04	9
B010E80S50	1.09	0.28	0.06	9
B010E80S55	0.06	0.26	0.03	9
B010E80S60	0.10	0.83	0.09	9
B010E80S65	1.81	1.33	0.19	9
B010E80S70	0.82	1.37	0.16	10
B010E80S75	-1.20	1.20	0.08	9
B010E85S00	0.98	5.52	0.58	10
B010E85S05	0.29	0.62	0.07	10
B010E85S25	4.43	0.71	0.22	10
B010E85S30	1.13	0.52	0.09	10
B010E85S35	6.72	0.82	0.31	9
B010E85S40	-4.50	2.10	0.06	10
B010E85S45	0.93	0.59	0.09	9
B010E85S50	-2.72	0.54	-0.04	9
B010E85S55	-1.18	-0.06	-0.05	9
B010E85S60	-0.10	0.84	0.08	9
B010E85S65	-1.79	0.82	0.02	9
B010E85S70	1.71	0.76	0.13	9
B010E85S75	-1.21	0.39	0.00	9
B010E90S00	9.48	3.08	0.62	9
B010E90S05	0.09	0.72	0.07	9
B010E90S20	18.12	3.21	0.93	10
B010E90S25	12.90	2.15	0.65	10
B010E90S30	-2.59	0.22	-0.06	10
B010E90S35	14.83	2.04	0.70	9
B010E90S40	10.56	1.80	0.53	10

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B010E90S45	0.81	0.88	0.11	10
B010E90S50	-0.88	0.49	0.02	9
B010E90S55	-2.68	0.45	-0.04	9
B010E90S60	6.16	0.86	0.29	9
B010E90S65	-1.00	0.66	0.03	9
B010E90S70	-2.65	0.47	-0.04	9
B010E90S75	0.44	1.68	0.18	9
B010E95S00	-5.06	-0.44	-0.21	9
B010E95S15	1.50	1.03	0.15	10
B010E95S20	-4.21	0.65	-0.08	10
B010E95S25	-1.97	0.88	0.02	10
B010E95S30	-2.52	2.09	0.13	10
B010E95S35	2.79	0.77	0.17	10
B010E95S40	-3.29	0.43	-0.07	9
B010E95S45	0.01	1.35	0.14	9
B010E95S50	0.47	0.58	0.07	9
B010E95S55	-0.02	0.70	0.07	9
B010E95S60	-1.56	0.83	0.03	9
B010E95S65	-0.63	1.10	0.09	9
B010E95S70	3.65	0.72	0.19	9
B010E95S75	-1.43	0.60	0.01	9
B011E00S00	-0.55	0.16	0.00	10
B011E00S15	-3.04	0.59	-0.04	10
B011E00S20	-2.40	2.17	0.14	9
B011E00S25	0.46	1.29	0.14	9
B011E00S30	-4.69	1.21	-0.03	10
B011E00S35	-0.86	1.71	0.14	10
B011E00S40	1.36	1.40	0.19	9
B011E00S45	1.30	1.13	0.16	9
B011E00S50	1.39	0.64	0.11	9
B011E00S55	2.09	0.00	0.07	9
B011E00S60	2.23	0.11	0.09	9
B011E00S65	0.50	0.34	0.05	9
B011E00S70	3.86	0.54	0.18	8
B011E00S75	0.94	0.76	0.11	9
B210E00S90	0.35	0.84	0.10	9
B210E00S95	0.17	0.86	0.09	10
B210E05S90	-1.55	0.58	0.01	9

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B210E05S95	0.26	3.43	0.35	10
B210E10S90	-0.13	1.19	0.11	10
B210E10S95	-0.38	1.08	0.10	11
B210E15S90	-1.57	0.38	-0.01	10
B210E15S95	-1.52	1.25	0.07	10
B210E20S90	-1.18	0.44	0.01	10
B210E20S95	1.74	0.33	0.09	10
B210E25S90	-1.03	0.59	0.02	11
B210E25S95	-0.24	0.52	0.04	10
B210E30S90	-0.16	0.66	0.06	10
B210E30S95	-0.85	0.98	0.07	10
B210E35S90	-2.58	0.20	-0.07	10
B210E35S95	2.48	0.67	0.15	11
B210E40S90	0.94	0.00	0.03	10
B210E40S95	-2.35	0.49	-0.03	10
B210E45S90	-0.37	0.85	0.07	10
B210E45S95	-2.44	1.33	0.05	10
B210E50S90	-0.53	0.96	0.08	11
B210E50S95	-1.01	0.86	0.05	10
B210E55S90	-2.62	1.11	0.02	10
B210E55S95	-1.16	0.31	-0.01	10
B210E60S90	0.35	1.08	0.12	10
B210E60S95	-0.68	0.39	0.02	10
B210E65S90	-0.81	0.92	0.07	10
B210E65S95	1.10	0.29	0.07	10
B210E70S90	-0.71	1.16	0.09	10
B210E70S95	-1.43	1.12	0.06	10
B210E75S90	-0.65	0.71	0.05	11
B210E75S95	4.09	1.10	0.25	10
B210E80S90	-0.35	1.13	0.10	10
B210E80S95	-1.31	1.30	0.09	10
B210E85S90	-2.50	0.91	0.01	10
B210E85S95	-0.72	0.28	0.00	10
B210E90S90	-2.75	0.30	-0.06	8
B210E90S95	-1.37	0.70	0.02	10
B210E95S90	-2.67	0.36	-0.05	7
B210E95S95	-0.70	1.71	0.15	9
B211E00S90	-1.16	1.07	0.07	10

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B211E00S95	3.82	0.80	0.21	9
SU-402				
B011E05S10	-2.53	1.40	0.06	10
B011E05S15	2.83	0.79	0.17	10
B011E05S20	-1.37	1.11	0.07	10
B011E05S25	-3.05	0.73	-0.03	10
B011E05S30	-3.44	1.34	0.02	10
B011E05S35	0.77	1.25	0.15	9
B011E05S40	-1.28	1.57	0.11	10
B011E05S45	3.91	1.93	0.32	10
B011E05S50	2.85	0.65	0.16	9
B011E05S55	1.92	0.50	0.11	9
B011E05S60	0.32	0.58	0.07	9
B011E05S65	1.82	0.37	0.10	8
B011E05S70	-0.01	0.12	0.01	9
B011E05S75	0.21	0.76	0.08	10
B011E10S10	-1.17	1.34	0.09	10
B011E10S15	-2.05	0.87	0.02	10
B011E10S20	0.47	0.50	0.07	10
B011E10S25	-1.30	0.57	0.01	10
B011E10S30	-0.52	0.05	-0.01	9
B011E10S35	2.01	0.73	0.14	10
B011E10S40	-1.96	1.52	0.09	10
B011E10S45	-0.38	2.00	0.19	11
B011E10S50	-1.67	1.53	0.10	11
B011E10S55	-5.29	1.46	-0.03	10
B011E10S60	2.49	2.45	0.33	11
B011E10S65	2.40	1.22	0.20	11
B011E10S70	1.37	0.80	0.13	11
B011E10S75	-1.67	0.02	-0.05	9
B011E15S05	-5.64	0.54	-0.13	10
B011E15S10	-4.00	1.31	0.00	10
B011E15S15	-0.72	0.96	0.07	10
B011E15S20	-2.50	1.01	0.02	10
B011E15S30	-1.01	1.06	0.07	10
B011E15S35	1.98	1.20	0.19	9
B011E15S40	-3.60	1.62	0.04	10
B011E15S45	0.55	1.03	0.12	7

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B011E15S50	-2.08	1.36	0.07	10
B011E15S55	-0.97	1.26	0.09	11
B011E15S60	-0.65	0.77	0.06	11
B011E15S65	1.56	1.22	0.17	11
B011E15S70	0.84	0.67	0.10	10
B011E15S75	-1.79	0.97	0.04	10
B011E20S10	0.27	1.32	0.14	10
B011E20S15	1.30	1.20	0.16	9
B011E20S20	0.22	0.54	0.06	9
B011E20S25	0.05	0.99	0.10	8
B011E20S30	1.84	-0.20	0.04	9
B011E20S35	-1.33	0.41	0.00	8
B011E20S40	-0.12	0.74	0.07	10
B011E20S45	1.79	1.48	0.21	11
B011E20S50	0.10	0.81	0.08	11
B011E20S55	-0.97	2.28	0.20	11
B011E20S60	2.80	0.55	0.15	11
B011E20S65	-4.19	1.06	-0.03	10
B011E20S70	3.24	1.36	0.24	11
B011E20S75	-2.77	0.56	-0.04	10
B011E25S10	5.07	0.39	0.21	9
B011E25S15	2.71	-0.14	0.08	8
B011E25S20	0.66	0.62	0.08	9
B011E25S25	2.67	0.14	0.10	9
B011E25S30	5.18	1.07	0.28	9
B011E25S35	1.36	-0.14	0.03	8
B011E25S40	3.35	0.46	0.16	8
B011E25S45	0.53	0.33	0.05	9
B011E25S50	4.93	0.63	0.23	9
B011E25S55	-0.79	0.95	0.07	9
B011E25S60	1.75	0.61	0.12	10
B011E25S65	1.84	1.02	0.16	10
B011E25S70	-0.33	0.20	0.01	9
B011E25S75	4.52	2.42	0.39	10
B011E30S00	2.24	0.60	0.13	8
B011E30S05	0.53	0.78	0.10	8
B011E30S10	1.07	0.40	0.08	9
B011E30S15	-1.40	0.30	-0.02	10

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B011E30S20	1.42	0.33	0.08	8
B011E30S25	-0.46	0.03	-0.01	9
B011E30S30	-0.29	0.81	0.07	8
B011E30S35	-0.74	1.19	0.09	8
B011E30S40	-2.77	0.50	-0.04	8
B011E30S45	1.44	0.87	0.14	8
B011E30S50	-0.47	0.00	-0.02	9
B011E30S55	-1.02	0.05	-0.03	8
B011E30S60	-0.64	0.39	0.02	9
B011E30S65	-1.01	0.29	-0.01	9
B011E30S70	-0.35	0.45	0.03	9
B011E30S75	0.79	0.78	0.10	9
B011E35S00	-0.51	1.28	0.11	8
B011E35S05	0.57	0.11	0.03	9
B011E35S10	-0.49	1.02	0.09	9
B011E35S15	-1.55	0.70	0.02	9
B011E35S20	-1.31	0.64	0.02	9
B011E35S25	0.50	0.67	0.08	9
B011E35S30	2.37	0.66	0.14	9
B011E35S35	-0.57	-0.02	-0.02	8
B011E35S40	3.72	0.53	0.18	8
B011E35S45	0.41	0.70	0.08	9
B011E35S50	-1.21	0.35	-0.01	9
B011E35S55	0.23	0.36	0.04	9
B011E35S60	-0.58	1.03	0.08	9
B011E35S65	-0.57	1.21	0.10	9
B011E35S70	0.24	0.83	0.09	9
B011E35S75	-1.35	0.66	0.02	9
B011E40S00	-0.34	1.09	0.10	9
B011E40S05	1.14	0.71	0.11	9
B011E40S10	4.08	0.16	0.15	8
B011E40S15	2.50	0.65	0.15	9
B011E40S20	1.98	0.16	0.08	9
B011E40S25	-1.63	0.40	-0.01	9
B011E40S30	-0.64	0.36	0.01	9
B011E40S35	1.81	1.84	0.24	9
B011E40S40	4.31	0.84	0.23	8
B011E40S45	0.75	0.71	0.10	8

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B011E40S50	0.43	1.01	0.12	8
B011E40S55	2.94	0.77	0.18	9
B011E40S60	0.02	0.57	0.06	9
B011E40S65	-2.77	0.78	-0.01	8
B011E40S70	-1.20	0.82	0.04	9
B011E40S75	1.06	0.83	0.12	9
B011E45S00	-0.45	1.07	0.09	9
B011E45S05	2.05	0.84	0.15	8
B011E45S10	1.88	0.87	0.15	9
B011E45S15	5.29	1.05	0.28	10
B011E45S20	1.36	1.06	0.15	9
B011E45S25	2.95	0.39	0.14	8
B011E45S30	-2.25	1.15	0.04	9
B011E45S35	1.04	0.75	0.11	9
B011E45S40	-2.21	1.14	0.04	9
B011E45S45	-2.74	0.60	-0.03	8
B011E45S50	1.88	0.72	0.14	9
B011E45S55	1.09	1.10	0.15	8
B011E45S60	-0.18	1.62	0.16	9
B011E45S65	1.13	0.79	0.12	9
B011E45S70	0.57	0.53	0.07	9
B011E45S75	-1.02	0.95	0.06	9
B011E50S00	1.76	1.12	0.17	9
B011E50S05	2.24	1.09	0.18	9
B011E50S10	-0.09	0.76	0.07	9
B011E50S15	1.88	0.94	0.16	8
B011E50S20	0.86	0.46	0.07	9
B011E50S25	-0.56	0.62	0.04	9
B011E50S30	-1.29	0.76	0.03	9
B011E50S35	-1.55	0.57	0.00	8
B011E50S40	-2.69	0.67	-0.02	9
B011E50S45	1.61	0.40	0.09	8
B011E50S50	-2.27	0.55	-0.02	9
B011E50S55	-1.36	1.06	0.06	9
B011E50S60	1.21	0.33	0.07	9
B011E50S65	-1.63	0.86	0.03	9
B011E50S70	2.06	0.22	0.09	9
B011E50S75	-2.16	0.59	-0.01	8

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B011E55S00	1.47	0.58	0.11	9
B011E55S05	2.86	0.36	0.13	8
B011E55S10	-0.12	1.03	0.10	9
B011E55S15	0.37	-0.20	-0.01	9
B011E55S20	-0.39	0.60	0.05	9
B011E55S25	2.19	0.51	0.12	9
B011E55S30	3.06	1.19	0.22	9
B011E55S35	-1.75	0.73	0.01	9
B011E55S40	-1.41	0.89	0.04	9
B011E55S45	0.09	1.17	0.12	9
B011E55S50	-0.93	0.68	0.04	9
B011E55S55	0.67	1.47	0.17	9
B011E55S60	-0.67	0.70	0.05	9
B011E55S65	1.99	0.17	0.08	8
B011E55S70	-0.54	0.76	0.06	9
B011E55S75	-1.38	1.07	0.06	8
B011E60S00	-2.35	1.13	0.03	9
B011E60S05	1.47	1.69	0.22	8
B011E60S10	-2.77	1.19	0.03	8
B011E60S15	-0.36	2.30	0.22	9
B011E60S20	-0.40	0.84	0.07	9
B011E60S25	-1.75	1.17	0.06	8
B011E60S30	1.15	0.52	0.09	9
B011E60S35	1.55	0.51	0.10	9
B011E60S40	-0.06	0.64	0.06	8
B011E60S45	0.41	1.07	0.12	8
B011E60S50	1.03	0.78	0.11	9
B011E60S55	-0.99	0.66	0.03	9
B011E60S60	-2.66	1.16	0.03	8
B011E60S65	-2.62	0.69	-0.02	10
B011E60S70	-0.02	0.97	0.10	8
B011E60S75	-0.31	0.99	0.09	8
B011E65S00	0.15	0.44	0.05	8
B011E65S05	0.89	0.35	0.06	8
B011E65S10	-2.09	0.93	0.02	8
B011E65S15	-2.77	0.31	-0.06	8
B011E65S20	0.41	0.76	0.09	9
B011E65S25	-0.19	1.24	0.12	8

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B011E65S30	0.37	1.07	0.12	9
B011E65S35	-0.29	0.61	0.05	8
B011E65S40	-2.75	0.63	-0.03	9
B011E65S45	1.11	1.24	0.16	9
B011E65S50	-1.07	0.87	0.05	8
B011E65S55	-1.58	0.38	-0.01	9
B011E65S60	-2.17	-0.01	-0.07	9
B011E65S65	-0.54	0.46	0.03	9
B011E65S70	-0.48	0.75	0.06	9
B011E65S75	0.77	1.15	0.14	9
B011E70S00	-1.62	1.03	0.05	9
B011E70S05	1.17	0.29	0.07	9
B011E70S10	2.19	0.63	0.14	9
B011E70S15	3.96	1.23	0.25	9
B011E70S20	0.88	0.34	0.06	9
B011E70S25	-0.21	0.38	0.03	8
B011E70S30	3.69	0.55	0.18	8
B011E70S35	2.51	1.24	0.21	10
B011E70S40	-1.10	0.53	0.02	9
B011E70S45	-1.15	1.26	0.09	9
B011E70S50	0.30	0.68	0.08	9
B011E70S55	-0.19	1.01	0.09	9
B011E70S60	3.30	0.99	0.21	9
B011E70S65	-0.67	0.45	0.02	9
B011E70S70	0.07	0.23	0.03	8
B011E70S75	1.33	0.95	0.14	8
B011E75S00	1.60	0.47	0.10	8
B011E75S05	-0.27	1.01	0.09	8
B011E75S10	2.80	0.55	0.15	9
B011E75S15	-1.41	0.61	0.01	9
B011E75S20	1.31	1.06	0.15	9
B011E75S25	1.99	1.43	0.21	8
B011E75S30	0.74	0.79	0.10	9
B011E75S35	-2.69	1.57	0.07	10
B011E75S40	1.29	0.52	0.10	9
B011E75S45	0.37	0.49	0.06	9
B011E75S50	0.75	0.88	0.11	9
B011E75S55	-0.21	0.36	0.03	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B011E75S60	-0.26	1.29	0.12	9
B011E75S65	-1.41	0.75	0.03	8
B011E75S70	0.09	0.81	0.08	9
B011E75S75	2.52	0.82	0.17	8
B011E80S00	0.42	1.27	0.14	8
B011E80S05	0.47	0.89	0.11	8
B011E80S10	-1.83	0.80	0.02	10
B011E80S15	0.14	0.50	0.05	8
B011E80S20	-1.33	0.14	-0.03	9
B011E80S25	-2.71	0.87	0.00	8
B011E80S30	-2.48	0.18	-0.06	9
B011E80S35	1.36	0.33	0.08	8
B011E80S40	0.22	0.51	0.06	8
B011E80S45	1.57	1.20	0.17	9
B011E80S50	-0.73	0.25	0.00	8
B011E80S55	-1.18	0.97	0.06	9
B011E80S60	-2.10	0.83	0.01	8
B011E80S65	-0.78	0.88	0.06	9
B011E80S70	0.00	0.59	0.06	8
B011E80S75	-2.57	0.66	-0.02	9
B011E85S00	-0.62	0.21	0.00	9
B011E85S05	-0.49	0.37	0.02	8
B011E85S10	0.07	0.67	0.07	9
B011E85S15	-0.69	-0.27	-0.05	9
B011E85S20	-0.59	0.03	-0.02	9
B011E85S25	-0.35	0.69	0.06	9
B011E85S30	-0.47	0.60	0.04	9
B011E85S35	1.04	1.03	0.14	9
B011E85S40	-2.24	0.78	0.00	9
B011E85S45	2.11	0.52	0.12	8
B011E85S50	1.69	0.98	0.15	9
B011E85S55	-0.63	1.15	0.09	9
B011E85S60	-0.45	1.10	0.10	9
B011E85S65	-2.77	0.72	-0.02	9
B011E85S70	-0.09	0.60	0.06	8
B011E85S75	1.77	0.89	0.15	9
B011E90S00	-1.77	1.00	0.04	8
B011E90S05	-0.70	1.05	0.08	8

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B011E90S10	-1.70	0.53	0.00	9
B011E90S15	0.00	0.77	0.08	9
B011E90S20	-0.60	0.46	0.03	9
B011E90S25	-2.69	0.23	-0.07	9
B011E90S30	-2.55	0.22	-0.06	10
B011E90S35	-0.78	0.59	0.03	9
B011E90S40	-2.77	0.30	-0.06	8
B011E90S45	-0.69	0.68	0.05	9
B011E90S50	0.94	0.50	0.08	9
B011E90S55	-1.46	0.77	0.03	8
B011E90S60	-1.30	0.34	-0.01	8
B011E90S65	-1.52	0.38	-0.01	9
B011E90S70	-0.21	0.70	0.06	9
B011E90S75	0.33	0.68	0.08	9
B211E05S90	1.75	0.69	0.13	10
B211E05S95	-1.36	1.34	0.09	10
B211E10S90	3.13	1.06	0.21	10
B211E10S95	-0.08	0.62	0.06	10
B211E15S90	2.33	0.90	0.17	10
B211E15S95	-0.99	1.10	0.08	10
B211E20S90	-1.24	1.18	0.08	10
B211E25S90	2.36	1.08	0.19	10
B211E30S90	-1.91	1.02	0.04	11
B211E35S90	-1.10	1.07	0.07	10
B211E40S90	3.12	0.83	0.19	10
B211E45S90	-0.53	0.73	0.06	10
B211E50S90	-0.30	1.28	0.12	10
B211E55S90	-0.05	0.74	0.07	10
B211E60S90	-0.60	1.17	0.10	10
B211E65S90	-1.20	0.55	0.01	10
B211E70S90	1.44	0.82	0.13	10
B211E75S90	2.51	1.26	0.21	10
B211E80S90	1.20	0.72	0.11	10
B211E85S90	1.77	2.24	0.28	10
B211E90S90	-0.97	3.41	0.31	11
B211E95S90	-1.31	4.40	0.40	12
B212E05S90	-2.53	3.21	0.24	11
B212E10S90	-2.47	2.74	0.19	10

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B212E20S90	0.61	0.80	0.10	10
B212E25S90	-1.94	1.34	0.07	10
B212E30S90	0.00	1.58	0.16	10
B212E35S90	-0.34	1.55	0.14	10
B212E40S90	1.73	0.92	0.15	10
SU-403				
B011E95S05	1.41	1.04	0.15	9
B011E95S10	0.61	1.62	0.18	8
B011E95S15	0.11	0.41	0.04	8
B011E95S20	1.79	0.83	0.14	9
B011E95S25	0.20	1.00	0.11	9
B011E95S30	-0.66	-0.11	-0.03	9
B012E00S05	1.59	1.09	0.16	10
B012E00S10	-0.61	0.88	0.07	9
B012E00S15	1.27	1.04	0.15	9
B012E00S20	0.73	0.81	0.11	9
B012E00S25	-0.14	0.56	0.05	8
B012E00S30	-0.21	0.74	0.07	9
B012E00S35	1.45	0.48	0.10	9
B012E05S05	1.83	0.84	0.14	9
B012E05S10	1.96	0.22	0.09	8
B012E05S15	1.09	1.18	0.15	9
B012E05S20	1.70	0.67	0.12	10
B012E05S25	0.50	0.95	0.11	9
B012E05S30	0.42	1.01	0.11	9
B012E05S35	0.74	0.54	0.08	8
B012E05S40	-2.13	1.97	0.13	9
B012E10S05	1.86	0.86	0.15	9
B012E10S10	0.99	1.53	0.19	8
B012E10S15	2.23	1.12	0.19	11
B012E10S20	1.38	3.59	0.40	11
B012E10S25	-0.40	-0.04	-0.02	10
B012E10S30	-0.47	0.98	0.08	10
B012E10S35	0.57	0.41	0.06	9
B012E10S40	0.21	0.14	0.02	9
B012E10S45	1.11	-0.01	0.04	10
B012E15S05	-1.16	1.81	0.14	10
B012E15S10	-0.71	1.54	0.13	11

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B012E15S15	-4.53	4.97	0.35	10
B012E15S20	4.08	2.47	0.38	10
B012E15S25	-2.11	4.19	0.35	9
B012E15S30	0.22	1.54	0.16	11
B012E15S35	3.99	1.52	0.28	10
B012E15S40	-1.24	0.10	-0.03	10
B012E15S45	-0.90	2.29	0.20	11
B012E15S50	-2.25	0.65	-0.01	8
B012E20S05	-4.05	1.70	0.03	10
B012E20S10	-0.80	1.64	0.14	9
B012E20S15	-0.64	0.45	0.02	10
B012E20S20	-0.55	1.04	0.09	9
B012E20S25	0.36	1.33	0.14	10
B012E20S30	-0.41	4.02	0.39	10
B012E20S35	-3.19	0.65	-0.04	11
B012E20S40	4.32	4.86	0.63	12
B012E20S45	6.48	2.13	0.43	10
B012E20S50	2.99	0.67	0.17	8
B012E20S55	-4.32	0.75	-0.07	9
B012E25S00	-2.13	1.82	0.11	10
B012E25S05	0.28	2.78	0.29	10
B012E25S10	-1.52	0.19	-0.03	10
B012E25S15	1.43	0.05	0.05	9
B012E25S20	0.02	0.19	0.02	9
B012E25S25	2.66	1.83	0.27	9
B012E25S30	-0.04	0.96	0.09	9
B012E25S35	-1.06	1.18	0.08	10
B012E25S40	2.24	1.41	0.22	10
B012E25S45	-0.20	0.97	0.09	9
B012E25S50	1.25	0.82	0.12	9
B012E25S55	1.62	0.33	0.09	9
B012E25S60	0.14	0.93	0.10	8
B012E30S00	-0.55	0.18	0.00	8
B012E30S05	1.84	0.96	0.16	9
B012E30S10	4.87	3.75	0.54	10
B012E30S15	2.75	1.34	0.23	10
B012E30S20	0.54	0.60	0.08	8
B012E30S25	-0.96	0.57	0.03	9

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B012E30S30	0.19	0.95	0.10	9
B012E30S35	3.95	2.16	0.35	11
B012E30S40	3.39	1.55	0.27	10
B012E30S45	1.14	1.06	0.14	9
B012E30S50	0.55	1.64	0.18	10
B012E30S55	1.22	0.60	0.10	9
B012E30S60	2.53	0.74	0.16	10
B012E35S00	0.85	1.37	0.17	9
B012E35S05	-0.89	0.58	0.03	9
B012E35S10	0.84	0.28	0.06	9
B012E35S15	-1.82	1.94	0.13	8
B012E35S20	-2.17	-0.04	-0.08	8
B012E35S25	0.67	0.19	0.04	8
B012E35S30	0.42	1.68	0.18	10
B012E35S35	2.57	1.03	0.19	11
B012E35S40	-0.03	1.95	0.19	10
B012E35S45	2.33	1.53	0.23	10
B012E35S50	-0.91	0.43	0.01	9
B012E35S55	-1.65	0.87	0.03	9
B012E35S60	7.34	5.71	0.82	10
B012E35S65	8.24	1.79	0.45	10
B012E40S00	-3.68	0.29	-0.09	9
B012E40S05	1.82	-0.20	0.04	8
B012E40S10	0.72	1.80	0.20	8
B012E40S15	1.57	0.25	0.08	8
B012E40S20	-0.13	0.44	0.04	9
B012E40S25	0.52	0.67	0.08	9
B012E40S30	-1.35	3.40	0.30	11
B012E40S35	1.77	1.52	0.21	11
B012E40S40	-0.80	0.36	0.01	9
B012E40S45	-2.64	0.28	-0.06	9
B012E40S50	-0.07	0.42	0.04	9
B012E40S55	-0.86	2.43	0.21	10
B012E40S60	2.74	0.76	0.17	10
B012E40S65	-0.56	3.83	0.36	11
B012E45S00	1.65	0.29	0.08	9
B012E45S05	2.12	-0.44	0.03	8
B012E45S10	-2.58	0.15	-0.07	8

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B012E45S15	-1.56	-0.76	-0.13	8
B012E45S20	-1.21	1.11	0.07	9
B012E45S25	-2.37	1.81	0.10	9
B012E45S30	-2.49	0.47	-0.04	9
B012E45S35	-1.61	0.55	0.00	9
B012E45S40	3.58	0.28	0.15	9
B012E45S45	-2.69	1.52	0.06	8
B012E45S50	-2.63	0.83	0.00	9
B012E45S55	-0.28	3.52	0.34	10
B012E45S60	0.73	4.61	0.49	11
B012E45S65	0.65	1.16	0.14	10
B012E50S00	-0.94	0.52	0.02	8
B012E50S05	-1.14	3.04	0.27	8
B012E50S10	2.58	2.63	0.35	8
B012E50S15	0.84	-0.40	-0.01	8
B012E50S20	0.62	0.65	0.09	9
B012E50S25	-1.65	0.94	0.04	9
B012E50S30	-2.45	1.20	0.04	9
B012E50S35	-2.70	2.04	0.11	9
B012E50S40	1.80	2.40	0.30	9
B012E50S45	-2.04	3.22	0.25	10
B012E50S50	-1.48	2.41	0.19	10
B012E50S55	-4.14	1.15	-0.02	11
B012E50S60	3.66	1.00	0.22	10
B012E50S65	-0.47	1.49	0.13	10
B012E55S00	0.30	1.69	0.18	8
B012E55S05	-3.72	0.09	-0.11	9
B012E55S10	-2.31	0.48	-0.03	8
B012E55S15	1.57	1.16	0.17	10
B012E55S20	-0.41	1.06	0.09	11
B012E55S25	-0.90	1.56	0.13	10
B012E55S30	-2.30	1.39	0.06	10
B012E55S35	-1.11	1.90	0.15	10
B012E55S40	-0.07	4.38	0.44	11
B012E55S45	-1.11	3.60	0.32	12
B012E55S50	-1.05	2.03	0.17	11
B012E55S55	-3.83	0.24	-0.10	11
B012E55S60	-2.15	2.19	0.15	10

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B012E55S65	-0.87	0.48	0.02	10
B012E60S05	2.07	0.81	0.15	9
B012E60S10	-2.28	1.76	0.10	9
B012E60S15	3.95	1.66	0.30	11
B012E60S20	0.88	1.87	0.22	11
B012E60S25	3.94	0.46	0.18	9
B012E60S30	0.23	1.51	0.16	10
B012E60S35	3.47	2.33	0.35	10
B012E60S40	1.56	5.86	0.64	10
B012E60S45	1.84	1.62	0.22	10
B012E60S50	2.29	2.82	0.36	10
B012E60S55	-3.95	0.60	-0.07	10
B012E60S60	1.35	2.06	0.25	10
B012E60S65	1.11	0.58	0.09	10
B012E65S15	-0.47	6.60	0.64	12
B012E65S20	0.51	4.36	0.45	11
B012E65S25	1.04	1.45	0.18	10
B012E65S30	1.86	0.98	0.16	10
B012E65S35	5.87	2.26	0.42	10
B012E65S40	-2.41	3.75	0.29	11
B012E65S45	3.09	7.17	0.82	12
B012E65S50	-1.66	1.76	0.12	11
B012E65S55	-1.33	-0.05	-0.05	10
B012E65S60	0.02	2.17	0.22	10
B012E65S65	-0.66	1.43	0.12	10
B012E70S20	-2.99	0.92	-0.01	10
B012E70S25	-1.32	0.99	0.06	9
B012E70S30	0.21	1.10	0.12	10
B012E70S35	-2.01	2.62	0.20	10
B012E70S40	1.76	1.07	0.17	10
B012E70S45	-1.42	4.48	0.40	11
B012E70S50	0.11	2.33	0.24	10
B012E70S55	-0.69	0.93	0.07	10
B012E75S00	-0.16	-0.05	-0.01	9
B012E75S05	-1.11	0.41	0.00	9
B012E75S10	-0.63	1.01	0.08	8
B012E75S15	3.09	1.63	0.27	8
B012E75S20	-0.63	0.36	0.02	10
B012E75S25	-1.65	1.25	0.07	8
B012E75S30	0.16	0.66	0.07	8
B012E75S35	-3.79	1.53	0.03	10
B012E75S40	-0.79	0.84	0.06	8
B012E75S45	-0.30	1.16	0.11	9
B012E75S50	2.32	1.42	0.22	10
SU-404				
B010E00S80	-2.38	2.28	0.15	11
B010E00S85	-3.26	1.92	0.08	10
B010E00S90	-2.18	1.09	0.04	9
B010E00S95	-0.72	1.07	0.08	10
B010E05S80	-2.68	0.70	-0.02	9
B010E05S85	-0.99	0.91	0.06	10
B010E05S90	-3.60	-0.20	-0.14	11
B010E05S95	-0.44	0.57	0.04	10
B010E10S80	-1.10	1.23	0.09	9
B010E10S85	-2.77	1.69	0.08	10
B010E10S90	-4.26	0.17	-0.12	9
B010E10S95	0.01	0.80	0.08	10
B010E15S80	-2.69	2.57	0.17	9
B010E15S85	1.80	0.89	0.15	10
B010E15S90	0.37	1.80	0.19	9
B010E15S95	2.60	1.13	0.20	8
B010E20S80	1.31	0.55	0.10	9
B010E20S85	-0.19	0.19	0.01	8
B010E20S90	-1.07	0.16	-0.02	9
B010E20S95	0.20	0.60	0.07	9
B010E25S80	-0.70	0.39	0.02	9
B010E25S85	-0.23	-0.11	-0.02	9
B010E25S90	0.32	0.35	0.05	9
B010E25S95	3.89	0.79	0.21	10
B010E30S80	1.10	0.82	0.12	9
B010E30S85	-0.05	0.82	0.08	8
B010E30S90	0.24	0.25	0.03	10
B010E30S95	-3.20	0.22	-0.08	9
B010E35S80	-1.86	0.80	0.02	9
B010E35S85	-1.02	1.01	0.07	10
B010E35S90	-1.04	0.60	0.03	10
B010E35S95	-0.52	1.11	0.09	10
B010E40S80	0.08	0.69	0.07	9
B010E40S85	0.17	0.65	0.07	10
B010E40S90	-1.03	0.34	0.00	10
B010E40S95	0.23	0.26	0.03	10
B010E45S80	-2.58	0.73	-0.01	9
B010E45S85	-2.09	0.20	-0.05	10
B010E45S90	-1.41	0.96	0.05	10
B010E45S95	-1.65	0.95	0.04	11
B010E50S80	-1.52	0.57	0.01	8
B010E50S85	-1.75	1.42	0.08	10
B010E50S90	0.53	1.56	0.17	10
B010E50S95	-1.05	1.34	0.10	10
B010E55S80	1.47	1.90	0.24	9
B010E55S85	-2.72	1.06	0.02	9
B010E55S90	-2.33	0.57	-0.02	9
B010E55S95	1.54	2.54	0.31	10
B010E60S80	2.43	1.35	0.22	9
B010E60S85	1.68	1.49	0.20	9
B010E60S90	-3.79	0.21	-0.10	10
B010E60S95	-2.59	-0.04	-0.09	9
B010E65S80	-2.91	0.31	-0.07	10
B010E65S85	-1.95	1.99	0.13	10
B010E65S90	2.26	1.38	0.21	9
B010E65S95	0.28	-0.18	-0.01	10
B021E95S80	-1.20	0.75	0.03	9
B021E95S85	0.23	0.14	0.02	9
B021E95S90	-2.64	-0.25	-0.11	9
B021E95S95	-0.96	0.55	0.02	9
B022E00S00	0.69	0.52	0.07	9
B022E00S05	-0.75	1.06	0.08	9
B022E00S10	1.09	0.91	0.13	10
B022E00S15	1.34	0.84	0.13	9
B022E00S20	-1.38	0.42	0.00	9
B022E00S25	-1.35	0.21	-0.02	10
B022E00S30	-0.21	0.85	0.08	10
B022E00S35	3.46	0.29	0.14	10
B022E00S40	-2.67	1.77	0.09	10

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B022E00S45	-0.64	0.66	0.04	9
B022E00S50	2.31	1.24	0.20	11
B022E00S55	-1.87	0.25	-0.04	10
B022E00S60	1.07	0.53	0.09	10
B022E00S65	-0.95	0.51	0.02	9
B022E00S70	-1.67	2.67	0.21	12
B022E00S75	-2.05	0.99	0.03	10
B022E00S80	-2.68	0.22	-0.07	7
B022E00S85	-2.23	-0.27	-0.10	7
B022E00S90	-0.93	0.47	0.02	12
B022E00S95	-1.12	-0.45	-0.08	8
B022E05S00	2.01	1.16	0.18	10
B022E05S05	-2.85	1.94	0.10	10
B022E05S10	0.64	1.13	0.13	10
B022E05S15	1.43	1.11	0.16	10
B022E05S20	-1.73	1.43	0.09	10
B022E05S25	-1.37	0.25	-0.02	10
B022E05S30	-1.47	0.38	-0.01	9
B022E05S35	-0.63	0.56	0.04	9
B022E10S00	-4.17	0.41	-0.10	10
B022E10S05	-0.63	0.72	0.05	10
B022E10S10	0.75	1.40	0.16	9
B022E10S15	-0.17	0.14	0.01	9
B022E10S20	-0.95	1.47	0.12	10
B022E15S00	-1.05	0.08	-0.03	9
B022E15S05	2.99	0.66	0.17	10
B022E15S10	-3.04	-0.05	-0.11	9
B022E15S15	-1.50	0.75	0.03	10
B022E20S00	-1.32	-0.04	-0.05	9
B022E20S05	0.87	-0.22	0.01	9
B022E20S10	-2.03	0.08	-0.06	9
B022E20S15	1.11	0.53	0.09	9
B022E20S35	-2.09	1.12	0.04	8
B022E20S40	0.16	1.04	0.11	8
B022E20S45	-0.04	0.13	0.01	9
B022E20S50	2.36	0.62	0.14	8
B022E20S55	-0.05	0.58	0.06	9
B022E20S60	-1.46	-0.46	-0.10	8

