300502-0605150012

CH2M HILL Mound, Inc.
1075 Mound Road
P.O. Box 750
Miamisburg, OH 45343-0750

CH2MHILL

SMO-073/06
January 30, 2006

Mr. Don Pfister, Director
Miamisburg Closure Project
U. S. Department of Energy
175 Tri-County Parkway
Springdale, OH 45246

ATTENTION: Paul Lucas

SUBJECT: **Contract No. DE-AC24-03OH20152:** Deliverable #39 Potential release site and removal action documentation; Section C.2.3.1.3 Remaining Response Actions; Building 38 Soil (PRS Group 5) OSC Report, Final

Dear Mr. Pfister:

Attached is the following Final document for your records:

- Building 38 Soil (PRS Group 5) OSC Report, Final

If you or members of your staff have any questions regarding the document, or if additional support is needed, please contact Dave Rakel at 937-865-4203.

Sincerely,

John Lehew
Site Manager

JL/jg

Enclosures

cc: T. Fischer, USEPA, (1) w/attachments
B. Nickel, OEPA, (1) w/attachments
R. Vandegrift, ODH, (1) w/attachments
J. Webb, ODH, (1) w/attachments
M. Wojciechowski, Tetra Tech, (1) w/attach
G. Gorsuch, DOE/MCP, (1) w/attachments
R. Tormey, DOE/OH, (1) w/attachments
G. Desai, DOE/HQ, (1) w/attachments
C. Kline, CH2M Hill, (1) w/attachments
F. Bullock, MMCIC (2) w/attachments
Public Reading Room (1) w/attachments
Admin Records, CH2M Hill, (2) w/attachs
ER Records, CH2M Hill, (1) w/attachs
DCC (1) w/attachments
J. Lehew, CH2M Hill, w/o attachments
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MOAT Coordinator, CH2M Hill, w/o attachs
S. Barr, CH2M Hill, w/o attachments
M. McDougal, CH2M Hill, w/o attachments
file, CH2M Hill, w/o attachments

300502-0605150012

Building 38 Soil (PRS Group 5) REMOVAL ACTION

OSC REPORT

PRSs 77, 78, 267, 272, 273, 285-293, 296, 299, and 303 are closed via this OSC Report

