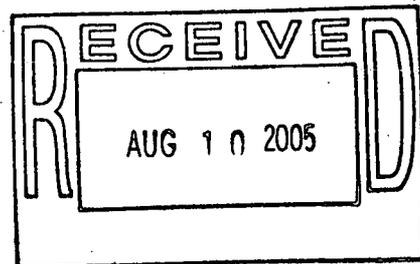




**Draft Closeout Report
for IHSS Group 700-3**

**Volume II
UBC 776, UBC 777, UBC 778 and
Portion of IHSS 000-121, including Tank 18**



August 2005

ADMIN RECORD

IA-A-002828

**Draft Closeout Report
for IHSS Group 700-3**

**Volume II
UBC 776, UBC 777, UBC 778 and
Portion of IHSS 000-121, including Tank 18**

Approval received from the Colorado Department of Public Health and Environment
().
Approval letter contained in the Administrative Record.

August 2005

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ENCLOSURE

Compact Disc of Accelerated Action Data

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ACRONYMS AND ABBREVIATIONS

AL	action level
AR	Administrative Record
bgs	below ground surface
BZ	Buffer Zone
CAS	Chemical Abstracts Service
CD	compact disc
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	contaminant of concern
CRA	Comprehensive Risk Assessment
cy	cubic yard
DOE	U.S. Department of Energy
DQA	Data Quality Assessment
DQO	data quality objective
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
ER RSOP	Environmental Restoration RFCA Standard Operating Protocol for Routine Soil Remediation
ft	foot/feet
HPGe	high-purity germanium
HRR	Historical Release Report
IA	Industrial Area
IASAP	Industrial Area Sampling and Analysis Plan
IABZSAP	Industrial Area and Buffer Zone Sampling and Analysis Plan
IHSS	Individual Hazardous Substance Site
K-H	Kaiser-Hill Company, L.L.C.
LCS	laboratory control sample
µg/kg	micrograms per kilogram
MDL	method detection limit
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MS	matrix spike
MSD	matrix spike duplicate
NA	not applicable
nCi/g	nanocurie per gram
NFAA	No Further Accelerated Action
NLR	no longer representative
NPWL	New Process Waste Lines
OPWL	Original Process Waste Lines
PAC	Potential Area of Concern
PAH	Polycyclic aromatic hydrocarbon
PARCCS	precision, accuracy, representativeness, completeness, comparability, and

ACRONYMS AND ABBREVIATIONS

	sensitivity
pCi/g	picocuries per gram
PCOC	potential contaminant of concern
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFETS or Site	Rocky Flats Environmental Technology Site
RI/FS	Remedial Investigation/Feasibility Study
RL	reporting limit
RPD	relative percent difference
RSOP	RFCA Standard Operating Protocol
SAP	Sampling and Analysis Plan
SBD	sample beginning depth
SED	sample ending depth
SOR	sum of ratios
SSRS	Subsurface Soil Risk Screen
SWD	Soil Water Database
UBC	Under Building Contamination
V&V	verification and validation
VOC	volatile organic compound
WRW	wildlife refuge worker

EXECUTIVE SUMMARY

This report summarizes accelerated action activities conducted at Individual Hazardous Substance Site (IHSS) Group 700-3, located at the Rocky Flats Environmental Technology Site (RFETS or Site), Golden, Colorado. IHSS Group 700-3 consists of the following Under Building Contamination (UBC) Sites, IHSSs, and Potential Areas of Concern (PACs):

- UBC 701 - Waste Treatment Research and Development;
- UBC 776 - Original plutonium Foundry;
- UBC 777 - General plutonium Research and Development;
- UBC 778 - Plant Laundry Facility;
- IHSS 700-118.1 - Solvent Spills West of Building 730;
- IHSS 700-118.2 - Solvent Spills North of Building 707;
- IHSS 700-131 - Radioactive Site 700 Area No. 1;
- IHSS 700-132 - Radioactive Site 700 Area, Site #4 (also Tanks T-9 and T-10);
- IHSS 700-144(N) - Sewer Line Overflow;
- IHSS 700-144(S) - Sewer Line Overflow;
- IHSS 700-150.2(S) - Radioactive Site West of Buildings 771/776;
- IHSS 700-150.4 - Radioactive Site Northwest of Building 750;
- IHSS 700-150.7 - Radioactive Site South of Building 776;
- PAC 700-1100 - French Drain North of Buildings 776/777;
- PAC 700-1116 - Transformer Leak South of Building 776;
- IHSS 000-121 - Tank T-9 (One 22,500-Gallon and One 4,500 Gallon Concrete Laundry Tanks);
- IHSS 000-121 - Tank T-10 (One 22,500-Gallon and One 4,500 Gallon Process Waste Tanks); and
- IHSS 000-121 - Tank T-18 (Concrete Laundry Waste Lift Sump).

This report only addresses UBCs 776, 777 and 778 as well as the portion of the Original Process Waste Lines (OPWL) (IHSS 000-121) within the IHSS Group, including Tank T-18. The entire OPWL system is addressed in the IHSS 000-2 Closeout Report. The other IHSS Group 700-3 UBC site, IHSSs and PACs, as well as OPWL Tanks T-9 and T-10, are addressed in IHSS Group 700-3 Closeout Report, Volume I, which was approved by the Colorado Department of Public Health and Environment on April 19, 2005.

Accelerated action activities were planned and executed in accordance with the Industrial Area (IA) Sampling and Analysis Plan (SAP) (IASAP), IASAP Addendum #IA-03-04, the Environmental Restoration (ER) Rocky Flats Cleanup Agreement (RFCA) Standard Operating Protocol (RSOP) for Routine Soil Remediation (ER RSOP) Modification 1, and ER RSOP Notification #04-04. Activities included soil characterization and removal. Also, the Building 776 entrance to the tunnel leading to Building 771 was crushed and grouted, and a bentonite cutoff wall was placed in front of the tunnel leading to Building 771 to prevent the flow of groundwater through the tunnel towards Building 771. Based on the results of the accelerated action characterization, approximately 6,400 cubic yards of contaminated soil was removed. All excavations were backfilled, and remediated areas were graded.

Residual contaminant activities and concentrations in surface and subsurface soil are less than RFCA wildlife refuge worker (WRW) action levels (ALs), with the following exceptions:

- An area in the northwestern corner of UBC 776 associated with a pipe chase;
- The excavation area associated with removal of the elevator shaft;
- The excavation area associated with the removal of the 776/777 basement, C-Pit, and D-Pit;
- A small area associated with the removal of OPWL north of UBC 776;
- A small area in the southeastern corner of UBC 776; and
- A small area in the southwestern corner of UBC 776..

All residual radionuclide activities greater than WRW soil ALs are at depths greater than 3 ft below final grade and less than 1 nCi/g in compliance with RFCA. Results of the Data Quality Assessment confirm that the data collected and used are adequate for decision making.

No Further Accelerated Action (NFAA) is warranted for soil at these IHSS Group 700-3 sites (UBCs 776, 777 and 778 and Tank T-18). All ER RSOP accelerated action goals and objectives were achieved. Removal activities conducted contributed to the protection of human health and the environment by removing potential sources of contamination. Best management practices were used during removal activities to minimize the potential spread of contamination. The removal activities minimized the need for short- and long-term institutional and engineering controls.

No IHSS Group-specific, near-term or long-term management techniques are required because of environmental conditions. Site access and excavation within the IHSS Group will continue to be controlled pending implementation of long-term controls. Controls that will be used as appropriate include prohibitions on construction of buildings in the IA, restrictions on excavation or other soil disturbance, and prohibitions on groundwater pumping.

The presence of residual radionuclides, metals, and VOCs in soil is evaluated in the Sitewide Comprehensive Risk Assessment (CRA), which is part of the Remedial Investigation/Feasibility Study (RI/FS) that will be conducted for the Site. Potential ecological risk is evaluated in the ecological risk assessment portion of the CRA. The need for and extent of any more general, long-term stewardship activities is also evaluated in the RI/FS. Institutional controls and other long-term stewardship requirements for the Site will ultimately be contained in the Corrective Action Decision/Record of Decision.

This Closeout Report and associated documentation will be retained as part of the Rocky Flats Administrative Record file. Approval of this Closeout Report constitutes regulatory agency concurrence that the IHSS Group sites addressed in this volume (UBCs 776, 777 and 778 and OPWL Tank T-18) are NFAA sites. An NFAA decision is justified based on the following:

- Soil characterization and confirmation data;
- Results of the Subsurface Soil Risk Screen; and
- The stewardship evaluation.

This information and NFAA determination will be documented in the Fiscal Year 2005 Historical Release Report.

1.0 INTRODUCTION

This Closeout Report summarizes accelerated action activities conducted at Individual Hazardous Substance Site (IHSS) Group 700-3 at the Rocky Flats Environmental Technology Site (RFETS or Site) in Golden, Colorado. Under Building Contamination (UBC) Sites, IHSSs, and Potential Areas of Concern (PACs) within IHSS Group 700-3 are listed in Table 1. Sites addressed in this report are shown in bold. This report also discusses the portion of the Original Process Waste Lines (OPWL) (IHSS 000-121) within the IHSS Group, including Tank T-18. The other IHSS Group 700-3 sites, as well as OPWL Tanks T-9 and T-10, are addressed in IHSS Group 700-3 Closeout Report, Volume I. IHSS Group 700-3 sites addressed in Volumes I and II are also shown on Figure 1.

Table 1
IHSS Group 700-3 Sites

UBC 701 - Waste Treatment Research and Development
UBC 776 - Original plutonium Foundry
UBC 777 - General plutonium Research and Development
UBC 778 - Plant Laundry Facility
IHSS 700-118.1 - Solvent Spills West of Building 730
IHSS 700-118.2 - Solvent Spills North of Building 707
IHSS 700-131 - Radioactive Site 700 Area No. 1
IHSS 700-132 - Radioactive Site 700 Area, Site #4 (Tanks T-9 and T-10)
IHSS 700-144(N) - Sewer Line Overflow
IHSS 700-144(S) - Sewer Line Overflow
IHSS 700-150.2(S) - Radioactive Site West of Buildings 771/776
IHSS 700-150.4 - Radioactive Site Northwest of Building 750
IHSS 700-150.7 - Radioactive Site South of Building 776
PAC 700-1100 - French Drain North of Buildings 776/777
PAC 700-1116 - Transformer Leak South of Building 776
IHSS 000-121 - Tank T-9 (One 22,500-Gallon and One 4,500 Gallon Concrete Laundry Tanks)
IHSS 000-121 - Tank T-10 (One 22,500-Gallon and One 4,500 Gallon Process Waste Tanks)
IHSS 000-121 - Tank T-18 (Concrete Laundry Waste Lift Sump)

Accelerated action activities were planned and conducted in accordance with the Industrial Area (IA) Sampling and Analysis Plan (SAP) (IASAP) (DOE 2001), the IA and Buffer Zone (BZ) SAP (IABZSAP) (DOE 2004a), IASAP Addendum #IA-03-04 (DOE 2003a), and the Environmental Restoration (ER) Rocky Flats Cleanup Agreement (RFCA) Standard Operating Protocol (RSOP) for Routine Soil Remediation (ER RSOP) Modification 1 (DOE 2003b). Notification of the planned activities was provided in ER RSOP Notification #04-04 (DOE 2004b), which was approved by the Colorado Department of Public Health and Environment (CDPHE) on July 9, 2004 (CDPHE 2004).

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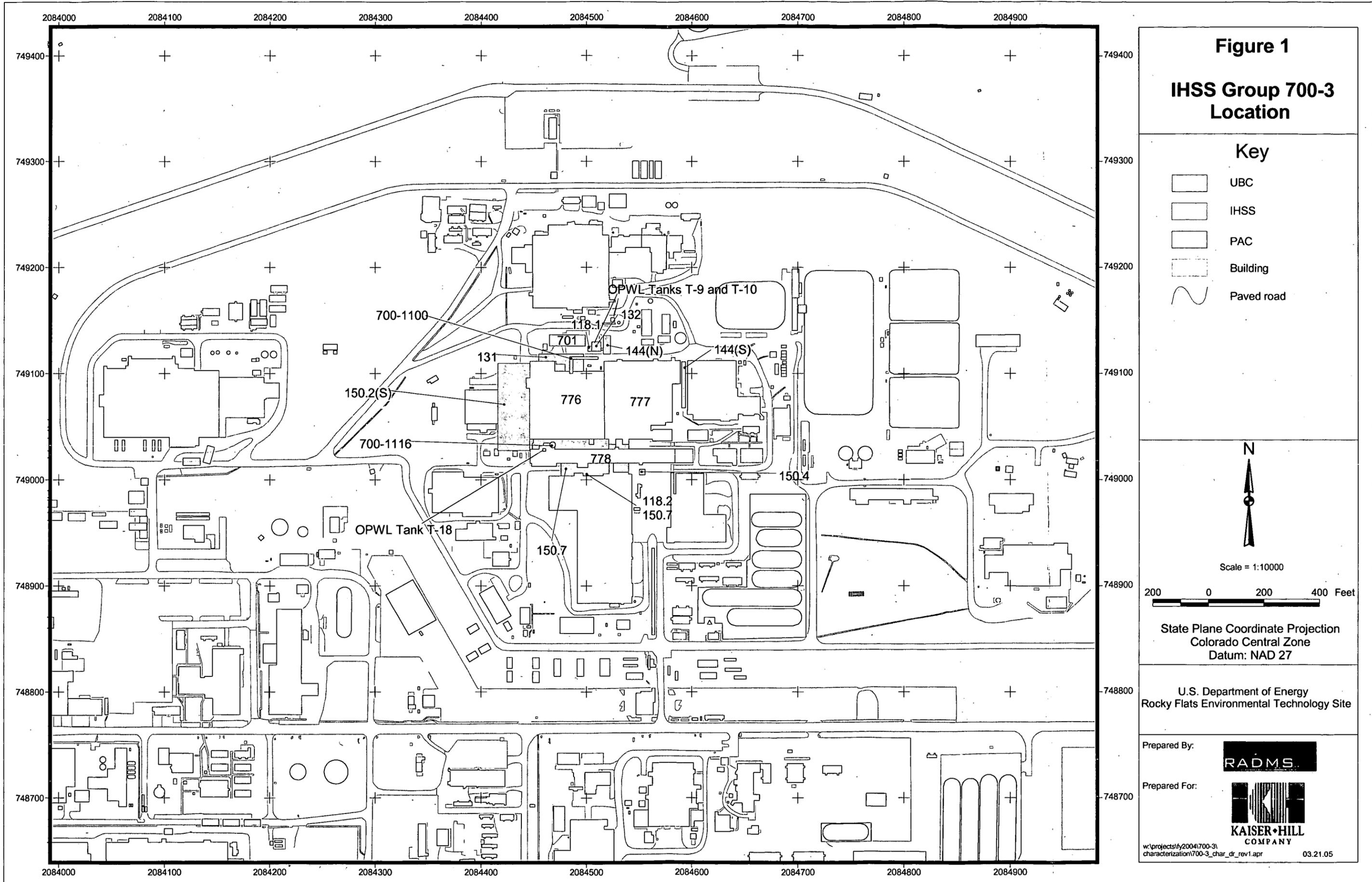


Figure 1

**IHSS Group 700-3
Location**

Key

-  UBC
-  IHSS
-  PAC
-  Building
-  Paved road



Scale = 1:10000

200 0 200 400 Feet

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared By:



Prepared For:



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This closeout report includes the following:

- Historical and general site information;
- Deviations from IASAP Addendum #IA-03-04 (DOE 2003a) sampling specifications;
- Accelerated action characterization data presented in tables and shown on maps;
- Sums of ratios (SORs) and summary statistics for accelerated action characterization data;
- Evaluation of historical and accelerated action characterization data greater than wildlife refuge worker (WRW) action levels (ALs);
- Remedial action objectives and accelerated action goals;
- Description of accelerated action remediation and map of remediated areas, including excavation boundaries and confirmation sampling results;
- Description of current site conditions, including residual soil contamination;
- Subsurface Soil Risk Screen (SSRS) and stewardship evaluation;
- Deviations from the ER RSOP;
- Table of no longer representative (NLR) sampling locations;
- Disposition of waste and site reclamation;
- Data Quality Assessment (DQA);
- Conclusions and reasons supporting a No Further Accelerated Action (NFAA) determination for IHSS Group 700-3;
- References, correspondence and contact records, and project photographs; and
- A compact disc (CD) containing the accelerated action data set for the project. The data are divided into two files, one containing real data and one containing quality control (QC) data, and are presented in a standardized format.

Approval of this Closeout Report constitutes regulatory agency concurrence with the NFAA designation proposed for the IHSS Group 700-3 sites addressed in this volume (UBCs 776, 777 and 778 and OPWL Tank T-18). Accelerated action activities and the NFAA determination will be documented in the 2005 Annual Update of the Historical Release Report (HRR). This Closeout Report and associated documentation will be retained in the RFETS Administrative Record (AR).

2.0 SITE CHARACTERIZATION

IHSS Group 700-3 characterization information consists of historical knowledge and analytical data. Historical information for the IHSS Group was derived from previous studies (DOE 1992-2004, 1994, 2000, 2001, 2003a) and is summarized in Section 2.1. Soils associated with UBCs 776, 777 and 778, and Tank 18 were not sampled and analyzed prior to the accelerated action, and therefore, there are no historical data. Accelerated action characterization data for soils associated with UBCs 776, 777 and 778, and Tank 18 are summarized in Section 2.2. A CD that contains the accelerated action data set, including real and QC data, is enclosed with this report.

2.1 Historical Information

Historical information on the four sites addressed in this Closeout Report is presented below.

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Draft Closeout Report for IHSS Group 700-3, Volume II

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 777	CG46-001	2084012.15	750628.80	2084014.960	750625.830	Surface soil Subsurface soil	1.2 - 1.7 1.7 - 2.2	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG46-002	2084079.73	750653.65	2084079.230	750655.650	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.6	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location consisting of fill material with no fines; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG46-003	2084067.46	750582.70	2084065.870	750586.750	Surface soil	2.0 - 2.5	Radionuclides, VOCs	Statistical location; actual coordinates estimated based on field measurements. Sampled fill; only collected from one interval; no native soil encountered. Did not analyze for metals.
UBC 777	CG46-004	2084135.04	750607.55	2084142.990	750611.430	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.5	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG46-008	2084001.80	750650.41	2084006.220	750648.450	Surface soil Subsurface soil	0.8 - 1.3 1.3 - 1.8	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL; moved 2 ft south and 4 ft east to sample target. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG46-034	NA/added	NA/added	2083972.614	750661.089	Subsurface soil	5.0 - 6.0	Radionuclides	Biased location to target OPWL. Partial recovery because of sampling refusal.
UBC 777	CG46-035	NA/added	NA/added	2083951.845	750648.280	Subsurface soil	5.0 - 6.0	Radionuclides	Biased location to target OPWL. Partial recovery because of sampling refusal.
UBC 777	CG46-036	NA/added	NA/added	2083969.300	750648.038	Subsurface soil	5.0 - 5.3	Radionuclides	Biased location to target OPWL. Grab sample collected.
UBC 777	CG46-037	NA/added	NA/added	2083969.3	750648.038	Subsurface soil	5.0 - 6.0	Radionuclides	Biased location to target OPWL. Partial recovery because of sampling refusal.

Draft Closeout Report for IHSS Group 700-3, Volume II

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 778	CH44-000	2084208.85	750302.51	2084208.850	750302.510	Surface soil Subsurface soil	0.0 - 0.5 1.2 - 1.7	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; no significant change in location. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 778	CH44-001	2084163.26	750289.74	2084163.260	750289.740	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL; no significant change in location. No change in media or analytes.
UBC 777	CH45-000	2084141.12	750485.05	2084148.650	750481.340	Surface soil Subsurface soil	0.0 - 0.5 1.0 - 1.5	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend; moved 4 ft south and 8 ft east to sample target. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CH45-150	NA/added	NA/added	2084139.641	750489.597	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CH45-151	NA/added	NA/added	2084139.626	750539.575	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CH46-004	2084154.14	750658.23	2084156.360	750652.050	Surface soil	0.7 - 1.2	Radionuclides, Metals	Biased location to target OPWL & NPWL; moved 6 ft south and 2 ft east to sample target. No change in analytes. Large rock prevented sampling of second interval.
UBC 777	CH46-063	NA/added	NA/added	2084152.363	750639.539	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
NA	CD45-007	NA	NA	2083502.341	750539.544	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
NA	CD45-008	NA	NA	2083502.311	750489.645	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
NA	CD45-009	NA	NA	2083502.393	750439.587	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
NA	CD45-010	NA	NA	2083502.469	750389.649	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
NA	CD46-002	NA	NA	2083502.408	750689.476	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
NA	CD46-004	NA	NA	2083502.411	750589.580	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
NA	CE45-112	NA	NA	2083552.367	750539.558	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.

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Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
NA	CE45-113	NA	NA	2083602.372	750539.480	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
UBC 776	CE45-114	NA	NA	2083652.288	750539.515	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE45-094.
UBC 776	CE45-115	NA	NA	2083702.400	750539.514	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE45-098.
NA	CE45-116	NA	NA	2083552.319	750489.551	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
NA	CE45-117	NA	NA	2083602.317	750489.482	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
UBC 776	CE45-118	NA	NA	2083652.478	750489.490	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE45-093.
UBC 776	CE45-119	NA	NA	2083702.414	750489.526	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE45-097.
NA	CE45-120	NA	NA	2083552.313	750439.492	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
NA	CE45-121	NA	NA	2083602.476	750439.595	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
UBC 776	CE45-122	NA	NA	2083652.323	750439.524	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE45-092.
UBC 776	CE45-123	NA	NA	2083702.311	750439.585	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE45-096 and CE45-123A.
NA	CE45-124	NA	NA	2083552.444	750389.621	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
NA	CE45-125	NA	NA	2083602.386	750389.460	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
UBC 776	CE45-126	NA	NA	2083652.296	750389.553	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE45-091.
UBC 776	CE45-127	NA	NA	2083702.434	750389.593	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE45-095 and CE45-127A.
UBC 776	CE45-128	NA	NA	2083639.213	750371.779	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location
UBC 778	CE45-134	NA	NA	2083710.846	750331.106	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778.
NA	CE46-081	NA	NA	2083552.467	750689.546	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location north of UBC 776.

Preliminary Review Draft for Interagency Discussion/Not Issued for Public Comment

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
NA	CE46-082	NA	NA	2083602.429	750689.475	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location north of UBC 776.
NA	CE46-083	NA	NA	2083652.362	750689.563	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location north of UBC 776.
NA	CE46-084	NA	NA	2083702.319	750689.458	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location north of UBC 776.
NA	CE46-085	NA	NA	2083552.425	750639.480	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
NA	CE46-086	NA	NA	2083602.321	750639.562	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
UBC 776	CE46-087	NA	NA	2083652.310	750639.527	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE46-068.
UBC 776	CE46-088	NA	NA	2083702.342	750639.528	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE46-070.
NA	CE46-089	NA	NA	2083552.305	750589.576	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
NA	CE46-090	NA	NA	2083602.367	750589.515	Surface soil	0.0 - 0.3	Radionuclides	Confirmation location west of UBC 776.
UBC 776	CE46-091	NA	NA	2083652.374	750589.460	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE46-067.
UBC 776	CE46-092	NA	NA	2083702.347	750589.508	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CE46-069.
UBC 778	CF44-031	NA	NA	2083711.228	750292.541	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778.
UBC 778	CF44-032	NA	NA	2083751.523	750288.591	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778.
UBC 778	CF44-033	NA	NA	2083801.173	750284.378	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778.
UBC 778	CF44-034	NA	NA	2083850.947	750282.247	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778.
UBC 777	CF45-106	NA	NA					Radionuclides	Confirmation sampling location. Grab sample collected.
UBC 776	CF45-107	NA	NA	2083752.315	750489.665	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location. Grab sample collected.

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 776	CF45-108	NA	NA	2083752.567	750539.479	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location. Grab sample collected.
UBC 776	CF45-109	NA	NA	2083802.422	750389.546	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location. Grab sample collected.
UBC 776	CF45-110	NA	NA	2083802.444	750439.581	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location. Grab sample collected.
UBC 776	CF45-111	NA	NA	2083802.43	750489.507	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location. Grab sample collected.
UBC 776	CF45-112	NA	NA	2083802.272	750539.500	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location. Grab sample collected.
UBC 776	CF45-113	NA	NA	2083852.495	750389.563	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location. Grab sample collected.
UBC 776	CF45-114	NA	NA	2083852.386	750439.595	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location. Grab sample collected.
UBC 776	CF45-116	NA	NA	2083852.442	750539.571	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location. Grab sample collected.
UBC 776	CF45-117	NA	NA	2083902.489	750389.546	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location originally sampled as CF45-117A.
UBC 777	CF45-118	NA	NA	2083902.430	750439.564	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CF45-118A & B.
UBC 777	CF45-119	NA	NA	2083902.349	750489.620	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location. Grab sample collected.
UBC 777	CF45-120	NA	NA	2083902.507	750539.607	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location. Grab sample collected.
UBC 776	CF45-173	NA	NA	2083752.51	750389.529	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location originally sampled as CF45-105.
UBC 776	CF45-174	NA	NA	2083863.288	750561.584	Subsurface soil	0.0 - 4.5	Radionuclides	Confirmation sampling location in OPWL excavation (southern sidewall). Composite sample.
UBC 778	CF45-175	NA	NA	2083751.813	750328.357	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778.
UBC 778	CF45-177	NA	NA	2083850.899	750335.732	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778.

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Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 777	CF45-178	NA	NA	2083901.201	750425.253	Surface soil	2.0 - 2.3	Radionuclides	Confirmation sampling location; center of hot spot by CF45-118.
UBC 777	CF45-179	NA	NA	2083862.915	750427.535	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location; outside of hot spot excavation by CF45-118.
UBC 777	CF45-180	NA	NA	2083922.117	750423.273	Surface soil	0.0 - 2.0	Radionuclides	Confirmation sampling location; eastern sidewall of hot spot excavation by CF45-118.
UBC 777	CF45-181	NA	NA	2083899.575	750413.149	Surface soil	0.0 - 2.0	Radionuclides	Confirmation sampling location; southern sidewall of hot spot excavation by CF45-118.
UBC 777	CF45-182	NA	NA	2083879.844	750427.841	Surface soil	0.0 - 2.0	Radionuclides	Confirmation sampling location; western sidewall of hot spot excavation by CF45-118.
UBC 776	CF46-054	NA	NA	2083752.366	750589.507	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location.
UBC 776	CF46-055	NA	NA	2083802.278	750589.516	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location.
UBC 776	CF46-056	NA	NA	2083852.426	750589.539	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location.
UBC 777	CF46-057	NA	NA	2083902.37	750589.557	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location.
UBC 777	CF46-058	NA	NA	2083914.228	750639.611	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location.
UBC 776	CF46-080	NA	NA	2083868.082	750576.013	Subsurface soil	4.5 - 4.7	Radionuclides	Confirmation sampling location in OPWL excavation (bottom).
UBC 776	CF46-081	NA	NA	2083874.525	750601.857	Subsurface soil	4.5 - 4.7	Radionuclides	Confirmation sampling location in OPWL excavation (bottom).
NA	CF46-083	NA	NA	2083802.291	750639.691	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location north of B776 footprint
NA	CF46-084	NA	NA	2083852.438	750639.612	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location north of B776 footprint
NA	CF46-085	NA	NA	2083878.956	750624.258	Subsurface soil	0.0 - 4.5	Radionuclides	Confirmation sampling location in OPWL excavation (northern sidewall).
UBC 776	CF46-086	NA	NA	2083880.961	750592.486	Subsurface soil	0.0 - 4.5	Radionuclides	Confirmation sampling location in OPWL excavation (eastern sidewall).
UBC 776	CF46-087	NA	NA	2083865.353	750596.976	Subsurface soil	0.0 - 4.5	Radionuclides	Confirmation sampling location in OPWL excavation (western sidewall).
UBC 778	CG44-016	NA	NA	2083909.885	750287.795	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778.

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Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 778	CG44-017	NA	NA	2083957.095	750297.456	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778 originally sampled as CG44-017A..
NA	CG44-018	NA	NA					Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778.
UBC 777	CG45-016	NA	NA	2083952.419	750389.563	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location originally sampled as CG45-016A.
UBC 777	CG45-017	NA	NA	2083952.425	750439.563	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location originally sampled as CG45-017A.
UBC 777	CG45-018	NA	NA	2083952.385	750489.536	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location.
UBC 777	CG45-019	NA	NA	2083952.292	750539.525	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location.
UBC 777	CG45-020	NA	NA	2084002.451	750389.523	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location originally sampled as CG45-020A.
UBC 777	CG45-021	NA	NA	2084002.461	750439.569	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CG45-021A.
UBC 779	CG45-023	NA	NA	2084002.356	750539.650	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location.
UBC 777	CG45-024	NA	NA	2084052.409	750389.431	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location originally sampled as CG45-024A.
UBC 777	CG45-025	NA	NA	2084052.384	750439.501	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location originally sampled as CG45-025A.
UBC 777	CG45-026	NA	NA	2084052.427	750489.556	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location.
UBC 777	CG45-028	NA	NA	2084102.380	750389.533	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location originally sampled as CG45-028A.
UBC 777	CG45-029	NA	NA	2084102.357	750439.668	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location.
UBC 777	CG45-030	NA	NA	2084102.402	750489.535	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location originally sampled as CG45-030A.
NA	CG45-041	NA	NA	2083903.138	750340.074	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778 originally sampled as CG45-041A.
NA	CG45-042	NA	NA	2083954.794	750343.350	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778.

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NA	CG45-043	NA	NA	2084002.744	750345.192	Surface soil	0.0 - 0.5	Radionuclides	Confirmation sampling location; southern grid between Bldgs 776 and 778.
NA	CG45-045	NA	NA	2084112.4	750494.259	Surface soil	0.0 - 1.0	Radionuclides	Confirmation sampling location; northern sidewall of southwestern excavation.
NA	CG45-046	NA	NA	2084098	750466.355	Surface soil	0.0 - 2.5	Radionuclides	Confirmation sampling location; western sidewall of southwestern excavation.
NA	CG45-047	NA	NA	2084117.91	750463.693	Surface soil	0.0 - 2.5	Radionuclides	Confirmation sampling location; eastern sidewall of southwestern excavation.
NA	CG45-048	NA	NA	2084102.31	750432.345	Surface soil	0.0 - 2.5	Radionuclides	Confirmation sampling location; southern sidewall of southwestern excavation.
UBC 777	CG46-027	NA	NA	2083952.39	750639.486	Subsurface	0.0 - 0.5	Radionuclides	Confirmation sampling location.
UBC 777	CH45-148	NA	NA	2084139.196	750389.538	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location.
UBC 777	CH45-149	NA	NA	2084139.6	750439.54	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location.
UBC 777	CH45-150	NA	NA	2084139.641	750489.597	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CH45-150B.
UBC 777	CH45-151	NA	NA	2084139.626	750539.575	Surface soil	0.0 - 0.3	Radionuclides	Confirmation sampling location originally sampled as CH45-151B.
UBC 778	CH46-062	NA	NA	2084152.47	750589.511	Subsurface	0.0 - 0.5	Radionuclides	Confirmation sampling location.

Table 3
Sampling and Analysis Summary for UBCs 776, 777 and 778, and Tank 18

Category	Actual Total
Number of Sampling Locations	259
Number of Samples	330
Number of Radionuclide Analyses	352
Number of Metal Analyses	136
Number of Volatile Organic Compound (VOC) Analyses	76

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Table 4
Accelerated Action Soil Characterization Data for UBCs 776, 777 and 778, and Tank 18

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CE44-004	750294.710	2083637.470	1.9	2.4	Chromium	17.000	-	16.990	268	mg/kg
CE44-004	750294.710	2083637.470	1.9	2.4	Cobalt	25.000	-	10.910	1550	mg/kg
CE44-004	750294.710	2083637.470	1.9	2.4	Copper	63.000	-	18.060	40900	mg/kg
CE44-004	750294.710	2083637.470	1.9	2.4	Tin	6.100	-	2.900	613000	mg/kg
CE44-004	750294.710	2083637.470	1.9	2.4	Uranium-234	3.974	-	2.253	300	pCi/g
CE44-004	750294.710	2083637.470	1.9	2.4	Uranium-235	0.178	-	0.094	8	pCi/g
CE44-004	750294.710	2083637.470	1.9	2.4	Uranium-238	3.974	-	2.000	351	pCi/g
CE44-004	750294.710	2083637.470	2.4	3.4	Uranium-235	0.242	-	0.120	8	pCi/g
CE44-005	750316.560	2083705.050	1.4	1.9	Uranium-235	0.178	-	0.094	8	pCi/g
CE44-006	750341.820	2083680.180	0.0	0.5	Manganese	660.000	-	365.080	3480	mg/kg
CE44-006	750341.820	2083680.180	0.0	0.5	Uranium-234	4.469	-	2.253	300	pCi/g
CE44-006	750341.820	2083680.180	0.0	0.5	Uranium-235	0.337	-	0.094	8	pCi/g
CE44-006	750341.820	2083680.180	0.0	0.5	Uranium-238	4.469	-	2.000	351	pCi/g
CE44-006	750341.820	2083680.180	0.5	2.5	Uranium-234	5.367	-	2.640	300	pCi/g
CE44-006	750341.820	2083680.180	0.5	2.5	Uranium-235	0.354	-	0.120	8	pCi/g
CE44-006	750341.820	2083680.180	0.5	2.5	Uranium-238	5.367	-	1.490	351	pCi/g
CE44-007	750324.890	2083680.180	1.4	1.9	Aluminum	21000.000	-	16902.000	228000	mg/kg
CE44-007	750324.890	2083680.180	1.4	1.9	Chromium	29.000	-	16.990	268	mg/kg
CE44-007	750324.890	2083680.180	1.4	1.9	Lithium	15.000	-	11.550	20400	mg/kg
CE44-007	750324.890	2083680.180	1.4	1.9	Nickel	22.000	-	14.910	20400	mg/kg
CE44-007	750324.890	2083680.180	1.9	2.4	Acetone	5.900	5.200	-	102000000	ug/kg
CE44-007	750324.890	2083680.180	1.9	2.4	Methylene chloride	1.500	0.910	-	2530000	ug/kg
CE44-007	750324.890	2083680.180	1.9	2.4	Uranium, Total	3.100	-	3.040	2750	mg/kg
CE44-008	750307.970	2083680.180	1.4	1.9	Aluminum	17000.000	-	16902.000	228000	mg/kg
CE44-008	750307.970	2083680.180	1.4	1.9	Lithium	13.000	-	11.550	20400	mg/kg
CE44-008	750307.970	2083680.180	1.4	1.9	Uranium-235	0.136	-	0.094	8	pCi/g
CE44-008	750307.970	2083680.180	1.9	2.2	Uranium-235	0.158	-	0.120	8	pCi/g
CE44-009	750307.970	2083663.260	0.0	0.5	Chromium	26.000	-	16.990	268	mg/kg
CE44-009	750307.970	2083663.260	0.0	0.5	Cobalt	17.000	-	10.910	1550	mg/kg

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CE44-009	750307.970	2083663.260	0.0	0.5	Copper	34.000	-	18.060	40900	mg/kg
CE44-009	750307.970	2083663.260	0.0	0.5	Nickel	17.000	-	14.910	20400	mg/kg
CE44-009	750307.970	2083663.260	0.0	0.5	Uranium-234	6.053	-	2.253	300	pCi/g
CE44-009	750307.970	2083663.260	0.0	0.5	Uranium-235	0.285	-	0.094	8	pCi/g
CE44-009	750307.970	2083663.260	0.0	0.5	Uranium-238	6.053	-	2.000	351	pCi/g
CE44-009	750307.970	2083663.260	1.2	1.6	Uranium-234	4.677	-	2.640	300	pCi/g
CE44-009	750307.970	2083663.260	1.2	1.6	Uranium-235	0.183	-	0.120	8	pCi/g
CE44-009	750307.970	2083663.260	1.2	1.6	Uranium-238	4.677	-	1.490	351	pCi/g
CE44-010	750323.590	2083663.260	1.3	1.8	Lithium	12.000	-	11.550	20400	mg/kg
CE44-010	750323.590	2083663.260	1.3	1.8	Uranium-235	0.144	-	0.094	8	pCi/g
CE44-010	750323.590	2083663.260	1.8	2.3	1,2,4-Trichlorobenzene	1.100	0.780	-	9230000	ug/kg
CE44-010	750323.590	2083663.260	1.8	2.3	Acetone	5.600	5.100	-	102000000	ug/kg
CE44-010	750323.590	2083663.260	1.8	2.3	Methylene chloride	1.400	0.880	-	2530000	ug/kg
CE44-010	750323.590	2083663.260	1.8	2.3	Naphthalene	2.500	0.950	-	3090000	ug/kg
CE44-010	750323.590	2083663.260	1.8	2.3	Uranium-235	0.173	-	0.120	8	pCi/g
CE44-011	744307.970	2083634.610	1.0	1.5	Copper	22.000	-	18.060	40900	mg/kg
CE44-011	744307.970	2083634.610	1.0	1.5	Lithium	12.000	-	11.550	20400	mg/kg
CE44-011	744307.970	2083634.610	1.0	1.5	Uranium-234	4.702	-	2.253	300	pCi/g
CE44-011	744307.970	2083634.610	1.0	1.5	Uranium-235	0.259	-	0.094	8	pCi/g
CE44-011	744307.970	2083634.610	1.0	1.5	Uranium-238	4.702	-	2.000	351	pCi/g
CE44-011	744307.970	2083634.610	1.0	1.5	Zinc	190.000	-	73.760	307000	mg/kg
CE44-011	744307.970	2083634.610	1.5	2.0	Uranium-234	4.837	-	2.640	300	pCi/g
CE44-011	744307.970	2083634.610	1.5	2.0	Uranium-235	0.263	-	0.120	8	pCi/g
CE44-011	744307.970	2083634.610	1.5	2.0	Uranium-238	4.837	-	1.490	351	pCi/g
CE44-040	750345.119	2083682.779	10.0	10.5	Americium-241	2.800	-	0.020	76	pCi/g
CE44-040	750345.119	2083682.779	10.0	10.5	Plutonium-239/240	13.900	-	0.020	50	pCi/g
CE44-040	750345.119	2083682.779	10.0	10.5	Uranium-234	16.400	-	2.640	300	pCi/g
CE44-040	750345.119	2083682.779	10.0	10.5	Uranium-235	0.887	-	0.120	8	pCi/g
CE44-040	750345.119	2083682.779	10.0	10.5	Uranium-238	61.400	-	1.490	351	pCi/g
CE44-041	750302.546	2083633.562	6.0	6.3	Uranium-234	4.942	-	2.640	300	pCi/g
CE44-041	750302.546	2083633.562	6.0	6.3	Uranium-235	0.188	-	0.120	8	pCi/g

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW/AL	Unit
CE44-041	750302.546	2083633.562	6.0	6.3	Uranium-238	4.942	-	1.490	351	pCi/g
CE44-042	750293.096	2083693.984	10.0	10.3	Uranium-235	0.143	-	0.120	8	pCi/g
CE44-042	750293.096	2083693.984	10.0	10.3	Uranium-238	2.209	-	1.490	351	pCi/g
CE44-043	750363.411	2083713.877	3.0	3.3	Americium-241	0.305	-	0.020	76	pCi/g
CE44-043	750363.411	2083713.877	3.0	3.3	Plutonium-239/240	1.840	-	0.020	50	pCi/g
CE44-044	750370.546	2083713.877	0.0	3.0	Americium-241	0.239	-	0.020	76	pCi/g
CE44-044	750370.546	2083713.877	0.0	3.0	Plutonium-239/240	0.822	-	0.020	50	pCi/g
CE44-045	750355.372	2083713.884	0.0	0.3	Americium-241	1.130	-	0.023	76	pCi/g
CE44-045	750355.372	2083713.884	0.0	0.3	Plutonium-239/240	2.650	-	0.066	50	pCi/g
CE44-046	750361.958	2083717.821	0.0	0.3	Americium-241	29.200	-	0.023	76	pCi/g
CE44-046	750361.958	2083717.821	0.0	0.3	Plutonium-239/240	34.700	-	0.066	50	pCi/g
CE44-047	750363.838	2083710.091	0.0	0.3	Americium-241	1.150	-	0.023	76	pCi/g
CE44-047	750363.838	2083710.091	0.0	0.3	Plutonium-239/240	3.950	-	0.066	50	pCi/g
CE44-047	750366.039	2083607.368	4.5	5.0	Uranium-235	0.140	-	0.120	8	pCi/g
CE44-049	750366.039	2083607.368	4.5	5.0	Uranium-238	4.552	-	1.490	351	pCi/g
CE45-018	750517.330	2083674.060	0.7	1.2	Aluminum	28000.000	-	16902.000	228000	mg/kg
CE45-018	750517.330	2083674.060	0.7	1.2	Beryllium	1.300	-	0.966	921	mg/kg
CE45-018	750517.330	2083674.060	0.7	1.2	Chromium	21.000	-	16.990	268	mg/kg
CE45-018	750517.330	2083674.060	0.7	1.2	Cobalt	12.000	-	10.910	1550	mg/kg
CE45-018	750517.330	2083674.060	0.7	1.2	Iron	19000.000	-	18037.000	307000	mg/kg
CE45-018	750517.330	2083674.060	0.7	1.2	Lead	79.000	-	54.620	1000	mg/kg
CE45-018	750517.330	2083674.060	0.7	1.2	Lithium	14.000	-	11.550	20400	mg/kg
CE45-018	750517.330	2083674.060	0.7	1.2	Nickel	20.000	-	14.910	20400	mg/kg
CE45-018	750517.330	2083674.060	0.7	1.2	Uranium-234	3.380	-	2.253	300	pCi/g
CE45-018	750517.330	2083674.060	0.7	1.2	Uranium-235	0.223	-	0.094	8	pCi/g
CE45-018	750517.330	2083674.060	0.7	1.2	Uranium-238	3.380	-	2.000	351	pCi/g
CE45-018	750517.330	2083674.060	0.7	1.2	Vanadium	47.000	-	45.590	7150	mg/kg
CE45-018	750517.330	2083674.060	1.2	1.5	Uranium-234	4.010	-	2.640	300	pCi/g
CE45-018	750517.330	2083674.060	1.2	1.5	Uranium-235	0.230	-	0.120	8	pCi/g

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW/AL	Unit
CE45-018	750517.330	2083674.060	1.2	1.5	Uranium-238	4.010	-	1.490	351	pCi/g
CE45-018	750517.330	2083674.060	1.2	1.5	Xylene	12.400	10.900	-	2040000	ug/kg
CE45-019	750438.660	2083674.060	0.5	1.0	Aluminum	18000.000	-	16902.000	228000	mg/kg
CE45-019	750438.660	2083674.060	0.5	1.0	Chromium	17.000	-	16.990	268	mg/kg
CE45-019	750438.660	2083674.060	0.5	1.0	Cobalt	25.000	-	10.910	1550	mg/kg
CE45-019	750438.660	2083674.060	0.5	1.0	Copper	66.000	-	18.060	40900	mg/kg
CE45-019	750438.660	2083674.060	0.5	1.0	Lithium	13.000	-	11.550	20400	mg/kg
CE45-019	750438.660	2083674.060	1.0	1.3	Acetone	14.000	5.400	-	102000000	ug/kg
CE45-019	750438.660	2083674.060	1.0	1.3	Methylene chloride	1.300	0.930	-	2530000	ug/kg
CE45-019	750438.660	2083674.060	1.0	1.3	Uranium-235	0.126	-	0.120	8	pCi/g
CE45-020	750470.540	2083724.450	0.0	0.5	Copper	19.000	-	18.060	40900	mg/kg
CE45-020	750470.540	2083724.450	0.0	0.5	Uranium-234	3.401	-	2.253	300	pCi/g
CE45-020	750470.540	2083724.450	0.0	0.5	Uranium-235	0.193	-	0.094	8	pCi/g
CE45-020	750470.540	2083724.450	0.0	0.5	Uranium-238	3.401	-	2.000	351	pCi/g
CE45-020	750470.540	2083724.450	0.5	2.5	Tetrachloroethene	13.300	5.110	-	615000	ug/kg
CE45-020	750470.540	2083724.450	0.5	2.5	Uranium-238	1.928	-	1.490	351	pCi/g
CE45-021	750390.840	2083702.340	0.5	1.0	Chromium	20.000	-	16.990	268	mg/kg
CE45-021	750390.840	2083702.340	0.5	1.0	Copper	24.000	-	18.060	40900	mg/kg
CE45-021	750390.840	2083702.340	0.5	1.0	Uranium-234	5.213	-	2.253	300	pCi/g
CE45-021	750390.840	2083702.340	0.5	1.0	Uranium-235	0.262	-	0.094	8	pCi/g
CE45-021	750390.840	2083702.340	0.5	1.0	Uranium-238	5.213	-	2.000	351	pCi/g
CE45-021	750390.840	2083702.340	1.0	1.5	Uranium-234	4.171	-	2.640	300	pCi/g
CE45-021	750390.840	2083702.340	1.0	1.5	Uranium-235	0.273	-	0.120	8	pCi/g
CE45-021	750390.840	2083702.340	1.0	1.5	Uranium-238	4.171	-	1.490	351	pCi/g
CE45-022	750447.410	2083685.370	0.6	1.1	Cobalt	14.000	-	10.910	1550	mg/kg
CE45-022	750447.410	2083685.370	0.6	1.1	Copper	43.000	-	18.060	40900	mg/kg
CE45-022	750447.410	2083685.370	0.6	1.1	Uranium-234	3.814	-	2.253	300	pCi/g
CE45-022	750447.410	2083685.370	0.6	1.1	Uranium-235	0.198	-	0.094	8	pCi/g
CE45-022	750447.410	2083685.370	0.6	1.1	Uranium-238	3.814	-	2.000	351	pCi/g
CE45-022	750447.410	2083685.370	1.1	1.4	Ethylbenzene	17.600	5.390	-	4250000	ug/kg
CE45-022	750447.410	2083685.370	1.1	1.4	Toluene	7.520	5.390	-	31300000	ug/kg

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW/AL	Unit
CE45-022	750447.410	2083685.370	1.1	1.4	Uranium-234	4.443	-	2.640	300	pCi/g
CE45-022	750447.410	2083685.370	1.1	1.4	Uranium-235	0.261	-	0.120	8	pCi/g
CE45-022	750447.410	2083685.370	1.1	1.4	Uranium-238	4.443	-	1.490	351	pCi/g
CE45-022	750447.410	2083685.370	1.1	1.4	Xylene	111.000	10.800	-	2040000	ug/kg
CE45-023	750477.230	2083670.460	0.6	1.1	Cobalt	13.000	-	10.910	1550	mg/kg
CE45-023	750477.230	2083670.460	0.6	1.1	Copper	32.000	-	18.060	40900	mg/kg
CE45-023	750477.230	2083670.460	0.6	1.1	Uranium-234	4.047	-	2.253	300	pCi/g
CE45-023	750477.230	2083670.460	0.6	1.1	Uranium-235	0.227	-	0.094	8	pCi/g
CE45-023	750477.230	2083670.460	0.6	1.1	Uranium-238	4.047	-	2.000	351	pCi/g
CE45-023	750477.230	2083670.460	1.1	1.6	Uranium-234	4.460	-	2.640	300	pCi/g
CE45-023	750477.230	2083670.460	1.1	1.6	Uranium-235	0.191	-	0.120	8	pCi/g
CE45-023	750477.230	2083670.460	1.1	1.6	Uranium-238	4.460	-	1.490	351	pCi/g
CE45-024	750375.420	2083675.600	0.5	1.0	Copper	25.000	-	18.060	40900	mg/kg
CE45-024	750375.420	2083675.600	0.5	1.0	Uranium-234	5.381	-	2.253	300	pCi/g
CE45-024	750375.420	2083675.600	0.5	1.0	Uranium-235	0.138	-	0.094	8	pCi/g
CE45-024	750375.420	2083675.600	0.5	1.0	Uranium-238	5.381	-	2.000	351	pCi/g
CE45-024	750375.420	2083675.600	1.0	1.5	Uranium-234	4.512	-	2.640	300	pCi/g
CE45-024	750375.420	2083675.600	1.0	1.5	Uranium-235	0.139	-	0.120	8	pCi/g
CE45-024	750375.420	2083675.600	1.0	1.5	Uranium-238	4.512	-	1.490	351	pCi/g
CE45-091	750389.512	2083652.384	0.0	0.3	Americium-241	49.650	-	0.023	76	pCi/g
CE45-091	750389.512	2083652.384	0.0	0.3	Plutonium-239/240	283.005	-	0.066	50	pCi/g
CE45-092	750439.545	2083652.388	0.0	0.3	Americium-241	138.900	-	0.023	76	pCi/g
CE45-092	750439.545	2083652.388	0.0	0.3	Plutonium-239/240	791.730	-	0.066	50	pCi/g
CE45-092	750439.545	2083652.388	0.0	0.3	Uranium-235	0.133	-	0.094	8	pCi/g
CE45-093	750489.542	2083652.413	0.0	0.3	Americium-241	63.430	-	0.023	76	pCi/g
CE45-093	750489.542	2083652.413	0.0	0.3	Plutonium-239/240	361.551	-	0.066	50	pCi/g
CE45-093	750489.542	2083652.413	0.0	0.3	Uranium-235	0.119	-	0.094	8	pCi/g
CE45-094	750539.519	2083652.374	0.0	0.3	Americium-241	50.190	-	0.023	76	pCi/g
CE45-094	750539.519	2083652.374	0.0	0.3	Plutonium-239/240	286.083	-	0.066	50	pCi/g
CE45-095	750389.575	2083702.430	0.0	0.3	Americium-241	168.200	-	0.023	76	pCi/g
CE45-095	750389.575	2083702.430	0.0	0.3	Plutonium-239/240	958.740	-	0.066	50	pCi/g