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B022E20S65	0.12	0.70	0.07	8
B022E20S75	-1.94	0.08	-0.06	7
B022E20S80	-2.77	-0.27	-0.12	7
B022E20S85	2.60	0.61	0.15	8
B022E20S90	2.00	1.00	0.17	8
B022E20S95	3.51	-0.06	0.11	8
B022E25S00	-2.86	0.21	-0.07	9
B022E25S05	-3.34	0.43	-0.07	8
B022E25S10	-1.93	-0.85	-0.15	9
B022E25S15	-3.02	0.30	-0.07	8
B022E25S30	1.12	0.73	0.11	9
B022E25S35	-0.03	-0.38	-0.04	8
B022E25S40	-2.63	0.20	-0.07	8
B022E25S45	-2.25	0.13	-0.06	7
B022E25S50	1.58	0.53	0.11	7
B022E25S55	-0.15	0.00	0.00	8
B022E25S60	-2.64	0.95	0.01	8
B022E25S65	-2.56	0.31	-0.05	8
B022E25S70	0.95	0.68	0.10	8
B022E25S75	-2.77	0.38	-0.05	6
B022E25S80	0.60	0.67	0.09	7
B022E25S85	-2.11	-0.10	-0.08	8
B022E25S90	-1.27	0.32	-0.01	8
B022E25S95	0.86	0.60	0.09	8
B022E30S00	-1.21	-0.11	-0.05	9
B022E30S05	1.16	0.72	0.11	9
B022E30S10	-1.42	0.40	-0.01	8
B022E30S15	-2.03	0.47	-0.02	8
B022E30S30	-0.98	1.36	0.10	8
B022E30S35	-0.80	1.61	0.13	9
B022E30S40	0.20	0.56	0.06	9
B022E30S45	-1.73	0.55	0.00	8
B022E30S50	-1.91	0.57	-0.01	8
B022E30S55	0.38	-0.21	-0.01	8
B022E30S60	2.64	0.46	0.13	7
B022E30S65	-1.25	0.06	-0.04	8
B022E30S70	-2.35	0.59	-0.02	8
B022E30S75	-1.77	0.48	-0.01	8

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B022E30S80	1.23	0.33	0.07	9
B022E30S85	-0.18	0.19	0.01	9
B022E30S90	-0.46	0.82	0.07	8
B022E30S95	-1.50	0.28	-0.02	7
B022E35S00	0.42	0.86	0.10	9
B022E35S05	2.42	-0.22	0.06	8
B022E35S10	2.12	0.54	0.12	9
B022E35S15	-1.70	-0.11	-0.07	8
B022E35S30	-2.60	1.59	0.07	8
B022E35S35	-0.94	0.18	-0.01	8
B022E35S40	-2.27	0.05	-0.07	8
B022E35S45	0.79	0.48	0.07	8
B022E35S50	-1.57	0.65	0.01	8
B022E35S55	-1.99	0.39	-0.03	8
B022E35S60	-2.08	0.60	-0.01	7
B022E35S65	-2.33	0.14	-0.06	7
B022E35S70	-1.48	-0.15	-0.06	7
B022E35S75	-1.04	0.42	0.01	8
B022E40S00	-1.72	0.50	-0.01	9
B022E40S05	0.79	-0.23	0.00	8
B022E40S10	0.97	0.74	0.11	9
B022E40S15	0.44	0.16	0.03	8
B022E40S30	-0.63	1.00	0.08	8
B022E40S35	0.05	0.46	0.05	7
B022E40S40	-2.66	0.57	-0.03	8
B022E40S45	-2.67	0.36	-0.05	8
B022E40S50	-0.87	0.69	0.04	8
B022E40S55	0.19	-0.19	-0.01	7
B022E40S60	-1.28	0.21	-0.02	7
B022E40S65	-2.65	-0.29	-0.12	8
B022E40S70	-1.48	-0.17	-0.07	8
B022E45S00	1.46	0.11	0.06	9
B022E45S05	2.21	0.10	0.08	8
B022E45S10	2.96	0.33	0.13	8
B022E45S15	1.02	-0.35	0.00	8
B022E45S30	-1.51	0.52	0.00	9
B022E45S35	-0.48	1.09	0.09	8
B022E45S40	-2.08	0.72	0.00	8

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B022E45S45	-0.21	-0.39	-0.05	8
B022E45S50	-1.91	0.17	-0.05	8
B022E45S55	-2.68	0.79	-0.01	8
B022E45S60	-0.83	-0.35	-0.06	7
B022E45S65	-1.59	0.25	-0.03	8
B022E45S70	-1.58	0.51	0.00	8
B022E50S00	0.66	0.31	0.05	8
B022E50S05	-1.17	-0.13	-0.05	8
B022E50S10	-1.38	0.53	0.01	8
B022E50S15	0.99	-0.30	0.00	8
B022E50S30	0.73	1.03	0.13	8
B022E50S35	-0.22	0.77	0.07	8
B022E50S40	0.13	0.10	0.01	8
B022E50S45	0.95	0.22	0.05	8
B022E50S50	2.65	0.45	0.13	8
B022E50S55	1.93	0.33	0.10	8
B022E50S60	1.35	0.20	0.06	8
B022E50S65	0.93	0.09	0.04	8
B022E50S70	-0.63	-0.02	-0.02	8
B022E55S00	4.63	1.00	0.25	10
B022E55S05	0.55	0.82	0.10	9
B022E55S10	-1.61	1.14	0.06	8
B022E55S15	-0.87	0.39	0.01	8
B022E55S30	2.62	-0.07	0.08	9
B022E55S35	1.80	2.23	0.28	8
B022E55S40	-2.11	-0.02	-0.07	8
B022E55S45	0.84	0.19	0.05	8
B022E55S50	-1.28	-0.15	-0.06	8
B022E55S55	3.00	0.86	0.19	8
B022E55S60	-1.31	0.10	-0.03	8
B022E55S65	-0.53	0.36	0.02	8
B022E60S00	2.31	1.32	0.21	9
B022E60S05	0.23	3.21	0.33	10
B022E60S10	1.03	1.49	0.18	10
B022E60S15	0.37	0.82	0.09	9
B022E60S30	-0.33	0.56	0.04	8
B022E60S35	0.19	1.34	0.14	8
B022E60S40	-0.03	0.84	0.08	8

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B022E60S45	4.70	1.03	0.26	8
B022E60S50	1.25	-0.01	0.04	8
B022E60S55	1.89	0.31	0.09	8
B022E60S60	3.10	0.87	0.19	8
B022E60S65	2.26	0.16	0.09	8
B022E65S00	1.63	0.35	0.09	9
B022E65S05	0.81	1.53	0.18	9
B022E65S10	1.40	2.27	0.27	10
B022E65S15	0.45	0.51	0.07	8
B022E65S30	1.22	0.14	0.05	8
B022E65S35	-2.70	0.15	-0.08	8
B022E65S40	-1.16	0.14	-0.02	8
B022E65S45	-1.60	0.21	-0.03	8
B022E65S50	-0.37	0.78	0.07	8
B022E65S55	-2.68	0.34	-0.06	8
B022E65S60	-0.10	0.32	0.03	8
B022E65S65	-2.70	0.71	-0.02	8
B033E95S00	-2.71	0.82	-0.01	9
B033E95S05	-0.90	0.75	0.05	8
B033E95S10	-0.78	0.25	0.00	9
B033E95S15	1.95	0.88	0.15	9
B034E00S00	0.30	0.75	0.09	11
B034E00S20	-1.19	0.42	0.00	12
B034E20S00	1.87	0.34	0.10	8
B034E20S05	1.96	0.11	0.08	8
B034E20S10	2.07	0.65	0.13	8
B034E25S00	1.30	0.15	0.06	8
B034E25S05	0.29	-0.93	-0.08	8
B034E25S10	1.54	0.02	0.05	8
B034E30S00	2.29	0.82	0.16	9
B034E30S05	1.70	0.57	0.11	8
B034E30S10	0.41	0.17	0.03	8
SU-405				
B010E70S95	-0.09	0.38	0.04	10
B010E80S80	4.24	2.26	0.37	10
B010E80S85	8.56	1.60	0.45	10
B010E80S90	13.53	0.97	0.55	11
B010E80S95	16.26	2.36	0.78	9

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B010E85S80	1.43	1.42	0.19	10
B010E85S85	2.58	0.99	0.19	11
B010E85S90	0.65	2.23	0.24	10
B010E90S80	10.95	3.01	0.67	11
B010E90S85	19.59	1.80	0.83	10
B010E90S90	8.25	0.96	0.37	9
B010E95S80	1.87	2.37	0.30	10
B010E95S85	-3.52	0.85	-0.03	9
B010E95S90	-0.09	0.08	0.00	9
B011E00S80	0.73	0.70	0.09	9
B011E00S85	2.68	1.16	0.21	8
B011E00S90	-0.11	0.87	0.08	9
B011E05S80	0.88	0.93	0.12	9
B011E05S85	-0.67	1.12	0.09	9
B011E10S80	1.64	1.39	0.19	8
B011E10S85	0.92	0.34	0.07	9
B011E15S80	0.48	-0.29	-0.01	9
B011E15S95	-2.47	0.07	-0.08	10
B011E20S80	-1.77	0.88	0.03	10
B011E20S95	-2.16	0.83	0.01	10
B011E25S80	2.34	2.90	0.37	11
B011E25S90	1.23	0.62	0.10	9
B011E25S95	0.40	1.53	0.17	10
B011E30S80	4.99	0.24	0.19	8
B011E30S85	4.65	0.33	0.19	8
B011E30S90	-0.02	-0.15	-0.02	9
B011E30S95	1.41	0.35	0.08	9
B011E35S80	3.32	1.11	0.22	9
B011E35S85	3.92	0.44	0.18	8
B011E35S90	2.45	0.60	0.14	8
B011E35S95	-0.88	0.35	0.01	9
B011E40S80	-0.92	0.82	0.05	8
B011E40S85	-1.50	0.72	0.02	9
B011E40S90	-2.17	0.22	-0.05	8
B011E40S95	-2.53	0.60	-0.02	8
B011E45S80	1.25	0.62	0.10	9
B011E45S85	1.47	0.99	0.15	9
B011E45S90	1.31	0.28	0.07	8

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B011E45S95	1.78	0.55	0.11	9
B011E50S80	3.53	0.19	0.14	9
B011E50S85	-1.85	0.80	0.02	8
B011E50S90	-0.51	0.01	-0.02	9
B011E50S95	0.00	0.35	0.03	9
B011E55S80	0.98	0.73	0.11	9
B011E55S85	-1.10	0.36	0.00	8
B011E55S90	-1.49	0.54	0.00	9
B011E55S95	0.53	1.17	0.13	8
B011E60S80	1.66	0.38	0.09	8
B011E60S85	-2.34	0.60	-0.02	9
B011E60S90	-2.60	0.67	-0.02	9
B011E60S95	0.46	1.10	0.13	8
B011E65S80	1.20	0.24	0.06	9
B011E65S85	-0.44	0.35	0.02	8
B011E65S90	2.82	0.32	0.13	8
B011E65S95	-2.77	0.49	-0.04	9
B022E70S00	-0.10	2.56	0.25	9
B022E70S05	1.74	1.11	0.17	9
B022E70S10	1.59	1.31	0.18	8
B022E70S15	3.55	1.74	0.29	8
B022E70S30	-1.79	0.52	-0.01	9
B022E70S35	-2.12	0.68	0.00	8
B022E70S40	3.01	0.41	0.14	8
B022E70S45	-0.57	0.35	0.02	9
B022E70S50	2.81	1.01	0.19	8
B022E70S55	-1.65	0.66	0.01	8
B022E70S60	2.03	-0.08	0.06	8
B022E70S65	0.45	0.60	0.07	7
B022E75S35	-0.90	-0.06	-0.04	8
B022E75S40	2.86	0.35	0.13	8
B022E75S45	1.51	-0.30	0.02	8
B022E75S50	-0.02	-0.04	0.00	8
B022E75S55	-2.77	0.25	-0.07	8
B022E75S60	0.66	0.39	0.06	7
B022E75S65	-2.76	-0.21	-0.11	7
B022E80S35	-0.12	0.09	0.01	8
B022E80S40	0.21	0.00	0.01	8
B022E80S45	-0.10	-0.02	-0.01	8
B022E80S50	-0.18	0.66	0.06	9
B022E80S55	1.91	0.44	0.11	8
B022E80S60	-1.94	0.03	-0.06	7
B022E80S65	-1.48	0.19	-0.03	8
B022E85S35	-1.22	0.10	-0.03	8
B022E85S40	1.10	0.16	0.05	8
B022E85S45	-1.51	0.18	-0.03	9
B022E85S50	-1.10	0.16	-0.02	8
B022E85S55	0.38	0.52	0.06	8
B022E85S60	-1.80	0.66	0.01	8
B022E85S65	0.17	-0.21	-0.01	9
B022E90S35	-1.65	0.97	0.04	8
B022E90S40	0.05	0.62	0.06	8
B022E90S45	-1.44	0.45	0.00	8
B022E90S50	-0.82	1.15	0.09	8
B022E90S55	-1.60	0.82	0.03	8
B022E90S60	4.34	0.93	0.24	9
B022E90S65	-2.40	1.04	0.02	8
B022E95S35	1.67	1.13	0.17	8
B022E95S40	-1.15	0.27	-0.01	8
B022E95S45	-1.74	0.11	-0.05	9
B022E95S50	-1.97	0.63	0.00	9
B022E95S55	-1.88	1.38	0.08	9
B022E95S60	1.50	0.27	0.08	8
B022E95S65	-2.67	1.08	0.02	8
B023E00S05	-1.29	2.84	0.24	10
B023E00S10	0.62	1.98	0.22	11
B023E00S35	-2.50	2.26	0.14	9
B023E00S40	0.30	1.22	0.13	8
B023E00S45	5.05	1.26	0.29	9
B023E00S50	-2.59	1.40	0.05	9
B023E00S55	-2.11	1.57	0.09	9
B023E00S60	-0.25	1.20	0.11	8
B023E00S65	-2.71	1.20	0.03	8
B023E05S05	-0.25	0.58	0.05	10
B023E05S10	-0.38	0.60	0.05	10
B023E05S15	0.15	1.70	0.17	9
B023E05S40	0.16	0.83	0.09	9
B023E05S45	-1.44	0.48	0.00	8
B023E05S50	-2.68	0.80	-0.01	9
B023E05S55	-2.72	1.57	0.07	8
B023E05S60	3.20	1.56	0.26	9
B023E05S65	-1.05	0.16	-0.02	9
B023E10S00	1.18	0.27	0.07	11
B023E10S05	-1.87	1.49	0.09	9
B023E10S10	0.60	3.08	0.33	11
B023E10S15	2.47	2.21	0.30	9
B023E10S35	-2.77	2.11	0.12	8
B023E10S40	-0.25	0.34	0.03	9
B023E10S45	-0.20	0.75	0.07	8
B023E10S50	-2.76	1.51	0.06	9
B023E10S55	0.00	1.35	0.14	8
B023E10S60	-0.05	1.24	0.12	9
B023E10S65	0.28	1.01	0.11	8
B023E15S00	5.12	4.60	0.63	11
B023E15S05	-4.61	3.08	0.15	11
B023E15S10	1.93	1.75	0.24	11
B023E15S15	2.87	0.27	0.12	11
B023E15S35	0.53	0.98	0.12	9
B023E15S40	-1.58	0.70	0.02	9
B023E15S45	1.72	0.83	0.14	9
B023E15S50	-1.36	1.87	0.14	9
B023E15S55	-2.77	1.11	0.02	8
B023E15S60	-1.75	1.12	0.05	9
B023E15S65	-2.30	0.66	-0.01	9
B023E20S00	-1.04	5.10	0.48	10
B023E20S05	1.40	0.92	0.14	11
B023E20S10	0.96	1.12	0.14	12
B023E20S15	14.54	0.75	0.56	10
B023E20S30	-1.57	1.36	0.08	8
B023E20S35	1.07	0.62	0.10	8
B023E20S40	-1.92	1.11	0.05	9
B023E20S45	-0.42	0.53	0.04	9
B023E20S50	-0.64	0.71	0.05	9
B023E20S55	-1.98	1.31	0.07	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B023E20S60	-2.72	1.11	0.02	9
B023E20S65	0.45	1.09	0.12	9
B023E25S00	11.79	2.28	0.62	10
B023E25S05	-2.69	1.36	0.05	9
B023E25S10	2.16	1.38	0.21	11
B023E25S15	1.50	1.79	0.23	11
B023E25S30	-2.75	0.71	-0.02	8
B023E25S35	-0.48	0.27	0.01	9
B023E25S40	-1.47	1.03	0.05	9
B023E25S45	-2.65	1.16	0.03	9
B023E25S50	-2.70	0.51	-0.04	9
B023E25S55	-1.01	1.00	0.07	8
B023E25S60	-1.73	0.38	-0.02	9
B023E25S65	-1.67	1.18	0.06	9
B023E30S00	-2.05	0.09	-0.06	10
B023E30S05	-2.10	0.26	-0.04	9
B023E30S10	1.34	0.98	0.14	10
B023E30S15	-0.29	1.69	0.16	11
B023E30S30	1.37	1.04	0.15	9
B023E30S35	0.50	0.77	0.09	9
B023E30S40	0.09	1.15	0.12	9
B023E30S45	-0.07	0.83	0.08	9
B023E30S50	-2.76	0.88	0.00	9
B023E30S55	-1.03	1.11	0.08	9
B023E30S60	-2.49	1.29	0.05	9
B023E35S00	0.64	0.79	0.10	9
B023E35S05	1.41	0.32	0.08	9
B023E35S10	-2.77	0.56	-0.04	9
B023E35S15	-1.11	3.67	0.33	12
B023E35S30	1.47	0.77	0.13	9
B023E35S35	0.33	0.12	0.02	9
B023E35S40	1.87	0.38	0.10	9
B023E35S45	-2.49	0.60	-0.02	9
B023E35S55	1.30	-0.13	0.03	9
B023E35S60	0.17	0.41	0.05	9
B023E40S00	4.30	0.54	0.20	10
B023E40S05	2.83	-0.03	0.09	9
B023E40S10	-2.17	0.14	-0.06	10
B023E40S15	-3.52	3.26	0.21	12
B023E40S35	-2.62	0.46	-0.04	9
B023E40S40	-1.25	0.80	0.04	8
B023E45S00	-1.31	0.41	0.00	9
B023E45S05	-0.06	1.47	0.14	9
B023E45S10	-1.35	0.70	0.03	9
B023E45S15	-1.96	4.09	0.34	12
B023E45S35	0.01	0.92	0.09	9
B023E45S40	-2.75	1.40	0.05	9
B023E50S00	0.35	1.18	0.13	9
B023E50S05	-0.47	0.07	-0.01	9
B023E50S10	-0.46	1.15	0.10	10
B023E50S15	0.32	3.72	0.38	10
B023E50S35	-2.77	1.30	0.04	9
B023E50S40	-2.72	1.46	0.06	9
B023E55S00	0.45	0.85	0.10	9
B023E55S05	-2.72	1.10	0.02	9
B023E55S10	0.37	1.54	0.17	9
B023E55S15	0.29	0.62	0.07	9
B023E55S35	-2.55	1.28	0.04	9
B023E60S00	-0.65	1.95	0.17	9
B023E60S05	-0.21	1.26	0.12	9
B023E60S10	-2.24	0.96	0.02	9
B023E60S15	2.04	0.44	0.11	9
B023E60S20	0.26	0.89	0.10	10
B023E60S35	-2.53	0.64	-0.02	9
B023E65S00	-2.75	0.82	-0.01	10
B023E65S05	-2.55	0.87	0.00	9
B023E65S10	-1.43	1.24	0.08	9
B023E65S15	-0.11	1.25	0.12	8
B023E65S20	1.13	0.69	0.11	9
SU-406				
B011E70S80	2.10	0.61	0.13	8
B011E70S85	2.22	0.36	0.11	9
B011E70S90	1.50	0.35	0.09	9
B011E70S95	2.68	1.26	0.22	9
B011E75S80	0.26	0.38	0.05	8
B011E75S85	1.36	1.24	0.17	8
B011E75S90	-0.24	1.56	0.15	10
B011E75S95	2.81	3.36	0.43	10
B011E80S80	-1.86	1.21	0.06	9
B011E80S85	1.95	0.73	0.14	9
B011E80S90	-2.60	1.05	0.02	9
B011E80S95	-0.02	3.54	0.35	12
B011E85S80	-0.71	0.34	0.01	9
B011E85S85	1.99	0.85	0.15	9
B011E85S90	1.55	0.95	0.15	10
B011E85S95	3.32	2.00	0.31	10
B011E90S80	-2.10	0.51	-0.02	9
B011E90S85	-0.57	0.41	0.02	10
B011E90S90	-2.49	3.30	0.25	10
B011E90S95	0.29	2.06	0.22	11
B011E95S35	-0.40	0.80	0.07	9
B011E95S40	-0.35	0.82	0.07	9
B011E95S45	-2.21	0.88	0.01	9
B011E95S50	1.97	1.39	0.20	9
B011E95S55	-2.71	1.29	0.04	9
B011E95S60	0.38	1.24	0.14	8
B011E95S65	-1.37	0.27	-0.02	8
B011E95S70	-2.70	0.27	-0.06	8
B011E95S75	-2.72	0.11	-0.08	9
B011E95S80	-2.17	0.15	-0.06	8
B011E95S85	-1.85	1.45	0.08	10
B011E95S90	3.31	4.99	0.61	11
B011E95S95	0.50	0.87	0.10	12
B012E00S40	2.19	1.08	0.18	9
B012E00S45	-2.56	0.51	-0.03	9
B012E00S50	0.83	0.44	0.07	9
B012E00S55	1.40	1.13	0.16	8
B012E00S60	1.42	0.71	0.12	9
B012E00S65	-0.16	0.78	0.07	8
B012E00S70	-0.46	1.03	0.09	9
B012E00S75	0.33	0.43	0.05	8
B012E00S80	2.04	1.73	0.24	10
B012E00S85	-0.56	1.30	0.11	10
B012E00S90	3.40	3.06	0.42	12

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B012E00S95	2.75	2.21	0.31	13
B012E05S45	0.64	1.70	0.19	9
B012E05S50	0.65	0.52	0.07	9
B012E05S55	-0.43	0.90	0.08	9
B012E05S60	2.22	0.63	0.14	8
B012E05S65	0.07	0.25	0.03	8
B012E05S70	3.55	0.21	0.14	9
B012E05S75	0.85	0.71	0.10	9
B012E05S80	0.06	0.60	0.06	9
B012E05S85	-0.84	0.72	0.04	10
B012E05S90	2.10	4.63	0.53	11
B012E05S95	-2.29	4.73	0.40	13
B012E10S50	1.17	0.81	0.12	11
B012E10S55	3.27	2.18	0.33	9
B012E10S60	1.19	2.31	0.27	10
B012E10S65	-1.67	1.72	0.12	10
B012E10S70	2.41	2.19	0.30	9
B012E10S75	0.53	0.02	0.02	9
B012E10S80	1.96	0.47	0.11	9
B012E10S85	1.39	-0.10	0.04	8
B012E10S90	-0.10	1.66	0.16	9
B012E10S95	0.90	2.70	0.30	13
B012E15S55	0.76	1.14	0.14	9
B012E15S60	-0.44	0.53	0.04	10
B012E15S65	-0.03	2.49	0.25	13
B012E15S70	-0.19	2.32	0.23	10
B012E15S75	-0.10	0.07	0.00	9
B012E15S80	0.14	0.11	0.02	9
B012E15S85	-1.65	0.48	-0.01	9
B012E15S90	1.00	1.53	0.19	9
B012E15S95	2.55	2.75	0.36	11
B012E20S60	3.10	0.80	0.18	8
B012E20S65	-2.43	0.24	-0.06	10
B012E20S70	0.74	2.66	0.29	11
B012E20S75	2.46	0.14	0.10	9
B012E20S80	1.63	0.14	0.07	9
B012E20S85	-2.09	1.26	0.06	10
B012E20S90	2.67	1.67	0.26	12
B012E20S95	1.38	4.22	0.47	13
B012E25S65	-1.48	1.12	0.06	10
B012E25S70	-0.41	2.38	0.22	10
B012E25S75	2.24	3.59	0.43	12
B012E25S80	0.80	2.95	0.32	12
B012E25S85	-4.63	3.09	0.15	12
B012E25S90	-2.85	0.62	-0.03	11
B012E25S95	-1.90	0.49	-0.01	11
B012E30S65	-0.30	0.89	0.08	10
B012E30S70	4.35	0.64	0.21	10
B012E30S75	-2.46	3.18	0.24	11
B012E30S80	0.72	2.42	0.27	11
B012E30S85	-1.02	4.01	0.37	11
B012E30S90	-3.49	2.42	0.13	11
B012E30S95	-1.71	5.03	0.45	10
B012E35S70	14.03	2.74	0.74	10
B012E35S75	7.37	2.09	0.45	9
B012E35S80	7.75	6.22	0.88	11
B012E35S85	10.64	3.03	0.66	11
B012E35S90	7.34	3.06	0.55	10
B012E35S95	10.28	2.28	0.57	10
B012E40S70	-2.65	0.35	-0.05	10
B012E40S75	-0.32	0.54	0.04	10
B012E40S80	-0.45	1.57	0.14	10
B012E40S85	-2.64	1.96	0.11	10
B012E40S90	-1.38	1.92	0.15	10
B012E40S95	1.90	1.68	0.23	10
B012E45S70	3.48	1.31	0.25	10
B012E45S75	-0.69	0.56	0.03	10
B012E45S80	-0.07	0.07	0.00	10
B012E45S85	-1.79	0.67	0.01	10
B012E45S90	0.43	0.78	0.09	10
B012E45S95	-0.28	3.37	0.33	10
B012E50S70	-0.18	1.24	0.12	10
B012E50S75	-0.28	0.63	0.05	10
B012E50S80	2.07	0.78	0.15	9
B012E50S85	-0.66	1.55	0.13	9
B012E50S90	1.87	2.35	0.30	10
B012E50S95	-1.06	1.10	0.07	10
B012E55S70	2.37	0.07	0.09	9
B012E55S75	-1.74	0.38	-0.02	10
B012E55S80	-0.16	1.24	0.12	10
B012E55S85	1.90	1.53	0.22	9
B012E55S90	2.20	1.92	0.26	10
B012E55S95	-0.30	1.25	0.11	10
B012E60S70	-0.94	0.89	0.06	10
B012E60S75	-0.01	1.34	0.13	10
B012E60S80	0.17	1.52	0.16	10
B012E60S85	-2.73	3.90	0.30	11
B012E60S90	0.95	0.71	0.10	9
B012E60S95	2.81	1.87	0.28	10
B012E65S70	0.06	1.67	0.17	10
B012E65S75	-0.37	0.65	0.05	10
B012E65S80	0.93	0.33	0.06	10
B012E65S85	-2.29	3.86	0.31	10
B012E65S90	-0.58	1.34	0.11	10
B012E65S95	2.93	3.10	0.41	9
B012E70S60	-4.93	0.93	-0.07	9
B012E70S65	1.42	2.94	0.34	10
B012E70S70	0.60	3.81	0.40	10
B012E70S75	0.56	0.60	0.08	10
B012E70S80	-2.56	0.79	-0.01	10
B012E70S85	-3.11	2.37	0.13	9
B012E70S90	-0.77	1.03	0.08	10
B012E70S95	-1.80	1.20	0.06	9
B012E75S55	-3.05	1.78	0.08	9
B012E75S60	0.54	1.01	0.12	9
B012E75S65	-4.53	0.49	-0.10	9
B012E75S70	3.75	1.24	0.25	9
B012E75S75	-4.71	0.81	-0.08	10
B012E75S80	3.00	0.82	0.18	10
B012E75S85	3.87	1.15	0.24	10
B012E75S90	-1.71	0.34	-0.02	10
B012E75S95	-1.19	1.51	0.11	9
B023E70S00	-0.21	3.73	0.37	13
B023E70S05	-0.61	1.26	0.11	12

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B023E70S10	1.22	-0.03	0.04	9
B023E70S15	1.81	0.56	0.12	9
B023E70S20	-0.21	0.29	0.02	9
B023E75S00	0.19	1.40	0.15	12
B023E75S05	1.60	2.65	0.32	12
B023E75S10	-1.92	0.71	0.01	10
B023E75S15	-2.43	1.41	0.06	9
B023E75S20	-1.52	1.25	0.07	9
B023E80S00	2.30	1.67	0.24	12
B023E80S05	6.26	1.26	0.33	12
B023E80S10	2.33	1.48	0.23	11
B023E80S15	-2.38	2.76	0.20	9
B023E80S20	1.89	1.00	0.16	10
B023E85S00	3.50	0.17	0.13	11
B023E85S05	5.98	1.35	0.33	11
B023E85S10	1.11	1.15	0.15	11
B023E85S15	1.92	4.19	0.48	11
B023E90S00	-0.12	1.70	0.17	11
B023E90S05	1.11	1.73	0.21	11
B023E90S10	3.13	1.02	0.21	11
B023E90S15	0.32	0.47	0.06	11
B023E90S20	2.97	1.31	0.23	11
B023E90S25	2.10	3.28	0.40	10
B023E90S30	-1.57	2.06	0.15	9
B023E95S00	0.70	1.74	0.20	11
B023E95S05	2.85	1.10	0.20	11
B023E95S10	3.83	1.84	0.31	11
B023E95S15	2.07	0.12	0.08	10
B023E95S20	-0.90	1.81	0.15	10
B023E95S25	3.10	2.74	0.38	10
B023E95S30	2.62	3.60	0.45	10
B024E00S00	-1.57	0.52	0.00	9
B024E00S05	-1.02	1.66	0.13	11
B024E00S10	1.59	1.43	0.20	11
B024E00S15	3.09	0.71	0.17	11
B024E00S20	-0.12	0.95	0.09	10
B024E00S25	-0.87	3.34	0.30	11
B024E00S30	-1.94	0.42	-0.02	9
B024E05S00	-0.41	1.64	0.15	11
B024E05S05	-0.83	0.05	-0.02	11
B024E05S10	-0.80	0.42	0.02	10
B024E05S15	0.15	1.43	0.15	10
B024E05S20	5.43	0.00	0.18	10
B024E05S25	1.50	3.74	0.42	12
B024E05S30	1.71	3.85	0.44	9
B024E10S00	0.22	0.80	0.09	10
B024E10S05	6.47	1.59	0.38	10
B024E10S10	2.47	1.27	0.21	10
B024E10S15	5.03	0.76	0.24	10
B024E10S20	-1.01	0.52	0.02	10
B024E10S25	2.77	1.26	0.22	11
B024E10S30	1.29	0.90	0.13	9
B024E15S00	1.70	5.39	0.60	12
B024E15S05	-0.72	1.35	0.11	10
B024E15S10	1.00	-0.44	-0.01	10
B024E15S15	4.59	0.85	0.24	10
B024E15S20	3.73	1.03	0.23	11
B024E15S25	1.38	1.53	0.20	11
B024E15S30	-2.61	0.15	-0.07	9
B024E20S00	0.45	1.65	0.18	11
B024E20S05	1.18	0.68	0.11	10
B024E20S10	1.01	1.48	0.18	10
B024E20S15	0.83	0.38	0.07	10
B024E20S20	-1.21	1.94	0.15	11
B024E20S25	-1.89	2.17	0.15	10
B024E20S30	0.35	0.80	0.09	9
B024E25S00	0.31	0.45	0.06	11
B024E25S05	-3.60	0.12	-0.11	11
B024E25S10	0.60	0.32	0.05	10
B024E25S15	1.33	1.45	0.19	10
B024E25S20	0.25	1.55	0.16	11
B024E25S25	1.25	0.95	0.14	11
B024E25S30	1.38	1.01	0.15	9
B024E30S00	3.04	3.00	0.40	10
B024E30S05	1.36	1.17	0.16	11
B024E30S10	-2.65	0.73	-0.02	10
B024E30S15	2.73	3.98	0.49	10
B024E30S20	-0.33	1.70	0.16	11
B024E30S25	0.78	3.23	0.35	11
B024E30S30	0.19	0.30	0.04	9
B024E35S00	-0.43	0.89	0.08	10
B024E35S05	3.03	1.37	0.24	10
B024E35S10	0.70	1.05	0.13	10
B024E35S15	1.30	0.30	0.07	10
B024E35S20	0.09	2.43	0.25	10
B024E35S25	1.73	3.26	0.38	10
B024E35S30	-2.65	1.35	0.05	8
B024E40S00	-1.70	1.35	0.08	10
B024E40S05	1.54	0.72	0.12	9
B024E40S10	-2.05	1.13	0.05	10
B024E40S15	1.48	0.79	0.13	11
B024E40S20	2.93	1.31	0.23	10
B024E40S25	2.32	1.07	0.18	10
B024E40S30	-1.00	0.46	0.01	7
B024E45S00	0.72	0.91	0.12	10
B024E45S05	1.37	2.11	0.26	10
B024E45S10	-0.02	3.20	0.32	10
B024E45S15	-0.57	2.79	0.26	11
B024E45S20	0.51	1.67	0.18	11
B024E45S25	-1.09	2.42	0.21	10
B024E45S30	0.19	2.81	0.29	8
B024E50S00	2.42	2.67	0.35	10
B024E50S05	-0.85	1.69	0.14	10
B024E50S10	-0.91	0.94	0.06	11
B024E50S15	2.73	3.31	0.42	10
B024E50S20	1.58	2.51	0.30	10
B024E50S25	2.29	2.01	0.28	10
B024E50S30	-2.77	0.87	-0.01	7
B024E55S00	0.20	2.09	0.22	9
B024E55S05	-2.73	1.12	0.02	10
B024E55S10	1.19	3.07	0.35	10
B024E55S15	-1.60	0.04	-0.05	10
B024E55S20	1.96	4.14	0.48	9
B024E55S25	-1.16	1.04	0.07	10

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B024E55S30	-0.21	0.63	0.06	7
B024E60S00	-1.56	1.78	0.13	10
B024E60S05	-0.63	4.39	0.42	11
B024E60S10	4.15	3.82	0.52	10
B024E60S15	-0.96	1.92	0.16	11
B024E60S20	-3.46	3.94	0.28	11
B024E60S25	-0.11	4.16	0.41	10
B024E60S30	-0.76	0.71	0.05	8
B024E65S00	-0.27	1.69	0.16	10
B024E65S05	1.45	1.78	0.23	10
B024E65S10	-0.69	3.48	0.33	10
B024E65S15	-2.60	1.35	0.05	10
B024E65S20	1.27	-0.53	-0.01	10
B024E65S25	1.62	0.58	0.11	9
B024E65S30	-0.60	1.10	0.09	8
B024E70S00	0.95	4.45	0.48	9
B024E70S05	0.41	0.17	0.03	10
B024E70S10	1.40	0.14	0.06	10
B024E70S15	1.16	-0.15	0.02	9
B024E70S20	-3.50	-0.09	-0.13	10
B024E70S25	-2.06	5.83	0.51	9
B024E70S30	-0.74	2.52	0.23	9
B024E75S00	-1.34	2.06	0.16	10
B024E75S05	-1.50	1.30	0.08	9
B024E75S10	2.56	0.35	0.12	9
B024E75S15	0.11	0.59	0.06	9
B024E75S20	-3.68	1.48	0.03	9
SU-407				
B012E80S10	3.06	3.91	0.49	10
B012E80S20	-1.37	-0.91	-0.14	9
B012E80S30	-1.16	0.33	-0.01	11
B012E80S40	2.64	0.50	0.14	12
B012E80S50	-1.20	0.08	-0.03	12
B012E80S60	-2.31	0.73	0.00	11.5
B012E80S70	1.48	3.82	0.43	11
B012E80S80	0.57	0.51	0.07	11
B012E80S90	-2.20	2.05	0.13	8
B024E75S25	3.50	1.59	0.28	10