January 2006

Final

Department of Energy
Miamisburg Closure Project

CH2MHILL

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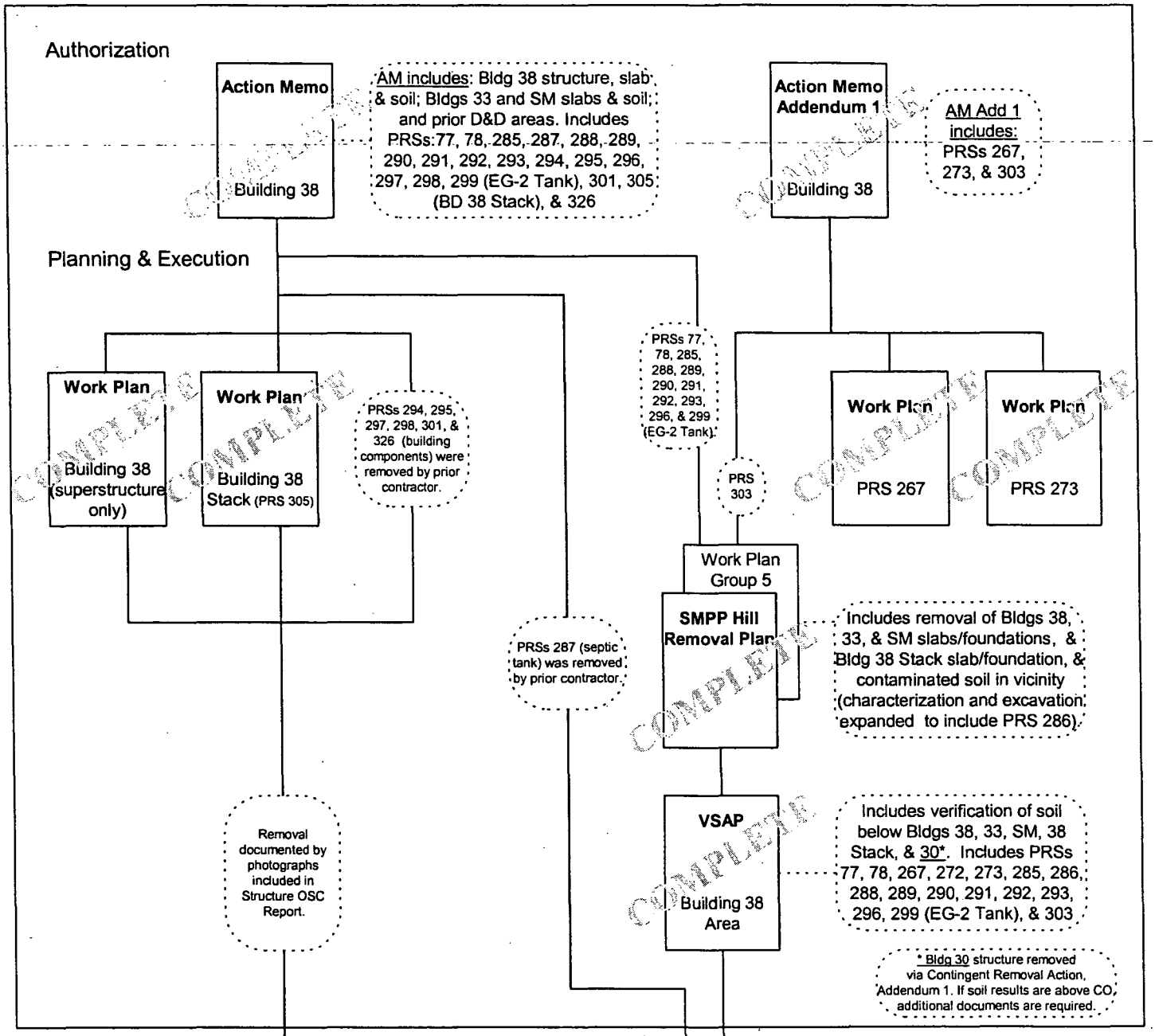
EG-2 Building demolished as personal property; closed via Bldg EG-2 Closeout Report.
EG-2 Generator surveyed & sold to public; documented in Bldg EG-2 Closeout Report.
EG-2 Tank is PRS 299; removal is authorized in Bldg 38 AM, removal regulated by BUSTR Remedial Action Plan, soil verification performed via 38 VSAP, PRS 299 closed via Soil OSC Report.

Building 38 and PRSs 77, 78, 267, 272, 273, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299 (EG-2 Tank), 301, 303, 305 (BD 38 Stack), & 326



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Acronyms

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CO	cleanup objective
COC	contaminant of concern
cy or yd^3	cubic yards
D&D	decontamination and decommissioning
DOE	Department of Energy
FA	Further Assessment
HS	hot spot
MCP	Miamisburg Closure Project
OEPA	Ohio Environmental Protection Agency
OSC	On-Scene Coordinator
pCi/g	picoCuries per gram
PRP	Potentially Responsible Parties
PRS	Potential Release Site
RA	Removal Action
RBGV	Risk-Based Guideline Value
SM	Special Metallurgical
NFA	No Further Assessment
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency
VSAP	Verification Sampling and Analysis Plan

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RECOMMENDATION: Building 38 Soil (Group 5 PRSs)

The Building 38 Soil Removal Action (authorized via the Building 38 Action Memorandum/Addendum 1, August 2003, Final) was performed based on historical processes, and radiological surveys and soil sample results which showed elevated levels of several isotopes, primarily plutonium-238 and thorium-232.

The structure portion of the removal action was closed via the Building 38 Structure OSC Report, Final, Rev. 1, December 2003.

The soil portion of the removal action is documented in this OSC Report and included: removal of the Building 38 slab, footers, and contaminated pipe chases; removal of contaminated soil in the Group 5 PRSs (Potential Release Sites); and verification sampling and analysis to demonstrate that the remaining soil meets the cleanup criteria.

The soil portion of the removal action resulted in the disposal of approximately 46,370 cubic yards (cy) of radioactively contaminated soil/debris (for disposal at Envirocare and Nevada Test Site). Construction debris meeting surface release criteria (approximately 300 cy) were disposed of at Stoney Hollow Landfill.