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CE45-096	750439.573	2083702.364	0.0	0.3	Americium-241	266.300	-	0.023	76	pCi/g
CE45-096	750439.573	2083702.364	0.0	0.3	Plutonium-239/240	1517.910	-	0.066	50	pCi/g
CE45-096	750439.573	2083702.364	0.0	0.3	Uranium-234	2.529	-	2.253	300	pCi/g
CE45-096	750439.573	2083702.364	0.0	0.3	Uranium-238	2.529	-	2.000	351	pCi/g
CE45-097	750489.572	2083702.373	0.0	0.3	Americium-241	91.120	-	0.023	76	pCi/g
CE45-097	750489.572	2083702.373	0.0	0.3	Plutonium-239/240	519.384	-	0.066	50	pCi/g
CE45-098	750539.585	2083702.407	0.0	0.3	Americium-241	13.900	-	0.023	76	pCi/g
CE45-098	750539.585	2083702.407	0.0	0.3	Plutonium-239/240	66.600	-	0.066	50	pCi/g
CE45-103	750470.426	2083724.329	3.5	3.8	Americium-241	1.130	-	0.020	76	pCi/g
CE45-103	750470.426	2083724.329	3.5	3.8	Plutonium-239/240	6.270	-	0.020	50	pCi/g
CE45-106	750485.814	2083731.422	4.5	5.0	Americium-241	0.144	-	0.020	76	pCi/g
CE45-106	750485.814	2083731.422	4.5	5.0	Plutonium-239/240	0.726	-	0.020	50	pCi/g
CE45-123	750439.585	2083702.311	0.0	0.3	Americium-241	48.900	-	0.023	76	pCi/g
CE45-123	750439.585	2083702.311	0.0	0.3	Plutonium-239/240	278.730	-	0.066	50	pCi/g
CE45-123	750439.585	2083702.311	0.0	0.3	Uranium-235	0.165	-	0.094	8	pCi/g
CE45-127	750389.593	2083702.434	0.0	0.3	Americium-241	9.885	-	0.023	76	pCi/g
CE45-127	750389.593	2083702.434	0.0	0.3	Plutonium-239/240	56.345	-	0.066	50	pCi/g
CE45-127	750389.593	2083702.434	0.0	0.3	Uranium-235	0.155	-	0.094	8	pCi/g
CE45-129	750478.414	2083598.551	5.0	5.5	Americium-241	0.123	-	0.020	76	pCi/g
CE45-129	750478.414	2083598.551	5.0	5.5	Plutonium-239/240	0.314	-	0.020	50	pCi/g
CE45-130	750443.316	2083604.521	4.5	5.0	Uranium-235	0.181	-	0.120	8	pCi/g
CE46-000	750570.670	2083675.520	0.0	0.5	Barium	342.000	-	141.260	26400	mg/kg
CE46-000	750570.670	2083675.520	0.0	0.5	Chromium	33.900	-	16.990	268	mg/kg
CE46-000	750570.670	2083675.520	0.0	0.5	Copper	43.700	-	18.060	40900	mg/kg
CE46-000	750570.670	2083675.520	0.0	0.5	Iron	26800.000	-	18037.000	307000	mg/kg
CE46-000	750570.670	2083675.520	0.0	0.5	Nickel	29.700	-	14.910	20400	mg/kg
CE46-000	750570.670	2083675.520	0.0	0.5	Strontium	101.000	-	48.940	613000	mg/kg
CE46-000	750570.670	2083675.520	0.0	0.5	Uranium-235	0.150	-	0.094	8	pCi/g
CE46-000	750570.670	2083675.520	0.0	0.5	Vanadium	156.000	-	45.590	7150	mg/kg
CE46-000	750570.670	2083675.520	0.0	0.5	Zinc	81.300	-	73.760	307000	mg/kg
CE46-000	750570.670	2083675.520	0.5	1.5	Barium	424.000	-	289.380	26400	mg/kg

Location	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CE46-000	750570.670	2083675.520	0.5	1.5	Copper	51.500	-	38.210	40900	mg/kg
CE46-000	750570.670	2083675.520	0.5	1.5	Uranium-234	2.700	-	2.640	300	pCi/g
CE46-000	750570.670	2083675.520	0.5	1.5	Uranium-235	0.350	-	0.120	8	pCi/g
CE46-000	750570.670	2083675.520	0.5	1.5	Uranium-238	2.700	-	1.490	351	pCi/g
CE46-000	750570.670	2083675.520	0.5	1.5	Vanadium	147.000	-	88.490	7150	mg/kg
CE46-009	750625.310	2083631.380	0.5	1.0	Cobalt	16.000	-	10.910	1550	mg/kg
CE46-009	750625.310	2083631.380	0.5	1.0	Copper	45.000	-	18.060	40900	mg/kg
CE46-009	750625.310	2083631.380	0.5	1.0	Uranium-235	0.106	-	0.094	8	pCi/g
CE46-009	750625.310	2083631.380	1.0	1.5	Uranium-234	3.616	-	2.640	300	pCi/g
CE46-009	750625.310	2083631.380	1.0	1.5	Uranium-235	0.181	-	0.120	8	pCi/g
CE46-009	750625.310	2083631.380	1.0	1.5	Uranium-238	3.616	-	1.490	351	pCi/g
CE46-068	750639.560	2083652.383	0.0	0.3	Americium-241	2.211	-	0.023	76	pCi/g
CE46-068	750639.560	2083652.383	0.0	0.3	Plutonium-239/240	12.603	-	0.066	50	pCi/g
CE46-073	750647.909	2083694.074	0.0	0.3	Americium-241	1.479	-	0.023	76	pCi/g
CE46-073	750647.909	2083694.074	0.0	0.3	Plutonium-239/240	8.430	-	0.066	50	pCi/g
CE46-073	750647.909	2083694.074	0.0	0.3	Uranium-235	0.133	-	0.094	8	pCi/g
CE46-073	750647.909	2083694.074	9.0	9.5	Americium-241	11.670	-	0.020	76	pCi/g
CE46-073	750647.909	2083694.074	9.0	9.5	Plutonium-239/240	66.519	-	0.020	50	pCi/g
CE46-073	750647.909	2083694.074	9.0	9.5	Uranium-235	0.220	-	0.120	8	pCi/g
CE46-074	750642.909	2083694.074	0.0	0.3	Americium-241	3.688	-	0.023	76	pCi/g
CE46-074	750642.909	2083694.074	0.0	0.3	Plutonium-239/240	21.022	-	0.066	50	pCi/g
CE46-074	750642.909	2083694.074	0.0	0.3	Uranium-235	0.182	-	0.094	8	pCi/g
CE46-074	750642.909	2083694.074	9.0	9.5	Americium-241	9.133	-	0.020	76	pCi/g
CE46-074	750642.909	2083694.074	9.0	9.5	Plutonium-239/240	52.058	-	0.020	50	pCi/g
CE46-074	750642.909	2083694.074	9.0	9.5	Uranium-234	5.282	-	2.640	300	pCi/g
CE46-074	750642.909	2083694.074	9.0	9.5	Uranium-238	5.282	-	1.490	351	pCi/g
CE46-075	750651.468	2083701.518	9.0	9.5	Americium-241	150.300	-	0.020	76	pCi/g
CE46-075	750651.468	2083701.518	9.0	9.5	Plutonium-239/240	856.710	-	0.020	50	pCi/g
CE46-075	750651.468	2083701.518	9.0	9.5	Uranium-235	0.287	-	0.120	8	pCi/g
CE46-076	750639.668	2083696.801	9.0	9.5	Americium-241	50.640	-	0.020	76	pCi/g

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CE46-076	750639.668	2083696.801	9.0	9.5	Plutonium-239/240	288.648	-	0.020	50	pCi/g
CE46-077	750629.388	2083699.821	9.0	9.5	Americium-241	43.400	-	0.020	76	pCi/g
CE46-077	750629.388	2083699.821	9.0	9.5	Plutonium-239/240	247.380	-	0.020	50	pCi/g
CE46-077	750629.388	2083699.821	9.0	9.5	Uranium-235	0.304	-	0.120	8	pCi/g
CE46-078	750460.165	2083690.943	2.5	2.7	Americium-241	2.245	-	0.020	76	pCi/g
CE46-078	750460.165	2083690.943	2.5	2.7	Plutonium-239/240	12.797	-	0.020	50	pCi/g
CE46-078	750460.165	2083690.943	2.5	2.7	Uranium-235	0.208	-	0.120	8	pCi/g
CE46-079	750483.218	2083675.650	2.5	2.7	Americium-241	8.291	-	0.020	76	pCi/g
CE46-079	750483.218	2083675.650	2.5	2.7	Plutonium-239/240	47.259	-	0.020	50	pCi/g
CE46-079	750483.218	2083675.650	2.5	2.7	Uranium-235	0.184	-	0.120	8	pCi/g
CE46-080	750630.080	2083725.240	1.0	1.2	Americium-241	8.738	-	0.020	76	pCi/g
CE46-080	750630.080	2083725.240	1.0	1.2	Plutonium-239/240	49.807	-	0.020	50	pCi/g
CF44-012	750295.310	2083827.930	0.6	1.1	Copper	95.000	-	18.060	40900	mg/kg
CF44-012	750295.310	2083827.930	0.6	1.1	Uranium-234	3.057	-	2.253	300	pCi/g
CF44-012	750295.310	2083827.930	0.6	1.1	Uranium-235	0.184	-	0.094	8	pCi/g
CF44-012	750295.310	2083827.930	0.6	1.1	Uranium-238	3.057	-	2.000	351	pCi/g
CF44-012	750295.310	2083827.930	1.1	1.6	Copper	45.000	-	38.210	40900	mg/kg
CF44-012	750295.310	2083827.930	1.1	1.6	Uranium-234	3.642	-	2.640	300	pCi/g
CF44-012	750295.310	2083827.930	1.1	1.6	Uranium-238	3.642	-	1.490	351	pCi/g
CF44-013	750320.160	2083895.510	0.6	1.1	Chromium	27.000	-	16.990	268	mg/kg
CF44-013	750320.160	2083895.510	0.6	1.1	Cobalt	11.000	-	10.910	1550	mg/kg
CF44-013	750320.160	2083895.510	0.6	1.1	Iron	21000.000	-	18037.000	307000	mg/kg
CF44-013	750320.160	2083895.510	0.6	1.1	Lithium	18.000	-	11.550	20400	mg/kg
CF44-013	750320.160	2083895.510	0.6	1.1	Manganese	370.000	-	365.080	3480	mg/kg
CF44-013	750320.160	2083895.510	0.6	1.1	Nickel	18.000	-	14.910	20400	mg/kg
CF44-013	750320.160	2083895.510	0.6	1.1	Uranium-234	5.792	-	2.253	300	pCi/g
CF44-013	750320.160	2083895.510	0.6	1.1	Uranium-235	0.247	-	0.094	8	pCi/g
CF44-013	750320.160	2083895.510	0.6	1.1	Uranium-238	5.792	-	2.000	351	pCi/g
CF44-013	750320.160	2083895.510	1.1	1.8	Uranium-238	2.282	-	1.490	351	pCi/g
CF45-002	750547.000	2083892.060	0.3	0.8	1,1-Dichloroethene	25.000	6.700	-	17000	ug/kg

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CF45-002	750547.000	2083892.060	0.3	0.8	Barium	449.000	-	141.260	26400	mg/kg
CF45-002	750547.000	2083892.060	0.3	0.8	Copper	27.500	-	18.060	40900	mg/kg
CF45-002	750547.000	2083892.060	0.3	0.8	Iron	18400.000	-	18037.000	307000	mg/kg
CF45-002	750547.000	2083892.060	0.3	0.8	Nickel	25.000	-	14.910	20400	mg/kg
CF45-002	750547.000	2083892.060	0.3	0.8	Strontium	95.600	-	48.940	613000	mg/kg
CF45-002	750547.000	2083892.060	0.3	0.8	Uranium-234	5.300	-	2.253	300	pCi/g
CF45-002	750547.000	2083892.060	0.3	0.8	Uranium-238	5.300	-	2.000	351	pCi/g
CF45-002	750547.000	2083892.060	0.3	0.8	Vanadium	144.000	-	45.590	7150	mg/kg
CF45-002	750547.000	2083892.060	0.8	2.8	1,1-Dichloroethene	24.000	6.100	-	17000	ug/kg
CF45-002	750547.000	2083892.060	0.8	2.8	Barium	460.000	-	289.380	26400	mg/kg
CF45-002	750547.000	2083892.060	0.8	2.8	Copper	65.800	-	38.210	40900	mg/kg
CF45-002	750547.000	2083892.060	0.8	2.8	Uranium-234	4.400	-	2.640	300	pCi/g
CF45-002	750547.000	2083892.060	0.8	2.8	Uranium-235	0.220	-	0.120	8	pCi/g
CF45-002	750547.000	2083892.060	0.8	2.8	Uranium-238	4.400	-	1.490	351	pCi/g
CF45-002	750547.000	2083892.060	0.8	2.8	Vanadium	107.000	-	88.490	7150	mg/kg
CF45-003	750543.220	2083879.010	0.3	0.8	1,1-Dichloroethene	70.000	6.200	-	17000	ug/kg
CF45-003	750543.220	2083879.010	0.3	0.8	Barium	557.000	-	141.260	26400	mg/kg
CF45-003	750543.220	2083879.010	0.3	0.8	Copper	31.700	-	18.060	40900	mg/kg
CF45-003	750543.220	2083879.010	0.3	0.8	Iron	19400.000	-	18037.000	307000	mg/kg
CF45-003	750543.220	2083879.010	0.3	0.8	Nickel	22.700	-	14.910	20400	mg/kg
CF45-003	750543.220	2083879.010	0.3	0.8	Strontium	118.000	-	48.940	613000	mg/kg
CF45-003	750543.220	2083879.010	0.3	0.8	Uranium-234	4.100	-	2.253	300	pCi/g
CF45-003	750543.220	2083879.010	0.3	0.8	Uranium-235	0.150	-	0.094	8	pCi/g
CF45-003	750543.220	2083879.010	0.3	0.8	Uranium-238	4.100	-	2.000	351	pCi/g
CF45-003	750543.220	2083879.010	0.3	0.8	Vanadium	82.400	-	45.590	7150	mg/kg
CF45-003	750543.220	2083879.010	0.8	1.8	1,1-Dichloroethene	110.000	6.200	-	17000	ug/kg
CF45-003	750543.220	2083879.010	0.8	1.8	Barium	503.000	-	289.380	26400	mg/kg
CF45-003	750543.220	2083879.010	0.8	1.8	Uranium-234	4.200	-	2.640	300	pCi/g
CF45-003	750543.220	2083879.010	0.8	1.8	Uranium-235	0.170	-	0.120	8	pCi/g
CF45-003	750543.220	2083879.010	0.8	1.8	Uranium-238	4.200	-	1.490	351	pCi/g
CF45-003	750543.220	2083879.010	0.8	1.8	Vanadium	92.300	-	88.490	7150	mg/kg

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CF45-006	750540.500	2083733.350	0.6	1.1	Aluminum	19000.000	-	16902.000	228000	mg/kg
CF45-006	750540.500	2083733.350	0.6	1.1	Chromium	26.000	-	16.990	268	mg/kg
CF45-006	750540.500	2083733.350	0.6	1.1	Lithium	13.000	-	11.550	20400	mg/kg
CF45-006	750540.500	2083733.350	0.6	1.1	Nickel	21.000	-	14.910	20400	mg/kg
CF45-006	750540.500	2083733.350	0.6	1.1	Uranium-234	4.065	-	2.253	300	pCi/g
CF45-006	750540.500	2083733.350	0.6	1.1	Uranium-235	0.200	-	0.094	8	pCi/g
CF45-006	750540.500	2083733.350	0.6	1.1	Uranium-238	4.065	-	2.000	351	pCi/g
CF45-007	750547.670	2083811.860	0.8	1.3	Aluminum	26000.000	-	16902.000	228000	mg/kg
CF45-007	750547.670	2083811.860	0.8	1.3	Beryllium	0.980	-	0.966	921	mg/kg
CF45-007	750547.670	2083811.860	0.8	1.3	Chromium	32.000	-	16.990	268	mg/kg
CF45-007	750547.670	2083811.860	0.8	1.3	Cobalt	17.000	-	10.910	1550	mg/kg
CF45-007	750547.670	2083811.860	0.8	1.3	Copper	47.000	-	18.060	40900	mg/kg
CF45-007	750547.670	2083811.860	0.8	1.3	Lithium	18.000	-	11.550	20400	mg/kg
CF45-007	750547.670	2083811.860	0.8	1.3	Nickel	24.000	-	14.910	20400	mg/kg
CF45-007	750547.670	2083811.860	0.8	1.3	Uranium-234	4.526	-	2.253	300	pCi/g
CF45-007	750547.670	2083811.860	0.8	1.3	Uranium-235	0.206	-	0.094	8	pCi/g
CF45-007	750547.670	2083811.860	0.8	1.3	Uranium-238	4.526	-	2.000	351	pCi/g
CF45-007	750547.670	2083811.860	0.8	1.3	Vanadium	51.000	-	45.590	7150	mg/kg
CF45-007	750547.670	2083811.860	1.3	2.1	Uranium-234	4.516	-	2.640	300	pCi/g
CF45-007	750547.670	2083811.860	1.3	2.1	Uranium-235	0.190	-	0.120	8	pCi/g
CF45-007	750547.670	2083811.860	1.3	2.1	Uranium-238	4.516	-	1.490	351	pCi/g
CF45-008	750487.510	2083800.030	1.0	1.5	Cobalt	11.000	-	10.910	1550	mg/kg
CF45-008	750487.510	2083800.030	1.0	1.5	Copper	36.000	-	18.060	40900	mg/kg
CF45-008	750487.510	2083800.030	1.5	3.5	Uranium-234	3.390	-	2.640	300	pCi/g
CF45-008	750487.510	2083800.030	1.5	3.5	Uranium-235	0.173	-	0.120	8	pCi/g
CF45-008	750487.510	2083800.030	1.5	3.5	Uranium-238	3.390	-	1.490	351	pCi/g
CF45-009	750497.800	2083870.990	1.1	1.6	Cobalt	21.000	-	10.910	1550	mg/kg
CF45-009	750497.800	2083870.990	1.1	1.6	Copper	67.000	-	18.060	40900	mg/kg
CF45-009	750497.800	2083870.990	1.1	1.6	Uranium-235	0.145	-	0.094	8	pCi/g
CF45-009	750497.800	2083870.990	1.1	1.6	Uranium-238	2.115	-	2.000	351	pCi/g
CF45-009	750497.800	2083870.990	1.6	1.9	Copper	41.000	-	38.210	40900	mg/kg

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CF45-009	750497.800	2083870.990	1.6	1.9	Uranium-235	0.133	-	0.120	8	pCi/g
CF45-010	750520.420	2083934.750	2.2	2.7	Copper	25.000	-	18.060	40900	mg/kg
CF45-010	750520.420	2083934.750	2.2	2.7	Uranium-234	3.975	-	2.253	300	pCi/g
CF45-010	750520.420	2083934.750	2.2	2.7	Uranium-235	0.217	-	0.094	8	pCi/g
CF45-010	750520.420	2083934.750	2.2	2.7	Uranium-238	3.975	-	2.000	351	pCi/g
CF45-011	750410.380	2083790.260	0.6	1.1	Aluminum	24000.000	-	16902.000	228000	mg/kg
CF45-011	750410.380	2083790.260	0.6	1.1	Beryllium	1.000	-	0.966	921	mg/kg
CF45-011	750410.380	2083790.260	0.6	1.1	Chromium	22.000	-	16.990	268	mg/kg
CF45-011	750410.380	2083790.260	0.6	1.1	Cobalt	11.000	-	10.910	1550	mg/kg
CF45-011	750410.380	2083790.260	0.6	1.1	Copper	25.000	-	18.060	40900	mg/kg
CF45-011	750410.380	2083790.260	0.6	1.1	Lithium	16.000	-	11.550	20400	mg/kg
CF45-011	750410.380	2083790.260	0.6	1.1	Nickel	18.000	-	14.910	20400	mg/kg
CF45-011	750410.380	2083790.260	0.6	1.1	Uranium-234	5.045	-	2.253	300	pCi/g
CF45-011	750410.380	2083790.260	0.6	1.1	Uranium-235	0.241	-	0.094	8	pCi/g
CF45-011	750410.380	2083790.260	0.6	1.1	Uranium-238	5.045	-	2.000	351	pCi/g
CF45-011	750410.380	2083790.260	1.1	1.4	Aluminum	45000.000	-	35373.170	228000	mg/kg
CF45-011	750410.380	2083790.260	1.1	1.4	Uranium-234	5.015	-	2.640	300	pCi/g
CF45-011	750410.380	2083790.260	1.1	1.4	Uranium-235	0.212	-	0.120	8	pCi/g
CF45-011	750410.380	2083790.260	1.1	1.4	Uranium-238	5.015	-	1.490	351	pCi/g
CF45-012	750439.180	2083851.450	0.6	1.1	Chromium	27.000	-	16.990	268	mg/kg
CF45-012	750439.180	2083851.450	0.6	1.1	Nickel	15.000	-	14.910	20400	mg/kg
CF45-012	750439.180	2083851.450	1.1	1.4	Acetone	7.400	5.000	-	102000000	ug/kg
CF45-012	750439.180	2083851.450	1.1	1.4	Methylene chloride	1.400	0.860	-	2530000	ug/kg
CF45-013	750455.630	2083923.440	0.7	1.2	Chromium	23.000	-	16.990	268	mg/kg
CF45-013	750455.630	2083923.440	0.7	1.2	Cobalt	24.000	-	10.910	1550	mg/kg
CF45-013	750455.630	2083923.440	0.7	1.2	Copper	62.000	-	18.060	40900	mg/kg
CF45-013	750455.630	2083923.440	0.7	1.2	Lithium	12.000	-	11.550	20400	mg/kg
CF45-013	750455.630	2083923.440	0.7	1.2	Nickel	16.000	-	14.910	20400	mg/kg
CF45-013	750455.630	2083923.440	0.7	1.2	Uranium-234	5.468	-	2.253	300	pCi/g
CF45-013	750455.630	2083923.440	0.7	1.2	Uranium-235	0.251	-	0.094	8	pCi/g
CF45-013	750455.630	2083923.440	0.7	1.2	Uranium-238	5.468	-	2.000	351	pCi/g

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
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CF45-013	750455.630	2083923.440	1.2	1.6	Uranium-234	4.683	-	2.640	300	pCi/g
CF45-013	750455.630	2083923.440	1.2	1.6	Uranium-235	0.258	-	0.120	8	pCi/g
CF45-013	750455.630	2083923.440	1.2	1.6	Uranium-238	4.683	-	1.490	351	pCi/g
CF45-014	750390.840	2083914.180	0.6	1.1	Chromium	20.000	-	16.990	268	mg/kg
CF45-014	750390.840	2083914.180	0.6	1.1	Cobalt	13.000	-	10.910	1550	mg/kg
CF45-014	750390.840	2083914.180	0.6	1.1	Copper	30.000	-	18.060	40900	mg/kg
CF45-014	750390.840	2083914.180	0.6	1.1	Uranium-235	0.249	-	0.094	8	pCi/g
CF45-015	750558.503	2083771.669	2.0	2.3	Americium-241	5.234	-	0.023	76	pCi/g
CF45-015	750558.503	2083771.669	2.0	2.3	Arsenic	20.000	-	10.090	22.2	mg/kg
CF45-015	750558.503	2083771.669	2.0	2.3	Barium	790.000	-	141.260	26400	mg/kg
CF45-015	750558.503	2083771.669	2.0	2.3	Chromium	28.000	-	16.990	268	mg/kg
CF45-015	750558.503	2083771.669	2.0	2.3	Copper	58.200	-	18.060	40900	mg/kg
CF45-015	750558.503	2083771.669	2.0	2.3	Iron	44200.000	-	18037.000	307000	mg/kg
CF45-015	750558.503	2083771.669	2.0	2.3	Manganese	835.000	-	365.080	3480	mg/kg
CF45-015	750558.503	2083771.669	2.0	2.3	Nickel	55.500	-	14.910	20400	mg/kg
CF45-015	750558.503	2083771.669	2.0	2.3	Plutonium-239/240	29.834	-	0.066	50	pCi/g
CF45-015	750558.503	2083771.669	2.0	2.3	Strontium	264.000	-	48.940	613000	mg/kg
CF45-015	750558.503	2083771.669	2.0	2.3	Tin	7.000	-	2.900	613000	mg/kg
CF45-015	750558.503	2083771.669	2.0	2.3	Vanadium	113.000	-	45.590	7150	mg/kg
CF45-015	750558.503	2083771.669	2.0	2.3	Zinc	106.000	-	73.760	307000	mg/kg
CF45-015	750558.503	2083771.669	3.0	3.3	Arsenic	21.600	-	13.140	22.2	mg/kg
CF45-015	750558.503	2083771.669	3.0	3.3	Barium	641.000	-	289.380	26400	mg/kg
CF45-015	750558.503	2083771.669	3.0	3.3	Copper	56.500	-	38.210	40900	mg/kg
CF45-015	750558.503	2083771.669	3.0	3.3	Iron	45800.000	-	41046.520	307000	mg/kg
CF45-015	750558.503	2083771.669	3.0	3.3	Manganese	1310.000	-	901.620	3480	mg/kg
CF45-015	750558.503	2083771.669	3.0	3.3	Nickel	63.700	-	62.210	20400	mg/kg
CF45-015	750558.503	2083771.669	3.0	3.3	Uranium-235	0.147	-	0.120	8	pCi/g
CF45-015	750558.503	2083771.669	3.0	3.3	Uranium-238	1.863	-	1.490	351	pCi/g
CF45-015	750558.503	2083771.669	3.0	3.3	Vanadium	111.000	-	88.490	7150	mg/kg
CF45-016	750534.300	2083766.100	0.0	0.5	Cobalt	19.000	-	10.910	1550	mg/kg
CF45-016	750534.300	2083766.100	0.0	0.5	Copper	55.000	-	18.060	40900	mg/kg

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CF45-016	750534.300	2083766.100	0.0	0.5	Uranium-234	2.993	-	2.253	300	pCi/g
CF45-016	750534.300	2083766.100	0.0	0.5	Uranium-235	0.177	-	0.094	8	pCi/g
CF45-016	750534.300	2083766.100	0.0	0.5	Uranium-238	2.993	-	2.000	351	pCi/g
CF45-016	750534.300	2083766.100	0.5	1.4	Copper	52.000	-	38.210	40900	mg/kg
CF45-016	750534.300	2083766.100	0.5	1.4	Uranium-235	0.162	-	0.120	8	pCi/g
CF45-016	750534.300	2083766.100	0.5	1.4	Uranium-238	1.690	-	1.490	351	pCi/g
CF45-018	750447.410	2083873.050	0.0	0.5	Chromium	20.000	-	16.990	268	mg/kg
CF45-018	750447.410	2083873.050	0.0	0.5	Cobalt	17.000	-	10.910	1550	mg/kg
CF45-018	750447.410	2083873.050	0.0	0.5	Copper	44.000	-	18.060	40900	mg/kg
CF45-018	750447.410	2083873.050	0.0	0.5	Lithium	13.000	-	11.550	20400	mg/kg
CF45-018	750447.410	2083873.050	0.0	0.5	Nickel	15.000	-	14.910	20400	mg/kg
CF45-018	750447.410	2083873.050	0.0	0.5	Uranium-234	4.145	-	2.253	300	pCi/g
CF45-018	750447.410	2083873.050	0.0	0.5	Uranium-235	0.227	-	0.094	8	pCi/g
CF45-018	750447.410	2083873.050	0.0	0.5	Uranium-238	4.145	-	2.000	351	pCi/g
CF45-018	750447.410	2083873.050	0.5	0.8	Lead	34.000	-	24.970	1000	mg/kg
CF45-018	750447.410	2083873.050	0.5	0.8	Uranium-234	4.355	-	2.640	300	pCi/g
CF45-018	750447.410	2083873.050	0.5	0.8	Uranium-235	0.203	-	0.120	8	pCi/g
CF45-018	750447.410	2083873.050	0.5	0.8	Uranium-238	4.355	-	1.490	351	pCi/g
CF45-019	750447.920	2083783.580	0.9	1.4	Aluminum	33000.000	-	16902.000	228000	mg/kg
CF45-019	750447.920	2083783.580	0.9	1.4	Beryllium	1.200	-	0.966	921	mg/kg
CF45-019	750447.920	2083783.580	0.9	1.4	Chromium	26.000	-	16.990	268	mg/kg
CF45-019	750447.920	2083783.580	0.9	1.4	Iron	19000.000	-	18037.000	307000	mg/kg
CF45-019	750447.920	2083783.580	0.9	1.4	Lithium	17.000	-	11.550	20400	mg/kg
CF45-019	750447.920	2083783.580	0.9	1.4	Nickel	18.000	-	14.910	20400	mg/kg
CF45-019	750447.920	2083783.580	0.9	1.4	Uranium-234	3.342	-	2.253	300	pCi/g
CF45-019	750447.920	2083783.580	0.9	1.4	Uranium-238	3.342	-	2.000	351	pCi/g
CF45-019	750447.920	2083783.580	0.9	1.4	Vanadium	48.000	-	45.590	7150	mg/kg
CF45-020	750447.410	2083742.440	0.6	1.1	Chromium	20.000	-	16.990	268	mg/kg
CF45-020	750447.410	2083742.440	0.6	1.1	Cobalt	12.000	-	10.910	1550	mg/kg
CF45-020	750447.410	2083742.440	0.6	1.1	Copper	32.000	-	18.060	40900	mg/kg
CF45-020	750447.410	2083742.440	0.6	1.1	Uranium-234	3.071	-	2.253	300	pCi/g

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CF45-020	750447.410	2083742.440	0.6	1.1	Uranium-238	3.071	-	2.000	351	pCi/g
CF45-020	750447.410	2083742.440	1.1	1.5	Arsenic	14.000	-	13.140	22.2	mg/kg
CF45-021	750490.103	2083733.707	2.0	2.3	Americium-241	301.300	-	0.023	76	pCi/g
CF45-021	750490.103	2083733.707	2.0	2.3	Arsenic	22.200	-	10.090	22.2	mg/kg
CF45-021	750490.103	2083733.707	2.0	2.3	Barium	651.000	-	141.260	26400	mg/kg
CF45-021	750490.103	2083733.707	2.0	2.3	Chromium	43.500	-	16.990	268	mg/kg
CF45-021	750490.103	2083733.707	2.0	2.3	Copper	63.800	-	18.060	40900	mg/kg
CF45-021	750490.103	2083733.707	2.0	2.3	Iron	29600.000	-	18037.000	307000	mg/kg
CF45-021	750490.103	2083733.707	2.0	2.3	Nickel	39.800	-	14.910	20400	mg/kg
<i>CF45-021</i>	<i>750490.103</i>	<i>2083733.707</i>	<i>2.0</i>	<i>2.3</i>	<i>Plutonium-239/240</i>	<i>1717.410</i>	-	<i>0.066</i>	<i>50</i>	<i>pCi/g</i>
CF45-021	750490.103	2083733.707	2.0	2.3	Strontium	559.000	-	48.940	613000	mg/kg
CF45-021	750490.103	2083733.707	2.0	2.3	Tin	6.600	-	2.900	613000	mg/kg
CF45-021	750490.103	2083733.707	2.0	2.3	Vanadium	115.000	-	45.590	7150	mg/kg
CF45-021	750490.103	2083733.707	2.0	2.3	Zinc	153.000	-	73.760	307000	mg/kg
CF45-021	750490.103	2083733.707	3.0	3.3	Americium-241	14.130	-	0.020	76	pCi/g
CF45-021	750490.103	2083733.707	3.0	3.3	Barium	547.000	-	289.380	26400	mg/kg
CF45-021	750490.103	2083733.707	3.0	3.3	Copper	89.400	-	38.210	40900	mg/kg
<i>CF45-021</i>	<i>750490.103</i>	<i>2083733.707</i>	<i>3.0</i>	<i>3.3</i>	<i>Plutonium-239/240</i>	<i>80.541</i>	-	<i>0.020</i>	<i>50</i>	<i>pCi/g</i>
CF45-021	750490.103	2083733.707	3.0	3.3	Strontium	225.000	-	211.380	613000	mg/kg
CF45-021	750490.103	2083733.707	3.0	3.3	Uranium-235	0.148	-	0.120	8	pCi/g
CF45-023	750508.080	2083775.870	0.7	1.2	Chromium	34.000	-	16.990	268	mg/kg
CF45-023	750508.080	2083775.870	0.7	1.2	Copper	34.000	-	18.060	40900	mg/kg
CF45-023	750508.080	2083775.870	0.7	1.2	Nickel	37.000	-	14.910	20400	mg/kg
<i>CF45-023</i>	<i>750508.080</i>	<i>2083775.870</i>	<i>0.7</i>	<i>1.2</i>	<i>Uranium-234</i>	<i>2.338</i>	-	<i>2.253</i>	<i>300</i>	<i>pCi/g</i>
CF45-023	750508.080	2083775.870	0.7	1.2	Uranium-238	2.338	-	2.000	351	pCi/g
<i>CF45-023</i>	<i>750508.080</i>	<i>2083775.870</i>	<i>1.2</i>	<i>1.6</i>	<i>Uranium-234</i>	<i>3.976</i>	-	<i>2.640</i>	<i>300</i>	<i>pCi/g</i>
CF45-023	750508.080	2083775.870	1.2	1.6	Uranium-235	0.223	-	0.120	8	pCi/g
CF45-023	750508.080	2083775.870	1.2	1.6	Uranium-238	3.976	-	1.490	351	pCi/g
CF45-023	750508.080	2083775.870	1.2	1.6	Xylene	14.100	11.600	-	2040000	ug/kg
CF45-024	750510.402	2083899.375	0.0	0.5	Americium-241	3.286	-	0.023	76	pCi/g
<i>CF45-024</i>	<i>750510.402</i>	<i>2083899.375</i>	<i>0.0</i>	<i>0.5</i>	<i>Plutonium-239/240</i>	<i>18.730</i>	-	<i>0.066</i>	<i>50</i>	<i>pCi/g</i>

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW/AL	Unit
CF45-024	750510.402	2083899.375	0.0	0.5	Uranium-235	0.168	-	0.094	8	pCi/g
CF45-024	750510.402	2083899.375	0.5	1.0	Americium-241	3.790	-	0.020	76	pCi/g
CF45-024	750510.402	2083899.375	0.5	1.0	Plutonium-239/240	21.603	-	0.020	50	pCi/g
CF45-024	750510.402	2083899.375	0.5	1.0	Uranium-235	0.166	-	0.120	8	pCi/g
CF45-105	750389.556	2083752.385	0.0	0.3	Americium-241	5.220	-	0.023	76	pCi/g
CF45-105	750389.556	2083752.385	0.0	0.3	Plutonium-239/240	21.500	-	0.066	50	pCi/g
CF45-117	750389.546	2083902.489	0.0	0.3	Americium-241	3.290	-	0.023	76	pCi/g
CF45-117	750389.546	2083902.489	0.0	0.3	Plutonium-239/240	18.753	-	0.066	50	pCi/g
CF45-117	750389.546	2083902.489	0.0	0.3	Uranium-235	0.189	-	0.094	8	pCi/g
CF45-117	750389.546	2083902.489	0.0	0.3	Uranium-238	2.103	-	2.000	351	pCi/g
CF45-118	750439.588	2083902.429	0.0	0.3	Americium-241	18.530	-	0.023	76	pCi/g
CF45-118	750439.588	2083902.429	0.0	0.3	Plutonium-239/240	105.621	-	0.066	50	pCi/g
CF45-118	750439.588	2083902.429	0.0	0.3	Uranium-235	0.145	-	0.094	8	pCi/g
CF45-122	750495.846	2083771.887	9.5	10.0	Americium-241	1239.000	-	0.020	76	pCi/g
CF45-122	750495.846	2083771.887	9.5	10.0	Plutonium-239/240	7062.300	-	0.020	50	pCi/g
CF45-123	750488.610	2083903.048	12.0	12.5	Americium-241	2.336	-	0.020	76	pCi/g
CF45-123	750488.610	2083903.048	12.0	12.5	Plutonium-239/240	13.315	-	0.020	50	pCi/g
CF45-126	750512.700	2083903.000	12.0	12.3	Americium-241	3.506	-	0.020	76	pCi/g
CF45-126	750512.700	2083903.000	12.0	12.3	Plutonium-239/240	19.984	-	0.020	50	pCi/g
CF45-126	750512.700	2083903.000	12.0	12.3	Uranium-234	4.356	-	2.640	300	pCi/g
CF45-126	750512.700	2083903.000	12.0	12.3	Uranium-235	0.335	-	0.120	8	pCi/g
CF45-126	750512.700	2083903.000	12.0	12.3	Uranium-238	4.356	-	1.490	351	pCi/g
CF45-127	750478.903	2083780.271	15.0	16.0	Americium-241	0.407	-	0.020	76	pCi/g
CF45-127	750478.903	2083780.271	15.0	16.0	Plutonium-239/240	2.322	-	0.020	50	pCi/g
CF45-127	750478.903	2083780.271	15.0	16.0	Uranium-235	0.229	-	0.120	8	pCi/g
CF45-127	750478.903	2083780.271	15.0	16.0	Uranium-238	1.684	-	1.490	351	pCi/g
CF45-128	750517.639	2083782.057	15.0	16.0	Americium-241	73.270	-	0.020	76	pCi/g
CF45-128	750517.639	2083782.057	15.0	16.0	Plutonium-239/240	417.639	-	0.020	50	pCi/g
CF45-128	750517.639	2083782.057	15.0	16.0	Uranium-235	0.163	-	0.120	8	pCi/g
CF45-129	750465.916	2083779.673	3.0	15.0	Americium-241	15.850	-	0.020	76	pCi/g
CF45-129	750465.916	2083779.673	3.0	15.0	Plutonium-239/240	90.345	-	0.020	50	pCi/g

UBC 776 - Original Plutonium Foundry, and UBC 777 - General Pu Research and Development

Building 776/777, which went into service in 1958, was the main manufacturing facility for plutonium weapons components and housed plutonium foundry and fabrication operations. Following a major fire in Building 776/777 in 1969, the majority of the foundry and fabrication operations were transferred to Building 707. After the fire, the main focus of building operations was shifted to waste and residue handling, disassembly of retrieved weapons components, and special projects. Processes conducted in Building 776 included size reduction of contaminated gloveboxes and miscellaneous large equipment for waste disposal, pyrochemistry, coatings operations, and test runs of a fluidized-bed incinerator. Since the facility was first occupied, ten major modification additions were made to update the building and/or provide increased safety.

On May 11, 1969, at 2:27 p.m., there was a fire started in Building 776 north plutonium foundry glovebox line as a result of spontaneous ignition of a briquette of scrap plutonium alloy metal. The fire spread through up to 150 connecting gloveboxes in Building 776 and the assembly line in Building 777. The fire was brought under control by 6:30 p.m. Fearing a breach in the building's outer walls, firefighters used water to control the blaze. This was the first time water was used directly on burning plutonium, and it did not create a nuclear criticality.

An airborne plutonium release of approximately 0.000012 gram (0.0002 curie) was estimated, all of it contained onsite. The operating areas in Building 776/777 suffered extensive damage and decontamination took two years to complete. The incident resulted in significant safety improvements in glovebox operations, including installation of water sprinklers and firewalls to control the spread of fire, and the use of inert atmospheres for plutonium operations to prevent spontaneous ignition.

UBC 778 - Plant Laundry Facility

Building 778 was a metal building, located between Building 707 and Building 776/777. It was constructed in 1957 as a support facility for the 700 Complex plutonium production buildings. The building provided all-weather access to Buildings 707 and 776/777 through two enclosed corridors. It also contained a portion of the chainveyor that was used to transport material between production areas in Buildings 707 and 776/777. In addition, the building housed the maintenance shops (electric, machine, sheet metal, paint, and pipe shops) and the locker/shower facilities for those buildings. A laundry facility was added to the building when plutonium laundry operations were consolidated on site. Laundry wastewater was sent to Building 774 and later to Building 374.

OPWL (IHSS 000-121), including Tank T-18 – Concrete Laundry Waste Lift Sump

The Tank 18 sump was located at the west end of Building 778 where the laundry was located (DOE 2005a). Laundry wastewater was sent to Building 774, and later to Building 374, via the tank sump. It is not known whether the tank sump leaked. The tank sump was removed prior to building demolition.

2.2 Accelerated Action Characterization Soil Data

Based on historical information, initial accelerated action characterization needs were identified in IASAP Addendum #IA-03-04 (DOE 2003a), including potential contaminants of concern (PCOCs) and areas requiring characterization. Five locations where spills are known to have occurred were also sampled (in November 2002 and May 2003) prior to the issuance of the IASAP Addendum (May 2003). In addition, characterization sampling locations were added throughout the accelerated action.

Accelerated action characterization samples were collected and analyzed in accordance with the IASAP Addendum. Project sampling and analysis specifications, including media sampled, depth intervals, and analytes (PCOCs), are presented in Table 2. This includes characterization and confirmation (post-soil removal) sampling and analysis. Deviations from the IASAP Addendum are also presented and explained in Table 2. A summary of all project sampling and analysis (characterization and confirmation) is presented in Table 3.

Characterization sampling locations and analytical results for UBCs 776, 777 and 778, and Tank 18 are presented on Figures 2 and 3 and in Table 4. Only results greater than background means plus two standard deviations or reporting limits (RLs) are shown. WRW AL exceedances are shown in bold in Table 4 and in red on Figures 2 and 3. Plutonium-239/240 and uranium-234 activities based on high-purity germanium (HPGe) results (derived from americium-241 and uranium-238 gamma spectroscopy results, respectively) are shown in Table 4 in italics. All project data, retrieved from the RFETS Soil Water Database (SWD) on August 9, 2005, are provided on the enclosed CD. The CD contains standardized real and QC data (Chemical Abstracts Service [CAS] numbers, analyte names, and units).

Characterization data indicated americium-241 and plutonium-239/240 activities were greater than RFCA WRW soil ALs (DOE et al. 2003) at several surface and subsurface locations. All metal and volatile organic compound (VOC) concentrations were less than WRW soil ALs.

An additional sample, collected at Sampling Location CF46-079 (north of UBC 776), indicated that metal concentrations at all intervals were all less than WRW soil ALs, including chromium concentrations. This location is a little east of Sampling Location CF 46-027, where the subsurface chromium concentration exceeded the AL; the detected concentration at 4.5 - 6.5 feet (ft) below ground surface (bgs) was 11,000 mg/kg, and the AL is 268 mg/kg, as noted in the IHSS Group Closeout Report, Volume I (DOE 2005b). However, based on the additional data and the consultative process, the area of the exceedance is not large to be of concern.

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Table 2
Sampling and Analysis Specifications for UBCs 776, 777 and 778, and Tank 18, and
Deviations from IASAP Addendum #IA-03-04

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 778	CE44-004	2083637.47	750291.71	2083637.470	750294.710	Surface soil Subsurface soil	1.9 - 2.4 2.4 - 3.4	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 778	CE44-005	2083705.05	750316.56	2083705.050	750316.560	Surface soil Subsurface soil	1.4 - 1.9 1.9 - 2.4	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 778	CE44-006	2083680.18	750341.82	2083680.180	750341.820	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL, NPWL and Tank 18; actual coordinates estimated based on field measurements. No change in media or analytes.
UBC 778	CE44-007	2083680.18	750324.89	2083680.180	750324.890	Surface soil Subsurface soil	1.4 - 1.9 1.9 - 2.4	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 778	CE44-008	2083680.18	750307.97	2083680.180	750307.970	Surface soil Subsurface soil	1.4 - 1.9 1.9 - 2.2	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend; moved 15 ft. north per CDPHE after concrete was encountered. No change in media or analytes. Grab sample collected from second interval.
UBC 778	CE44-009	2083663.26	750307.97	2083663.260	750307.970	Surface soil Subsurface soil	0.0 - 0.5 1.2 - 1.6	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target NPWL/OPWL intersection; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 778	CE44-010	2083663.26	750323.59	2083663.260	750323.590	Surface soil Subsurface soil	1.3 - 1.8 1.8 - 2.3	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target NPWL; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.

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Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 778	CE44-011	2083634.61	750307.97	2083634.610	750313.970	Surface soil Subsurface soil	1.0 - 1.5 1.5 - 2.0	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target NPWL/OPWL intersection; moved 6 ft. north to avoid thick concrete. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 778	CE44-040	NA/added	NA/added	2083682.779	750345.119	Subsurface soil	10.0 - 10.5	Radionuclides	Biased sampling location to target UBC.
UBC 778	CE44-041	NA/added	NA/added	2083633.562	750302.546	Subsurface soil	6.0 - 6.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 778	CE44-042	NA/added	NA/added	2083693.984	750293.096	Subsurface soil	10.0 - 10.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
776 - 778 Passageway	CE44-043	NA/added	NA/added	2083713.877	750363.411	Subsurface soil	3.0 - 3.3	Radionuclides	Biased sampling location to target passageway. Grab sample collected.
776 - 778 Passageway	CE44-044	NA/added	NA/added	2083713.877	750370.546	Subsurface soil	0.0 - 3.0	Radionuclides	Biased sampling location to target passageway. Composite sample collected.
UBC 778	CE44-045	NA/added	NA/added	2083713.884	750355.372	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target passageway. Grab sample collected.
776 - 778 Passageway	CE44-046	NA/added	NA/added	2083717.821	750361.958	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target passageway. Grab sample collected.
776 - 778 Passageway	CE44-047	NA/added	NA/added	2083710.091	750363.838	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target passageway. Grab sample collected.
NA	CE44-049	NA/added	NA/added	2083607.368	750366.039	Subsurface soil	5.0 - 5.5	Radionuclides	Biased location to target culvert running from Building 559 to Building 776.
UBC 776	CE45-018	2083674.27	750504.55	2083674.060	750517.330	Surface soil Subsurface soil	0.7 - 1.2 1.2 - 1.5	Radionuclides, Metals, VOCs (except 1st interval)	Statistical sampling location; actual coordinates estimated based on field measurements. No change in media or analytes. Second interval was a grab sample.
UBC 776	CE45-019	2083662.01	750433.6	2083674.060	750438.660	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.3	Radionuclides, Metals, VOCs (except 1st interval)	Statistical sampling location; actual coordinates estimated based on field measurements. No change in media or analytes. Second interval was a grab sample.

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Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 776	CE45-020	2083729.58	750458.45	2083724.450	750470.540	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5	Radionuclides, Metals, VOCs (except 1st interval)	Statistical sampling location; actual coordinates estimated based on field measurements. No change in media or analytes.
UBC 776	CE45-021	2083717.31	750387.51	2083702.340	750390.840	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.5	Radionuclides, Metals, VOCs (except 1st interval)	Statistical sampling location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 776	CE45-022	2083701.02	750431.66	2083685.370	750447.410	Surface soil Subsurface soil	0.6 - 0.61 1.1 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend; moved 16 ft north and 16 ft west to sample target. No change in media or analytes. Grab samples were collected.
UBC 776	CE45-023	2083685.39	750460.31	2083670.460	750477.230	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.6	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL; moved 17 ft north and 15 ft west to sample target. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 776	CE45-024	2083680.18	750378.28	2083675.600	750375.420	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.5	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target NPWL bend; moved 3 ft south and 5 ft west to sample target. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 776	CE45-091	NA/added	NA/added	2083652.384	750389.512	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 776	CE45-092	NA/added	NA/added	2083652.388	750439.545	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 776	CE45-093	NA/added	NA/added	2083652.413	750489.542	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 776	CE45-094	NA/added	NA/added	2083652.374	750539.519	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 776	CE45-095	NA/added	NA/added	2083702.430	750389.575	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 776	CE45-096	NA/added	NA/added	2083702.364	750439.573	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.