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B024E75S30	-0.28	0.11	0.00	8
B024E80S00	-0.21	1.76	0.17	12
B024E80S10	-1.22	0.22	-0.02	11
B024E80S20	-1.26	0.70	0.03	11
B024E80S30	4.01	1.97	0.33	9.5
B024E80S40	2.65	0.38	0.13	10
B024E80S50	-0.93	0.70	0.04	10
B024E80S60	-1.86	0.52	-0.01	11
B024E80S70	-0.04	0.02	0.00	10
B024E80S80	-3.29	1.83	0.07	11
B024E80S90	-4.49	6.29	0.48	12
B024E90S50	0.29	0.59	0.07	10
B024E90S60	0.66	1.27	0.15	10.5
B024E90S70	2.25	1.18	0.19	11.5
B024E90S80	0.45	1.60	0.17	11.5
B024E90S90	-1.89	0.91	0.03	11
B036E90S60	0.40	0.34	0.05	9
B036E90S70	5.76	1.44	0.34	11
B036E90S80	-1.40	0.20	-0.03	11
B036E90S90	4.08	0.74	0.21	10
B212E80S90	-2.77	1.41	0.05	10
B213E00S90	1.51	1.14	0.16	8
B301E00S00	-0.88	1.65	0.14	8
B301E00S10	3.68	2.01	0.32	8
B301E00S20	1.12	-0.04	0.03	8
B301E00S30	1.43	1.16	0.16	8
B301E00S40	-0.89	0.96	0.07	8
B301E00S50	-1.35	1.09	0.06	8
B301E00S60	1.97	1.91	0.26	8
B301E00S70	-0.10	1.14	0.11	9
B301E00S80	1.74	1.29	0.19	9
B301E00S90	-2.65	1.03	0.01	9
B302E00S00	-1.41	0.06	-0.04	8
B302E00S10	2.02	1.01	0.17	9
B302E00S20	-1.62	1.39	0.08	10
B302E00S30	1.93	0.81	0.15	8
B302E00S40	-1.18	-0.28	-0.07	8
B302E00S50	-0.79	0.74	0.05	9

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B302E00S60	-1.04	0.25	-0.01	8
B302E00S70	1.06	1.44	0.18	8
B302E00S80	-1.42	1.25	0.08	8
B302E00S90	1.82	0.86	0.15	8
B303E00S00	-1.12	1.04	0.07	8
B303E00S10	-2.33	0.01	-0.08	8
B303E00S20	-1.62	0.10	-0.04	8
B303E00S30	1.43	0.43	0.09	8
B303E00S40	-2.64	0.02	-0.09	9
B303E00S50	0.56	-0.17	0.00	8
B303E00S60	-2.57	0.43	-0.04	8
B303E00S70	1.00	0.35	0.07	8
B303E00S80	-0.30	-0.21	-0.03	9
B303E00S90	2.89	-0.56	0.04	8
SU-408				
B022E35S80	-2.73	-0.29	-0.12	8
B022E35S85	-0.63	0.02	-0.02	8
B022E35S90	-0.88	0.17	-0.01	8
B022E40S75	-1.52	0.01	-0.05	8
B022E40S80	-2.37	0.61	-0.02	7
B022E40S85	0.24	0.13	0.02	8
B022E40S90	-0.65	0.27	0.00	8
B022E45S75	-0.36	-0.21	-0.03	7
B022E45S80	-2.01	-0.16	-0.08	7
B022E45S85	-0.41	0.26	0.01	8
B022E45S90	0.90	0.11	0.04	7
B022E45S95	-0.05	0.26	0.02	7
B022E50S75	-0.48	-0.31	-0.05	7
B022E50S80	-0.75	-0.93	-0.12	7
B022E50S85	0.72	-0.06	0.02	9
B022E50S90	1.02	0.14	0.05	8
B022E50S95	0.05	0.40	0.04	8
B022E55S70	2.66	0.02	0.09	8
B022E55S75	-0.45	0.41	0.03	8
B022E55S80	-0.27	-0.20	-0.03	7
B022E55S85	-1.26	0.52	0.01	8
B022E55S90	0.00	-0.38	-0.04	9
B022E55S95	-2.21	0.06	-0.07	8

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B022E60S70	0.62	-0.55	-0.03	8
B022E60S75	-1.38	0.21	-0.03	8
B022E60S80	-1.25	-0.18	-0.06	7
B022E60S85	-0.19	-0.31	-0.04	7
B022E60S90	0.70	0.59	0.08	8
B022E60S95	1.80	1.01	0.16	8
B022E65S70	-0.22	0.38	0.03	7
B022E65S75	-1.34	0.64	0.02	8
B022E65S80	-1.16	-0.48	-0.09	7
B022E65S85	-1.86	-0.59	-0.12	7
B022E65S90	-1.63	0.13	-0.04	8
B022E65S95	-0.31	1.12	0.10	8
B022E70S70	-2.58	1.01	0.02	9
B022E70S75	1.53	0.13	0.06	8
B022E70S80	-2.61	0.48	-0.04	8
B022E70S85	-0.96	-0.07	-0.04	8
B022E70S90	-0.98	0.15	-0.02	8
B022E70S95	-1.40	0.37	-0.01	8
B022E75S70	-0.67	0.49	0.03	8
B022E75S75	-2.43	0.37	-0.04	8
B022E75S80	-2.74	0.39	-0.05	8
B022E75S85	-1.17	0.51	0.01	9
B022E75S90	-2.68	0.85	0.00	8
B022E75S95	1.01	0.38	0.07	8
B022E80S70	2.06	-0.24	0.05	7
B022E80S75	0.77	-0.91	-0.06	8
B022E80S80	-0.26	0.29	0.02	8
B022E80S85	-1.47	-0.36	-0.08	7
B022E80S90	0.32	0.54	0.06	8
B022E80S95	-1.01	-0.27	-0.06	8
B022E85S70	-1.81	0.65	0.00	8
B022E85S75	-2.50	-0.41	-0.12	8
B022E85S80	0.23	0.45	0.05	8
B022E85S85	-0.20	0.50	0.04	8
B022E85S90	-2.61	0.77	-0.01	8
B022E85S95	0.63	0.36	0.06	8
B022E90S70	-2.65	0.90	0.00	8
B022E90S75	1.00	0.91	0.12	9
B022E90S80	-0.73	0.17	-0.01	8
B022E90S85	-1.50	0.32	-0.02	8
B022E90S90	-2.55	0.58	-0.03	8
B022E90S95	-2.69	0.44	-0.05	8
B022E95S70	-1.09	1.26	0.09	9
B022E95S75	-1.31	1.16	0.07	8
B022E95S80	-2.68	0.50	-0.04	8
B022E95S85	-1.31	0.49	0.01	8
B022E95S90	-2.65	-0.83	-0.17	7
B022E95S95	-2.73	0.26	-0.06	8
B023E00S70	0.92	0.71	0.10	9
B023E00S75	-2.72	0.82	-0.01	8
B023E00S80	-1.11	0.74	0.04	8
B023E00S85	0.54	0.39	0.06	9
B023E00S90	0.81	0.28	0.06	8
B023E00S95	-0.34	0.66	0.05	8
B023E05S70	-1.62	0.99	0.04	8
B023E05S75	3.48	1.26	0.24	8
B023E05S80	-0.26	0.30	0.02	8
B023E05S85	-1.00	0.59	0.03	8
B023E05S90	0.79	0.55	0.08	8
B023E05S95	0.51	0.72	0.09	8
B023E10S70	0.62	0.95	0.12	8
B023E10S75	3.39	0.27	0.14	8
B023E10S80	-0.81	0.58	0.03	8
B023E10S85	-1.76	1.20	0.06	8
B023E10S90	0.31	0.69	0.08	8
B023E10S95	-1.79	1.42	0.08	9
B023E15S70	-1.95	0.79	0.01	9
B023E15S75	-2.09	1.25	0.06	8
B023E15S80	-2.72	0.57	-0.03	8
B023E15S85	-0.73	0.90	0.07	8
B023E15S90	1.06	0.89	0.12	9
B023E15S95	2.92	0.92	0.19	8
B023E20S70	-0.99	1.38	0.10	8
B023E20S75	-0.61	1.84	0.16	8
B023E20S80	-0.43	0.09	-0.01	9
B023E20S85	-2.75	0.87	0.00	8
B023E20S90	-1.07	0.52	0.02	9
B023E20S95	-2.76	0.43	-0.05	9
B023E25S70	-1.38	1.03	0.06	9
B023E25S75	-1.34	1.16	0.07	9
B023E25S80	0.61	1.36	0.16	9
B023E25S85	-1.90	1.06	0.04	9
B023E25S90	-2.38	0.97	0.02	9
B023E25S95	-2.40	1.28	0.05	8
B023E30S65	-2.77	1.09	0.02	9
B023E30S70	-0.06	1.03	0.10	9
B023E30S75	-1.88	1.10	0.05	9
B023E30S80	-0.42	0.76	0.06	10
B023E30S85	-2.77	0.86	-0.01	9
B023E30S90	-1.59	1.30	0.08	8
B023E30S95	-0.47	1.14	0.10	9
B023E35S50	-0.67	1.18	0.10	9
B023E35S65	1.24	0.58	0.10	9
B023E35S70	1.44	0.92	0.14	10
B023E35S75	-0.25	1.03	0.09	10
B023E35S80	5.07	0.96	0.27	9
B023E35S85	-2.77	1.15	0.02	8
B023E35S90	-2.60	0.12	-0.07	9
B023E35S95	-2.74	0.05	-0.09	9
B023E40S45	1.64	0.78	0.13	9
B023E40S50	0.41	0.73	0.09	9
B023E40S55	0.95	0.70	0.10	9
B023E40S60	0.02	0.11	0.01	9
B023E40S65	-0.53	0.78	0.06	9
B023E40S70	4.23	0.88	0.23	9
B023E40S75	0.10	1.12	0.11	10
B023E40S80	1.07	0.84	0.12	9
B023E40S85	-1.55	0.44	-0.01	9
B023E40S90	-2.76	0.79	-0.01	8
B023E40S95	-1.05	0.14	-0.02	9
B023E45S45	-1.39	0.72	0.03	9
B023E45S50	-1.55	1.26	0.07	9
B023E45S55	1.48	-0.05	0.04	10
B023E45S60	-1.10	0.70	0.03	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B023E45S65	0.37	1.03	0.12	9
B023E45S70	0.03	0.39	0.04	9
B023E45S75	0.90	1.30	0.16	8
B023E45S80	-0.63	0.65	0.04	9
B023E45S85	-0.07	1.03	0.10	9
B023E45S90	-0.45	0.11	0.00	9
B023E45S95	0.66	0.22	0.04	8
B023E50S45	-2.24	1.41	0.07	9
B023E50S50	-0.25	1.13	0.10	9
B023E50S55	-1.92	0.26	-0.04	9
B023E50S60	-1.38	0.24	-0.02	9
B023E50S65	-1.83	0.60	0.00	9
B023E50S70	-1.11	0.44	0.01	8
B023E50S75	-2.66	1.24	0.04	9
B023E50S80	-0.75	0.80	0.06	8
B023E50S85	-2.40	1.06	0.03	9
B023E50S90	-1.32	1.12	0.07	9
B023E50S95	3.14	1.17	0.22	9
B023E55S40	-1.87	1.16	0.05	8
B023E55S45	2.81	1.19	0.21	9
B023E55S50	2.31	0.48	0.13	9
B023E55S55	-2.73	0.78	-0.01	9
B023E55S60	-0.09	1.24	0.12	8
B023E55S65	2.94	0.52	0.15	9
B023E55S70	-1.76	0.36	-0.02	9
B023E55S75	-0.04	0.73	0.07	9
B023E55S80	-2.51	0.98	0.01	8
B023E55S85	-2.75	0.58	-0.03	9
B023E55S90	-2.71	1.20	0.03	9
B023E55S95	1.70	0.65	0.12	9
B023E60S40	-2.70	1.17	0.03	9
B023E60S45	1.95	0.69	0.13	9
B023E60S50	0.14	0.78	0.08	9
B023E60S55	1.01	1.29	0.16	9
B023E60S60	-2.61	0.77	-0.01	9
B023E60S65	-2.21	1.07	0.03	9
B023E60S70	-2.04	0.78	0.01	9
B023E60S75	-2.77	0.68	-0.02	9
B023E60S80	0.69	1.63	0.19	9
B023E60S85	-2.77	1.30	0.04	10
B023E60S90	-0.32	0.85	0.07	9
B023E65S35	-2.61	0.83	0.00	9
B023E65S40	-1.37	0.63	0.02	9
B023E65S45	0.60	0.89	0.11	10
B023E65S50	-1.57	0.71	0.02	10
B023E65S55	0.04	1.19	0.12	9
B023E65S60	-0.29	0.91	0.08	9
B023E65S65	0.33	1.30	0.14	8
B023E65S70	-2.76	-0.25	-0.12	9
B023E65S75	-1.27	1.10	0.07	9
B023E65S80	1.17	1.38	0.18	9
B023E65S85	-0.39	0.75	0.06	9
B023E70S40	-2.77	1.11	0.02	9
B023E70S45	2.33	1.01	0.18	9
B023E70S50	-2.77	0.88	0.00	9
B023E70S55	-1.96	0.84	0.02	9
B023E70S60	-2.08	1.51	0.08	9
B023E70S65	-2.67	1.51	0.06	9
B023E70S70	-1.11	0.68	0.03	9
B023E70S75	0.71	0.52	0.08	9
B023E70S80	-1.61	1.43	0.09	9
B023E75S45	-0.37	0.32	0.02	9
B023E75S50	-2.77	0.94	0.00	9
B023E75S55	-2.07	1.36	0.07	9
B023E75S60	0.10	0.47	0.05	9
B023E75S65	-1.26	0.93	0.05	9
B023E75S70	-1.83	0.82	0.02	9
B023E75S75	-0.63	0.68	0.05	9
B023E80S45	-0.80	1.25	0.10	9
B023E80S50	0.72	0.63	0.09	9
B023E80S55	0.26	1.31	0.14	9
B023E80S60	-1.12	0.98	0.06	9
B023E80S65	-1.93	0.75	0.01	9
B023E80S70	-2.37	1.51	0.07	8
B023E85S50	-0.40	0.37	0.02	9
B023E85S55	1.17	0.45	0.08	10
B023E85S60	-1.55	0.92	0.04	9
B023E85S65	-2.77	0.44	-0.05	9
B023E85S70	-2.77	0.35	-0.06	9
B023E90S55	0.16	1.24	0.13	8
B023E90S60	-2.70	1.13	0.02	9
B023E90S65	-1.58	0.40	-0.01	9
B023E95S60	-2.50	0.93	0.01	9
B023E95S65	1.82	0.95	0.16	8
B034E60S00	0.48	0.24	0.04	8
B034E65S00	1.96	0.56	0.12	8
B034E70S00	0.80	0.50	0.08	7
B034E75S00	-0.37	0.43	0.03	8
B034E75S05	0.66	0.09	0.03	8
B034E80S00	1.69	0.81	0.14	8
B034E80S05	0.28	-0.29	-0.02	7
B034E85S00	1.72	0.91	0.15	8
B034E85S05	-0.67	0.69	0.05	9
B034E90S00	-2.77	1.12	0.02	8
B034E90S05	-2.04	1.59	0.09	8
B034E90S10	-0.84	1.39	0.11	8
B034E95S00	-0.18	1.10	0.10	8
B034E95S05	-1.85	1.18	0.06	9
B034E95S10	-2.77	0.78	-0.01	8
B035E00S00	1.03	0.84	0.12	9
B035E00S05	-1.51	1.57	0.11	8
B035E00S10	2.53	0.67	0.15	8
B035E00S15	0.62	0.22	0.04	8
B035E05S00	2.80	0.55	0.15	9
B035E05S05	0.34	0.95	0.11	8
B035E05S10	-2.63	0.71	-0.02	8
B035E05S15	0.36	1.24	0.14	8
B035E10S00	1.45	0.97	0.15	8
B035E10S05	-0.73	0.60	0.04	8
B035E10S10	-0.89	1.37	0.11	8
B035E15S00	-0.79	0.64	0.04	8
B035E15S05	1.84	1.46	0.21	8
B035E15S10	0.37	0.94	0.11	9
B035E20S00	3.22	0.84	0.19	8

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B035E20S05	-0.12	0.43	0.04	8
B035E20S10	-0.25	0.48	0.04	8
B035E25S00	0.41	-0.23	-0.01	8
B035E25S05	0.41	0.26	0.04	7
B035E25S10	3.31	-0.03	0.11	7
B035E30S00	0.82	0.20	0.05	8
B035E30S05	-2.76	0.09	-0.08	9
B035E30S10	1.12	0.43	0.08	9
B035E35S00	1.87	0.17	0.08	8
B035E35S05	-0.19	0.40	0.03	9
B035E35S10	2.04	0.76	0.14	9
B035E40S00	1.15	1.01	0.14	8
B035E40S05	1.00	0.90	0.12	9
B035E45S00	-2.77	0.54	-0.04	9
B035E45S05	-2.66	1.04	0.02	9
B035E50S00	-2.32	0.50	-0.03	9
SU-409				
B023E60S95	2.63	0.86	0.17	9
B023E65S90	-0.58	1.92	0.17	10
B023E65S95	-0.70	1.03	0.08	9
B023E70S85	-0.21	1.71	0.16	10
B023E70S90	-2.72	1.42	0.05	9
B023E70S95	0.62	0.84	0.10	9
B023E75S80	1.86	1.25	0.19	9
B023E75S85	-2.16	1.81	0.11	9
B023E75S90	0.80	1.47	0.17	9
B023E75S95	-2.61	0.74	-0.01	9
B023E80S75	0.34	0.79	0.09	10
B023E80S80	-1.87	0.81	0.02	9
B023E80S85	-1.67	2.03	0.15	9
B023E80S90	1.82	1.45	0.21	9
B023E80S95	1.27	1.44	0.19	9
B023E85S75	1.22	1.30	0.17	10
B023E85S80	-0.46	0.54	0.04	9
B023E85S85	-2.73	1.53	0.06	9
B023E85S90	-2.69	0.83	-0.01	9
B023E85S95	-2.52	1.23	0.04	9
B023E90S70	-2.31	0.69	-0.01	9

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B023E90S75	-2.33	0.90	0.01	8
B023E90S80	-2.74	1.25	0.03	9
B023E90S85	-0.05	0.49	0.05	9
B023E90S90	-2.63	0.71	-0.02	8
B023E90S95	0.15	0.27	0.03	9
B023E95S70	-2.32	0.97	0.02	9
B023E95S75	0.97	0.58	0.09	9
B023E95S80	-2.67	1.24	0.03	9
B023E95S85	-2.69	0.90	0.00	9
B023E95S90	0.38	1.48	0.16	8
B023E95S95	-1.37	0.90	0.04	9
B024E00S70	0.44	1.49	0.16	9
B024E00S75	5.93	1.74	0.37	8
B024E00S80	-2.59	1.20	0.03	8
B024E00S85	-0.17	1.07	0.10	9
B024E00S90	-2.17	0.48	-0.02	9
B024E00S95	-2.13	0.97	0.03	9
B024E05S75	-0.21	1.09	0.10	9
B024E05S80	-1.37	0.71	0.03	8
B024E05S85	2.03	0.66	0.13	8
B024E05S90	-1.45	1.14	0.07	9
B024E05S95	-0.47	1.01	0.08	9
B024E10S80	-2.63	1.26	0.04	8
B024E10S85	-0.07	1.17	0.12	9
B024E10S90	-2.64	0.30	-0.06	9
B024E10S95	-2.75	0.57	-0.03	8
B024E15S85	-2.74	0.56	-0.04	8
B024E15S90	-2.41	0.80	0.00	8
B024E15S95	-2.41	1.45	0.07	8
B024E20S95	-0.25	0.25	0.02	8
B035E30S15	-0.55	0.93	0.07	9
B035E35S15	0.11	0.30	0.03	9
B035E35S20	-1.58	1.07	0.05	9
B035E40S10	0.54	1.15	0.13	9
B035E40S15	-2.57	1.78	0.09	9
B035E40S20	-2.77	1.27	0.03	8
B035E40S25	-0.64	0.99	0.08	9
B035E40S30	-2.52	0.80	0.00	9

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B035E45S10	-2.21	0.83	0.01	8
B035E45S15	1.41	1.19	0.17	9
B035E45S20	-0.20	0.71	0.06	8
B035E45S25	-2.77	1.37	0.05	9
B035E45S30	-1.97	0.64	0.00	9
B035E45S35	-2.73	1.21	0.03	8
B035E50S05	0.15	0.69	0.07	10
B035E50S10	0.52	-0.15	0.00	9
B035E50S15	3.26	0.35	0.14	9
B035E50S20	-0.10	0.40	0.04	8
B035E50S25	1.12	0.39	0.08	9
B035E50S30	-2.13	1.29	0.06	9
B035E50S35	-2.12	1.11	0.04	9
B035E50S40	0.28	2.17	0.23	9
B035E50S45	-1.83	1.29	0.07	9
B035E55S00	1.56	1.22	0.17	9
B035E55S05	-0.06	0.93	0.09	9
B035E55S10	-0.46	0.95	0.08	8
B035E55S15	-1.24	1.59	0.12	9
B035E55S20	0.91	0.67	0.10	9
B035E55S25	-2.13	1.37	0.07	9
B035E55S30	0.46	0.77	0.09	9
B035E55S35	-2.74	1.91	0.10	9
B035E55S40	-0.49	1.16	0.10	8
B035E55S45	4.30	0.79	0.22	8
B035E55S50	-0.26	1.22	0.11	9
B035E55S55	-1.16	1.68	0.13	9
B035E55S60	-0.40	1.45	0.13	9
B035E55S65	-2.76	1.15	0.02	9
B035E60S00	2.36	1.32	0.21	9
B035E60S05	-2.40	1.39	0.06	9
B035E60S10	-0.04	1.05	0.10	9
B035E60S15	0.98	1.07	0.14	9
B035E60S20	-0.80	1.05	0.08	9
B035E60S25	-0.13	0.83	0.08	9
B035E60S30	0.32	1.26	0.14	9
B035E60S35	0.15	0.79	0.08	9
B035E60S40	-0.97	0.34	0.00	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B035E60S45	-0.72	0.65	0.04	8
B035E60S50	-1.65	0.93	0.04	8
B035E60S55	-1.43	0.82	0.03	8
B035E60S60	0.21	1.28	0.14	8
B035E60S65	-0.31	1.12	0.10	8
B035E60S70	1.24	1.00	0.14	8
B035E60S75	0.53	0.62	0.08	8
B035E60S80	0.39	0.36	0.05	8
B035E60S85	-0.13	0.25	0.02	8
B035E65S00	0.51	1.61	0.18	9
B035E65S05	1.13	1.58	0.20	8
B035E65S10	1.58	1.29	0.18	8
B035E65S15	-0.02	0.73	0.07	9
B035E65S20	-2.45	1.23	0.04	9
B035E65S25	-0.79	1.20	0.09	9
B035E65S30	-0.71	1.49	0.13	9
B035E65S35	-0.08	0.11	0.01	8
B035E65S40	-0.12	0.68	0.06	10
B035E65S45	-1.08	1.08	0.07	9
B035E65S50	1.50	0.74	0.12	9
B035E65S55	0.83	1.26	0.15	9
B035E65S60	-0.90	0.49	0.02	9
B035E65S65	0.02	1.37	0.14	9
B035E65S70	-0.73	0.60	0.04	9
B035E65S75	0.96	0.82	0.11	8
B035E65S80	0.60	0.32	0.05	8
B035E65S85	-1.12	-0.08	-0.05	7
B035E65S90	-1.25	0.45	0.00	8
B035E65S95	2.51	0.65	0.15	8
B035E70S00	-0.55	0.41	0.02	9
B035E70S05	1.46	1.07	0.16	9
B035E70S10	-1.71	1.18	0.06	8
B035E70S15	-1.45	1.22	0.07	8
B035E70S20	-2.35	0.95	0.02	9
B035E70S25	2.73	0.78	0.17	8
B035E70S30	0.02	0.87	0.09	9
B035E70S35	0.17	0.82	0.09	9
B035E70S40	0.19	0.53	0.06	9
B035E70S45	-1.73	0.98	0.04	9
B035E70S50	-0.74	0.75	0.05	8
B035E70S55	-2.72	0.85	-0.01	9
B035E70S60	-2.39	1.10	0.03	9
B035E70S65	-1.59	0.70	0.02	9
B035E70S70	0.19	1.16	0.12	9
B035E70S75	1.60	1.02	0.16	9
B035E70S80	-1.12	0.47	0.01	8
B035E70S85	-0.01	-0.12	-0.01	8
B035E70S90	-2.64	0.67	-0.02	8
B035E70S95	-2.41	-0.01	-0.08	8
B035E75S00	1.12	0.77	0.11	9
B035E75S05	-2.42	0.15	-0.07	9
B035E75S10	-2.39	0.74	-0.01	9
B035E75S15	-0.49	1.17	0.10	9
B035E75S20	-0.96	0.83	0.05	9
B035E75S25	-2.77	0.75	-0.02	9
B035E75S30	-2.15	0.47	-0.03	8
B035E75S35	0.17	0.78	0.08	9
B035E75S40	2.25	0.58	0.13	8
B035E75S45	1.52	0.47	0.10	8
B035E75S50	-1.12	0.13	-0.02	9
B035E75S55	-2.53	0.28	-0.06	8
B035E75S60	0.40	0.54	0.07	9
B035E75S65	-0.01	1.13	0.11	8
B035E75S70	-2.38	0.58	-0.02	9
B035E75S75	1.67	0.53	0.11	9
B035E75S80	-2.71	0.67	-0.02	9
B035E75S85	-2.71	0.12	-0.08	9
B035E75S90	1.34	0.65	0.11	8
B035E75S95	-0.86	0.42	0.01	8
B035E80S00	1.47	1.54	0.20	9
B035E80S05	-1.35	0.84	0.04	9
B035E80S10	-0.50	0.90	0.07	9
B035E80S15	1.02	0.79	0.11	9
B035E80S20	-1.11	0.89	0.05	9
B035E80S25	1.63	0.41	0.10	9
B035E80S30	-1.60	1.08	0.05	9
B035E80S35	0.91	1.13	0.14	9
B035E80S40	1.47	1.81	0.23	9
B035E80S45	-1.89	1.60	0.10	9
B035E80S50	4.12	1.08	0.25	8
B035E80S55	1.86	1.39	0.20	9
B035E80S60	0.56	1.46	0.16	8
B035E80S65	-1.96	1.12	0.05	8
B035E80S70	2.43	1.05	0.19	9
B035E80S75	3.16	0.67	0.17	8
B035E80S80	0.31	0.99	0.11	9
B035E80S85	0.37	1.07	0.12	8
B035E80S90	3.15	0.86	0.19	9
B035E80S95	-0.07	1.23	0.12	9
B035E85S00	3.15	0.68	0.17	9
B035E85S05	0.96	1.20	0.15	8
B035E85S10	2.02	0.92	0.16	8
B035E85S15	4.38	0.72	0.22	9
B035E85S20	0.23	0.41	0.05	9
B035E85S25	0.85	1.63	0.19	8
B035E85S30	0.01	0.80	0.08	9
B035E85S35	-0.99	1.29	0.10	8
B035E85S40	0.83	0.50	0.08	8
B035E85S45	-2.77	0.39	-0.05	8
B035E85S50	0.04	0.27	0.03	8
B035E85S55	0.39	0.50	0.06	9
B035E85S60	-1.90	0.81	0.02	9
B035E85S65	0.09	0.14	0.02	8
B035E85S70	-1.43	-0.02	-0.05	9
B035E85S75	2.91	1.47	0.24	9
B035E85S80	-1.48	0.74	0.03	9
B035E85S85	4.23	1.42	0.28	8
B035E85S90	2.35	1.20	0.20	9
B035E85S95	-2.70	1.00	0.01	9
B035E90S00	-2.08	0.28	-0.04	9
B035E90S05	2.25	0.48	0.12	8
B035E90S10	1.13	0.74	0.11	8
B035E90S15	0.40	0.69	0.08	9
B035E90S20	-2.17	0.86	0.01	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B035E90S25	0.99	0.88	0.12	9
B035E90S30	1.27	-0.32	0.01	9
B035E90S35	-1.08	1.41	0.10	9
B035E90S40	0.66	0.08	0.03	9
B035E90S45	-1.70	-0.14	-0.07	9
B035E90S50	1.92	0.58	0.12	8
B035E90S55	-0.38	0.19	0.01	9
B035E90S60	-0.25	0.35	0.03	9
B035E90S65	-0.70	0.50	0.03	9
B035E90S70	-2.51	0.60	-0.02	8
B035E90S75	1.23	1.41	0.18	8
B035E90S80	0.46	0.87	0.10	9
B035E90S85	1.24	0.65	0.11	9
B035E90S90	-0.03	1.01	0.10	9
B035E90S95	4.17	0.72	0.21	9
B035E95S00	-0.91	0.58	0.03	9
B035E95S05	0.16	0.26	0.03	8
B035E95S10	0.89	0.45	0.07	9
B035E95S15	-1.67	0.85	0.03	9
B035E95S20	-1.74	0.45	-0.01	8
B035E95S25	-0.49	0.60	0.04	9
B035E95S30	2.39	1.00	0.18	9
B035E95S35	-1.08	0.60	0.02	9
B035E95S40	0.96	0.63	0.10	8
B035E95S45	4.46	0.87	0.24	8
B035E95S50	-2.50	0.31	-0.05	8
B035E95S55	1.75	0.28	0.09	8
B035E95S60	-2.76	0.51	-0.04	8
B035E95S65	-0.64	0.57	0.04	9
B035E95S70	2.54	0.76	0.16	9
B035E95S75	-2.68	0.59	-0.03	9
B035E95S80	0.90	-0.09	0.02	9
B035E95S85	-0.90	0.87	0.06	9
B035E95S90	0.65	1.10	0.13	9
B036E00S00	0.53	1.29	0.15	9
B036E00S05	0.71	0.80	0.10	8
B036E00S10	0.39	1.25	0.14	9
B036E00S15	-2.71	0.54	-0.04	9

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B036E00S20	-0.53	0.91	0.07	9
B036E00S25	1.26	1.49	0.19	8
B036E00S30	-2.77	0.95	0.00	9
B036E00S35	-0.61	0.88	0.07	8
B036E00S40	-1.39	1.41	0.09	9
B036E00S45	-1.93	0.74	0.01	9
B036E00S50	-1.44	0.82	0.03	9
B036E00S55	-0.92	0.12	-0.02	9
B036E00S60	0.08	0.64	0.07	9
B036E00S65	0.05	0.87	0.09	9
B036E00S70	-0.94	0.72	0.04	8
B036E00S75	-2.64	0.57	-0.03	9
B036E00S80	-2.77	0.89	0.00	9
B036E00S85	-0.77	0.13	-0.01	9
B036E00S90	-0.49	0.95	0.08	9
B036E05S00	-2.70	0.44	-0.05	9
B036E05S05	-1.11	0.33	0.00	8
B036E05S10	-1.43	1.10	0.06	9
B036E05S15	-2.68	1.25	0.04	9
B036E05S20	-1.96	1.29	0.06	9
B036E05S25	-2.70	0.35	-0.06	9
B036E05S30	-1.92	0.45	-0.02	9
B036E05S35	-1.97	0.41	-0.02	9
B036E05S40	-1.22	0.43	0.00	9
B036E05S45	0.01	0.57	0.06	9
B036E05S50	1.42	1.35	0.18	9
B036E05S55	-2.64	1.04	0.02	8
B036E05S60	-0.95	0.56	0.02	9
B036E05S65	1.50	0.29	0.08	9
B036E05S70	-0.81	0.72	0.04	9
B036E05S75	-2.73	0.64	-0.03	8
B036E05S80	-2.23	1.26	0.05	8
B036E05S85	1.89	0.70	0.13	9
B036E10S00	-1.04	1.75	0.14	9
B036E10S05	-1.81	1.04	0.04	8
B036E10S10	1.00	1.05	0.14	8
B036E10S15	-1.33	1.19	0.07	8
B036E10S20	-2.47	1.21	0.04	8

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B036E10S25	-1.42	0.66	0.02	9
B036E10S30	-2.64	0.03	-0.09	9
B036E10S35	-2.77	0.91	0.00	9
B036E10S40	-0.60	1.14	0.09	10
B036E10S45	-2.70	1.97	0.11	9
B036E10S50	-0.95	0.87	0.06	8
B036E10S55	-1.24	0.98	0.06	8
B036E10S60	-0.86	0.80	0.05	8
B036E10S65	-0.20	0.63	0.06	8
B036E10S70	-2.68	0.34	-0.06	9
B036E10S75	-1.38	1.08	0.06	9
B036E10S80	0.81	2.15	0.24	9
B036E15S00	-0.59	0.71	0.05	8
B036E15S05	-2.77	1.16	0.02	9
B036E15S10	-0.33	0.63	0.05	9
B036E15S15	-2.69	1.00	0.01	9
B036E15S20	-1.12	1.06	0.07	9
B036E15S25	2.35	1.40	0.22	8
B036E15S30	-1.87	0.61	0.00	9
B036E15S35	-0.29	0.37	0.03	9
B036E15S40	1.21	1.11	0.15	9
B036E15S45	3.34	1.18	0.23	9
B036E15S50	-0.13	1.22	0.12	9
B036E15S55	-2.77	1.15	0.02	8
B036E15S60	-0.11	0.50	0.05	8
B036E15S65	-2.28	1.00	0.02	8
B036E15S70	-2.71	1.05	0.01	8
B036E15S75	0.43	0.68	0.08	8
B036E20S00	-2.11	1.29	0.06	9
B036E20S05	-2.65	0.90	0.00	9
B036E20S10	0.00	1.23	0.12	9
B036E20S15	-0.65	0.29	0.01	9
B036E20S20	-0.05	0.72	0.07	9
B036E20S25	-1.06	0.99	0.06	8
B036E20S30	-2.55	1.07	0.02	9
B036E20S35	0.18	0.81	0.09	9
B036E20S40	-1.51	0.89	0.04	9
B036E20S45	0.47	0.48	0.06	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B036E20S50	0.81	1.01	0.13	8
B036E20S55	0.08	0.81	0.08	8
B036E20S60	3.67	1.04	0.23	9
B036E20S65	-2.71	0.54	-0.04	9
B036E20S70	1.68	0.98	0.15	8
B036E20S75	-2.53	0.63	-0.02	8
B036E25S00	1.63	0.55	0.11	8
B036E25S05	-2.09	1.52	0.08	9
B036E25S10	-1.68	0.92	0.04	8
B036E25S15	-2.23	1.03	0.03	9
B036E25S20	-2.39	0.84	0.00	9
B036E25S25	-2.51	0.91	0.01	9
B036E25S30	-0.66	1.39	0.12	9
B036E25S35	-2.61	0.91	0.00	9
B036E25S40	-2.77	1.41	0.05	9
B036E25S45	-2.11	0.31	-0.04	8
B036E25S50	-1.31	0.38	-0.01	8
B036E25S55	-0.80	0.90	0.06	9
B036E25S60	-2.58	1.16	0.03	9
B036E25S65	0.19	0.82	0.09	8
B036E25S70	0.17	0.47	0.05	9
B036E30S05	4.20	0.55	0.19	9
B036E30S10	-2.66	1.04	0.02	9
B036E30S15	0.68	1.10	0.13	9
B036E30S20	-1.18	0.91	0.05	8
B036E30S25	-0.90	0.51	0.02	9
B036E30S30	-2.76	0.63	-0.03	9
B036E30S35	0.76	0.37	0.06	9
B036E30S40	-0.15	1.23	0.12	9
B036E30S45	-0.70	1.32	0.11	9
B036E30S50	-2.41	1.04	0.02	9
B036E30S55	-1.80	0.86	0.03	9
B036E30S60	-0.40	0.74	0.06	8
B036E30S65	-2.56	1.97	0.11	9
B036E35S10	0.15	1.14	0.12	8
B036E35S15	-1.13	1.35	0.10	8
B036E35S20	-2.74	1.06	0.01	8
B036E35S25	-0.75	1.21	0.10	8
B036E35S30	-1.01	0.69	0.04	9
B036E35S35	-2.31	1.45	0.07	9
B036E35S40	0.20	1.58	0.16	9
B036E35S45	2.29	0.99	0.18	9
B036E35S50	-2.57	0.79	-0.01	9
B036E35S55	-1.03	0.83	0.05	10
B036E35S60	-0.52	1.49	0.13	9
B036E40S15	0.43	1.29	0.14	9
B036E40S20	-2.73	0.42	-0.05	9
B036E40S25	-0.41	1.08	0.09	9
B036E40S30	-2.51	2.21	0.14	10
B036E40S35	0.27	1.40	0.15	9
B036E40S40	1.82	0.66	0.13	9
B036E40S45	-2.77	0.39	-0.05	9
B036E40S50	-1.54	1.13	0.06	9
B036E40S55	-2.73	1.40	0.05	9
B036E40S60	1.18	1.66	0.21	9
B036E45S20	2.02	1.23	0.19	9
B036E45S25	1.92	0.03	0.07	9
B036E45S30	1.77	0.88	0.15	9
B036E45S35	-1.33	-0.01	-0.05	9
B036E45S40	2.30	0.23	0.10	9
B036E45S45	0.81	0.53	0.08	9
B036E45S50	-0.79	0.16	-0.01	8
B036E45S55	2.61	0.23	0.11	9
B036E50S25	-0.76	0.96	0.07	9
B036E50S30	3.65	0.77	0.20	9
B036E50S35	-0.84	0.70	0.04	9
B036E50S40	2.45	1.37	0.22	9
B036E50S45	-1.77	0.76	0.02	8
B036E50S50	2.01	0.89	0.16	8
B036E55S30	0.09	1.32	0.13	9
B036E55S35	0.52	1.52	0.17	9
B036E55S40	1.34	0.58	0.10	9
B036E55S45	-0.47	1.62	0.15	9
B036E60S30	4.62	1.27	0.28	9
B036E60S35	2.11	1.91	0.26	9
B036E60S40	0.39	1.22	0.13	9
B036E60S45	0.17	0.27	0.03	9
B047E70S00	1.75	0.32	0.09	8
B047E75S00	-1.13	1.02	0.06	8
B047E80S00	0.08	0.46	0.05	9
SU-410				
B022E35S95	-0.74	0.86	0.06	8
B022E40S95	0.38	0.06	0.02	8
B034E35S00	-1.56	0.74	0.02	8
B034E35S05	-0.30	-0.20	-0.03	8
B034E35S10	-1.46	0.69	0.02	8
B034E40S00	2.02	0.82	0.15	7
B034E40S05	-0.56	0.50	0.03	8
B034E40S10	0.63	0.06	0.03	8
B034E45S00	2.15	-0.13	0.06	8
B034E45S05	-1.45	0.66	0.02	8
B034E45S10	-0.94	-0.18	-0.05	8
B034E50S00	0.06	0.13	0.01	8
B034E50S05	-1.06	0.40	0.00	7
B034E50S10	-2.57	0.85	0.00	8
B034E55S00	0.25	0.48	0.06	7
B034E55S05	2.37	0.54	0.13	8
B034E55S10	3.29	-0.05	0.10	8
B034E60S05	0.32	0.31	0.04	8
B034E60S10	0.26	0.19	0.03	7
B034E65S05	-0.89	0.43	0.01	7
B034E65S10	-0.14	-0.09	-0.01	8
B034E65S15	-0.36	0.02	-0.01	8
B034E70S05	1.43	0.81	0.13	7
B034E70S10	-1.83	0.77	0.02	8
B034E70S15	2.36	0.45	0.12	7
B034E75S10	-0.88	0.01	-0.03	8
B034E75S15	-1.55	0.80	0.03	8
B034E80S10	0.93	0.60	0.09	7
B034E80S15	0.39	0.52	0.06	8
B034E85S10	1.70	0.31	0.09	8
B034E85S15	0.21	0.91	0.10	8
B034E85S20	0.68	0.38	0.06	7
B034E85S25	-1.19	0.21	-0.02	8