After a thorough review of the Building 38 Soil OSC Report, the Core Team agrees that the Building 38 Removal Action (including closure of the Group 5 PRSs: 77, 78, 267, 272, 273, 285-293, 296, 299, and 303) is complete, and that all previously existing environmental issues associated with the Building 38 Removal Action (including Building 38 Area Soil and Group 5 PRSs) have been resolved.

Paul Lucas 1/12/06

Paul Lucas, OSC
U.S. Department of Energy
Miamisburg, Ohio

Timothy J. Fischer 1/10/06

Timothy J. Fischer, Remedial Project Manager
USEPA
Chicago, Illinois

Brian Nickel 1/11/06

Brian Nickel, Project Manager
OEPA
Dayton, Ohio

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RECOMMENDATION: SM Annex and East Asphalt Areas

The SM Annex and SM East Asphalt areas were remediated under the D&D Program in 1991 and 1995, respectively. Data are reported in the following documents:

1. SM East Asphalt Area CERCLA Verification Project Data Report, Final (Revision 0), September 1995
2. Operable Unit 6, Decontamination and Decommissioning, Area 17, Special Metallurgical (SM) Building Annex Verification Report, October 1992, Final (Rev. 0)

SM East Asphalt. Results for plutonium-238 and thorium-232 met the Decontamination and Decommissioning (D&D) Program cleanup goals of 100 pCi/g for plutonium-238 and 15 pCi/g for thorium-232. Both the sample mean and the one-sided 95% upper confidence limits (UCLs) for both plutonium-238 and thorium-232 are below their respective cleanup goals. Additionally, no other radiological contaminants were detected above 10^{-5} Risk-Based Guideline Values (RBGVs). 95% UCL values for all chemicals (except phenanthrene) are below the 10^{-5} RBGVs used at the time.

SM Annex. Plutonium-238 and thorium-232 results at the base of excavation are below D&D cleanup objectives (COs). The mean value plus three standard deviations (8 samples) are well below the COs of plutonium-238 (100 pCi/g) and thorium-232 (15 pCi/g). This is a very conservative statistical comparison providing 99.7% confidence that the area meets the CO. An Oak Ridge Associated Universities independent verification conducted in November 1991 also indicates acceptable levels. The mean value plus three standard deviations (5 samples) were below the COs for plutonium-238 (100 pCi/g) and plutonium-239/240 (62 pCi/g) (again, a very conservative comparison).

Based on the above information, the Core Team recommends **No Further Assessment** for SM Annex & East Asphalt Areas.

This recommendation page will be included in the Building 38 Soil On-Scene Coordinator Report, which will be placed in the Public Reading Room.

Paul Lucas 1/17/06

Paul Lucas, OSC
U.S. Department of Energy
Miamisburg, Ohio

Timothy J. Fischer 1/10/06

Timothy J. Fischer, Remedial Project Manager
USEPA
Chicago, Illinois

Brian Nickel 1/18/06

Brian Nickel, Project Manager
OEPA
Dayton, Ohio

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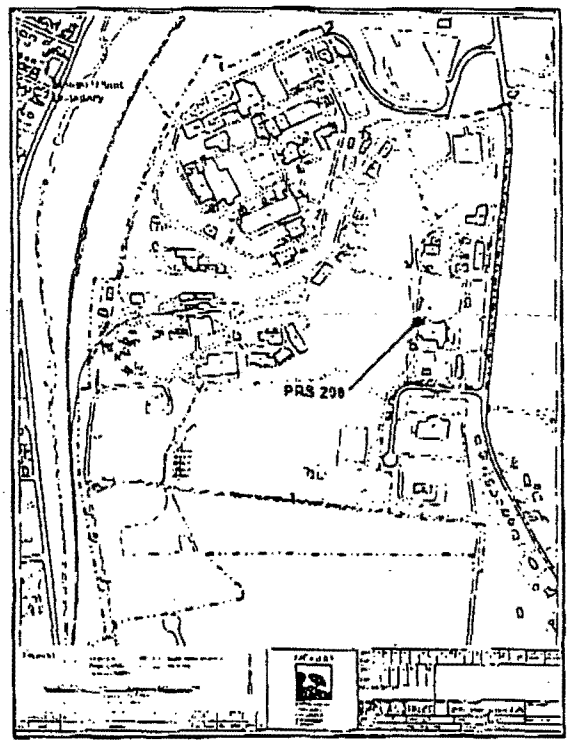
RECOMMENDATION: PRS 299



Potential Release Site (PRS) 299 is a former underground storage tank (UST) that supported an emergency generator known as EG-2. The location of PRS 299 is shown to the right. Closeout of PRS 299 is per the State Fire Marshal-approved BUSTR (Bureau of Underground Storage Tank Regulations) Removal Action Plan (RAP, Final, March 2003).