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Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 776	CE45-097	NA/added	NA/added	2083702.373	750489.572	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 776	CE45-098	NA/added	NA/added	2083702.407	750539.585	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 776	CE45-103	NA/added	NA/added	2083724.329	750470.426	Subsurface soil	3.5 - 3.8	Radionuclides	Biased location to target NPWL trench SW corner of C Pit (excavation floor). Grab sample collected.
UBC 776	CE45-106	NA/added	NA/added	2083731.422	750485.814	Subsurface soil	4.5 - 4.5	Radionuclides	Biased location in NPWL trench SW of C Pit (bottom of reexcavation).
UBC 776	CE45-123	NA/added	NA/added	2083702.311	750439.585	Surface soil	0.0 - 0.3	Radionuclides	Biased location to target UBC. Grab sample collected. Originally sampled as CE45-096.
UBC 776	CE45-127	NA/added	NA/added	2083702.434	750389.593	Surface soil	0.0 - 0.3	Radionuclides	Biased location to target UBC. Grab sample collected. Originally sampled as CE45-095.
NA	CE45-129	NA/added	NA/added	2083598.551	750478.414	Subsurface soil	5.0 - 5.5	Radionuclides	Biased location to target culvert running from Building 559 to Building 776.
NA	CE45-130	NA/added	NA/added	2083604.521	750443.316	Subsurface soil	4.0 - 5.5	Radionuclides	Biased location to target culvert running from Building 559 to Building 776.
NA	CE45-131	NA/added	NA/added	2083588.866	750523.605	Subsurface soil	5.0 - 5.5	Radionuclides	Biased location to target culvert running from Building 559 to Building 776.
UBC 776	CE46-000	NA/added	NA/added	2083675.520	750570.670	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 1.5	Radionuclides Metals VOCs	Biased location to target soil near tunnel where contaminated firefighting water may have migrated; no significant change in location. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 776	CE46-009	2083631.23	750621.6	2083631.380	750625.310	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.5	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 776	CE46-010	2083698.81	750646.45	NA	NA	NA	NA	NA	Statistical location; not sampled because soils were removed as part of Rm 158 Pipe Chase remediation. Confirmation samples were collected after remediation.
UBC 776	CE46-011	2083686.54	750575.5	NA	NA	NA	NA	NA	Statistical location; not sampled because soils were removed as part of Rm 158 Pipe Chase remediation. Confirmation samples were collected after remediation.
UBC 776	CE46-067	NA/added	NA/added	2083652.432	750589.480	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 776	CE46-068	NA/added	NA/added	2083652.383	750639.560	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 776	CE46-073	NA/added	NA/added	2083694.074	750647.909	Surface soil Subsurface soil	0.0 - 0.3 9.0 - 9.5	Radionuclides	Biased sampling location to target pipe chase excavation. Grab sample collected from 1st interval. Partial recovery for second interval because of sampling refusal.
UBC 776	CE46-074	NA/added	NA/added	2083694.074	750642.909	Surface soil Subsurface soil	0.0 - 0.3 9.0 - 9.5	Radionuclides	Biased sampling location to target pipe chase excavation. Grab sample collected from 1st interval. Partial recovery for second interval because of sampling refusal.
UBC 776	CE46-075	NA/added	NA/added	2083701.518	750651.468	Subsurface soil	9.0 - 9.5	Radionuclides	Biased sampling location to target pipe chase excavation. Partial recovery because of sampling refusal.
UBC 776	CE46-076	NA/added	NA/added	2083696.801	750639.668	Subsurface soil	9.0 - 9.5	Radionuclides	Biased sampling location to target pipe chase excavation. Partial recovery because of sampling refusal.
UBC 776	CE46-077	NA/added	NA/added	2083699.821	750629.388	Subsurface soil	9.0 - 9.5	Radionuclides	Biased sampling location to target pipe chase excavation. Partial recovery because of sampling refusal.
UBC 776	CE46-078	NA/added	NA/added	2083690.943	750460.165	Subsurface soil	2.5 - 2.7	Radionuclides	Biased sampling location to target excavation boundary. Grab sample collected.
UBC 776	CE46-079	NA/added	NA/added	2083675.650	750483.218	Subsurface soil	2.5 - 2.7	Radionuclides	Biased sampling location to target excavation boundary. Grab sample

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Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
									collected.
UBC 776	CE46-080	NA/added	NA/added	2083725.240	750630.080	Subsurface soil	1 - 1.2	Radionuclides	Biased sampling location to target excavation boundary. Grab sample collected.
UBC 778	CF44-012	2083827.93	750295.31	2083827.930	750295.310	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.6	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; no significant change in location. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 778	CF44-013	2083895.51	750320.16	2083895.510	750320.160	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.8	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 776	CF45-002	NA/added	NA/added	2083892.060	750547.000	Surface soil Subsurface soil	0.3 - 0.8 0.8 - 2.8	Radionuclides Metals VOCs	Biased location to target soil under basement Room 127; no significant change in location. No change in media or analytes.
UBC 776	CF45-003	NA/added	NA/added	2083879.010	750543.220	Surface soil Subsurface soil	0.3 - 0.8 0.8 - 2.8	Radionuclides Metals VOCs	Biased location to target soil under basement Room 127; no significant change in location. No change in media or analytes.
UBC 776	CF45-006	2083741.85	750529.4	2083733.350	750540.500	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Statistical sampling location; actual coordinates estimated based on field measurements. No change in media or analytes. Second interval was a grab sample.
UBC 776	CF45-007	2083809.43	750554.25	2083811.860	750547.670	Surface soil Subsurface soil	0.8 - 1.3 1.3 - 2.1	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. Samples collected from fill; no change in analytes. Partial recovery for second interval because of sampling refusal.
UBC 776	CF45-008	2083797.16	750483.3	2083800.030	750487.510	Surface soil Subsurface soil	1.0 - 1.5 1.5 - 3.5	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes.

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 776	CF45-009	2083864.73	750508.15	2083870.990	750497.800	Surface soil Subsurface soil	1.1 - 1.6 1.6 - 1.9	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. Samples collected from fill; no change in analytes. Second interval was a grab sample.
UBC 777	CF45-010	2083932.31	750533.00	2083934.750	750520.420	Surface soil	2.2 - 2.7	Radionuclides, Metals	Statistical location; actual coordinates estimated based on field measurements. Sampled fill; only collected from A interval; no native soil at B interval.
UBC 776	CF45-011	2083784.89	750412.36	2083790.260	750410.380	Surface soil Subsurface soil	0.6 - 0.61 1.1 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Grab samples collected.
UBC 776	CF45-012	2083852.47	750437.21	2083851.450	750439.180	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Second interval was a grab sample.
UBC 777	CF45-013	2083920.04	750462.05	2083923.440	750455.630	Surface soil Subsurface soil	0.7 - 1.2 1.2 - 1.6	Radionuclides, Metals, VOCs (except 1st interval)	Statistical sampling location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CF45-014	2083907.77	750391.11	2083914.180	750390.840	Surface soil	0.6 - 1.1	Radionuclides, Metals	Statistical location; actual coordinates estimated based on field measurements. No change in analytes. Could not sample second interval because of sampling refusal.
UBC 776	CF45-015	2083773.93	750560.57	2083771.669	750558.503	Surface soil Subsurface soil	2.0 - 2.3 3.0 - 3.3	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL intersection; no significant change in location. No change in media or analytes. Grab samples collected.
UBC 776	CF45-016	2083775.23	750524.11	2083766.100	750534.300	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL; moved 10 ft north and 9 ft west to sample target. No change in media or analytes. Partial recovery for second interval because of sampling refusal.

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 776	CF45-018	2083874.19	750431.66	2083873.050	750447.410	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 0.8	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL intersection; moved 16 ft north to sample target. No change in media or analytes. Grab sample collected from second interval.
UBC 776	CF45-019	2083803.88	750425.15	2083783.580	750447.920	Surface soil	0.9 - 1.4	Radionuclides, Metals	Biased location to target OPWL; moved 23 ft north and 20 west to sample target. No change in analytes. Large rock prevented sampling of second interval.
UBC 776	CF45-020	2083762.21	750430.36	2083742.440	750447.410	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.5	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL intersection; moved 17 ft north and 20 ft west to sample target. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 776	CF45-021	2083746.59	750478.54	2083733.707	750490.103	Surface soil Subsurface soil	2.0 - 2.3 3.0 - 3.3	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target NPWL bend; moved 12 north and 13 ft west to sample target. No change in media or analytes. Grab samples collected.
UBC 776	CF45-022	2083887.17	750529.04	NA	NA	NA	NA	NA	Biased location to target NPWL/OPWL intersection; refusal at A & B intervals - coarse, manmade aggregate to 2 ft bgs. No samples collected.
UBC 776	CF45-023	2083887.17	750529.04	2083775.870	750508.080	Surface soil Subsurface soil	0.7 - 1.2 1.2 - 1.6	Radionuclides, Metals, VOCs (except 1st interval)	Biased location at unsampled Phase I location [CF45-000(Addendum #1A-02-08)] to target NPWL; moved 21 ft north and 10 ft west to avoid metal plate. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CF45-024	NA/added	NA/added	2083899.375	750510.402	Surface soil Subsurface soil	0.0- 0.5 0.5 - 1.0	Radionuclides, Metals, VOCs	Opportunity sample; location biased to target NPWL/OPWL intersection. 2 in. of potentially contaminated soil removed prior to sampling. Partial recovery for second interval because of sampling refusal.

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (I)	Actual Analyses	Comments
UBC 776	CF45-105	NA/added	NA/added	2083752.385	750389.556	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 776	CF45-117	NA/added	NA/added	2083902.356	750389.585	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CF45-118	NA/added	NA/added	2083902.430	750439.564	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 776	CF45-122	NA/added	NA/added	2083771.887	750495.846	Subsurface soil	9.5 - 10.0	Radionuclides	Biased location to target bottom of C Pit excavation.
UBC 776	CF45-123	NA/added	NA/added	2083903.048	750488.610	Subsurface soil	12.0 - 12.5	Radionuclides	Biased location to target bottom of E Pit excavation.
UBC 776	CF45-126	NA/added	NA/added	2083903.000	750512.700	Subsurface soil	12.0 - 12.3	Radionuclides	Biased location to target excavation associated with E Pit pencil tanks.
UBC 776	CF45-127	NA/added	NA/added	2083780.271	750478.903	Subsurface soil	15.0 - 16.0	Radionuclides	Biased location to target C Pit (southern bottom of excavation).
UBC 776	CF45-128	NA/added	NA/added	2083782.057	750517.639	Subsurface soil	15.0 - 16.0	Radionuclides	Biased location to target C Pit (northern bottom of excavation).
UBC 776	CF45-129	NA/added	NA/added	2083779.673	750465.916	Subsurface soil	3.0 - 15.0	Radionuclides	Biased location to target C Pit (southern sidewall).
UBC 776	CF45-130	NA/added	NA/added	2083782.333	750523.633	Subsurface soil	3.0 - 15.0	Radionuclides	Biased location to target C Pit (northern sidewall).
UBC 776	CF45-131	NA/added	NA/added	2083757.696	750503.218	Subsurface soil	4.0 - 15.0	Radionuclides	Biased location to target C Pit (western sidewall).
UBC 776	CF45-132	NA/added	NA/added	2083803.060	750497.092	Subsurface soil	3.0 - 15.0	Radionuclides	Biased location to target C Pit (eastern sidewall).
UBC 777	CF45-153	NA/added	NA/added	2083902.401	750536.706	Subsurface soil	20.0 - 22.0	Radionuclides	Biased location to target southern basement wall.
UBC 776	CF45-154	NA/added	NA/added	2083935.140	750466.882	Subsurface soil	30.0 - 32.0	Radionuclides	Biased location to target D Pit (southern end, excavation floor).
UBC 776	CF45-155	NA/added	NA/added	2083925.498	750499.258	Subsurface soil	30.0 - 32.0	Radionuclides	Biased location to target D Pit (northern end, excavation floor).
UBC 776	CF45-156	NA/added	NA/added	2083928.346	750485.384	Subsurface soil	30.0 - 32.0	Radionuclides	Biased location to target D Pit (center, excavation floor).
UBC 776	CF45-157	NA/added	NA/added	2083858.808	750443.439	Subsurface soil	4.0 - 12.0	Radionuclides	Biased location to target D Pit (eastern wall).

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UBC 776	CF45-159	NA/added	NA/added	2083839.704	750442.455	Subsurface soil	4.0 - 12.0	Radionuclides	Biased location to target D Pit (southern wall).
UBC 777	CF45-172	NA/added	NA/added	2083922.021	750548.262	Subsurface soil	11.5 - 11.8	Radionuclides	Biased location to target basement. Grab sample collected.
UBC 778	CF45-176	NA/added	NA/added	2083801.881	750333.958	Surface soil	0.0 - 0.5	Radionuclides	Statistical location.
UBC 776	CF46-013	2083754.12	750600.35	NA	NA	NA	NA	NA	Statistical location; refusal at A & B intervals - coarse, manmade aggregate to 2 ft bgs. No samples collected.
UBC 776	CF46-014	2083877	750579.1	2083878.700	750583.150	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Statistical sampling location; actual coordinates estimated based on field measurements. No change in media or analytes. Grab sample collected from second interval.
UBC 777	CF46-017	2083910.65	750650.41	2083912.640	750652.050	Surface soil Subsurface soil	0.7 - 1.2 1.2 - 1.7	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL; no significant change in location. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 776	CF46-018	2083871.59	750563.17	2083872.804	750563.679	Surface soil Subsurface soil	2.0 - 2.3 3.0 - 3.3	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL intersection; no significant change in location. No change in media or analytes. Grab samples collected.
UBC 776	CF46-019	2083746.59	750564.48	2083912.640	750652.050	Surface soil	0.0 - 0.5	Radionuclides, Metals	Biased location to target OPWL intersection; moved 88 ft north and 166 ft east. No change in analytes. Could not sample second interval because of sampling refusal.
UBC 776	CF46-062	NA/added	NA/added	2083877.296	750617.601	Subsurface soil	5.0 - 5.5	Radionuclides	Biased location to target OPWL. Partial recovery because of sampling refusal.
UBC 777	CF46-065	NA/added	NA/added	2083880.499	750666.078	Subsurface soil	8.0 - 9.0	Radionuclides	Biased location to target OPWL. Partial recovery because of sampling refusal.
UBC 777	CF46-066	NA/added	NA/added	2083895.672	750657.457	Subsurface soil	6.0 - 7.0	Radionuclides	Biased location to target OPWL. Partial recovery because of sampling refusal.
UBC 777	CF46-067	NA/added	NA/added	2083932.748	750659.083	Subsurface soil	5.0 - 6.0	Radionuclides	Biased location to target OPWL. Partial recovery because of sampling refusal.

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Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 777	CF46-068	NA/added	NA/added	2083954.964	750660.846	Subsurface soil	5.0 - 6.0	Radionuclides	Biased location to target OPWL. Partial recovery because of sampling refusal.
UBC 776	CF46-069	NA/added	NA/added	2083832.121	750653.996	Subsurface soil	3.5 - 3.8	Radionuclides	Biased location to target steam pipe excavation. Grab sample collected.
UBC 776	CF46-070	NA/added	NA/added	2083803.567	750654.689	Subsurface soil	3.5 - 3.8	Radionuclides	Biased location to target steam pipe excavation. Grab sample collected.
NA	CF46-079	NA/added	NA/added	2083782.447	750673.747	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 4.5 4.5 - 6.5 6.5 - 8.5	Metals	Biased location to determine extent of chromium contamination observed at Sampling Location CF46-027 north of UBC 776 (Volume I).
UBC 778	CG44-000	2083949.571	750285.492	2083949.570	750285.490	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 0.8	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; no significant change in location. No change in media or analytes. Grab sample collected from second interval.
UBC 778	CG44-002	2083979.013	750264.775	2083979.010	750264.780	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; no significant change in location. No change in media or analytes. Grab sample collected from second interval.
UBC 778	CG44-003	2084018.39	750298.91	2084018.390	750298.910	Surface soil Subsurface soil	0.7 - 1.2 1.2 - 1.8	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; no significant change in location. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 778	CG44-006	2084073.41	750331.4	NA	NA	NA	NA	NA	Biased location to target UBC and OPWL. Construction aggregate with no fines present down to 2 ft; sampling refusal at the A and B intervals. Did not sample.
UBC 778	CG44-007	2083961.43	750322.29	2083961.430	750322.290	Surface soil Subsurface soil	0 - 0.5 1.3 - 1.8	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to fill statistical grid; no significant change in location. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 778	CG44-017	NA/added	NA/added	2083957.095	750297.456	Surface soil	0.0 - 0.3	Radionuclides	Statistical location. Grab sample collected.

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 777	CG45-000	NA/added	NA/added	2084012.160	750559.430	Surface soil Subsurface soil	0.5 - 0.1 1.0 - 1.2	Radionuclides Metals VOCs	Biased location to target soil where Tanks 1 & 2 leaked; no significant change in location. No change in media or analytes. Grab sample collected from second interval.
UBC 777	CG45-001	NA/added	NA/added	2083956.550	750379.570	Surface soil Subsurface soil	0.5 - 0.1 1.0 - 1.3	Radionuclides Metals VOCs	Biased location to target soil where Tanks 1103, 1104 & 1105 leaked. Grab sample collected from second interval.
UBC 777	CG45-002	2083999.89	750557.85	2083994.910	750555.380	Surface soil Subsurface soil	0.0- 0.5 0.5 - 0.8	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Grab sample collected from second interval.
UBC 777	CG45-003	2083987.62	750486.90	2083972.800	750490.080	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG45-004	2084055.19	750511.75	2084053.010	750512.190	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG45-005	2084122.77	750536.60	2084123.450	750541.500	Surface soil Subsurface soil	1.0 - 1.5 1.5 - 2.0	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG45-006	2083975.35	750415.96	2083959.430	750429.920	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.5	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG45-007	2084042.93	750440.81	2084026.790	750445.860	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 777	CG45-008	2084110.50	750465.66	2084102.890	750464.890	Surface soil Subsurface soil	1.0 - 1.5 1.5 - 2.3	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG45-009	2084098.23	750394.71	2084096.200	750392.900	Surface soil Subsurface soil	0.8 - 1.3 1.3 - 2.0	Radionuclides, Metals, VOCs (except 1st interval)	Statistical location; actual coordinates estimated based on field measurements. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG45-010	2084031.74	750548.85	NA	NA	NA	NA	NA	Statistical location; refusal at A & B intervals - coarse, manmade aggregate to 2 ft bgs; not sampled; location replaced by CG45-033.
UBC 777	CG45-011	2084095.55	750485.05	2084092.090	750489.570	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.2	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL; moved 5 ft north and 3 ft west to sample target. No change in media or analytes. Grab sample collected from second interval.
UBC 777	CG45-012	2084074.71	750464.22	2084050.950	750482.670	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.3	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend; moved 18 ft north and 24 ft west to sample target. No change in media or analytes. Grab sample collected from second interval.
UBC 777	CG45-013	2084076.02	750430.36	2084047.360	750445.860	Surface soil Subsurface soil	0.0 - 0.5 1.1 - 1.6	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend; moved 15 ft north and 29 ft west to sample target. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG45-014	2084092.94	750366.56	2084092.090	750370.790	Surface soil Subsurface soil	1.8 - 2.3 2.3 - 3.8	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend; moved 4 ft north and 1 ft west to sample target. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
UBC 777	CG45-015	2084004.40	750376.98	2083999.540	750377.480	Surface soil Subsurface soil	0.7 - 1.2 1.2 - 1.7	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target sewer; moved 1 ft north and 5 ft west to sample target. No change in media or analytes. Partial recovery for second interval because of sampling refusal.

Site	Sampling Location	Planned Easting	Planned Northing	Actual Easting	Actual Northing	Actual Media	Actual Intervals (ft)	Actual Analyses	Comments
UBC 777	CG45-016	NA/added	NA/added	2083952.423	750389.507	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CG45-017	NA/added	NA/added	2083952.382	750439.576	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CG45-020	NA/added	NA/added	2084002.451	750389.523	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CG45-021	NA/added	NA/added	2084002.461	750439.569	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CG45-022	NA/added	NA/added	2084002.315	750489.530	Surface soil	0.0 - 0.5	Radionuclides	Biased sampling location to target UBC.
UBC 777	CG45-024	NA/added	NA/added	2084052.397	750389.560	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CG45-025	NA/added	NA/added	2084052.421	750439.582	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CG45-028	NA/added	NA/added	2084102.380	750389.533	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CG45-030	NA/added	NA/added	2084102.402	750489.535	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CG45-031	NA/added	NA/added	2084102.420	750539.537	Surface soil	0.0 - 0.3	Radionuclides	Biased sampling location to target UBC. Grab sample collected.
UBC 777	CG45-032	NA/added	NA/added	2083985.522	750564.586	Surface soil	0.0 - 1.0	Radionuclides	Biased sampling location to target western portion of east/west OPWL extending from the basement to the east.
UBC 777	CG45-033	NA/added	NA/added	2084024.273	750563.412	Surface soil	0.0 - 1.0	Radionuclides Metals VOCs	Biased location to target eastern portion of east/west OPWL extending from the basement to the east. Replaced CG45-010.
NA	CG45-041	NA/added	NA/added	2083903.138	750340.074	Surface soil	0.0 - 0.5	Radionuclides	Statistical location in southern grid between Bldgs 776 and 778.
NA	CG45-044	NA/added	NA/added	2084052.576	750347.555	Surface soil	0.0 - 0.5	Radionuclides	Statistical location in southern grid between Bldgs 776 and 778.
UBC 777	CG46-000	2083944.58	750603.95	2083949.150	750584.690	Subsurface soil	2.8 - 3.3	Radionuclides, VOCs	Biased location to complete statistical grid; moved 19 ft south and 5 ft east. Sampled fill; only collected from one interval; no native soil encountered. Did not analyze for metals.

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CF45-129	750465.916	2083779.673	3.0	15.0	Uranium-238	1.572	-	1.490	351	pCi/g
CF45-130	750523.633	2083782.333	3.0	15.0	Americium-241	21.650	-	0.020	76	pCi/g
CF45-130	750523.633	2083782.333	3.0	15.0	Plutonium-239/240	123.405	-	0.020	50	pCi/g
CF45-130	750523.633	2083782.333	3.0	15.0	Uranium-235	0.248	-	0.120	8	pCi/g
CF45-130	750523.633	2083782.333	3.0	15.0	Uranium-238	1.541	-	1.490	351	pCi/g
CF45-132	750497.092	2083803.060	3.0	15.0	Americium-241	0.825	-	0.020	76	pCi/g
CF45-132	750497.092	2083803.060	3.0	15.0	Plutonium-239/240	4.704	-	0.020	50	pCi/g
CF45-153	750536.706	2083902.401	20.0	22.0	Uranium-235	0.189	-	0.120	8	pCi/g
CF45-153	750536.706	2083902.401	20.0	22.0	Uranium-238	2.012	-	1.490	351	pCi/g
CF45-154	750466.882	2083935.140	30.0	32.0	Americium-241	51.380	-	0.020	76	pCi/g
CF45-154	750466.882	2083935.140	30.0	32.0	Plutonium-239/240	292.866	-	0.020	50	pCi/g
CF45-155	750499.258	2083925.498	30.0	32.0	Americium-241	18.220	-	0.020	76	pCi/g
CF45-155	750499.258	2083925.498	30.0	32.0	Plutonium-239/240	103.854	-	0.020	50	pCi/g
CF45-155	750499.258	2083925.498	30.0	32.0	Uranium-235	0.327	-	0.120	8	pCi/g
CF45-156	750485.384	2083928.346	30.0	32.0	Americium-241	50.720	-	0.020	76	pCi/g
CF45-156	750485.384	2083928.346	30.0	32.0	Plutonium-239/240	289.104	-	0.020	50	pCi/g
CF45-156	750485.384	2083928.346	30.0	32.0	Uranium-235	0.257	-	0.120	8	pCi/g
CF45-156	750485.384	2083928.346	30.0	32.0	Uranium-238	1.784	-	1.490	351	pCi/g
CF45-159	750442.455	2083839.704	6.0	12.0	Americium-241	1.189	-	0.020	76	pCi/g
CF45-159	750442.455	2083839.704	6.0	12.0	Plutonium-239/240	6.777	-	0.020	50	pCi/g
CF45-159	750442.455	2083839.704	6.0	12.0	Uranium-235	0.145	-	0.120	8	pCi/g
CF45-172	750548.262	2083922.021	11.5	11.8	Americium-241	10.920	-	0.020	76	pCi/g
CF45-172	750548.262	2083922.021	11.5	11.8	Plutonium-239/240	62.244	-	0.020	50	pCi/g
CF45-172	750548.262	2083922.021	11.5	11.8	Uranium-235	0.362	-	0.120	8	pCi/g
CF45-176	750333.958	2083801.881	0.0	0.5	Americium-241	9.645	-	0.023	76	pCi/g
CF45-176	750333.958	2083801.881	0.0	0.5	Plutonium-239/240	54.977	-	0.066	50	pCi/g
CF45-176	750333.958	2083801.881	0.0	0.5	Uranium-235	0.114	-	0.094	8	pCi/g
CF45-176	750333.958	2083801.881	0.0	0.5	Uranium-238	2.041	-	2.000	351	pCi/g
CF46-014	750583.150	2083878.700	0.6	1.1	Cobalt	32.000	-	10.910	1550	mg/kg
CF46-014	750583.150	2083878.700	0.6	1.1	Copper	92.000	-	18.060	40900	mg/kg
CF46-014	750583.150	2083878.700	1.1	1.4	Acetone	400.000	101.000	-	102000000	ug/kg

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
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CF46-014	750583.150	2083878.700	1.1	1.4	Cobalt	31.000	-	29.040	1550	mg/kg
CF46-014	750583.150	2083878.700	1.1	1.4	Copper	82.000	-	38.210	40900	mg/kg
CF46-014	750583.150	2083878.700	1.1	1.4	Naphthalene	19.900	5.060	-	3090000	ug/kg
CF46-014	750583.150	2083878.700	1.1	1.4	Uranium-235	0.146	-	0.120	8	pCi/g
CF46-017	75052.050	2083912.640	0.7	1.2	Copper	23.000	-	18.060	40900	mg/kg
CF46-017	75052.050	2083912.640	0.7	1.2	Uranium-234	2.530	-	2.253	300	pCi/g
CF46-017	75052.050	2083912.640	0.7	1.2	Uranium-238	2.530	-	2.000	351	pCi/g
CF46-018	750563.679	2083872.804	2.0	2.3	Americium-241	27.070	-	0.023	76	pCi/g
CF46-018	750563.679	2083872.804	2.0	2.3	Arsenic	18.100	-	10.090	22.2	mg/kg
CF46-018	750563.679	2083872.804	2.0	2.3	Barium	658.000	-	141.260	26400	mg/kg
CF46-018	750563.679	2083872.804	2.0	2.3	Chromium	53.000	-	16.990	268	mg/kg
CF46-018	750563.679	2083872.804	2.0	2.3	Copper	40.100	-	18.060	40900	mg/kg
CF46-018	750563.679	2083872.804	2.0	2.3	Iron	43400.000	-	18037.000	307000	mg/kg
CF46-018	750563.679	2083872.804	2.0	2.3	Nickel	55.000	-	14.910	20400	mg/kg
CF46-018	750563.679	2083872.804	2.0	2.3	Plutonium-239/240	154.299	-	0.066	50	pCi/g
CF46-018	750563.679	2083872.804	2.0	2.3	Strontium	209.000	-	48.940	613000	mg/kg
CF46-018	750563.679	2083872.804	2.0	2.3	Tin	6.880	-	2.900	613000	mg/kg
CF46-018	750563.679	2083872.804	2.0	2.3	Vanadium	107.000	-	45.590	7150	mg/kg
CF46-018	750563.679	2083872.804	2.0	2.3	Zinc	124.000	-	73.760	307000	mg/kg
CF46-018	750563.679	2083872.804	3.0	3.3	Americium-241	45.350	-	0.020	76	pCi/g
CF46-018	750563.679	2083872.804	3.0	3.3	Barium	585.000	-	289.380	26400	mg/kg
CF46-018	750563.679	2083872.804	3.0	3.3	Copper	47.200	-	38.210	40900	mg/kg
CF46-018	750563.679	2083872.804	3.0	3.3	Plutonium-239/240	258.495	-	0.020	50	pCi/g
CF46-018	750563.679	2083872.804	3.0	3.3	Strontium	264.000	-	211.380	613000	mg/kg
CF46-018	750563.679	2083872.804	3.0	3.3	Uranium-234	3.593	-	2.640	300	pCi/g
CF46-018	750563.679	2083872.804	3.0	3.3	Uranium-235	0.211	-	0.120	8	pCi/g
CF46-018	750563.679	2083872.804	3.0	3.3	Uranium-238	3.593	-	1.490	351	pCi/g
CF46-018	750563.679	2083872.804	3.0	3.3	Zinc	302.000	-	139.100	307000	mg/kg
CF46-019	75052.050	2083912.640	0.0	0.5	Chromium	40.000	-	16.990	268	mg/kg
CF46-019	75052.050	2083912.640	0.0	0.5	Cobalt	26.000	-	10.910	1550	mg/kg
CF46-019	75052.050	2083912.640	0.0	0.5	Copper	80.000	-	18.060	40900	mg/kg

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CF46-019	750652.050	2083912.640	0.0	0.5	Lithium	13.000	-	11.550	20400	mg/kg
CF46-019	750652.050	2083912.640	0.0	0.5	Nickel	22.000	-	14.910	20400	mg/kg
CF46-019	750652.050	2083912.640	0.0	0.5	Tin	4.700	-	2.900	613000	mg/kg
CF46-019	750652.050	2083912.640	0.0	0.5	Uranium-235	0.173	-	0.094	8	pCi/g
CF46-062	750617.601	2083877.296	3.5	3.7	Americium-241	333.100	-	0.020	76	pCi/g
CF46-062	750617.601	2083877.296	3.5	3.7	Plutonium-239/240	1898.670	-	0.020	50	pCi/g
CF46-062	750617.601	2083877.296	3.5	3.7	Uranium-234	2.686	-	2.640	300	pCi/g
CF46-062	750617.601	2083877.296	3.5	3.7	Uranium-238	2.686	-	1.490	351	pCi/g
CF46-065	750666.078	2083880.499	8.0	9.0	Americium-241	9.362	-	0.020	76	pCi/g
CF46-065	750666.078	2083880.499	8.0	9.0	Plutonium-239/240	53.363	-	0.020	50	pCi/g
CF46-065	750666.078	2083880.499	8.0	9.0	Uranium-234	4.056	-	2.640	300	pCi/g
CF46-065	750666.078	2083880.499	8.0	9.0	Uranium-238	4.056	-	1.490	351	pCi/g
CF46-066	750657.457	2083895.672	6.0	7.0	Uranium-234	3.489	-	2.640	300	pCi/g
CF46-066	750657.457	2083895.672	6.0	7.0	Uranium-235	0.156	-	0.120	8	pCi/g
CF46-066	750657.457	2083895.672	6.0	7.0	Uranium-238	3.489	-	1.490	351	pCi/g
CF46-067	750659.083	2083932.748	5.0	6.0	Americium-241	0.755	-	0.020	76	pCi/g
CF46-067	750659.083	2083932.748	5.0	6.0	Plutonium-239/240	4.301	-	0.020	50	pCi/g
CF46-067	750659.083	2083932.748	5.0	6.0	Uranium-234	3.408	-	2.640	300	pCi/g
CF46-067	750659.083	2083932.748	5.0	6.0	Uranium-238	3.408	-	1.490	351	pCi/g
CF46-068	750660.846	2083954.964	5.0	6.0	Americium-241	0.566	-	0.020	76	pCi/g
CF46-068	750660.846	2083954.964	5.0	6.0	Plutonium-239/240	3.224	-	0.020	50	pCi/g
CF46-069	750653.996	2083832.121	3.5	3.8	Americium-241	2.196	-	0.020	76	pCi/g
CF46-069	750653.996	2083832.121	3.5	3.8	Plutonium-239/240	12.517	-	0.020	50	pCi/g
CF46-070	750654.689	2083803.567	3.5	3.8	Americium-241	1.365	-	0.020	76	pCi/g
CF46-070	750654.689	2083803.567	3.5	3.8	Plutonium-239/240	7.781	-	0.020	50	pCi/g
CF46-070	750654.689	2083803.567	3.5	3.8	Uranium-235	0.217	-	0.120	8	pCi/g
CF46-079	750673.747	2083782.447	0.0	0.5	Barium	758.000	-	141.260	26400	mg/kg
CF46-079	750673.747	2083782.447	0.0	0.5	Iron	30200.000	-	18037.000	307000	mg/kg
CF46-079	750673.747	2083782.447	0.0	0.5	Nickel	33.500	-	14.910	20400	mg/kg
CF46-079	750673.747	2083782.447	0.0	0.5	Strontium	262.000	-	48.940	613000	mg/kg
CF46-079	750673.747	2083782.447	0.0	0.5	Zinc	76.200	-	73.760	307000	mg/kg

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW/AL	Unit
CF46-079	750673.747	2083782.447	0.5	2.5	Barium	655.000	-	289.380	26400	mg/kg
CF46-079	750673.747	2083782.447	2.5	4.5	Barium	781.000	-	289.380	26400	mg/kg
CF46-079	750673.747	2083782.447	2.5	4.5	Iron	43800.000	-	41046.520	307000	mg/kg
CF46-079	750673.747	2083782.447	2.5	4.5	Manganese	952.000	-	901.620	3480	mg/kg
CF46-079	750673.747	2083782.447	2.5	4.5	Vanadium	93.700	-	88.490	7150	mg/kg
CF46-079	750673.747	2083782.447	4.5	6.5	Barium	492.000	-	289.380	26400	mg/kg
CF46-079	750673.747	2083782.447	6.5	8.5	Barium	558.000	-	289.380	26400	mg/kg
CF46-079	750673.747	2083782.447	6.5	8.5	Vanadium	90.100	-	88.490	7150	mg/kg
CG44-000	750285.490	2083949.570	0.0	0.5	Uranium-235	0.170	-	0.094	8	pCi/g
CG44-000	750285.490	2083949.570	0.5	0.8	Uranium-234	4.244	-	2.640	300	pCi/g
CG44-000	750285.490	2083949.570	0.5	0.8	Uranium-235	0.221	-	0.120	8	pCi/g
CG44-000	750285.490	2083949.570	0.5	0.8	Uranium-238	4.244	-	1.490	351	pCi/g
CG44-002	750264.780	2083979.010	0.6	1.1	Uranium-234	3.411	-	2.253	300	pCi/g
CG44-002	750264.780	2083979.010	0.6	1.1	Uranium-238	3.411	-	2.000	351	pCi/g
CG44-002	750264.780	2083979.010	1.1	1.4	Americium-241	0.475	-	0.020	76	pCi/g
CG44-002	750264.780	2083979.010	1.1	1.4	Plutonium-239/240	2.706	-	0.020	50	pCi/g
CG44-003	750298.910	2084018.390	0.7	1.2	Cobalt	55.000	-	10.910	1550	mg/kg
CG44-003	750298.910	2084018.390	0.7	1.2	Copper	140.000	-	18.060	40900	mg/kg
CG44-003	750298.910	2084018.390	0.7	1.2	Tin	13.000	-	2.900	613000	mg/kg
CG44-003	750298.910	2084018.390	1.2	1.8	Copper	61.000	-	38.210	40900	mg/kg
CG44-003	750298.910	2084018.390	1.2	1.8	Uranium-235	0.154	-	0.120	8	pCi/g
CG44-003	750298.910	2084018.390	1.2	1.8	Uranium-238	1.698	-	1.490	351	pCi/g
CG44-007	750322.290	2083961.430	0.0	0.5	Cobalt	11.000	-	10.910	1550	mg/kg
CG44-007	750322.290	2083961.430	0.0	0.5	Copper	24.000	-	18.060	40900	mg/kg
CG44-007	750322.290	2083961.430	1.3	1.8	Uranium-235	0.138	-	0.120	8	pCi/g
CG44-007	750322.290	2083961.430	1.3	1.8	Uranium-238	1.852	-	1.490	351	pCi/g
CG44-017	750297.456	2083957.095	0.0	0.3	Americium-241	1.147	-	0.023	76	pCi/g
CG44-017	750297.456	2083957.095	0.0	0.3	Plutonium-239/240	6.538	-	0.066	50	pCi/g
CG44-017	750297.456	2083957.095	0.0	0.3	Uranium-235	0.151	-	0.094	8	pCi/g
CG45-000	750559.430	2084012.160	0.5	1.0	Barium	869.000	-	141.260	26400	mg/kg
CG45-000	750559.430	2084012.160	0.5	1.0	Chromium	21.000	-	16.990	268	mg/kg

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRWAL	Unit
CG45-000	750559.430	2084012.160	0.5	1.0	Cobalt	249.000	-	10.910	1550	mg/kg
CG45-000	750559.430	2084012.160	0.5	1.0	Copper	45.400	-	18.060	40900	mg/kg
CG45-000	750559.430	2084012.160	0.5	1.0	Iron	26500.000	-	18037.000	307000	mg/kg
CG45-000	750559.430	2084012.160	0.5	1.0	Manganese	516.000	-	365.080	3480	mg/kg
CG45-000	750559.430	2084012.160	0.5	1.0	Nickel	30.000	-	14.910	20400	mg/kg
CG45-000	750559.430	2084012.160	0.5	1.0	Strontium	202.000	-	48.940	613000	mg/kg
CG45-000	750559.430	2084012.160	0.5	1.0	Vanadium	70.700	-	45.590	7150	mg/kg
CG45-000	750559.430	2084012.160	0.5	1.0	Zinc	73.900	-	73.760	307000	mg/kg
CG45-000	750559.430	2084012.160	1.0	1.2	Barium	915.000	-	289.380	26400	mg/kg
CG45-000	750559.430	2084012.160	1.0	1.2	Cobalt	116.000	-	29.040	1550	mg/kg
CG45-000	750559.430	2084012.160	1.0	1.2	Copper	52.900	-	38.210	40900	mg/kg
CG45-000	750559.430	2084012.160	1.0	1.2	Uranium-234	4.600	-	2.640	300	pCi/g
CG45-000	750559.430	2084012.160	1.0	1.2	Uranium-238	4.600	-	1.490	351	pCi/g
CG45-001	750379.570	2083956.550	0.5	1.0	Arsenic	13.300	-	10.090	22.2	mg/kg
CG45-001	750379.570	2083956.550	0.5	1.0	Barium	825.000	-	141.260	26400	mg/kg
CG45-001	750379.570	2083956.550	0.5	1.0	Chromium	35.600	-	16.990	268	mg/kg
CG45-001	750379.570	2083956.550	0.5	1.0	Cobalt	249.000	-	10.910	1550	mg/kg
CG45-001	750379.570	2083956.550	0.5	1.0	Copper	79.000	-	18.060	40900	mg/kg
CG45-001	750379.570	2083956.550	0.5	1.0	Iron	35400.000	-	18037.000	307000	mg/kg
CG45-001	750379.570	2083956.550	0.5	1.0	Manganese	479.000	-	365.080	3480	mg/kg
CG45-001	750379.570	2083956.550	0.5	1.0	Nickel	47.800	-	14.910	20400	mg/kg
CG45-001	750379.570	2083956.550	0.5	1.0	Strontium	208.000	-	48.940	613000	mg/kg
CG45-001	750379.570	2083956.550	0.5	1.0	Uranium-235	0.170	-	0.094	8	pCi/g
CG45-001	750379.570	2083956.550	0.5	1.0	Vanadium	98.700	-	45.590	7150	mg/kg
CG45-001	750379.570	2083956.550	0.5	1.0	Zinc	110.000	-	73.760	307000	mg/kg
CG45-001	750379.570	2083956.550	1.0	1.3	Barium	804.000	-	289.380	26400	mg/kg
CG45-001	750379.570	2083956.550	1.0	1.3	Cobalt	122.000	-	29.040	1550	mg/kg
CG45-001	750379.570	2083956.550	1.0	1.3	Copper	50.100	-	38.210	40900	mg/kg
CG45-001	750379.570	2083956.550	1.0	1.3	Uranium-235	0.150	-	0.120	8	pCi/g
CG45-001	750379.570	2083956.550	1.0	1.3	Uranium-238	2.100	-	1.490	351	pCi/g
CG45-002	750555.380	2083994.910	0.0	0.5	Uranium-234	4.052	-	2.253	300	pCi/g

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CG45-002	750555.380	2083994.910	0.0	0.5	Uranium-235	0.192	-	0.094	8	pCi/g
CG45-002	750555.380	2083994.910	0.0	0.5	Uranium-238	4.052	-	2.000	351	pCi/g
CG45-003	750490.080	2083972.800	0.5	1.0	Chromium	160.000	-	16.990	268	mg/kg
CG45-003	750490.080	2083972.800	0.5	1.0	Cobalt	18.000	-	10.910	1550	mg/kg
CG45-003	750490.080	2083972.800	0.5	1.0	Copper	50.000	-	18.060	40900	mg/kg
CG45-003	750490.080	2083972.800	0.5	1.0	Nickel	77.000	-	14.910	20400	mg/kg
CG45-003	750490.080	2083972.800	0.5	1.0	Strontium	78.000	-	48.940	613000	mg/kg
CG45-003	750490.080	2083972.800	0.5	1.0	Uranium-235	0.137	-	0.094	8	pCi/g
CG45-003	750490.080	2083972.800	1.0	1.4	Uranium-234	5.044	-	2.640	300	pCi/g
CG45-003	750490.080	2083972.800	1.0	1.4	Uranium-235	0.258	-	0.120	8	pCi/g
CG45-003	750490.080	2083972.800	1.0	1.4	Uranium-238	5.044	-	1.490	351	pCi/g
CG45-004	750512.190	2084053.010	0.5	1.0	Cobalt	17.000	-	10.910	1550	mg/kg
CG45-004	750512.190	2084053.010	0.5	1.0	Copper	44.000	-	18.060	40900	mg/kg
CG45-004	750512.190	2084053.010	0.5	1.0	Uranium-234	2.966	-	2.253	300	pCi/g
CG45-004	750512.190	2084053.010	0.5	1.0	Uranium-235	0.203	-	0.094	8	pCi/g
CG45-004	750512.190	2084053.010	0.5	1.0	Uranium-238	2.966	-	2.000	351	pCi/g
CG45-004	750512.190	2084053.010	1.0	1.4	Uranium-235	0.165	-	0.120	8	pCi/g
CG45-004	750512.190	2084053.010	1.0	1.4	Xylene	15.400	10.400	-	2040000	ug/kg
CG45-005	750541.500	2084123.450	1.0	1.5	Uranium-234	4.077	-	2.253	300	pCi/g
CG45-005	750541.500	2084123.450	1.0	1.5	Uranium-235	0.220	-	0.094	8	pCi/g
CG45-005	750541.500	2084123.450	1.0	1.5	Uranium-238	4.077	-	2.000	351	pCi/g
CG45-005	750541.500	2084123.450	1.5	2.0	Chromium	130.000	-	68.270	268	mg/kg
CG45-005	750541.500	2084123.450	1.5	2.0	Nickel	76.000	-	62.210	20400	mg/kg
CG45-005	750541.500	2084123.450	1.5	2.0	Uranium-234	4.109	-	2.640	300	pCi/g
CG45-005	750541.500	2084123.450	1.5	2.0	Uranium-235	0.244	-	0.120	8	pCi/g
CG45-005	750541.500	2084123.450	1.5	2.0	Uranium-238	4.109	-	1.490	351	pCi/g
CG45-006	750429.920	2083959.430	0.6	1.1	Copper	19.000	-	18.060	40900	mg/kg
CG45-006	750429.920	2083959.430	1.1	1.5	Uranium-234	4.569	-	2.640	300	pCi/g
CG45-006	750429.920	2083959.430	1.1	1.5	Uranium-235	0.234	-	0.120	8	pCi/g
CG45-006	750429.920	2083959.430	1.1	1.5	Uranium-238	4.569	-	1.490	351	pCi/g
CG45-007	750445.860	2084026.790	0.5	1.0	Chromium	18.000	-	16.990	268	mg/kg

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CG45-007	750445.860	2084026.790	0.5	1.0	Cobalt	13.000	-	10.910	1550	mg/kg
CG45-007	750445.860	2084026.790	0.5	1.0	Copper	33.000	-	18.060	40900	mg/kg
CG45-007	750445.860	2084026.790	0.5	1.0	Lead	330.000	-	54.620	1000	mg/kg
CG45-007	750445.860	2084026.790	0.5	1.0	Uranium-235	0.153	-	0.094	8	pCi/g
CG45-007	750445.860	2084026.790	0.5	1.0	Uranium-238	2.251	-	2.000	351	pCi/g
CG45-007	750445.860	2084026.790	1.0	1.4	Lead	190.000	-	24.970	1000	mg/kg
CG45-007	750445.860	2084026.790	1.0	1.4	Uranium-234	4.075	-	2.640	300	pCi/g
CG45-007	750445.860	2084026.790	1.0	1.4	Uranium-235	0.242	-	0.120	8	pCi/g
CG45-007	750445.860	2084026.790	1.0	1.4	Uranium-238	4.075	-	1.490	351	pCi/g
CG45-008	750464.890	2084102.890	1.0	1.5	Uranium-234	4.051	-	2.253	300	pCi/g
CG45-008	750464.890	2084102.890	1.0	1.5	Uranium-235	0.225	-	0.094	8	pCi/g
CG45-008	750464.890	2084102.890	1.0	1.5	Uranium-238	4.051	-	2.000	351	pCi/g
CG45-008	750464.890	2084102.890	1.5	2.3	Uranium-234	3.818	-	2.640	300	pCi/g
CG45-008	750464.890	2084102.890	1.5	2.3	Uranium-235	0.226	-	0.120	8	pCi/g
CG45-008	750464.890	2084102.890	1.5	2.3	Uranium-238	3.818	-	1.490	351	pCi/g
CG45-009	750392.900	2084096.200	0.8	1.3	Chromium	18.000	-	16.990	268	mg/kg
CG45-009	750392.900	2084096.200	0.8	1.3	Cobalt	13.000	-	10.910	1550	mg/kg
CG45-009	750392.900	2084096.200	0.8	1.3	Copper	30.000	-	18.060	40900	mg/kg
CG45-009	750392.900	2084096.200	0.8	1.3	Lithium	13.000	-	11.550	20400	mg/kg
CG45-009	750392.900	2084096.200	0.8	1.3	Nickel	15.000	-	14.910	20400	mg/kg
CG45-009	750392.900	2084096.200	0.8	1.3	Strontium	54.000	-	48.940	613000	mg/kg
CG45-009	750392.900	2084096.200	1.3	2.0	Acetone	27.000	5.100	-	102000000	ug/kg
CG45-009	750392.900	2084096.200	1.3	2.0	Methylene chloride	1.800	0.890	-	2530000	ug/kg
CG45-009	750392.900	2084096.200	1.3	2.0	Naphthalene	1.400	0.950	-	3090000	ug/kg
CG45-011	750489.570	2084092.090	0.5	1.0	Chromium	17.000	-	16.990	268	mg/kg
CG45-011	750489.570	2084092.090	0.5	1.0	Copper	22.000	-	18.060	40900	mg/kg
CG45-011	750489.570	2084092.090	1.0	1.2	Naphthalene	23.000	4.940	-	3090000	ug/kg
CG45-011	750489.570	2084092.090	1.0	1.2	Uranium-235	0.144	-	0.120	8	pCi/g
CG45-012	750482.670	2084050.950	0.5	1.0	Chromium	20.000	-	16.990	268	mg/kg
CG45-012	750482.670	2084050.950	0.5	1.0	Cobalt	34.000	-	10.910	1550	mg/kg
CG45-012	750482.670	2084050.950	0.5	1.0	Copper	93.000	-	18.060	40900	mg/kg

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW-AL	Unit
CG45-012	750482.670	2084050.950	0.5	1.0	Tin	8.200	-	2.900	613000	mg/kg
CG45-012	750482.670	2084050.950	0.5	1.0	Uranium-234	4.881	-	2.253	300	pCi/g
CG45-012	750482.670	2084050.950	0.5	1.0	Uranium-235	0.231	-	0.094	8	pCi/g
CG45-012	750482.670	2084050.950	0.5	1.0	Uranium-238	4.881	-	2.000	351	pCi/g
CG45-012	750482.670	2084050.950	1.0	1.3	Uranium-235	0.243	-	0.120	8	pCi/g
CG45-012	750482.670	2084050.950	1.0	1.3	Uranium-238	2.215	-	1.490	351	pCi/g
CG45-013	750445.860	2084047.360	0.0	0.5	Chromium	21.000	-	16.990	268	mg/kg
CG45-013	750445.860	2084047.360	0.0	0.5	Nickel	15.000	-	14.910	20400	mg/kg
CG45-013	750445.860	2084047.360	0.0	0.5	Uranium-234	4.565	-	2.253	300	pCi/g
CG45-013	750445.860	2084047.360	0.0	0.5	Uranium-235	0.252	-	0.094	8	pCi/g
CG45-013	750445.860	2084047.360	0.0	0.5	Uranium-238	4.565	-	2.000	351	pCi/g
CG45-013	750445.860	2084047.360	0.0	0.5	Zinc	160.000	-	73.760	307000	mg/kg
CG45-013	750445.860	2084047.360	1.1	1.6	Lead	560.000	-	24.970	1000	mg/kg
CG45-013	750445.860	2084047.360	1.1	1.6	Uranium-234	5.523	-	2.640	300	pCi/g
CG45-013	750445.860	2084047.360	1.1	1.6	Uranium-235	0.220	-	0.120	8	pCi/g
CG45-013	750445.860	2084047.360	1.1	1.6	Uranium-238	5.523	-	1.490	351	pCi/g
CG45-014	750370.790	2084092.090	1.8	2.3	Chromium	21.000	-	16.990	268	mg/kg
CG45-014	750370.790	2084092.090	1.8	2.3	Lithium	13.000	-	11.550	20400	mg/kg
CG45-014	750370.790	2084092.090	1.8	2.3	Nickel	17.000	-	14.910	20400	mg/kg
CG45-014	750370.790	2084092.090	1.8	2.3	Strontium	49.000	-	48.940	613000	mg/kg
CG45-014	750370.790	2084092.090	1.8	2.3	Uranium-235	0.142	-	0.094	8	pCi/g
CG45-014	750370.790	2084092.090	2.3	3.8	Acetone	14.000	5.100	-	102000000	ug/kg
CG45-014	750370.790	2084092.090	2.3	3.8	Methylene chloride	2.000	0.880	-	2530000	ug/kg
CG45-014	750370.790	2084092.090	2.3	3.8	Naphthalene	3.400	0.940	-	3090000	ug/kg
CG45-015	750377.480	2083999.540	0.7	1.2	Copper	23.000	-	18.060	40900	mg/kg
CG45-015	750377.480	2083999.540	0.7	1.2	Manganese	390.000	-	365.080	3480	mg/kg
CG45-015	750377.480	2083999.540	0.7	1.2	Uranium-235	0.195	-	0.094	8	pCi/g
CG45-015	750377.480	2083999.540	1.2	1.7	Uranium-234	4.005	-	2.640	300	pCi/g
CG45-015	750377.480	2083999.540	1.2	1.7	Uranium-235	0.229	-	0.120	8	pCi/g
CG45-015	750377.480	2083999.540	1.2	1.7	Uranium-238	4.005	-	1.490	351	pCi/g
CG45-016	750389.563	2083952.419	0.0	0.3	Americium-241	1.096	-	0.023	76	pCi/g