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B034E90S15	0.89	0.68	0.10	8
B034E90S20	-0.06	0.34	0.03	7
B034E90S25	-2.40	1.11	0.03	7
B034E90S30	1.23	0.05	0.05	8
B034E95S15	-2.55	-0.02	-0.09	7
B034E95S20	0.18	0.45	0.05	7
B034E95S25	-2.63	-0.19	-0.11	8
B034E95S30	-0.34	0.63	0.05	8
B034E95S35	0.18	0.28	0.03	7
B034E95S40	-1.60	0.50	0.00	8
B034E95S55	1.14	0.00	0.04	8
B034E95S60	-2.57	-0.26	-0.11	8
B035E00S20	1.57	0.88	0.14	8
B035E00S25	-1.31	1.38	0.09	7
B035E00S30	-1.86	0.38	-0.02	7
B035E00S35	-0.49	0.93	0.08	8
B035E00S40	-2.72	1.22	0.03	8
B035E00S45	-0.17	0.53	0.05	7
B035E00S50	-1.16	0.56	0.02	7
B035E00S55	1.68	0.05	0.06	8
B035E00S60	-0.50	0.31	0.01	8
B035E00S65	-2.77	-0.50	-0.14	8
B035E05S20	1.76	0.40	0.10	8
B035E05S25	-0.82	1.43	0.12	8
B035E05S30	2.72	0.91	0.18	8
B035E05S35	1.27	1.42	0.18	8
B035E05S40	0.65	0.43	0.07	8
B035E05S45	-0.42	0.89	0.08	8
B035E05S50	-0.79	0.01	-0.03	7
B035E05S55	-0.89	0.14	-0.02	7
B035E05S60	4.43	0.31	0.18	8
B035E05S65	0.12	-0.51	-0.05	8
B035E10S15	2.52	0.63	0.15	8
B035E10S20	-0.43	0.67	0.05	7
B035E10S25	1.36	0.53	0.10	8
B035E10S30	1.61	0.91	0.14	8
B035E10S35	2.87	0.15	0.11	7
B035E10S40	2.06	-0.17	0.05	7
B035E10S45	-1.24	0.56	0.02	7
B035E10S50	0.58	0.12	0.03	8
B035E10S55	2.46	0.64	0.15	7
B035E10S60	1.14	-0.22	0.02	7
B035E10S65	1.59	-0.30	0.02	8
B035E15S15	-0.21	0.81	0.07	8
B035E15S20	-0.23	0.06	0.00	8
B035E15S25	0.78	0.73	0.10	8
B035E15S30	1.14	1.02	0.14	8
B035E15S35	0.49	1.77	0.19	8
B035E15S40	5.16	1.61	0.33	7
B035E15S45	2.60	0.25	0.11	8
B035E15S50	2.68	0.35	0.12	7
B035E15S55	1.56	-0.20	0.03	7
B035E15S60	1.48	0.78	0.13	7
B035E15S65	-0.72	0.47	0.02	7
B035E15S70	6.30	0.11	0.22	7
B035E15S75	-0.08	0.00	0.00	8
B035E20S15	1.32	0.81	0.12	8
B035E20S20	2.44	0.29	0.11	8
B035E20S25	-1.67	0.15	-0.04	8
B035E20S30	0.97	0.68	0.10	9
B035E20S35	-0.45	1.33	0.12	9
B035E20S40	3.89	0.69	0.20	9
B035E20S45	1.69	1.03	0.16	7
B035E20S50	-0.91	-0.70	-0.10	8
B035E20S55	-2.64	-0.04	-0.09	8
B035E20S60	3.93	-0.49	0.08	7
B035E20S65	0.32	-0.05	0.01	8
B035E20S70	-2.18	0.78	0.01	7
B035E20S75	1.27	0.08	0.05	7
B035E20S80	0.17	0.43	0.05	8
B035E25S15	0.02	0.30	0.03	8
B035E25S20	0.81	0.48	0.07	8
B035E25S25	-0.57	0.45	0.03	8
B035E25S30	-0.29	0.82	0.07	8
B035E25S35	3.04	0.84	0.19	9
B035E25S40	-1.72	0.50	-0.01	9
B035E25S45	-2.38	0.56	-0.02	8
B035E25S50	1.17	1.14	0.15	8
B035E25S55	1.65	0.41	0.10	8
B035E25S60	-1.59	-0.48	-0.10	7
B035E25S65	1.41	0.42	0.09	7
B035E25S70	-0.88	0.53	0.02	7
B035E25S75	-1.56	-0.24	-0.08	7
B035E25S80	-0.24	0.52	0.04	7
B035E25S85	1.09	0.55	0.09	8
B035E25S90	-2.51	1.09	0.03	8
B035E30S20	-1.56	0.69	0.02	9
B035E30S25	5.23	0.53	0.23	9
B035E30S30	2.04	0.56	0.12	9
B035E30S35	-0.33	0.71	0.06	8
B035E30S40	1.06	0.44	0.08	8
B035E30S45	1.22	0.35	0.08	8
B035E30S50	0.07	0.93	0.09	8
B035E30S55	3.88	-0.01	0.13	8
B035E30S60	1.22	0.54	0.09	8
B035E30S65	-0.55	0.34	0.02	8
B035E30S70	-0.06	-0.52	-0.05	8
B035E30S75	-1.05	0.01	-0.03	8
B035E30S80	0.21	-0.94	-0.09	8
B035E30S85	0.16	-0.17	-0.01	8
B035E30S90	0.54	-0.26	-0.01	8
B035E30S95	1.04	-0.01	0.03	8
B035E35S25	-1.28	1.39	0.10	9
B035E35S30	2.71	0.93	0.18	9
B035E35S35	0.94	0.88	0.12	9
B035E35S40	1.34	0.52	0.10	9
B035E35S45	-0.05	1.34	0.13	9
B035E35S50	-0.07	0.12	0.01	8
B035E35S55	1.73	-0.05	0.05	8
B035E35S60	2.41	0.21	0.10	8
B035E35S65	0.07	0.12	0.01	8
B035E35S70	0.14	-0.77	-0.07	7
B035E35S75	1.23	0.14	0.06	8
B035E35S80	0.14	-0.01	0.00	8

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B035E35S85	-1.45	0.30	-0.02	8
B035E35S90	-2.53	0.33	-0.05	8
B035E35S95	-2.77	0.66	-0.03	7
B035E40S35	-0.94	0.53	0.02	8
B035E40S40	-2.67	0.49	-0.04	8
B035E40S45	-1.04	1.83	0.15	8
B035E40S50	2.38	1.09	0.19	9
B035E40S55	0.75	0.17	0.04	8
B035E40S60	0.56	0.48	0.07	8
B035E40S65	-0.35	0.12	0.00	8
B035E40S70	1.31	0.78	0.12	7
B035E40S75	-0.43	0.52	0.04	8
B035E40S80	-2.77	0.49	-0.04	7
B035E40S85	-2.30	-0.19	-0.10	8
B035E40S90	-2.39	0.50	-0.03	8
B035E40S95	-2.58	0.40	-0.05	8
B035E45S40	1.70	1.08	0.17	9
B035E45S45	-0.86	1.10	0.08	9
B035E45S50	-1.77	0.85	0.03	9
B035E45S55	-1.06	1.37	0.10	9
B035E45S60	-2.57	1.05	0.02	9
B035E45S65	-2.75	0.55	-0.04	8
B035E45S70	-1.56	1.14	0.06	8
B035E45S75	-2.51	0.42	-0.04	8
B035E45S80	-1.10	1.54	0.12	8
B035E45S85	-0.27	-0.47	-0.06	7
B035E45S90	-2.74	0.28	-0.06	8
B035E45S95	-1.40	0.26	-0.02	8
B035E50S50	1.30	1.26	0.17	8
B035E50S55	-0.85	0.99	0.07	8
B035E50S60	-2.73	0.54	-0.04	9
B035E50S65	-1.30	0.88	0.05	8
B035E50S70	-2.45	1.07	0.02	8
B035E50S75	-2.27	0.20	-0.06	7
B035E50S80	-2.32	1.29	0.05	8
B035E50S85	-1.71	-0.76	-0.13	8
B035E50S90	1.08	1.23	0.16	8
B035E50S95	-0.24	0.84	0.08	8

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B035E55S70	0.89	0.59	0.09	8
B035E55S75	-1.67	0.56	0.00	7
B035E55S80	0.33	-0.50	-0.04	7
B035E55S85	-2.72	0.20	-0.07	8
B035E55S90	-2.52	2.19	0.14	8
B035E55S95	-2.34	0.19	-0.06	7
B035E60S90	-0.71	0.43	0.02	8
B035E60S95	1.46	0.60	0.11	8
B047E35S00	-0.96	-0.38	-0.07	8
B047E40S00	0.06	-0.28	-0.03	7
B047E40S05	-1.03	0.27	-0.01	7
B047E40S10	0.70	0.12	0.04	7
B047E45S00	-0.84	-0.53	-0.08	8
B047E45S05	0.10	-0.40	-0.04	8
B047E45S10	0.05	-0.14	-0.01	8
B047E45S15	0.01	-0.16	-0.02	7
B047E45S20	-0.91	0.53	0.02	8
B047E50S00	0.34	0.00	0.01	7
B047E50S05	-2.54	-0.34	-0.12	8
B047E50S10	0.00	-0.02	0.00	8
B047E50S15	-0.69	-0.33	-0.06	8
B047E50S20	0.17	0.14	0.02	7
B047E50S25	0.81	0.41	0.07	8
B047E55S00	0.44	0.02	0.02	8
B047E55S05	1.22	0.01	0.04	8
B047E55S10	-2.67	-0.01	-0.09	7
B047E55S15	0.16	0.33	0.04	8
B047E55S20	0.21	0.38	0.04	8
B047E55S25	-0.31	0.51	0.04	8
B047E55S30	-0.33	-0.34	-0.05	7
B047E55S35	-0.10	0.42	0.04	7
B047E60S00	0.66	0.20	0.04	8
B047E60S05	1.64	-0.20	0.04	8
B047E60S10	-1.17	0.65	0.03	7
B047E60S15	-0.23	0.39	0.03	8
B047E60S20	0.75	0.10	0.04	8
B047E60S25	-1.94	1.01	0.04	8
B047E60S30	-2.17	0.15	-0.06	8

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B047E60S35	-2.55	0.76	-0.01	8
B047E65S00	-0.87	-0.07	-0.04	7
B047E65S05	-1.36	-0.33	-0.08	7
B047E65S10	-1.68	-0.04	-0.06	7
B047E65S15	1.24	-0.20	0.02	8
B047E65S20	-1.53	0.94	0.04	8
B047E65S25	-1.22	0.20	-0.02	7
B047E65S30	-2.77	0.60	-0.03	7
B047E65S35	-1.33	0.48	0.00	8
B047E70S05	0.57	0.68	0.09	8
B047E70S10	3.81	0.17	0.14	7
B047E70S15	-2.55	-0.05	-0.09	7
B047E70S20	0.89	0.31	0.06	8
B047E70S25	2.40	0.32	0.11	8
B047E70S30	0.67	0.68	0.09	8
B047E70S35	-2.35	0.83	0.00	8
B047E75S05	-1.95	0.82	0.02	8
B047E75S10	-0.36	0.05	-0.01	8
B047E75S15	1.80	0.78	0.14	8
B047E75S20	-0.12	-0.18	-0.02	8
B047E75S25	1.78	-0.40	0.02	8
B047E75S30	2.63	1.08	0.20	8
B047E75S35	0.75	0.17	0.04	7
B047E80S05	3.59	0.93	0.21	9
B047E80S10	-0.31	1.03	0.09	8
B047E80S15	1.30	0.26	0.07	7
B047E80S20	3.04	0.55	0.16	9
B047E80S25	1.98	0.90	0.16	8
B047E80S30	0.80	0.10	0.04	8
B047E80S35	0.16	0.00	0.01	8
B047E85S00	0.20	0.94	0.10	8
B047E85S05	-0.21	0.67	0.06	8
B047E85S10	3.18	0.98	0.20	8
B047E85S15	2.18	0.52	0.12	9
B047E85S20	3.08	0.86	0.19	9
B047E85S25	-2.42	1.00	0.02	9
B047E85S30	1.38	-0.05	0.04	9
B047E85S35	-2.57	0.98	0.01	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B047E90S00	2.08	0.57	0.13	9
B047E90S05	3.71	0.72	0.20	9
B047E90S10	-1.83	0.34	-0.03	9
B047E90S15	-2.14	1.12	0.04	9
B047E90S20	1.12	0.65	0.10	9
B047E90S25	5.01	0.12	0.18	9
B047E90S30	2.17	0.54	0.13	9
B047E90S35	2.73	0.42	0.13	9
B047E95S05	-1.17	0.98	0.06	9
B047E95S10	-2.75	0.36	-0.06	9
B047E95S15	0.02	1.19	0.12	9
B047E95S20	-2.77	0.80	-0.01	9
B047E95S25	0.15	0.86	0.09	9
B047E95S30	-0.21	1.00	0.09	9
B047E95S35	0.59	1.48	0.17	9
B048E00S20	-0.55	1.11	0.09	10
B048E00S25	-2.25	0.80	0.01	9
B048E00S30	-2.63	0.68	-0.02	9
B048E05S20	0.15	1.10	0.11	9
B048E05S25	0.76	0.93	0.12	10
SU-411				
B023E70S35	2.08	0.87	0.16	10
B023E75S35	-2.70	0.53	-0.04	9
B023E75S40	-1.37	1.07	0.06	10
B023E80S35	0.10	0.69	0.07	9
B023E80S40	-2.10	2.23	0.15	9
B023E85S35	0.20	1.72	0.18	9
B023E85S40	-2.75	0.89	0.00	9
B023E85S45	1.78	0.58	0.12	9
B023E90S35	-0.93	0.87	0.06	9
B023E90S40	-2.77	0.60	-0.03	9
B023E90S45	-2.02	0.50	-0.02	8
B023E90S50	-1.42	0.40	-0.01	9
B023E95S35	0.61	2.78	0.30	9
B023E95S40	0.98	0.60	0.09	8
B023E95S45	-1.97	0.44	-0.02	9
B023E95S50	-2.70	0.43	-0.05	8
B023E95S55	-2.51	0.28	-0.06	9

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B024E00S35	1.00	2.78	0.31	10
B024E00S40	2.04	0.77	0.15	9
B024E00S45	-0.77	0.99	0.07	9
B024E00S50	-1.67	0.98	0.04	8
B024E00S55	1.61	1.06	0.16	8
B024E00S60	3.14	0.74	0.18	8
B024E00S65	1.46	0.83	0.13	9
B024E05S35	3.33	0.36	0.15	8
B024E05S40	0.86	0.92	0.12	8
B024E05S45	-0.50	0.70	0.05	9
B024E05S50	-1.31	1.11	0.07	9
B024E05S55	-2.69	0.83	-0.01	8
B024E05S60	0.90	1.07	0.14	8
B024E05S65	-1.31	1.23	0.08	8
B024E05S70	-1.22	0.67	0.03	9
B024E10S35	1.46	2.02	0.25	8
B024E10S40	-1.49	1.25	0.07	7
B024E10S45	-0.06	0.99	0.10	8
B024E10S50	-1.41	1.41	0.09	9
B024E10S55	-0.49	0.37	0.02	9
B024E10S60	-0.38	0.07	-0.01	9
B024E10S65	0.60	0.70	0.09	8
B024E10S70	-1.06	0.70	0.03	8
B024E10S75	1.11	0.46	0.08	9
B024E15S35	2.48	0.56	0.14	8
B024E15S40	0.20	1.24	0.13	7
B024E15S45	-2.46	1.49	0.07	8
B024E15S50	-2.71	0.79	-0.01	9
B024E15S55	2.50	0.91	0.17	9
B024E15S60	-2.21	0.82	0.01	9
B024E15S65	-1.67	0.75	0.02	8
B024E15S70	-2.16	0.42	-0.03	8
B024E15S75	-0.39	0.59	0.05	9
B024E15S80	-1.97	0.52	-0.01	8
B024E20S35	0.62	0.52	0.07	8
B024E20S40	-1.93	1.17	0.05	8
B024E20S45	-2.44	-0.41	-0.12	8
B024E20S50	-0.24	1.70	0.16	9

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B024E20S55	-2.18	0.40	-0.03	10
B024E20S60	0.88	1.31	0.16	9
B024E20S65	1.01	0.67	0.10	9
B024E20S70	-0.41	1.03	0.09	8
B024E20S75	-2.67	1.44	0.06	9
B024E20S80	-1.58	0.31	-0.02	8
B024E20S85	-2.71	0.70	-0.02	9
B024E20S90	-0.13	1.08	0.10	8
B024E25S35	0.73	0.83	0.11	8
B024E25S40	-1.14	-0.36	-0.07	7
B024E25S45	-1.71	1.87	0.13	9
B024E25S50	-2.73	1.23	0.03	10
B024E25S55	0.16	1.23	0.13	10
B024E25S60	-1.10	1.54	0.12	9
B024E25S65	-2.74	0.38	-0.05	9
B024E25S70	-0.06	0.87	0.08	8
B024E25S75	-1.13	0.53	0.02	8
B024E25S80	0.23	0.26	0.03	8
B024E25S85	-0.29	0.08	0.00	9
B024E25S90	-2.62	0.79	-0.01	8
B024E25S95	3.39	0.64	0.18	8
B024E30S35	-0.18	0.71	0.07	9
B024E30S40	-0.91	-0.64	-0.09	6
B024E30S45	-0.93	-0.64	-0.09	6
B024E30S50	1.34	0.32	0.08	8
B024E30S55	0.55	1.86	0.20	10
B024E30S60	0.45	0.92	0.11	10
B024E30S65	-0.56	1.11	0.09	9
B024E30S70	-0.28	1.78	0.17	9
B024E30S75	-0.69	0.84	0.06	9
B024E30S80	-1.57	1.27	0.07	8
B024E30S85	-1.31	0.94	0.05	9
B024E30S90	-0.59	0.84	0.06	9
B024E30S95	-2.43	1.38	0.06	8
B024E35S35	0.84	1.71	0.20	8
B024E35S40	-1.84	-0.43	-0.10	11
B024E35S45	-2.74	-1.09	-0.20	11
B024E35S50	-1.83	1.14	0.05	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B024E35S55	-1.56	0.63	0.01	10
B024E35S60	-2.06	1.13	0.04	11
B024E35S65	0.80	1.40	0.17	10
B024E35S70	-2.64	0.80	-0.01	9
B024E35S75	1.36	0.80	0.13	8
B024E35S80	-1.72	0.09	-0.05	9
B024E35S85	-1.43	1.26	0.08	9
B024E35S90	-2.67	0.30	-0.06	9
B024E35S95	-1.04	0.35	0.00	8
B024E40S35	1.02	3.11	0.35	9
B024E40S40	-2.24	-0.36	-0.11	8
B024E40S45	-1.30	-0.29	-0.07	6
B024E40S50	-1.16	1.21	0.08	8
B024E40S55	2.58	-0.40	0.05	8
B024E40S60	-1.42	1.01	0.05	10
B024E40S65	-2.62	0.47	-0.04	8
B024E40S70	-2.68	1.51	0.06	11
B024E40S75	-2.30	1.49	0.07	10
B024E40S80	-2.68	0.69	-0.02	9
B024E40S85	-0.49	0.39	0.02	9
B024E40S90	-0.18	1.08	0.10	9
B024E40S95	-2.23	0.94	0.02	8
B024E45S35	0.28	1.06	0.12	8
B024E45S40	-1.40	-0.36	-0.08	7
B024E45S45	0.39	0.66	0.08	6
B024E45S50	0.08	0.80	0.08	8
B024E45S55	-2.61	0.43	-0.04	9
B024E45S60	-2.46	1.19	0.04	9
B024E45S65	-2.70	1.65	0.07	9
B024E45S70	-2.62	1.71	0.08	11
B024E45S75	-2.42	2.55	0.17	10
B024E45S80	-2.04	1.96	0.13	10
B024E45S85	-2.05	0.41	-0.03	9
B024E45S90	-2.62	0.72	-0.02	9
B024E45S95	-0.74	1.76	0.15	9
B024E50S35	-2.77	0.37	-0.06	8
B024E50S40	0.04	-0.53	-0.05	7
B024E50S45	-2.77	-0.10	-0.10	7
B024E50S50	-1.17	1.57	0.12	9
B024E50S55	-1.45	1.97	0.15	8
B024E50S60	-2.57	0.56	-0.03	9
B024E50S65	-2.08	1.87	0.12	10
B024E50S70	0.45	1.16	0.13	10
B024E50S75	1.17	1.53	0.19	11
B024E50S80	0.40	2.11	0.22	11
B024E50S85	1.57	1.27	0.18	10
B024E50S90	-1.23	1.29	0.09	9
B024E50S95	0.21	1.55	0.16	9
B024E55S35	-0.35	-0.30	-0.04	7
B024E55S40	1.20	-0.20	0.02	7
B024E55S45	1.36	-0.07	0.04	7
B024E55S50	-0.04	1.59	0.16	9
B024E55S55	-2.16	1.34	0.06	8
B024E55S60	-1.97	1.05	0.04	9
B024E55S65	-1.55	1.92	0.14	10
B024E55S70	1.94	1.55	0.22	10
B024E55S75	-1.37	1.40	0.09	10
B024E55S80	1.01	2.02	0.24	10
B024E55S85	-1.98	2.21	0.16	10
B024E55S90	0.36	1.72	0.18	10
B024E55S95	-2.45	0.40	-0.04	9
B024E60S35	-2.08	0.95	0.03	7
B024E60S40	1.26	-0.97	-0.05	7
B024E60S45	-0.07	-0.21	-0.02	7
B024E60S50	1.47	0.93	0.14	8
B024E60S55	-0.75	1.43	0.12	8
B024E60S60	0.61	1.73	0.19	9
B024E60S65	1.64	1.67	0.22	9
B024E60S70	-0.69	1.85	0.16	10
B024E60S75	2.87	0.80	0.18	10
B024E60S80	-0.80	1.69	0.14	10
B024E60S85	2.03	2.12	0.28	10
B024E60S90	-2.47	2.49	0.17	10
B024E60S95	1.98	1.15	0.18	9
B024E65S35	2.00	-0.01	0.07	7
B024E65S40	-0.26	0.52	0.04	7
B024E65S45	1.97	-0.48	0.02	7
B024E65S50	-1.03	1.94	0.16	8
B024E65S55	1.56	2.11	0.26	9
B024E65S60	-2.28	1.02	0.03	9
B024E65S65	-1.77	2.99	0.24	9
B024E65S70	1.47	1.48	0.20	10
B024E65S75	0.14	1.80	0.18	10
B024E65S80	0.91	1.34	0.16	10
B024E65S85	-1.98	1.35	0.07	10
B024E65S90	-0.53	0.94	0.08	9
B024E65S95	-0.70	0.76	0.05	9
B024E70S35	1.42	-0.13	0.03	7
B024E70S40	0.65	0.30	0.05	6
B024E70S45	-2.70	0.07	-0.08	7
B024E70S50	1.62	0.70	0.12	8
B024E70S55	-1.74	0.97	0.04	9
B024E70S60	0.98	0.17	0.05	8
B024E70S65	0.45	1.32	0.15	9
B024E70S70	0.67	1.73	0.20	9
B024E70S75	-0.64	1.66	0.14	10
B024E70S80	1.35	0.79	0.12	9
B024E70S85	-2.61	1.30	0.04	9
B024E70S90	0.59	1.41	0.16	9
B024E70S95	0.79	1.15	0.14	9
B024E75S35	1.17	1.32	0.17	7
B024E75S40	1.85	0.09	0.07	7
B024E75S45	1.06	0.15	0.05	7
B024E75S50	-1.69	0.17	-0.04	8
B024E75S55	-1.76	1.48	0.09	9
B024E75S60	-2.07	1.24	0.06	9
B024E75S65	3.08	2.21	0.32	8
B024E75S70	0.04	1.25	0.13	9
B024E75S75	-2.77	1.60	0.07	10
B024E75S80	-1.47	0.91	0.04	9
B024E75S85	-2.54	0.82	0.00	9
B024E75S90	-0.12	3.46	0.34	9
B024E75S95	-2.24	1.71	0.10	9
B035E95S95	1.88	0.62	0.12	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B036E00S95	2.59	0.72	0.16	9
B036E05S90	-1.58	1.30	0.08	9
B036E05S95	0.35	1.01	0.11	9
B036E10S85	0.43	0.52	0.07	8
B036E10S90	1.87	0.49	0.11	8
B036E10S95	-2.54	0.78	-0.01	9
B036E15S80	-2.70	0.67	-0.02	9
B036E15S85	-1.27	1.00	0.06	9
B036E15S90	-1.89	1.01	0.04	9
B036E15S95	1.70	0.46	0.10	9
B036E20S80	0.95	1.13	0.14	9
B036E20S85	1.59	1.04	0.16	10
B036E20S90	0.27	0.79	0.09	9
B036E25S75	-1.76	0.55	0.00	8
B036E25S80	-0.72	0.35	0.01	9
B036E25S85	-1.30	0.62	0.02	9
B036E30S00	-0.57	0.81	0.06	9
B036E30S70	-1.13	1.33	0.10	9
B036E30S75	0.83	1.40	0.17	9
B036E30S80	-2.22	1.04	0.03	9
B036E35S00	0.71	0.21	0.04	9
B036E35S05	0.63	0.82	0.10	10
B036E35S65	-2.61	1.15	0.03	9
B036E35S70	0.21	0.68	0.08	9
B036E35S75	-2.73	2.02	0.11	9
B036E35S80	-1.56	0.79	0.03	9
B036E40S00	-2.38	1.52	0.07	9
B036E40S05	0.26	1.09	0.12	9
B036E40S10	-1.75	0.88	0.03	9
B036E40S65	-0.61	0.13	-0.01	9
B036E40S70	-2.75	0.21	-0.07	9
B036E40S75	-0.86	0.59	0.03	9
B036E45S00	0.10	0.22	0.02	9
B036E45S05	1.63	0.45	0.10	9
B036E45S10	-1.39	0.10	-0.04	9
B036E45S15	-0.09	0.38	0.04	9
B036E45S60	-1.72	0.20	-0.04	9
B036E45S65	0.80	0.21	0.05	9
B036E45S70	-0.76	0.53	0.03	9
B036E50S00	-1.00	0.91	0.06	9
B036E50S05	1.61	0.59	0.11	9
B036E50S10	0.29	0.35	0.04	10
B036E50S15	1.97	0.64	0.13	9
B036E50S20	-0.86	0.71	0.04	9
B036E50S55	3.71	0.91	0.21	9
B036E50S60	-1.82	1.31	0.07	9
B036E50S65	0.19	1.68	0.17	9
B036E55S00	0.59	0.71	0.09	9
B036E55S05	-0.02	1.18	0.12	9
B036E55S10	-0.48	1.04	0.09	9
B036E55S15	2.40	0.79	0.16	9
B036E55S20	1.65	0.94	0.15	10
B036E55S25	0.78	1.16	0.14	9
B036E55S50	-0.57	1.39	0.12	8
B036E55S55	1.12	1.04	0.14	9
B036E55S60	-0.57	0.78	0.06	9
B036E55S65	1.20	0.74	0.11	9
B036E60S00	-1.23	1.39	0.10	10
B036E60S05	2.61	1.27	0.21	10
B036E60S10	0.07	1.31	0.13	9
B036E60S15	0.13	0.83	0.09	9
B036E60S20	-0.33	1.76	0.17	9
B036E60S25	-2.68	1.31	0.04	9
B036E60S50	1.20	1.30	0.17	9
B036E60S55	-1.81	1.39	0.08	9
B036E60S60	-0.24	1.00	0.09	9
B036E65S00	-2.66	1.44	0.06	9
B036E65S05	-1.59	1.15	0.06	10
B036E65S10	-1.52	0.99	0.05	10
B036E65S15	-2.57	0.67	-0.02	9
B036E65S20	-2.12	1.19	0.05	9
B036E65S25	-2.26	0.47	-0.03	9
B036E65S30	2.19	1.14	0.19	9
B036E65S35	-0.52	0.72	0.05	10
B036E65S40	-1.09	1.41	0.10	9
B036E65S45	1.04	1.05	0.14	8
B036E65S50	-2.09	1.78	0.11	8
B036E65S55	-2.64	1.39	0.05	9
B036E70S00	0.84	1.10	0.14	9
B036E70S05	0.83	1.05	0.13	9
B036E70S10	0.78	1.46	0.17	9
B036E70S15	3.19	1.77	0.28	9
B036E70S20	-0.03	0.84	0.08	9
B036E70S25	-1.73	0.99	0.04	9
B036E70S30	-1.27	1.24	0.08	9
B036E70S35	-0.93	1.13	0.08	8
B036E70S40	-1.39	2.13	0.17	8
B036E70S45	-0.02	0.73	0.07	9
B036E70S50	0.06	1.14	0.12	9
B036E70S55	-2.07	1.11	0.04	9
B036E75S00	-2.62	1.03	0.02	9
B036E75S05	-0.91	1.46	0.12	10
B036E75S10	2.43	1.84	0.26	9
B036E75S15	-0.74	1.31	0.11	9
B036E75S20	0.41	1.65	0.18	10
B036E75S25	1.29	2.30	0.27	10
B036E75S30	1.85	1.00	0.16	9
B036E75S35	0.01	0.76	0.08	9
B036E75S40	-1.74	1.59	0.10	9
B036E75S45	-0.44	1.21	0.11	9
B036E75S50	-0.69	0.37	0.01	9
B036E75S55	1.38	0.89	0.13	9
B036E80S00	0.28	1.46	0.16	10
B036E80S05	2.98	1.19	0.22	9
B036E80S10	3.05	1.59	0.26	9
B036E80S15	3.87	0.89	0.22	10
B036E80S20	3.94	1.13	0.24	10
B036E80S25	2.65	0.91	0.18	10
B036E80S30	2.83	1.16	0.21	9
B036E80S35	1.71	0.82	0.14	9
B036E80S40	0.29	0.95	0.11	9
B036E80S45	0.74	0.79	0.10	9
B036E80S50	-0.37	0.96	0.08	8
B036E80S55	-0.36	0.95	0.08	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B036E80S60	1.21	0.06	0.05	9
B036E85S00	-0.62	1.83	0.16	9
B036E85S05	0.96	1.39	0.17	9
B036E85S10	4.42	1.05	0.25	9
B036E85S15	0.65	1.11	0.13	9
B036E85S20	-1.00	0.73	0.04	9
B036E85S25	3.90	1.09	0.24	9
B036E85S30	2.83	2.00	0.29	9
B036E85S35	1.35	1.00	0.15	9
B036E85S40	2.41	0.91	0.17	10
B036E85S45	3.82	1.51	0.28	9
B036E85S50	1.72	1.26	0.18	9
B036E85S55	-0.42	1.16	0.10	9
B036E85S60	2.95	0.78	0.18	9
B036E90S00	-1.40	1.08	0.06	9
B036E90S05	-1.55	2.02	0.15	9
B036E90S10	0.44	1.59	0.17	9
B036E90S15	4.80	0.74	0.23	9
B036E90S20	0.13	1.91	0.19	10
B036E90S25	1.26	1.23	0.17	9
B036E90S30	-1.36	0.90	0.04	9
B036E90S35	0.70	1.70	0.19	9
B036E90S40	2.20	1.02	0.18	9
B036E90S45	-1.54	0.79	0.03	9
B036E90S50	1.40	0.73	0.12	9
B036E90S55	0.79	0.41	0.07	10
B047E95S00	2.10	-0.18	0.05	9
B048E00S00	-2.01	0.99	0.03	9
B048E00S05	-0.87	0.95	0.07	9
B048E05S00	-1.66	1.10	0.05	9
SU-412				
B036E20S95	-0.11	0.60	0.06	9
B036E25S90	0.30	0.41	0.05	8
B036E25S95	-0.88	1.43	0.11	10
B036E30S85	1.32	1.76	0.22	9
B036E30S90	0.09	1.46	0.15	9
B036E30S95	0.26	1.15	0.12	9
B036E35S85	-1.63	1.58	0.10	10

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B036E35S90	-2.76	1.12	0.02	9
B036E35S95	0.09	0.39	0.04	9
B036E40S80	-2.70	1.30	0.04	9
B036E40S85	-0.48	1.31	0.11	9
B036E40S90	-0.54	0.10	-0.01	10
B036E40S95	-0.27	0.03	-0.01	9
B036E45S75	-1.51	0.17	-0.03	9
B036E45S80	-0.68	0.57	0.03	9
B036E45S85	0.31	0.92	0.10	8
B036E45S90	0.48	0.57	0.07	9
B036E45S95	-0.62	0.21	0.00	9
B036E50S70	-1.52	0.75	0.02	9
B036E50S75	0.56	1.36	0.15	9
B036E50S80	-0.99	1.42	0.11	9
B036E50S85	-0.86	0.50	0.02	9
B036E50S90	2.74	1.29	0.22	9
B036E50S95	-0.81	0.84	0.06	10
B036E55S70	-0.16	0.41	0.04	9
B036E55S75	-1.60	0.40	-0.01	9
B036E55S80	-0.95	1.24	0.09	9
B036E55S85	-1.38	1.24	0.08	9
B036E55S90	1.80	1.01	0.16	9
B036E55S95	-1.23	0.83	0.04	9
B036E60S65	-0.94	0.87	0.06	8
B036E60S70	-2.68	0.69	-0.02	8
B036E60S75	-2.71	0.76	-0.01	8
B036E60S80	-0.32	1.22	0.11	8
B036E60S85	2.70	1.47	0.24	9
B036E60S90	-0.51	0.06	-0.01	10
B036E60S95	-2.73	1.35	0.04	8
B036E65S60	0.39	0.95	0.11	9
B036E65S65	-2.77	0.48	-0.04	9
B036E65S70	-2.59	1.48	0.06	9
B036E65S75	-0.89	0.61	0.03	9
B036E65S80	-2.64	0.58	-0.03	9
B036E65S85	-0.25	0.71	0.06	8
B036E65S90	0.79	1.37	0.16	9
B036E65S95	2.05	1.36	0.20	8