The UST was removed in November 2003. Soil samples were collected per the RAP and analyzed for BTEX (benzene, toluene, ethylbenzene, and xylene), PAHs (polynuclear aromatic hydrocarbons), and TPH (total petroleum hydrocarbon) constituents. All results are below action levels specified in the RAP.

The entire tank cavity was subsequently removed as part of the adjacent radiological removal action. Due to the small volume, soil related to the tank removal was disposed of at Envirocare of Utah, along with the adjacent radiological cleanup project. The UST was disposed of at Stoney Hollow Landfill.

A Completion Report was submitted to the State Fire Marshal in December 2004 documenting the successful completion of actions proposed in the RAP and fulfillment of Ohio Administrative Code (OAC) 1301:7-9-13(M), Completion. The State Fire Marshal's letter accepting the removal as complete is included in the enclosed Data Report on page A530/530.

After a thorough review of the acceptance letter, the Core Team agrees that the PRS 299 Removal Action is complete, and that all previously existing environmental issues associated with PRS 299 have been resolved.

Paul Lucas 10/11/05

Paul Lucas, OSC
U.S. Department of Energy
Springdale, Ohio

Timothy J. Fischer 10/6/05

Timothy J. Fischer, Remedial Project Manager
USEPA
Chicago, Illinois

Brian Nickel 10/12/05

Brian Nickel, Project Manager
OEPA
Dayton, Ohio

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1.0 SUMMARY OF EVENTS

This section describes the site background and events leading up to the removal action (RA), parties involved in responding to the RA, cleanup objective (CO) determination, chronological narrative of the RA, and resources committed to complete the projects.

Two historic decontamination and decommissioning (D&D) areas previously determined by the Core Team to require No Further Assessment are detailed in the second recommendation page at the front of this document. The areas, SM Annex and East Asphalt (collectively identified in the Verification Sampling and Analysis Plan (VSAP) as Piece B), were evaluated during the VSAP process and a recommendation page was documented in the VSAP, with instruction to include it in the Building 38 Soil On-Scene Coordinator (OSC) Report.

1.1 Site Conditions and Background

The levels of radiological contamination present in Building 38 and the Group 5 Potential Release Sites (PRSs) warranted a RA under CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act).

The **Action Memorandum** for Building 38 Removal Action, January 2002, Final Rev. 2 (including Addendum 1) authorized removal of Potential Release Sites (PRSs) 77, 78, 267, 273, 285, 287-299, 301, 303, and 305. PRS 272 was remediated as an extension to PRS 273 fieldwork.

PRS 272 was considered No Further Assessment (NFA) by the Core Team in 1996 and subsequently changed to Further Assessment (FA) in 2004. As part of the Group 5 RA, soil contamination removal extended from PRS 273 across PRS 272. This OSC Report, therefore, documents verification of PRS 272.

PRS 286 (SM Leachfield) was previously remediated as a D&D project in the mid 1990s. The area was never formally verified. At DOE's direction, the 38 Area Work Plan was modified to include the verification of this area compared to the D&D COs. Two locations (approximately 10 feet by 10 feet each) and one location (approximately 20 feet by 20 feet) were excavated and verified. Verification results for PRS 286 are included in the Data Report, Table 1 (A19/530-A48/530). PRS 286 was addressed and verified as part of the Group 5 effort such that the verification data could be used in lieu of the historic characterization data. The western boundary of PRS 286 was changed as shown on Figure 2. The area west of PRS 286 will be remediated as part of PRS 66 West. This OSC Report, therefore, documents verification of PRS 286 as shown on Figure 2.

The **Structure OSC Report** (Building 38 Structure RA OSC Report, December 2003, Final, Rev. 1) documents the removal of the Building 38 superstructure and stack and closed out PRSs 294, 295, 297, 298, 301, 305, and 326 (Table 1).