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW-AL	Unit
CG45-016	750389.563	2083952.419	0.0	0.3	Plutonium-239/240	6.247	-	0.066	50	pCi/g
CG45-017	750439.563	2083952.425	0.0	0.3	Americium-241	5.239	-	0.023	76	pCi/g
CG45-017	750439.563	2083952.425	0.0	0.3	Plutonium-239/240	29.862	-	0.066	50	pCi/g
CG45-021	750439.569	2084002.461	0.0	0.3	Uranium-234	4.253	-	2.253	300	pCi/g
CG45-021	750439.569	2084002.461	0.0	0.3	Uranium-238	4.253	-	2.000	351	pCi/g
CG45-022	750489.530	2084002.315	0.0	0.5	Americium-241	8.964	-	0.020	76	pCi/g
CG45-022	750489.530	2084002.315	0.0	0.5	Plutonium-239/240	51.095	-	0.020	50	pCi/g
CG45-022	750489.530	2084002.315	0.0	0.5	Uranium-235	0.237	-	0.120	8	pCi/g
CG45-022	750489.530	2084002.315	0.0	0.5	Uranium-238	2.606	-	1.490	351	pCi/g
CG45-024	750389.431	2084052.409	0.0	0.3	Uranium-234	2.280	-	2.253	300	pCi/g
CG45-024	750389.431	2084052.409	0.0	0.3	Uranium-235	0.159	-	0.094	8	pCi/g
CG45-024	750389.431	2084052.409	0.0	0.3	Uranium-238	2.280	-	2.000	351	pCi/g
CG45-025	750439.501	2084052.384	0.0	0.3	Uranium-234	4.526	-	2.253	300	pCi/g
CG45-025	750439.501	2084052.384	0.0	0.3	Uranium-235	0.244	-	0.094	8	pCi/g
CG45-025	750439.501	2084052.384	0.0	0.3	Uranium-238	4.526	-	2.000	351	pCi/g
CG45-028	750389.533	2084102.380	0.0	0.3	Americium-241	5.246	-	0.023	76	pCi/g
CG45-028	750389.533	2084102.380	0.0	0.3	Plutonium-239/240	29.902	-	0.066	50	pCi/g
CG45-028	750389.533	2084102.380	0.0	0.3	Uranium-234	3.982	-	2.253	300	pCi/g
CG45-028	750389.533	2084102.380	0.0	0.3	Uranium-235	0.240	-	0.094	8	pCi/g
CG45-028	750389.533	2084102.380	0.0	0.3	Uranium-238	3.982	-	2.000	351	pCi/g
CG45-030	750489.535	2084102.402	0.0	0.3	Uranium-234	3.321	-	2.253	300	pCi/g
CG45-030	750489.535	2084102.402	0.0	0.3	Uranium-235	0.155	-	0.094	8	pCi/g
CG45-030	750489.535	2084102.402	0.0	0.3	Uranium-238	3.321	-	2.000	351	pCi/g
CG45-031	750539.537	2084102.420	0.0	0.3	Uranium-234	3.069	-	2.253	300	pCi/g
CG45-031	750539.537	2084102.420	0.0	0.3	Uranium-238	3.069	-	2.000	351	pCi/g
CG45-032	750564.586	2083985.522	0.0	1.0	Uranium-234	2.944	-	2.253	300	pCi/g
CG45-032	750564.586	2083985.522	0.0	1.0	Uranium-238	2.944	-	2.000	351	pCi/g
CG45-033	750563.412	2084024.273	0.0	1.0	Arsenic	19.500	-	10.090	22.2	mg/kg
CG45-033	750563.412	2084024.273	0.0	1.0	Barium	793.000	-	141.260	26400	mg/kg
CG45-033	750563.412	2084024.273	0.0	1.0	Chromium	21.900	-	16.990	268	mg/kg
CG45-033	750563.412	2084024.273	0.0	1.0	Iron	24800.000	-	18037.000	307000	mg/kg

Preliminary Review Draft for Interagency Discussion/Not Issued for Public Comment

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CG45-033	750563.412	2084024.273	0.0	1.0	Nickel	28.100	-	14.910	20400	mg/kg
CG45-033	750563.412	2084024.273	0.0	1.0	Strontium	223.000	-	48.940	613000	mg/kg
CG45-033	750563.412	2084024.273	0.0	1.0	Tin	10.400	-	2.900	613000	mg/kg
CG45-033	750563.412	2084024.273	0.0	1.0	Uranium-235	0.217	-	0.094	8	pCi/g
CG45-033	750563.412	2084024.273	0.0	1.0	Uranium-238	2.183	-	2.000	351	pCi/g
CG45-033	750563.412	2084024.273	0.0	1.0	Vanadium	53.800	-	45.590	7150	mg/kg
CG45-033	750563.412	2084024.273	0.0	1.0	Zinc	100.000	-	73.760	307000	mg/kg
CG45-041	750340.074	2083903.138	0.0	0.5	Americium-241	9.752	-	0.023	76	pCi/g
CG45-041	750340.074	2083903.138	0.0	0.5	Plutonium-239/240	55.586	-	0.066	50	pCi/g
CG45-041	750340.074	2083903.138	0.0	0.5	Uranium-235	0.154	-	0.094	8	pCi/g
CG45-044	750347.557	2084052.586	0.0	0.5	Americium-241	11.880	-	0.023	76	pCi/g
CG45-044	750347.557	2084052.586	0.0	0.5	Plutonium-239/240	67.716	-	0.066	50	pCi/g
CG45-044	750347.557	2084052.586	0.0	0.5	Uranium-235	0.128	-	0.094	8	pCi/g
CG46-000	750584.690	2083949.150	2.8	3.3	Uranium-234	5.243	-	2.253	300	pCi/g
CG46-000	750584.690	2083949.150	2.8	3.3	Uranium-235	0.241	-	0.094	8	pCi/g
CG46-000	750584.690	2083949.150	2.8	3.3	Uranium-238	5.243	-	2.000	351	pCi/g
CG46-001	750625.830	2084014.960	1.2	1.7	Uranium-234	3.679	-	2.253	300	pCi/g
CG46-001	750625.830	2084014.960	1.2	1.7	Uranium-235	0.233	-	0.094	8	pCi/g
CG46-001	750625.830	2084014.960	1.2	1.7	Uranium-238	3.679	-	2.000	351	pCi/g
CG46-001	750625.830	2084014.960	1.7	2.2	Naphthalene	5.920	4.760	-	3090000	ug/kg
CG46-001	750625.830	2084014.960	1.7	2.2	Uranium-235	0.191	-	0.120	8	pCi/g
CG46-002	750655.650	2084079.230	0.6	1.1	Cobalt	19.000	-	10.910	1550	mg/kg
CG46-002	750655.650	2084079.230	0.6	1.1	Copper	58.000	-	18.060	40900	mg/kg
CG46-002	750655.650	2084079.230	0.6	1.1	Tin	5.000	-	2.900	613000	mg/kg
CG46-002	750655.650	2084079.230	1.1	1.6	Copper	56.000	-	38.210	40900	mg/kg
CG46-002	750655.650	2084079.230	1.1	1.6	Uranium-235	0.172	-	0.120	8	pCi/g
CG46-003	750586.750	2084065.870	2.0	2.5	Uranium-234	3.653	-	2.253	300	pCi/g
CG46-003	750586.750	2084065.870	2.0	2.5	Uranium-235	0.208	-	0.094	8	pCi/g
CG46-003	750586.750	2084065.870	2.0	2.5	Uranium-238	3.653	-	2.000	351	pCi/g
CG46-004	750611.430	2084142.990	0.5	1.0	Naphthalene	30.100	5.660	-	3090000	ug/kg
CG46-004	750611.430	2084142.990	1.0	1.5	Copper	52.000	-	38.210	40900	mg/kg

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Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CG46-004	750611.430	2084142.990	1.0	1.5	Naphthalene	7.310	6.280	-	3090000	ug/kg
CG46-008	750648.450	2084006.220	0.8	1.3	Copper	21.000	-	18.060	40900	mg/kg
CG46-008	750648.450	2084006.220	0.8	1.3	Uranium-235	0.203	-	0.094	8	pCi/g
CG46-008	750648.450	2084006.220	0.8	1.3	Uranium-238	2.003	-	2.000	351	pCi/g
CG46-008	750648.450	2084006.220	1.3	1.8	Uranium-235	0.153	-	0.120	8	pCi/g
CG46-034	750661.089	2083972.614	5.0	6.0	Americium-241	0.804	-	0.020	76	pCi/g
CG46-034	750661.089	2083972.614	5.0	6.0	Plutonium-239/240	4.585	-	0.020	50	pCi/g
CG46-035	750648.280	2083951.845	5.0	6.0	Americium-241	2.158	-	0.020	76	pCi/g
CG46-035	750648.280	2083951.845	5.0	6.0	Plutonium-239/240	12.301	-	0.020	50	pCi/g
CG46-035	750648.280	2083951.845	5.0	6.0	Uranium-235	0.181	-	0.120	8	pCi/g
CG46-036	750648.038	2083969.300	5.0	5.3	Americium-241	0.758	-	0.020	76	pCi/g
CG46-036	750648.038	2083969.300	5.0	5.3	Plutonium-239/240	2.910	-	0.020	50	pCi/g
CG46-037	750648.038	2083969.300	5.0	6.0	Americium-241	0.440	-	0.020	76	pCi/g
CG46-037	750648.038	2083969.300	5.0	6.0	Plutonium-239/240	2.507	-	0.020	50	pCi/g
CH44-000	750302.510	2084208.850	0.0	0.5	Antimony	1.100	-	0.470	409	mg/kg
CH44-000	750302.510	2084208.850	0.0	0.5	Copper	27.000	-	18.060	40900	mg/kg
CH44-000	750302.510	2084208.850	0.0	0.5	Uranium-235	0.142	-	0.094	8	pCi/g
CH44-001	750289.740	2084163.260	0.0	0.5	Antimony	0.950	-	0.470	409	mg/kg
CH44-001	750289.740	2084163.260	0.0	0.5	Copper	23.000	-	18.060	40900	mg/kg
CH44-001	750289.740	2084163.260	0.0	0.5	Uranium-235	0.106	-	0.094	8	pCi/g
CH44-001	750289.740	2084163.260	0.5	2.5	Uranium-235	0.131	-	0.120	8	pCi/g
CH44-001	750289.740	2084163.260	0.5	2.5	Uranium-238	1.616	-	1.490	351	pCi/g
CH45-000	750481.340	2084148.650	1.0	1.5	Uranium-235	0.190	-	0.120	8	pCi/g
CH45-150	750489.597	2084139.641	0.0	0.3	Uranium-235	0.210	-	0.094	8	pCi/g
CH46-004	750652.050	2084156.360	0.7	1.2	Aluminum	35000.000	-	16902.000	228000	mg/kg
CH46-004	750652.050	2084156.360	0.7	1.2	Chromium	29.000	-	16.990	268	mg/kg
CH46-004	750652.050	2084156.360	0.7	1.2	Iron	22000.000	-	18037.000	307000	mg/kg
CH46-004	750652.050	2084156.360	0.7	1.2	Lithium	23.000	-	11.550	20400	mg/kg
CH46-004	750652.050	2084156.360	0.7	1.2	Nickel	26.000	-	14.910	20400	mg/kg
CH46-004	750652.050	2084156.360	0.7	1.2	Strontium	110.000	-	48.940	613000	mg/kg
CH46-004	750652.050	2084156.360	0.7	1.2	Uranium-235	0.144	-	0.094	8	pCi/g

Location Code	Latitude	Longitude	Start Depth	End Depth	Analyte	Result	RL	Background	WRW AL	Unit
CH46-004	750652.050	2084156.360	0.7	1.2	Vanadium	56.000	-	45.590	7150	mg/kg
CH46-063	750639.539	2084152.363	0.0	0.3	Americium-241	0.393	-	0.023	76	pCi/g
CH46-063	750639.539	2084152.363	0.0	0.3	Plutonium-239/240	2.241	-	0.066	50	pCi/g
CH46-063	750639.539	2084152.363	0.0	0.3	Uranium-235	0.168	-	0.094	8	pCi/g

SBD – sample beginning depth
 SED – sample ending depth
 NA – not applicable

2.3 Sums of Ratios and Summary Statistics

SORs were calculated for surface soil characterization sampling locations within UBCs 776, 777 and 778, and Tank 18. Radionuclide SORs were calculated for surface (0 to 3 ft bgs) soil samples where radionuclide contaminants of concern (COCs) (americium-241, plutonium-239/240, uranium-234, uranium-235, and uranium-238) were detected at activities greater than background means plus two standard deviations. Plutonium-239/240 activities were derived from americium-241 activities (americium-241 gamma spectroscopy activity x 5.7) when americium-241 activities were measured using HPGe. Radionuclide SORs are presented in Table 5. Eleven radionuclide SORs were greater than 1.

Non-radionuclide SORs were calculated for surface (0 to 0.5 ft bgs) soil samples where non-radionuclide COCs were detected at concentrations of 10 percent or more of their WRW ALs, but less than the ALs. Non-radionuclide SORs are presented in Table 6. All non-radionuclide SORs were less than 1. In accordance with RFCA, SORs were not calculated for aluminum, arsenic, iron, manganese, or polycyclic aromatic hydrocarbons (PAHs). However, the four metals were not used in processes within Buildings 776 and 777, and PAHs are found in asphalt.

Summary statistics for soil characterization results associated with UBCs 776, 777 and 778, and Tank 18 are presented in Tables 7 and 8 for surface and subsurface soil, respectively.

Table 5
IHSS Group 700-3 Characterization Sum of Ratios for Radionuclides in Surface Soil

Location	Start Depth (ft)	End Depth (ft)	SOR
CD46-000	0	0.5	0.044
CD46-000	0.5	0.75	0.058
CE44-004	1.9	2.4	0.047
CE44-005	1.4	1.9	0.022
CE44-006	0	0.5	0.070
CE44-006	0.5	2.5	0.077
CE44-008	1.4	1.9	0.017
CE44-008	1.9	2.2	0.020
CE44-009	0	0.5	0.073
CE44-009	1.17	1.57	0.052
CE44-010	1.3	1.8	0.018
CE44-010	1.8	2.3	0.022
CE44-011	1	1.5	0.061
CE44-011	1.5	2	0.063
CE44-044	0	3	0.010
CE44-045	0	0.3	0.038
CE44-046	0	0.3	0.683
CE44-047	0	0.3	0.079
CE45-010	0	0.5	0.041
CE45-010	0.5	1	0.027
CE45-011	0.75	1.25	0.046
CE45-011	1.25	1.5	0.044

Location	Start Depth (ft)	End Depth (ft)	SOR
CE45-014	0.75	1.25	0.044
CE45-014	1.25	1.5	0.194
CE45-018	0.7	1.2	0.049
CE45-018	1.2	1.5	0.054
CE45-019	1	1.3	0.016
CE45-020	0	0.5	0.045
CE45-020	0.5	2.5	0.005
CE45-021	0.5	1	0.065
CE45-021	1	1.5	0.060
CE45-022	0.6	1.1	0.048
CE45-022	1.1	1.4	0.060
CE45-023	0.6	1.1	0.053
CE45-023	1.1	1.6	0.051
CE45-024	0.5	1	0.050
CE45-024	1	1.5	0.045
CE45-091	0	0.3	3.093
CE45-092	0	0.3	8.670
CE45-093	0	0.3	3.966
CE45-094	0	0.3	3.127
CE45-095	0	0.3	10.478
CE45-096	0	0.3	16.605
CE45-097	0	0.3	5.676
CE45-098	0	0.3	0.757
CE45-123	0	0.3	3.067
CE45-127	0	0.3	0.635
CE46-000	0	0.5	0.019
CE46-000	0.5	1.5	0.060
CE46-002	0	0.5	0.053
CE46-002	0.5	0.75	0.044
CE46-009	0.5	1	0.013
CE46-009	1	1.5	0.045
CE46-067	0	0.3	0.016
CE46-068	0	0.3	0.138
CE46-073	0	0.3	0.109
CE46-074	0	0.3	0.252
CE46-078	2.5	2.7	0.166
CE46-079	2.5	2.7	0.539
CE46-080	1	1.2	0.544
CF44-012	0.6	1.1	0.042
CF44-012	1.1	1.6	0.023
CF44-013	0.6	1.1	0.067
CF44-013	1.1	1.8	0.007
CF45-002	0.33	0.83	0.033
CF45-002	0.83	2.83	0.055
CF45-003	0.33	0.83	0.044

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Location	Start Depth (ft)	End Depth (ft)	SOR
CF45-003	0.83	1.83	0.047
CF45-006	0.6	1.1	0.050
CF45-007	0.8	1.3	0.054
CF45-007	1.3	2.1	0.052
CF45-009	1.1	1.6	0.024
CF45-009	1.6	1.9	0.017
CF45-010	2.2	2.7	0.052
CF45-011	0.6	1.1	0.061
CF45-011	1.1	1.4	0.057
CF45-013	0.7	1.2	0.065
CF45-013	1.2	1.6	0.061
CF45-014	0.6	1.1	0.031
CF45-015	2	2.3	0.326
CF45-016	0	0.5	0.041
CF45-016	0.5	1.4	0.025
CF45-018	0	0.5	0.054
CF45-018	0.5	0.8	0.052
CF45-019	0.875	1.375	0.021
CF45-020	0.6	1.1	0.019
CF45-021	2	2.3	18.770
CF45-023	0.71	1.21	0.014
CF45-023	1.21	1.61	0.052
CF45-024	0	0.5	0.226
CF45-024	0.5	1	0.257
CF45-105	0	0.3	0.254
CF45-117	0	0.3	0.235
CF45-118	0	0.3	1.173
CF46-014	1.1	1.4	0.018
CF46-017	0.67	1.17	0.016
CF46-018	2	2.3	1.686
CF46-019	0	0.5	0.022
CG44-000	0	0.5	0.021
CG44-000	0.5	0.8	0.054
CG44-002	0.6	1.1	0.021
CG44-002	1.1	1.4	0.030
CG44-003	1.17	1.77	0.024
CG44-007	1.3	1.8	0.023
CG44-017	0	0.3	0.090
CG45-000	1	1.17	0.028
CG45-001	0.5	1	0.021
CG45-001	1	1.25	0.025
CG45-002	0	0.5	0.049
CG45-003	0.46	0.96	0.017
CG45-003	0.96	1.36	0.063
CG45-004	0.5	1	0.044
CG45-004	1	1.4	0.021

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Location	Start Depth (ft)	End Depth (ft)	SOR
CG45-005	1	1.5	0.053
CG45-005	1.5	2	0.056
CG45-006	1.1	1.5	0.057
CG45-007	0.5	1	0.026
CG45-007	1	1.4	0.055
CG45-008	1	1.5	0.053
CG45-008	1.5	2.3	0.052
CG45-011	1	1.2	0.018
CG45-012	0.5	1	0.059
CG45-012	1	1.3	0.037
CG45-013	0	0.5	0.060
CG45-013	1.125	1.625	0.062
CG45-014	1.83	2.33	0.018
CG45-015	0.67	1.17	0.024
CG45-015	1.17	1.67	0.053
CG45-016	0	0.3	0.068
CG45-017	0	0.3	0.326
CG45-021	0	0.3	0.026
CG45-022	0	0.5	0.595
CG45-024	0	0.3	0.034
CG45-025	0	0.3	0.058
CG45-028	0	0.3	0.381
CG45-030	0	0.3	0.040
CG45-031	0	0.3	0.019
CG45-032	0	1	0.018
CG45-033	0	1	0.033
CG45-041	0	0.5	0.627
CG45-044	0	0.5	0.756
CG46-001	1.15	1.65	0.052
CG46-001	1.65	2.15	0.024
CG46-002	1.1	1.6	0.021
CG46-003	2	2.5	0.049
CG46-008	0.75	1.25	0.031
CG46-008	1.25	1.75	0.019
CH44-000	0	0.5	0.018
CH44-001	0	0.5	0.013
CH44-001	0.5	2.5	0.021
CH45-000	1	1.5	0.024
CH45-150	0	0.3	0.026
CH46-004	0.67	1.17	0.018
CH46-063	0	0.3	0.045

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Table 6
IHSS Group 700-3 Characterization Sum of Ratios for Non-Radionuclides in Surface Soil

Location	Start Depth (ft)	End Depth (ft)	SOR
CE44-007	1.4	1.9	0.108
CE46-000	0	0.5	0.126
CF44-013	0.6	1.1	0.101
CF45-007	0.8	1.3	0.119
CF45-012	0.6	1.1	0.101
CF45-015	2	2.3	0.104
CF45-021	2	2.3	0.162
CF45-023	0.71	1.21	0.127
CF46-018	2	2.3	0.198
CF46-019	0	0.5	0.149
CG45-000	0.5	1	0.161
CG45-001	0.5	1	0.293
CG45-003	0.46	0.96	0.597
CG45-007	0.5	1	0.33
CH46-004	0.67	1.17	0.108

Table 7
IHSS Group 700-3 Surface Soil Characterization Data Summary Statistics

Analyte	No. of Samples	Detection Frequency	Average Concentration	Maximum Concentration	Background	WRW AL	Unit
1,1-Dichloroethene	11	18.18%	47.500	70.000	-	17000	ug/kg
Aluminum	58	15.52%	24555.556	35000.000	16902.000	228000	mg/kg
Americium-241	115	27.83%	42.151	301.300	0.023	76	pCi/g
Antimony	68	2.94%	1.025	1.100	0.470	409	mg/kg
Aroclor-1254	5	20.00%	13.000	13.000	-	12400	ug/kg
Aroclor-1260	5	40.00%	12.000	13.000	-	12400	ug/kg
Arsenic	68	7.35%	18.620	22.200	10.090	22.2	mg/kg
Barium	68	14.71%	669.200	869.000	141.260	26400	mg/kg
Beryllium	58	6.90%	1.120	1.300	0.966	921	mg/kg
Chromium	68	48.53%	29.936	160.000	16.990	268	mg/kg
Cobalt	68	44.12%	35.133	249.000	10.910	1550	mg/kg
Copper	68	69.12%	45.030	140.000	18.060	40900	mg/kg
Iron	68	20.59%	27121.429	44200.000	18037.000	307000	mg/kg
Lead	68	2.94%	204.500	330.000	54.620	1000	mg/kg
Lithium	58	29.31%	14.588	23.000	11.550	20400	mg/kg
Manganese	68	8.82%	541.667	835.000	365.080	3480	mg/kg
Naphthalene	11	9.09%	30.100	30.100	-	3090000	ug/kg
Nickel	68	41.18%	27.861	77.000	14.910	20400	mg/kg
Plutonium-239/240	115	28.70%	228.281	1717.410	0.066	50	pCi/g
Strontium	68	20.59%	180.900	559.000	48.940	613000	mg/kg
Tin	68	13.24%	7.542	13.000	2.900	613000	mg/kg
Uranium-234	115	40.87%	3.972	6.053	2.253	300	pCi/g

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Analyte	No. of Samples	Detection Frequency	Average Concentration	Maximum Concentration	Background	WRW AL	Unit
Uranium-235	115	63.48%	0.187	0.337	0.094	8	pCi/g
Uranium-238	115	46.09%	3.762	6.053	2.000	351	pCi/g
Vanadium	68	19.12%	87.892	156.000	45.590	7150	mg/kg
Zinc	68	14.71%	117.440	190.000	73.760	307000	mg/kg

Table 8
IHSS Group 700-3 Subsurface Soil Characterization Data Summary Statistics

Analyte	No. of Samples	Detection Frequency	Mean Concentration	Maximum Concentration	Background	WRW AL	Unit
1,1-Dichloroethene	70	2.86%	67	110	-	17000	ug/kg
1,2,4-Trichlorobenzene	70	1.43%	1.1	1.1	-	9230000	ug/kg
Acetone	70	10.00%	67.7	400	-	102000000	ug/kg
Aluminum	56	1.79%	45000	45000	35373.170	228000	mg/kg
Americium-241	119	36.13%	51.085	1239	0.020	76	pCi/g
Aroclor-1260	5	40.00%	8.85	11	-	12400	ug/kg
Arsenic	68	2.94%	17.8	21.6	13.140	22.2	mg/kg
Barium	68	17.65%	613.75	915	289.380	26400	mg/kg
Chromium	68	1.47%	130	130	68.270	268	mg/kg
Cobalt	68	4.41%	89.667	122	29.040	1550	mg/kg
Copper	68	20.59%	57.314	89.4	38.210	40900	mg/kg
Ethylbenzene	70	1.43%	17.6	17.6	-	4250000	ug/kg
Iron	68	2.94%	44800	45800	41046.520	307000	mg/kg
Lead	68	4.41%	261.333	560	24.970	1000	mg/kg
Manganese	68	2.94%	1131	1310	901.620	3480	mg/kg
Methylene chloride	70	8.57%	1.567	2	-	2530000	ug/kg
Naphthalene	70	10.00%	9.061	23	-	3090000	ug/kg
Nickel	68	2.94%	69.85	76	62.210	20400	mg/kg
Plutonium-239/240	119	36.97%	284.471	7062.3	0.020	50	pCi/g
Strontium	68	2.94%	244.5	264	211.380	613000	mg/kg
Tetrachloroethene	70	1.43%	13.3	13.3	-	615000	ug/kg
Toluene	70	1.43%	7.52	7.52	-	31300000	ug/kg
Uranium, Total	56	1.79%	3.1	3.1	3.040	2750	mg/kg
Uranium-234	119	36.97%	4.465	16.4	2.640	300	pCi/g
Uranium-235	119	63.87%	0.233386842	1.53	0.120	8	pCi/g
Uranium-238	119	49.58%	4.568	61.4	1.490	351	pCi/g
Vanadium	68	8.82%	106.85	147	88.490	7150	mg/kg
Xylene	70	5.71%	38.225	111	-	2040000	ug/kg
Zinc	68	1.47%	302	302	139.100	307000	mg/kg

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3.0 ACCELERATED ACTION

Accelerated action objectives for IHSS Group 700-3 were described in ER RSOP Notification #04-04 (DOE 2004b). The accelerated action objectives for UBCs 776, 777 and 778, and Tank 18 included the following:

- Remove all process, sanitary, foundation, and storm drains, including OPWL and New Process Waste Lines (NPWL), within 3 ft of the surface. Grout or foam in place remaining drain segments.
- Remove soil within 3 ft of the existing or final grade with radionuclide activities greater than the RFCA WRW soil ALs (DOE et al. 2003). If excavation is already in progress, remove soil until plutonium-239/240 activities are less than 1 nanocuries per gram (nCi/g). If plutonium-239/240 or americium-241 activities are greater than 3 nCi/g in soil located 3 to 6 ft bgs, characterize and remediate in accordance with RFCA Attachment 14 (DOE et al. 2003). If plutonium-239/240 or americium-241 is present in soil below 6 ft bgs at activities greater than the RFCA WRW ALs but less than 3 nCi/g, conduct an SSRS.
- Remove soil with non-radionuclide contaminant concentrations greater than the WRW ALs or as indicated by the SSRS.
- Collect confirmation samples in accordance with the IABZSAP (DOE 2004a) and in consultation with the regulatory agencies.

Accelerated action activities were conducted between November 2003 and July 2005. Starting and ending dates of significant activities are listed in Table 9. Key structural features removed and excavations are shown on Figure 4. Photographs of activities are provided in Appendix A.

**Table 9
IHSS Group 700-3 Accelerated Action Activities**

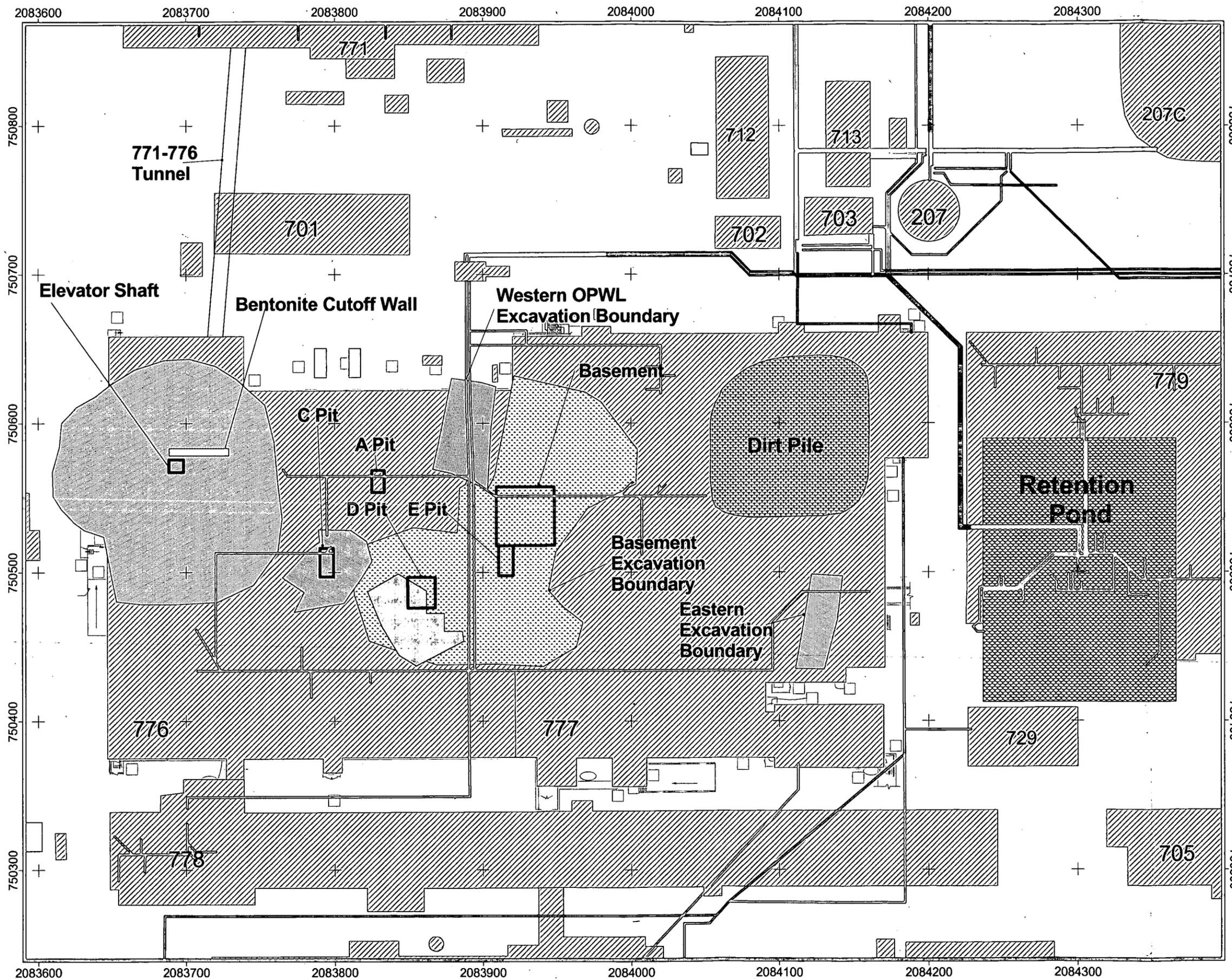
Activity	Starting Date	Ending Date
Sampling and analysis	November 4, 2002	November 14, 2002
Sampling and analysis	May 28, 2003	May 29, 2003
Sampling and analysis	November 10, 2003	February 24, 2004
Sampling and analysis	January 17, 2005	February 23, 2005
Sampling and analysis	April 26, 2005	August 1, 2005
Soil removal	March 1, 2005	August 12, 2005
Backfilling and grading	July 1, 2005	August 12, 2005

3.1 Removal of Structural Components and Drain Lines

Structural components and drain lines associated with Buildings 776 and 777, including the 776/777 slab, basement, equipment pits, waste lines, pipe chases, sumps, and foundation features such as caissons and footer walls, were removed as part of the 776/777 Closure Project and are documented in the Decommissioning Closeout Report for the 776/777 Closure Project (DOE 2005a). Structural components and drain lines associated with Building 778, including the slab,

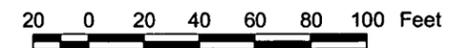
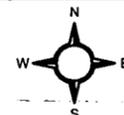
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Figure 4
Structural Features Removed,
Excavation Boundaries, and
Tunnel Cutoff Wall Installed,
UBC 776, 777, and 778



KEY

-  Pits removed
-  D pit excavation boundary
-  C pit excavation boundary
-  Elevator shaft excavation boundary
-  Western OPWL excavation boundary
-  Eastern excavation boundary
-  Basement excavation boundary
-  Demolished building
-  Bentonite Cutoff Wall
-  Dirt Pile
-  Retention Pond
-  Tunnel connecting Buildings 776 and 771
-  Building 776/777 floor plan
-  OPWL remaining
-  OPWL - did not exist
-  OPWL removed



Scale = 1:800
 State Plane Coordinate Projection
 Colorado Central Zone
 Datum: NAD 27

U.S. Department of Energy
 Rocky Flats Environmental Technology Site

Date: 08/08/05

Prepared by: **RADMS**

Prepared For: **KAISER HILL COMPANY**

foundation features, and waste lines, were removed as part of the 707 Closure Project and documented in the Decommissioning Closeout Report for the 707 Closure Project (DOE 2005c). Only non-contaminated slabs associated with Building 778 remain in this project area.

Several large, deep excavations were required for the 776/777 Closure Project (Figure 4). The excavation depths associated with the basement, C-Pit, D-Pit and E-Pit were 20 - 25, 16, 30 and 12 ft deep, respectively. A large excavation was also required to remove the elevator shaft located in the northwestern part of UBC 776. Soil samples were collected from these excavations (Section 2.0), and some soil was removed (Section 3.3). Samples were collected from these areas (Section 4.0), and excavations were backfilled (Section 11.0) (refer to Regulatory Contact Record dated July 6, 2005, in Appendix B).

To reduce the amount of groundwater flow through the tunnel between Buildings 776 and 771, the tunnel entrance on the Building 776 side was blocked by crushing the end of the existing tunnel and placing approximately 30 cubic yards (cy) of concrete onto the crushed end, forming a layer 1.5 to 2 ft thick. A bentonite cutoff wall was then placed in front of the tunnel opening that extended laterally beyond the fill material underlying and surrounding the tunnel (Figure 4). The bentonite cutoff wall will minimize groundwater flow both within the tunnel and within the associated fill material surrounding the tunnel. After the cutoff wall was installed, the excavation was backfilled (refer to Regulatory Contact Record dated June 27, 2005, which is presented in Appendix B).

During building demolition, a significant amount of water was applied to control dust and the spread of contamination. This water was collected by temporary trenches into a central sump and pumped through a pipeline to a temporary, lined retention pond located at the site of former Building 779 (Figure 4). The water was then re-applied to control dust during demolition activities. The pond was roughly 100 ft by 100 ft by 8 ft deep. Water in the pond was removed and appropriately treated. The pond liner and remaining sediment were also removed. The bermed area is being sampled to ensure that all contaminant activities and concentrations are below RFCA WRW soil ALs. After confirmation sampling is completed, the berms of the pond will be graded to conform to final grade specifications.

3.2 Removal of Contaminated Soil and Site Reclamation

Soil contamination indicated by the accelerated action characterization of the UBCs (Section 2.0) and sampling conducted during building demolition was removed. In-process characterization data, collected during slab removal operations in January and February 2005, are presented in Table 10; however, all of these data are NLR as a result of soil removal. The most contaminated soil was removed during March and April 2005 while the 776/777 structure was still in place and provided controls to prevent the spread of contamination. Additional soil removal and sampling was conducted after the 776/777 structure was removed during July and August 2005. Most of the soil removal occurred within the Building 776 footprint where 2 - 3 ft of soil was removed. Much of the surface soil within the western part of the Building 777 footprint and the northern part of Building 778 footprint was also removed. Additional soil was removed when subsurface structures were being removed (Section 3.1). The excavation boundaries associated with the basement, the major pits, and elevator shaft are shown on Figure 4. Approximately 6,400 cy of soil were removed.

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**Table 10
In-Process Characterization Data**

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CE45-029	750554.633	2083769.180	0.0	0.3	Americium-241	138.000	-	0.023	76.0	pCi/g
CE45-029	750554.633	2083769.180	0.0	0.3	Plutonium-239/240	786.600	-	0.066	50.0	pCi/g
CE45-029	750554.633	2083769.180	0.5	1.0	Americium-241	23.730	-	0.020	76.0	pCi/g
CE45-029	750554.633	2083769.180	0.5	1.0	Plutonium-239/240	135.261	-	0.020	50.0	pCi/g
CE45-030	750544.404	2083769.180	0.0	0.3	Americium-241	1.220	-	0.023	76.0	pCi/g
CE45-030	750544.404	2083769.180	0.0	0.3	Plutonium-239/240	6.954	-	0.066	50.0	pCi/g
CE45-030	750544.404	2083769.180	0.0	0.3	Uranium-234	2.818	-	2.253	300.0	pCi/g
CE45-030	750544.404	2083769.180	0.0	0.3	Uranium-235	0.192	-	0.094	8.0	pCi/g
CE45-030	750544.404	2083769.180	0.0	0.3	Uranium-238	2.818	-	2.000	351.0	pCi/g
CE45-031	750533.590	2083749.306	0.0	0.3	Americium-241	1900.000	-	0.023	76.0	pCi/g
CE45-031	750533.590	2083749.306	0.0	0.3	Plutonium-239/240	9870.000	-	0.066	50.0	pCi/g
CE45-031	750533.590	2083749.306	0.5	1.0	Americium-241	417.000	-	0.020	76.0	pCi/g
CE45-031	750533.590	2083749.306	0.5	1.0	Plutonium-239/240	1330.000	-	0.020	50.0	pCi/g
CE45-032	750533.298	2083759.535	0.0	0.5	Americium-241	70.330	-	0.023	76.0	pCi/g
CE45-032	750533.298	2083759.535	0.0	0.5	Plutonium-239/240	400.881	-	0.066	50.0	pCi/g
CE45-033	750533.590	2083769.180	0.0	0.3	Americium-241	74.490	-	0.023	76.0	pCi/g
CE45-033	750533.590	2083769.180	0.0	0.3	Plutonium-239/240	424.593	-	0.066	50.0	pCi/g
CE45-033	750533.590	2083769.180	0.5	1.0	Americium-241	18.230	-	0.020	76.0	pCi/g
CE45-033	750533.590	2083769.180	0.5	1.0	Plutonium-239/240	103.911	-	0.020	50.0	pCi/g
CE45-033	750533.590	2083769.180	0.5	1.0	Uranium-235	0.179	-	0.120	8.0	pCi/g
CE45-033	750533.590	2083769.180	0.5	1.0	Uranium-238	1.834	-	1.490	351.0	pCi/g
CE45-034	750523.654	2083749.306	0.0	0.3	Americium-241	53.910	-	0.023	76.0	pCi/g
CE45-034	750523.654	2083749.306	0.0	0.3	Plutonium-239/240	307.287	-	0.066	50.0	pCi/g
CE45-034	750523.654	2083749.306	0.0	0.3	Uranium-235	0.181	-	0.094	8.0	pCi/g
CE45-035	750523.946	2083759.828	0.0	0.3	Americium-241	98.440	-	0.023	76.0	pCi/g
CE45-035	750523.946	2083759.828	0.0	0.3	Plutonium-239/240	561.108	-	0.066	50.0	pCi/g
CE45-036	750524.238	2083769.180	0.0	0.3	Americium-241	45.760	-	0.023	76.0	pCi/g
CE45-036	750524.238	2083769.180	0.0	0.3	Plutonium-239/240	260.832	-	0.066	50.0	pCi/g
CE45-036	750524.238	2083769.180	0.0	0.3	Uranium-234	4.065	-	2.253	300.0	pCi/g

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Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CE45-036	750524.238	2083769.180	0.0	0.3	Uranium-235	0.236	-	0.094	8.0	pCi/g
CE45-036	750524.238	2083769.180	0.0	0.3	Uranium-238	4.065	-	2.000	351.0	pCi/g
CE45-037	750514.301	2083749.599	0.0	0.3	Americium-241	20.010	-	0.023	76.0	pCi/g
<i>CE45-037</i>	<i>750514.301</i>	<i>2083749.599</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>114.057</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CE45-037	750514.301	2083749.599	0.5	1.0	Americium-241	4.943	-	0.020	76.0	pCi/g
<i>CE45-037</i>	<i>750514.301</i>	<i>2083749.599</i>	<i>0.5</i>	<i>1.0</i>	<i>Plutonium-239/240</i>	<i>28.175</i>	-	<i>0.020</i>	<i>50.0</i>	<i>pCi/g</i>
CE45-037	750514.301	2083749.599	0.5	1.0	Uranium-235	0.165	-	0.120	8.0	pCi/g
CE45-038	750514.886	2083759.535	0.0	0.3	Americium-241	37.280	-	0.023	76.0	pCi/g
<i>CE45-038</i>	<i>750514.886</i>	<i>2083759.535</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>212.496</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
<i>CE45-038</i>	<i>750514.886</i>	<i>2083759.535</i>	<i>0.0</i>	<i>0.3</i>	<i>Uranium-234</i>	<i>3.469</i>	-	<i>2.253</i>	<i>300.0</i>	<i>pCi/g</i>
CE45-038	750514.886	2083759.535	0.0	0.3	Uranium-238	3.469	-	2.000	351.0	pCi/g
CE45-039	750514.886	2083769.765	0.0	0.3	Americium-241	470.700	-	0.023	76.0	pCi/g
<i>CE45-039</i>	<i>750514.886</i>	<i>2083769.765</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>2682.990</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
<i>CE45-039</i>	<i>750514.886</i>	<i>2083769.765</i>	<i>0.0</i>	<i>0.3</i>	<i>Uranium-234</i>	<i>3.457</i>	-	<i>2.253</i>	<i>300.0</i>	<i>pCi/g</i>
CE45-039	750514.886	2083769.765	0.0	0.3	Uranium-235	0.321	-	0.094	8.0	pCi/g
CE45-039	750514.886	2083769.765	0.0	0.3	Uranium-238	3.457	-	2.000	351.0	pCi/g
CE45-039	750514.886	2083769.765	0.5	1.0	Americium-241	271.900	-	0.020	76.0	pCi/g
<i>CE45-039</i>	<i>750514.886</i>	<i>2083769.765</i>	<i>0.5</i>	<i>1.0</i>	<i>Plutonium-239/240</i>	<i>1549.830</i>	-	<i>0.020</i>	<i>50.0</i>	<i>pCi/g</i>
CE45-039	750514.886	2083769.765	0.5	1.0	Uranium-235	0.275	-	0.120	8.0	pCi/g
CE45-039	750514.886	2083769.765	0.5	1.0	Uranium-238	1.792	-	1.490	351.0	pCi/g
CE45-040	750503.780	2083749.599	0.0	0.3	Americium-241	0.568	-	0.023	76.0	pCi/g
<i>CE45-040</i>	<i>750503.780</i>	<i>2083749.599</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>3.239</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
<i>CE45-040</i>	<i>750503.780</i>	<i>2083749.599</i>	<i>0.0</i>	<i>0.3</i>	<i>Uranium-234</i>	<i>4.850</i>	-	<i>2.253</i>	<i>300.0</i>	<i>pCi/g</i>
CE45-040	750503.780	2083749.599	0.0	0.3	Uranium-235	0.205	-	0.094	8.0	pCi/g
CE45-040	750503.780	2083749.599	0.0	0.3	Uranium-238	4.850	-	2.000	351.0	pCi/g
CE45-041	750504.365	2083759.535	0.0	0.3	Americium-241	50.390	-	0.023	76.0	pCi/g
<i>CE45-041</i>	<i>750504.365</i>	<i>2083759.535</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>287.223</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
<i>CE45-041</i>	<i>750504.365</i>	<i>2083759.535</i>	<i>0.0</i>	<i>0.3</i>	<i>Uranium-234</i>	<i>3.335</i>	-	<i>2.253</i>	<i>300.0</i>	<i>pCi/g</i>
CE45-041	750504.365	2083759.535	0.0	0.3	Uranium-235	0.224	-	0.094	8.0	pCi/g
CE45-041	750504.365	2083759.535	0.0	0.3	Uranium-238	3.335	-	2.000	351.0	pCi/g
CE45-042	750504.072	2083769.472	0.0	0.3	Americium-241	1918.000	-	0.023	76.0	pCi/g

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Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW/AL	Unit
CE45-042	750504.072	2083769.472	0.0	0.3	Uranium-234	4.285	-	2.253	300.0	pCi/g
CE45-042	750504.072	2083769.472	0.0	0.3	Uranium-235	0.245	-	0.094	8.0	pCi/g
CE45-042	750504.072	2083769.472	0.0	0.3	Uranium-238	4.285	-	2.000	351.0	pCi/g
CE45-046	750554.633	2083759.243	0.0	0.3	Americium-241	114.300	-	0.023	76.0	pCi/g
CE45-046	750554.633	2083759.243	0.0	0.3	Plutonium-239/240	651.510	-	0.066	50.0	pCi/g
CE45-046	750554.633	2083759.243	0.0	0.3	Uranium-235	0.151	-	0.094	8.0	pCi/g
CE45-047	750543.527	2083748.722	0.0	0.3	Americium-241	211.300	-	0.023	76.0	pCi/g
CE45-047	750543.527	2083748.722	0.0	0.3	Plutonium-239/240	1204.410	-	0.066	50.0	pCi/g
CE45-047	750543.527	2083748.722	0.0	0.3	Uranium-235	0.153	-	0.094	8.0	pCi/g
CE45-048	750554.341	2083748.722	0.0	0.3	Americium-241	49.910	-	0.023	76.0	pCi/g
CE45-048	750554.341	2083748.722	0.0	0.3	Plutonium-239/240	284.487	-	0.066	50.0	pCi/g
CE45-048	750554.341	2083748.722	0.0	0.3	Uranium-235	0.200	-	0.094	8.0	pCi/g
CE45-048	750554.341	2083748.722	0.0	0.3	Uranium-238	2.067	-	2.000	351.0	pCi/g
CE45-048	750554.341	2083748.722	0.5	1.0	Americium-241	12.120	-	0.020	76.0	pCi/g
CE45-048	750554.341	2083748.722	0.5	1.0	Plutonium-239/240	69.084	-	0.020	50.0	pCi/g
CE45-048	750554.341	2083748.722	0.5	1.0	Uranium-235	0.182	-	0.120	8.0	pCi/g
CE45-048	750554.341	2083748.722	0.5	1.0	Uranium-238	1.523	-	1.490	351.0	pCi/g
CE45-049	750533.298	2083739.370	0.0	0.3	Americium-241	206.500	-	0.023	76.0	pCi/g
CE45-049	750533.298	2083739.370	0.0	0.3	Plutonium-239/240	1177.050	-	0.066	50.0	pCi/g
CE45-049	750533.298	2083739.370	0.0	0.3	Uranium-234	3.245	-	2.253	300.0	pCi/g
CE45-049	750533.298	2083739.370	0.0	0.3	Uranium-235	0.234	-	0.094	8.0	pCi/g
CE45-049	750533.298	2083739.370	0.0	0.3	Uranium-238	3.245	-	2.000	351.0	pCi/g
CE45-050	750533.590	2083729.433	0.0	0.3	Americium-241	190.000	-	0.023	76.0	pCi/g
CE45-050	750533.590	2083729.433	0.0	0.3	Plutonium-239/240	685.000	-	0.066	50.0	pCi/g
CE45-050	750533.590	2083729.433	0.5	1.0	Americium-241	80.000	-	0.020	76.0	pCi/g
CE45-050	750533.590	2083729.433	0.5	1.0	Plutonium-239/240	363.000	-	0.020	50.0	pCi/g
CE45-051	750533.590	2083719.204	0.0	0.3	Americium-241	92.940	-	0.023	76.0	pCi/g
CE45-051	750533.590	2083719.204	0.0	0.3	Plutonium-239/240	529.758	-	0.066	50.0	pCi/g
CE45-051	750533.590	2083719.204	0.0	0.3	Uranium-235	0.133	-	0.094	8.0	pCi/g
CE45-052	750533.298	2083708.390	0.0	0.3	Americium-241	206.600	-	0.023	76.0	pCi/g
CE45-052	750533.298	2083708.390	0.0	0.3	Plutonium-239/240	1177.620	-	0.066	50.0	pCi/g

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CE45-052	750533.298	2083708.390	0.0	0.3	Uranium-234	2.264	-	2.253	300.0	pCi/g
CE45-052	750533.298	2083708.390	0.0	0.3	Uranium-235	0.134	-	0.094	8.0	pCi/g
CE45-052	750533.298	2083708.390	0.0	0.3	Uranium-238	2.264	-	2.000	351.0	pCi/g
CE45-052	750533.298	2083708.390	0.5	1.0	Americium-241	1010.000	-	0.020	76.0	pCi/g
CE45-052	750533.298	2083708.390	0.5	1.0	Uranium-234	3.847	-	2.640	300.0	pCi/g
CE45-052	750533.298	2083708.390	0.5	1.0	Uranium-235	0.247	-	0.120	8.0	pCi/g
CE45-052	750533.298	2083708.390	0.5	1.0	Uranium-238	3.847	-	1.490	351.0	pCi/g
CE45-053	750554.341	2083739.370	0.0	0.3	Americium-241	353.100	-	0.023	76.0	pCi/g
CE45-054	750514.594	2083739.370	0.0	0.3	Americium-241	7.291	-	0.023	76.0	pCi/g
CE45-054	750514.594	2083739.370	0.0	0.3	Plutonium-239/240	41.559	-	0.066	50.0	pCi/g
CE45-054	750514.594	2083739.370	0.0	0.3	Uranium-234	3.760	-	2.253	300.0	pCi/g
CE45-054	750514.594	2083739.370	0.0	0.3	Uranium-235	0.165	-	0.094	8.0	pCi/g
CE45-054	750514.594	2083739.370	0.0	0.3	Uranium-238	3.760	-	2.000	351.0	pCi/g
CE45-055	750554.633	2083728.848	0.0	0.3	Americium-241	162.000	-	0.023	76.0	pCi/g
CE45-055	750554.633	2083728.848	0.0	0.3	Plutonium-239/240	768.000	-	0.066	50.0	pCi/g
CE45-055	750554.633	2083728.848	0.5	1.0	Americium-241	2.360	-	0.020	76.0	pCi/g
CE45-055	750554.633	2083728.848	0.5	1.0	Plutonium-239/240	16.100	-	0.020	50.0	pCi/g
CE45-056	750543.527	2083729.141	0.0	0.3	Americium-241	151.600	-	0.023	76.0	pCi/g
CE45-056	750543.527	2083729.141	0.0	0.3	Plutonium-239/240	864.120	-	0.066	50.0	pCi/g
CE45-056	750543.527	2083729.141	0.0	0.3	Uranium-234	3.000	-	2.253	300.0	pCi/g
CE45-056	750543.527	2083729.141	0.0	0.3	Uranium-235	0.202	-	0.094	8.0	pCi/g
CE45-056	750543.527	2083729.141	0.0	0.3	Uranium-238	3.000	-	2.000	351.0	pCi/g
CE45-057	750523.361	2083729.433	0.0	0.3	Americium-241	83.090	-	0.023	76.0	pCi/g
CE45-057	750523.361	2083729.433	0.0	0.3	Plutonium-239/240	473.613	-	0.066	50.0	pCi/g
CE45-057	750523.361	2083729.433	0.0	0.3	Uranium-234	4.505	-	2.253	300.0	pCi/g
CE45-057	750523.361	2083729.433	0.0	0.3	Uranium-235	0.140	-	0.094	8.0	pCi/g
CE45-057	750523.361	2083729.433	0.0	0.3	Uranium-238	4.505	-	2.000	351.0	pCi/g
CE45-058	750554.341	2083718.619	0.0	0.3	Americium-241	25.600	-	0.023	76.0	pCi/g
CE45-058	750554.341	2083718.619	0.0	0.3	Plutonium-239/240	145.920	-	0.066	50.0	pCi/g
CE45-058	750554.341	2083718.619	0.0	0.3	Uranium-234	5.316	-	2.253	300.0	pCi/g
CE45-058	750554.341	2083718.619	0.0	0.3	Uranium-235	0.213	-	0.094	8.0	pCi/g