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B036E70S60	-1.67	1.14	0.06	9
B036E70S65	1.85	0.49	0.11	8
B036E70S70	2.20	0.23	0.10	8
B036E70S75	-0.55	0.40	0.02	9
B036E70S80	-2.01	1.16	0.05	8
B036E70S85	1.27	0.83	0.13	9
B036E70S90	2.27	1.27	0.20	9
B036E70S95	-2.05	0.82	0.01	8
B036E75S60	1.65	1.22	0.18	9
B036E75S65	-2.61	1.10	0.02	9
B036E75S70	0.31	1.46	0.16	9
B036E75S75	-0.58	0.46	0.03	9
B036E75S80	-0.83	1.05	0.08	9
B036E75S85	2.71	1.34	0.22	9
B036E75S90	0.21	0.13	0.02	9
B036E75S95	2.68	0.52	0.14	8
B036E80S65	1.10	1.37	0.17	8
B036E80S70	0.83	1.23	0.15	9
B036E80S75	-0.40	0.32	0.02	8
B036E80S80	4.90	0.80	0.24	9
B036E80S85	-0.55	1.06	0.09	9
B036E80S90	-0.99	1.28	0.09	9
B048E00S10	1.15	1.63	0.20	9
B048E00S15	0.03	0.57	0.06	8
B048E05S05	-2.02	1.46	0.08	9
B048E05S10	-2.77	1.08	0.02	9
B048E05S15	0.86	0.49	0.08	8
B048E10S00	0.40	1.64	0.18	9
B048E10S05	0.24	1.42	0.15	8
B048E10S10	-1.35	0.58	0.01	8
B048E10S15	0.71	0.54	0.08	9
B048E10S20	-1.54	2.09	0.16	9
B048E15S00	-0.67	1.07	0.09	9
B048E15S05	-0.88	1.26	0.10	9
B048E15S10	1.10	1.27	0.16	9
B048E15S15	-2.77	0.78	-0.01	9
B048E15S20	0.52	0.46	0.06	9
B048E20S00	-0.91	0.46	0.02	9

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B048E20S05	0.81	1.37	0.16	9
B048E20S10	-1.76	-0.30	-0.09	9
B048E20S15	-0.11	0.75	0.07	9
B048E20S20	-0.96	0.33	0.00	9
B048E25S00	2.88	1.09	0.20	9
B048E25S05	0.31	1.02	0.11	8
B048E25S10	1.97	0.98	0.16	9
B048E25S15	1.99	1.49	0.22	8
B048E25S20	1.28	1.34	0.18	9
B048E30S00	-2.61	0.30	-0.06	9
B048E30S05	2.94	0.90	0.19	9
B048E30S10	-0.85	0.58	0.03	9
B048E30S15	1.73	0.92	0.15	9
B048E30S20	1.14	0.85	0.12	9
B048E35S00	1.09	0.71	0.11	9
B048E35S05	2.31	1.15	0.19	9
B048E35S10	1.18	0.50	0.09	9
B048E35S15	1.68	1.16	0.17	9
B048E40S00	1.08	1.15	0.15	9
B048E40S05	-0.44	0.24	0.01	9
B048E40S10	3.56	0.98	0.22	8
B048E40S15	0.57	0.75	0.09	9
B048E45S00	0.40	0.36	0.05	9
B048E45S05	3.80	0.72	0.20	9
B048E45S10	2.69	0.98	0.19	9
B048E45S15	-0.56	0.31	0.01	9
B048E50S00	0.42	0.28	0.04	9
B048E50S05	0.42	1.01	0.11	9
B048E50S10	-1.00	0.53	0.02	9
B048E50S15	0.40	0.90	0.10	8
B048E55S00	-2.53	0.96	0.01	9
B048E55S05	-0.46	0.66	0.05	8
B048E55S10	1.42	1.32	0.18	9
B048E55S15	-0.40	1.17	0.10	8
B048E60S00	0.14	0.90	0.09	8
B048E60S05	-1.92	0.33	-0.03	8
B048E60S10	0.83	0.13	0.04	8
B048E60S15	1.20	0.45	0.09	9
B048E65S00	-2.69	1.35	0.05	8
B048E65S05	-2.75	0.82	-0.01	9
B048E65S10	-2.68	1.59	0.07	8
B048E70S00	-1.90	0.94	0.03	9
B048E70S05	2.31	0.33	0.11	9
B048E75S00	0.03	0.34	0.03	9
SU-413				
B035E00S70	-3.40	0.85	-0.03	9
B035E00S80	1.57	0.62	0.11	9
B035E00S90	0.96	0.00	0.03	9
B035E10S70	-2.07	0.34	-0.03	8
B035E10S80	0.93	0.69	0.10	9
B035E10S90	-3.10	-0.33	-0.14	9
B035E20S90	0.94	0.23	0.05	9
B047E00S00	4.93	-0.19	0.15	9
B047E00S10	0.29	0.58	0.07	9
B047E00S20	0.70	1.75	0.20	11
B047E00S30	-0.37	1.62	0.15	10
B047E00S40	1.87	0.66	0.13	9
B047E00S50	-2.08	0.89	0.02	10
B047E00S60	0.60	1.52	0.17	10
B047E00S70	0.85	1.41	0.17	10
B047E00S80	4.29	1.31	0.27	11
B047E00S90	-2.28	0.65	-0.01	11
B047E10S00	-2.62	0.21	-0.07	9
B047E10S10	0.49	0.52	0.07	8
B047E10S20	-1.99	1.42	0.08	9
B047E10S30	-0.96	1.06	0.07	10
B047E10S40	-1.27	0.49	0.01	9
B047E10S50	-0.02	0.82	0.08	10
B047E10S60	1.03	0.33	0.07	11
B047E10S70	0.24	0.73	0.08	9
B047E10S80	0.04	0.20	0.02	10
B047E10S90	2.76	0.80	0.17	10
B047E20S00	0.16	0.13	0.02	9
B047E20S10	-1.60	-0.43	-0.10	10
B047E20S20	-0.93	1.43	0.11	10
B047E20S30	-1.74	0.74	0.02	11
B047E20S40	0.61	2.21	0.24	11
B047E20S50	2.18	0.07	0.08	10
B047E20S60	-1.04	0.28	-0.01	10
B047E20S70	-0.01	1.28	0.13	11
B047E20S80	4.75	0.98	0.26	11
B047E20S90	2.01	0.25	0.09	11
B047E30S00	-1.91	0.37	-0.03	8
B047E30S10	-0.79	0.46	0.02	9
B047E30S20	-2.57	0.42	-0.04	10
B047E30S30	-2.79	0.95	0.00	10
B047E30S40	-1.83	0.33	-0.03	11
B047E30S50	2.15	0.18	0.09	9
B047E30S60	2.41	0.36	0.12	10
B047E30S70	1.21	0.40	0.08	10
B047E30S80	-2.57	0.65	-0.02	11
B047E30S90	3.89	1.15	0.25	11
B047E35S05	-0.02	0.35	0.03	7
B047E40S20	-6.43	0.48	-0.17	10
B047E40S30	-0.88	0.30	0.00	10
B047E40S40	2.99	0.94	0.19	10
B047E40S50	-0.97	1.24	0.09	11
B047E40S60	-2.08	0.03	-0.07	11
B047E40S70	1.95	-0.17	0.05	10
B047E40S80	-1.14	0.32	-0.01	11
B047E40S90	-2.45	0.41	-0.04	11
B047E50S40	2.45	0.23	0.10	8
B047E50S50	0.24	1.30	0.14	10
B047E50S60	-2.10	0.41	-0.03	11
B047E50S70	0.97	1.16	0.15	10
B047E50S80	-1.88	0.46	-0.02	11
B047E50S90	1.60	0.82	0.14	11
B047E60S40	0.84	1.14	0.14	10
B047E60S50	-6.61	0.96	-0.12	10
B047E60S60	-0.45	1.02	0.09	11
B047E60S70	1.95	0.86	0.15	10
B047E60S80	1.55	0.98	0.15	10
B047E60S90	-1.23	0.30	-0.01	10
B047E70S40	0.51	0.16	0.03	10

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B047E70S50	1.02	-0.30	0.00	8
B047E70S60	-2.56	0.42	-0.04	11
B047E70S70	3.47	-0.01	0.11	10
B047E70S80	-7.22	0.78	-0.16	10
B047E70S90	-2.10	1.13	0.04	9
B047E80S40	-1.84	1.06	0.04	10
B047E80S50	-0.48	1.16	0.10	10
B047E80S60	-1.53	0.67	0.02	10
B047E80S70	0.71	0.73	0.10	9
B047E80S80	-1.24	0.80	0.04	10
B047E80S90	3.89	0.89	0.22	10
B047E90S40	1.17	1.56	0.19	10
B047E90S50	0.81	1.09	0.14	9
B047E90S60	0.48	0.75	0.09	9
B047E90S70	0.69	0.86	0.11	10
B047E90S80	-0.39	1.33	0.12	11
B047E90S90	-0.20	0.86	0.08	10
SU-414				
B048E00S40	1.09	1.60	0.20	11
B048E00S50	-2.63	0.12	-0.08	11
B048E00S60	-0.07	0.79	0.08	11
B048E00S70	2.12	0.46	0.12	10
B048E00S80	0.06	1.15	0.12	8
B048E00S90	2.78	0.08	0.10	9
B048E10S30	-1.71	0.85	0.03	11
B048E10S40	-1.73	0.59	0.00	11
B048E10S50	-2.58	0.44	-0.04	11
B048E10S60	3.23	0.77	0.18	11
B048E10S70	-1.06	0.58	0.02	8
B048E10S80	-2.92	0.00	-0.10	10
B048E10S90	-0.39	-0.58	-0.07	9
B048E20S30	-1.18	2.16	0.18	10
B048E20S40	3.39	0.20	0.13	11
B048E20S50	4.03	2.75	0.41	11
B048E20S60	-4.64	1.49	-0.01	11
B048E20S70	-0.53	0.73	0.06	10
B048E20S80	-1.46	-0.39	-0.09	9
B048E20S90	-2.04	0.03	-0.07	10

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B048E30S30	0.08	0.70	0.07	9
B048E30S40	0.77	0.63	0.09	11
B048E30S50	-1.26	0.32	-0.01	9
B048E30S60	0.46	-0.39	-0.02	11
B048E30S70	-1.48	0.32	-0.02	11
B048E30S80	1.11	0.12	0.05	10
B048E30S90	1.52	0.35	0.09	10
B048E40S20	3.15	0.85	0.19	9
B048E40S30	0.67	0.19	0.04	12
B048E40S40	-4.36	0.38	-0.11	11
B048E40S50	1.34	1.04	0.15	11
B048E40S60	0.93	0.33	0.06	11
B048E40S70	0.48	0.10	0.03	10
B048E40S80	0.95	-0.23	0.01	11
B048E40S90	-0.35	0.26	0.01	11
B048E50S20	-1.92	0.61	0.00	7
B048E50S30	-2.77	0.13	-0.08	10
B048E50S40	0.48	0.45	0.06	9
B048E50S50	2.86	-0.01	0.09	10
B048E50S60	-4.15	0.61	-0.08	11
B048E50S70	0.35	0.59	0.07	11
B048E50S80	0.19	0.61	0.07	10
B048E50S90	-1.15	0.27	-0.01	10
B048E60S20	-4.45	-0.02	-0.15	10
B048E60S30	-3.59	1.35	0.02	9
B048E60S40	-0.03	0.29	0.03	10
B048E60S50	6.32	1.68	0.38	11
B048E60S60	-0.24	0.39	0.03	11
B048E60S70	-0.34	1.12	0.10	10
B048E60S80	-0.31	1.32	0.12	10
B048E60S90	3.10	1.30	0.23	10
B048E70S10	-0.10	0.61	0.06	9
B048E70S20	0.96	0.60	0.09	9
B048E70S30	-0.21	-0.45	-0.05	10
B048E70S40	-4.74	0.56	-0.10	10
B048E70S50	-2.22	2.44	0.17	9
B048E70S60	-1.85	0.81	0.02	10
B048E70S70	-0.74	0.82	0.06	10

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B048E70S80	-0.16	2.54	0.25	9
B048E70S90	2.57	2.51	0.34	10
B048E80S00	-2.65	0.24	-0.06	8
B048E80S10	3.16	-0.11	0.09	9
B048E80S20	0.17	1.79	0.18	9
B048E80S30	-2.15	-0.18	-0.09	10
B048E80S40	0.18	2.81	0.29	10
B048E80S50	-1.87	0.89	0.03	10
B048E80S60	-1.27	0.34	-0.01	11
B048E80S70	1.86	1.32	0.19	11
B048E80S80	-0.46	1.95	0.18	10
B048E80S90	1.56	1.09	0.16	10
B048E90S00	-0.29	0.13	0.00	9
B048E90S10	-1.52	-0.60	-0.11	10
B048E90S20	-0.49	0.27	0.01	10
B048E90S30	-1.49	1.03	0.05	10
B048E90S40	0.27	0.51	0.06	11
B048E90S50	-4.26	2.82	0.14	12
B048E90S60	-3.68	1.76	0.05	10
B048E90S70	-1.27	0.68	0.03	10
B048E90S80	0.54	0.50	0.07	10
B048E90S90	1.85	1.72	0.23	10
B304E00S00	3.64	-0.19	0.10	9
B304E00S10	-0.23	1.12	0.10	9
B304E00S20	0.36	0.54	0.07	9
B304E00S30	-1.22	1.57	0.12	9
B304E00S40	-0.01	1.06	0.11	8
B304E00S50	-1.59	0.22	-0.03	8
B304E00S60	-1.34	-0.56	-0.10	8
B304E00S70	2.69	-0.05	0.08	7
B304E00S80	1.98	-0.39	0.03	7
B304E00S90	2.63	-0.77	0.01	7

Table 4
FSS Surface Grid Samples

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B011E15S25	SU-402			9
B212E15S90	SU-402			7
B022E05S45	SU-404			8
B022E05S50	SU-404			7
B022E05S55	SU-404			7
B022E05S60	SU-404			7
B022E05S65	SU-404			8
B022E05S70	SU-404			7
B022E05S75	SU-404			8
B022E05S80	SU-404			8
B022E05S85	SU-404			8
B022E05S90	SU-404			7
B022E05S95	SU-404			8
B022E10S45	SU-404			7
B022E10S55	SU-404			7
B022E10S65	SU-404			8
B022E10S75	SU-404			8
B022E10S85	SU-404			8
B022E10S95	SU-404			8
B022E15S45	SU-404			7
B022E15S50	SU-404			7
B022E15S55	SU-404			7
B022E15S60	SU-404			7
B022E15S65	SU-404			8
B022E15S70	SU-404			8
B022E15S75	SU-404			9
B022E15S80	SU-404			8
B022E15S85	SU-404			9
B022E15S90	SU-404			10
B022E15S95	SU-404			8
B022E20S70	SU-404			7
B034E00S05	SU-404			7
B034E00S15	SU-404			7
B034E05S00	SU-404			7
B034E05S05	SU-404			8
B034E05S10	SU-404			8
B034E05S15	SU-404			7
B034E05S20	SU-404			7

LocID	Net Utot (pCi/g)	Net Thnat (pCi/g)	FMPC	Dose Rate (µR/hr)
B034E05S25	SU-404			7
B034E10S05	SU-404			7
B034E10S15	SU-404			7
B034E15S00	SU-404			8
B034E15S05	SU-404			8
B034E15S10	SU-404			8
B022E80S10	SU-405			8
B022E80S20	SU-405			6
B022E85S20	SU-405			6
B022E95S05	SU-405			8
B022E95S10	SU-405			8
B023E00S20	SU-405			7
B034E80S20	SU-410			8

Table 5
Samples Under the Haul Road

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC	Exposure Rate (μR/hr)
B010E40S10	1.40	0.74	0.12	10
B010E40S15	-0.22	0.64	0.06	9
B010E45S15	-2.00	-0.41	-0.11	10
B010E50S15	-1.61	0.62	0.01	9
B010E55S15	1.60	1.57	0.21	8
B010E60S15	1.10	1.13	0.15	8
B010E65S15	2.12	0.71	0.14	8
B010E65S20	-3.93	0.97	-0.03	8
B010E70S20	-3.50	1.49	0.03	7
B010E70S25	-1.74	0.67	0.01	8
B010E70S30	0.12	-0.37	-0.03	7
B010E70S35	-0.21	0.96	0.09	8
B010E70S40	0.48	0.62	0.08	8
B010E70S45	1.84	0.02	0.06	8
B010E70S50	0.49	0.41	0.06	8
B010E70S55	0.30	0.59	0.07	8
B010E70S60	-2.00	1.35	0.07	8
B010E70S65	-1.44	0.77	0.03	8
B010E70S70	-2.20	0.48	-0.03	8
B010E70S75	0.03	0.97	0.10	8
B010E70S80	-0.84	0.20	-0.01	8
B010E70S85	-2.39	-0.02	-0.08	9
B010E70S90	-0.76	0.05	-0.02	9
B010E75S20	-1.18	1.12	0.07	8
B010E75S25	1.34	0.52	0.10	8
B010E75S30	-2.38	0.75	0.00	8
B010E75S35	-1.75	0.58	0.00	8
B010E75S40	1.17	-0.90	-0.05	8
B010E75S80	-0.06	1.26	0.12	9
B010E75S85	0.61	0.65	0.09	8
B010E75S90	0.96	0.71	0.10	9
B010E75S95	3.56	0.92	0.21	9
B010E80S20	1.95	0.92	0.16	11
B010E80S25	0.02	1.89	0.19	10
B010E85S10	-0.24	1.00	0.09	10
B010E85S10A	-1.74	2.25	0.17	10
B010E85S15	1.18	0.52	0.09	10
B010E85S20	0.70	1.07	0.13	10
B010E85S95	5.33	1.55	0.33	9
B010E88S06	-1.31	0.46	0.00	9
B010E90S05	0.09	0.72	0.07	9
B010E90S08	3.13	0.74	0.18	9
B010E90S10	2.85	1.06	0.20	8
B010E90S15	11.72	2.29	0.62	10
B010E90S95	9.88	3.54	0.68	10

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC	Exposure Rate (μR/hr)
B010E92S06	3.13	0.57	0.16	10
B010E93S09	-2.60	0.96	0.01	10
B010E95S05	-1.57	0.22	-0.03	8
B010E95S10	-0.69	1.38	0.11	8
B010E95S95	0.28	1.75	0.18	8
B011E00S05	-2.12	0.76	0.00	10
B011E00S10	2.58	0.85	0.17	11
B011E00S95	0.85	0.95	0.12	9
B011E05S00	4.11	3.76	0.51	10
B011E05S05	-0.03	0.13	0.01	10
B011E05S90	1.94	0.90	0.15	9
B011E05S95	-0.66	-0.43	-0.07	8
B011E10S00	-0.01	2.33	0.23	9
B011E10S05	-1.63	0.72	0.02	11
B011E10S90	-2.36	-0.79	-0.16	8
B011E10S95	-0.58	0.25	0.01	9
B011E15S00	2.30	0.82	0.16	9
B011E15S85	2.56	-0.28	0.06	9
B011E15S90	1.83	-0.67	-0.01	7
B011E20S00	0.89	2.13	0.24	8
B011E20S03	-0.60	0.41	0.02	8
B011E20S05	0.56	1.09	0.13	8
B011E20S85	1.56	-0.02	0.05	10
B011E20S90	-2.20	0.27	-0.05	10
B011E25S00	0.73	2.46	0.27	8
B011E25S05	1.28	2.52	0.29	9
B011E25S85	0.21	0.61	0.07	9
B011E95S00	-0.06	3.42	0.34	8
B012E00S00	-1.11	1.72	0.13	9
B012E05S00	-4.24	6.69	0.53	10
B012E10S00	0.35	4.79	0.49	10
B012E15S00	-1.35	2.87	0.24	10
B012E20S00	-0.28	0.13	0.00	10
B012E60S00	1.65	0.01	0.06	9
B012E65S00	1.02	1.48	0.18	9
B012E65S05	-4.54	1.66	0.01	8
B012E65S10	-0.09	1.24	0.12	10
B012E70S00	1.79	1.55	0.21	9
B012E70S05	-4.34	0.38	-0.11	8
B012E70S10	0.38	3.02	0.31	8
B012E70S15	-0.86	1.26	0.10	10
B012E80S00	0.22	-1.24	-0.12	9
B012E90S00	-4.15	0.12	-0.13	10
B012E90S10	-2.40	2.08	0.13	9
B012E90S20	1.64	-1.26	-0.07	9

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC	Exposure Rate (μR/hr)
B012E90S30	-1.85	-0.78	-0.14	9
B012E90S40	-4.40	-0.81	-0.23	10
B012E90S50	-3.12	-1.05	-0.21	9
B012E90S60	-2.43	-0.74	-0.16	9
B012E90S70	-1.31	-0.11	-0.05	10
B012E90S80	-0.48	-0.71	-0.09	10
B012E90S90	-1.48	1.68	0.12	11
B022E05S40	0.09	1.15	0.12	9
B022E10S25	2.50	0.82	0.17	9
B022E10S30	-0.79	0.45	0.02	8
B022E10S35	1.11	0.88	0.13	8
B022E10S40	0.20	0.54	0.06	8
B022E10S50	-1.59	0.72	0.02	10
B022E10S60	-5.07	2.45	0.08	10
B022E10S70	2.85	0.80	0.17	11
B022E10S80	-0.41	0.39	0.03	12
B022E10S90	0.64	0.46	0.07	12
B022E15S20	0.92	0.90	0.12	9
B022E15S25	-2.05	0.64	0.00	8
B022E15S30	-0.22	0.10	0.00	8
B022E15S35	4.53	0.47	0.20	8
B022E15S40	-1.12	0.31	-0.01	8
B022E20S20	-0.76	0.70	0.05	9
B022E20S25	-1.88	1.22	0.06	8
B022E20S30	-0.31	0.67	0.06	7
B022E25S20	-4.62	-0.39	-0.19	8
B022E25S25	-0.78	1.15	0.09	7
B022E30S20	0.36	0.57	0.07	6
B022E30S25	-2.07	1.01	0.03	6
B022E35S20	-1.18	-0.36	-0.07	7
B022E35S25	2.61	0.65	0.15	9
B022E40S20	2.07	0.41	0.11	7
B022E40S25	-1.96	-0.07	-0.07	6
B022E45S20	-0.36	-0.20	-0.03	6
B022E45S25	1.81	0.83	0.14	6
B022E50S20	0.67	-0.23	0.00	6
B022E50S25	1.81	1.39	0.20	6
B022E55S20	-3.03	-0.20	-0.12	7
B022E55S25	-2.02	0.71	0.00	6
B022E60S20	-2.19	-0.06	-0.08	8
B022E60S25	-1.33	1.85	0.14	6
B022E65S20	1.60	-0.53	0.00	7
B022E65S25	0.57	1.72	0.19	6
B022E70S20	0.57	1.46	0.17	7
B022E70S25	-1.90	1.45	0.08	6

Table 5
Samples Under the Haul Road

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC	Exposure Rate (μR/hr)
B022E75S00	3.68	0.58	0.18	9
B022E75S05	0.76	0.18	0.04	8
B022E75S10	-3.56	-0.01	-0.12	8
B022E75S15	-1.36	0.63	0.02	7
B022E75S20	-2.01	0.35	-0.03	6
B022E75S25	0.63	1.15	0.14	6
B022E75S30	-1.61	0.88	0.03	8
B022E80S00	2.71	0.90	0.18	8
B022E80S05	0.43	1.02	0.12	8
B022E80S15	1.41	0.81	0.13	8
B022E80S25	-0.53	1.34	0.12	6
B022E80S30	0.89	0.91	0.12	8
B022E85S00	1.09	0.36	0.07	8
B022E85S05	1.30	0.70	0.11	9
B022E85S10	2.93	1.80	0.28	9
B022E85S15	0.25	0.55	0.06	7
B022E85S25	-4.81	0.93	-0.07	7
B022E85S30	-1.41	1.28	0.08	8
B022E90S00	3.74	1.26	0.25	8
B022E90S05	0.66	2.09	0.23	9
B022E90S10	1.47	0.39	0.09	8
B022E90S15	-0.87	1.52	0.12	8
B022E90S20	0.46	0.94	0.11	7
B022E90S25	-0.75	0.27	0.00	7
B022E90S30	0.50	0.99	0.12	9
B022E95S00	4.62	1.93	0.35	10
B022E95S15	2.47	1.44	0.23	8
B022E95S20	0.86	0.95	0.12	7
B022E95S25	0.51	0.34	0.05	8
B022E95S30	-1.59	1.80	0.13	7
B023E00S00	-1.86	0.62	0.00	11
B023E00S15	0.00	1.79	0.18	8
B023E00S25	0.98	0.31	0.06	7
B023E00S30	-2.39	1.71	0.09	7
B023E05S00	-1.37	-0.25	-0.07	9
B023E05S20	4.11	1.25	0.26	7
B023E05S25	-1.46	0.26	-0.02	9
B023E05S30	-0.33	1.24	0.11	6
B023E05S35	-0.92	1.29	0.10	8
B023E10S20	0.85	0.63	0.09	8
B023E10S25	-2.44	1.20	0.04	9
B023E10S30	-1.01	1.30	0.10	6
B023E15S20	3.44	1.54	0.27	8
B023E15S25	-0.67	1.26	0.10	9
B023E15S30	-0.78	0.80	0.05	7

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC	Exposure Rate (μR/hr)
B023E20S20	0.83	1.75	0.20	8
B023E20S25	-0.70	0.05	-0.02	9
B023E25S20	3.23	6.19	0.73	9
B023E25S25	3.87	0.95	0.22	7
B023E30S20	-1.13	-0.04	-0.04	9
B023E30S25	2.07	1.78	0.25	8
B023E35S20	-0.70	2.09	0.19	9
B023E35S25	-2.19	2.40	0.17	8
B023E40S20	-0.82	3.77	0.35	8
B023E40S25	1.59	7.90	0.84	8
B023E40S30	-0.17	0.81	0.08	9
B023E45S20	-2.05	5.55	0.49	9
B023E45S25	1.08	5.45	0.58	8
B023E45S30	-1.40	-0.43	-0.09	8
B023E50S20	3.58	2.43	0.36	8
B023E50S25	-1.68	0.91	0.04	9
B023E50S30	-2.69	0.68	-0.02	8
B023E55S20	2.03	2.61	0.33	8
B023E55S25	-1.21	1.78	0.14	9
B023E55S30	0.48	-0.42	-0.03	8
B023E60S25	0.62	4.82	0.50	9
B023E60S30	-1.78	-0.46	-0.11	8
B023E62S22	-0.83	1.01	0.07	9
B023E65S25	1.38	0.93	0.14	9
B023E65S28	0.94	3.52	0.38	9
B023E65S30	3.77	-0.07	0.12	9
B023E67S32	-0.61	0.30	0.01	9
B023E70S25	0.92	1.15	0.15	10
B023E70S30	-0.73	1.50	0.13	9
B023E70S32	-1.57	0.40	-0.01	9
B023E75S25	-1.86	1.80	0.12	9
B023E75S30	2.70	1.42	0.23	10
B023E75S31	-2.32	0.92	0.01	10
B023E77S29	5.02	4.73	0.64	9
B023E78S22	2.28	1.94	0.27	9
B023E78S26	2.81	2.80	0.37	9
B023E80S25	1.07	1.82	0.22	9
B023E80S30	0.62	0.88	0.11	9
B023E85S20	2.45	2.17	0.30	12
B023E85S25	2.21	1.84	0.26	12
B023E85S30	3.58	1.65	0.28	10
B024E90S00	1.35	0.95	0.14	7
B024E90S10	3.10	1.82	0.29	10
B024E90S20	1.27	-1.26	-0.08	9
B024E90S30	2.34	0.63	0.14	10

LocID	Net U_{tot} (pCi/g)	Net Th_{nat} (pCi/g)	FMPC	Exposure Rate (μR/hr)
B024E90S40	0.65	0.11	0.03	9
B034E00S10	-1.91	0.35	-0.03	12
B034E10S00	0.42	0.35	0.05	11
B034E10S10	2.58	-0.13	0.07	11
B211E20S95	1.24	1.86	0.23	10
B211E25S95	-0.42	0.36	0.02	10
B211E30S95	-2.07	0.75	0.01	10
B211E35S95	1.54	-0.01	0.05	10
B211E40S95	1.81	-0.75	-0.01	9
B211E45S95	2.36	0.43	0.12	9
B211E50S95	0.03	0.86	0.09	10
B211E55S95	1.38	1.31	0.18	10
B211E60S95	2.95	2.69	0.37	10
B211E65S95	1.93	0.10	0.07	10
B211E70S95	2.33	0.27	0.10	10
B211E75S95	0.30	0.32	0.04	10
B211E80S95	1.48	0.28	0.08	9
B211E85S95	1.66	-0.19	0.04	9
B211E90S95	-0.35	0.73	0.06	10
B211E95S95	0.95	3.74	0.41	12
B212E00S90	-1.20	4.57	0.42	10
B212E00S95	0.70	1.81	0.20	11
B212E05S95	0.35	0.98	0.11	11
B212E10S95	2.30	1.10	0.19	11
B212E15S95	-1.18	1.10	0.07	10
B212E20S95	0.18	0.57	0.06	10
B212E25S95	-2.74	0.88	0.00	11
B212E30S95	-0.71	1.55	0.13	10
B212E35S95	0.85	1.39	0.17	10
B212E40S95	2.49	1.58	0.24	10
B212E45S90	-0.47	1.57	0.14	10
B212E45S95	4.46	0.80	0.23	9
B212E50S90	-0.47	1.91	0.18	10
B212E50S95	0.94	1.57	0.19	10
B212E55S90	3.16	0.79	0.18	9
B212E55S95	0.93	1.64	0.20	10
B212E60S90	-2.17	1.05	0.03	9
B212E60S95	-1.63	1.45	0.09	10
B212E65S90	3.66	2.71	0.39	9
B212E65S95	1.53	1.47	0.20	9
B212E70S90	-0.43	0.43	0.03	9
B212E70S95	1.23	1.14	0.16	9
B212E75S90	0.40	0.95	0.11	9
B212E75S95	-0.63	2.11	0.19	9
B212E90S90	-2.54	1.47	0.06	9

Table 6
Alpha/Beta-Gamma Surface Measurements

Grid Point	Direct (dpm/100 cm²)		Removable (dpm/100 cm²)		Net Exp. Rate	Survey ID	ID
	Alpha	Beta	Alpha	Beta	(uR/hr)		
ACP Trailer - FLOOR							S04-21
1	0	168	6	1	N/A	0403-RL-39D	
2	-7	211	0	0	N/A	0403-RL-39C	
3	-7	221	0	0	N/A	0403-RL-109G	
4	-7	-111	0	1	N/A	0403-RL-39D	
5	0	237	6	10	N/A	0403-RL-39	
6	7	211	0	1	N/A	0403-RL-39	
7	7	189	0	0	N/A	0403-RL-40	
8	0	116	0	1	0	0403-RL-39	
9	0	232	6	0	N/A	0403-RL-39	
10	0	158	0	0	N/A	0403-RL-40	
11	7	300	0	0	N/A	0403-RL-39	
12	0	232	0	1	N/A	0403-RL-39	
13	0	416	0	2	N/A	0403-RL-40	
14	7	263	0	6	N/A	0403-RL-39	
15	0	179	0	1	N/A	0403-RL-39	
16	-7	242	6	2	N/A	0403-RL-40	
17	20	226	0	0	N/A	0403-RL-39B	
18	7	242	0	6	N/A	0403-RL-39B	
19	0	311	0	0	N/A	0403-RL-40	
20	7	289	0	1	0	0403-RL-39B	
21	-7	289	6	6	N/A	0403-RL-39B	
22	-7	337	0	2	N/A	0403-RL-40	
23	7	158	6	0	N/A	0403-RL-39B	
24	-7	163	0	1	N/A	0403-RL-39B	
25	6	260	0	2	N/A	0403-RL-86B	
26	0	74	0	0	N/A	0403-RL-39B	
27	0	47	0	0	N/A	0403-RL-39B	
28	0	200	0	1	N/A	0403-RL-39B	
29	0	263	0	1	N/A	0403-RL-39A	
30	-7	179	6	0	N/A	0403-RL-39A	
31	20	384	0	0	N/A	0403-RL-39A	
32	13	342	0	1	N/A	0403-RL-39A	
33	20	232	0	1	N/A	0403-RL-39A	
34	13	242	0	0	N/A	0403-RL-39A	
35	0	216	0	1	0	0403-RL-39A	
36	-7	263	0	0	N/A	0403-RL-39A	
37	-7	379	0	0	N/A	0403-RL-39A	
38	7	284	0	6	N/A	0403-RL-39A	
39	-7	258	6	1	N/A	0403-RL-39A	
40	-6	215	0	2	N/A	0403-RL-86A	
41	13	405	0	6	N/A	0403-RL-39A	
42	-7	142	0	0	N/A	0403-RL-39A	
ACP Trailer -EXTERIOR							S04-21
1	27	-58	0	1	N/A	0403-RL-178A	
2	33	-74	0	1	N/A	0403-RL-178A	
3	40	105	0	1	N/A	0403-RL-178A	
4	20	53	0	0	N/A	0403-RL-178A	
5	47	0	6	1	N/A	0403-RL-178A	
6	27	116	0	1	N/A	0403-RL-178A	
7	7	-53	0	6	N/A	0403-RL-178A	
8	33	195	0	6	N/A	0403-RL-178A	
9	33	-21	0	0	N/A	0403-RL-178A	
10	40	16	6	1	N/A	0403-RL-178A	
11	33	47	6	14	N/A	0403-RL-178A	
12	7	37	6	1	N/A	0403-RL-178A	
13	53	53	0	0	N/A	0403-RL-178A	
14	33	79	0	1	N/A	0403-RL-178A	
15	31	70	0	1	N/A	0403-RL-165A	
16	13	390	6	0	N/A	0403-RL-165A	
17	13	165	0	1	N/A	0403-RL-165A	
18	20	195	0	6	N/A	0403-RL-178B	
19	13	16	0	6	N/A	0403-RL-178B	
20	60	184	0	0	N/A	0403-RL-178B	
21	47	21	0	0	N/A	0403-RL-178B	
22	13	105	0	1	N/A	0403-RL-178B	
23	40	200	0	1	N/A	0403-RL-178B	
24	33	21	0	1	N/A	0403-RL-178B	
25	20	132	6	6	N/A	0403-RL-178B	
26	40	142	13	6	N/A	0403-RL-178B	
27	47	74	6	6	N/A	0403-RL-178B	
28	53	137	6	10	N/A	0403-RL-178B	
29	40	121	0	14	N/A	0403-RL-178B	
30	47	174	0	10	N/A	0403-RL-178B	
31	60	158	0	10	N/A	0403-RL-178B	
32	19	160	0	0	N/A	0403-RL-165A	
33	38	340	0	6	N/A	0403-RL-165A	
34	31	200	6	1	N/A	0403-RL-165A	
35	27	5	0	1	N/A	0403-RL-178A	
36	27	32	0	6	N/A	0403-RL-178A	