Table 1: PRSs Closed Out via Structure OSC Report

PRS	Description
294	WS Bldg. Solidification Unit
295	Bldg. 38 Solid Radioactive Waste Compactors
297 & 298	Bldg. 38 Alpha Wastewater Sumps (tanks 26 & 27) – above ground tanks
301	In-line Incinerator
305	Building 38 Stack
326	Sanitary Sump (tank 254)

This **Soil OSC Report** documents removal of the Building 38 slab, footers, contaminated soil, and contaminated pipe chases (to two feet below ground surface); the remainder of the SM Building foundation; and closes out PRSs 77, 78, 267, 272, 273, 285-293, 296, 299, and 303. This Soil OSC Report documents verification sampling and analysis per the Building 38 Area VSAP (Final, March 2004) to demonstrate that the remaining soil meets the cleanup criteria. The PRSs listed in Table 2 are known collectively as "Group 5" and their locations are shown on Figure 1, along with the former location of Building 38.

Table 2: PRSs Closed Out via Soil OSC Report

PRS	Description
77	Former Warehouse 10 Footprint
78	Former Warehouse 11 Footprint
267	Area 9, Former Thorium Storage/Redrumming Area
272	Area 10, concrete debris
273	Area 12, Thorium-contaminated Soil form Area 1
285	Area 11, Contamination from SM Bldg. Operations
286	SM Bldg. Leachfield*
287	SM Bldg. Historic Septic Tank (tank 241) -removed
288	Area 17, SM Bldg. Soils
289-292	SM Bldg. Alpha Wastewater Sumps (tanks 210-213) - all four removed
293	Footprint of Former SM Bldg. Solidification Unit
296	Bldg. 38 West Dock Sump (tank 25)
299	EG-2 Diesel UST (tank 121) – removed **
303	Warehouse 14 Foundation

* PRS 286 (SM Leachfield) started as a D&D project. The fieldwork was completed in the mid 1990s, but the area was never formally verified. At DOE's direction, the 38 Area Work Plan was modified to include the verification of this area compared with the applicable D&D COs. Two locations within PRS 286 (measuring 10'x10'x1' each) were excavated. Verification data for the areas excavated during the 38 Area remediation activities are included in Table 1 and Appendix C of the Data Report.

** A Closure Report was submitted to the State Fire Marshal in December 2004 for BUSTR Closure of the tank removed.

Since the Department of Energy (DOE) is the sole responsible party for cleanup of Building 38 soil contamination, no Potentially Responsible Parties (PRPs) were sought to clean up the site. Monsanto Research Corporation, EG&G Mound Applied technologies, and BWXT of Ohio, Inc were the operating contractors at the site from 1948 to 30 September 1988, from 1 October 1988 until 30 September 1997, and from 1 October 1997 until 31 December 2002 respectively. CH2M Hill Mound, Inc. became the site contractor for the Miamisburg Closure Project (MCP) effective January 1, 2003.