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Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CE45-058	750554.341	2083718.619	0.0	0.3	Uranium-238	5.316	-	2.000	351.0	pCi/g
CE45-059	750514.301	2083719.204	0.0	0.3	Americium-241	15.470	-	0.023	76.0	pCi/g
<i>CE45-059</i>	<i>750514.301</i>	<i>2083719.204</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>88.179</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
<i>CE45-059</i>	<i>750514.301</i>	<i>2083719.204</i>	<i>0.0</i>	<i>0.3</i>	<i>Uranium-234</i>	<i>3.287</i>	-	<i>2.253</i>	<i>300.0</i>	<i>pCi/g</i>
CE45-059	750514.301	2083719.204	0.0	0.3	Uranium-235	0.221	-	0.094	8.0	pCi/g
CE45-059	750514.301	2083719.204	0.0	0.3	Uranium-238	3.287	-	2.000	351.0	pCi/g
CE45-060	750554.341	2083708.098	0.0	0.3	Americium-241	951.700	-	0.023	76.0	pCi/g
<i>CE45-060</i>	<i>750554.341</i>	<i>2083708.098</i>	<i>0.0</i>	<i>0.3</i>	<i>Uranium-234</i>	<i>3.983</i>	-	<i>2.253</i>	<i>300.0</i>	<i>pCi/g</i>
CE45-060	750554.341	2083708.098	0.0	0.3	Uranium-235	0.211	-	0.094	8.0	pCi/g
CE45-060	750554.341	2083708.098	0.0	0.3	Uranium-238	3.983	-	2.000	351.0	pCi/g
CE45-060	750554.341	2083708.098	0.5	1.0	Americium-241	408.100	-	0.020	76.0	pCi/g
<i>CE45-060</i>	<i>750554.341</i>	<i>2083708.098</i>	<i>0.5</i>	<i>1.0</i>	<i>Plutonium-239/240</i>	<i>2326.170</i>	-	<i>0.020</i>	<i>50.0</i>	<i>pCi/g</i>
CE45-061	750543.819	2083708.390	0.0	0.3	Americium-241	8484.000	-	0.023	76.0	pCi/g
CE45-062	750523.361	2083708.390	0.0	0.3	Americium-241	39.590	-	0.023	76.0	pCi/g
<i>CE45-062</i>	<i>750523.361</i>	<i>2083708.390</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>225.663</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CE45-062	750523.361	2083708.390	0.0	0.3	Uranium-235	0.262	-	0.094	8.0	pCi/g
CE45-063	750544.112	2083758.659	0.0	0.3	Americium-241	175.300	-	0.023	76.0	pCi/g
<i>CE45-063</i>	<i>750544.112</i>	<i>2083758.659</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>999.210</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CE45-064	750544.112	2083739.370	0.0	0.3	Americium-241	404.500	-	0.023	76.0	pCi/g
CE45-064	750544.112	2083739.370	0.0	0.3	Uranium-235	0.167	-	0.094	8.0	pCi/g
CE45-065	750523.946	2083739.662	0.0	0.3	Americium-241	60.050	-	0.023	76.0	pCi/g
<i>CE45-065</i>	<i>750523.946</i>	<i>2083739.662</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>342.285</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CE45-065	750523.946	2083739.662	0.0	0.3	Uranium-235	0.189	-	0.094	8.0	pCi/g
CE45-065	750523.946	2083739.662	0.0	0.3	Uranium-238	2.062	-	2.000	351.0	pCi/g
CE45-066	750544.112	2083718.912	0.0	0.3	Americium-241	36.520	-	0.023	76.0	pCi/g
<i>CE45-066</i>	<i>750544.112</i>	<i>2083718.912</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>208.164</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CE45-066	750544.112	2083718.912	0.0	0.3	Uranium-235	0.197	-	0.094	8.0	pCi/g
CE45-067	750523.069	2083719.496	0.0	0.3	Americium-241	61.440	-	0.023	76.0	pCi/g
<i>CE45-067</i>	<i>750523.069</i>	<i>2083719.496</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>350.208</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CE45-067	750523.069	2083719.496	0.0	0.3	Uranium-235	0.263	-	0.094	8.0	pCi/g
CE45-068	750514.301	2083729.433	0.0	0.3	Americium-241	498.300	-	0.023	76.0	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CE45-068	750514.301	2083729.433	0.5	1.0	Americium-241	42.170	-	0.020	76.0	pCi/g
CE45-068	750514.301	2083729.433	0.5	1.0	Plutonium-239/240	240.369	-	0.020	50.0	pCi/g
CE45-068	750514.301	2083729.433	0.5	1.0	Uranium-235	0.251	-	0.120	8.0	pCi/g
CE45-068	750514.301	2083729.433	0.5	1.0	Uranium-238	1.646	-	1.490	351.0	pCi/g
CE45-069	750514.301	2083708.975	0.0	0.3	Americium-241	1109.000	-	0.023	76.0	pCi/g
CE45-069	750514.301	2083708.975	0.5	1.0	Americium-241	67.450	-	0.020	76.0	pCi/g
CE45-069	750514.301	2083708.975	0.5	1.0	Plutonium-239/240	384.465	-	0.020	50.0	pCi/g
CE45-069	750514.301	2083708.975	0.5	1.0	Uranium-234	4.490	-	2.640	300.0	pCi/g
CE45-069	750514.301	2083708.975	0.5	1.0	Uranium-235	0.259	-	0.120	8.0	pCi/g
CE45-069	750514.301	2083708.975	0.5	1.0	Uranium-238	4.490	-	1.490	351.0	pCi/g
CE45-070	750483.030	2083630.065	0.0	0.3	Americium-241	23.740	-	0.023	76.0	pCi/g
CE45-070	750483.030	2083630.065	0.0	0.3	Plutonium-239/240	135.318	-	0.066	50.0	pCi/g
CE45-071	750473.093	2083630.065	0.0	0.3	Americium-241	272.300	-	0.023	76.0	pCi/g
CE45-071	750473.093	2083630.065	0.0	0.3	Plutonium-239/240	1552.110	-	0.066	50.0	pCi/g
CE45-071	750473.093	2083630.065	0.0	0.3	Uranium-235	0.135	-	0.094	8.0	pCi/g
CE45-071	750473.093	2083630.065	0.5	1.0	Americium-241	151.200	-	0.020	76.0	pCi/g
CE45-071	750473.093	2083630.065	0.5	1.0	Plutonium-239/240	861.840	-	0.020	50.0	pCi/g
CE45-071	750473.093	2083630.065	0.5	1.0	Uranium-235	0.161	-	0.120	8.0	pCi/g
CE45-071	750473.093	2083630.065	0.5	1.0	Uranium-238	1.829	-	1.490	351.0	pCi/g
CE45-072	750472.801	2083639.710	0.0	0.3	Americium-241	6.688	-	0.023	76.0	pCi/g
CE45-072	750472.801	2083639.710	0.0	0.3	Plutonium-239/240	38.122	-	0.066	50.0	pCi/g
CE45-073	750483.322	2083640.002	0.0	0.3	Americium-241	3.130	-	0.023	76.0	pCi/g
CE45-073	750483.322	2083640.002	0.0	0.3	Plutonium-239/240	17.841	-	0.066	50.0	pCi/g
CE45-073	750483.322	2083640.002	0.0	0.3	Uranium-235	0.145	-	0.094	8.0	pCi/g
CE45-074	750494.428	2083640.002	0.0	0.3	Americium-241	4.963	-	0.023	76.0	pCi/g
CE45-074	750494.428	2083640.002	0.0	0.3	Plutonium-239/240	28.289	-	0.066	50.0	pCi/g
CE45-074	750494.428	2083640.002	0.0	0.3	Uranium-235	0.126	-	0.094	8.0	pCi/g
CE45-076	750472.801	2083649.354	0.0	0.3	Americium-241	24440.000	-	0.023	76.0	pCi/g
CE45-076	750472.801	2083649.354	0.5	1.0	Americium-241	3430.000	-	0.020	76.0	pCi/g
CE45-077	750483.322	2083649.354	0.0	0.3	Americium-241	2.687	-	0.023	76.0	pCi/g
CE45-077	750483.322	2083649.354	0.0	0.3	Plutonium-239/240	15.316	-	0.066	50.0	pCi/g

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Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CE45-078	750494.428	2083649.354	0.0	0.3	Americium-241	3.066	-	0.023	76.0	pCi/g
CE45-078	750494.428	2083649.354	0.0	0.3	Plutonium-239/240	17.476	-	0.066	50.0	pCi/g
CE45-078	750494.428	2083649.354	0.5	1.0	Americium-241	63.140	-	0.020	76.0	pCi/g
CE45-078	750494.428	2083649.354	0.5	1.0	Plutonium-239/240	359.898	-	0.020	50.0	pCi/g
CE45-078	750494.428	2083649.354	0.5	1.0	Uranium-235	0.195	-	0.120	8.0	pCi/g
CE45-078	750494.428	2083649.354	0.5	1.0	Uranium-238	1.910	-	1.490	351.0	pCi/g
CE45-082	750494.135	2083659.291	0.0	0.3	Americium-241	20.440	-	0.023	76.0	pCi/g
CE45-082	750494.135	2083659.291	0.0	0.3	Plutonium-239/240	116.508	-	0.066	50.0	pCi/g
CE45-083	750483.322	2083668.643	0.0	0.3	Americium-241	0.919	-	0.023	76.0	pCi/g
CE45-083	750483.322	2083668.643	0.0	0.3	Plutonium-239/240	5.241	-	0.066	50.0	pCi/g
CE45-083	750483.322	2083668.643	0.0	0.3	Uranium-234	4.226	-	2.253	300.0	pCi/g
CE45-083	750483.322	2083668.643	0.0	0.3	Uranium-238	4.226	-	2.000	351.0	pCi/g
CE45-084	750493.843	2083668.935	0.0	0.3	Americium-241	1016.000	-	0.023	76.0	pCi/g
CE45-084	750493.843	2083668.935	0.0	0.3	Uranium-234	2.866	-	2.253	300.0	pCi/g
CE45-084	750493.843	2083668.935	0.0	0.3	Uranium-238	2.866	-	2.000	351.0	pCi/g
CE45-084	750493.843	2083668.935	0.5	1.0	Americium-241	1276.000	-	0.020	76.0	pCi/g
CE45-085	750503.780	2083668.935	0.0	0.3	Americium-241	159.400	-	0.023	76.0	pCi/g
CE45-085	750503.780	2083668.935	0.0	0.3	Plutonium-239/240	908.580	-	0.066	50.0	pCi/g
CE45-085	750503.780	2083668.935	0.0	0.3	Uranium-234	2.418	-	2.253	300.0	pCi/g
CE45-085	750503.780	2083668.935	0.0	0.3	Uranium-235	0.188	-	0.094	8.0	pCi/g
CE45-085	750503.780	2083668.935	0.0	0.3	Uranium-238	2.418	-	2.000	351.0	pCi/g
CE45-086	750494.428	2083678.580	0.0	0.3	Americium-241	5.725	-	0.023	76.0	pCi/g
CE45-086	750494.428	2083678.580	0.0	0.3	Plutonium-239/240	32.633	-	0.066	50.0	pCi/g
CE45-087	750494.428	2083689.686	0.0	0.3	Americium-241	0.246	-	0.023	76.0	pCi/g
CE45-087	750494.428	2083689.686	0.0	0.3	Plutonium-239/240	1.800	-	0.066	50.0	pCi/g
CE45-087	750494.428	2083689.686	0.5	1.0	Americium-241	1.239	-	0.020	76.0	pCi/g
CE45-087	750494.428	2083689.686	0.5	1.0	Plutonium-239/240	7.062	-	0.020	50.0	pCi/g
CE45-087	750494.428	2083689.686	0.5	1.0	Uranium-235	0.132	-	0.120	8.0	pCi/g
CE45-088	750504.365	2083689.686	0.0	0.3	Americium-241	45.670	-	0.023	76.0	pCi/g
CE45-088	750504.365	2083689.686	0.0	0.3	Plutonium-239/240	260.319	-	0.066	50.0	pCi/g
CE45-089	750514.301	2083689.686	0.0	0.3	Americium-241	19.400	-	0.023	76.0	pCi/g

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Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRWAT	Unit
CE45-089	750514.301	2083689.686	0.0	0.3	Plutonium-239/240	74.700	-	0.066	50.0	pCi/g
CE45-090	750494.720	2083630.065	0.0	0.3	Uranium-238	2.200	-	2.000	351.0	pCi/g
CE45-090	750494.720	2083630.065	0.0	0.3	Americium-241	0.784	-	0.023	76.0	pCi/g
CE45-090	750494.720	2083630.065	0.0	0.3	Plutonium-239/240	4.466	-	0.066	50.0	pCi/g
CE45-090	750494.720	2083630.065	0.0	0.3	Uranium-234	2.747	-	2.253	300.0	pCi/g
CE45-090	750494.720	2083630.065	0.0	0.3	Uranium-235	0.301	-	0.094	8.0	pCi/g
CE45-090	750494.720	2083630.065	0.0	0.3	Uranium-238	2.747	-	2.000	351.0	pCi/g
CE45-090	750494.720	2083630.065	0.5	1.0	Americium-241	47.110	-	0.020	76.0	pCi/g
CE45-090	750494.720	2083630.065	0.5	1.0	Plutonium-239/240	268.527	-	0.020	50.0	pCi/g
CE45-090	750494.720	2083630.065	0.5	1.0	Uranium-234	3.571	-	2.640	300.0	pCi/g
CE45-090	750494.720	2083630.065	0.5	1.0	Uranium-235	0.153	-	0.120	8.0	pCi/g
CE45-090	750494.720	2083630.065	0.5	1.0	Uranium-238	3.571	-	1.490	351.0	pCi/g
CE46-029	750565.154	2083769.180	0.0	0.3	Americium-241	28.570	-	0.023	76.0	pCi/g
CE46-029	750565.154	2083769.180	0.0	0.3	Plutonium-239/240	162.849	-	0.066	50.0	pCi/g
CE46-029	750565.154	2083769.180	0.0	0.3	Uranium-238	2.115	-	2.000	351.0	pCi/g
CE46-030	750575.091	2083768.595	0.0	0.3	Americium-241	3640.000	-	0.023	76.0	pCi/g
CE46-030	750575.091	2083768.595	0.0	0.3	Plutonium-239/240	16200.000	-	0.066	50.0	pCi/g
CE46-030	750575.091	2083768.595	0.5	1.0	Americium-241	152.000	-	0.020	76.0	pCi/g
CE46-030	750575.091	2083768.595	0.5	1.0	Plutonium-239/240	629.000	-	0.020	50.0	pCi/g
CE46-031	750574.799	2083758.951	0.0	0.3	Americium-241	12.380	-	0.023	76.0	pCi/g
CE46-031	750574.799	2083758.951	0.0	0.3	Plutonium-239/240	70.566	-	0.066	50.0	pCi/g
CE46-031	750574.799	2083758.951	0.0	0.3	Uranium-235	0.159	-	0.094	8.0	pCi/g
CE46-031	750574.799	2083758.951	0.0	0.3	Uranium-238	2.026	-	2.000	351.0	pCi/g
CE46-032	750565.154	2083748.430	0.0	0.3	Americium-241	223.800	-	0.023	76.0	pCi/g
CE46-032	750565.154	2083748.430	0.0	0.3	Plutonium-239/240	1275.660	-	0.066	50.0	pCi/g
CE46-032	750565.154	2083748.430	0.0	0.3	Uranium-235	0.174	-	0.094	8.0	pCi/g
CE46-033	750574.799	2083748.722	0.0	0.3	Americium-241	505.400	-	0.023	76.0	pCi/g
CE46-033	750574.799	2083748.722	0.0	0.3	Uranium-234	2.357	-	2.253	300.0	pCi/g
CE46-033	750574.799	2083748.722	0.0	0.3	Uranium-235	0.185	-	0.094	8.0	pCi/g
CE46-033	750574.799	2083748.722	0.0	0.3	Uranium-238	2.357	-	2.000	351.0	pCi/g
CE46-033	750574.799	2083748.722	0.5	1.0	Americium-241	78.420	-	0.020	76.0	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CE46-033	750574.799	2083748.722	0.5	1.0	Plutonium-239/240	446.994	-	0.020	50.0	pCi/g
CE46-033	750574.799	2083748.722	0.5	1.0	Uranium-235	0.257	-	0.120	8.0	pCi/g
CE46-034	750575.091	2083738.785	0.0	0.3	Americium-241	7.548	-	0.023	76.0	pCi/g
CE46-034	750575.091	2083738.785	0.0	0.3	Plutonium-239/240	43.024	-	0.066	50.0	pCi/g
CE46-034	750575.091	2083738.785	0.0	0.3	Uranium-235	0.186	-	0.094	8.0	pCi/g
CE46-035	750574.799	2083728.848	0.0	0.3	Americium-241	620.500	-	0.023	76.0	pCi/g
CE46-035	750574.799	2083728.848	0.0	0.3	Uranium-235	0.155	-	0.094	8.0	pCi/g
CE46-035	750574.799	2083728.848	0.5	1.0	Americium-241	19.260	-	0.020	76.0	pCi/g
CE46-035	750574.799	2083728.848	0.5	1.0	Plutonium-239/240	109.782	-	0.020	50.0	pCi/g
CE46-035	750574.799	2083728.848	0.5	1.0	Uranium-235	0.192	-	0.120	8.0	pCi/g
CE46-035	750574.799	2083728.848	0.5	1.0	Uranium-238	2.050	-	1.490	351.0	pCi/g
CE46-036	750565.447	2083728.848	0.0	0.3	Americium-241	187.900	-	0.023	76.0	pCi/g
CE46-036	750565.447	2083728.848	0.0	0.3	Plutonium-239/240	1071.030	-	0.066	50.0	pCi/g
CE46-039	750564.570	2083707.806	0.0	0.3	Americium-241	27.740	-	0.023	76.0	pCi/g
CE46-039	750564.570	2083707.806	0.0	0.3	Plutonium-239/240	158.118	-	0.066	50.0	pCi/g
CE46-039	750564.570	2083707.806	0.0	0.3	Uranium-234	3.065	-	2.253	300.0	pCi/g
CE46-039	750564.570	2083707.806	0.0	0.3	Uranium-235	0.111	-	0.094	8.0	pCi/g
CE46-039	750564.570	2083707.806	0.0	0.3	Uranium-238	3.065	-	2.000	351.0	pCi/g
CE46-040	750564.570	2083759.243	0.0	0.3	Americium-241	33.330	-	0.023	76.0	pCi/g
CE46-040	750564.570	2083759.243	0.0	0.3	Plutonium-239/240	189.981	-	0.066	50.0	pCi/g
CE46-040	750564.570	2083759.243	0.0	0.3	Uranium-234	3.875	-	2.253	300.0	pCi/g
CE46-040	750564.570	2083759.243	0.0	0.3	Uranium-235	0.169	-	0.094	8.0	pCi/g
CE46-040	750564.570	2083759.243	0.0	0.3	Uranium-238	3.875	-	2.000	351.0	pCi/g
CE46-041	750564.862	2083738.785	0.0	0.3	Americium-241	92.780	-	0.023	76.0	pCi/g
CE46-041	750564.862	2083738.785	0.0	0.3	Plutonium-239/240	528.846	-	0.066	50.0	pCi/g
CE46-041	750564.862	2083738.785	0.0	0.3	Uranium-234	3.447	-	2.253	300.0	pCi/g
CE46-041	750564.862	2083738.785	0.0	0.3	Uranium-235	0.109	-	0.094	8.0	pCi/g
CE46-041	750564.862	2083738.785	0.0	0.3	Uranium-238	3.447	-	2.000	351.0	pCi/g
CE46-042	750565.154	2083718.327	0.0	0.3	Americium-241	162.800	-	0.023	76.0	pCi/g
CE46-042	750565.154	2083718.327	0.0	0.3	Plutonium-239/240	927.960	-	0.066	50.0	pCi/g
CE46-042	750565.154	2083718.327	0.0	0.3	Uranium-234	4.019	-	2.253	300.0	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW/AL	Unit
CE46-042	750565.154	2083718.327	0.0	0.3	Uranium-238	4.019	-	2.000	351.0	pCi/g
CE46-043	750533.006	2083639.417	0.0	0.3	Americium-241	12.920	-	0.023	76.0	pCi/g
CE46-043	750533.006	2083639.417	0.0	0.3	Plutonium-239/240	73.644	-	0.066	50.0	pCi/g
CE46-044	750554.341	2083638.833	0.0	0.3	Americium-241	5.023	-	0.023	76.0	pCi/g
CE46-044	750554.341	2083638.833	0.0	0.3	Plutonium-239/240	28.631	-	0.066	50.0	pCi/g
CE46-045	750523.361	2083649.354	0.0	0.3	Americium-241	77.220	-	0.023	76.0	pCi/g
CE46-045	750523.361	2083649.354	0.0	0.3	Plutonium-239/240	440.154	-	0.066	50.0	pCi/g
CE46-046	750533.006	2083649.354	0.0	0.3	Americium-241	101.300	-	0.023	76.0	pCi/g
CE46-046	750533.006	2083649.354	0.0	0.3	Plutonium-239/240	577.410	-	0.066	50.0	pCi/g
CE46-047	750543.819	2083649.354	0.0	0.3	Americium-241	8.808	-	0.023	76.0	pCi/g
CE46-047	750543.819	2083649.354	0.0	0.3	Plutonium-239/240	50.206	-	0.066	50.0	pCi/g
CE46-048	750554.341	2083649.354	0.0	0.3	Americium-241	655.000	-	0.023	76.0	pCi/g
CE46-048	750554.341	2083649.354	0.0	0.3	Plutonium-239/240	3330.000	-	0.066	50.0	pCi/g
CE46-048	750554.341	2083649.354	0.0	0.3	Uranium-238	5.860	-	2.000	351.0	pCi/g
CE46-049	750564.862	2083649.354	0.0	0.3	Americium-241	169.700	-	0.023	76.0	pCi/g
CE46-049	750564.862	2083649.354	0.0	0.3	Plutonium-239/240	967.290	-	0.066	50.0	pCi/g
CE46-050	750514.009	2083659.583	0.0	0.3	Americium-241	157.400	-	0.023	76.0	pCi/g
CE46-050	750514.009	2083659.583	0.0	0.3	Plutonium-239/240	897.180	-	0.066	50.0	pCi/g
CE46-050	750514.009	2083659.583	0.0	0.3	Uranium-234	3.754	-	2.253	300.0	pCi/g
CE46-050	750514.009	2083659.583	0.0	0.3	Uranium-235	0.143	-	0.094	8.0	pCi/g
CE46-050	750514.009	2083659.583	0.0	0.3	Uranium-238	3.754	-	2.000	351.0	pCi/g
CE46-051	750533.298	2083659.583	0.0	0.3	Americium-241	35.780	-	0.023	76.0	pCi/g
CE46-051	750533.298	2083659.583	0.0	0.3	Plutonium-239/240	203.946	-	0.066	50.0	pCi/g
CE46-051	750533.298	2083659.583	0.0	0.3	Uranium-234	3.741	-	2.253	300.0	pCi/g
CE46-051	750533.298	2083659.583	0.0	0.3	Uranium-235	0.205	-	0.094	8.0	pCi/g
CE46-051	750533.298	2083659.583	0.0	0.3	Uranium-238	3.741	-	2.000	351.0	pCi/g
CE46-052	750553.756	2083659.583	0.0	0.3	Americium-241	1032.000	-	0.023	76.0	pCi/g
CE46-052	750553.756	2083659.583	0.0	0.3	Uranium-234	4.116	-	2.253	300.0	pCi/g
CE46-052	750553.756	2083659.583	0.0	0.3	Uranium-235	0.231	-	0.094	8.0	pCi/g
CE46-052	750553.756	2083659.583	0.0	0.3	Uranium-238	4.116	-	2.000	351.0	pCi/g
CE46-053	750514.301	2083668.935	0.0	0.3	Americium-241	2030.000	-	0.023	76.0	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW/AL	Unit
CE46-053	750514.301	2083668.935	0.0	0.3	Uranium-234	4.348	-	2.253	300.0	pCi/g
CE46-053	750514.301	2083668.935	0.0	0.3	Uranium-235	0.187	-	0.094	8.0	pCi/g
CE46-053	750514.301	2083668.935	0.0	0.3	Uranium-238	4.348	-	2.000	351.0	pCi/g
CE46-054	750523.946	2083668.935	0.0	0.3	Americium-241	9303.000	-	0.023	76.0	pCi/g
CE46-055	750533.006	2083668.935	0.0	0.3	Americium-241	156.400	-	0.023	76.0	pCi/g
CE46-055	750533.006	2083668.935	0.0	0.3	Plutonium-239/240	891.480	-	0.066	50.0	pCi/g
CE46-055	750533.006	2083668.935	0.0	0.3	Uranium-234	2.395	-	2.253	300.0	pCi/g
CE46-055	750533.006	2083668.935	0.0	0.3	Uranium-235	0.225	-	0.094	8.0	pCi/g
CE46-055	750533.006	2083668.935	0.0	0.3	Uranium-238	2.395	-	2.000	351.0	pCi/g
CE46-057	750554.341	2083668.935	0.0	0.3	Americium-241	479.500	-	0.023	76.0	pCi/g
CE46-057	750554.341	2083668.935	0.0	0.3	Plutonium-239/240	2733.150	-	0.066	50.0	pCi/g
CE46-057	750554.341	2083668.935	0.0	0.3	Uranium-234	2.993	-	2.253	300.0	pCi/g
CE46-057	750554.341	2083668.935	0.0	0.3	Uranium-235	0.202	-	0.094	8.0	pCi/g
CE46-057	750554.341	2083668.935	0.0	0.3	Uranium-238	2.993	-	2.000	351.0	pCi/g
CE46-058	750564.862	2083668.643	0.0	0.3	Americium-241	481.000	-	0.023	76.0	pCi/g
CE46-058	750564.862	2083668.643	0.0	0.3	Plutonium-239/240	2910.000	-	0.066	50.0	pCi/g
CE46-059	750514.301	2083679.457	0.0	0.3	Americium-241	68.290	-	0.023	76.0	pCi/g
CE46-059	750514.301	2083679.457	0.0	0.3	Plutonium-239/240	389.253	-	0.066	50.0	pCi/g
CE46-060	750532.714	2083679.457	0.0	0.3	Americium-241	63.670	-	0.023	76.0	pCi/g
CE46-060	750532.714	2083679.457	0.0	0.3	Plutonium-239/240	362.919	-	0.066	50.0	pCi/g
CE46-060	750532.714	2083679.457	0.0	0.3	Uranium-235	0.118	-	0.094	8.0	pCi/g
CE46-061	750554.048	2083679.164	0.0	0.3	Americium-241	18.500	-	0.023	76.0	pCi/g
CE46-061	750554.048	2083679.164	0.0	0.3	Plutonium-239/240	105.450	-	0.066	50.0	pCi/g
CE46-061	750554.048	2083679.164	0.0	0.3	Uranium-235	0.124	-	0.094	8.0	pCi/g
CE46-062	750523.654	2083689.393	0.0	0.3	Americium-241	92.710	-	0.023	76.0	pCi/g
CE46-062	750523.654	2083689.393	0.0	0.3	Plutonium-239/240	528.447	-	0.066	50.0	pCi/g
CE46-062	750523.654	2083689.393	0.0	0.3	Uranium-235	0.133	-	0.094	8.0	pCi/g
CE46-063	750533.006	2083689.393	0.0	0.3	Americium-241	1305.000	-	0.023	76.0	pCi/g
CE46-063	750533.006	2083689.393	0.0	0.3	Uranium-235	0.233	-	0.094	8.0	pCi/g
CE46-064	750544.112	2083689.393	0.0	0.3	Americium-241	340.400	-	0.023	76.0	pCi/g
CE46-064	750544.112	2083689.393	0.0	0.3	Plutonium-239/240	1940.280	-	0.066	50.0	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW/AL	Unit
CE46-064	750544.112	2083689.393	0.0	0.3	Uranium-235	0.191	-	0.094	8.0	pCi/g
CE46-065	750554.048	2083689.393	0.0	0.3	Americium-241	23.300	-	0.023	76.0	pCi/g
CE46-065	750554.048	2083689.393	0.0	0.3	Plutonium-239/240	111.000	-	0.066	50.0	pCi/g
CE46-065	750554.048	2083689.393	0.0	0.3	Uranium-238	3.090	-	2.000	351.0	pCi/g
CF45-028	750565.447	2083798.990	0.0	0.3	Americium-241	58.700	-	0.023	76.0	pCi/g
CF45-028	750565.447	2083798.990	0.0	0.3	Plutonium-239/240	315.000	-	0.066	50.0	pCi/g
CF45-029	750566.031	2083819.448	0.0	0.3	Americium-241	74.030	-	0.023	76.0	pCi/g
<i>CF45-029</i>	<i>750566.031</i>	<i>2083819.448</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>421.971</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CF45-029	750566.031	2083819.448	0.0	0.3	Uranium-235	0.172	-	0.094	8.0	pCi/g
CF45-030	750566.031	2083838.737	0.0	0.3	Americium-241	403.600	-	0.023	76.0	pCi/g
<i>CF45-030</i>	<i>750566.031</i>	<i>2083838.737</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>2300.520</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
<i>CF45-030</i>	<i>750566.031</i>	<i>2083838.737</i>	<i>0.0</i>	<i>0.3</i>	<i>Uranium-234</i>	<i>2.996</i>	-	<i>2.253</i>	<i>300.0</i>	<i>pCi/g</i>
CF45-030	750566.031	2083838.737	0.0	0.3	Uranium-235	0.271	-	0.094	8.0	pCi/g
CF45-030	750566.031	2083838.737	0.0	0.3	Uranium-238	2.996	-	2.000	351.0	pCi/g
CF45-031	750565.154	2083858.611	0.0	0.3	Americium-241	11.080	-	0.023	76.0	pCi/g
<i>CF45-031</i>	<i>750565.154</i>	<i>2083858.611</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>63.156</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CF45-032	750564.862	2083879.946	0.0	0.3	Americium-241	115.300	-	0.023	76.0	pCi/g
<i>CF45-032</i>	<i>750564.862</i>	<i>2083879.946</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>657.210</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CF45-032	750564.862	2083879.946	0.0	0.3	Uranium-235	0.169	-	0.094	8.0	pCi/g
CF45-033	750544.988	2083818.572	0.0	0.3	Americium-241	506.800	-	0.023	76.0	pCi/g
CF45-034	750543.819	2083860.072	0.0	0.3	Americium-241	68.310	-	0.023	76.0	pCi/g
<i>CF45-034</i>	<i>750543.819</i>	<i>2083860.072</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>389.367</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CF45-035	750544.696	2083879.654	0.0	0.3	Americium-241	14.480	-	0.023	76.0	pCi/g
<i>CF45-035</i>	<i>750544.696</i>	<i>2083879.654</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>82.536</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
<i>CF45-035</i>	<i>750544.696</i>	<i>2083879.654</i>	<i>0.0</i>	<i>0.3</i>	<i>Uranium-234</i>	<i>2.498</i>	-	<i>2.253</i>	<i>300.0</i>	<i>pCi/g</i>
CF45-035	750544.696	2083879.654	0.0	0.3	Uranium-235	0.235	-	0.094	8.0	pCi/g
CF45-035	750544.696	2083879.654	0.0	0.3	Uranium-238	2.498	-	2.000	351.0	pCi/g
CF45-036	750523.946	2083840.199	0.0	0.3	Americium-241	64.230	-	0.023	76.0	pCi/g
<i>CF45-036</i>	<i>750523.946</i>	<i>2083840.199</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>366.111</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CF45-037	750524.238	2083880.238	0.0	0.3	Americium-241	7.280	-	0.023	76.0	pCi/g
<i>CF45-037</i>	<i>750524.238</i>	<i>2083880.238</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>41.496</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CF45-037	750524.238	2083880.238	0.0	0.3	Uranium-234	2.479	-	2.253	300.0	pCi/g
CF45-037	750524.238	2083880.238	0.0	0.3	Uranium-235	0.231	-	0.094	8.0	pCi/g
CF45-037	750524.238	2083880.238	0.0	0.3	Uranium-238	2.479	-	2.000	351.0	pCi/g
CF45-038	750503.780	2083860.657	0.0	0.3	Americium-241	61.920	-	0.023	76.0	pCi/g
CF45-038	750503.780	2083860.657	0.0	0.3	Plutonium-239/240	352.944	-	0.066	50.0	pCi/g
CF45-038	750503.780	2083860.657	0.0	0.3	Uranium-235	0.210	-	0.094	8.0	pCi/g
CF45-039	750505.241	2083880.530	0.0	0.3	Americium-241	11.900	-	0.023	76.0	pCi/g
CF45-039	750505.241	2083880.530	0.0	0.3	Plutonium-239/240	67.830	-	0.066	50.0	pCi/g
CF45-042	750554.925	2083829.385	0.0	0.3	Americium-241	26.520	-	0.023	76.0	pCi/g
CF45-042	750554.925	2083829.385	0.0	0.3	Plutonium-239/240	151.164	-	0.066	50.0	pCi/g
CF45-042	750554.925	2083829.385	0.5	0.8	Americium-241	4.572	-	0.020	76.0	pCi/g
CF45-042	750554.925	2083829.385	0.5	0.8	Plutonium-239/240	26.060	-	0.020	50.0	pCi/g
CF45-042	750554.925	2083829.385	0.5	0.8	Uranium-235	0.149	-	0.120	8.0	pCi/g
CF45-043	750554.925	2083839.322	0.0	0.3	Americium-241	37.740	-	0.023	76.0	pCi/g
CF45-043	750554.925	2083839.322	0.0	0.3	Plutonium-239/240	215.118	-	0.066	50.0	pCi/g
CF45-043	750554.925	2083839.322	0.0	0.3	Uranium-235	0.179	-	0.094	8.0	pCi/g
CF45-044	750555.510	2083849.259	0.0	0.3	Americium-241	182.200	-	0.023	76.0	pCi/g
CF45-044	750555.510	2083849.259	0.0	0.3	Plutonium-239/240	1038.540	-	0.066	50.0	pCi/g
CF45-044	750555.510	2083849.259	0.0	0.3	Uranium-235	0.167	-	0.094	8.0	pCi/g
CF45-044	750555.510	2083849.259	0.5	0.8	Americium-241	19.720	-	0.020	76.0	pCi/g
CF45-044	750555.510	2083849.259	0.5	0.8	Plutonium-239/240	112.404	-	0.020	50.0	pCi/g
CF45-044	750555.510	2083849.259	0.5	0.8	Uranium-235	0.195	-	0.120	8.0	pCi/g
CF45-044	750555.510	2083849.259	0.5	0.8	Uranium-238	1.627	-	1.490	351.0	pCi/g
CF45-045	750544.696	2083829.970	0.0	0.3	Americium-241	18.600	-	0.023	76.0	pCi/g
CF45-045	750544.696	2083829.970	0.0	0.3	Plutonium-239/240	106.020	-	0.066	50.0	pCi/g
CF45-046	750544.988	2083839.907	0.0	0.3	Americium-241	31.500	-	0.023	76.0	pCi/g
CF45-046	750544.988	2083839.907	0.0	0.3	Plutonium-239/240	143.000	-	0.066	50.0	pCi/g
CF45-047	750544.404	2083849.843	0.0	0.3	Americium-241	203.000	-	0.023	76.0	pCi/g
CF45-047	750544.404	2083849.843	0.0	0.3	Plutonium-239/240	1157.100	-	0.066	50.0	pCi/g
CF45-047	750544.404	2083849.843	0.0	0.3	Uranium-235	0.161	-	0.094	8.0	pCi/g
CF45-048	750537.097	2083832.600	0.0	0.3	Americium-241	14.650	-	0.023	76.0	pCi/g

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Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CF45-048	750537.097	2083832.600	0.0	0.3	Plutonium-239/240	83.505	-	0.066	50.0	pCi/g
CF45-048	750537.097	2083832.600	0.0	0.3	Uranium-235	0.167	-	0.094	8.0	pCi/g
CF45-048	750537.097	2083832.600	0.5	0.8	Americium-241	66.130	-	0.020	76.0	pCi/g
CF45-048	750537.097	2083832.600	0.5	0.8	Plutonium-239/240	376.941	-	0.020	50.0	pCi/g
CF45-048	750537.097	2083832.600	0.5	0.8	Uranium-238	1.620	-	1.490	351.0	pCi/g
CF45-049	750533.590	2083840.199	0.0	0.3	Americium-241	11.770	-	0.023	76.0	pCi/g
CF45-049	750533.590	2083840.199	0.0	0.3	Plutonium-239/240	67.089	-	0.066	50.0	pCi/g
CF45-049	750533.590	2083840.199	0.0	0.3	Uranium-235	0.126	-	0.094	8.0	pCi/g
CF45-050	750536.221	2083847.798	0.0	0.3	Americium-241	6.017	-	0.023	76.0	pCi/g
CF45-050	750536.221	2083847.798	0.0	0.3	Plutonium-239/240	34.297	-	0.066	50.0	pCi/g
CF45-050	750536.221	2083847.798	0.0	0.3	Uranium-235	0.115	-	0.094	8.0	pCi/g
CF45-050	750536.221	2083847.798	0.5	0.8	Americium-241	50.870	-	0.020	76.0	pCi/g
CF45-050	750536.221	2083847.798	0.5	0.8	Plutonium-239/240	289.959	-	0.020	50.0	pCi/g
CF45-050	750536.221	2083847.798	0.5	0.8	Uranium-235	0.218	-	0.120	8.0	pCi/g
CF45-051	750531.545	2083851.889	0.0	0.3	Americium-241	167.300	-	0.023	76.0	pCi/g
CF45-051	750531.545	2083851.889	0.0	0.3	Plutonium-239/240	953.610	-	0.066	50.0	pCi/g
CF45-051	750531.545	2083851.889	0.0	0.3	Uranium-234	2.674	-	2.253	300.0	pCi/g
CF45-051	750531.545	2083851.889	0.0	0.3	Uranium-235	0.157	-	0.094	8.0	pCi/g
CF45-051	750531.545	2083851.889	0.0	0.3	Uranium-238	2.674	-	2.000	351.0	pCi/g
CF45-051	750531.545	2083851.889	0.5	0.8	Americium-241	2697.000	-	0.020	76.0	pCi/g
CF45-051	750531.545	2083851.889	0.5	0.8	Uranium-234	5.262	-	2.640	300.0	pCi/g
CF45-051	750531.545	2083851.889	0.5	0.8	Uranium-235	0.319	-	0.120	8.0	pCi/g
CF45-051	750531.545	2083851.889	0.5	0.8	Uranium-238	5.262	-	1.490	351.0	pCi/g
CF45-052	750524.530	2083849.843	0.0	0.3	Americium-241	28.510	-	0.023	76.0	pCi/g
CF45-052	750524.530	2083849.843	0.0	0.3	Plutonium-239/240	162.507	-	0.066	50.0	pCi/g
CF45-052	750524.530	2083849.843	0.0	0.3	Uranium-234	4.065	-	2.253	300.0	pCi/g
CF45-052	750524.530	2083849.843	0.0	0.3	Uranium-235	0.207	-	0.094	8.0	pCi/g
CF45-052	750524.530	2083849.843	0.0	0.3	Uranium-238	4.065	-	2.000	351.0	pCi/g
CF45-052	750524.530	2083849.843	0.5	0.8	Americium-241	3.336	-	0.020	76.0	pCi/g
CF45-052	750524.530	2083849.843	0.5	0.8	Plutonium-239/240	19.015	-	0.020	50.0	pCi/g
CF45-052	750524.530	2083849.843	0.5	0.8	Uranium-234	3.661	-	2.640	300.0	pCi/g

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Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CF45-052	750524.530	2083849.843	0.5	0.8	Uranium-235	0.321	-	0.120	8.0	pCi/g
CF45-052	750524.530	2083849.843	0.5	0.8	Uranium-238	3.661	-	1.490	351.0	pCi/g
CF45-053	750514.886	2083849.843	0.0	0.3	Americium-241	49.880	-	0.023	76.0	pCi/g
CF45-053	750514.886	2083849.843	0.0	0.3	Plutonium-239/240	284.316	-	0.066	50.0	pCi/g
CF45-053	750514.886	2083849.843	0.0	0.3	Uranium-234	4.231	-	2.253	300.0	pCi/g
CF45-053	750514.886	2083849.843	0.0	0.3	Uranium-235	0.162	-	0.094	8.0	pCi/g
CF45-053	750514.886	2083849.843	0.0	0.3	Uranium-238	4.231	-	2.000	351.0	pCi/g
CF45-053	750514.886	2083849.843	0.5	0.8	Americium-241	26.910	-	0.020	76.0	pCi/g
CF45-053	750514.886	2083849.843	0.5	0.8	Plutonium-239/240	153.387	-	0.020	50.0	pCi/g
CF45-053	750514.886	2083849.843	0.5	0.8	Uranium-234	4.455	-	2.640	300.0	pCi/g
CF45-053	750514.886	2083849.843	0.5	0.8	Uranium-235	0.190	-	0.120	8.0	pCi/g
CF45-053	750514.886	2083849.843	0.5	0.8	Uranium-238	4.455	-	1.490	351.0	pCi/g
CF45-054	750533.883	2083860.365	0.0	0.3	Americium-241	42.310	-	0.023	76.0	pCi/g
CF45-054	750533.883	2083860.365	0.0	0.3	Plutonium-239/240	241.167	-	0.066	50.0	pCi/g
CF45-054	750533.883	2083860.365	0.0	0.3	Uranium-234	4.199	-	2.253	300.0	pCi/g
CF45-054	750533.883	2083860.365	0.0	0.3	Uranium-235	0.208	-	0.094	8.0	pCi/g
CF45-054	750533.883	2083860.365	0.0	0.3	Uranium-238	4.199	-	2.000	351.0	pCi/g
CF45-055	750524.823	2083860.072	0.0	0.3	Americium-241	42.170	-	0.023	76.0	pCi/g
CF45-055	750524.823	2083860.072	0.0	0.3	Plutonium-239/240	240.369	-	0.066	50.0	pCi/g
CF45-055	750524.823	2083860.072	0.0	0.3	Uranium-234	4.797	-	2.253	300.0	pCi/g
CF45-055	750524.823	2083860.072	0.0	0.3	Uranium-235	0.237	-	0.094	8.0	pCi/g
CF45-055	750524.823	2083860.072	0.0	0.3	Uranium-238	4.797	-	2.000	351.0	pCi/g
CF45-056	750514.886	2083860.949	0.0	0.3	Americium-241	52.580	-	0.023	76.0	pCi/g
CF45-056	750514.886	2083860.949	0.0	0.3	Plutonium-239/240	299.706	-	0.066	50.0	pCi/g
CF45-056	750514.886	2083860.949	0.0	0.3	Uranium-234	3.273	-	2.253	300.0	pCi/g
CF45-056	750514.886	2083860.949	0.0	0.3	Uranium-235	0.228	-	0.094	8.0	pCi/g
CF45-056	750514.886	2083860.949	0.0	0.3	Uranium-238	3.273	-	2.000	351.0	pCi/g
CF45-056	750514.886	2083860.949	0.5	0.8	Americium-241	46.530	-	0.020	76.0	pCi/g
CF45-056	750514.886	2083860.949	0.5	0.8	Plutonium-239/240	265.221	-	0.020	50.0	pCi/g
CF45-056	750514.886	2083860.949	0.5	0.8	Uranium-238	2.072	-	1.490	351.0	pCi/g
CF45-057	750533.883	2083869.717	0.0	0.3	Americium-241	550.500	-	0.023	76.0	pCi/g

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Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CF45-057	750533.883	2083869.717	0.0	0.3	Uranium-235	0.217	-	0.094	8.0	pCi/g
CF45-057	750533.883	2083869.717	0.5	0.8	Americium-241	394.700	-	0.020	76.0	pCi/g
CF45-058	750524.238	2083869.717	0.0	0.3	Americium-241	5.613	-	0.023	76.0	pCi/g
<i>CF45-058</i>	<i>750524.238</i>	<i>2083869.717</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>31.994</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
<i>CF45-058</i>	<i>750524.238</i>	<i>2083869.717</i>	<i>0.0</i>	<i>0.3</i>	<i>Uranium-234</i>	<i>3.067</i>	-	<i>2.253</i>	<i>300.0</i>	<i>pCi/g</i>
CF45-058	750524.238	2083869.717	0.0	0.3	Uranium-235	0.143	-	0.094	8.0	pCi/g
CF45-058	750524.238	2083869.717	0.0	0.3	Uranium-238	3.067	-	2.000	351.0	pCi/g
CF45-058	750524.238	2083869.717	0.5	0.8	Americium-241	3.491	-	0.020	76.0	pCi/g
<i>CF45-058</i>	<i>750524.238</i>	<i>2083869.717</i>	<i>0.5</i>	<i>0.8</i>	<i>Plutonium-239/240</i>	<i>19.899</i>	-	<i>0.020</i>	<i>50.0</i>	<i>pCi/g</i>
CF45-058	750524.238	2083869.717	0.5	0.8	Uranium-235	0.258	-	0.120	8.0	pCi/g
CF45-058	750524.238	2083869.717	0.5	0.8	Uranium-238	1.988	-	1.490	351.0	pCi/g
CF45-059	750514.886	2083869.717	0.0	0.3	Americium-241	55.170	-	0.023	76.0	pCi/g
<i>CF45-059</i>	<i>750514.886</i>	<i>2083869.717</i>	<i>0.0</i>	<i>0.3</i>	<i>Plutonium-239/240</i>	<i>314.469</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
<i>CF45-059</i>	<i>750514.886</i>	<i>2083869.717</i>	<i>0.0</i>	<i>0.3</i>	<i>Uranium-234</i>	<i>2.958</i>	-	<i>2.253</i>	<i>300.0</i>	<i>pCi/g</i>
CF45-059	750514.886	2083869.717	0.0	0.3	Uranium-238	2.958	-	2.000	351.0	pCi/g
CF45-059	750514.886	2083869.717	0.5	0.8	Americium-241	54.590	-	0.020	76.0	pCi/g
<i>CF45-059</i>	<i>750514.886</i>	<i>2083869.717</i>	<i>0.5</i>	<i>0.8</i>	<i>Plutonium-239/240</i>	<i>311.163</i>	-	<i>0.020</i>	<i>50.0</i>	<i>pCi/g</i>
<i>CF45-059</i>	<i>750514.886</i>	<i>2083869.717</i>	<i>0.5</i>	<i>0.8</i>	<i>Uranium-234</i>	<i>3.608</i>	-	<i>2.640</i>	<i>300.0</i>	<i>pCi/g</i>
CF45-059	750514.886	2083869.717	0.5	0.8	Uranium-235	0.256	-	0.120	8.0	pCi/g
CF45-059	750514.886	2083869.717	0.5	0.8	Uranium-238	3.608	-	1.490	351.0	pCi/g
CF45-060	750554.925	2083779.409	0.0	0.5	Americium-241	94.390	-	0.023	76.0	pCi/g
<i>CF45-060</i>	<i>750554.925</i>	<i>2083779.409</i>	<i>0.0</i>	<i>0.5</i>	<i>Plutonium-239/240</i>	<i>538.023</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
<i>CF45-060</i>	<i>750554.925</i>	<i>2083779.409</i>	<i>0.0</i>	<i>0.5</i>	<i>Uranium-234</i>	<i>2.264</i>	-	<i>2.253</i>	<i>300.0</i>	<i>pCi/g</i>
CF45-060	750554.925	2083779.409	0.0	0.5	Uranium-235	0.148	-	0.094	8.0	pCi/g
CF45-060	750554.925	2083779.409	0.0	0.5	Uranium-238	2.264	-	2.000	351.0	pCi/g
CF45-061	750554.925	2083789.930	0.0	0.5	Americium-241	34.350	-	0.023	76.0	pCi/g
<i>CF45-061</i>	<i>750554.925</i>	<i>2083789.930</i>	<i>0.0</i>	<i>0.5</i>	<i>Plutonium-239/240</i>	<i>195.795</i>	-	<i>0.066</i>	<i>50.0</i>	<i>pCi/g</i>
CF45-061	750554.925	2083789.930	0.0	0.5	Uranium-235	0.142	-	0.094	8.0	pCi/g
CF45-061	750554.925	2083789.930	0.5	1.0	Americium-241	20.850	-	0.020	76.0	pCi/g
<i>CF45-061</i>	<i>750554.925</i>	<i>2083789.930</i>	<i>0.5</i>	<i>1.0</i>	<i>Plutonium-239/240</i>	<i>118.845</i>	-	<i>0.020</i>	<i>50.0</i>	<i>pCi/g</i>
CF45-061	750554.925	2083789.930	0.5	1.0	Uranium-238	2.145	-	1.490	351.0	pCi/g