Table 6
Alpha/Beta-Gamma Surface Measurements

Grid Point	Direct (dpm/100 cm²)		Removable (dpm/100 cm²)		Net Exp. Rate	Survey ID	ID
	Alpha	Beta	Alpha	Beta	(uR/hr)		
37	27	37	0	1	N/A	0403-RL-178A	
38	47	68	0	10	N/A	0403-RL-178A	
39	20	47	6	6	N/A	0403-RL-178A	
40	33	21	6	14	N/A	0403-RL-178A	
41	60	53	0	1	N/A	0403-RL-178A	
42	53	21	0	1	N/A	0403-RL-178A	
43	27	11	13	1	N/A	0403-RL-178A	
44	33	168	0	0	N/A	0403-RL-178A	
45	7	-95	0	1	N/A	0403-RL-178A	
46	20	-5	6	6	N/A	0403-RL-178A	
47	27	-79	0	6	N/A	0403-RL-178A	
48	33	200	6	1	N/A	0403-RL-178A	
49	13	200	0	10	N/A	0403-RL-165A	
50	88	275	0	1	N/A	0403-RL-165A	
51	38	65	0	14	N/A	0403-RL-165A	
52	47	100	0	6	N/A	0403-RL-178B	
53	20	74	0	0	N/A	0403-RL-178B	
54	33	179	0	1	N/A	0403-RL-178B	
55	40	37	6	1	N/A	0403-RL-178B	
56	33	32	0	6	N/A	0403-RL-178B	
57	67	63	6	1	N/A	0403-RL-178B	
58	27	-84	19	0	N/A	0403-RL-178B	
59	40	-63	0	6	N/A	0403-RL-178B	
60	20	-74	13	6	N/A	0403-RL-178B	
61	33	21	0	6	N/A	0403-RL-178B	
62	53	-16	19	10	N/A	0403-RL-178B	
63	33	121	0	1	N/A	0403-RL-178B	
64	13	132	0	1	N/A	0403-RL-178B	
65	53	79	0	0	N/A	0403-RL-178B	
66	25	80	13	1	N/A	0403-RL-165A	
67	0	40	13	10	N/A	0403-RL-165A	
68	19	185	13	6	N/A	0403-RL-165A	
R01	60	116	0	1	N/A	0403-RL-178A	
R02	67	42	0	18	N/A	0403-RL-178A	
R03	60	163	0	1	N/A	0403-RL-178A	
R04	20	84	0	14	N/A	0403-RL-178A	
R05	60	68	6	0	N/A	0403-RL-178A	
R06	93	126	0	6	N/A	0403-RL-178A	
R07	53	105	6	6	N/A	0403-RL-178A	
R08	19	175	6	1	N/A	0403-RL-165A	
R09	19	310	0	10	N/A	0403-RL-165A	
R10	93	116	6	6	N/A	0403-RL-178B	
R11	67	105	0	6	N/A	0403-RL-178B	
R12	60	58	13	18	N/A	0403-RL-178B	
R13	60	53	6	6	N/A	0403-RL-178B	
R14	33	47	0	1	N/A	0403-RL-178B	
R15	33	174	6	6	N/A	0403-RL-178B	
R16	47	37	0	0	N/A	0403-RL-178B	
R17	25	90	6	1	N/A	0403-RL-165A	
R18	-13	132	0	6	N/A	0403-RL-244A	
R19	173	0	0	1	N/A	0403-RL-244A	
R20	113	-16	13	6	N/A	0403-RL-244A	
R21	-7	79	0	14	N/A	0403-RL-244A	
R22	0	-32	0	10	N/A	0403-RL-244A	
R23	0	105	6	44	N/A	0403-RL-244A	
R24	200	226	0	6	N/A	0403-RL-244A	
R25	7	-179	0	1	N/A	0403-RL-244	
R26	-13	-311	0	0	N/A	0403-RL-244	
R27	13	-253	0	0	N/A	0403-RL-244	
R28	0	-389	6	10	N/A	0403-RL-244	
R29	0	-279	0	1	N/A	0403-RL-244	
R30	0	-295	6	1	N/A	0403-RL-244	
R31	0	-295	0	0	N/A	0403-RL-244	
R32	0	-121	0	0	N/A	0403-RL-244	
R33	-13	289	0	1	N/A	0403-RL-244	
ACP Trailer - INTERIOR							S04-21
N01	-7	-53	0	1	N/A	0403-RL-109G	
N02	-7	79	0	0	N/A	0403-RL-109G	
N03	0	-26	0	1	N/A	0403-RL-109G	
N04	0	-242	0	14	N/A	0403-RL-109A	
N05	-7	-58	0	6	N/A	0403-RL-109A	
N06	7	184	6	0	N/A	0403-RL-109A	
N07	7	111	0	0	N/A	0403-RL-109A	
N08	7	50	0	0	N/A	0403-RL-122A	
N09	-7	-40	0	1	N/A	0403-RL-122A	
N10	0	-20	0	0	N/A	0403-RL-122A	
N11	-7	32	0	6	N/A	0403-RL-109C	
N12	-7	68	0	1	N/A	0403-RL-109C	
N13	-7	100	0	10	N/A	0403-RL-109C	
N14	-6	-110	0	2	N/A	0403-RL-086B	

Table 6
Alpha/Beta-Gamma Surface Measurements

Grid Point	Direct (dpm/100 cm²)		Removable (dpm/100 cm²)		Net Exp. Rate	Survey ID	ID
	Alpha	Beta	Alpha	Beta	(uR/hr)		
N15	0	-80	0	0	N/A	0403-RL-086B	
N16	-6	25	0	2	N/A	0403-RL-086B	
N17	0	70	0	2	N/A	0403-RL-086B	
N18	13	-20	0	2	N/A	0403-RL-086B	
N19	13	55	0	0	N/A	0403-RL-086B	
N20	-7	89	0	6	N/A	0403-RL-040	
N21	-7	105	0	2	N/A	0403-RL-040	
N22	0	-153	0	0	N/A	0403-RL-040	
N23	-7	-11	0	6	N/A	0403-RL-040	
N24	-7	84	0	6	N/A	0403-RL-039C	
N25	0	-21	0	0	N/A	0403-RL-039C	
N26	13	-21	0	0	N/A	0403-RL-039C	
N27	7	-26	0	0	N/A	0403-RL-109G	
N28	-7	-58	0	1	N/A	0403-RL-109G	
N29	-7	47	0	1	N/A	0403-RL-109G	
N30	-7	5	0	6	N/A	0403-RL-109A	
N31	-7	284	0	1	N/A	0403-RL-109A	
N32	0	158	0	1	N/A	0403-RL-109A	
N33	13	58	0	10	N/A	0403-RL-109A	
N34	0	-50	0	0	N/A	0403-RL-122A	
N35	-7	-40	0	1	N/A	0403-RL-122A	
N36	0	-65	0	6	N/A	0403-RL-122A	
N37	-7	5	0	6	N/A	0403-RL-109C	
N38	-13	-58	6	10	N/A	0403-RL-109C	
N39	0	-121	0	0	N/A	0403-RL-109C	
N40	0	40	0	0	N/A	0403-RL-086B	
N41	6	-10	0	2	N/A	0403-RL-086B	
N42	-6	-70	0	0	N/A	0403-RL-086B	
N43	0	-30	0	2	N/A	0403-RL-086B	
N44	-6	40	0	0	N/A	0403-RL-086B	
N45	0	11	0	2	N/A	0403-RL-040	
N46	0	21	0	10	N/A	0403-RL-040	
N47	0	-105	0	0	N/A	0403-RL-040	
N48	0	132	0	2	N/A	0403-RL-040	
N49	0	-232	0	2	N/A	0403-RL-040	
N50	0	237	0	1	N/A	0403-RL-039C	
N51	-7	-68	0	1	N/A	0403-RL-039C	
N52	7	-226	0	0	N/A	0403-RL-039C	
R01	-7	226	0	6	N/A	0403-RL-109E	
R02	-13	258	0	1	N/A	0403-RL-109E	

Grid Point	Direct (dpm/100 cm²)		Removable (dpm/100 cm²)		Net Exp. Rate	Survey ID	ID
	Alpha	Beta	Alpha	Beta	(uR/hr)		
R03	7	55	0	0	N/A	0403-RL-109D	
R04	7	80	0	0	N/A	0403-RL-109D	
R05	6	15	0	0	N/A	0403-RL-086A	
R06	0	0	6	0	N/A	0403-RL-086A	
R07	0	42	0	6	N/A	0403-RL-109B	
R08	0	-89	0	0	N/A	0403-RL-109G	
R09	-7	-89	0	1	N/A	0403-RL-109G	
R10	-7	74	0	0	N/A	0403-RL-109A	
R11	-7	68	0	0	N/A	0403-RL-109A	
R12	0	0	0	0	N/A	0403-RL-122A	
R13	-13	-11	0	1	N/A	0403-RL-109C	
R14	-7	53	0	1	N/A	0403-RL-109C	
R15	-6	-75	0	2	N/A	0403-RL-086B	
R16	0	-25	0	2	N/A	0403-RL-086B	
R17	7	-195	0	6	N/A	0403-RL-040	
R18	0	-221	0	2	N/A	0403-RL-040	
R19	0	-247	0	1	N/A	0403-RL-109G	
R20	-7	111	0	1	N/A	0403-RL-039C	
R21	-7	111	0	0	N/A	0403-RL-039C	
R22	-7	105	0	6	N/A	0403-RL-039C	
R23	-7	130	0	0	N/A	0403-RL-109D	
R24	6	250	6	10	N/A	0403-RL-086A	
R25	-13	489	0	0	N/A	0403-RL-109E	
R26	-20	-484	6	0	N/A	0403-RL-040	
R27	-7	63	0	0	N/A	0403-RL-040	
R28	0	311	0	0	N/A	0403-RL-040	
R29	-7	184	6	0	N/A	0403-RL-109G	
R30	13	145	0	0	N/A	0403-RL-122A	
R31	-13	116	0	6	N/A	0403-RL-109B	
R32	-7	226	0	1	N/A	0403-RL-109B	
R33	7	130	0	6	N/A	0403-RL-122B	
R34	13	115	0	0	N/A	0403-RL-122B	
R35	13	237	0	1	N/A	0403-RL-109F	
R36	7	274	0	0	N/A	0403-RL-109F	
R37	13	195	0	0	N/A	0403-RL-109H	
R38	-7	189	0	1	N/A	0403-RL-109H	
R39	-7	132	0	0	N/A	0403-RL-109H	
R40	0	147	0	0	N/A	0403-RL-109H	
S01	-13	32	0	1	N/A	0403-RL-109E	
S02	-13	-74	0	1	N/A	0403-RL-109E	

Table 6
Alpha/Beta-Gamma Surface Measurements

Grid Point	Direct (dpm/100 cm²)		Removable (dpm/100 cm²)		Net Exp. Rate	Survey ID	ID
	Alpha	Beta	Alpha	Beta	(uR/hr)		
S03	-13	84	0	0	N/A	0403-RL-109E	
S04	-13	32	0	0	N/A	0403-RL-109E	
S05	7	-65	0	0	N/A	0403-RL-109D	
S06	-13	105	0	0	N/A	0403-RL-109E	
S07	0	95	0	1	N/A	0403-RL-109E	
S08	0	21	0	0	N/A	0403-RL-109E	
S09	-6	-70	0	6	N/A	0403-RL-086A	
S10	-6	155	0	0	N/A	0403-RL-086A	
S11	6	75	0	0	N/A	0403-RL-086A	
S12	-7	132	0	1	N/A	0403-RL-109B	
S13	-7	147	0	1	N/A	0403-RL-109B	
S14	0	-47	6	0	N/A	0403-RL-109B	
S15	0	121	0	1	N/A	0403-RL-109E	
S16	0	70	0	1	N/A	0403-RL-109D	
S17	-7	-110	0	6	N/A	0403-RL-109D	
S18	-6	110	0	15	N/A	0403-RL-086A	
S19	-7	75	0	0	N/A	0403-RL-109D	
S20	20	125	0	0	N/A	0403-RL-109D	
S21	-7	70	0	0	N/A	0403-RL-109D	
S22	-6	-20	0	0	N/A	0403-RL-086A	
S23	0	170	0	2	N/A	0403-RL-086A	
S24	6	15	0	0	N/A	0403-RL-086A	
S25	6	100	0	2	N/A	0403-RL-086A	
S26	0	-126	6	1	N/A	0403-RL-109B	
S27	-13	-47	0	0	N/A	0403-RL-109B	
S28	-13	-26	0	0	N/A	0403-RL-109B	
HEPA Shelter - FLOOR							S04-22
1	0	-45	0	2	N/A	0403-RL-128C	
2	7	-30	0	2	N/A	0403-RL-128C	
3	0	-5	6	2	N/A	0403-RL-128C	
4	0	90	0	2	0	0403-RL-128C	
5	7	-100	0	0	N/A	0403-RL-128C	
6	7	80	0	0	N/A	0403-RL-128C	
7	7	-70	0	0	N/A	0403-RL-128C	
8	0	95	0	6	N/A	0403-RL-128C	
HEPA Shelter - EXTERIOR							S04-22
1	7	-130	0	0	N/A		
2	7	5	0	2	N/A		
3	-13	168	0	6	N/A		
4	0	-205	0	2	N/A		
5	13	-30	0	2	N/A		
6	0	68	0	1	N/A		
7	7	100	6	6	N/A		
8	7	-155	0	0	N/A		
9	0	-74	0	0	N/A		
10	0	-55	0	0	N/A		
11	-13	11	0	6	N/A		
12	7	-240	0	10	N/A		
13	13	-40	6	0	N/A		
14	-13	53	0	0	N/A		
15	0	-145	0	6	N/A		
16	0	60	0	6	N/A		
17	7	-21	0	6	N/A		
18	0	75	0	0	N/A		
19	-7	211	6	1	N/A		
20	-7	189	0	0	N/A		
21	7	200	0	0	N/A		
22	7	-140	0	0	N/A		
23	-7	121	0	0	N/A		
24	7	-147	0	6	N/A		
R	-13	258	0	1	N/A		
R	0	179	0	1	N/A		
R	0	-126	0	1	N/A		
R	-7	168	6	0	N/A		
R	-7	16	0	1	N/A		
R	-13	-79	0	0	N/A		
R	-7	-74	0	1	N/A		
R	-13	-37	0	14	N/A		
R	-7	126	0	1	N/A		
R	-13	63	0	0	N/A		
HEPA Shelter - INTERIOR							S04-22
1	-7	145	0	0	N/A	0403-RL-124	
2	7	175	0	0	N/A	0403-RL-124	
3	7	-40	0	0	N/A	0403-RL-123	
4	7	-50	6	0	N/A	0403-RL-123	
5	0	-10	0	0	N/A	0403-RL-123	
6	-7	135	0	0	N/A	0403-RL-123	
7	0	-95	0	2	N/A	0403-RL-128B	
8	0	-35	0	0	N/A	0403-RL-128B	
9	7	-35	0	1	N/A	0403-RL-128A	

Table 6
Alpha/Beta-Gamma Surface Measurements

Grid Point	Direct (dpm/100 cm²)		Removable (dpm/100 cm²)		Net Exp. Rate	Survey ID	ID
	Alpha	Beta	Alpha	Beta	(uR/hr)		
9	0	-65	0	0	N/A	0403-RL-128B	
10	13	-45	0	1	N/A	0403-RL-128A	
11	13	90	0	1	N/A	0403-RL-128A	
12	7	15	0	0	N/A	0403-RL-128A	
13	0	130	0	1	N/A	0403-RL-124	
14	0	225	6	6	N/A	0403-RL-124	
15	7	-45	0	0	N/A	0403-RL-123	
16	-7	-80	0	10	N/A	0403-RL-123	
17	7	-65	6	0	N/A	0403-RL-123	
18	-7	-90	0	0	N/A	0403-RL-123	
20	0	-115	0	2	N/A	0403-RL-128B	
21	0	-55	0	1	N/A	0403-RL-128A	
22	7	-70	0	1	N/A	0403-RL-128A	
23	0	-15	0	0	N/A	0403-RL-128A	
24	7	5	0	0	N/A	0403-RL-128A	
R	7	195	0	0	N/A	0403-RL-124	
R	0	-95	0	2	N/A	0403-RL-128B	
R	0	-15	0	0	N/A	0403-RL-128D	
R	0	-10	0	2	N/A	0403-RL-128D	
R	0	5	0	2	N/A	0403-RL-128D	
R	7	55	6	2	N/A	0403-RL-128D	
R	13	-45	0	6	N/A	0403-RL-128D	
R	0	-55	0	2	N/A	0403-RL-128D	
R	0	-40	0	0	N/A	0403-RL-128D	
R	0	-65	0	6	N/A	0403-RL-128D	
DECON Pad							S04-20
1	0	-211	0	2	0	0403-RL-277	
2	7	-147	0	0	0	0403-RL-277	
3	-20	-21	0	0	0	0403-RL-277	
4	-13	0	0	0	0	0403-RL-277	
5	7	-95	0	2	0	0403-RL-277	
6	27	53	0	2	0	0403-RL-277	
7	-7	105	6	2	0	0403-RL-277	
8	7	-221	0	0	0	0403-RL-277	
9	0	-42	0	6	0	0403-RL-277	
10	0	84	0	0	0	0403-RL-277	
11	0	-26	6	19	0	0403-RL-277	
12	7	132	0	0	0	0403-RL-277	
13	-7	-32	0	2	0	0403-RL-277	
14	-7	-68	6	2	0	0403-RL-277	

Grid Point	Direct (dpm/100 cm²)		Removable (dpm/100 cm²)		Net Exp. Rate	Survey ID	ID
	Alpha	Beta	Alpha	Beta	(uR/hr)		
15	7	-305	6	2	0	0403-RL-277	
16	20	5	0	2	0	0403-RL-277	
17	-7	-179	0	2	0	0403-RL-277	
18	27	-58	0	6	0	0403-RL-277	
19	-13	21	0	6	0	0403-RL-277	
20	13	-32	0	2	0	0403-RL-277	
21	-20	-153	0	2	0	0403-RL-277	
22	27	-95	0	6	0	0403-RL-277	
23	0	142	0	2	0	0403-RL-277	
24	33	142	0	2	0	0403-RL-277	
25	-13	47	0	2	0	0403-RL-277	
26	33	0	0	2	0	0403-RL-277	
27	-13	-158	0	2	0	0403-RL-277	
28	7	-11	13	2	0	0403-RL-277	
29	-7	-89	0	2	0	0403-RL-277	
30	-13	-21	0	6	0	0403-RL-277	
31	-13	26	0	10	0	0403-RL-277	
32	0	37	0	0	0	0403-RL-277	
33	13	-21	0	2	0	0403-RL-277	
34	0	-158	0	2	0	0403-RL-277	
35	0	-26	0	2	0	0403-RL-277	
36	-7	121	6	2	0	0403-RL-277	
37	-20	-53	0	6	0	0403-RL-277	
38	20	63	0	0	0	0403-RL-277	
39	-20	89	0	6	0	0403-RL-277	
40	27	284	13	10	0	0403-RL-277	
41	27	79	6	0	0	0403-RL-277	
42	-13	5	0	0	0	0403-RL-277	
43	27	47	0	0	0	0403-RL-277	
44	0	-132	0	0	0	0403-RL-277	
45	-13	-11	0	2	0	0403-RL-277	
46	7	0	0	2	0	0403-RL-277	
47	-13	-74	0	14	0	0403-RL-277	
48	27	142	0	0	0	0403-RL-277	
49	-7	53	0	2	0	0403-RL-277	
50	7	89	0	14	0	0403-RL-277	
51	20	-37	6	0	0	0403-RL-277	
52	-7	-95	6	0	0	0403-RL-277	
53	-13	195	0	6	0	0403-RL-277	
54	20	42	0	6	0	0403-RL-277	

Table 6
Alpha/Beta-Gamma Surface Measurements

Grid Point	Direct (dpm/100 cm²)		Removable (dpm/100 cm²)		Net Exp. Rate	Survey ID	ID
	Alpha	Beta	Alpha	Beta	(uR/hr)		
55	-13	174	0	2	0	0403-RL-277	
56	13	-89	6	0	0	0403-RL-277	
57	-7	-479	6	2	0	0403-RL-277	
58	40	-316	0	2	0	0403-RL-277	
59	-13	0	0	0	0	0403-RL-277	
60	47	226	0	10	0	0403-RL-277	
61	0	121	0	0	0	0403-RL-277	
62	-7	116	0	6	0	0403-RL-277	
63	20	47	0	0	0	0403-RL-277	
64	27	11	0	0	0	0403-RL-277	
65	-7	-21	0	0	0	0403-RL-277	
66	47	226	0	0	0	0403-RL-277	
MISC SMALL PADS						0404-SP-002 0404-SP-001	
1	20	-42	0	0	1	USMW 11	S04-12
2	33	26	0	0	1	UVMW 11	S04-13
3	80	-100	0	0	0	LVMW 11	S04-01
4	13	105	0	0	0	UVMW 18	S04-16
5	47	84	0	0	0	LVMW 18	S04-08
6	40	-37	0	0	1	UVMW 91	S04-17
7	7	-237	0	0	1	LVMW 92	S04-09
8	20	-79	0	0	1	UVWM 93	S04-18
9	7	-168	0	0	1	LVMW 94	S04-10
10	7	-321	0	0	0	UVMW 97	S04-11
11	47	147	0	0	1	UVMW 12	S04-14

Grid Point	Direct (dpm/100 cm²)		Removable (dpm/100 cm²)		Net Exp. Rate	Survey ID	ID
	Alpha	Beta	Alpha	Beta	(uR/hr)		
12	20	68	0	0	1	LVMW 12	S04-02
13	73	116	0	0	0	LVMW 12.1	S04-03
14	20	126	0	0	0	LVMW 12.2	S04-04
15	60	-105	0	0	0	LVMW 15	S04-06
16	7	-11	0	0	0	LVMW 15.1	S04-07
17	47	58	0	0	0	UVMW 13	S04-15
18	0	137	0	0	0	LVMW 13	S04-05
19	27	-258	0	0	1	LVMW 19	S04-19
20	80	-142	0	0	0	FAM 1	S04-23
21	200	-147	0	0	0	FAM 2	S04-24
22	180	74	0	0	0	FAM 3	S04-25
23	47	158	0	0	0	FAM 4	S04-26
Tinhorn Valve Box							S04-27
1	27	205	<50	<50	0	0406-SP-002	
2	227	683	<50	<50	0	0406-SP-002	
3	13	92	<50	<50	0	0406-SP-002	
4	0	195	<50	<50	0	0406-SP-002	
5	80	321	<50	<50	0	0406-SP-002	
6	33	174	<50	<50	0	0406-SP-002	
7	7	268	<50	<50	0	0406-SP-002	
8	13	184	<50	<50	0	0406-SP-002	

NOTES:
1. Dose Rate expressed in PIC-equivalent µR/hr. (uR/hr * 1.12) - 8.4 (PE site background).
2. Net negative dose rate set to zero.

APPENDIX F

Method of Surveying and Averaging Concentrations of Thorium in Contaminated Subsurface Soil (NRC, 1995)

METHOD FOR SURVEYING AND AVERAGING CONCENTRATIONS OF THORIUM IN CONTAMINATED SUBSURFACE SOIL

Prepared by NRC Staff in Connection
With the Review of the AAR "Site
Remediation Plan for the Former Brooks
and Perkins, Inc. Site," Docket #040-00235
NRC Contact: David Fauver, 301-415-6625

I. INTRODUCTION

Current NRC guidance for conducting final surveys at decommissioning facilities is contained in Draft NUREG/CR-5849, "Manual for Conducting Surveys in Support of License Termination." NUREG/CR-5849 primarily addresses the final surveys of surface contamination on both buildings and open land areas, including guidance on acceptable averaging methods for surface contamination that exceeds the unrestricted use criteria (i.e., elevated areas). However, methods for surveying and averaging subsurface contamination are not discussed. This document provides a method for averaging elevated areas of subsurface soil contamination. Note that the potential for exposure from subsurface contamination via the groundwater pathway is not addressed in this document. The groundwater pathway should be evaluated on a case-by-case basis.

The averaging method in NUREG/CR-5849 assumes that soil samples are collected from the ground surface (first 15 cm). This sampling and averaging method is acceptable for the majority of decommissioning sites since the surface samples are considered sufficiently representative to assess the potential dose using conventional pathway analysis. However, conventional pathway analysis, and the NUREG/CR-5849 averaging method, may not be appropriate if significant subsurface contamination is present.

Conventional pathway analysis concludes that the dose from subsurface contamination is essentially zero, except from the groundwater pathway (see discussion below for other exceptions). This conclusion assumes that the contamination will remain at depth for very long periods of time (the typical pathway analysis is run for a 1000 year period). Since it is not reasonable to assume that the subsurface soil will remain undisturbed for a 1000 year period, simple scenarios were developed to predict how subsurface soil would be excavated in the future, the volume of the excavated soil, and the dose consequences of the contaminated soil in the post-excavation geometry. Based on the predicted excavation volumes and the dose consequences, surveying and averaging protocol were developed for in-situ subsurface soil.

Two excavation scenarios were evaluated. The first scenario assumes the construction of a slab-on-grade house; the second a house with a basement. For each of the construction scenarios, the volume of excavated soil and the extent of surface spreading, as well as the depth of surfaces on which the foundations could be built, were estimated. The potential dose from the subsurface soil, after excavation, was estimated by: 1) calculating the dose

from the contaminated soil spread on the ground surface and 2) calculating the dose from the in-situ contaminated surface that is exposed after excavation, assuming that the foundation of the house is built on the exposed surface.

It is recognized that subsurface contamination contained closer to the surface, say 0-1 meter, may deliver dose without being excavated. This exposure may occur from: 1) direct gamma radiation from in-situ soil closer to the surface, 2) the root uptake pathway down to about the first meter, and 3) the uncovering of contaminated surfaces through grading during construction, and surface erosion over time, which could then cause dose through surface exposure pathways. However, the average concentration allowed for the in-situ soil from 0-1 meter would be greater than that allowed under the excavation scenario due to the soil being spread over a larger area after excavation. Therefore, the excavation scenario is used to determine acceptable averaging limits for the 0-1 meter layer. This conservatism is appropriate because of the uncertainty as to potential exposure pathways for near surface contamination.

Finally, after the concentrations and averaging volumes were determined, a survey method was developed that would be acceptable to NRC for demonstrating that the averaging criteria are met. Section II describes the survey method. The technical basis for the averaging concentrations and survey method is presented in Section III.

II. SURVEY METHOD FOR SUBSURFACE THORIUM CONTAMINATION

The final survey method for subsurface contamination should ensure that the number and location of samples are sufficient to; 1) demonstrate, with reasonable confidence, that a significant volume of subsurface contamination is identified by one of the samples, and 2) demonstrate that the average contamination level in the identified volume would not result in a significant dose after excavation.

The survey method described below can be used to satisfy the above two objectives. The technical basis for this survey method is presented in Section III. The concentration values are based on the current unrestricted use limit of 10 pCi/g total thorium for widespread surface contamination. If the guideline value changes, the averaging criteria will change accordingly. Other survey methods may be acceptable if they are justified on a dose basis and provide sufficient confidence that significant volumes of soil are identified.

Survey Assumptions:

1. Samples are collected on a 5 meter square grid.

2. Samples are composited over each 1 meter layer of soil.

3. Each sample is assumed to represent 25 m^3.

4. 100 m^3 averages are represented by the average of four samples collected from each 1 meter layer of soil.

5. Volumetric averages greater than 100 m^3 are calculated assuming each sample represents 25 m^3.

Averaging Criteria for Total Thorium (Th-232 + Th-228):

0-1 meter depth	Maximum Individual Sample < 50 pCi/g 10 m^3 average < 20 pCi/g 100 m^3 average < 13 pCi/g
1-2 meter depth	Maximum < 50 pCi/g 200 m^3 (0-2 m depth) < 10 pCi/g
2-3 meter depth	Maximum < 50 pCi/g 300 m^3 (0-3 m depth) < 10 pCi/g
3-4 meter depth	Maximum < 50 pCi/g 100 m^3 < 13 pCi/g 400 m^3 (0-4 m depth) < 10 pCi/g
> 4 meter depth	maximum < 50 pCi/g volume from surface to depth "x" < 10 pCi/g
survey unit	The volumetric average over the entire survey unit < the unrestricted use limit (10 pCi/g for total thorium)

The averaging criteria apply to any contiguous volume defined by the given number of 5 m grid samples, where each sample represents 25 m^3. For averaging over a 100 m^3 volume, each combination of four samples in a given 1 m layer should be evaluated. This would only be necessary if an individual sample exceeds 10 pCi/g. To calculate the average for volumes greater than 100 m^3, consider the samples in a given 10 m X 10 m area projected to the depth of interest. For example, the 300 m^3 volume average is calculated by averaging 12 samples represented by the four samples in the 0-1 m layer of a given 10 X 10 m area (assuming 5 m grid), and the 4 samples each in the 1-2 m and 2-3 m layers directly below the given 10 X 10 area. The samples at the respective depths would likely be from the same borehole.

In addition to the above, a vertical averaging criteria is also defined. This averaging criteria is intended to identify significant volumes of contiguous contamination in the vertical, as opposed to the horizontal, direction. The sampling and averaging described below also assumes a 5 m grid size.

- The average of the two samples from 0-2 meters in same borehole (50 m^3) < 14 pCi/g total thorium

- The average of the three samples from 0-3 meters in same borehole (75 m^3) < 13 pCi/g total thorium

III. TECHNICAL BASIS FOR SUBSURFACE SURVEYING AND AVERAGING METHOD

Discussion

After the contaminated soil is excavated and brought to the surface, the surface exposure pathways, and the surface averaging methods apply. The surface averaging method used for excavated subsurface soil is consistent with that used in NUREG/CR-5849. However, the NUREG/CR-5849 procedure was modified to reduce the conservatism. A discussion of how the NUREG/CR-5849 averaging method for surface contamination was modified is presented in the following section. How the modified averaging method was applied to excavated subsurface soil is presented in subsequent sections.

The averaging method in NUREG/CR-5849 was based on a combination of past practice and dose assessments. The averaging method has three steps:

1) elevated areas should be less than 3 times the release criteria,

2) the concentration in the elevated area should not be greater than $(100/A)^{1/2}$ times the release criteria, where "A" is the size of the elevated area in m^2, and

3) the average over any 100 m^2 area should be less than the release criteria.

The maximum criterion of 3 times the average limit in NUREG/CR-5849 (step #1 above) was based on a qualitative ALARA judgement and a comparison with the maximum criteria in "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," which also uses 3 times the average value as the maximum. Since radionuclide specific evaluations will be performed (as described below), the 3 times maximum criterion was not used in the volumetric averaging method for subsurface contamination. The maximum criterion was determined by estimating the minimum volume of soil that could be excavated without mixing with surrounding soil and assessing the relative dose from this volume of soil compared to uniform, widespread contamination.

The area averaging criterion in NUREG/CR-5849 (step #2 above) was based on a dose assessment made in 1995 for the Department of Energy using the DOE "Manual for Implementing Residual Radioactivity Guidelines." This manual was eventually updated and codified in 1989 as DOE's RESRAD pathway analysis/dose assessment code. The dose from elevated areas of various sizes was estimated using default input parameters for the code. The conclusion from these dose estimations was that the dose is reduced as the area of contamination is reduced, assuming the same concentration. The extent of the reduction in dose as a function of area depends on whether the predominant dose pathway is from direct exposure, or from one or more of the other pathways such as inhalation and ingestion. In general, there is a greater dose reduction for elevated

areas containing radionuclides that deliver a significant fraction of the dose through the inhalation and ingestion pathway than for radionuclides that deliver a higher fraction of dose via the direct exposure pathway. The formula in NUREG/CR-5849 (restated below) was derived from the 1985 DOE study of the dose consequences of elevated areas of various sizes.

$$\text{Allowable Concentration in Elevated Area} < C(100/A)^{1/2}$$

where: C = unrestricted use criteria
A = area of elevated area, m^2

The above formula represents the lower bound of acceptable concentrations in an elevated area of size "A" for all of the radionuclides evaluated. A similar dose assessment for a specific radionuclide will very likely result in an allowable concentration exceeding that calculated using the above formula. This is evidenced by Enclosure 1, which shows the nuclide specific dose consequences of elevated areas (represented by the multiple of the authorized limit on the Y axis) ranging in size from 1 m^2 to 100 m^2. Enclosure 1 also includes a line defined by the $(100/A)^{1/2}$ formula. Note that the $(100/A)^{1/2}$ line is below all of the nuclide specific curves, and represents the most conservative result.

Enclosure 1 was generated in 1985 and summarizes the results of the dose assessments used to select the $(100/A)^{1/2}$ formula for determining acceptable concentrations of contamination in elevated areas. To ensure that the current version of RESRAD is consistent with the 1985 dose assessments, a similar series of dose assessments were conducted using a recent version of RESRAD. As shown in Enclosure 2, the results are very similar. This demonstrates that RESRAD is appropriate, and will provide averaging criteria that is consistent with, albeit less conservative than, the $(100/A)^{1/2}$ criteria. Therefore, in order to provide more realistic criteria, the volumetric averaging method described below relies on radionuclide specific dose assessments, using the DOE RESRAD code, to determine the acceptable concentration in subsurface soil containing elevated contamination levels.

The third part of the averaging method in NUREG/CR-5849 (step #3 above) is that the average over any 100 m^2 should be less than the release criteria. The 100 m^2 average limitation was intended to address the potential for a 10 m x 10 m house being built on the 100 m^2 parcel of land. The 10 m x 10 m averaging criteria is essentially maintained in the subsurface volumetric averaging method.

The following sections describe the assumptions and calculations used to develop the volumetric averaging criteria for subsurface soil.

Excavation Assumptions

- Excavation scenarios for both a house w/basement and a house w/out basement
- House Size: 10 m x 10 m

- Dimensions of footers for house w/no basement:
  1 m deep x 1 m wide x 10 m long

- Basement Depth: 3 m

- Excavation Equipment Bucket Size: 1 m^3

- Five excavation scenarios evaluated:

  1) each of four 1 m deep x 1 m wide x 10 m long footer excavation for a house w/out basement is placed in separate pile

  2) the 1 m deep x 10 m wide x 10 m long portion of soil from the surface to a depth of 1 m is excavated for a house with no basement and placed in separate pile

  3) each 3 m deep x 2.5 m wide x 10 m long portion of soil for basement excavation placed in separate pile

  4) entire 3 m deep x 10 m wide x 10 m long excavation for house w/basement placed in one pile

  5) one bucket (1 m x 1 m x 1 m) of excavated soil placed in separate pile

- Each excavated pile uniformly blended

- Each pile spread over a 1 foot depth

Method for Calculating Acceptable Averaging Volumes and Concentrations for Subsurface Contamination

To determine the averaging volume for subsurface contamination, and the acceptable concentration as a function of volume, the first step was to calculate the volume of soil excavated in each of the above five scenarios. The dose from the excavated soil was then estimated and compared to the dose from widespread, uniform contamination.

To estimate the dose, the soil volumes defined by the five excavation scenarios were assumed to be brought to the surface and spread over a 1 foot depth. Using the resulting calculated surface area as input to the RESRAD code, the dose from the excavated soil was estimated using the resident farmer scenario and the input parameters from Policy and Guidance Directive PG-8-08 "Scenarios for Assessing Potential Doses Associated with Residual Radioactivity," May 1994. A second RESRAD run was then made, using the same concentration, and assuming the default area of 10,000 m^2. The ratio of the dose from the 10,000 m^2 area to the dose from the calculated area was then multiplied by the unrestricted use criteria to determine the acceptable concentration in the elevated area, and hence the corresponding subsurface volume. This concentration is considered acceptable since the dose from the elevated area containing this concentration will deliver the same dose as a large area contaminated at the unrestricted use level. To determine

compliance with the volumetric averaging criteria, the average concentration over the in-situ volume of soil defined in the scenario must be less than the above ratio times the guideline.

For example, the following calculation provides the averaging volume and concentration for excavation Scenario #1, assuming that the contamination is total thorium (Th-232 + Th-228):

1. Volume of 1 m deep x 1 m wide x 10 m long footer is 10 m^3.

2. Assuming the 10 m^3 volume is excavated and spread over a 1 foot depth, the area of contamination on the surface would be 30 m^2.

3. Run RESRAD to estimate dose assuming 10 pCi/g total thorium and assuming that the contaminated area is 30 m^2 (Enclosure 3).

4. Run RESRAD to estimate dose, also assuming 10 pCi/g total thorium, but using the RESRAD default area of 10,000 m^2 (Enclosure 4).

5. Calculate the ratio of the dose from Step 4 to the dose from Step 3. For total thorium, the ratio is 2.0.

6. Multiply the ratio, i.e., 2.0, by the unrestricted use limit for total thorium, i.e., 10 pCi/g. The resulting concentration is 20 pCi/g, which represents the acceptable average concentration in a 10 m^3 volume of soil.

Note that Scenario #1 applies only to volumes of soil starting on the surface and ending at the first meter since the excavation is assumed to be for a footer, and would not go below 1 m.

The same calculations were performed for the other four excavation scenarios. The resulting five volumetric averaging guidelines for subsurface thorium contamination are listed below. The criteria for other radionuclides should be developed on a case-by-case basis. The excavation scenarios described above for housing construction are assumed to result in conservative averaging criteria since excavations for larger structures should result in larger excavated volumes, and a greater degree of mixing with surrounding soil.

Volumetric Averaging Guidelines For Subsurface Thorium Contamination

The five excavation scenarios were evaluated to determine acceptable averaging volumes and concentrations for subsurface thorium contamination. Enclosure 5 contains the RESRAD output for each of the five evaluations.

1) The average concentration of total thorium in a 10 m^3 volume should be less than 20 pCi/g.

2) The average concentration of total thorium in a 100 m^3 volume of soil should be less than 13 pCi/g.

3) The average concentration of thorium in a 75 m^3 volume of soil should be less than 13 pCi/g.

4) The average concentration of thorium in a 300 m^3 volume of soil should be less than 10 pCi/g.

5) The average concentration of thorium in a 1 m^3 volume of soil should be less than 50 pCi/g. This concentration is considered the maximum value for an individual sample composited over a 1 meter depth.

The above averaging guidelines were developed assuming that the soil is excavated and placed on the ground surface. The final step is to ensure that the volumetric averaging does not result in a layer of exposed soil with excessive concentrations. The soil layers of concern are the layer from 0-1 m and 3-4 m, which are the layers upon which the foundations for the slab-on-grade house and a house with a basement, respectively, are assumed to be built. To control these scenarios, the average over the 100 m^3 defined for these layers will be limited to the 100 m^3 averaging criteria.

APPENDIX G
NEXTEP TM 04-21
Decommissioning Criteria for Subsurface Soils at Cushing

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TECHNICAL MEMORANDUM 04-21

August 24, 2004

Originator: Ning Zhang, HP Analyst

Subject: Decommissioning Criteria for Subsurface Soils at Cushing

Revision: 0

ENDORSEMENT: This document contains the results of research and technical analysis which have been reviewed and approved for publication by the Technical Director, NEXTEP Environmental, Inc.