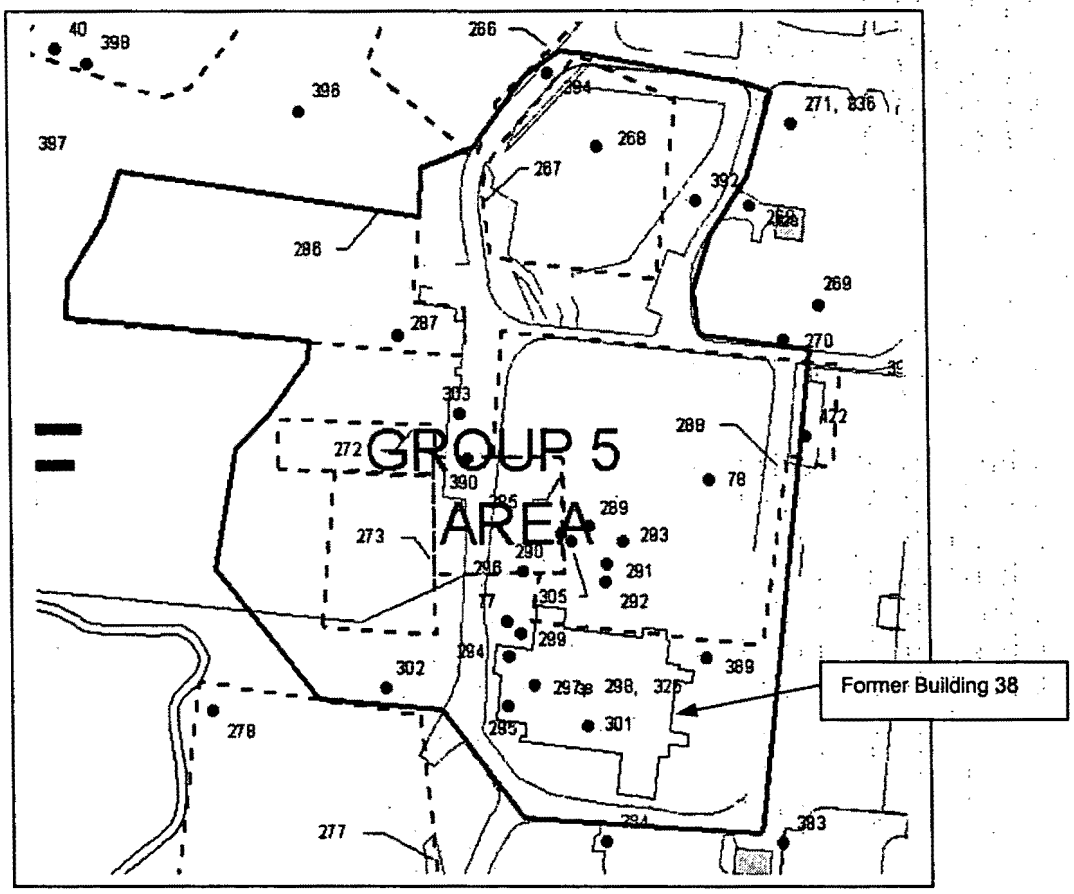

Figure 1: Building 38 Area (Group 5) PRSs

1.2 Organization of the Removal Actions

Table 3 lists the parties responding to the removal actions, and their responsibilities.

Table 3: Organization of the Removal Action

US Environmental Protection Agency (USEPA) SFR-5J 77 W. Jackson Street Chicago, IL 60604 312-353-2000	Timothy J. Fischer	Federal agency responsible for oversight
Ohio Environmental Protection Agency (OEPA) 401 E. Fifth Street Dayton, OH 45402-2911 937-285-6357	Brian K. Nickel	State agency responsible for oversight
US Dept. of Energy, Miamisburg Closure Project 175 Tri-County Parkway Springdale, OH 45246 513-246-0071	Paul Lucas	On-scene Coordinator responsible for oversight and success
CH2M HILL Environmental Restoration Project 1 Mound Road Miamisburg, OH 45343-3030 937-608-8220	Jim Fontaine	Provide OSC with technical assistance, administrative support, field oversight, sample management, site safety, photo, site documentation, and preparation of the OSC Report

1.3 Objectives

The objectives of this OSC Report are to describe the Building 38 Soil (Group 5) RA fieldwork and document successful completion of the project.

Removal Action Objectives: The objectives for the removal action included:

- Project Planning
- Public Notification
- Phase I (see Structure OSC Report)
- Phase II: Building Decontamination (see Structure OSC Report)
- Phase II: Demolish Building 38, Demolish Building 38 Stack (see Structure OSC Report)
- Phase II: Remove Underground Storage Tank
- Phase II: Remove Associated Foundations and Soils
- Phase II: Verification

Material quantities and disposition locations are presented in Table 4. The cost breakdown of the removal actions is presented in Table 5.

Table 4: Materials and Disposition

Type of Material	Quantity (yd^3)	Disposal Method	Disposal Location
Contaminated soil/debris	46,259	Rail transport	Envirocare of Utah
Contaminated soil/debris	111	Type A Box/truck	Nevada Test Site of Nevada
Debris meeting surface release criteria	300	Rolloff	Stoney Hollow Landfill of Ohio

Table 5: Removal Cost

Cost Category	Cost
Planning/Fieldwork/ Restoration/grading/seeding	$ 1,282,032
Transportation/Disposal of Contaminated Soil	$ 21,061,147
Subcontractors (Verification Sampling, Analyses, & Data Validation)	$ 244,831
Closure Documentation	$50,032
Estimated Total Project Cost	**$ 22,638,040**

The **Cleanup Criteria** for primary contaminants of concern (COCs) of Pu-238 and Th-232 are identified in Table 6.