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Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CF45-062	750554.925	2083798.698	0.0	0.5	Americium-241	81.160	-	0.023	76.0	pCi/g
CF45-062	750554.925	2083798.698	0.0	0.5	Plutonium-239/240	462.612	-	0.066	50.0	pCi/g
CF45-062	750554.925	2083798.698	0.0	0.5	Uranium-234	2.522	-	2.253	300.0	pCi/g
CF45-062	750554.925	2083798.698	0.0	0.5	Uranium-238	2.522	-	2.000	351.0	pCi/g
CF45-062	750554.925	2083798.698	0.5	1.0	Americium-241	9.257	-	0.020	76.0	pCi/g
CF45-062	750554.925	2083798.698	0.5	1.0	Plutonium-239/240	52.765	-	0.020	50.0	pCi/g
CF45-062	750554.925	2083798.698	0.5	1.0	Uranium-238	2.043	-	1.490	351.0	pCi/g
CF45-063	750554.925	2083809.512	0.0	0.3	Acetone	6.300	1.400	-	102000000.0	ug/kg
CF45-063	750554.925	2083809.512	0.0	0.3	Americium-241	1950.000	-	0.023	76.0	pCi/g
CF45-063	750554.925	2083809.512	0.0	0.3	Ethylbenzene	0.500	0.092	-	4250000.0	ug/kg
CF45-063	750554.925	2083809.512	0.0	0.3	Methylene chloride	3.000	0.320	-	2530000.0	ug/kg
CF45-063	750554.925	2083809.512	0.0	0.3	Naphthalene	0.500	0.360	-	3090000.0	ug/kg
CF45-063	750554.925	2083809.512	0.0	0.3	Plutonium-239/240	6890.000	-	0.066	50.0	pCi/g
CF45-063	750554.925	2083809.512	0.0	0.3	Tetrachloroethene	0.600	0.170	-	615000.0	ug/kg
CF45-063	750554.925	2083809.512	0.0	0.3	Toluene	0.640	0.082	-	31300000.0	ug/kg
CF45-063	750554.925	2083809.512	0.0	0.3	Xylene	2.200	0.031	-	2040000.0	ug/kg
CF45-063	750554.925	2083809.512	0.5	1.0	Acetone	11.000	1.400	-	102000000.0	ug/kg
CF45-063	750554.925	2083809.512	0.5	1.0	Americium-241	1100.000	-	0.020	76.0	pCi/g
CF45-063	750554.925	2083809.512	0.5	1.0	Methylene chloride	2.300	0.320	-	2530000.0	ug/kg
CF45-063	750554.925	2083809.512	0.5	1.0	Plutonium-239/240	6760.000	-	0.020	50.0	pCi/g
CF45-064	750544.696	2083779.409	0.0	0.5	Americium-241	11.500	-	0.023	76.0	pCi/g
CF45-064	750544.696	2083779.409	0.0	0.5	Plutonium-239/240	51.100	-	0.066	50.0	pCi/g
CF45-065	750544.404	2083789.930	0.0	0.5	Americium-241	47.220	-	0.023	76.0	pCi/g
CF45-065	750544.404	2083789.930	0.0	0.5	Plutonium-239/240	269.154	-	0.066	50.0	pCi/g
CF45-065	750544.404	2083789.930	0.0	0.5	Uranium-235	0.171	-	0.094	8.0	pCi/g
CF45-066	750544.988	2083799.283	0.0	0.5	Americium-241	437.400	-	0.023	76.0	pCi/g
CF45-066	750544.988	2083799.283	0.5	1.0	Americium-241	357.800	-	0.020	76.0	pCi/g
CF45-066	750544.988	2083799.283	0.5	1.0	Plutonium-239/240	2039.460	-	0.020	50.0	pCi/g
CF45-067	750544.404	2083809.804	0.0	0.3	Americium-241	234.200	-	0.023	76.0	pCi/g
CF45-067	750544.404	2083809.804	0.0	0.3	Plutonium-239/240	1334.940	-	0.066	50.0	pCi/g
CF45-067	750544.404	2083809.804	0.5	1.0	Americium-241	323.100	-	0.020	76.0	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW/AL	Unit
CF45-067	750544.404	2083809.804	0.5	1.0	Plutonium-239/240	1841.670	-	0.020	50.0	pCi/g
CF45-068	750533.883	2083779.994	0.0	0.3	Americium-241	69.540	-	0.023	76.0	pCi/g
CF45-068	750533.883	2083779.994	0.0	0.3	Plutonium-239/240	396.378	-	0.066	50.0	pCi/g
CF45-068	750533.883	2083779.994	0.0	0.3	Uranium-235	0.138	-	0.094	8.0	pCi/g
CF45-069	750533.883	2083790.223	0.0	0.3	Americium-241	1032.000	-	0.023	76.0	pCi/g
CF45-069	750533.883	2083790.223	0.5	1.0	Americium-241	136.000	-	0.020	76.0	pCi/g
CF45-069	750533.883	2083790.223	0.5	1.0	Plutonium-239/240	775.200	-	0.020	50.0	pCi/g
CF45-069	750533.883	2083790.223	0.5	1.0	Uranium-234	3.391	-	2.640	300.0	pCi/g
CF45-069	750533.883	2083790.223	0.5	1.0	Uranium-235	0.297	-	0.120	8.0	pCi/g
CF45-069	750533.883	2083790.223	0.5	1.0	Uranium-238	3.391	-	1.490	351.0	pCi/g
CF45-070	750533.883	2083799.575	0.0	0.3	Americium-241	175.000	-	0.023	76.0	pCi/g
CF45-070	750533.883	2083799.575	0.0	0.3	Plutonium-239/240	997.500	-	0.066	50.0	pCi/g
CF45-070	750533.883	2083799.575	0.0	0.3	Uranium-234	3.084	-	2.253	300.0	pCi/g
CF45-070	750533.883	2083799.575	0.0	0.3	Uranium-235	0.299	-	0.094	8.0	pCi/g
CF45-070	750533.883	2083799.575	0.0	0.3	Uranium-238	3.084	-	2.000	351.0	pCi/g
CF45-071	750533.883	2083809.804	0.0	0.5	Americium-241	6358.000	-	0.023	76.0	pCi/g
CF45-071	750533.883	2083809.804	0.5	1.0	Americium-241	401.200	-	0.020	76.0	pCi/g
CF45-071	750533.883	2083809.804	0.5	1.0	Plutonium-239/240	2286.840	-	0.020	50.0	pCi/g
CF45-072	750533.883	2083819.156	0.0	0.5	Americium-241	32.620	-	0.023	76.0	pCi/g
CF45-072	750533.883	2083819.156	0.0	0.5	Plutonium-239/240	185.934	-	0.066	50.0	pCi/g
CF45-072	750533.883	2083819.156	0.0	0.5	Uranium-234	3.712	-	2.253	300.0	pCi/g
CF45-072	750533.883	2083819.156	0.0	0.5	Uranium-235	0.188	-	0.094	8.0	pCi/g
CF45-072	750533.883	2083819.156	0.0	0.5	Uranium-238	3.712	-	2.000	351.0	pCi/g
CF45-073	750533.883	2083829.970	0.0	0.5	Americium-241	720.700	-	0.023	76.0	pCi/g
CF45-073	750533.883	2083829.970	0.0	0.5	Uranium-234	3.505	-	2.253	300.0	pCi/g
CF45-073	750533.883	2083829.970	0.0	0.5	Uranium-235	0.217	-	0.094	8.0	pCi/g
CF45-073	750533.883	2083829.970	0.0	0.5	Uranium-238	3.505	-	2.000	351.0	pCi/g
CF45-073	750533.883	2083829.970	0.5	1.0	Americium-241	268.900	-	0.020	76.0	pCi/g
CF45-073	750533.883	2083829.970	0.5	1.0	Plutonium-239/240	1532.730	-	0.020	50.0	pCi/g
CF45-073	750533.883	2083829.970	0.5	1.0	Uranium-234	2.668	-	2.640	300.0	pCi/g
CF45-073	750533.883	2083829.970	0.5	1.0	Uranium-235	0.272	-	0.120	8.0	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW/AL	Unit
CF45-073	750533.883	2083829.970	0.5	1.0	Uranium-238	2.668	-	1.490	351.0	pCi/g
CF45-074	750524.238	2083779.701	0.0	0.5	Americium-241	50.950	-	0.023	76.0	pCi/g
CF45-074	750524.238	2083779.701	0.0	0.5	Plutonium-239/240	290.415	-	0.066	50.0	pCi/g
CF45-074	750524.238	2083779.701	0.0	0.5	Uranium-234	3.304	-	2.253	300.0	pCi/g
CF45-074	750524.238	2083779.701	0.0	0.5	Uranium-235	0.131	-	0.094	8.0	pCi/g
CF45-074	750524.238	2083779.701	0.0	0.5	Uranium-238	3.304	-	2.000	351.0	pCi/g
CF45-075	750523.946	2083790.223	0.0	0.5	Americium-241	17.770	-	0.023	76.0	pCi/g
CF45-075	750523.946	2083790.223	0.0	0.5	Plutonium-239/240	101.289	-	0.066	50.0	pCi/g
CF45-075	750523.946	2083790.223	0.0	0.5	Uranium-234	3.659	-	2.253	300.0	pCi/g
CF45-075	750523.946	2083790.223	0.0	0.5	Uranium-238	3.659	-	2.000	351.0	pCi/g
CF45-076	750524.530	2083799.575	0.0	0.5	Americium-241	11.750	-	0.023	76.0	pCi/g
CF45-076	750524.530	2083799.575	0.0	0.5	Plutonium-239/240	66.975	-	0.066	50.0	pCi/g
CF45-076	750524.530	2083799.575	0.0	0.5	Uranium-234	3.022	-	2.253	300.0	pCi/g
CF45-076	750524.530	2083799.575	0.0	0.5	Uranium-235	0.265	-	0.094	8.0	pCi/g
CF45-076	750524.530	2083799.575	0.0	0.5	Uranium-238	3.022	-	2.000	351.0	pCi/g
CF45-077	750524.238	2083809.804	0.0	0.5	Americium-241	217.500	-	0.023	76.0	pCi/g
CF45-077	750524.238	2083809.804	0.0	0.5	Plutonium-239/240	1239.750	-	0.066	50.0	pCi/g
CF45-077	750524.238	2083809.804	0.0	0.5	Uranium-234	4.679	-	2.253	300.0	pCi/g
CF45-077	750524.238	2083809.804	0.0	0.5	Uranium-235	0.239	-	0.094	8.0	pCi/g
CF45-077	750524.238	2083809.804	0.0	0.5	Uranium-238	4.679	-	2.000	351.0	pCi/g
CF45-078	750524.823	2083819.741	0.0	0.3	Americium-241	1470.000	-	0.023	76.0	pCi/g
CF45-078	750524.823	2083819.741	0.0	0.3	Plutonium-239/240	4980.000	-	0.066	50.0	pCi/g
CF45-079	750523.654	2083829.970	0.0	0.3	Americium-241	17.000	-	0.023	76.0	pCi/g
CF45-079	750523.654	2083829.970	0.0	0.3	Plutonium-239/240	96.900	-	0.066	50.0	pCi/g
CF45-079	750523.654	2083829.970	0.0	0.3	Uranium-234	5.078	-	2.253	300.0	pCi/g
CF45-079	750523.654	2083829.970	0.0	0.3	Uranium-235	0.138	-	0.094	8.0	pCi/g
CF45-079	750523.654	2083829.970	0.0	0.3	Uranium-238	5.078	-	2.000	351.0	pCi/g
CF45-091	750504.365	2083840.491	0.0	0.5	Americium-241	7.710	-	0.023	76.0	pCi/g
CF45-091	750504.365	2083840.491	0.0	0.5	Plutonium-239/240	26.700	-	0.066	50.0	pCi/g
CF45-097	750494.428	2083699.330	0.0	0.3	Americium-241	3.497	-	0.023	76.0	pCi/g
CF45-097	750494.428	2083699.330	0.0	0.3	Plutonium-239/240	19.933	-	0.066	50.0	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW/AL	Unit
CF45-097	750494.428	2083699.330	0.0	0.3	Uranium-235	0.227	-	0.094	8.0	pCi/g
CF45-097	750494.428	2083699.330	0.0	0.3	Uranium-238	2.150	-	2.000	351.0	pCi/g
CF45-098	750494.428	2083719.496	0.0	0.3	Americium-241	0.891	-	0.023	76.0	pCi/g
CF45-098	750494.428	2083719.496	0.0	0.3	Plutonium-239/240	5.080	-	0.066	50.0	pCi/g
CF45-098	750494.428	2083719.496	0.0	0.3	Uranium-235	0.173	-	0.094	8.0	pCi/g
CF45-099	750503.780	2083720.081	0.0	0.3	Americium-241	15.980	-	0.023	76.0	pCi/g
CF45-099	750503.780	2083720.081	0.0	0.3	Plutonium-239/240	91.086	-	0.066	50.0	pCi/g
CF45-099	750503.780	2083720.081	0.0	0.3	Uranium-235	0.132	-	0.094	8.0	pCi/g
CF45-100	750503.488	2083730.017	0.0	0.3	Americium-241	11.480	-	0.023	76.0	pCi/g
CF45-100	750503.488	2083730.017	0.0	0.3	Plutonium-239/240	65.436	-	0.066	50.0	pCi/g
CF45-100	750503.488	2083730.017	0.0	0.3	Uranium-234	3.656	-	2.253	300.0	pCi/g
CF45-100	750503.488	2083730.017	0.0	0.3	Uranium-235	0.213	-	0.094	8.0	pCi/g
CF45-100	750503.488	2083730.017	0.0	0.3	Uranium-238	3.656	-	2.000	351.0	pCi/g
CF45-101	750494.428	2083739.077	0.0	0.3	Uranium-234	2.841	-	2.253	300.0	pCi/g
CF45-101	750494.428	2083739.077	0.0	0.3	Uranium-238	2.841	-	2.000	351.0	pCi/g
CF45-102	750503.195	2083739.370	0.0	0.3	Americium-241	15.600	-	0.023	76.0	pCi/g
CF45-102	750503.195	2083739.370	0.0	0.3	Plutonium-239/240	88.920	-	0.066	50.0	pCi/g
CF45-103	750503.780	2083708.975	0.0	0.3	Americium-241	13.370	-	0.023	76.0	pCi/g
CF45-103	750503.780	2083708.975	0.0	0.3	Plutonium-239/240	76.209	-	0.066	50.0	pCi/g
CF45-103	750503.780	2083708.975	0.0	0.3	Uranium-235	0.157	-	0.094	8.0	pCi/g
CF45-104	750494.720	2083708.390	0.0	0.3	Americium-241	5.948	-	0.023	76.0	pCi/g
CF45-104	750494.720	2083708.390	0.0	0.3	Plutonium-239/240	33.904	-	0.066	50.0	pCi/g
CF45-104	750494.720	2083708.390	0.0	0.3	Uranium-234	3.525	-	2.253	300.0	pCi/g
CF45-104	750494.720	2083708.390	0.0	0.3	Uranium-235	0.229	-	0.094	8.0	pCi/g
CF45-104	750494.720	2083708.390	0.0	0.3	Uranium-238	3.525	-	2.000	351.0	pCi/g
CF46-047	750575.383	2083779.409	0.0	0.3	Uranium-234	4.228	-	2.253	300.0	pCi/g
CF46-047	750575.383	2083779.409	0.0	0.3	Uranium-235	0.251	-	0.094	8.0	pCi/g
CF46-047	750575.383	2083779.409	0.0	0.3	Uranium-238	4.228	-	2.000	351.0	pCi/g
CF46-048	750565.447	2083779.117	0.0	0.3	Americium-241	20.700	-	0.023	76.0	pCi/g
CF46-048	750565.447	2083779.117	0.0	0.3	Plutonium-239/240	117.990	-	0.066	50.0	pCi/g
CF46-048	750565.447	2083779.117	0.0	0.3	Uranium-234	4.140	-	2.253	300.0	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CF46-048	750565.447	2083779.117	0.0	0.3	Uranium-235	0.228	-	0.094	8.0	pCi/g
CF46-048	750565.447	2083779.117	0.0	0.3	Uranium-238	4.140	-	2.000	351.0	pCi/g
CF46-049	750514.301	2083699.623	0.0	0.3	Americium-241	197.200	-	0.023	76.0	pCi/g
CF46-049	750514.301	2083699.623	0.0	0.3	Plutonium-239/240	1124.040	-	0.066	50.0	pCi/g
CF46-049	750514.301	2083699.623	0.0	0.3	Uranium-234	2.348	-	2.253	300.0	pCi/g
CF46-049	750514.301	2083699.623	0.0	0.3	Uranium-235	0.269	-	0.094	8.0	pCi/g
CF46-049	750514.301	2083699.623	0.0	0.3	Uranium-238	2.348	-	2.000	351.0	pCi/g
CF46-050	750533.298	2083699.623	0.0	0.3	Americium-241	928.500	-	0.023	76.0	pCi/g
CF46-051	750554.341	2083698.161	0.0	0.3	Americium-241	1232.000	-	0.023	76.0	pCi/g
CF46-051	750554.341	2083698.161	0.0	0.3	Uranium-235	0.136	-	0.094	8.0	pCi/g

During both demolition and soil removal activities, erosion controls were used to prevent wind and rain from spreading contamination. This included an earthen berm around the entire project site. Access to areas was also restricted. Wattles were also placed outside the berm to control run-off from the area. After removal activities were completed, areas were backfilled with clean soil from under the building slabs and clean imported fill.

The excavated contaminated soil was temporarily staged to facilitate railcar loading in the northeastern corner of the Building 777 footprint in an area approximately 100 by 100 ft (Figure 4). Water was also applied to the waste pile as necessary to control dust and contaminant migration. The waste is being shipped out in railcars to Envirocare. Samples are being collected to confirm that no residual waste remains.

4.0 CONFIRMATION SAMPLING

Confirmation samples were collected across the project site to determine whether residual activities and concentrations were below the RFCA WRW soil ALs or were acceptable based on the RFCA and the SSRS (DOE et al. 2003). Many of the sampling locations were statistical locations based on a 50-ft grid size. Samples were analyzed on site via gamma spectroscopy, and twenty percent of the samples were analyzed off site via alpha spectroscopy. Off site alpha spectroscopy samples included those collected from areas believed to have the highest residual activities. Sampling and analysis were conducted in accordance with the IASAP (DOE 2001) and IABZSAP (DOE 2004a). Specifications for confirmation sampling are presented in Table 2 and included in the summary of sampling and analysis (Table 3). Results are presented in Table 11 and shown on Figure 5. Only results greater than background means plus two standard deviations or RLs are shown. Sample start depths are shown as 0.0 ft (the surface of the excavation bottom); however, actual sample depths are several feet below ground surface.

Results indicate most residual radionuclide activities are below WRW soil ALs; however, a few sampling locations, located more than 3 ft below final grade, have plutonium activities greater than the AL (50 pCi/g). Areas with exceedances include the following.

- The excavation area associated with removal of the elevator shaft;
- The excavation area associated with the removal of the basement and C- and D-Pits;
- A small area in the southeastern corner of UBC 776; and
- A small area in the southwestern corner of UBC 776.

Exceedances are listed below and addressed in subsequent sections of this report.

- Sampling location CE45-114 has a plutonium activity of 57 pCi/g;
- Sampling location CE45-118 has a plutonium activity of 119 pCi/g;
- Sampling location CE45-128 has a plutonium activity of 183 pCi/g;
- Sampling location CE46-092 has a plutonium activity of 62 pCi/g;
- Sampling location CF45-113 has a plutonium activity of 63 pCi/g;
- Sampling location CE45-118 has a plutonium activity of 215 pCi/g; and
- Sampling location CF45-119 has a plutonium activity of 252 pCi/g.

All project data, retrieved from SWD on August 9, 2005, are provided on the enclosed CD.

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Table 11
Accelerated Action Confirmation Soil Sampling Results, UBCs 776, 777 and 778

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CD45-007	750539.544	2083502.341	0.0	0.3	Plutonium-239/240	0.127	-	0.066	50	pCi/g
CD45-008	750489.645	2083502.311	0.0	0.3	Uranium-234	2.948	-	2.253	300	pCi/g
CD45-008	750489.645	2083502.311	0.0	0.3	Uranium-238	2.948	-	2.000	351	pCi/g
CD45-009	750439.587	2083502.393	0.0	0.3	Uranium-234	2.562	-	2.253	300	pCi/g
CD45-009	750439.587	2083502.393	0.0	0.3	Uranium-235	0.109	-	0.094	8	pCi/g
CD45-009	750439.587	2083502.393	0.0	0.3	Uranium-238	2.562	-	2.000	351	pCi/g
CD45-010	750389.649	2083502.469	0.0	0.3	Americium-241	1.332	-	0.023	76	pCi/g
CD45-010	750389.649	2083502.469	0.0	0.3	Plutonium-239/240	7.592	-	0.066	50	pCi/g
CD46-002	750689.476	2083502.408	0.0	0.3	Uranium-234	3.325	-	2.253	300	pCi/g
CD46-002	750689.476	2083502.408	0.0	0.3	Uranium-235	0.196	-	0.094	8	pCi/g
CD46-002	750689.476	2083502.408	0.0	0.3	Uranium-238	3.325	-	2.000	351	pCi/g
CD46-004	750589.580	2083502.411	0.0	0.3	Uranium-234	2.496	-	2.253	300	pCi/g
CD46-004	750589.580	2083502.411	0.0	0.3	Uranium-235	0.117	-	0.094	8	pCi/g
CD46-004	750589.580	2083502.411	0.0	0.3	Uranium-238	2.496	-	2.000	351	pCi/g
CE45-113	750539.480	2083602.372	0.0	0.3	Americium-241	1.077	-	0.023	76	pCi/g
CE45-113	750539.480	2083602.372	0.0	0.3	Plutonium-239/240	6.139	-	0.066	50	pCi/g
CE45-113	750539.480	2083602.372	0.0	0.3	Uranium-234	3.221	-	2.253	300	pCi/g
CE45-113	750539.480	2083602.372	0.0	0.3	Uranium-235	0.140	-	0.094	8	pCi/g
CE45-113	750539.480	2083602.372	0.0	0.3	Uranium-238	3.221	-	2.000	351	pCi/g
CE45-114	750539.515	2083652.288	0.0	0.3	Americium-241	10.020	-	0.023	76	pCi/g
CE45-114	750539.515	2083652.288	0.0	0.3	Plutonium-239/240	57.114	-	0.066	50	pCi/g
CE45-114	750539.515	2083652.288	0.0	0.3	Uranium-234	2.377	-	2.253	300	pCi/g
CE45-114	750539.515	2083652.288	0.0	0.3	Uranium-235	0.247	-	0.094	8	pCi/g
CE45-114	750539.515	2083652.288	0.0	0.3	Uranium-238	2.377	-	2.000	351	pCi/g
CE45-115	750539.514	2083702.400	0.0	0.3	Americium-241	7.771	-	0.023	76	pCi/g
CE45-115	750539.514	2083702.400	0.0	0.3	Plutonium-239/240	44.295	-	0.066	50	pCi/g
CE45-115	750539.514	2083702.400	0.0	0.3	Uranium-234	3.293	-	2.253	300	pCi/g
CE45-115	750539.514	2083702.400	0.0	0.3	Uranium-235	0.213	-	0.094	8	pCi/g
CE45-115	750539.514	2083702.400	0.0	0.3	Uranium-238	3.293	-	2.000	351	pCi/g

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Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CE45-116	750489.551	2083552.319	0.0	0.3	Uranium-235	0.126	-	0.094	8	pCi/g
CE45-117	750489.482	2083602.317	0.0	0.3	Uranium-235	0.210	-	0.094	8	pCi/g
CE45-118	750489.490	2083652.478	0.0	0.3	Americium-241	20.830	-	0.023	76	pCi/g
CE45-118	750489.490	2083652.478	0.0	0.3	Plutonium-239/240	118.731	-	0.066	50	pCi/g
CE45-118	750489.490	2083652.478	0.0	0.3	Uranium-234	3.104	-	2.253	300	pCi/g
CE45-118	750489.490	2083652.478	0.0	0.3	Uranium-235	0.210	-	0.094	8	pCi/g
CE45-118	750489.490	2083652.478	0.0	0.3	Uranium-238	3.104	-	2.000	351	pCi/g
CE45-119	750489.526	2083702.414	0.0	0.3	Americium-241	8.010	-	0.023	76	pCi/g
CE45-119	750489.526	2083702.414	0.0	0.3	Plutonium-239/240	27.800	-	0.066	50	pCi/g
CE45-120	750439.492	2083552.313	0.0	0.3	Americium-241	2.269	-	0.023	76	pCi/g
CE45-120	750439.492	2083552.313	0.0	0.3	Plutonium-239/240	12.933	-	0.066	50	pCi/g
CE45-121	750439.595	2083602.476	0.0	0.3	Uranium-234	2.651	-	2.253	300	pCi/g
CE45-121	750439.595	2083602.476	0.0	0.3	Uranium-235	0.157	-	0.094	8	pCi/g
CE45-121	750439.595	2083602.476	0.0	0.3	Uranium-238	2.651	-	2.000	351	pCi/g
CE45-122	750439.524	2083652.323	0.0	0.3	Americium-241	2.458	-	0.023	76	pCi/g
CE45-122	750439.524	2083652.323	0.0	0.3	Plutonium-239/240	14.011	-	0.066	50	pCi/g
CE45-122	750439.524	2083652.323	0.0	0.3	Uranium-234	3.219	-	2.253	300	pCi/g
CE45-122	750439.524	2083652.323	0.0	0.3	Uranium-235	0.227	-	0.094	8	pCi/g
CE45-122	750439.524	2083652.323	0.0	0.3	Uranium-238	3.219	-	2.000	351	pCi/g
CE45-124	750389.621	2083552.444	0.0	0.3	Uranium-234	3.877	-	2.253	300	pCi/g
CE45-124	750389.621	2083552.444	0.0	0.3	Uranium-235	0.207	-	0.094	8	pCi/g
CE45-124	750389.621	2083552.444	0.0	0.3	Uranium-238	3.877	-	2.000	351	pCi/g
CE45-125	750389.460	2083602.386	0.0	0.3	Uranium-235	0.098	-	0.094	8	pCi/g
CE45-126	750389.553	2083652.296	0.0	0.3	Americium-241	3.120	-	0.023	76	pCi/g
CE45-126	750389.553	2083652.296	0.0	0.3	Plutonium-239/240	13.500	-	0.066	50	pCi/g
CE45-128	750371.779	2083639.213	0.0	0.3	Americium-241	51.200	-	0.023	76	pCi/g
CE45-128	750371.779	2083639.213	0.0	0.3	Plutonium-239/240	183.000	-	0.066	50	pCi/g
CE45-128	750371.779	2083639.213	0.0	0.3	Uranium-234	2.300	-	2.253	300	pCi/g
CE45-134	750331.106	2083710.846	0.0	0.5	Americium-241	1.329	-	0.023	76	pCi/g
CE45-134	750331.106	2083710.846	0.0	0.5	Plutonium-239/240	7.575	-	0.066	50	pCi/g
CE45-134	750331.106	2083710.846	0.0	0.5	Uranium-235	0.134	-	0.094	8	pCi/g

Preliminary Review Draft for Interagency Discussion/Not Issued for Public Comment

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CE46-081	750689.546	2083552.467	0.0	0.3	Uranium-235	0.120	-	0.094	8	pCi/g
CE46-082	750689.475	2083602.429	0.0	0.3	Uranium-235	0.104	-	0.094	8	pCi/g
CE46-083	750689.563	2083652.362	0.0	0.3	Uranium-235	0.221	-	0.094	8	pCi/g
CE46-084	750689.458	2083702.319	0.0	0.3	Americium-241	6.327	-	0.023	76	pCi/g
CE46-084	750689.458	2083702.319	0.0	0.3	Plutonium-239/240	36.064	-	0.066	50	pCi/g
CE46-084	750689.458	2083702.319	0.0	0.3	Uranium-235	0.132	-	0.094	8	pCi/g
CE46-086	750639.562	2083602.321	0.0	0.3	Americium-241	0.527	-	0.023	76	pCi/g
CE46-087	750639.527	2083652.310	0.0	0.3	Americium-241	1.223	-	0.023	76	pCi/g
CE46-087	750639.527	2083652.310	0.0	0.3	Plutonium-239/240	6.971	-	0.066	50	pCi/g
CE46-087	750639.527	2083652.310	0.0	0.3	Uranium-235	0.123	-	0.094	8	pCi/g
CE46-088	750639.528	2083702.342	0.0	0.3	Americium-241	5.209	-	0.023	76	pCi/g
CE46-088	750639.528	2083702.342	0.0	0.3	Plutonium-239/240	29.691	-	0.066	50	pCi/g
CE46-088	750639.528	2083702.342	0.0	0.3	Uranium-235	0.128	-	0.094	8	pCi/g
CE46-089	750589.576	2083552.305	0.0	0.3	Americium-241	0.690	-	0.023	76	pCi/g
CE46-089	750589.576	2083552.305	0.0	0.3	Plutonium-239/240	3.935	-	0.066	50	pCi/g
CE46-089	750589.576	2083552.305	0.0	0.3	Uranium-234	2.948	-	2.253	300	pCi/g
CE46-089	750589.576	2083552.305	0.0	0.3	Uranium-235	0.159	-	0.094	8	pCi/g
CE46-089	750589.576	2083552.305	0.0	0.3	Uranium-238	2.948	-	2.000	351	pCi/g
CE46-090	750589.515	2083602.367	0.0	0.3	Americium-241	1.976	-	0.023	76	pCi/g
CE46-090	750589.515	2083602.367	0.0	0.3	Plutonium-239/240	11.263	-	0.066	50	pCi/g
CE46-090	750589.515	2083602.367	0.0	0.3	Uranium-234	3.225	-	2.253	300	pCi/g
CE46-090	750589.515	2083602.367	0.0	0.3	Uranium-235	0.095	-	0.094	8	pCi/g
CE46-090	750589.515	2083602.367	0.0	0.3	Uranium-238	3.225	-	2.000	351	pCi/g
CE46-091	750589.460	2083652.374	0.0	0.3	Americium-241	0.595	-	0.023	76	pCi/g
CE46-091	750589.460	2083652.374	0.0	0.3	Plutonium-239/240	3.393	-	0.066	50	pCi/g
CE46-091	750589.460	2083652.374	0.0	0.3	Uranium-234	3.410	-	2.253	300	pCi/g
CE46-091	750589.460	2083652.374	0.0	0.3	Uranium-235	0.195	-	0.094	8	pCi/g
CE46-091	750589.460	2083652.374	0.0	0.3	Uranium-238	3.410	-	2.000	351	pCi/g
CE46-092	750589.508	2083702.347	0.0	0.3	Americium-241	10.880	-	0.023	76	pCi/g
CE46-092	750589.508	2083702.347	0.0	0.3	Plutonium-239/240	62.016	-	0.066	50	pCi/g
CE46-092	750589.508	2083702.347	0.0	0.3	Uranium-234	2.935	-	2.253	300	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CE46-092	750589.508	2083702.347	0.0	0.3	Uranium-235	0.182	-	0.094	8	pCi/g
CE46-092	750589.508	2083702.347	0.0	0.3	Uranium-238	2.935	-	2.000	351	pCi/g
CF44-031	750292.541	2083711.228	0.0	0.5	Uranium-235	0.142	-	0.094	8	pCi/g
CF44-034	750282.247	2083850.947	0.0	0.3	Uranium-234	2.568	-	2.253	300	pCi/g
CF44-034	750282.247	2083850.947	0.0	0.3	Uranium-235	0.245	-	0.094	8	pCi/g
CF44-034	750282.247	2083850.947	0.0	0.3	Uranium-238	2.568	-	2.000	351	pCi/g
CF45-107	750489.665	2083752.315	0.0	0.5	Americium-241	6.970	-	0.023	76	pCi/g
CF45-107	750489.665	2083752.315	0.0	0.5	Plutonium-239/240	37.500	-	0.066	50	pCi/g
CF45-108	750539.479	2083752.567	0.0	0.5	Americium-241	0.731	-	0.023	76	pCi/g
CF45-108	750539.479	2083752.567	0.0	0.5	Plutonium-239/240	4.166	-	0.066	50	pCi/g
CF45-108	750539.479	2083752.567	0.0	0.5	Uranium-235	0.132	-	0.094	8	pCi/g
CF45-109	750389.546	2083802.422	0.0	0.3	Americium-241	3.017	-	0.023	76	pCi/g
CF45-109	750389.546	2083802.422	0.0	0.3	Plutonium-239/240	17.197	-	0.066	50	pCi/g
CF45-109	750389.546	2083802.422	0.0	0.3	Uranium-235	0.146	-	0.094	8	pCi/g
CF45-110	750439.581	2083802.444	0.0	0.5	Americium-241	3.638	-	0.023	76	pCi/g
CF45-110	750439.581	2083802.444	0.0	0.5	Plutonium-239/240	20.737	-	0.066	50	pCi/g
CF45-111	750489.507	2083802.432	0.0	0.3	Americium-241	4.255	-	0.023	76	pCi/g
CF45-111	750489.507	2083802.432	0.0	0.3	Plutonium-239/240	24.254	-	0.066	50	pCi/g
CF45-111	750489.507	2083802.432	0.0	0.3	Uranium-235	0.230	-	0.094	8	pCi/g
CF45-112	750539.500	2083802.272	0.0	0.3	Americium-241	0.918	-	0.023	76	pCi/g
CF45-112	750539.500	2083802.272	0.0	0.3	Plutonium-239/240	5.234	-	0.066	50	pCi/g
CF45-112	750539.500	2083802.272	0.0	0.3	Uranium-235	0.153	-	0.094	8	pCi/g
CF45-113	750389.563	2083852.495	0.0	0.3	Americium-241	11.070	-	0.023	76	pCi/g
CF45-113	750389.563	2083852.495	0.0	0.3	Plutonium-239/240	63.099	-	0.066	50	pCi/g
CF45-113	750389.563	2083852.495	0.0	0.3	Uranium-235	0.126	-	0.094	8	pCi/g
CF45-114	750439.595	2083852.386	0.0	0.3	Americium-241	6.173	-	0.023	76	pCi/g
CF45-114	750439.595	2083852.386	0.0	0.3	Plutonium-239/240	35.186	-	0.066	50	pCi/g
CF45-114	750439.595	2083852.386	0.0	0.3	Uranium-234	3.914	-	2.253	300	pCi/g
CF45-114	750439.595	2083852.386	0.0	0.3	Uranium-235	0.209	-	0.094	8	pCi/g
CF45-114	750439.595	2083852.386	0.0	0.3	Uranium-238	3.914	-	2.000	351	pCi/g
CF45-116	750539.571	2083852.442	0.0	0.3	Plutonium-239/240	0.276	-	0.066	50	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CF45-117	750389.546	2083902.489	0.0	0.5	Americium-241	8.302	-	0.023	76	pCi/g
CF45-117	750389.546	2083902.489	0.0	0.5	Plutonium-239/240	47.321	-	0.066	50	pCi/g
CF45-117	750389.546	2083902.489	0.0	0.5	Uranium-234	2.522	-	2.253	300	pCi/g
CF45-117	750389.546	2083902.489	0.0	0.5	Uranium-235	0.159	-	0.094	8	pCi/g
CF45-117	750389.546	2083902.489	0.0	0.5	Uranium-238	2.522	-	2.000	351	pCi/g
CF45-118	750439.588	2083902.429	0.0	0.3	Americium-241	44.000	-	0.023	76	pCi/g
CF45-118	750439.588	2083902.429	0.0	0.3	Plutonium-239/240	215.000	-	0.066	50	pCi/g
CF45-119	750489.620	2083902.349	0.0	0.3	Americium-241	44.220	-	0.023	76	pCi/g
CF45-119	750489.620	2083902.349	0.0	0.3	Plutonium-239/240	252.054	-	0.066	50	pCi/g
CF45-119	750489.620	2083902.349	0.0	0.3	Uranium-235	0.142	-	0.094	8	pCi/g
CF45-120	750539.607	2083902.507	0.0	0.3	Americium-241	7.268	-	0.023	76	pCi/g
CF45-120	750539.607	2083902.507	0.0	0.3	Plutonium-239/240	41.428	-	0.066	50	pCi/g
CF45-173	750389.529	2083752.512	0.0	0.5	Americium-241	3.445	-	0.023	76	pCi/g
CF45-173	750389.529	2083752.512	0.0	0.5	Plutonium-239/240	19.637	-	0.066	50	pCi/g
CF45-174	750561.584	2083863.288	0.0	4.5	Americium-241	0.635	-	0.020	76	pCi/g
CF45-174	750561.584	2083863.288	0.0	4.5	Plutonium-239/240	3.622	-	0.020	50	pCi/g
CF45-175	750328.357	2083751.813	0.0	0.5	Americium-241	3.381	-	0.023	76	pCi/g
CF45-175	750328.357	2083751.813	0.0	0.5	Plutonium-239/240	19.272	-	0.066	50	pCi/g
CF45-175	750328.357	2083751.813	0.0	0.5	Uranium-235	0.137	-	0.094	8	pCi/g
CF45-177	750335.732	2083850.899	0.0	0.3	Americium-241	4.862	-	0.023	76	pCi/g
CF45-177	750335.732	2083850.899	0.0	0.3	Plutonium-239/240	27.713	-	0.066	50	pCi/g
CF45-177	750335.732	2083850.899	0.0	0.3	Uranium-235	0.155	-	0.094	8	pCi/g
CF45-178	750425.253	2083901.201	2.0	2.3	Uranium-234	2.975	-	2.253	300	pCi/g
CF45-178	750425.253	2083901.201	2.0	2.3	Uranium-235	0.238	-	0.094	8	pCi/g
CF45-178	750425.253	2083901.201	2.0	2.3	Uranium-238	2.975	-	2.000	351	pCi/g
CF45-179	750427.535	2083862.915	0.0	0.3	Americium-241	6.802	-	0.023	76	pCi/g
CF45-179	750427.535	2083862.915	0.0	0.3	Plutonium-239/240	38.771	-	0.066	50	pCi/g
CF45-179	750427.535	2083862.915	0.0	0.3	Uranium-234	3.475	-	2.253	300	pCi/g
CF45-179	750427.535	2083862.915	0.0	0.3	Uranium-235	0.203	-	0.094	8	pCi/g
CF45-179	750427.535	2083862.915	0.0	0.3	Uranium-238	3.475	-	2.000	351	pCi/g
CF45-180	750423.273	2083922.117	0.0	2.0	Americium-241	0.254	-	0.023	76	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW	AT	Unit
CF45-180	750423.273	2083922.117	0.0	2.0	Plutonium-239/240	1.445	-	0.066	50		pCi/g
CF45-181	750413.149	2083899.575	0.0	2.0	Uranium-235	0.129	-	0.094	8		pCi/g
CF45-182	750427.841	2083879.844	0.0	2.0	Americium-241	0.345	-	0.023	76		pCi/g
CF45-182	750427.841	2083879.844	0.0	2.0	Plutonium-239/240	1.964	-	0.066	50		pCi/g
CF46-054	750589.507	2083752.366	0.0	0.3	Americium-241	0.595	-	0.023	76		pCi/g
CF46-054	750589.507	2083752.366	0.0	0.3	Plutonium-239/240	3.392	-	0.066	50		pCi/g
CF46-054	750589.507	2083752.366	0.0	0.3	Uranium-234	3.098	-	2.253	300		pCi/g
CF46-054	750589.507	2083752.366	0.0	0.3	Uranium-238	3.098	-	2.000	351		pCi/g
CF46-055	750589.516	2083802.278	0.0	0.3	Americium-241	8.260	-	0.023	76		pCi/g
CF46-055	750589.516	2083802.278	0.0	0.3	Plutonium-239/240	33.500	-	0.066	50		pCi/g
CF46-056	750589.539	2083852.426	0.0	0.3	Americium-241	5.373	-	0.023	76		pCi/g
CF46-056	750589.539	2083852.426	0.0	0.3	Plutonium-239/240	30.626	-	0.066	50		pCi/g
CF46-056	750589.539	2083852.426	0.0	0.3	Uranium-234	3.629	-	2.253	300		pCi/g
CF46-056	750589.539	2083852.426	0.0	0.3	Uranium-235	0.233	-	0.094	8		pCi/g
CF46-056	750589.539	2083852.426	0.0	0.3	Uranium-238	3.629	-	2.000	351		pCi/g
CF46-057	750589.557	2083902.366	0.0	0.3	Americium-241	5.168	-	0.023	76		pCi/g
CF46-057	750589.557	2083902.366	0.0	0.3	Plutonium-239/240	29.458	-	0.066	50		pCi/g
CF46-058	750639.611	2083914.228	0.0	0.5	Americium-241	4.322	-	0.023	76		pCi/g
CF46-058	750639.611	2083914.228	0.0	0.5	Plutonium-239/240	24.635	-	0.066	50		pCi/g
CF46-080	750576.013	2083868.082	4.5	4.7	Plutonium-239/240	0.433	-	0.020	50		pCi/g
CF46-081	750601.857	2083874.525	4.5	4.7	Americium-241	1.170	-	0.020	76		pCi/g
CF46-081	750601.857	2083874.525	4.5	4.7	Plutonium-239/240	10.200	-	0.020	50		pCi/g
CF46-083	750639.691	2083802.291	0.0	0.5	Americium-241	0.273	-	0.023	76		pCi/g
CF46-083	750639.691	2083802.291	0.0	0.5	Plutonium-239/240	1.554	-	0.066	50		pCi/g
CF46-084	750639.612	2083852.438	0.0	0.5	Americium-241	0.363	-	0.023	76		pCi/g
CF46-084	750639.612	2083852.438	0.0	0.5	Plutonium-239/240	2.070	-	0.066	50		pCi/g
CF46-084	750639.612	2083852.438	0.0	0.5	Uranium-235	0.132	-	0.094	8		pCi/g
CF46-085	750624.258	2083878.956	0.0	4.5	Americium-241	7.749	-	0.020	76		pCi/g
CF46-085	750624.258	2083878.956	0.0	4.5	Plutonium-239/240	44.169	-	0.020	50		pCi/g
CF46-086	750592.486	2083880.961	0.0	4.5	Americium-241	6.143	-	0.020	76		pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CF46-086	750592.486	2083880.961	0.0	4.5	Plutonium-239/240	35.015	-	0.020	50	pCi/g
CF46-086	750592.486	2083880.961	0.0	4.5	Uranium-238	1.493	-	1.490	351	pCi/g
CF46-087	750596.976	2083865.353	0.0	4.5	Americium-241	8.126	-	0.020	76	pCi/g
CF46-087	750596.976	2083865.353	0.0	4.5	Plutonium-239/240	46.318	-	0.020	50	pCi/g
CF46-087	750596.976	2083865.353	0.0	4.5	Uranium-238	2.197	-	1.490	351	pCi/g
CG44-016	750287.795	2083909.885	0.0	0.3	Americium-241	0.883	-	0.023	76	pCi/g
CG44-016	750287.795	2083909.885	0.0	0.3	Plutonium-239/240	5.031	-	0.066	50	pCi/g
CG45-016	750389.563	2083952.419	0.0	0.5	Americium-241	4.828	-	0.023	76	pCi/g
CG45-016	750389.563	2083952.419	0.0	0.5	Plutonium-239/240	27.520	-	0.066	50	pCi/g
CG45-016	750389.563	2083952.419	0.0	0.5	Uranium-234	3.908	-	2.253	300	pCi/g
CG45-016	750389.563	2083952.419	0.0	0.5	Uranium-235	0.228	-	0.094	8	pCi/g
CG45-016	750389.563	2083952.419	0.0	0.5	Uranium-238	3.908	-	2.000	351	pCi/g
CG45-017	750439.563	2083952.425	0.0	0.5	Americium-241	3.693	-	0.023	76	pCi/g
CG45-017	750439.563	2083952.425	0.0	0.5	Plutonium-239/240	21.050	-	0.066	50	pCi/g
CG45-017	750439.563	2083952.425	0.0	0.5	Uranium-234	3.514	-	2.253	300	pCi/g
CG45-017	750439.563	2083952.425	0.0	0.5	Uranium-235	0.166	-	0.094	8	pCi/g
CG45-017	750439.563	2083952.425	0.0	0.5	Uranium-238	3.514	-	2.000	351	pCi/g
CG45-018	750489.536	2083952.385	0.0	0.5	Americium-241	8.632	-	0.023	76	pCi/g
CG45-018	750489.536	2083952.385	0.0	0.5	Plutonium-239/240	49.202	-	0.066	50	pCi/g
CG45-019	750539.525	2083952.292	0.0	0.5	Americium-241	3.138	-	0.023	76	pCi/g
CG45-019	750539.525	2083952.292	0.0	0.5	Plutonium-239/240	17.887	-	0.066	50	pCi/g
CG45-019	750539.525	2083952.292	0.0	0.5	Uranium-234	3.542	-	2.253	300	pCi/g
CG45-019	750539.525	2083952.292	0.0	0.5	Uranium-235	0.223	-	0.094	8	pCi/g
CG45-019	750539.525	2083952.292	0.0	0.5	Uranium-238	3.542	-	2.000	351	pCi/g
CG45-020	750389.523	2084002.451	0.0	0.5	Americium-241	5.466	-	0.023	76	pCi/g
CG45-020	750389.523	2084002.451	0.0	0.5	Plutonium-239/240	31.156	-	0.066	50	pCi/g
CG45-020	750389.523	2084002.451	0.0	0.5	Uranium-234	3.929	-	2.253	300	pCi/g
CG45-020	750389.523	2084002.451	0.0	0.5	Uranium-235	0.284	-	0.094	8	pCi/g
CG45-020	750389.523	2084002.451	0.0	0.5	Uranium-238	3.929	-	2.000	351	pCi/g
CG45-021	750439.569	2084002.461	0.0	0.3	Uranium-234	3.213	-	2.253	300	pCi/g
CG45-021	750439.569	2084002.461	0.0	0.3	Uranium-235	0.230	-	0.094	8	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CG45-021	750439.569	2084002.461	0.0	0.3	Uranium-238	3.213	-	2.000	351	pCi/g
CG45-023	750539.650	2084002.356	0.0	0.5	Americium-241	8.195	-	0.023	76	pCi/g
CG45-023	750539.650	2084002.356	0.0	0.5	Plutonium-239/240	46.712	-	0.066	50	pCi/g
CG45-023	750539.650	2084002.356	0.0	0.5	Uranium-234	3.284	-	2.253	300	pCi/g
CG45-023	750539.650	2084002.356	0.0	0.5	Uranium-235	0.271	-	0.094	8	pCi/g
CG45-023	750539.650	2084002.356	0.0	0.5	Uranium-238	3.284	-	2.000	351	pCi/g
CG45-024	750389.431	2084052.409	0.0	0.5	Americium-241	5.331	-	0.023	76	pCi/g
CG45-024	750389.431	2084052.409	0.0	0.5	Plutonium-239/240	30.387	-	0.066	50	pCi/g
CG45-024	750389.431	2084052.409	0.0	0.5	Uranium-234	3.292	-	2.253	300	pCi/g
CG45-024	750389.431	2084052.409	0.0	0.5	Uranium-235	0.169	-	0.094	8	pCi/g
CG45-024	750389.431	2084052.409	0.0	0.5	Uranium-238	3.292	-	2.000	351	pCi/g
CG45-025	750439.501	2084052.384	0.0	0.5	Americium-241	2.609	-	0.023	76	pCi/g
CG45-025	750439.501	2084052.384	0.0	0.5	Plutonium-239/240	14.871	-	0.066	50	pCi/g
CG45-025	750439.501	2084052.384	0.0	0.5	Uranium-234	3.045	-	2.253	300	pCi/g
CG45-025	750439.501	2084052.384	0.0	0.5	Uranium-235	0.171	-	0.094	8	pCi/g
CG45-025	750439.501	2084052.384	0.0	0.5	Uranium-238	3.045	-	2.000	351	pCi/g
CG45-026	750489.556	2084052.427	0.0	0.5	Americium-241	8.444	-	0.023	76	pCi/g
CG45-026	750489.556	2084052.427	0.0	0.5	Plutonium-239/240	48.131	-	0.066	50	pCi/g
CG45-028	750389.533	2084102.380	0.0	0.5	Americium-241	7.791	-	0.023	76	pCi/g
CG45-028	750389.533	2084102.380	0.0	0.5	Plutonium-239/240	44.409	-	0.066	50	pCi/g
CG45-028	750389.533	2084102.380	0.0	0.5	Uranium-238	2.111	-	2.000	351	pCi/g
CG45-029	750439.668	2084102.357	0.0	0.3	Americium-241	1.428	-	0.023	76	pCi/g
CG45-029	750439.668	2084102.357	0.0	0.3	Plutonium-239/240	8.140	-	0.066	50	pCi/g
CG45-029	750439.668	2084102.357	0.0	0.3	Uranium-234	2.368	-	2.253	300	pCi/g
CG45-029	750439.668	2084102.357	0.0	0.3	Uranium-235	0.165	-	0.094	8	pCi/g
CG45-029	750439.668	2084102.357	0.0	0.3	Uranium-238	2.368	-	2.000	351	pCi/g
CG45-030	750489.535	2084102.402	0.0	0.3	Americium-241	0.873	-	0.023	76	pCi/g
CG45-030	750489.535	2084102.402	0.0	0.3	Plutonium-239/240	4.978	-	0.066	50	pCi/g
CG45-042	750343.350	2083954.794	0.0	0.3	Americium-241	5.050	-	0.023	76	pCi/g
CG45-042	750343.350	2083954.794	0.0	0.3	Plutonium-239/240	28.785	-	0.066	50	pCi/g
CG45-042	750343.350	2083954.794	0.0	0.3	Uranium-234	2.937	-	2.253	300	pCi/g

Location	Latitude	Longitude	Start Depth (ft)	End Depth (ft)	Analyte	Result	RL	Background	WRW AL	Unit
CG45-042	750343.350	2083954.794	0.0	0.3	Uranium-235	0.191	-	0.094	8	pCi/g
CG45-042	750343.350	2083954.794	0.0	0.3	Uranium-238	2.937	-	2.000	351	pCi/g
CG45-043	750345.192	2084002.744	0.0	0.5	Americium-241	5.379	-	0.023	76	pCi/g
CG45-043	750345.192	2084002.744	0.0	0.5	Plutonium-239/240	30.660	-	0.066	50	pCi/g
CG45-045	750494.259	2084112.395	0.0	1.0	Americium-241	2.874	-	0.020	76	pCi/g
CG45-045	750494.259	2084112.395	0.0	1.0	Plutonium-239/240	16.382	-	0.020	50	pCi/g
CG45-045	750494.259	2084112.395	0.0	1.0	Uranium-235	0.139	-	0.120	8	pCi/g
CG45-045	750494.259	2084112.395	0.0	1.0	Uranium-238	1.642	-	1.490	351	pCi/g
CG45-046	750466.355	2084097.999	0.0	2.5	Americium-241	1.657	-	0.020	76	pCi/g
CG45-046	750466.355	2084097.999	0.0	2.5	Plutonium-239/240	9.445	-	0.020	50	pCi/g
CG45-046	750466.355	2084097.999	0.0	2.5	Uranium-235	0.206	-	0.120	8	pCi/g
CG45-046	750466.355	2084097.999	0.0	2.5	Uranium-238	1.592	-	1.490	351	pCi/g
CG45-047	750463.693	2084117.906	0.0	2.5	Americium-241	2.112	-	0.020	76	pCi/g
CG45-047	750463.693	2084117.906	0.0	2.5	Plutonium-239/240	12.038	-	0.020	50	pCi/g
CG45-048	750432.345	2084102.307	0.0	2.5	Americium-241	4.643	-	0.020	76	pCi/g
CG45-048	750432.345	2084102.307	0.0	2.5	Plutonium-239/240	26.465	-	0.020	50	pCi/g
CG45-048	750432.345	2084102.307	0.0	2.5	Uranium-235	0.178	-	0.120	8	pCi/g
CG46-027	750639.486	2083952.392	0.0	0.5	Americium-241	1.672	-	0.023	76	pCi/g
CG46-027	750639.486	2083952.392	0.0	0.5	Plutonium-239/240	9.530	-	0.066	50	pCi/g
CG46-027	750639.486	2083952.392	0.0	0.5	Uranium-235	0.137	-	0.094	8	pCi/g
CH45-149	750439.540	2084139.600	0.0	0.3	Americium-241	3.444	-	0.023	76	pCi/g
CH45-149	750439.540	2084139.600	0.0	0.3	Plutonium-239/240	19.631	-	0.066	50	pCi/g
CH45-150	750489.597	2084139.641	0.0	0.3	Americium-241	3.839	-	0.023	76	pCi/g
CH45-150	750489.597	2084139.641	0.0	0.3	Plutonium-239/240	21.882	-	0.066	50	pCi/g
CH45-150	750489.597	2084139.641	0.0	0.3	Uranium-235	0.166	-	0.094	8	pCi/g
CH45-151	750539.490	2084139.691	0.0	0.3	Americium-241	6.921	-	0.023	76	pCi/g
CH45-151	750539.490	2084139.691	0.0	0.3	Plutonium-239/240	39.450	-	0.066	50	pCi/g
CH46-062	750589.511	2084152.465	0.0	0.5	Americium-241	3.657	-	0.023	76	pCi/g
CH46-062	750589.511	2084152.465	0.0	0.5	Plutonium-239/240	20.845	-	0.066	50	pCi/g

SORs based on confirmation sampling results for radionuclides are presented in Table 12. SORs for radionuclides were only calculated for soil concentrations within the first 3 ft below grade. As shown, SORs are greater than 1 at four sampling locations (CE45-118, CE45-128, CE45-118 and CF45-119). However, after backfilling and grading, these sampling locations are more than 3 ft bgs. No SORs for non-radionuclides were calculated because all concentrations were less than 10 percent of the corresponding WRW ALs. The presence of radionuclides below 3 ft and non-radionuclides in subsurface soil are addressed in the SSRS (Section 6.0).