Signature on File at NEXTEP Environmental

Harry J. Newman, CHP, Technical Director Date

Introduction

This Technical Memorandum (TM) develops volumetric averaging techniques for subsurface soils with elevated measurements as compared to the NRC Branch Technical Position[44] (BTP) Option #1 guideline criteria for enriched uranium and thorium in soils at Cushing. The averaging techniques presented in this TM were selected because they are specifically required by the site license[45] and Decommissioning Plan[46] (D Plan). These volumetric averaging techniques use the same methodology as that described in the NRC's "Method for Surveying and Averaging Concentrations of Thorium in Contaminated Subsurface Soil"[47] (NRC Method), and applies

[44] NRC Branch Technical Position, *"Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations"*, October 23, 1981

[45] SNM-1999, Amendment No. 15, License Conditions 11.N and 11.O

[46] Kerr-McGee Cushing Refinery Site, *Site Decommissioning Plan*, Revision 6, Sections 6.2.1.3 and 3.2.2.4, April, 2004

[47] *Method for Surveying and Averaging Concentrations of Thorium In Contaminated Subsurface Soil.* Prepared by NRC Staff in Connection With the Review of the AAR "Site Remediation Plan for the Former Brooks and Perkins, Inc. Site," Docket #040-00235, February 13, 1997

Cushing's derived values for the FMPC[48] based upon the radionuclide mixtures found in soils at the site. The NRC Method has been applied and approved for use by NRC at other sites in consideration of other radionuclide mixtures.[49]

The guideline values proposed by this paper were derived from dose calculations obtained through the use of the RESRAD[50] computer code. The starting point was the development of a baseline dose value for an area covering 100 m^2, followed by dose calculations for smaller areas (and volumes) compared to a baseline scenario as described in the NRC Method. Since the total dose is dependent, in part, on both the concentration and the volume of soil, the guideline value should be higher for smaller quantities of contaminated materials that are excavated and brought to the surface. The result of applying volumetric averaging is that subsurface soils which are higher than the release criteria for surface soils (BTP criteria) may be brought to the surface during a hypothetical building activity and will result in approximately the same dose based upon the RESRAD computer code.

Methods for Volumetric Averaging for Soil

The evaluations in this TM assume that the contaminated subsurface material is disturbed and brought to the surface, thereby allowing for evaluation of dose to an individual under the resident farmer scenario. The baseline scenario establishes a 10,000 m^2 area (100m x 100m) contaminated to a depth of one foot. Identical calculations were also performed for varying excavation volumes and were then compared to the baseline scenario. The parameters used for input to the RESRAD code are those suggested by the NRC Method and presented in NRC's policy guidance PG-8-08[51].

The surface area covered by excavated subsurface soils which are then spread over the ground surface at a 1 foot thickness is calculated as shown in Equation 1:

Equation 1

$$\text{Area (A) in } m^2 = \frac{\textit{Volume of Excavated Subsurface Soil } (m^3)}{0.3048\, m \textit{ thickness}}$$

The baseline and the varying RESRAD scenario dose rates are calculated for the subsurface soils which would be spread across the ground surface under the scenarios in the NRC Method. These

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48 Fractional Maximum Permissible Concentration

49 Concentration Averaging Method for Uranium In Soils for Cimarron Corporation's Former Nuclear Fuel Fabrication Facility Crescent, Oklahoma. Appendix II of Kerr-McGee Corporation Final Status Survey Report Phase III – Sub Area 'O' Sub-Surface, March, 1998

50 Yu, C., A.J. Zielen, J.J. Cheng, D.J. LePoire, E. Gnanapragasam, S. Kamboj, J. Arnish, A. Wallo III,* W.A. Williams,* and H. Peterson*, *Users Manual for RESRAD Version 6*, ANL/EAD-4, Environmental Assessment Division, Argonne National laboratory, Argonne, Illinois, July, 2001

51 NRC Policy and Guidance Directive PG-8-08, *Scenarios for Assessing Potential Doses Associated with Residual Radioactivity*, May 1994

are then used to determine the volumetric factor (VF). The VF is the ratio of the dose rate from an alternate contaminated area scenario to the baseline dose rate as shown in equation 2.

Equation 2

$$\text{Volumetric Factor (VF)} \equiv \frac{\textit{Dose Rate from Alternate Scenario (mrem/y)}}{\textit{Dose Rate from Baseline Scenario (mrem/y)}}$$

The guideline value for a given alternate subsurface soil volume (denoted as Scenario "i") can then be determined using the following equation:

Equation 3

$$\text{Guideline Value for Scenario "i"} = \frac{\text{Guideline Value for Baseline Scenario}}{\text{Volumetric Factor for Scenario "i"}}$$

The following sections of this TM further describe the application of this method to the mixture of uranium and thorium contamination identified at the Cushing site.

Concentration Limit for Cushing Site

The Cushing Site applies the Fraction of Maximum Permissible Concentration (FMPC) for the mixture of Uranium and Thorium contamination in order to determine whether a given combined soil activity is in compliance. The FMPC is defined in the Cushing D Plan as net residual activity after subtraction of background. Appropriate allowance for background can be made in implementation as needed to allow for background subtraction. For this TM:

Equation 4

$$\text{FMPC} = \frac{\text{Total Uranium}}{30\ \text{pCi/g}} + \frac{\text{Total Thorium}}{10\ \text{pCi/g}}$$

where: FMPC = Fractional Maximum Permissible Concentration, unitless

Total Uranium = Total activity of U - 234, U - 235 and U - 238, net of Background, pCi/g

Total Uranium = Total activity of Th - 232 and Th - 228, net of background pCi/g. Since radioequilibrium is established between Th - 232 and Th - 228, total Th is two times the activity of Th - 232.

30 pCi/g = Release Criterion for total uranium.

10 pCi/g = Release Criterion for total thorium.

For the Cushing site, the general release criteria, or Guideline Value, for a mixture of total Uranium and total Thorium is:

Equation 5

$$FMPC \leq 1$$

Impact of U-235 Enrichment on the Resulting Dose

A review of the uranium enrichment results from sector 10 at the Cushing site[52] indicates that the average enrichment of U-235 is 3.5% with a maximum enrichment of 8.8%. Using the baseline RESRAD scenario with the contaminated area set at 10,000 m^2, analysis was performed to determine the potential impact of varying enrichment. The analysis compared the results for uranium at natural enrichment (0.72%) to the maximum enrichment of 8.8%. Varying the uranium enrichment resulted in less than a 3% difference in the resulting estimated annual dose, as shown in Table 1. RESRAD parameters used in the analyses performed for these three scenarios are presented in Attachment D; except that uranium input concentrations for soils were varied as described. The uranium concentration for the three scenarios was maintained at 1 FMPC, with no thorium present. The small differences in predicted dose stand to reason since the dose conversion factors for the three uranium isotopes (U-234, U-235, and U-238) are very similar, as are the distribution coefficients. Since it has insignificant effect, the comparative analysis in this TM will therefore use a uranium enrichment of 3.5%.

Table 1
RESRAD Results for Different Enrichments Under the Baseline Scenario

Enrichment (weight % U-235)	Annual Dose Rate (mrem/y)
0.72	12.27
3.5	12.94
8.8	12.42

Model Construction:

Four series of possible contaminant concentrations were modeled using RESRAD in order to appropriately identify and bound the possible combinations of contamination that might occur onsite. Each series assumed that the total contamination was 1 FMPC.

Series 1: Uranium only contamination (3.5% enrichment), 30 pCi/g total U.

Series 2: 50% activity contribution by thorium and 50% by uranium (3.5% enrichment), 5 pCi/g total Th and 15 pCi/g total U.

Series 3: Thorium only contamination, 10 pCi/g total Th.

Series 4: Uranium contamination varied to maintain 1 FMPC (3.5% enrichment), while varying the concentration of Th-232 from 0.25 pCi/g, 0.50 pCi/g, 0.75pCi/g and 1.0 pCi/g.

[52] NEXTEP Environmental TM 0324, "NaI Scan Survey of Concrete Rubble Containing SNM in Sector 10 of the Kerr-McGee Cushing Site," Table 1, N. Zhang

Table 2 summarizes the configurations for the four series and shows the radionuclide activity inputs. Table 3 summarizes the 15 models used in this TM and indicates both the volume and corresponding areas of contamination which were used in developing the Volumetric Factors and associated Guideline Values.

Table 2
RESRAD Model Inputs for the Four Series*

		Total U = 1 FMPC (Series 1)	Total U: 0.5 FMPC, Total Th: 0.5 FMPC (Series 2)	Total Th: 1 FMPC (Series 3)	Total U + Total Th = 1 FMPC (Series 4)			
					Th-232 Concentration (pCi/g)			
					0.25	0.5	0.75	1.0
U	U234	24.64	12.32	0	23.41	22.17	20.94	19.71
	U235	0.86	0.43	0	0.82	0.78	0.73	0.69
	U238	4.50	2.25	0	4.27	4.05	3.82	3.6
Th	Th232	0	2.5	5.0	0.25	0.5	0.75	1.0
	Th228	0	2.5	5.0	0.25	0.5	0.75	1.0
	Ra228	0	2.5	5.0	0.25	0.5	0.75	1.0

*U-235 Enrichment was set at 3.5% for all series.

Table 3
Contaminated Area and Volume for Each RESRAD Model Scenario

Model Number	Area(m^2)	Volume(m^3)	Scenario Description (length x width x depth)
00	10000	3048	Baseline Model; 10m x 10m x 1'
01	30	9.144	10m x 1m x 3'
02	300	91.44	10m x 10m x 3'
03	225	68.58	5m x 5m x 9'
04	250	76.2	5m x 5m x 10'
05	900	274.32	10m x 10m x 9'
06	1000	304.8	10m x 10m x 10'
07	3	0.9144	1m x 1m x 3'
08	600	182.88	10m x 10m x 6'
09	1200	365.76	10m x 10m x 12'
10	150	45.72	5m x 5m x 6'
14	2000	609.6	Additional Point for Research
15	4000	1219.2	Additional Point for Research
16	6000	1828.8	Additional Point for Research
17	8000	2438.4	Additional Point for Research

RESRAD Modeling Results

Table 4 lists the dose rate results from the RESRAD runs for the models in Table 2. Table 5 lists the corresponding volumetric factors based on the results from Table 4 and Equation 2. Figure 1 is a plot of the volumetric factor versus soil volume based on Table 5. Figure 1 shows that all of the tested scenarios are generally described by two curves. These curves and the associated

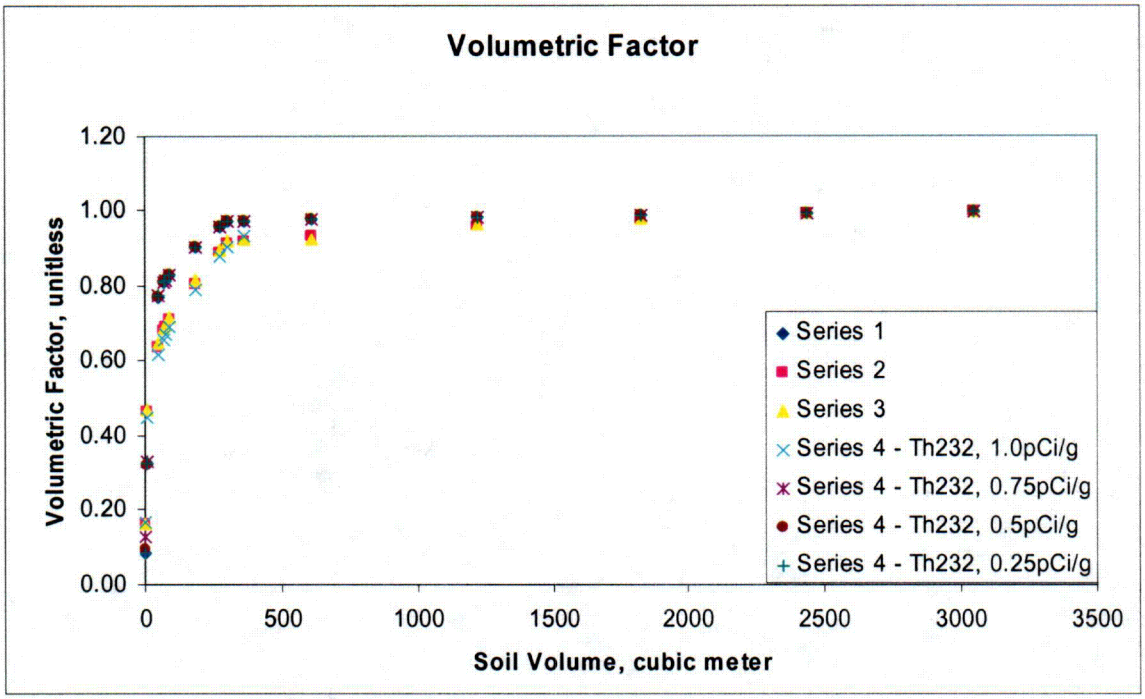
volumetric factor are further evaluated, segregated, and defined in the following sections based upon the contaminated volume and the thorium activity.

Table 4
RESRAD Results (mrem/year)

Area	Volume	Total U = 1 FMPC (Series 1)	Total U: 0.5 FMPC, Total Th: 0.5 FMPC (Series 2)	Total Th: 1 FMPC (Series 3)	Total U + Total Th = 1 FMPC (Series 4)			
					Th-232 Concentration (pCi/g)			
					1.0	0.75	0.5	0.25
30	9.144	4.216	10.53	20.34	4.642	3.66	3.759	4.005
300	91.44	10.71	16.12	31.09	7.131	9.1	9.646	10.17
225	68.58	10.47	15.46	29.87	6.82	8.89	9.423	9.944
250	76.2	10.55	15.69	30.28	6.928	8.962	9.497	10.02
900	274.32	12.39	20.2	38.72	9.081	10.53	11.16	11.77
1000	304.8	12.6	20.8	39.84	9.372	10.7	11.34	11.97
3	0.9144	1.067	3.739	7.08	1.734	1.399	1.066	1.014
600	182.88	11.69	18.35	35.28	8.19	9.937	10.53	11.11
1200	365.76	12.61	20.89	40.02	9.683	10.71	11.35	11.98
150	45.72	10	14.52	28.07	6.393	8.496	9.003	9.502
2000	609.6	12.64	21.21	40.06	10.11	10.74	11.38	12.01
4000	1219.2	12.71	21.8	41.69	10.17	10.8	11.45	12.08
6000	1828.8	12.79	22.21	42.45	10.23	10.86	11.51	12.15
8000	2438.4	12.86	22.52	43.01	10.29	10.93	11.58	12.22
10000	3048	12.94	22.74	43.4	10.35	10.99	11.65	12.29

Table 5
Volumetric Factor (Unitless)

Area	Volume	Total U = 1 FMPC (Series 1)	Total U: 0.5 FMPC, Total Th: 0.5 FMPC (Series 2)	Total Th: 1 FMPC (Series 3)	Total U + Total Th = 1 FMPC (Series 4)			
					Th-232 Concentration (pCi/g)			
					1.0	0.75	0.5	0.25
30	9.144	0.33	0.46	0.47	0.45	0.33	0.32	0.33
300	91.44	0.83	0.71	0.72	0.69	0.83	0.83	0.83
225	68.58	0.81	0.68	0.69	0.66	0.81	0.81	0.81
250	76.2	0.82	0.69	0.70	0.67	0.82	0.82	0.82
900	274.32	0.96	0.89	0.89	0.88	0.96	0.96	0.96
1000	304.8	0.97	0.91	0.92	0.91	0.97	0.97	0.97
3	0.9144	0.08	0.16	0.16	0.17	0.13	0.09	0.08
600	182.88	0.90	0.81	0.81	0.79	0.90	0.90	0.90
1200	365.76	0.97	0.92	0.92	0.94	0.97	0.97	0.97
150	45.72	0.77	0.64	0.65	0.62	0.77	0.77	0.77
2000	609.6	0.98	0.93	0.92	0.98	0.98	0.98	0.98
4000	1219.2	0.98	0.96	0.96	0.98	0.98	0.98	0.98
6000	1828.8	0.99	0.98	0.98	0.99	0.99	0.99	0.99
8000	2438.4	0.99	0.99	0.99	0.99	0.99	0.99	0.99
10000	3048	1	1	1	1	1	1	1



VF versus Soil Volume

Figure 1

Results for Soil Volumes > 365 m^3

An expanded view of the data from Figure 1 between VF 0.9 and 1.0 is presented in Figure 2. The upper straight line regression shows the VF for soil volumes above 365 m^3 in which the Th-232 concentration is less than or equal to 1.0 pCi/g. The lower curve in Figure 2 is a logarithmic regression that applies to soil volumes above 365 m^3 with Th-232 concentrations greater than 1.0 pCi/g.

Figure 2 illustrates that if the concentration of Th-232 is less than or equal to 1.0 pCi/g, the VF curve follows the upper straight line and if the concentration of Th-232 is larger than 1.0 pCi/g, the VF curve follows the lower logarithmic line. Figure 2 also shows that there is a transition occurring at about 1.0 pCi/g Th-232, where small changes in Th-232 concentration cause a shift in the curve which is most representative of the data. This can be seen in the Series 4, 1.0 pCi/g Th-232 point at 365m^3 and 600m^3 as compared to the other Series 4 data. The equations for the fitted lines are given below:

For Th-232 ≤ 1.0 pCi/g:

Equation 6

$$VF = 0.0000096\ X + 0.9714$$

Where:

X = Soil Volume, m^3

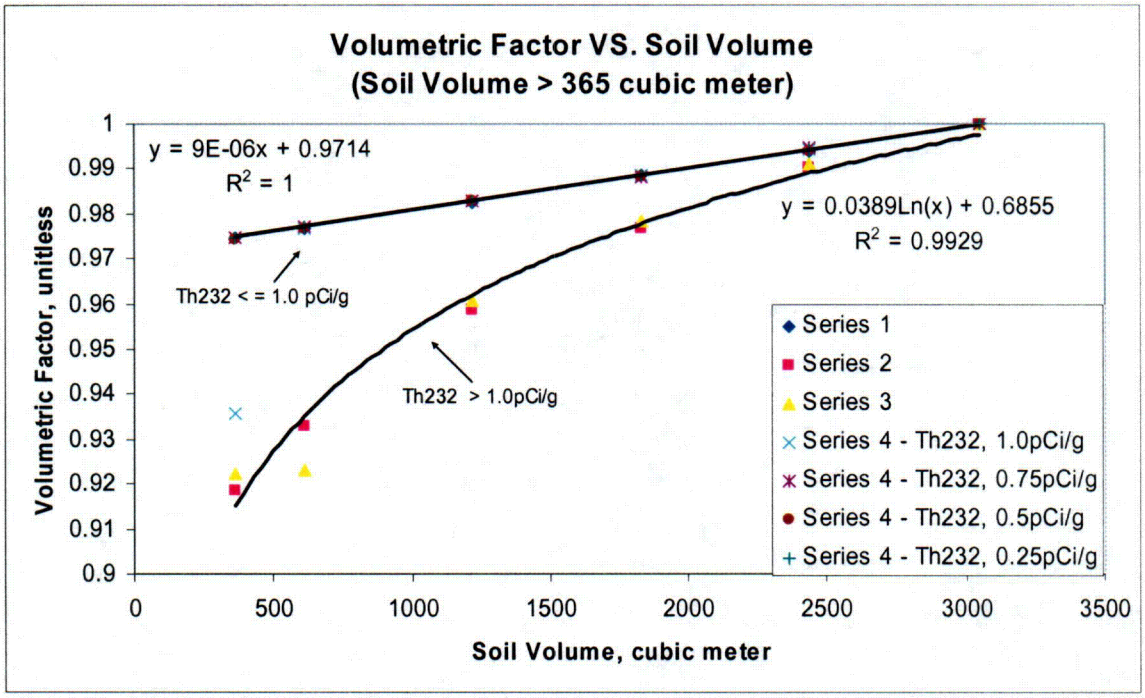
For Th-232 > 1.0 pCi/g

Equation 7

$$VF = 0.0389 * LN(X) + 0.6855$$

Where:

X = Soil Volume, m^3



VF for Large Soil Volumes (>365m^3)
Figure 2

Results for Soil Volumes, < 365 m^3

An expanded view of the data in Figure 1 for soil volumes < 365m^3 is shown in Figure 3. Both curves represent a logarithmic fit of the data for Th-232 concentrations either greater than or less than 0.75 pCi/g. The equations for the lines are as follows:

For Th-232 <0.75 pCi/g:

Equation 8

$$VF = 0.1591 * LN(X) + 0.0846$$

Where:

X = Soil Volume, m^3

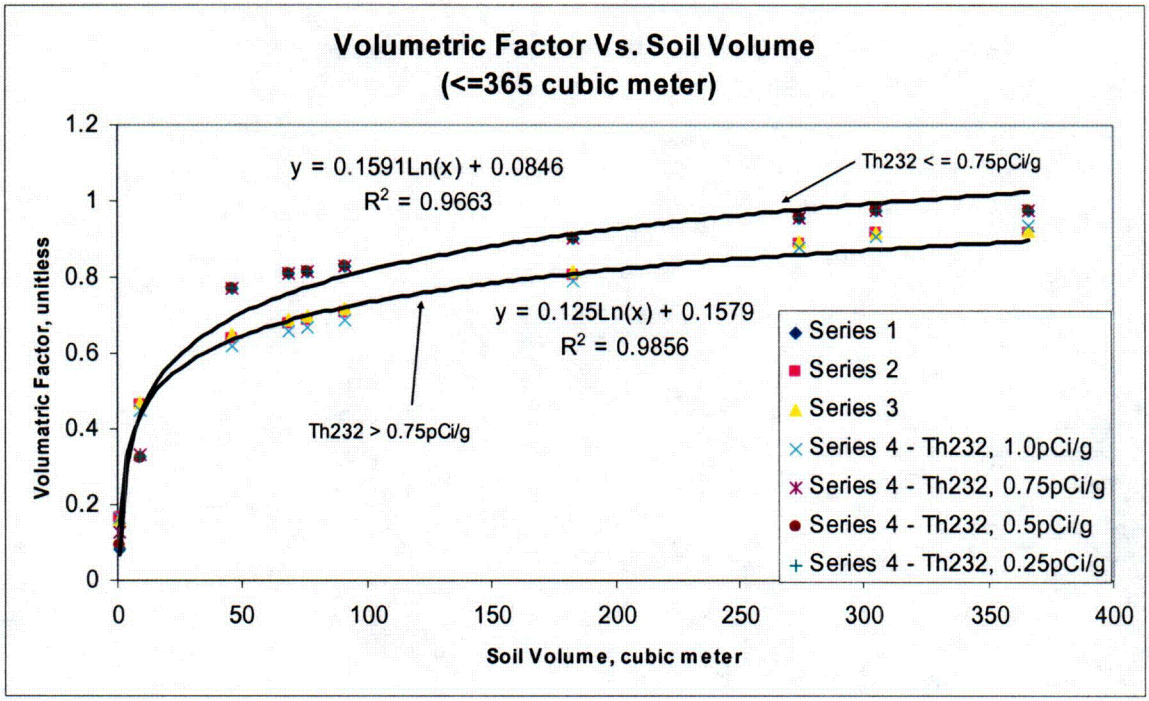
For Th232 > 0.75 pCi/g

Equation 9

$$\text{Volumetric Factor} = 0.125Ln(X)+0.1579$$

Where:

X = Soil Volume, m^3



VF for Small Soil Volumes (≤ 365 m^3)
Figure 3

The following equations summarize the guideline criteria to be applied

For soil volumes >365 m^3

Equation 8

$$VF = \begin{cases} 0.0389 * LN(X) + 0.6855 & \text{for Th232} > 1.0 \text{ pCi/g} \\ 0.0000096\,X + 0.9714 & \text{for Th232} \leq 1.0 \text{ pCi/g} \end{cases}$$

Equation 6

For soil volumes ≤365 m^3

Equation 9

$$VF = \begin{cases} 0.125Ln(X) + 0.1579 & \text{for Th232} > 0.75 \text{ pCi/g} \\ 0.1591 * LN(X) + 0.0846 & \text{for Th232} \leq 0.75 \text{ pCi/g} \end{cases}$$

Equation 7

Attachment A provides calculated results using the above equations to allow the user to identify appropriate volumetric factors and the corresponding guideline values for any combination of contaminant volume and concentration.

Application of Subsurface Guideline Criteria at Cushing

Calculation of the allowable subsurface residual contamination at a particular location can be performed in practice by first evaluating soil sample results in the borehole of interest. If no subsurface samples are observed exceeding 1 FMPC, there is no need for volumetric averaging and the area is suitable for release in accordance with the guideline criteria.

In the case where samples are observed exceeding 1 FMPC, the first action should be to divide the borehole of interest into 3 foot layers, starting at ground surface. Three foot layers were chosen as they are the interval in feet closest to the 1 meter interval called for in the NRC Method and this is conservative (represents a smaller volume). Since samples at Cushing have traditionally been collected at 6 inch intervals from the ground surface, one can first perform averaging over the six, half-foot intervals included in each 3 foot layer. Averaging over 3 foot layers is acceptable as the NRC Method allows for compositing of a single soil sample collected within each 1 meter layer. If the computed average in each 3 foot layer containing soil sample results exceeding 1 FMPC is less than 1 FMPC, the area meets the subsurface criteria for release and no further analysis is required.

For areas which fail the above test, further evaluation is required to determine if they meet the subsurface criteria as outlined in the NRC Method. Review of the NRC Method shows that there are 8 criteria that must be met, or tested, depending on the specific sampling regime taken. At Cushing there are two potential cases to evaluate: 1) Volumetric averaging for samples collected in open land areas, and 2) Volumetric averaging for samples collected in former burial trenches. Case 1 application of the NRC Method criteria is straightforward, as it is identical to that discussed in the NRC Method. Case 2 application is described below, since the geometry of the

burial trenches does not lend itself to direct comparison of volumes as under Case 1 (the trenches are 2m wide and of varying lengths).

The criteria defined in the NRC Method, as applied to Cushing, are represented below, with the general case (Case 1) in italics and specifics related to burial trench (Case 2) application following afterwards.

1) *The average FMPC in any 10 m^3 volume beginning at ground surface (10m length x 1m width x 3 foot depth) should be less than the guideline criterion calculated for that volume.* For Case 2, samples collected over any 10m length to a depth of 3 feet will be averaged. If the average over any 10m length is greater than the guideline criteria, the area fails.
2) *The average FMPC in any 100 m^3 volume beginning at ground surface (10m length x 10m width x 3 foot depth) should be less than the guideline criterion calculated for that volume.* For burial trenches, this will be conservatively be applied the same as criteria 1 above, except using the guideline value associated with a 100 m^3 volume. The actual volume represented is 20 m^3 (i.e. 10m length x 2m width x 3 foot depth) in this case. However, application of the criterion in this manner will ensure that the FMPC for adjoining trenches will not exceed the 100 m^3 criteria.
3) *The average FMPC in a 75 m^3 volume beginning at ground surface (5m length x 5m width x 9 foot depth) should be less than the guideline criterion calculated for that volume.* Case 2 will be conservatively applied by averaging all measurements obtained in any borehole over a 9 foot depth. The actual soil volume represented by any individual sample is 12m^3 for Case 2.[53]
4) *The average FMPC in a 50 m^3 volume beginning at ground surface (5m length x 5m width x 6 foot depth) should be less than the guideline criterion calculated for that volume.* Case 2 will be conservatively applied by averaging all measurements obtained in any borehole over a 6 foot depth. The actual soil volume represented by any individual sample is 8m^3 for Case 2.
5) *The average FMPC in a 300 m^3 volume beginning at ground surface (10m length x 10m width x 9 foot depth) should be less than the guideline criterion calculated for that volume.* For Case 2, this will be conservatively implemented over any trench length of 10m, except to a depth of 9 feet. The actual soil volumes being compared using this method for Case 2 will be 60 m^3.
6) *The average FMPC in a 1 m^3 volume at any depth (1m x 1m x 3 foot) should be less than the guideline criterion calculated for that volume.* For Case 2, this will be applied identically to Case 1.
7) *The average FMPC in a 100 m^3 volume representing a surface layer after excavation (10m x 10m x 3 foot depth) should be less than the guideline criterion calculated for that volume.* For Cases 1 and 2, this is applied at the 3'-6' layer (for houses without basements) and at the 9'-12' layer (for houses with basements). For Case 2, this criterion

[53] Boreholes in the trenches are on 2m centers and the trenches are 2m wide. Each borehole represents a 4m^2 area.

will be conservatively applied over any 10m length, representing an actual soil volume of 20 m^3.

8) *The average FMPC in any survey unit should be less than 1 FMPC.* For Cases 1 and 2, this will be applied over any contiguous area within the same survey unit which contains subsurface contamination. For example, it may be applied over areas as small as 5m x 5m in Case 1, and over any burial trench area in Case 2.

Conclusions and Recommendations

This TM presents methods for application of subsurface averaging techniques in accordance with the NRC Method at Cushing. Eight criteria are identified from the NRC Method and their application to both open land areas and burial trenched with subsurface contamination at Cushing is addressed. For the case of burial trenches, the criteria have in general been applied so as to maintain conservatism. In the event that such conservatism is not desired, appropriate criteria can be developed which are more specific.

The eight criteria and their application are specifically addressed in the preceding section. It is recommended that these criteria be applied along with the derived subsurface soil guideline values to demonstrate compliance with Cushing license release criteria.

Appendix A

Table of Volumetric Factors

Table A-1: Table of Volumetric Factors
Table A-2: Derived Guideline Values for Different Soil Volumes

Table A-1
Table of Volumetric Factors (Unitless)

Volume (m^3)	Thorium Concentration	
	<0.75 pCi/g	>0.75 pCi/g
1	0.08	0.16
2	0.19	0.24
3	0.26	0.30
4	0.31	0.33
5	0.34	0.36
6	0.37	0.38
7	0.39	0.40
8	0.42	0.42
9	0.43	0.43
10	0.45	0.45
11	0.47	0.46
12	0.48	0.47
13	0.49	0.48
14	0.50	0.49
15	0.52	0.50
16	0.53	0.50
17	0.54	0.51
18	0.54	0.52
19	0.55	0.53
20	0.56	0.53
21	0.57	0.54
22	0.58	0.54
23	0.58	0.55
24	0.59	0.56
25	0.60	0.56
26	0.60	0.57
27	0.61	0.57
28	0.61	0.57
29	0.62	0.58
30	0.63	0.58
31	0.63	0.59
32	0.64	0.59
33	0.64	0.59
34	0.65	0.60
35	0.65	0.60
36	0.65	0.61
37	0.66	0.61
38	0.66	0.61
39	0.67	0.62
40	0.67	0.62
41	0.68	0.62
42	0.68	0.63
43	0.68	0.63
44	0.69	0.63
45	0.69	0.63
46	0.69	0.64
47	0.70	0.64
48	0.70	0.64
49	0.70	0.64
50	0.71	0.65

Volume (m^3)	Thorium Concentration	
	<0.75 pCi/g	>0.75 pCi/g
55	0.72	0.66
60	0.74	0.67
65	0.75	0.68
70	0.76	0.69
75	0.77	0.70
80	0.78	0.71
85	0.79	0.71
90	0.80	0.72
95	0.81	0.73
100	0.82	0.73
110	0.83	0.75
120	0.85	0.76
130	0.86	0.77
140	0.87	0.78
150	0.88	0.78
160	0.89	0.79
170	0.90	0.80
180	0.91	0.81
190	0.92	0.81
200	0.93	0.82
250	0.96	0.85
300	0.99	0.87
350	1.02	0.89

Volume (m^3)	Thorium Concentration	
	<1.0 pCi/g	>1.0 pCi/g
400	0.98	0.92
450	0.98	0.92
500	0.98	0.93
550	0.98	0.93
600	0.98	0.93
650	0.98	0.94
700	0.98	0.94
750	0.98	0.94
800	0.98	0.95
850	0.98	0.95
900	0.98	0.95
950	0.98	0.95
1000	0.98	0.95
1250	0.98	0.96
1500	0.99	0.97
1750	0.99	0.98
2000	0.99	0.98
2250	0.99	0.99
2500	1.00	0.99
2750	1.00	0.99
3000	1.00	1.00

Table-A-2

Derived Guideline Values for Different Soil Volumes (Unit: FMPC)

Volume (m^3)	Thorium Concentration	
	<0.75 pCi/g	>0.75 pCi/g
1	11.82	6.33
2	5.13	4.09
3	3.86	3.39
4	3.28	3.02
5	2.94	2.78
6	2.71	2.62
7	2.54	2.49
8	2.41	2.39
9	2.30	2.31
10	2.22	2.24
11	2.15	2.19
12	2.08	2.13
13	2.03	2.09
14	1.98	2.05
15	1.94	2.01
16	1.90	1.98
17	1.87	1.95
18	1.84	1.93
19	1.81	1.90
20	1.78	1.88
21	1.76	1.86
22	1.73	1.84
23	1.71	1.82
24	1.69	1.80
25	1.68	1.78
26	1.66	1.77
27	1.64	1.75
28	1.63	1.74
29	1.61	1.73
30	1.60	1.72
31	1.58	1.70
32	1.57	1.69
33	1.56	1.68
34	1.55	1.67
35	1.54	1.66
36	1.53	1.65
37	1.52	1.64
38	1.51	1.63
39	1.50	1.62
40	1.49	1.62
41	1.48	1.61
42	1.47	1.60
43	1.46	1.59
44	1.46	1.58
45	1.45	1.58
46	1.44	1.57
47	1.43	1.56
48	1.43	1.56
49	1.42	1.55
50	1.41	1.55

Volume (m^3)	Thorium Concentration	
	<0.75 pCi/g	>0.75 pCi/g
55	1.38	1.52
60	1.36	1.49
65	1.34	1.47
70	1.31	1.45
75	1.30	1.43
80	1.28	1.42
85	1.26	1.40
90	1.25	1.39
95	1.24	1.38
100	1.22	1.36
110	1.20	1.34
120	1.18	1.32
130	1.16	1.30
140	1.15	1.29
150	1.13	1.28
160	1.12	1.26
170	1.11	1.25
180	1.10	1.24
190	1.09	1.23
200	1.08	1.22
250	1.04	1.18
300	1.01	1.15
350	0.98	1.12

Volume (m^3)	Thorium Concentration	
	<1.0 pCi/g	>1.0 pCi/g
400	1.03	1.09
450	1.02	1.08
500	1.02	1.08
550	1.02	1.07
600	1.02	1.07
650	1.02	1.07
700	1.02	1.06
750	1.02	1.06
800	1.02	1.06
850	1.02	1.05
900	1.02	1.05
950	1.02	1.05
1000	1.02	1.05
1250	1.02	1.04
1500	1.01	1.03
1750	1.01	1.02
2000	1.01	1.02
2250	1.01	1.01
2500	1.00	1.01
2750	1.00	1.01
3000	1.00	1.00

Appendix B

Release Criteria for Different Layers of Subsurface Soil

Scenario #, Volume (m^3, Grid)	Area (m^2)	Depth (m)	Ratio	Maximum Concentration(FMPC)
Baseline, (100mx100mx1')	10000	0.3048	1.00	1
9.144, (1mx10mx3')	30	0.3048	0.45	2.30
91.44, (10mx10mx3')	300	0.3048	0.74	1.38
68.58, (5mx5mx9')	225	0.3048	0.71	1.46
76.2, (5mx5mx10')	250	0.3048	0.72	1.43
274.3, (10mx10mx9')	900	0.3048	0.88	1.16
304.8, (10mx10mx10')	1000	0.3048	0.90	1.15
0.9144, (1mx1mx3')	3	0.3048	0.16	6.82
182.9, (10mx10mx6')	600	0.3048	0.83	1.24
365.8, (10mx10mx12')	1200	0.3048	0.92	1.10
45.72, (5mx5mx6')	150	0.3048	0.66	1.57

Derived Guideline Values for Subsurface Contamination (FMPC)

0-3 foot Depth	Maximum Individual Sample	6.82 FMPC
	$9.144m^3$ (1mx10mx3') average	2.30 FMPC
	91.44 m^3 (10mx10mx3') average	1.38 FMPC
3-6 foot depth	Maximum Individual Sample	6.82 FMPC
	$182.9m^3$ (10mx10mx6')	1.24 FMPC
6-9 foot depth	Maximum Individual Sample	6.82 FMPC
	$274.3m^3$ (10mx10mx9')	1.16 FMPC
6-10 foot depth	Maximum Individual Sample	6.82 FMPC
	304.8(1mx10mx10')	1.15 FMPC
10-12 foot depth	Maximum Individual Sample	6.82 FMPC
	365.8(10mx10mx12')	1.10 FMPC
>10 foot depth	Maximum Individual Sample	6.82 FMPC
	Volume From Surface to depth "x"	1.00 FMPC
The average of the 2 samples from 0-6 feet in the same bore hole, 45.72(5mx5mx6')		1.57 FMPC
The average of the 3 samples from 0-9 feet in the same bore hole, 68.58(5mx5mx9')		1.46 FMPC
The average of the 3 samples from 0-12 feet in the same bore hole, 76.2(5mx5mx10')		1.43 FMPC

Appendix C

Listing of

RESRAD Input and Output Files

Table C-1
RESRAD Filenames for all Scenarios in this TM

		Series 1	Series 2	Series 3	Series 4			
Area	Volume	1F1035	1F1135	1F01	1FTh1035	1FTh07535	1FTh05035	1FTh02535
30	9.144	SS1F103501	SS1F118801	SS1F0101	SS1FTH1001	SS1FTH7501	SS1FTH5001	SS1FTH2501
300	91.44	SS1F103502	SS1F118802	SS1F0102	SS1FTH1002	SS1FTH7502	SS1FTH5002	SS1FTH2502
225	68.58	SS1F103503	SS1F118803	SS1F0103	SS1FTH1003	SS1FTH7503	SS1FTH5003	SS1FTH2503
250	76.2	SS1F103504	SS1F118804	SS1F0104	SS1FTH1004	SS1FTH7504	SS1FTH5004	SS1FTH2504
900	274.32	SS1F103505	SS1F118805	SS1F0105	SS1FTH1005	SS1FTH7505	SS1FTH5005	SS1FTH2505
1000	304.8	SS1F103506	SS1F118806	SS1F0106	SS1FTH1006	SS1FTH7506	SS1FTH5006	SS1FTH2506
3	0.9144	SS1F103507	SS1F118807	SS1F0107	SS1FTH1007	SS1FTH7507	SS1FTH5007	SS1FTH2507
600	182.88	SS1F103508	SS1F118808	SS1F10108	SS1FTH1008	SS1FTH7508	SS1FTH5008	SS1FTH2508
1200	365.76	SS1F103509	SS1F118809	SS1F0109	SS1FTH1009	SS1FTH7509	SS1FTH5009	SS1FTH2509
150	45.72	SS1F103510	SS1F118810	SS1F0110	SS1FTH1010	SS1FTH7510	SS1FTH5010	SS1FTH2510
2000	609.6	SS1F103514	SS1F118814	SS1F0114	SS1FTH1014	SS1FTH7514	SS1FTH5014	SS1FTH2514
4000	1219.2	SS1F103515	SS1F118815	SS1F0115	SS1FTH1015	SS1FTH7515	SS1FTH5015	SS1FTH2515
6000	1828.8	SS1F103516	SS1F118816	SS1F0116	SS1FTH1016	SS1FTH7516	SS1FTH5016	SS1FTH2516
8000	2438.4	SS1F103517	SS1F118817	SS1F0117	SS1FTH1017	SS1FTH7517	SS1FTH5017	SS1FTH2517
10000	3048	SS1F103500	SS1F118800	SS1F0118	SS1FTH1000	SS1FTH7500	SS1FTH5000	SS1FTH2500

All of the above files are contained on a DATA-CD in NEXTEP Corporate files. The CD contains two folders; one is called "Input File" the other is called "Output File." In each folder, the filenames are the same, but with a different suffix. In the "Input File" folder, all files have suffix ".RAD." In the "Output File" folder, all files have suffix ".SUM". The input files with suffix ".RAD" are the RESRAD input files. The output files with suffix ".SUM" are the results summaries after running RESRAD.