The cleanup criteria are based on the Building 38 Action Memo and further detailed in the Building 38 Area VSAP. The cleanup criteria are satisfied if all verification sample results are below CO; or all sample results are below hot spot (HS) criteria and the 95% UCL (upper confidence limit) for the area of interest is less than 55 pCi/g for Pu-238 and 2.1 pCi/g for Th-232.

Table 6: Cleanup Criteria (pCi/g)

COC	Non-D&D Area CO / HS	D&D Area CO / HS
Pu-238	55 / 165	100 / 300
Th-232	2.1 / 3.5	3.5 / 5

Cleanup Objective. All final verification results for the Building 38 Soil (Group 5) were below their respective CO, with the exception of 12 locations identified in the Data Report, Table 1 (A18/530 – 47/530, see **bold** text). All of the CO exceedances were below their respective hot spot criteria. Isolated instances of other isotopes (Ra-226, Th-228, Th-230, and U-238) were removed and verified, but all results were below current COs as identified in the Data Report, Table 1 (A18/530 – 47/530).

A historic sample result above CO (Th-232 at 2.51 pCi/g at 16-17 feet) at location MND17-1213 was not removed as part of PRS 273 (per Core Team agreement) due to

the existence of an adjacent sanitary sewer line (see A5/530). This result will be retained for residual risk evaluation purposes.

95% UCL Results. All UCL calculations were below their respective CO (see Data Report, A500/530-A503/530).

Sign Test Results. All of the data sets containing CO exceedances passed the Sign Test (see Data Report, A506/530-A510/530).

1.4 Chronological Narrative of the Removal Actions

Table 7 presents a chronological narrative of events surrounding the Building 38 Soil (PRS Group 5) RA. Individual excavation dates are not listed due to the duration of the project and concurrent RA activities.

2.0 EFFECTIVENESS OF THE REMOVAL ACTIONS

The Building 38 removal action is complete, and the objectives of the Action Memorandum have been met. The limits of excavation and verification are shown on Figure 2 (see A10/530). Results of verification sampling and analysis are provided in Appendix A, and photographs of the site remediation are provided in Appendix C.

Table 7: Chronology of RA

Timeframe	Activity
January 2002	Building 38 Action Memorandum approved
August 2003	Building 38 Action Memorandum Addendum 1
July 2003	SM/PP West Asphalt Removal Plan approved
December 2003	Building 38 Structure OSC Report Final
May 2004	PRS Group 5 Removal Plan approved
August 2003 through February 2005	PRS Group 5 contaminated soil RA activities, and verification sampling & analysis.
September 2004 through May 2005	Backfill and Site Restoration
August 2005	Building 38 Soil OSC Report prepared

2.1 Actions Taken by Mound Personnel

CH2M Hill Mound, Inc. personnel planned and performed removal action oversight, and performed the excavation, monitoring, sampling and analyses, documentation, and transportation of contaminated soil and debris to the designated onsite soil staging area. Photographic documentation is presented in Appendix C. The project met the removal action objectives (Section 1.3), as outlined in the Action Memorandum (Final, dated January 2002). CH2M Hill Mound, Inc. personnel prepared this OSC Report, which shows that the Removal Action objectives were achieved.

2.2 Actions Taken by Local, State, and Federal Agencies

The DOE/MCP, USEPA, and OEPA had oversight responsibility for the removal actions. The DOE/MCP was the lead agency for the RA and provided the funding and oversight for the RA. The USEPA and OEPA had oversight responsibility for the RA and review of the Action Memorandum and OSC Reports to ensure that the objectives are/were met.

2.3 Actions Taken by Subcontractors

Subcontractors involved in the project included:

- Terran Corporation of Ohio – performed site soil sampling and data management.
- Weston Solutions Inc., of Ohio - performed site soil sampling and data management.
- Envirocare of Utah - disposal of radiologically contaminated waste via rail transport.
- Nevada Test Site of Nevada – disposal of radiologically contaminated waste via truck transport.
- Henderson Turf Farms of Ohio – performed restoration seeding.