Table 12
Sums of Ratios Based on Radionuclide Activities in Confirmation Soil Samples

Location Code	Start Depth (ft)	End Depth (ft)	SOR
CD45-007	0	0.3	0.001
CD45-008	0	0.3	0.018
CD45-009	0	0.3	0.029
CD45-010	0	0.3	0.083
CD46-002	0	0.3	0.045
CD46-004	0	0.3	0.030
CE45-113	0	0.3	0.105
CE45-114	0	0.3	0.670
CE45-115	0	0.3	0.531
CE45-116	0	0.3	0.016
CE45-117	0	0.3	0.026
CE45-118	0	0.3	1.343
CE45-119	0	0.3	0.345
CE45-120	0	0.3	0.141
CE45-121	0	0.3	0.036
CE45-122	0	0.3	0.201
CE45-124	0	0.3	0.050
CE45-125	0	0.3	0.012
CE45-126	0	0.3	0.157
CE45-128	0	0.3	2.259
CE45-134	0	0.5	0.100
CE46-081	0	0.3	0.015
CE46-082	0	0.3	0.013
CE46-083	0	0.3	0.028
CE46-084	0	0.3	0.411
CE46-086	0	0.3	0.007
CE46-087	0	0.3	0.092
CE46-088	0	0.3	0.341
CE46-089	0	0.3	0.081
CE46-090	0	0.3	0.155
CE46-091	0	0.3	0.083
CE46-092	0	0.3	0.719
CF44-031	0	0.5	0.018
CF44-034	0	0.3	0.046
CF45-107	0	0.5	0.415

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Location Code	Start Depth (ft)	End Depth (ft)	SOR
CF45-108	0	0.5	0.062
CF45-109	0	0.3	0.206
CF45-110	0	0.5	0.227
CF45-111	0	0.3	0.294
CF45-112	0	0.3	0.076
CF45-113	0	0.3	0.705
CF45-114	0	0.3	0.435
CF45-116	0	0.3	0.002
CF45-117	0	0.5	0.553
CF45-118	0	0.3	2.432
CF45-119	0	0.3	2.772
CF45-120	0	0.3	0.453
CF45-173	0	0.5	0.215
CF45-175	0	0.5	0.228
CF45-177	0	0.3	0.322
CF45-178	02	2.3	0.048
CF45-179	0	0.3	0.471
CF45-180	0	2.0	0.034
CF45-181	0	2.0	0.016
CF45-182	0	2.0	0.021
CF46-054	0	0.3	0.056
CF46-055	0	0.3	0.397
CF46-056	0	0.3	0.386
CF46-057	0	0.3	0.322
CF46-058	0	0.5	0.269
CF46-083	0	0.5	0.017
CF46-084	0	0.5	0.039
CG44-016	0	0.3	0.055
CG45-016	0	0.5	0.353
CG45-017	0	0.5	0.273
CG45-018	0	0.5	0.538
CG45-019	0	0.5	0.245
CG45-020	0	0.5	0.400
CG45-021	0	0.3	0.049
CG45-023	0	0.5	0.565
CG45-024	0	0.5	0.374
CG45-025	0	0.5	0.203
CG45-026	0	0.5	0.526
CG45-028	0	0.5	0.491
CG45-029	0	0.3	0.124
CG45-030	0	0.3	0.054
CG45-042	0	0.3	0.357
CG45-043	0	0.5	0.335
CG46-027	0	0.5	0.121
CH45-149	0	0.3	0.215
CH45-150	0	0.3	0.260

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Location Code	Start Depth (ft)	End Depth (ft)	SOR
CH45-151	0	0.3	0.431
CH46-062	0	0.5	0.228

5.0 POST-REMEDATION CONDITIONS

All accelerated action objectives were met. The Building 776 entrance to the tunnel leading to Building 771 was crushed and grouted, and a bentonite cutoff wall was placed in front of the tunnel leading to Building 771 to prevent the flow of groundwater through the tunnel towards Building 771. Approximately 6,400 cy of contaminated soil was removed. All deep excavations were backfilled, and the area was brought up to final grade by the addition of clean fill material.

Residual surface and subsurface soil concentrations greater than background means plus two standard deviations or RLs are shown on Figures 6, 7 and 8. The presence of residual contamination was determined based on accelerated action (characterization and confirmation) sampling results. NLR sampling locations (Section 12.0) are not included. Confirmation sample start depths are shown as 0.0 ft (the surface of the excavation bottom); however, actual sample depths are several feet below ground surface. UBC areas have residual surface and subsurface contaminant activities and concentrations less than RFCA WRW ALs, with the following exceptions:

- An area in the northwestern corner of UBC 776 associated with a pipe chase;
- The excavation area associated with removal of the elevator shaft;
- The excavation area associated with the removal of the 776/777 basement and C- and D-Pits;
- A small area associated with the removal of OPWL north of UBC 776;
- A small area in the southeastern corner of UBC 776; and
- A small area in the southwestern corner of UBC 776..

All residual radionuclide activities greater than WRW soil ALs are at depths greater than 3 ft below final grade and less than 1 nCi/g in compliance with RFCA (DOE et al. 2003). Residual contamination is evaluated in the SSRS (Section 6.0) and is further evaluated in the Sitewide Comprehensive Risk Assessment (CRA).

6.0 SUBSURFACE SOIL RISK SCREEN

The SSRS follows the steps identified in Figure 3 of Attachment 5 of RFCA (DOE et al. 2003).

Screen 1 – Are the COC concentrations below RFCA Table 3 Soil ALs for the WRW?

No. Some residual radionuclide activities are greater than WRW soil ALs (Section 5.0); however, these activities are at depths greater than 3 ft below final grade and less than 1 nCi/g in compliance with RFCA.

Screen 2 – Is there a potential for subsurface soil to become surface soil (landslides and erosion areas identified on Figure 1 of RFCA (DOE et al. 2003).

No. IHSS Group 700-3 sites are not located in an area susceptible to landslides or high erosion based on RFCA Attachment 5, Figure 1. Also, elevated residual activities are located at depths

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greater than 3 ft below final grade, some as deep as 30 ft.

Screen 3 – Does subsurface soil contamination for radionuclides exceed criteria defined in RFCA Modification 1, Section 5.3 and Attachment 14?

No. As shown on Figures 6 through 8, residual radionuclide activities are less than WRW soil ALs, or are less than 1 nCi/g and located more than 3 ft below final grade.

Screen 4 – Is there an environmental pathway and sufficient quantity of COCs that would cause an exceedance of the surface water standards?

No. Contaminant migration via surface runoff and groundwater are two possible pathways whereby surface water could become contaminated from IHSS Group 700-3 COCs. Run-off from IHSS Group 700-3 drains via overland flow north into North Walnut Creek through Gauging Stations 32, 44 and 49 (upstream of North Walnut Creek) (DOE 2003c), which are monitored for contaminant loadings. The nearest RFCA Surface Water Point of Evaluation is SW093, which is located in North Walnut Creek and receives runoff from a large part of the IA, including IHSS Group 700-3 (DOE 2003c). Increased total suspended solids in the surface water have resulted in reportable concentrations of actinides at SW093 (June 15, 2004, presentation to RFCA Coordinators, updated with available data on June 29, 2004). Concentrations of beryllium, cadmium, chromium and silver also increased during 2004; however, concentrations were always significantly below RFCA surface water ALs. In addition, all metal concentrations in soil at UBCs 776, 777 and 778 are less than the WRW soil ALs. Other COCs associated with UBCs 776, 777 and 778 (VOCs) are not monitored at SW093. Related source evaluations will continue and, based on the evaluation findings, appropriate mitigative measures will be implemented. Erosion controls have already been put in place. In addition, storm drains and culverts in the vicinity of IHSS Group 700-3 have been removed, and therefore, environmental pathways to surface water from this route have been disrupted.

Several RFCA groundwater monitoring wells are located near IHSS Group 700-3. The majority of these wells (00700, 18199, 18399, 18499, 18799, and 60299) contain VOCs greater than the RFCA groundwater Tier II ALs. This VOC contamination is considered part of the IA Plume, which is much larger than IHSS Group 700-3 and probably is attributable to multiple sources within the IA. However, all VOC concentrations in soil at UBCs 776, 777 and 778 are less than WRW soil ALs. The groundwater contamination associated with this area is evaluated in the Draft Interim Measure/Interim Remedial Action for Groundwater at the Rocky Flats Environmental Technology Site (DOE 2004c).

Groundwater results are available for both filtered and unfiltered analyses. Manganese is the only metal detected in unfiltered groundwater and was detected at concentrations less than groundwater Tier II values. Lead was the only metal detected in filtered groundwater at concentrations slightly greater than the groundwater Tier II value (025 vs .015 mg/L). However, manganese and lead concentrations in soil at UBCs 776, 777 and 778 are less than WRW soil ALs.

While residual contamination could impact surface water, the potential for contaminants from this area to migrate to surface water and adversely impact surface water quality has been greatly minimized. As mentioned in Screen 2, IHSS Group 700-3 sites are not located in an area

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susceptible to landslides or high erosion, and elevated residual activities are located at depths greater than 3 ft below final grade and are less than 1 nCi/g.

7.0 STEWARDSHIP EVALUATION

The IHSS Group 700-3 stewardship evaluation was based on current site conditions.

7.1 Current Site Conditions

Based on the accelerated action characterization and remediation activities, the following conditions exist at UBCs 776, 777 and 778 and Tank 18:

- The Building 776 entrance to the tunnel was crushed and grouted, and abentonite cutoff wall was placed in front of the tunnel leading to Building 771 to prevent the flow of groundwater through the tunnel towards Building 771.
- Approximately 6,400 cy of contaminated soil was removed.
- Excavations were backfilled, and the area was brought up to final grade by the addition of clean fill material.
- Residual surface and subsurface contaminant activities and concentrations are less than RFCA WRW ALs, with some exceptions; however, all residual radionuclide activities greater than WRW soil ALs are at depths greater than 3 ft below final grade and less than 1 nCi/g in compliance with RFCA.

7.2 Near-Term Management Recommendations

No IHSS Group-specific, near-term management measures are required. Contaminant concentrations in soil remaining at IHSS Group 700-3 do not trigger any further accelerated action. Site-wide, near-term recommendations include the following:

- Excavation at the site will continue to be controlled through the Site Soil Disturbance Permit process; and
- Access will be restricted to minimize disturbance to newly revegetated areas.

Site access and security controls and the Soil Disturbance Permit process will remain in place pending implementation of long-term controls.

7.3 Long-Term Stewardship Recommendations

Based on remaining environmental conditions at IHSS Group 700-3, no IHSS Group-specific long-term stewardship activities are recommended beyond the generally applicable Site requirements. These requirements may be imposed on this area in the future. Institutional controls that will be used as appropriate for this area include the following:

- Prohibitions on construction of buildings in the IA;
- Restrictions on excavation or other soil disturbance; and
- Prohibitions on groundwater pumping in the area of IHSS Group 700-3.

No IHSS Group-specific engineered controls or environmental monitoring are recommended as a result of the conditions remaining at IHSS Group 700-3. Likewise, no specific institutional or physical controls are recommended as a result of the conditions remaining at IHSS Group 700-3.

This Closeout Report and associated documentation will be retained as part of the Rocky Flats AR file.

IHSS Group 700-3 will be evaluated as part of the Sitewide CRA, which is part of the RCRA Remedial Investigation/Feasibility Study (RI/FS) that will be conducted for the Site. The need for and extent of any more general, long-term stewardship activities will also be evaluated in the RI/FS. Institutional controls and other long-term stewardship requirements for Rocky Flats will be contained in the Corrective Action Decision/Record of Decision.

8.0 DEVIATIONS FROM THE ER RSOP

There were no deviations from the ER RSOP.

9.0 RCRA UNIT CLOSURE

Not applicable. The UBC Sites addressed in this report did not contain any waste management units regulated under the Resource Recovery and Conservation Act (RCRA), and therefore, no RCRA units were closed as part of this accelerated action. Tank T-18 was not a RCRA unit.

10.0 WASTE MANAGEMENT

Approximately 6,400 cy of soil was removed and disposed of as low-level waste. Process waste and other lines had been previously removed and disposed of. Groundwater and rain water collected from excavations was managed with the demolition dust-suppression water in the temporary retention pond (Section 3.0).

All waste management activities associated with this accelerated action were managed by the RFETS Material Stewardship group. All waste types and volumes generated under this action and waste containers used were recorded in the Waste and Environmental Management System database, which is used to track and control storage and movement of waste packages on Site, and shipments to off-site facilities.

11.0 SITE RECLAMATION

The excavations created to remove contaminated soil and/or structural components (e.g., the 776/777 basement, equipment pits, elevator shaft, and pipe chases) were backfilled with clean fill primarily from the T371 area. A small volume of clean fill identified from under the building slabs was also used as backfill (Section 3.0). Documentation regarding backfilling of the excavations is provided in ER Regulatory Contact Records included in Appendix B. After the waste pile and retention pond are removed, the railroad spur will be removed, and the project area will be graded to achieve final grade and seeded.

12.0 NO LONGER REPRESENTATIVE SAMPLING LOCATIONS

Many accelerated action soil sampling locations were removed during the IHSS Group 700-3 accelerated action and are considered NLR. These NLR sampling locations include

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characterization and in-process sampling locations and are listed in Table 13. NLR data have been marked in SWD and will not be used in the CRA or other Site analyses.

Table 13
IHSS Group 700-3 No Longer Representative Sampling Locations
Associated with UBCs 776, 777 and 778 and Tank 18

Location Code
CE45-018
CE45-019
CE45-020
CE45-021
CE45-022
CE45-023
CE45-024
CE45-029
CE45-030
CE45-031
CE45-032
CE45-033
CE45-034
CE45-035
CE45-036
CE45-037
CE45-038
CE45-039
CE45-040
CE45-041
CE45-042
CE45-046
CE45-047
CE45-048
CE45-049
CE45-050
CE45-051
CE45-052
CE45-053
CE45-054
CE45-055
CE45-056
CE45-057
CE45-058
CE45-059
CE45-060
CE45-061
CE45-062
CE45-063
CE45-064
CE45-065
CE45-066

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Location Code
CE45-067
CE45-068
CE45-069
CE45-070
CE45-071
CE45-072
CE45-073
CE45-074
CE45-076
CE45-077
CE45-078
CE45-082
CE45-083
CE45-084
CE45-085
CE45-086
CE45-087
CE45-088
CE45-089
CE45-090
CE45-091
CE45-092
CE45-093
CE45-094
CE45-095
CE45-096
CE45-097
CE45-098
CE45-123A
CE45-127A
CE46-000
CE46-009
CE46-029
CE46-030
CE46-031
CE46-032
CE46-033
CE46-034
CE46-035
CE46-036
CE46-039
CE46-040
CE46-041
CE46-042
CE46-043
CE46-044
CE46-045

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Location Code
CE46-046
CE46-047
CE46-048
CE46-049
CE46-050
CE46-051
CE46-052
CE46-053
CE46-054
CE46-055
CE46-057
CE46-058
CE46-059
CE46-060
CE46-061
CE46-062
CE46-063
CE46-064
CE46-065
CE46-067
CE46-068
CF44-013
CF45-002
CF45-003
CF45-006
CF45-007
CF45-008
CF45-009
CF45-011
CF45-012
CF45-015
CF45-016
CF45-018
CF45-019
CF45-020
CF45-021
CF45-023
CF45-028
CF45-029
CF45-030
CF45-031
CF45-032
CF45-033
CF45-034
CF45-035
CF45-036
CF45-037

978

Location Code
CF45-038
CF45-039
CF45-042
CF45-043
CF45-044
CF45-045
CF45-046
CF45-047
CF45-048
CF45-049
CF45-050
CF45-051
CF45-052
CF45-053
CF45-054
CF45-055
CF45-056
CF45-057
CF45-058
CF45-059
CF45-060
CF45-061
CF45-062
CF45-063
CF45-064
CF45-065
CF45-066
CF45-067
CF45-068
CF45-069
CF45-070
CF45-071
CF45-072
CF45-073
CF45-074
CF45-075
CF45-076
CF45-077
CF45-078
CF45-079
CF45-091
CF45-097
CF45-098
CF45-099
CF45-100
CF45-101
CF45-102

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Location Code
CF45-103
CF45-104
CF45-105
CF45-117A
CF45-118A & B
CF45-176
CF46-014
CF46-018
CF46-019
CF46-047
CF46-048
CF46-049
CF46-050
CF46-051
CF46-062
CG44-007
CG44-017A
CG45-000
CG45-001
CG45-016A
CG45-017A
CG45-020A
CG45-021A
CG45-022
CG45-024A
CG45-025A
CG45-028A
CG45-030A
CG45-031
CG45-041A
CG45-044
CH45-150A
CH45-151A
CH46-063

13.0 DATA QUALITY ASSESSMENT

The data quality objectives (DQOs) for this project are described in the IASAP (DOE 2001). All DQOs for this project were achieved based on the following:

- Regulatory agency-approved sampling program design (IASAP Addendum #IA-03-04 [DOE 2003a]), modified due to field conditions, in accordance with the IASAP (DOE 2001) and IABZSAP (DOE 2004a);
- Collection of samples in accordance with the sampling design; and
- Results of the DQA, as described in the following sections.

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13.1 Data Quality Assessment Process

The DQA process ensures that the type, quantity, and quality of environmental data used in decision making are defensible, and is based on the following guidance and requirements:

- U.S. Environmental Protection Agency (EPA), 1994a, Guidance for the Data Quality Objective Process, QA/G-4;
- EPA, 1998, Guidance for the Data Quality Assessment Process, Practical Methods for Data Analysis, QA/G-9; and
- U.S. Department of Energy (DOE), 1999, Quality Assurance, Order 414.1A.

Verification and validation (V&V) of data are the primary components of the DQA. The final data are compared with original project DQOs and evaluated with respect to project decisions; uncertainty within the decisions; and quality criteria required for the data, specifically precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS).

Validation criteria are consistent with the following RFETS-specific documents and industry guidelines:

- EPA, 1994b, USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, 540/R-94/012;
- EPA, 1994c, USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, 540/R-94/013;
- Kaiser-Hill Company, L.L.C. (K-H), 2002a, General Guidelines for Data Verification and Validation, DA-GR01-v2, October;
- K-H, 2002b, V&V Guidelines for Isotopic Determinations by Alpha Spectrometry, DA-RC01-v2, October;
- K-H, 2002c, V&V Guidelines for Volatile Organics, DA-SS01-v3, October;
- K-H, 2002d, V&V Guidelines for Semivolatile Organics, DA-SS02-v3, October;
- K-H, 2002e, V&V Guidelines for Metals, DA-SS05-v3, October; and
- Lockheed-Martin, 1997, Evaluation of Radiochemical Data Usability, ES/ER/MS-5.

This report will be submitted to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) AR for permanent storage 30 days after being provided to CDPHE and/or EPA.

13.2 Verification and Validation of Results

Verification ensures that data produced and used by the project are documented and traceable in accordance with quality requirements. Validation consists of a technical review of all data that directly support the project decisions so that any limitations of the data relative to project goals are delineated and the associated data are qualified accordingly. The V&V process defines the criteria that constitute data quality, namely PARCCS parameters. Data traceability and archival are also addressed. V&V criteria include the following:

- Chain-of-custody;
- Preservation and hold times;
- Instrument calibrations;
- Preparation blanks;
- Interference check samples (metals);
- Matrix spikes/matrix spike duplicates (MS/MSDs);
- Laboratory control samples (LCSs);
- Field duplicate measurements;
- Chemical yield (radiochemistry);
- Required quantitation limits/minimum detectable activities (sensitivity of chemical and radiochemical measurements, respectively); and
- Sample analysis and preparation methods.

Evaluation of V&V criteria ensures that PARCCS parameters are satisfactory (that is, within tolerances acceptable to the project). Satisfactory V&V of laboratory quality controls are captured through application of validation "flags" or qualifiers to individual records.

Raw hard-copy data (for example, individual analytical data packages) are currently filed by report identification number and maintained by K-H Analytical Services Division; older hard copies may reside in the Federal Center in Lakewood, Colorado. Electronic data are stored in SWD.

Both real and QC data are included on the enclosed CD.

13.2.1 Accuracy

The following measures of accuracy were evaluated:

- LCSs;
- Surrogates;
- Field blanks; and
- Sample MSs.

Results are compared to method requirements and project goals. The results of these comparisons are summarized for RFCA COCs where the result could impact project decisions. Particular attention is paid to those values near ALs when QC results could indicate unacceptable levels of uncertainty for decision-making purposes.

Laboratory Control Sample Evaluation

As indicated in Table 14, LCS analyses were run for all methods except gamma spectroscopy. When the In-Situ Counting System technique is used for gamma spectroscopy, an internal standard approach is used instead of LCSs. The onsite laboratory that performs gamma spectroscopy is therefore not required to provide LCS data.

Table 14
LCS Summary

Test Method	Laboratory Batch	Laboratory Control Standard Run
ALPHA SPEC	3344179	Yes
ALPHA SPEC	3344188	Yes
ALPHA SPEC	3344190	Yes
ALPHA SPEC	3351162	Yes
ALPHA SPEC	3351171	Yes
ALPHA SPEC	3351176	Yes
ALPHA SPEC	4015374	Yes
ALPHA SPEC	4015379	Yes
ALPHA SPEC	4015383	Yes
ALPHA SPEC	4016159	Yes
ALPHA SPEC	4016164	Yes
ALPHA SPEC	4016167	Yes
ALPHA SPEC	5039501	Yes
ALPHA SPEC	5042184	Yes
ALPHA SPEC	5042187	Yes
ALPHA SPEC	5046158	Yes
ALPHA SPEC	5046201	Yes
ALPHA SPEC	5049426	Yes
ALPHA SPEC	5122556	Yes
ALPHA SPEC	5122557	Yes
ALPHA SPEC	5122558	Yes
ALPHA SPEC	5140350	Yes
ALPHA SPEC	5140351	Yes
ALPHA SPEC	5140353	Yes
ALPHA SPEC	5159555	Yes
ALPHA SPEC	5159557	Yes
ALPHA SPEC	5159559	Yes
ALPHA SPEC	5166524	Yes
ALPHA SPEC	5166526	Yes
ALPHA SPEC	5166528	Yes
ALPHA SPEC	5186507	Yes
ALPHA SPEC	5186508	Yes
ALPHA SPEC	5186510	Yes
ALPHA SPEC	5189104	Yes
ALPHA SPEC	5189105	Yes
ALPHA SPEC	5189107	Yes
ALPHA SPEC	5189413	Yes
ALPHA SPEC	5189417	Yes
ALPHA SPEC	5189422	Yes
ALPHA SPEC	5201227	Yes
ALPHA SPEC	5201229	Yes
ALPHA SPEC	5201231	Yes
ALPHA SPEC	5203300	Yes

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Test Method	Laboratory Batch	Laboratory Control Standard Run
ALPHA SPEC	5203302	Yes
ALPHA SPEC	5203304	Yes
ALPHA SPEC	5215430	Yes
ALPHA SPEC	5215433	Yes
ALPHA SPEC	5215434	Yes
SW-846 6010	3322566	Yes
SW-846 6010	3322576	Yes
SW-846 6010	3324291	Yes
SW-846 6010	3324295	Yes
SW-846 6010	3324304	Yes
SW-846 6010	3324568	Yes
SW-846 6010	3324569	Yes
SW-846 6010	3329237	Yes
SW-846 6010	3329252	Yes
SW-846 6010	3330684	Yes
SW-846 6010	3335259	Yes
SW-846 6010	3335594	Yes
SW-846 6010	3335598	Yes
SW-846 6010	3337487	Yes
SW-846 6010	3337494	Yes
SW-846 6010	3338571	Yes
SW-846 6010	3339191	Yes
SW-846 6010	3343543	Yes
SW-846 6010	3344159	Yes
SW-846 6010	3344510	Yes
SW-846 6010	3344524	Yes
SW-846 6010	3350315	Yes
SW-846 6010	3350332	Yes
SW-846 6010	3350508	Yes
SW-846 6010	3350510	Yes
SW-846 6010	3352560	Yes
SW-846 6010	3353212	Yes
SW-846 6010	3357547	Yes
SW-846 6010	3357567	Yes
SW-846 6010	3365409	Yes
SW-846 6010	4002142	Yes
SW-846 6010	4008451	Yes
SW-846 6010	4008453	Yes
SW-846 6010	4009287	Yes
SW-846 6010	4011100	Yes
SW-846 6010	4012484	Yes
SW-846 6010	4013149	Yes
SW-846 6010	4014468	Yes
SW-846 6010	4014469	Yes
SW-846 6010	4015455	Yes

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Test Method	Laboratory Batch	Laboratory Control Standard Run
SW-846 6010	4015467	Yes
SW-846 6010	4021494	Yes
SW-846 6010	4021498	Yes
SW-846 6010	4022514	Yes
SW-846 6010	4022547	Yes
SW-846 6010	4027476	Yes
SW-846 6010	4027478	Yes
SW-846 6010	4057466	Yes
SW-846 6010	4057510	Yes
SW-846 8260	3344264	Yes
SW-846 8260	3351321	Yes
SW-846 8260	4013281	Yes
SW-846 8260	4015294	Yes
SW-846 8260	MS1 VOA_040224A	Yes
SW-846 8260	MS1 VOA_050526B	Yes
SW-846 8260	MS1 VOA_050526C	Yes
SW-846 8260	MS1 VOA_050527A	Yes
SW-846 8260	MS1 VOA_050606A	Yes
SW-846 8260	MS2 VOA_021105A	Yes
SW-846 8260	MS2 VOA_021106A	Yes
SW-846 8260	MS2 VOA_021114A	Yes
SW-846 8260	MS2 VOA_031106A	Yes
SW-846 8260	MS2 VOA_031112A	Yes
SW-846 8260	MS2 VOA_031114A	Yes
SW-846 8260	MS2 VOA_031117A	Yes
SW-846 8260	MS2 VOA_031118B	Yes
SW-846 8260	MS2 VOA_031120B	Yes
SW-846 8260	MS2 VOA_031121B	Yes
SW-846 8260	MS2 VOA_031125A	Yes
SW-846 8260	MS2 VOA_031126A	Yes
SW-846 8260	MS2 VOA_031201A	Yes
SW-846 8260	MS2 VOA_031204B	Yes
SW-846 8260	MS2 VOA_031209A	Yes
SW-846 8260	MS2 VOA_031215A	Yes
SW-846 8260	MS2 VOA_040112A	Yes
SW-846 8260	MS2 VOA_040121A	Yes
SW-846 8260	MS3 VOA_021106A	Yes
SW-846 8260	MS3 VOA_031110A	Yes
SW-846 8260	MS3 VOA_031204B	Yes
SW-846 8260	MS3 VOA_031208A	Yes
SW-846 8260	MS3 VOA_031217A	Yes
SW-846 8260	MS3 VOA_031223A	Yes
SW-846 8260	MS3 VOA_031230A	Yes
SW-846 8260	MS3 VOA_040106A	Yes
SW-846 8260	MS3 VOA_040107A	Yes

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Test Method	Laboratory Batch	Laboratory Control/Standard Run
SW-846 8260	MS3 VOA_040108B	Yes
SW-846 8260	MS3 VOA_040109A	Yes
SW-846 8260	MS3 VOA_040113A	Yes
SW-846 8260	MS3 VOA_040119A	Yes
SW-846 8260	MS3 VOA_040120A	Yes

The minimum and maximum LCS results are tabulated, by chemical, for the entire project in Table 15. LCS results outside of tolerances were reviewed to determine whether a potential bias might be indicated. LCS recoveries are not indicative of matrix effects because they are not prepared using site samples. LCS results do indicate whether the laboratory may be introducing a bias in the results. Recoveries reported above the upper limit may indicate the actual sample results are less than reported. Because this is environmentally conservative, no further action is needed. The analytes with unacceptable low recoveries were evaluated. If the highest sample result divided by the lowest LCS recovery for that analyte is less than the AL, no further action is taken because any indicated bias is not great enough to affect project decisions. As a result of this analysis, the LCS recoveries for this project did not impact project decisions.

Table 15
LCS Evaluation Summary

Test Method	CAS No.	Analyte	Min. Result	Max. Result	Unit
SW-846 8260	71-55-6	1,1,1-Trichloroethane	82	117.5	%REC
SW-846 8260	79-34-5	1,1,2,2-Tetrachloroethane	80	117	%REC
SW-846 8260	79-00-5	1,1,2-Trichloroethane	84.2	112.2	%REC
SW-846 8260	75-34-3	1,1-Dichloroethane	80.89	122.9	%REC
SW-846 8260	75-35-4	1,1-Dichloroethene	73	127.6	%REC
SW-846 8260	120-82-1	1,2,4-Trichlorobenzene	79.14	120.9	%REC
SW-846 8260	95-50-1	1,2-Dichlorobenzene	85.12	116.8	%REC
SW-846 8260	107-06-2	1,2-Dichloroethane	80.09	122.8	%REC
SW-846 8260	78-87-5	1,2-Dichloropropane	83.79	119.7	%REC
SW-846 8260	106-46-7	1,4-Dichlorobenzene	83	117.9	%REC
SW-846 8260	78-93-3	2-Butanone	39.25	119.6	%REC
SW-846 8260	108-10-1	4-Methyl-2-pentanone	67.62	122	%REC
SW-846 8260	67-64-1	Acetone	30.58	127.4	%REC
SW-846 6010	7429-90-5	Aluminum	89	106	%REC
SW-846 6010	7440-36-0	Antimony	85	99	%REC
SW-846 6010	7440-38-2	Arsenic	85	102	%REC
SW-846 6010	7440-39-3	Barium	93	106	%REC
SW-846 8260	71-43-2	Benzene	84.83	119.1	%REC
SW-846 6010	7440-41-7	Beryllium	88	106	%REC
SW-846 8260	75-27-4	Bromodichloromethane	83.26	116.6	%REC
SW-846 8260	75-25-2	Bromoform	82	113.2	%REC
SW-846 8260	74-83-9	Bromomethane	56.32	172.6	%REC
SW-846 6010	7440-43-9	Cadmium	85	103	%REC
SW-846 8260	75-15-0	Carbon Disulfide	77	164.1	%REC
SW-846 8260	56-23-5	Carbon Tetrachloride	83	118.4	%REC

Test Method	CAS No.	Analyte	Min. Result	Max. Result	Unit
SW-846 8260	108-90-7	Chlorobenzene	87.7	115.3	%REC
SW-846 8260	75-00-3	Chloroethane	73.9	189.3	%REC
SW-846 8260	67-66-3	Chloroform	80.95	117.1	%REC
SW-846 8260	74-87-3	Chloromethane	42.3	231.1	%REC
SW-846 6010	7440-47-3	Chromium	88	105	%REC
SW-846 8260	10061-01-5	cis-1,3-Dichloropropene	84.32	120.1	%REC
SW-846 6010	7440-48-4	Cobalt	86	102	%REC
SW-846 6010	7440-50-8	Copper	87	104	%REC
SW-846 8260	124-48-1	Dibromochloromethane	75.03	112.2	%REC
SW-846 8260	100-41-4	Ethylbenzene	86.3	114.9	%REC
SW-846 8260	87-68-3	Hexachlorobutadiene	80.68	120.4	%REC
SW-846 6010	7439-89-6	Iron	92	106	%REC
SW-846 6010	7439-92-1	Lead	87	104	%REC
SW-846 6010	7439-93-2	Lithium	86	102	%REC
SW-846 6010	7439-96-5	Manganese	88	103	%REC
SW-846 6010	7439-97-6	Mercury	94	111	%REC
SW-846 8260	75-09-2	Methylene chloride	79	140.4	%REC
SW-846 6010	7439-98-7	Molybdenum	86	99	%REC
SW-846 8260	91-20-3	Naphthalene	65	121.2	%REC
SW-846 6010	7440-02-0	Nickel	86	102	%REC
SW-846 6010	7782-49-2	Selenium	84	108	%REC
SW-846 6010	7440-22-4	Silver	89	103	%REC
SW-846 6010	7440-24-6	Strontium	91	104	%REC
SW-846 8260	100-42-5	Styrene	84.06	118	%REC
SW-846 8260	127-18-4	Tetrachloroethene	83.06	124.3	%REC
SW-846 6010	7440-31-5	Tin	81	96	%REC
SW-846 8260	108-88-3	Toluene	85.19	115.1	%REC
SW-846 8260	10061-02-6	trans-1,3-Dichloropropene	90.71	119	%REC
SW-846 8260	79-01-6	Trichloroethene	79	120.9	%REC
SW-846 6010	11-09-6	Uranium, Total	92	108	%REC
SW-846 6010	7440-62-2	Vanadium	89	105	%REC
SW-846 8260	75-01-4	Vinyl chloride	64.39	214.3	%REC
SW-846 8260	1330-20-7	Xylene	84.99	115.7	%REC
SW-846 6010	7440-66-6	Zinc	82	102	%REC

Surrogate Evaluation

The frequency of surrogate measurements, relative to each laboratory batch, is given in Table 16. Surrogate frequency was adequate based on at least one set per sample. The minimum and maximum surrogate results are also tabulated, by chemical, for the entire project. Surrogates are added to every sample, and therefore, surrogate recoveries only impact individual samples. Unacceptable surrogate recoveries can indicate potential matrix effects. The highest and lowest surrogate recoveries for this project were reviewed, and no results affected project decisions. All organic compounds with surrogate recoveries had concentrations less than RLs, except for toluene. However, toluene concentrations were well below the WRW AL.

Table 16
Surrogate Recovery Summary

VOC Surrogate Recoveries				
Number of Samples	Analyte	Minimum Concentration	Maximum Concentration	Unit
76	4-Bromofluorobenzene	80	123	%REC
76	Deuterated 1,2-dichloroethane	81	119.4	%REC
76	Deuterated Toluene	80	117.8	%REC

Field Blank Evaluation

Results of the field blank analyses are given in Table 17. Detectable amounts of contaminants within the blanks, which could indicate possible cross-contamination of samples, are evaluated if the same contaminant is detected in the associated real samples. When the real result is less than 10 times the blank result for laboratory contaminants and 5 times the result for non-laboratory contaminants, the real result is eliminated. None of the chemicals were detected in the blanks at concentrations greater than one-tenth the AL. Therefore, blank contamination did not adversely impact project decisions.

Table 17
Field Blank Summary

Laboratory	CAS No.	Analyte	Sample QC Code	Detected Result	Unit
ESTLDEN	78-93-3	2-Butanone	TB	9.6	ug/L
ESTLDEN	67-64-1	Acetone	TB	21	ug/L
ESTLDEN	7429-90-5	Aluminum	RNS	0.81	mg/L
ESTLDEN	7429-90-5	Aluminum	FB	0.042	mg/L
GEL	14596-10-2	Americium-241	RNS	0.00822	pCi/L
ESTLDEN	7440-38-2	Arsenic	RNS	0.0052	mg/L
ESTLDEN	7440-39-3	Barium	RNS	0.016	mg/L
ESTLDEN	7440-39-3	Barium	FB	0.0043	mg/L
ESTLDEN	71-43-2	Benzene	TB	0.17	ug/L
ESTLDEN	7440-41-7	Beryllium	RNS	0.00098	mg/L
ESTLDEN	7440-41-7	Beryllium	FB	0.00082	mg/L
ESTLDEN	75-27-4	Bromodichloromethane	TB	4.1	ug/L
ESTLDEN	7440-43-9	Cadmium	RNS	0.00035	mg/L
ESTLDEN	67-66-3	Chloroform	TB	170	ug/L
ESTLDEN	7440-47-3	Chromium	RNS	0.012	mg/L
ESTLDEN	7440-48-4	Cobalt	RNS	0.0016	mg/L
ESTLDEN	7440-50-8	Copper	FB	0.01	mg/L
ESTLDEN	7440-50-8	Copper	RNS	0.0061	mg/L
ESTLDEN	7439-89-6	Iron	FB	0.031	mg/L
ESTLDEN	7439-89-6	Iron	RNS	0.94	mg/L
ESTLDEN	7439-92-1	Lead	RNS	0.0043	mg/L
ESTLDEN	7439-93-2	Lithium	RNS	0.0034	mg/L
ESTLDEN	7439-96-5	Manganese	FB	0.0029	mg/L
ESTLDEN	7439-96-5	Manganese	RNS	0.025	mg/L
ESTLDEN	75-09-2	Methylene chloride	FB	0.34	ug/L

Laboratory	CAS No.	Analyte	Sample QC Code	Detected Result	Unit
ESTLDEN	75-09-2	Methylene chloride	TB	0.47	ug/L
ESTLDEN	75-09-2	Methylene chloride	RNS	0.44	ug/L
ESTLDEN	7439-98-7	Molybdenum	RNS	0.0026	mg/L
URS	91-20-3	Naphthalene	FB	1.3	ug/L
ESTLDEN	7440-02-0	Nickel	RNS	0.0082	mg/L
ESTLDEN	7782-49-2	Selenium	RNS	0.0056	mg/L
ESTLDEN	7440-22-4	Silver	RNS	0.0013	mg/L
ESTLDEN	7440-22-4	Silver	FB	0.0011	mg/L
ESTLDEN	7440-24-6	Strontium	FB	0.013	mg/L
ESTLDEN	7440-24-6	Strontium	RNS	0.0092	mg/L
ESTLDEN	7440-31-5	Tin	RNS	0.0055	mg/L
ESTLDEN	108-88-3	Toluene	RNS	0.29	ug/L
ESTLDEN	108-88-3	Toluene	TB	0.56	ug/L
ESTLDEN	108-88-3	Toluene	FB	0.28	ug/L
URS	108-88-3	Toluene	TB	1.8	ug/L
URS	15117-96-1	Uranium-235	RNS	0.222	pCi/g
URS	15117-96-1	Uranium-235	FB	0.166	pCi/g
URS	7440-61-1	Uranium-238	FB	2.57	pCi/g
URS	7440-61-1	Uranium-238	RNS	2.83	pCi/g
ESTLDEN	7440-66-6	Zinc	FB	0.0085	mg/L
ESTLDEN	7440-66-6	Zinc	RNS	0.023	mg/L

Field blank (EB = equipment, FB = field, RNS = rinse, TB = trip) results greater than detection limits (not "U" qualified).

Sample Matrix Spike Evaluation

The minimum and maximum MS results are summarized by chemical for the entire project in Table 18. Organic analytes with unacceptable low recoveries resulted in a review of the LCS recoveries. According to the EPA data validation guidelines (1994b), if organic MS recoveries are low, the data reviewer may use the MS and MSD results in conjunction with other QC criteria. For this project, the LCS recoveries were checked, and these checks indicate no decisions were impacted for organic analytes. The recoveries for chloromethane and vinyl chloride were low for both the MS and LCS; however, these compounds were not detected in the sample that was used for the MS, and the RLs were three to four orders of magnitude below the WRW ALs. For inorganics, the associated maximum sample results were divided by the lowest percent recovery for each analyte. If the resulting number was less than the AL, decisions were not impacted, and no action was taken. For this project, all results were acceptable. The low recoveries for aluminum, chromium, copper, iron, lead, and manganese were 0 percent, and the low recovery for nickel was 21 percent; however, the sample results for these chemicals are significantly less than the WRW ALs, thus no decisions were impacted.

Table 18
Sample MS Evaluation Summary

Test Method	CAS No.	Analyte	Min. Result	Max. Result	Unit	No. of Samples	No. of Lab Batches
SW-846 8260	71-55-6	1,1,1-Trichloroethane	70.22	116.2	%REC	20	20
SW-846 8260	79-34-5	1,1,2,2-Tetrachloroethane	7.559	109.2	%REC	20	20
SW-846 8260	79-00-5	1,1,2-Trichloroethane	75.37	113.4	%REC	20	20
SW-846 8260	75-34-3	1,1-Dichloroethane	73	125	%REC	20	20
SW-846 8260	75-35-4	1,1-Dichloroethene	38	119.7	%REC	20	20
SW-846 8260	120-82-1	1,2,4-Trichlorobenzene	52.68	103.6	%REC	20	20
SW-846 8260	95-50-1	1,2-Dichlorobenzene	73	106.9	%REC	20	20
SW-846 8260	107-06-2	1,2-Dichloroethane	73.49	114.6	%REC	20	20
SW-846 8260	78-87-5	1,2-Dichloropropane	75.94	115.8	%REC	20	20
SW-846 8260	106-46-7	1,4-Dichlorobenzene	71.22	108.4	%REC	20	20
SW-846 8260	78-93-3	2-Butanone	62.87	257.9	%REC	20	20
SW-846 8260	108-10-1	4-Methyl-2-pentanone	81.76	143.7	%REC	20	20
SW-846 8260	67-64-1	Acetone	67	353.1	%REC	20	20
SW-846 6010	7429-90-5	Aluminum	0	3960	%REC	17	17
SW-846 6010	7440-36-0	Antimony	36	69	%REC	17	17
SW-846 6010	7440-38-2	Arsenic	84	100	%REC	17	17
SW-846 6010	7440-39-3	Barium	92	234	%REC	17	17
SW-846 8260	71-43-2	Benzene	70.94	117.2	%REC	20	20
SW-846 6010	7440-41-7	Beryllium	82	103	%REC	17	17
SW-846 8260	75-27-4	Bromodichloromethane	76.76	114.3	%REC	20	20
SW-846 8260	75-25-2	Bromoform	70.08	114.8	%REC	20	20
SW-846 8260	74-83-9	Bromomethane	51.96	170.1	%REC	20	20
SW-846 6010	7440-43-9	Cadmium	71	96	%REC	17	17
SW-846 8260	75-15-0	Carbon Disulfide	51	123.8	%REC	20	20
SW-846 8260	56-23-5	Carbon Tetrachloride	71	114	%REC	20	20
SW-846 8260	108-90-7	Chlorobenzene	72.6	108.5	%REC	20	20
SW-846 8260	75-00-3	Chloroethane	54.87	134.3	%REC	20	20
SW-846 8260	67-66-3	Chloroform	76.08	119.6	%REC	20	20
SW-846 8260	74-87-3	Chloromethane	21.7	175.9	%REC	20	20
SW-846 6010	7440-47-3	Chromium	0	273	%REC	17	17
SW-846 8260	10061-01-5	cis-1,3-Dichloropropene	80.16	110	%REC	20	20
SW-846 6010	7440-48-4	Cobalt	74	156	%REC	17	17
SW-846 6010	7440-50-8	Copper	0	436	%REC	17	17
SW-846 8260	124-48-1	Dibromochloromethane	80.86	112.5	%REC	20	20
SW-846 8260	100-41-4	Ethylbenzene	73.9	105.1	%REC	20	20
SW-846 8260	87-68-3	Hexachlorobutadiene	39	95.69	%REC	20	20
SW-846 6010	7439-89-6	Iron	0	13600	%REC	17	17
SW-846 6010	7439-92-1	Lead	0	133	%REC	17	17
SW-846 6010	7439-93-2	Lithium	80	100	%REC	17	17
SW-846 6010	7439-96-5	Manganese	0	314	%REC	17	17
SW-846 6010	7439-97-6	Mercury	54	103	%REC	16	16

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Test Method	CAS No.	Analyte	Min. Result	Max. Result	Unit	No. of Samples	No. of Lab Batches
SW-846 8260	75-09-2	Methylene chloride	69.79	109.4	%REC	20	20
SW-846 6010	7439-98-7	Molybdenum	79	99	%REC	17	17
SW-846 8260	91-20-3	Naphthalene	46	116.7	%REC	20	20
SW-846 6010	7440-02-0	Nickel	21	129	%REC	17	17
SW-846 6010	7782-49-2	Selenium	89	107	%REC	17	17
SW-846 6010	7440-22-4	Silver	85	102	%REC	17	17
SW-846 6010	7440-24-6	Strontium	89	120	%REC	17	17
SW-846 8260	100-42-5	Styrene	68.17	111	%REC	20	20
SW-846 8260	127-18-4	Tetrachloroethene	73	108	%REC	20	20
SW-846 6010	7440-31-5	Tin	80	92	%REC	17	17
SW-846 8260	108-88-3	Toluene	72.05	111.1	%REC	20	20
SW-846 8260	10061-02-6	trans-1,3-Dichloropropene	75.05	105.1	%REC	20	20
SW-846 8260	79-01-6	Trichloroethene	71	157	%REC	20	20
SW-846 6010	11-09-6	Uranium, Total	88	102	%REC	17	17
SW-846 6010	7440-62-2	Vanadium	86	120	%REC	17	17
SW-846 8260	75-01-4	Vinyl chloride	32.08	134.6	%REC	20	20
SW-846 8260	1330-20-7	Xylene	77.76	110.2	%REC	20	20
SW-846 6010	7440-66-6	Zinc	64	188	%REC	17	17

13.2.2 Precision

Sample Matrix Spike Duplicate Evaluation

Laboratory precision is measured through use of MSDs, as summarized in Table 19. Analytes with the highest relative percent differences (RPDs) were reviewed by comparing the highest sample result to the WRW AL. For analytes with RPDs greater than 35 percent, if the highest sample concentrations were sufficiently below the AL, no further action is needed. For this project, the review indicated decisions were not impacted.