Appendix D

Typical RESRAD Input Parameters for all Scenarios

In this Appendix, one RESRAD summary report is displayed. This summary report lists all of the input parameters used in this TM for dose calculations. All of the RESRAD input files listed in Table C-1 have identical parameter settings except for the radionuclide concentrations and the contaminated area geometry.

Table of Contents

Part I: Mixture Sums and Single Radionuclide Guidelines

Dose Conversion Factor (and Related) Parameter Summary ... 2
Site-Specific Parameter Summary ... 5
Summary of Pathway Selections ... 10
Contaminated Zone and Total Dose Summary ... 11
Total Dose Components
Time = 0.000E+00 ... 12
Time = 1.000E+00 ... 13
Time = 3.000E+00 ... 14
Time = 1.000E+01 ... 15
Time = 3.000E+01 ... 16
Time = 1.000E+02 ... 17
Time = 3.000E+02 ... 18
Time = 5.000E+02 ... 19
Time = 9.000E+02 ... 20
Time = 1.000E+03 ... 21
Dose/Source Ratios Summed Over All Pathways ... 22
Single Radionuclide Soil Guidelines ... 23
Dose Per Nuclide Summed Over All Pathways ... 24
Soil Concentration Per Nuclide ... 25

Dose Conversion Factor (and Related) Parameter Summary
File: FGR 13 Morbidity

Menu	Parameter	Current Value	Default	Parameter Name
B-1	Dose conversion factors for inhalation, mrem/pCi:			
B-1	Ac-227+D	6.720E+00	6.720E+00	DCF2(1)
B-1	Pa-231	1.280E+00	1.280E+00	DCF2(2)
B-1	Pb-210+D	1.380E-02	1.380E-02	DCF2(3)
B-1	Po-210	9.400E-03	9.400E-03	DCF2(4)
B-1	Ra-226+D	8.600E-03	8.600E-03	DCF2(5)
B-1	Ra-228+D	5.080E-03	5.080E-03	DCF2(6)
B-1	Th-228+D	3.450E-01	3.450E-01	DCF2(7)
B-1	Th-230	3.260E-01	3.260E-01	DCF2(8)
B-1	Th-232	1.640E+00	1.640E+00	DCF2(9)
B-1	U-234	1.320E-01	1.320E-01	DCF2(10)
B-1	U-235+D	1.230E-01	1.230E-01	DCF2(11)
B-1	U-238+D	1.180E-01	1.180E-01	DCF2(12)
D-1	Dose conversion factors for ingestion, mrem/pCi:			
D-1	Ac-227+D	1.480E-02	1.480E-02	DCF3(1)
D-1	Pa-231	1.060E-02	1.060E-02	DCF3(2)
D-1	Pb-210+D	5.370E-03	5.370E-03	DCF3(3)
D-1	Po-210	1.900E-03	1.900E-03	DCF3(4)
D-1	Ra-226+D	1.330E-03	1.330E-03	DCF3(5)
D-1	Ra-228+D	1.440E-03	1.440E-03	DCF3(6)
D-1	Th-228+D	8.080E-04	8.080E-04	DCF3(7)
D-1	Th-230	5.480E-04	5.480E-04	DCF3(8)
D-1	Th-232	2.730E-03	2.730E-03	DCF3(9)
D-1	U-234	2.830E-04	2.830E-04	DCF3(10)
D-1	U-235+D	2.670E-04	2.670E-04	DCF3(11)
D-1	U-238+D	2.690E-04	2.690E-04	DCF3(12)
D-34	Food transfer factors:			
D-34	Ac-227+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(1,1)
D-34	Ac-227+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	2.000E-05	2.000E-05	RTF(1,2)
D-34	Ac-227+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	2.000E-05	2.000E-05	RTF(1,3)
D-34				
D-34	Pa-231 , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF(2,1)
D-34	Pa-231 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF(2,2)
D-34	Pa-231 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(2,3)
D-34				
D-34	Pb-210+D , plant/soil concentration ratio, dimensionless	1.000E-02	1.000E-02	RTF(3,1)
D-34	Pb-210+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	6.000E-04	6.000E-04	RTF(3,2)
D-34	Pb-210+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.000E-04	3.000E-04	RTF(3,3)
D-34				
D-34	Po-210 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(4,1)
D-34	Po-210 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	5.000E-03	5.000E-03	RTF(4,2)
D-34	Po-210 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	3.400E-04	3.400E-04	RTF(4,3)
D-34				
D-34	Ra-226+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(5,1)
D-34	Ra-226+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF(5,2)
D-34	Ra-226+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF(5,3)
D-34				

Dose Conversion Factor (and Related) Parameter Summary (continued)
File: FGR 13 Morbidity

Menu	Parameter	Current Value	Default	Parameter Name
D-34	Ra-228+D , plant/soil concentration ratio, dimensionless	4.000E-02	4.000E-02	RTF(6,1)
D-34	Ra-228+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-03	1.000E-03	RTF(6,2)
D-34	Ra-228+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	1.000E-03	1.000E-03	RTF(6,3)
D-34				
D-34	Th-228+D , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(7,1)
D-34	Th-228+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(7,2)
D-34	Th-228+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(7,3)
D-34				
D-34	Th-230 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(8,1)
D-34	Th-230 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(8,2)
D-34	Th-230 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(8,3)
D-34				
D-34	Th-232 , plant/soil concentration ratio, dimensionless	1.000E-03	1.000E-03	RTF(9,1)
D-34	Th-232 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	1.000E-04	1.000E-04	RTF(9,2)
D-34	Th-232 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	5.000E-06	5.000E-06	RTF(9,3)
D-34				
D-34	U-234 , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(10,1)
D-34	U-234 , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(10,2)
D-34	U-234 , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(10,3)
D-34				
D-34	U-235+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(11,1)
D-34	U-235+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(11,2)
D-34	U-235+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(11,3)
D-34				
D-34	U-238+D , plant/soil concentration ratio, dimensionless	2.500E-03	2.500E-03	RTF(12,1)
D-34	U-238+D , beef/livestock-intake ratio, (pCi/kg)/(pCi/d)	3.400E-04	3.400E-04	RTF(12,2)
D-34	U-238+D , milk/livestock-intake ratio, (pCi/L)/(pCi/d)	6.000E-04	6.000E-04	RTF(12,3)
D-5	Bioaccumulation factors, fresh water, L/kg:			
D-5	Ac-227+D , fish	1.500E+01	1.500E+01	BIOFAC(1,1)
D-5	Ac-227+D , crustacea and mollusks	1.000E+03	1.000E+03	BIOFAC(1,2)
D-5				
D-5	Pa-231 , fish	1.000E+01	1.000E+01	BIOFAC(2,1)
D-5	Pa-231 , crustacea and mollusks	1.100E+02	1.100E+02	BIOFAC(2,2)
D-5				
D-5	Pb-210+D , fish	3.000E+02	3.000E+02	BIOFAC(3,1)
D-5	Pb-210+D , crustacea and mollusks	1.000E+02	1.000E+02	BIOFAC(3,2)
D-5				
D-5	Po-210 , fish	1.000E+02	1.000E+02	BIOFAC(4,1)
D-5	Po-210 , crustacea and mollusks	2.000E+04	2.000E+04	BIOFAC(4,2)
D-5				
D-5	Ra-226+D , fish	5.000E+01	5.000E+01	BIOFAC(5,1)
D-5	Ra-226+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC(5,2)
D-5				
D-5	Ra-228+D , fish	5.000E+01	5.000E+01	BIOFAC(6,1)
D-5	Ra-228+D , crustacea and mollusks	2.500E+02	2.500E+02	BIOFAC(6,2)
D-5				
D-5	Th-228+D , fish	1.000E+02	1.000E+02	BIOFAC(7,1)
D-5	Th-228+D , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(7,2)
D-5				

Dose Conversion Factor (and Related) Parameter Summary (continued)
File: FGR 13 Morbidity

Menu	Parameter	Current Value	Default	Parameter Name
D-5	Th-230 , fish	1.000E+02	1.000E+02	BIOFAC(8,1)
D-5	Th-230 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(8,2)
D-5				
D-5	Th-232 , fish	1.000E+02	1.000E+02	BIOFAC(9,1)
D-5	Th-232 , crustacea and mollusks	5.000E+02	5.000E+02	BIOFAC(9,2)
D-5				
D-5	U-234 , fish	1.000E+01	1.000E+01	BIOFAC(10,1)
D-5	U-234 , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(10,2)
D-5				
D-5	U-235+D , fish	1.000E+01	1.000E+01	BIOFAC(11,1)
D-5	U-235+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(11,2)
D-5				
D-5	U-238+D , fish	1.000E+01	1.000E+01	BIOFAC(12,1)
D-5	U-238+D , crustacea and mollusks	6.000E+01	6.000E+01	BIOFAC(12,2)

Site-Specific Parameter Summary

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R011	Area of contaminated zone (m**2)	1.000E+04	1.000E+04	---	AREA
R011	Thickness of contaminated zone (m)	3.048E-01	2.000E+00	---	THICK0
R011	Length parallel to aquifer flow (m)	1.000E+02	1.000E+02	---	LCZPAQ
R011	Basic radiation dose limit (mrem/yr)	3.000E+01	2.500E+01	---	BRDL
R011	Time since placement of material (yr)	2.000E+01	0.000E+00	---	TI
R011	Times for calculations (yr)	1.000E+00	1.000E+00	---	T(2)
R011	Times for calculations (yr)	3.000E+00	3.000E+00	---	T(3)
R011	Times for calculations (yr)	1.000E+01	1.000E+01	---	T(4)
R011	Times for calculations (yr)	3.000E+01	3.000E+01	---	T(5)
R011	Times for calculations (yr)	1.000E+02	1.000E+02	---	T(6)
R011	Times for calculations (yr)	3.000E+02	3.000E+02	---	T(7)
R011	Times for calculations (yr)	5.000E+02	1.000E+03	---	T(8)
R011	Times for calculations (yr)	9.000E+02	0.000E+00	---	T(9)
R011	Times for calculations (yr)	1.000E+03	0.000E+00	---	T(10)
R012	Initial principal radionuclide (pCi/g): Ra-226	2.500E+00	0.000E+00	---	S1(6)
R012	Initial principal radionuclide (pCi/g): Th-228	2.500E+00	0.000E+00	---	S1(7)
R012	Initial principal radionuclide (pCi/g): Th-232	2.500E+00	0.000E+00	---	S1(9)
R012	Initial principal radionuclide (pCi/g): U-234	1.232E+01	0.000E+00	---	S1(10)
R012	Initial principal radionuclide (pCi/g): U-235	4.300E-01	0.000E+00	---	S1(11)
R012	Initial principal radionuclide (pCi/g): U-238	2.250E+00	0.000E+00	---	S1(12)
R012	Concentration in groundwater (pCi/L): Ra-226	not used	0.000E+00	---	W1(6)
R012	Concentration in groundwater (pCi/L): Th-228	not used	0.000E+00	---	W1(7)
R012	Concentration in groundwater (pCi/L): Th-232	not used	0.000E+00	---	W1(9)
R012	Concentration in groundwater (pCi/L): U-234	not used	0.000E+00	---	W1(10)
R012	Concentration in groundwater (pCi/L): U-235	not used	0.000E+00	---	W1(11)
R012	Concentration in groundwater (pCi/L): U-238	not used	0.000E+00	---	W1(12)
R013	Cover depth (m)	0.000E+00	0.000E+00	---	COVER0
R013	Density of cover material (g/cm**3)	not used	1.500E+00	---	DENSCV
R013	Cover depth erosion rate (m/yr)	not used	1.000E-03	---	VCV
R013	Density of contaminated zone (g/cm**3)	1.630E+00	1.500E+00	---	DENSCZ
R013	Contaminated zone erosion rate (m/yr)	1.000E-03	1.000E-03	---	VCZ
R013	Contaminated zone total porosity	3.000E-01	4.000E-01	---	TPCZ
R013	Contaminated zone field capacity	2.000E-01	2.000E-01	---	FCCZ
R013	Contaminated zone hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCCZ
R013	Contaminated zone b parameter	5.300E+00	5.300E+00	---	BCZ
R013	Average annual wind speed (m/sec)	2.060E+00	2.000E+00	---	WIND
R013	Humidity in air (g/m**3)	not used	8.000E+00	---	HUMID
R013	Evapotranspiration coefficient	5.000E-01	5.000E-01	---	EVAPTR
R013	Precipitation (m/yr)	1.000E+00	1.000E+00	---	PRECIP
R013	Irrigation (m/yr)	7.600E-01	2.000E-01	---	RI
R013	Irrigation mode	overhead	overhead	---	IDITCH
R013	Runoff coefficient	2.000E-01	2.000E-01	---	RUNOFF
R013	Watershed area for nearby stream or pond (m**2)	1.000E+06	1.000E+06	---	WAREA
R013	Accuracy for water/soil computations	1.000E-03	1.000E-03	---	EPS
R014	Density of saturated zone (g/cm**3)	1.630E+00	1.500E+00	---	DENSAQ
R014	Saturated zone total porosity	3.000E-01	4.000E-01	---	TPSZ
R014	Saturated zone effective porosity	2.000E-01	2.000E-01	---	EPSZ

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R014	Saturated zone field capacity	2.000E-01	2.000E-01	---	FCSZ
R014	Saturated zone hydraulic conductivity (m/yr)	1.000E+02	1.000E+02	---	HCSZ
R014	Saturated zone hydraulic gradient	2.000E-02	2.000E-02	---	HGWT
R014	Saturated zone b parameter	not used	5.300E+00	---	BSZ
R014	Water table drop rate (m/yr)	0.000E+00	1.000E-03	---	VWT
R014	Well pump intake depth (m below water table)	1.000E+01	1.000E+01	---	DWIBWT
R014	Model: Nondispersion (ND) or Mass-Balance (MB)	ND	ND	---	MODEL
R014	Well pumping rate (m**3/yr)	2.500E+02	2.500E+02	---	UW
R015	Number of unsaturated zone strata	1	1	---	NS
R015	Unsat. zone 1, thickness (m)	4.000E+00	4.000E+00	---	H(1)
R015	Unsat. zone 1, soil density (g/cm**3)	1.630E+00	1.500E+00	---	DENSUZ(1)
R015	Unsat. zone 1, total porosity	3.000E-01	4.000E-01	---	TPUZ(1)
R015	Unsat. zone 1, effective porosity	2.000E-01	2.000E-01	---	EPUZ(1)
R015	Unsat. zone 1, field capacity	2.000E-01	2.000E-01	---	FCUZ(1)
R015	Unsat. zone 1, soil-specific b parameter	5.300E+00	5.300E+00	---	BUZ(1)
R015	Unsat. zone 1, hydraulic conductivity (m/yr)	1.000E+01	1.000E+01	---	HCUZ(1)
R016	Distribution coefficients for Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU(6,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.229E-02	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R016	Distribution coefficients for Th-228				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC(7)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU(7,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS(7)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.617E-05	ALEACH(7)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(7)
R016	Distribution coefficients for Th-232				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC(9)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU(9,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS(9)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.617E-05	ALEACH(9)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(9)
R016	Distribution coefficients for U-234				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC(10)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU(10,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS(10)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	9.130E-02	ALEACH(10)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(10)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for U-235				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC(11)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU(11,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS(11)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.130E-02	ALEACH(11)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(11)
R016	Distribution coefficients for U-238				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC(12)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU(12,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS(12)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.130E-02	ALEACH(12)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(12)
R016	Distribution coefficients for daughter Ac-227				
R016	Contaminated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCC(1)
R016	Unsaturated zone 1 (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCU(1,1)
R016	Saturated zone (cm**3/g)	2.000E+01	2.000E+01	---	DCNUCS(1)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	7.790E-02	ALEACH(1)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(1)
R016	Distribution coefficients for daughter Pa-231				
R016	Contaminated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCC(2)
R016	Unsaturated zone 1 (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCU(2,1)
R016	Saturated zone (cm**3/g)	5.000E+01	5.000E+01	---	DCNUCS(2)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	3.130E-02	ALEACH(2)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(2)
R016	Distribution coefficients for daughter Pb-210				
R016	Contaminated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCC(3)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCU(3,1)
R016	Saturated zone (cm**3/g)	1.000E+02	1.000E+02	---	DCNUCS(3)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.568E-02	ALEACH(3)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(3)
R016	Distribution coefficients for daughter Po-210				
R016	Contaminated zone (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCC(4)
R016	Unsaturated zone 1 (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCU(4,1)
R016	Saturated zone (cm**3/g)	1.000E+01	1.000E+01	---	DCNUCS(4)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	1.546E-01	ALEACH(4)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(4)
R016	Distribution coefficients for daughter Ra-226				
R016	Contaminated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCC(5)
R016	Unsaturated zone 1 (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCU(5,1)
R016	Saturated zone (cm**3/g)	7.000E+01	7.000E+01	---	DCNUCS(5)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.230E-02	ALEACH(5)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(5)

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
R016	Distribution coefficients for daughter Th-230				
R016	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC(6)
R016	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU(6,1)
R016	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS(6)
R016	Leach rate (/yr)	0.000E+00	0.000E+00	2.617E-06	ALEACH(6)
R016	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(6)
R017	Inhalation rate (m**3/yr)	1.851E+04	8.400E+03	---	INHALR
R017	Mass loading for inhalation (g/m**3)	2.000E-04	1.000E-04	---	MLINH
R017	Exposure duration	5.000E+01	3.000E+01	---	ED
R017	Shielding factor, inhalation	5.000E-01	4.000E-01	---	SHF3
R017	Shielding factor, external gamma	3.900E-01	7.000E-01	---	SHF1
R017	Fraction of time spent indoors	5.500E-01	5.000E-01	---	FIND
R017	Fraction of time spent outdoors (on site)	2.100E-01	2.500E-01	---	FOTD
R017	Shape factor flag, external gamma	1.000E+00	>0 shows circular AREA.		FS
R017	Radii of shape factor array (used if FS = -1):				
R017	Outer annular radius (m), ring 1:	not used	5.000E+01	---	RAD_SHAPE(1)
R017	Outer annular radius (m), ring 2:	not used	7.071E+01	---	RAD_SHAPE(2)
R017	Outer annular radius (m), ring 3:	not used	0.000E+00	---	RAD_SHAPE(3)
R017	Outer annular radius (m), ring 4:	not used	0.000E+00	---	RAD_SHAPE(4)
R017	Outer annular radius (m), ring 5:	not used	0.000E+00	---	RAD_SHAPE(5)
R017	Outer annular radius (m), ring 6:	not used	0.000E+00	---	RAD_SHAPE(6)
R017	Outer annular radius (m), ring 7:	not used	0.000E+00	---	RAD_SHAPE(7)
R017	Outer annular radius (m), ring 8:	not used	0.000E+00	---	RAD_SHAPE(8)
R017	Outer annular radius (m), ring 9:	not used	0.000E+00	---	RAD_SHAPE(9)
R017	Outer annular radius (m), ring 10:	not used	0.000E+00	---	RAD_SHAPE(10)
R017	Outer annular radius (m), ring 11:	not used	0.000E+00	---	RAD_SHAPE(11)
R017	Outer annular radius (m), ring 12:	not used	0.000E+00	---	RAD_SHAPE(12)
R017	Fractions of annular areas within AREA:				
R017	Ring 1	not used	1.000E+00	---	FRACA(1)
R017	Ring 2	not used	2.732E-01	---	FRACA(2)
R017	Ring 3	not used	0.000E+00	---	FRACA(3)
R017	Ring 4	not used	0.000E+00	---	FRACA(4)
R017	Ring 5	not used	0.000E+00	---	FRACA(5)
R017	Ring 6	not used	0.000E+00	---	FRACA(6)
R017	Ring 7	not used	0.000E+00	---	FRACA(7)
R017	Ring 8	not used	0.000E+00	---	FRACA(8)
R017	Ring 9	not used	0.000E+00	---	FRACA(9)
R017	Ring 10	not used	0.000E+00	---	FRACA(10)
R017	Ring 11	not used	0.000E+00	---	FRACA(11)
R017	Ring 12	not used	0.000E+00	---	FRACA(12)
R018	Fruits, vegetables and grain consumption (kg/yr)	1.660E+02	1.600E+02	---	DIET(1)
R018	Leafy vegetable consumption (kg/yr)	1.100E+01	1.400E+01	---	DIET(2)
R018	Milk consumption (L/yr)	1.800E+02	9.200E+01	---	DIET(3)
R018	Meat and poultry consumption (kg/yr)	6.300E+01	6.300E+01	---	DIET(4)
R018	Fish consumption (kg/yr)	5.400E+00	5.400E+00	---	DIET(5)
R018	Other seafood consumption (kg/yr)	9.000E-01	9.000E-01	---	DIET(6)
R018	Soil ingestion rate (g/yr)	1.825E+01	3.650E+01	---	SOIL

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
RN16	Distribution coefficients for daughter Th-230				
RN16	Contaminated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCC(8)
RN16	Unsaturated zone 1 (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCU(8,1)
RN16	Saturated zone (cm**3/g)	6.000E+04	6.000E+04	---	DCNUCS(8)
RN16	Leach rate (/yr)	0.000E+00	0.000E+00	2.617E-05	ALEACH(8)
RN16	Solubility constant	0.000E+00	0.000E+00	not used	SOLUBK(8)
RN17	Inhalation rate (m**3/yr)	1.051E+04	8.400E+03	---	INHALR
RN17	Mass loading for inhalation (g/m**3)	2.000E-04	1.000E-04	---	MLINH
RN17	Exposure duration	5.000E+01	3.000E+01	---	ED
RN17	Shielding factor, inhalation	5.000E-01	4.000E-01	---	SHF3
RN17	Shielding factor, external gamma	3.200E-01	7.000E-01	---	SHF1
RN17	Fraction of time spent indoors	5.500E-01	5.000E-01	---	FIND
RN17	Fraction of time spent outdoors (on site)	2.100E-01	2.500E-01	---	FOTD
RN17	Shape factor flag, external gamma	1.000E+00	1.000E+00	>0 shows circular AREA.	FS
RN17	Radii of shape factor array (used if FS = -1):				
RN17	Outer annular radius (m), ring 1:	not used	5.000E+01	---	RAD_SHAPE(1)
RN17	Outer annular radius (m), ring 2:	not used	7.071E+01	---	RAD_SHAPE(2)
RN17	Outer annular radius (m), ring 3:	not used	0.000E+00	---	RAD_SHAPE(3)
RN17	Outer annular radius (m), ring 4:	not used	0.000E+00	---	RAD_SHAPE(4)
RN17	Outer annular radius (m), ring 5:	not used	0.000E+00	---	RAD_SHAPE(5)
RN17	Outer annular radius (m), ring 6:	not used	0.000E+00	---	RAD_SHAPE(6)
RN17	Outer annular radius (m), ring 7:	not used	0.000E+00	---	RAD_SHAPE(7)
RN17	Outer annular radius (m), ring 8:	not used	0.000E+00	---	RAD_SHAPE(8)
RN17	Outer annular radius (m), ring 9:	not used	0.000E+00	---	RAD_SHAPE(9)
RN17	Outer annular radius (m), ring 10:	not used	0.000E+00	---	RAD_SHAPE(10)
RN17	Outer annular radius (m), ring 11:	not used	0.000E+00	---	RAD_SHAPE(11)
RN17	Outer annular radius (m), ring 12:	not used	0.000E+00	---	RAD_SHAPE(12)
RN17	Fractions of annular areas within AREA:				
RN17	Ring 1	not used	1.000E+00	---	FRACA(1)
RN17	Ring 2	not used	2.732E-01	---	FRACA(2)
RN17	Ring 3	not used	0.000E+00	---	FRACA(3)
RN17	Ring 4	not used	0.000E+00	---	FRACA(4)
RN17	Ring 5	not used	0.000E+00	---	FRACA(5)
RN17	Ring 6	not used	0.000E+00	---	FRACA(6)
RN17	Ring 7	not used	0.000E+00	---	FRACA(7)
RN17	Ring 8	not used	0.000E+00	---	FRACA(8)
RN17	Ring 9	not used	0.000E+00	---	FRACA(9)
RN17	Ring 10	not used	0.000E+00	---	FRACA(10)
RN17	Ring 11	not used	0.000E+00	---	FRACA(11)
RN17	Ring 12	not used	0.000E+00	---	FRACA(12)
RN18	Fruits, vegetables and grain consumption (kg/yr)	1.660E+02	1.600E+02	---	DIET(1)
RN18	Leafy vegetable consumption (kg/yr)	1.190E+01	1.400E+01	---	DIET(2)
RN18	Milk consumption (L/yr)	1.000E+02	9.200E+01	---	DIET(3)
RN18	Meat and poultry consumption (kg/yr)	6.300E+01	6.300E+01	---	DIET(4)
RN18	Fish consumption (kg/yr)	5.400E+00	5.400E+00	---	DIET(5)
RN18	Other seafood consumption (kg/yr)	9.000E-01	9.000E-01	---	DIET(6)
RN18	Soil ingestion rate (g/yr)	1.825E+01	3.650E+01	---	SOIL

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
RN18	Drinking water intake (L/yr)	7.300E+02	5.100E+02	---	DWI
RN18	Contamination fraction of drinking water	1.000E+00	1.000E+00	---	FDW
RN18	Contamination fraction of household water	1.000E+00	1.000E+00	---	FHHW
RN18	Contamination fraction of livestock water	1.000E+00	1.000E+00	---	FLW
RN18	Contamination fraction of irrigation water	1.000E+00	1.000E+00	---	FIRW
RN18	Contamination fraction of aquatic food	5.000E-01	5.000E-01	---	FR9
RN18	Contamination fraction of plant food	-1	-1	0.500E+00	FPLANT
RN18	Contamination fraction of meat	-1	-1	0.500E+00	FMEAT
RN18	Contamination fraction of milk	-1	-1	0.500E+00	FMILK
RN19	Livestock fodder intake for meat (kg/day)	6.800E+01	6.800E+01	---	LFI5
RN19	Livestock fodder intake for milk (kg/day)	5.500E+01	5.500E+01	---	LFI6
RN19	Livestock water intake for meat (L/day)	5.000E+01	5.000E+01	---	LWI5
RN19	Livestock water intake for milk (L/day)	1.600E+02	1.600E+02	---	LWI6
RN19	Livestock soil intake (kg/day)	5.000E-01	5.000E-01	---	LSI
RN19	Mass loading for foliar deposition (g/m**3)	1.000E-04	1.000E-04	---	MLFD
RN19	Depth of soil mixing layer (m)	1.500E-01	1.500E-01	---	DM
RN19	Depth of roots (m)	9.000E-01	9.000E-01	---	DROOT
RN19	Drinking water fraction from ground water	1.000E+00	1.000E+00	---	FGWDW
RN19	Household water fraction from ground water	1.000E+00	1.000E+00	---	FGWHH
RN19	Livestock water fraction from ground water	1.000E+00	1.000E+00	---	FGWLW
RN19	Irrigation fraction from ground water	1.000E+00	1.000E+00	---	FGWIR
RN19	Wet weight crop yield for Non-Leafy (kg/m**2)	7.000E-01	7.000E-01	---	YV(1)
RN19	Wet weight crop yield for Leafy (kg/m**2)	1.500E+00	1.500E+00	---	YV(2)
RN19	Wet weight crop yield for Fodder (kg/m**2)	1.100E+00	1.100E+00	---	YV(3)
RN19	Growing Season for Non-Leafy (years)	1.700E-01	1.700E-01	---	TS(1)
RN19	Growing Season for Leafy (years)	2.500E-01	2.500E-01	---	TS(2)
RN19	Growing Season for Fodder (years)	8.000E-02	8.000E-02	---	TS(3)
RN19	Translocation Factor for Non-Leafy	1.000E-01	1.000E-01	---	TIV(1)
RN19	Translocation Factor for Leafy	1.000E+00	1.000E+00	---	TIV(2)
RN19	Translocation Factor for Fodder	1.000E+00	1.000E+00	---	TIV(3)
RN19	Dry Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RDRY(1)
RN19	Dry Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RDRY(2)
RN19	Dry Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RDRY(3)
RN19	Wet Foliar Interception Fraction for Non-Leafy	2.500E-01	2.500E-01	---	RWET(1)
RN19	Wet Foliar Interception Fraction for Leafy	2.500E-01	2.500E-01	---	RWET(2)
RN19	Wet Foliar Interception Fraction for Fodder	2.500E-01	2.500E-01	---	RWET(3)
RN19	Weathering Removal Constant for Vegetation	2.000E+01	2.000E+01	---	WLAM
C14	C-12 concentration in water (g/cm**3)	not used	2.000E-05	---	C12WTR
C14	C-12 concentration in contaminated soil (g/g)	not used	3.000E-02	---	C12CZ
C14	Fraction of vegetation carbon from soil	not used	2.000E-02	---	CSOIL
C14	Fraction of vegetation carbon from air	not used	9.800E-01	---	CAIR
C14	C-14 evasion layer thickness in soil (m)	not used	3.000E-01	---	DMC
C14	C-14 evasion flux rate from soil (1/sec)	not used	7.000E-07	---	EVSN
C14	C-12 evasion flux rate from soil (1/sec)	not used	1.000E-10	---	EVSN
C14	Fraction of grain in beef cattle feed	not used	0.000E-01	---	AVFG4
C14	Fraction of grain in milk cow feed	not used	2.000E-01	---	AVFG5
C14	DCF correction factor for gaseous forms of C14	not used	0.894E+01	---	C02F

Site-Specific Parameter Summary (continued)

Menu	Parameter	User Input	Default	Used by RESRAD (If different from user input)	Parameter Name
STOR	Storage times of contaminated foodstuffs (days):				
STOR	Fruits, non-leafy vegetables, and grain	1.400E+01	1.400E+01	---	STOR_T(1)
STOR	Leafy vegetables	1.000E+00	1.000E+00	---	STOR_T(2)
STOR	Milk	1.000E+00	1.000E+00	---	STOR_T(3)
STOR	Meat and poultry	2.000E+01	2.000E+01	---	STOR_T(4)
STOR	Fish	7.000E+00	7.000E+00	---	STOR_T(5)
STOR	Crustacea and mollusks	7.000E+00	7.000E+00	---	STOR_T(6)
STOR	Well water	1.000E+00	1.000E+00	---	STOR_T(7)
STOR	Surface water	1.000E+00	1.000E+00	---	STOR_T(8)
STOR	Livestock fodder	4.500E+01	4.500E+01	---	STOR_T(9)
R021	Thickness of building foundation (m)	1.500E-01	1.500E-01	---	FLOOR1
R021	Bulk density of building foundation (g/cm**3)	2.400E+00	2.400E+00	---	DENSFL
R021	Total porosity of the cover material	not used	4.000E-01	---	TPCV
R021	Total porosity of the building foundation	1.000E-01	1.000E-01	---	TPFL
R021	Volumetric water content of the cover material	not used	5.000E-02	---	PH2OCV
R021	Volumetric water content of the foundation	3.000E-02	3.000E-02	---	PH2OFL
R021	Diffusion coefficient for radon gas (m/sec):				
R021	in cover material	not used	2.000E-06	---	DIFCV
R021	in foundation material	3.000E-07	3.000E-07	---	DIFFL
R021	in contaminated zone soil	2.000E-06	2.000E-06	---	DIFCZ
R021	Radon vertical dimension of mixing (m)	2.000E+00	2.000E+00	---	HMIX
R021	Average building air exchange rate (1/hr)	5.000E-01	5.000E-01	---	REXG
R021	Height of the building (room) (m)	2.500E+00	2.500E+00	---	HRM
R021	Building interior area factor	0.000E+00	0.000E+00	code computed (time dependent)	FAI
R021	Building depth below ground surface (m)	-1.000E+00	-1.000E+00	code computed (time dependent)	DMFL
R021	Emanating power of Rn-222 gas	9.500E-01	2.500E-01	---	EMANA(1)
R021	Emanating power of Rn-220 gas	1.500E-01	1.500E-01	---	EMANA(2)
TIME	Number of graphical time points	32	---	---	NPTS
TIME	Maximum number of integration points for dose	17	---	---	LYMAX
TIME	Maximum number of integration points for risk	257	---	---	KYMAX

Summary of Pathway Selections

Pathway	User Selection
1 -- external gamma	active
2 -- inhalation (w/o radon)	active
3 -- plant ingestion	active
4 -- meat ingestion	active
5 -- milk ingestion	active
6 -- aquatic foods	active
7 -- drinking water	active
8 -- soil ingestion	active
9 -- radon	active
Find peak pathway doses	active

Contaminated Zone Dimensions

Area: 10000.00 square meters
Thickness: 0.30 meters
Cover Depth: 0.00 meters

Initial Soil Concentrations, pCi/g

Ra-226	2.500E+00
Th-228	2.500E+00
Th-232	2.500E+00
U-234	1.232E+01
U-235	4.300E-01
U-238	2.250E+00

Total Dose TDOSE(t), mrem/yr
Basic Radiation Dose Limit = 3.000E+01 mrem/yr
Total Mixture Sum M(t) = Fraction of Basic Dose Limit Received at Time (t)

t (years):	0.000E+00	1.000E+00	3.000E+00	1.000E+01	3.000E+01	1.000E+02	3.000E+02	5.000E+02	9.000E+02	1.000E+03
TDOSE(t):	2.274E+01	2.242E+01	2.178E+01	2.009E+01	1.852E+01	1.673E+01	5.955E+00	6.087E+00	6.467E+00	1.723E+00
M(t):	7.579E-01	7.475E-01	7.260E-01	6.698E-01	6.175E-01	5.576E-01	1.985E-01	2.029E-01	2.156E-01	5.744E-02

Maximum TDOSE(t): 2.274E+01 mrem/yr at t = 0.000E+00 years