Table 19
Sample MSD Evaluation Summary

Test Method	CAS No.	Analyte	Max. RPD
SW-846 8260	71-55-6	1,1,1-Trichloroethane	15.024
SW-846 8260	79-34-5	1,1,2,2-Tetrachloroethane	73.926
SW-846 8260	79-00-5	1,1,2-Trichloroethane	10.292
SW-846 8260	75-34-3	1,1-Dichloroethane	13.613
SW-846 8260	75-35-4	1,1-Dichloroethene	22.632
SW-846 8260	120-82-1	1,2,4-Trichlorobenzene	21.482
SW-846 8260	95-50-1	1,2-Dichlorobenzene	9.909
SW-846 8260	107-06-2	1,2-Dichloroethane	7.970
SW-846 8260	78-87-5	1,2-Dichloropropane	21.649
SW-846 8260	106-46-7	1,4-Dichlorobenzene	10.557
SW-846 8260	78-93-3	2-Butanone	20.804
SW-846 8260	108-10-1	4-Methyl-2-pentanone	19.892

Test Method	CAS No.	Analyte	Max. RPD
SW-846 8260	67-64-1	Acetone	26.507
SW-846 6010	7429-90-5	Aluminum	200.000
SW-846 6010	7440-36-0	Antimony	26.667
SW-846 6010	7440-38-2	Arsenic	8.092
SW-846 6010	7440-39-3	Barium	71.304
SW-846 8260	71-43-2	Benzene	12.722
SW-846 6010	7440-41-7	Beryllium	17.341
SW-846 8260	75-27-4	Bromodichloromethane	14.210
SW-846 8260	75-25-2	Bromoform	8.198
SW-846 8260	74-83-9	Bromomethane	14.976
SW-846 6010	7440-43-9	Cadmium	8.989
SW-846 8260	75-15-0	Carbon Disulfide	16.975
SW-846 8260	56-23-5	Carbon Tetrachloride	16.581
SW-846 8260	108-90-7	Chlorobenzene	16.900
SW-846 8260	75-00-3	Chloroethane	21.132
SW-846 8260	67-66-3	Chloroform	11.998
SW-846 8260	74-87-3	Chloromethane	19.133
SW-846 6010	7440-47-3	Chromium	137.380
SW-846 8260	10061-01-5	cis-1,3-Dichloropropene	13.155
SW-846 6010	7440-48-4	Cobalt	32.381
SW-846 6010	7440-50-8	Copper	200.000
SW-846 8260	124-48-1	Dibromochloromethane	10.217
SW-846 8260	100-41-4	Ethylbenzene	17.570
SW-846 8260	87-68-3	Hexachlorobutadiene	14.286
SW-846 6010	7439-89-6	Iron	200.000
SW-846 6010	7439-92-1	Lead	102.921
SW-846 6010	7439-93-2	Lithium	16.279
SW-846 6010	7439-96-5	Manganese	192.320
SW-846 6010	7439-97-6	Mercury	51.220
SW-846 8260	75-09-2	Methylene chloride	14.605
SW-846 6010	7439-98-7	Molybdenum	15.217
SW-846 8260	91-20-3	Naphthalene	46.384
SW-846 6010	7440-02-0	Nickel	114.607
SW-846 6010	7782-49-2	Selenium	6.977
SW-846 6010	7440-22-4	Silver	10.000
SW-846 6010	7440-24-6	Strontium	18.182
SW-846 8260	100-42-5	Styrene	15.626
SW-846 8260	127-18-4	Tetrachloroethene	15.394
SW-846 6010	7440-31-5	Tin	7.595
SW-846 8260	108-88-3	Toluene	16.604
SW-846 8260	10061-02-6	trans-1,3-Dichloropropene	14.208
SW-846 8260	79-01-6	Trichloroethene	20.060
SW-846 6010	11-09-6	Uranium, Total	7.487
SW-846 6010	7440-62-2	Vanadium	33.871

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Test Method	CAS No.	Analyte	Max. RPD
SW-846 8260	75-01-4	Vinyl chloride	16.963
SW-846 8260	1330-20-7	Xylene	16.764
SW-846 6010	7440-66-6	Zinc	64.789

Field Duplicate Evaluation

Field duplicate results reflect sampling precision, or overall repeatability of the sampling process. The frequency of field duplicate collection should exceed 1 field duplicate per 20 real samples, or 5 percent. Table 20 indicates that field duplicate frequencies were low for gamma spectroscopy and Method 6200.

**Table 20
Field Duplicate Sample Frequency Summary**

Test Method Name	No. of Real Samples	No. of Duplicate Samples	% Duplicate Samples
Alpha Spec	37	6	16.22%
Gamma Spectroscopy	315	15	4.76%
SW-846 6010	114	6	5.26%
SW-846 6200	22	1	4.55%
SW-846 8260	76	5	6.58%

The RPD values indicate how much variation exists in the field duplicate analyses. EPA data validation guidelines state that "there are no required review criteria for field duplicate analyses comparability" (EPA 1994b). For the DQA, the highest RPD values (Table 21) were reviewed. For this project, project decisions were not impacted.

**Table 21
RPD Evaluation Summary**

Laboratory	Test Method	Analyte	Max. RPD
ESTLDEN	SW-846 6010	Aluminum	17.978
ESTLDEN	Alpha Spec	Americium-241	43.641
URS	Gamma Spectroscopy	Americium-241	85.617
ESTLDEN	SW-846 6010	Arsenic	10.526
ESTLDEN	SW-846 6010	Barium	24.490
ESTLDEN	SW-846 6010	Beryllium	18.705
ESTLDEN	SW-846 6010	Chromium	88.889
ESTLDEN	SW-846 6010	Cobalt	45.614
ESTLDEN	SW-846 6010	Copper	48.175
URS	SW-846 6200	Copper	13.117
URS	SW-846 6200	Iron	3.836
ESTLDEN	SW-846 6010	Iron	26.087
ESTLDEN	SW-846 6010	Lead	128.571
ESTLDEN	SW-846 6010	Lithium	34.234
ESTLDEN	SW-846 6010	Manganese	57.143
ESTLDEN	SW-846 6010	Mercury	36.364
ESTLDEN	SW-846 6010	Nickel	66.667
ESTLDEN	ALPHA SPEC	Plutonium-239/240	54.107

Laboratory	Test Method	Analyte	Max. RPD
ESTLDEN	SW-846 6010	Strontium	31.250
ESTLDEN	SW-846 6010	Tin	49.007
ESTLDEN	SW-846 6010	Vanadium	21.277
ESTLDEN	SW-846 6010	Zinc	46.154
URS	SW-846 6200	Zinc	3.283

13.2.3 Completeness

Based on original project DQOs, a minimum of 25 percent of ER Program analytical (and radiological) results must be formally verified and validated. Of that percentage, no more than 10 percent of the results may be rejected, which ensures that analytical laboratory practices are consistent with quality requirements. Table 22 lists the number and percentage of validated records (codes without "1"), number and percentage of verified records (codes with "1"), and percentage of rejected records for each analyte group for this project. Two records out of 7,115 validated records were rejected. For this project, the percentage of Method 6200 analyses validated (4.7 percent) was below Program requirements; however, the ER Program V&V goal of 25 percent is being met.

13.2.4 Sensitivity

RLs, in units of $\mu\text{g}/\text{kg}$ for organics, mg/kg for metals, and pCi/g for radionuclides, were compared with RFCA WRW ALs. Adequate sensitivities of analytical methods were attained for all COCs that affected remediation decisions. "Adequate" sensitivity is defined as an RL less than an analyte's associated AL, typically less than one-half the AL.

13.3 Summary of Data Quality

Several analytes had low matrix spike recoveries, and RPDs greater than 35 percent indicate the sampling precision limits of some analytes have been exceeded. Also, field duplicates for gamma spectroscopy and Method 6200 were low. In addition, the validation percentage for Method 6200 was below 25 percent; however, the ER Program V&V goal of 25 percent is being met. Only two records were rejected. Data collected and used for IHSS Group 700-3 are adequate for decision making.

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**Table 22
Validation and Verification Summary**

Validation Qualifier Code	Total of CAS Number	Alpha Spec	Gamma Spectroscopy	SW-846 6010	SW-846 6200	SW-846 8260
No V&V	38	5	0	0	0	33
I	36	0	0	0	0	36
J	310	4	0	304	1	1
J1	398	0	0	377	8	13
JB	7	0	0	0	0	7
JB1	6	0	0	0	0	6
R1	2	2	0	0	0	0
UJ	120	1	0	67	2	50
UJ1	181	0	0	100	23	58
V	2295	50	294	802	16	1133
V1	3722	123	654	972	358	1615
Total	7115	185	948	2622	408	2952
Validated	2732	55	294	1173	19	1191
% Validated	38.40%	29.73%	31.01%	44.74%	4.66%	40.35%
Verified	4345	125	654	1449	389	1728
% Verified	61.07%	67.57%	68.99%	55.26%	95.34%	58.54%
Rejected	2	2	0	0	0	0
% Rejected	0.03%	1.08%	0.00%	0.00%	0.00%	0.00%
Validated = J, JB, UJ, V						
Verified = I, J1, JB1, UJ1, V1						

14.0 CONCLUSIONS

Results of the accelerated action justify NFAA for UBCs 776, 777 and 778 and Tank T-18. NFAA justification is based on the following:

- NFAA is appropriate based on surface soil data. All residual soil activities and concentrations within 3 ft of final grade are less than WRW ALs.
- NFAA is appropriate based on the SSRS. The accelerated action involved removal of a significant source of radioactive contamination. Also, any residual contamination is more than 3 ft bgs, and associated activities are less than 1 nCi/g. In addition, subsurface soil in the area is not subject to significant erosion.
- NFAA is indicated by the stewardship evaluation.

15.0 REFERENCES

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DOE, 2005a, Decommissioning Closeout Report for the 776/777 Closure Project, Rocky Flats Environmental Technology Site, Golden, Colorado, September.

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K-H, 2002c, V&V Guidelines for Volatile Organics, DA-SS01-v2.

K-H, 2002d, V&V Guidelines for Semivolatile Organics, DA-SS02-v3.

K-H, 2002e, V&V Guidelines for Metals, DA-SS05-v1.

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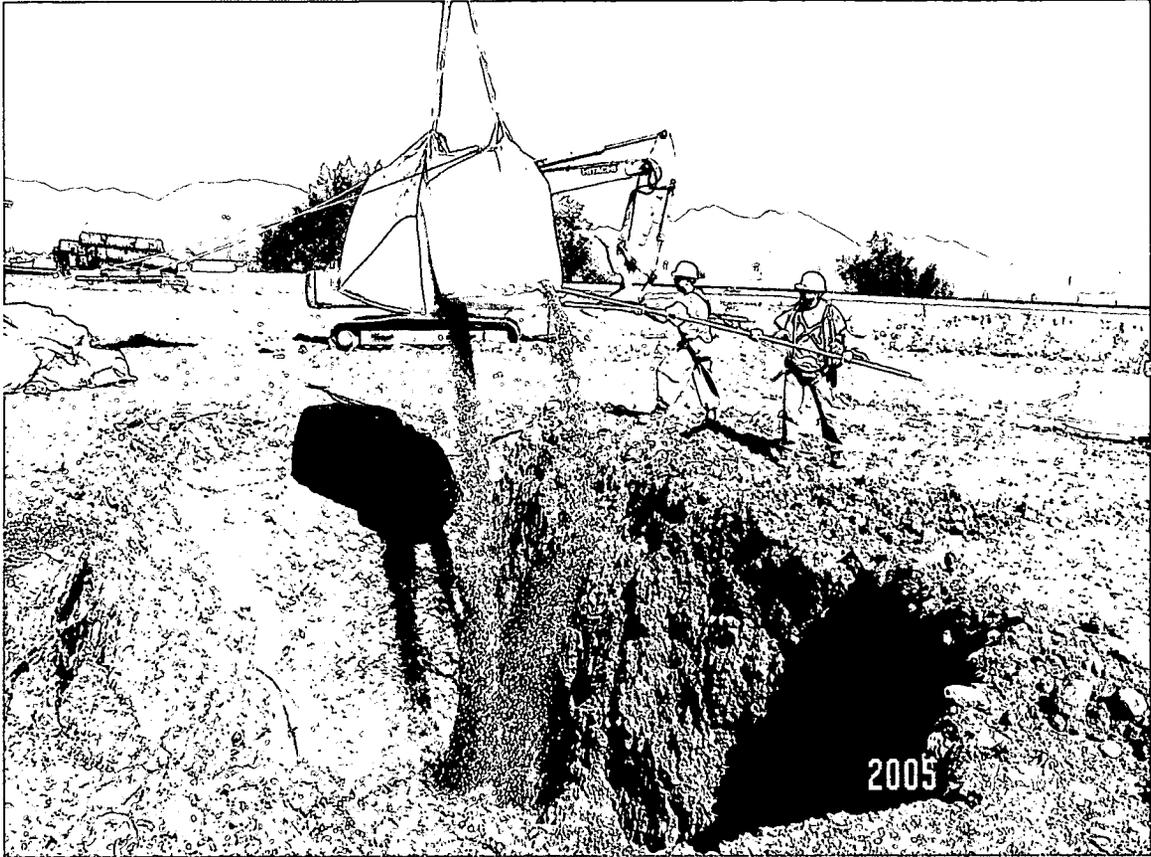
**APPENDIX A
PROJECT PHOTOGRAPHS**



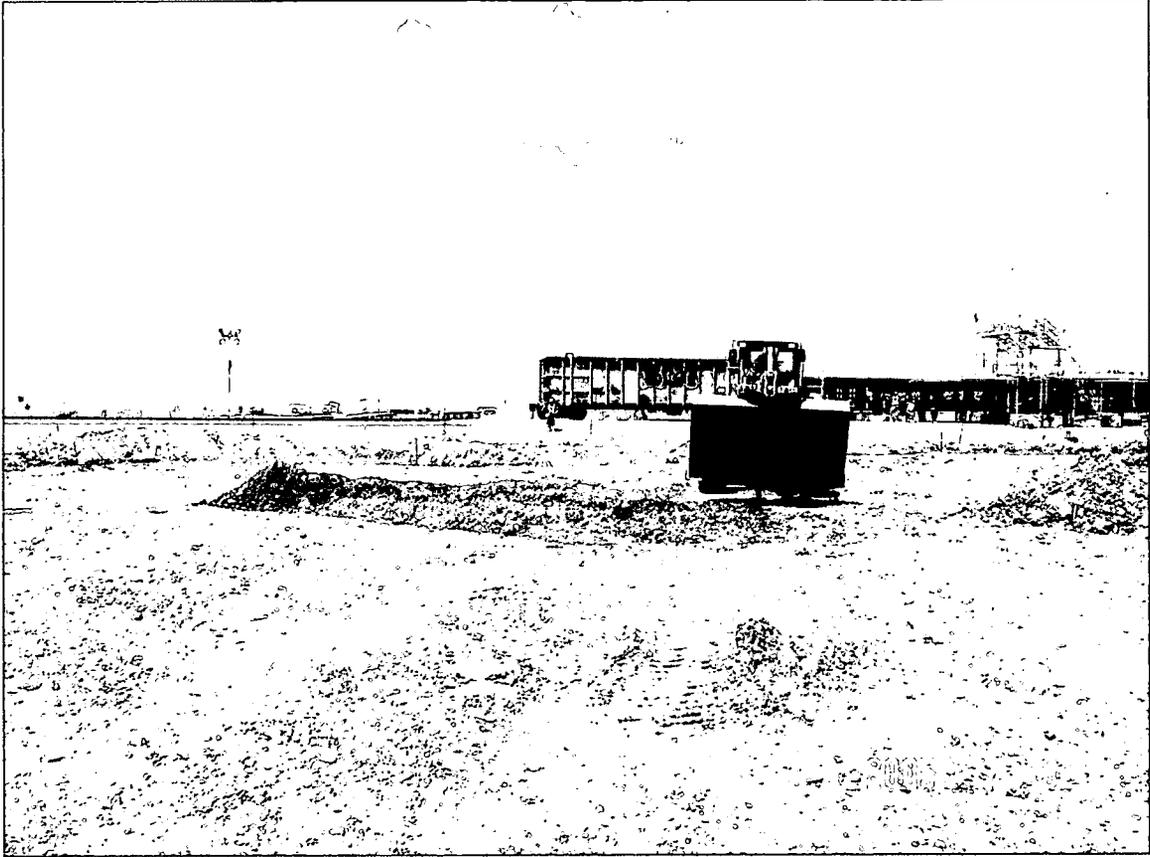
Removal of storm drain at IHSS Group 700-3.



Remediation of UBC 776, UBC 777 and UBC 778.



Pouring of bentonite to create tunnel-cutoff wall.



Area after bentonite wall excavation was backfilled (facing north)

**APPENDIX B
PROJECT CORRESPONDENCE**

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE ER REGULATORY CONTACT RECORD

Date/Time: July 6, 2005 9:00

Site Contact(s): Annette Primrose Norma Castaneda
Phone: 303 993-2761 303 966-4226

Regulatory Contact: David Kruchek
Phone: 303 692-3328

Agency: CDPHE

Purpose of Contact: Building 776 – Backfill of Existing Subsurface structures

Discussion

Where possible, samples were collected after removal of the deep structures within Building 776. These were below action levels for the depths excavated. Because of the continued excavation activities, only available locations were sampled for each area. Excavations were the result of structure removal, not remedial actions. Therefore, with the exception of the basement area where there is only one sample, the samples collected are considered sufficient. The areas sampled included the following:

- 776 basement with plutonium activity less than 1 pCi/g on the south face of the excavation. A sample will be collected from the base of the remaining open excavation for the basement to document residual contamination, if any. This excavation is approximately 20-25 feet deep. The current condition of the basement will be documented in the closeout report.
- C-Pit with a maximum plutonium activity of 420 pCi/g at the base of the excavation at a depth of 16 feet
- D-Pit with a maximum plutonium activity of about 300 pCi/g at the base of the excavation at a depth of about 30 feet
- E-Pit with a maximum plutonium activity of about 20 pCi/g at the base of the excavation at a depth of about 12 feet

The remaining excavations greater than 3 feet deep will be backfilled with the existing pile of clean soil removed from under the slab, and additional imported clean fill material. The remaining excavations are the basement area, and the combined C- and D-Pit excavations. The E-Pit excavation was previously backfilled during excavation of the basement

Soils at the surface in this area will be characterized and removed if above surface soil action levels to a depth of 3 feet below existing grade.

Contact Record Prepared By: Annette Primrose

Required Distribution:

M. Aguilar, USEPA
H. Ainscough, CDPHE
J. Berardini, K-H

D. Mayo, K-H RISS
S. Nesta, K-H RISS
L. Norland, K-H RISS

Additional Distribution:

H. Linsinbigler, K-H RISS
M. Flannery, K-H RISS
V. Wren, K-H RISS

ER Contact Record 6/20/02
Rev. 1/17/05

B. Birk, DOE-RFPO
L. Brooks, K-H ESS
G. Carnival, K-H RISS
N. Castaneda, DOE-RFPO
C. Deck, K-H Legal
N. Demos, SSOC
S. Garcia, USEPA
S. Gunderson, CDPHE
S. Johnson, K-H ESS
M. Keating, K-H RISS
L. Kimmel, USEPA
D. Kruchek, CDPHE

E. Pottorff, CDPHE
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M. Roy, DOE-RFPO
R. Schassburger, DOE-RFPO
S. Serreze, K-H RISS
D. Shelton, K-H ESS
C. Spreng, CDPHE
S. Surovchak, DOE-RFPO
J. Walstrom, K-H RISS
K. Wiemelt, K-H RISS
C. Zahm, K-H Legal

T. Vaughn, K-H RISS
G. Kelley, K-H RISS

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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE ER REGULATORY CONTACT RECORD

Date/Time: June 27, 2005 1000

Site Contact(s): Annette Primrose Norma Castaneda
Phone: 303 966-4385 303 966-4226

Regulatory Contact: David Kruchek
Phone: 303 692-3328
Agency: CDPHE

Purpose of Contact: Building 776 – West area backfill

Discussion

The western part of the B776 UBC was recently removed. Three feet of soil was removed from the area south of the elevator pit, and in the western third of the building. Based on field screening results, remaining soil contamination ranges from non-detect to 420 pCi/g plutonium. Most of the results are less than 50 pCi/g plutonium. Five feet of fill will be placed onto this area to bring it up to final grade.

Areas that are above 50 pCi/g and less than 1,000 pCi/g, will be left in place where at least 3 feet of contaminated soil has already been removed and the remaining soil will be under at least 3 feet of clean fill. Therefore, the areas referenced above will be left in place.

To prevent possible spread of this contamination until final grading occurs, there will be restricted access to this area and erosion controls will remain in place to prevent wind and rain from spreading this contamination.

Confirmation samples will be collected on a 50 foot grid. 20% will be sent offsite for alpha spec, the rest will be analyzed using onsite gamma spec. Alpha spec samples will be collected from the area with the highest indicated residual contamination as well as other random locations.

Contact Record Prepared By: Annette Primrose

Required Distribution:

M. Aguilar, USEPA
H. Ainscough, CDPHE
J. Berardini, K-H
B. Birk, DOE-RFPO
L. Brooks, K-H ESS
G. Carnival, K-H RISS
N. Castaneda, DOE-RFPO
C. Deck, K-H Legal
N. Demos, SSOC
S. Garcia, USEPA
S. Gunderson, CDPHE

D. Mayo, K-H RISS
S. Nesta, K-H RISS
L. Norland, K-H RISS
E. Pottorff, CDPHE
A. Primrose, K-H RISS
M. Roy, DOE-RFPO
R. Schassburger, DOE-RFPO
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T. Hanson, URS
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J. Walstrom, K-H RISS
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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE ER REGULATORY CONTACT RECORD

Date/Time: June 2, 2005 0900

Site Contact(s): Karen Wiemelt Annette Primrose
Phone: 303 966-9883 303 966-4385

Regulatory Contact: David Kruchek Elizabeth Pottorff
Phone: 303 692-3328 303 692-3429

Agency: CDPHE CDPHE

Purpose of Contact: Building 776 – Tunnel disposition

Discussion

As discussed on June 2nd and in follow-on conversations on June 8th and 9th, we agreed that the B776 opening to the tunnel from Building 776 to 771 will be blocked by crushing the end of the existing tunnel, then placing approximately 20 yards of concrete onto the crushed end, forming a layer 1 ½ to 2 feet thick. A bentonite wall then will be placed in front of the tunnel opening. The bentonite wall will extend laterally beyond each side of the tunnel. The wall will be placed so that it extends beyond the fill material underlying and surrounding the tunnel. The bentonite will form a cutoff wall, minimizing groundwater flow both within the tunnel and within the associated fill material surrounding the tunnel.

Contact Record Prepared By: Annette Primrose

Required Distribution:

- M. Aguilar, USEPA
- H. Ainscough, CDPHE
- J. Berardini, K-H
- B. Birk, DOE-RFPO
- L. Brooks, K-H ESS
- G. Carnival, K-H RISS
- N. Castaneda, DOE-RFPO
- C. Deck, K-H Legal
- N. Demos, SSOC
- S. Garcia, USEPA
- S. Gunderson, CDPHE
- S. Johnson, K-H ESS
- M. Keating, K-H RISS
- L. Kimmel, USEPA
- D. Kruchek, CDPHE

- D. Mayo, K-H RISS
- S. Nesta, K-H RISS
- L. Norland, K-H RISS
- E. Pottorff, CDPHE
- A. Primrose, K-H RISS
- M. Roy, DOE-RFPO
- R. Schassburger, DOE-RFPO
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- S. Surovchak, DOE-RFPO
- J. Walstrom, K-H RISS
- K. Wiemelt, K-H RISS
- C. Zahm, K-H Legal

Additional Distribution:

- M. Flannery K-H RISS
- H. Linsinbigler K-H RISS
- T. Vaughn K-H RISS
- V. Wren K-H RISS
- B. Hendersion, K-H RISS
- _____
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ENCLOSURE

**COMPACT DISC OF
ACCELERATED ACTION DATA**

(COMPLETE DATA SET)

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Figure 2
 Characterization Results Greater Than Background Means Plus Two Standard Deviations or RLS UBC 776

KEY

- Sampling location with concentration greater than WRW AL
- Sampling location with concentrations less than WRW ALs and greater than background or RLS
- Sampling location with concentrations less than WRW ALs and less than background or RLS

OPWL
 Does not exist
 Remaining
 Removed

NPWL
 Removed
 Above Ground - Removed

Demolished building
 Standing building
 Tank
 UBC
 Asphalt
 Surface drainage

DRAFT

N

Scale = 1:1250

0 50 100 150 200 250 300 Feet

State Plane Coordinate Projection
 Colorado Central Zone
 Datum: NAD 27

U.S. Department of Energy
 Rocky Flats Environmental Technology Site

Prepared by:

Prepared for:

File: W: Projects\Fy2005\700-3\UBC Closeout\700-3 Close-Charact 080605.apr
 Date: August 2005

IA-A-002828
 1 of 6

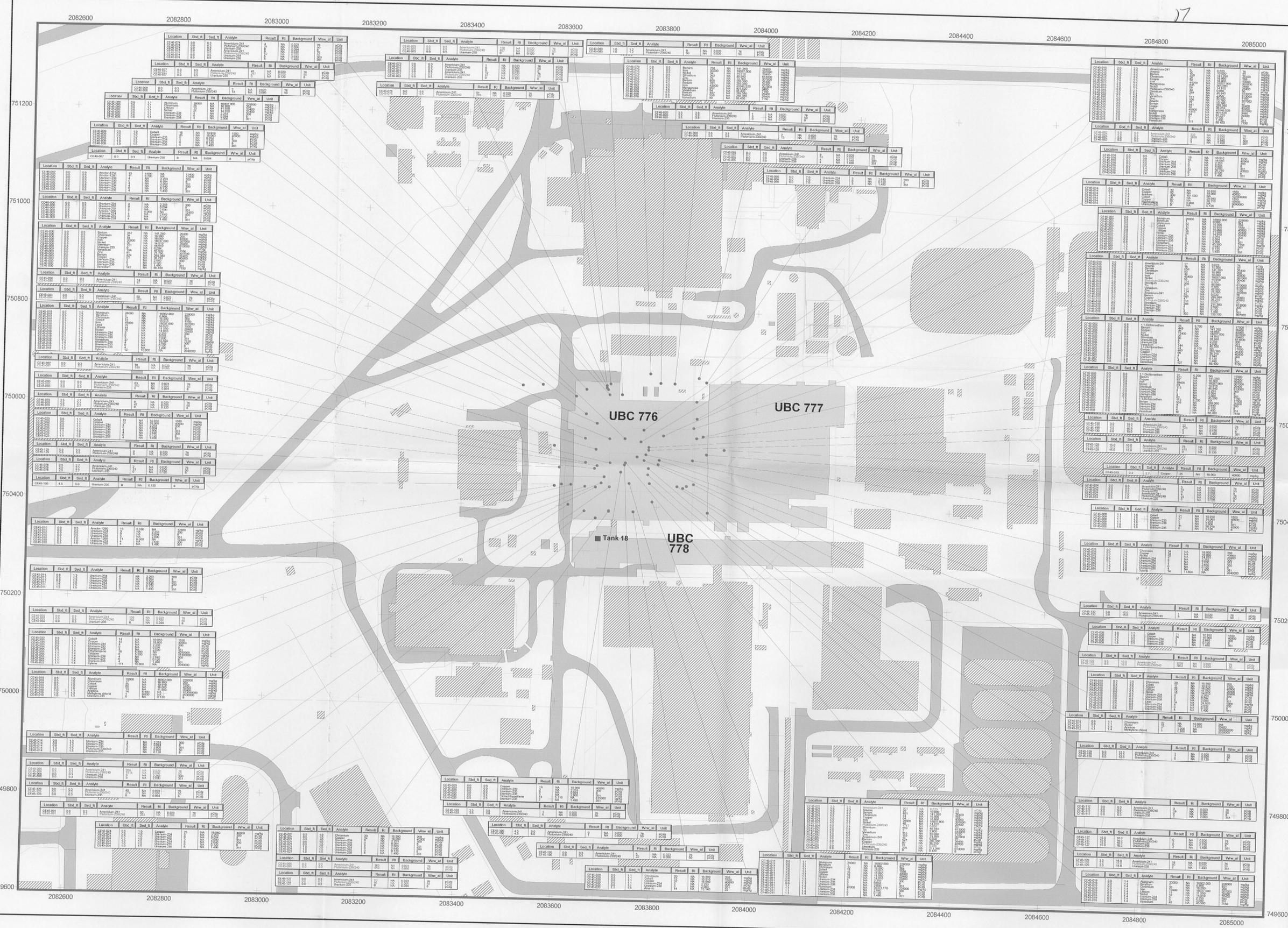


Figure 3
Characterization Results Greater Than Background Means Plus Two Standard Deviations or RLs UBCs 777 and 778

KEY

- Sampling location with concentration greater than WRW AL
- Sampling location with concentrations less than WRW ALs and greater than background or RLs
- Sampling location with concentrations less than WRW ALs and less than background or RLs

OPWL
Does not exist

Remaining
Removed

NPWL
Removed
Above Ground - Removed

Demolished building

Standing building

Tank

UBC

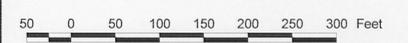
Asphalt

Surface drainage

DRAFT



Scale = 1:1300



State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

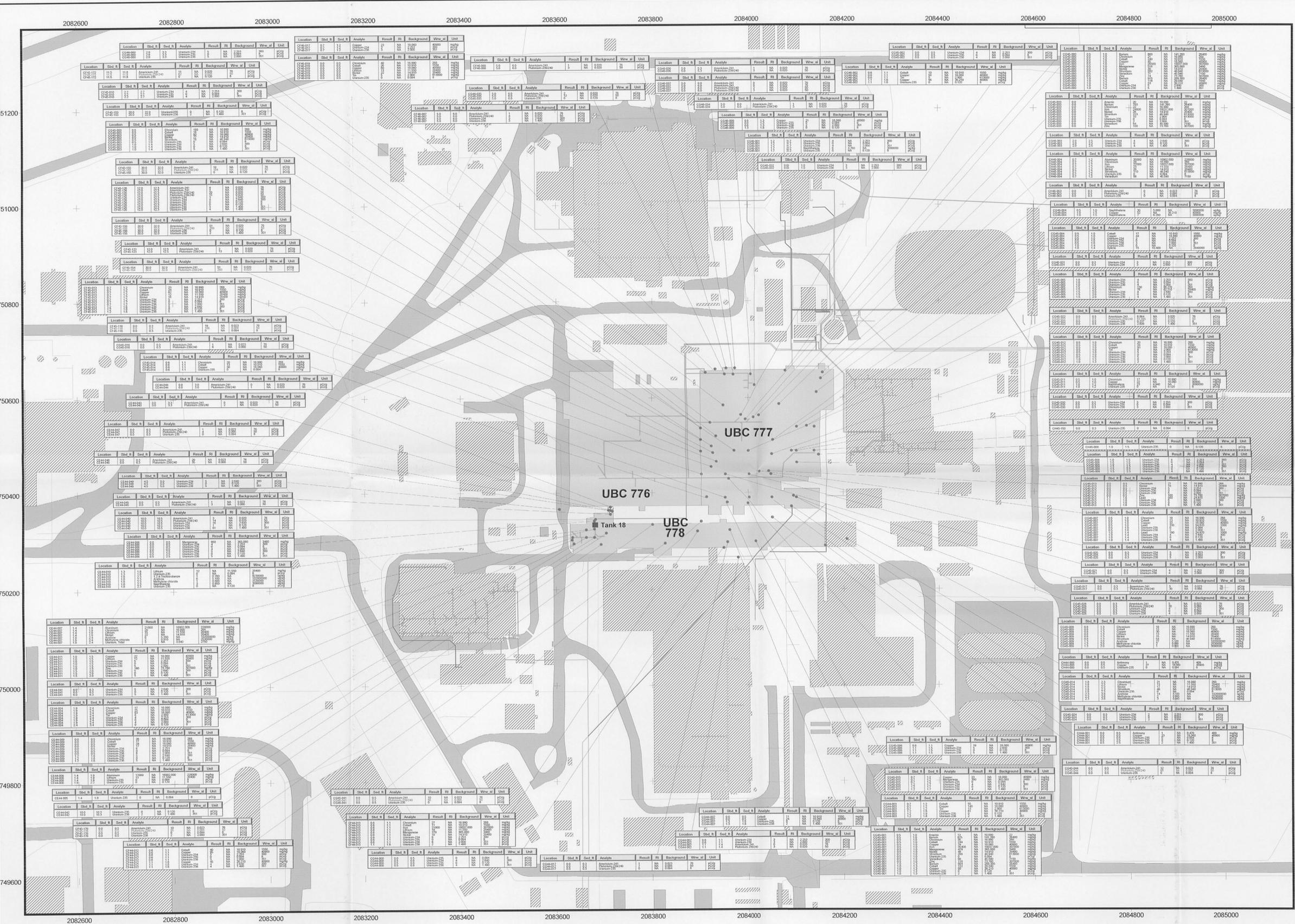
U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by:
RADMS

Prepared for:
KAISER HILL COMPANY

File: W: Projects\FY2005\700-3\UBC Closeout\700-3 Close-Charact 080605.apr Date: August 2005

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2006



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Figure 5

Confirmation Sampling Locations and Results, UBCs 776, 777, and 778

- Sampling location with concentration greater than WRW ALs
- Sampling location with concentrations less than WRW ALs and greater than background or RLs
- Sampling location with concentrations less than WRW ALs and less than background or RLs

OPWL

- Does Not Exist
- Remaining
- Removed

NPWL

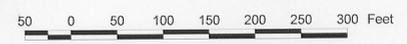
- Removed
- Above Ground - Removed

- Demolished building
- Standing building
- UBC
- Tank
- Excavation boundary
- Asphalt
- Surface drainage

DRAFT



Scale = 1:1250



State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared for:

Prepared by:

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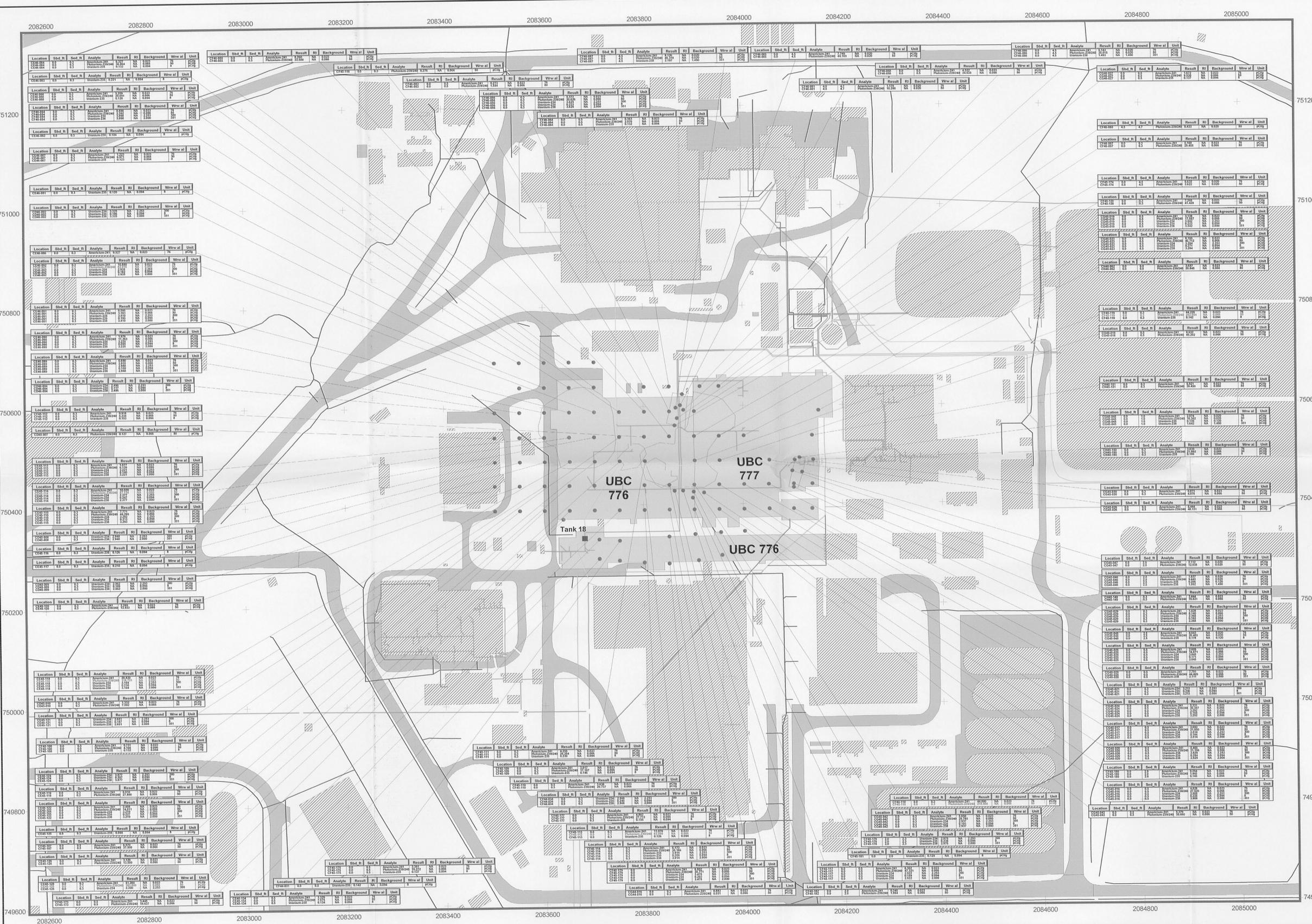
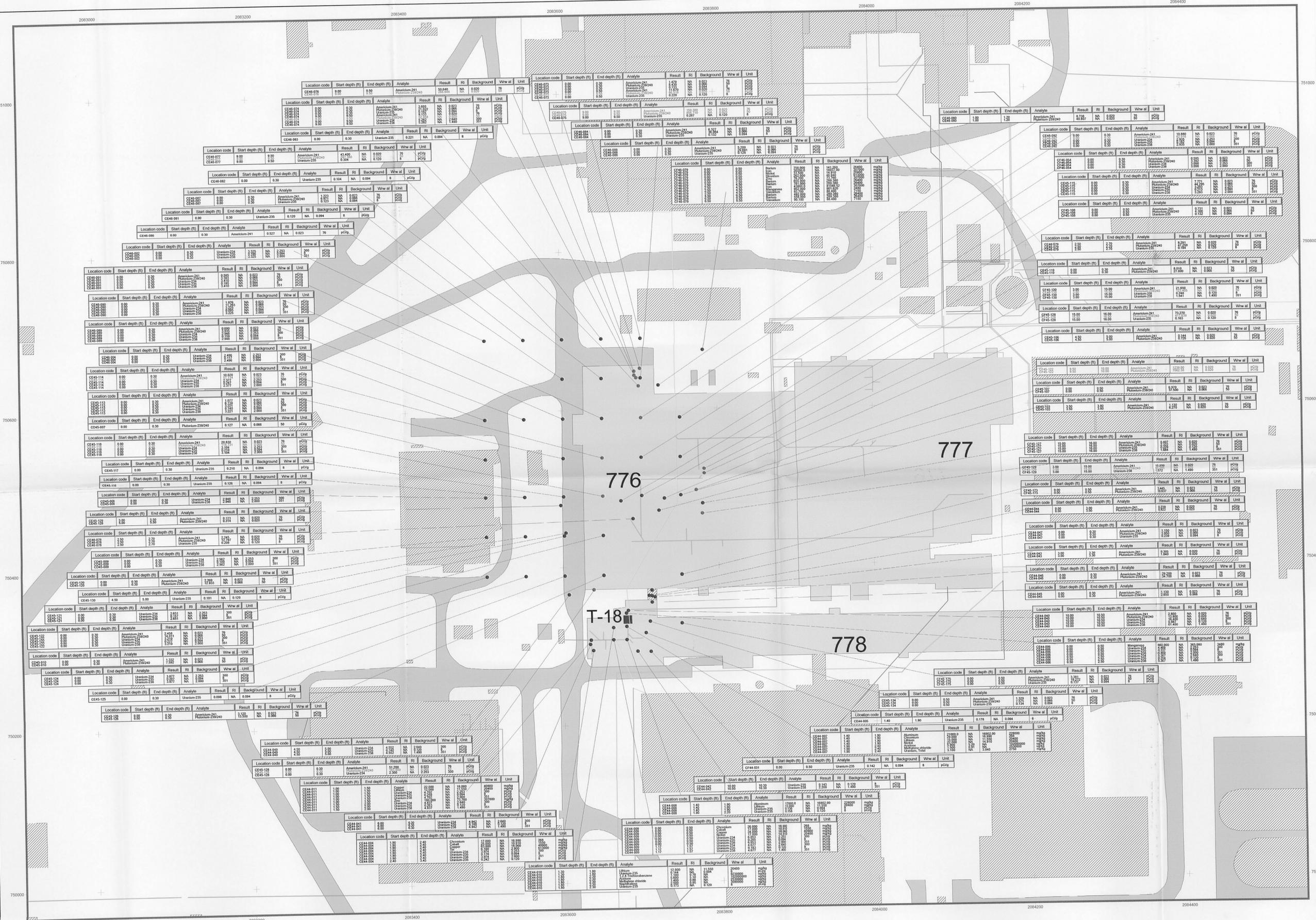


Figure 6
Residual Soil Activities
and Concentrations,
UBCs 776, 777 and 778

Western Area



Key

- Sampling location with concentration greater than WRW AL
- Sampling location with concentrations less than WRW ALs and greater than background/RL

NPWL

- Removed
- Aboveground - Removed

OPWL

- Does Not Exist
- Remaining
- Removed

Structure

- Tank
- UBC
- Paved area
- ▨ Demolished
- Standing

DRAFT



Scale = 1:725



State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

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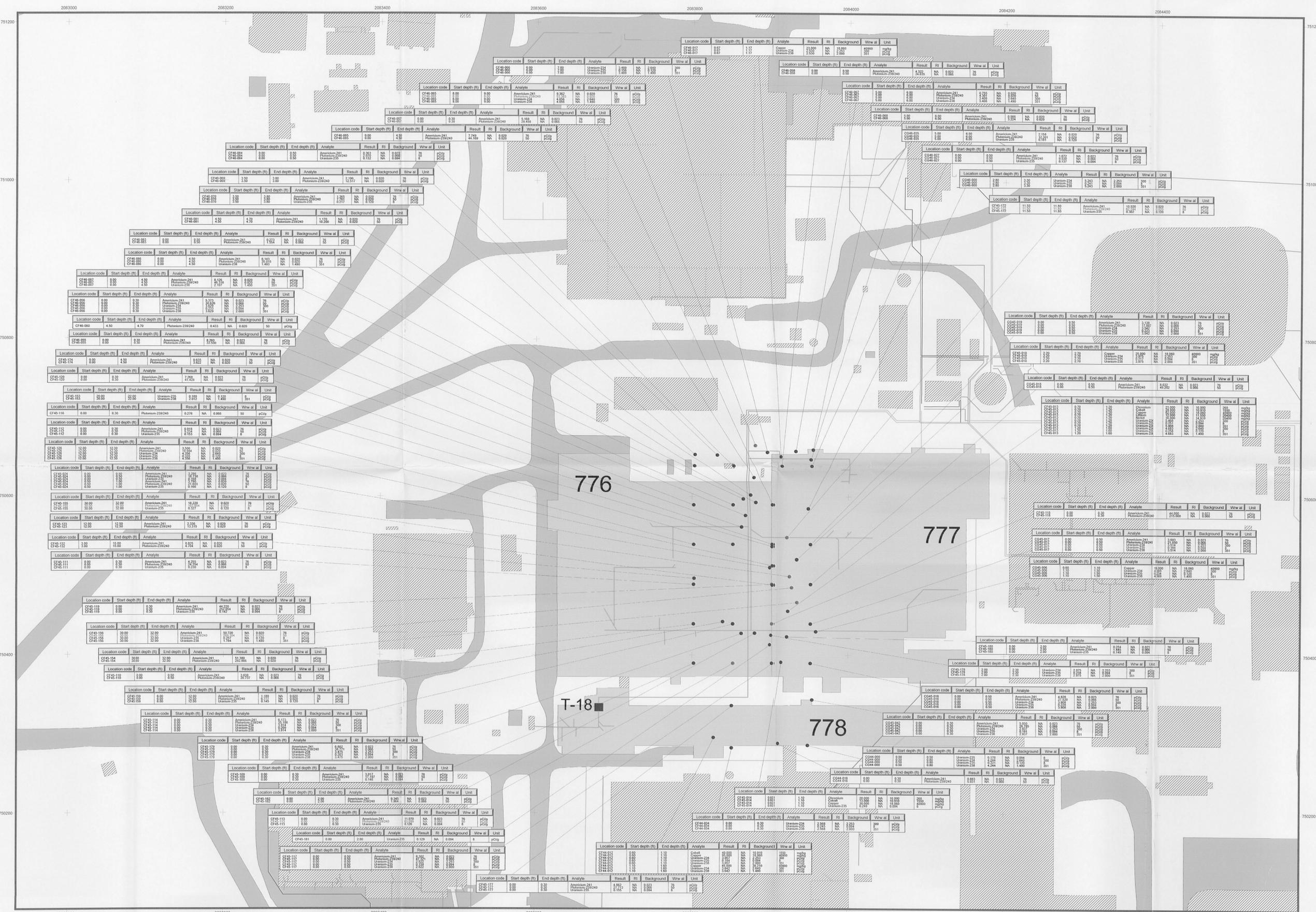


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Figure 7
Residual Soil Activities
and Concentrations,
UBCs 776, 777 and 778

Central Area



Key

- Sampling location with concentration greater than WRW AL
- Sampling location with concentrations less than WRW ALs and greater than background/RL

NPWL

- Removed
- Aboveground - Removed

OPWL

- Does Not Exist
- Remaining
- Removed

- Tank
- UBC

- Paved area

Structure

- ▨ Demolished
- Standing

DRAFT



Scale = 1:725



State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

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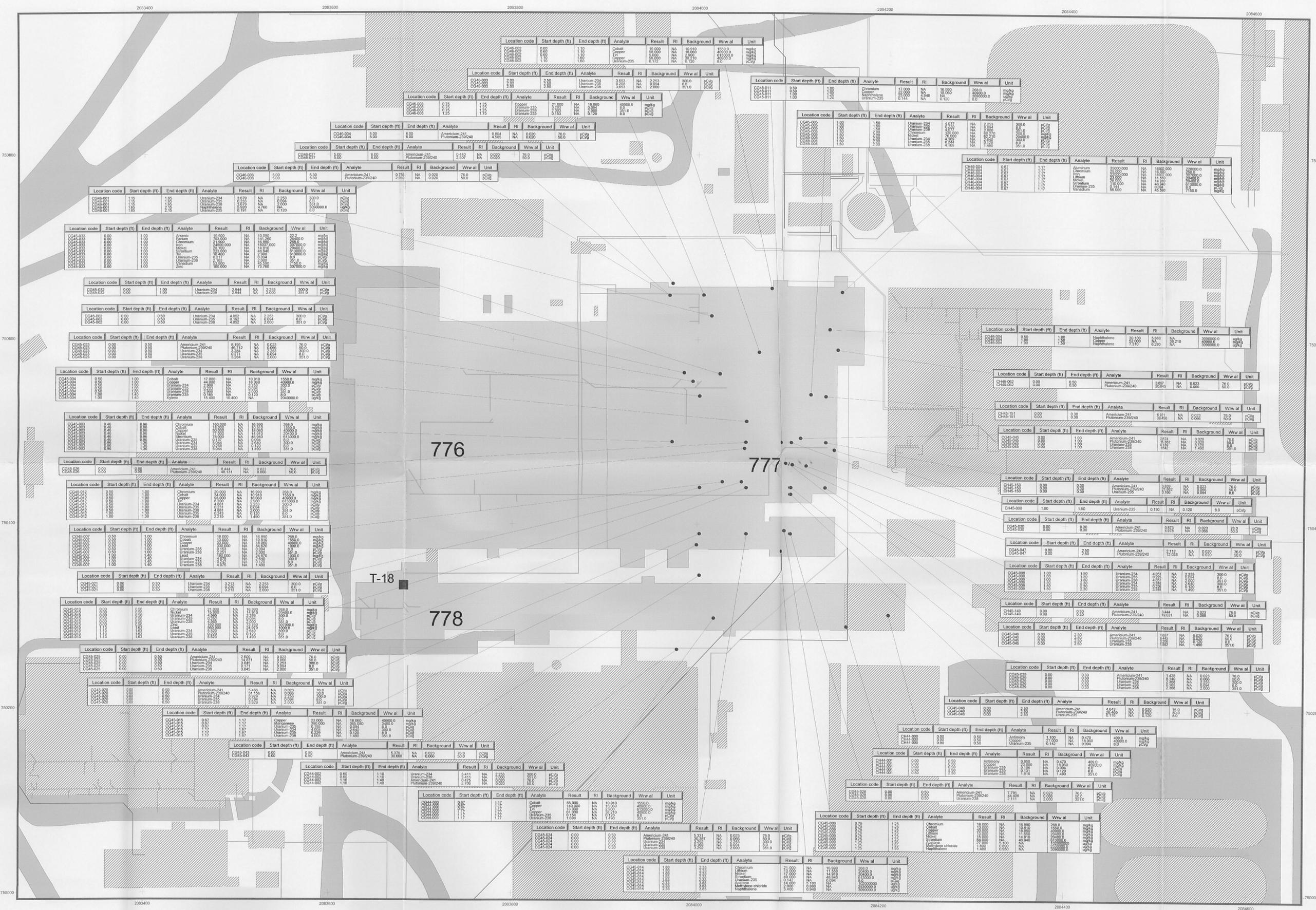


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Figure 8
Residual Soil Activities
and Concentrations,
UBCs 776, 777 and 778

Eastern Area



Key

- Sampling location with concentration greater than WRW AL
- Sampling location with concentrations less than WRW ALs and greater than background/RL

NPWL

- Removed
- Aboveground - Removed

OPWL

- Does Not Exist
- Remaining
- Removed

- Tank
- UBC
- Paved area

Structure

- ▨ Demolished
- ▨ Standing

DRAFT



Scale = 1:615



State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

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Prepared by: _____ Date: August 2005



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