3.0 DIFFICULTIES ENCOUNTERED

3.1 Items that Affect the Removal Actions

No difficulties were encountered during the removals.

3.2 Issues of Intergovernmental Coordination

All DOE/OEPA/USEPA interactions were good. The agencies were updated informally on a regular basis, and formally at monthly Core Team meetings. The Mound 2000 Process worked well. Splitting of samples with OEPA went well.

4.0 RECOMMENDATIONS

4.1 Means to Prevent a Recurrence

The completion of the Building 38 Structure part of this RA is documented in the Building 38 Structure RA OSC Report, December 2003, Final, Rev. 1.

The waste and contaminated soil was removed and therefore spread of contamination is prevented. Recurrence is prevented, as all processes which contributed to the Building 38 Soil (PRS Group 5) contamination, have been removed. This area will be transferred from federal to private ownership. All State and Federal disposal rules will apply.

ATTACHMENT A

DATA REPORT

DATA REPORT

Building 38 Soil (PRS Group 5)

PRSs
77
78
267
272
273
285-293
296
299
303

Bldg FPs
30
33
38

D&Ds
Piece C
Piece B update from vsap

August 2005

Rev. 1

Department of Energy

Miamisburg Closure Project

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Appendix D UCL & Sign Test Results
Appendix E Data Review/Validation Reports
Appendix F PRS 299 State Fire Marshall Approval Documentation

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(continued)

Acronyms

CO	cleanup objective
COC	contaminant of concern
D&D	Decontamination & Decommissioning
EG	emergency generator
MDA	minimum detectable activity
OEPA	Ohio Environmental Protection Agency
PRS	Potential Release Site
QC	quality control
RSDSs	Radiological Survey Data Sheets
R&V	review and validation
SARs	Soil Analysis Reports
SU	survey unit
UCL	upper confidence limit
UST	underground storage tank
VSAP	Verification Sampling and Analysis Plan

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1.0 PURPOSE

This Data Report provides documentation of sampling activities specified in the Building 38 Area Verification Sampling and Analysis Plan (VSAP), Final March 2004; required to disposition Potential Release Sites (PRSs) and Decontamination & Decommissioning (D&D) projects in the Building 38 Area. Documentation is provided in this Data Report for the individual dispositions listed on the cover of this document, all of which are known as "Group 5".

The purposes of this Data Report are to:

- document the verification of PRS Group 5,
- describe any variances to the VSAP, and
- present the analytical results.

2.0 FIELD ACTIVITIES / VARIANCES

Sampling activities occurred between November 2003 and February 2005, and included collection of preverification, verification, and confirmation samples. Unless otherwise specified as a variance below, sampling and analyses were conducted in accordance with the VSAP and Core Team-approved Sketches provided in Appendix A (Figures 3 through 8). The Building 38 (or Group 5) Area is shown on Figure 1 (Appendix A).

2.1 SAMPLE LOCATIONS

Sample locations are shown on Figure 2. Coordinates for verification samples are provided in Table 1 (Appendix B).

2.2 VARIANCES

Variances to the VSAP are as follows:

1. Piece C drilling locations C01, C02, C27, C28, and C35 were not sampled due to insufficient soil volume. Depth to bedrock in this area can be as shallow as several feet below ground surface. Piece C was the site of a previous D&D removal action, some areas excavated to bedrock. The excavation was backfilled with chips and dust (gravel-like material containing fines that facilitate a dense compaction). Drilling

in the areas remediated to bedrock would yield only the granular material before refusal at bedrock, resulting in insufficient soil recovery for analysis.

2. PRS 272 & PRS 286. Per Core Team agreement, PRSs 272 and 286 were added as areas to be verified in accordance with the VSAP.
3. PRS 299. The VSAP required collection of six samples; however, the tank cavity being mostly bedrock or concrete foundation, only afforded two soil locations for sampling and analysis.
4. MND17-1213. This historic soil boring was to be removed as part of PRS 273. Th-232 above CO was present to a depth of 16-17 feet. The existence of a sanitary sewer line adjacent to this soil boring afforded removal only to 12 feet, to prevent compromising the pipe integrity. Per Core Team agreement, the remaining result above CO (Th-232 at 2.51 pCi/g at 16-17 feet) was not removed but will be included in the Residual Risk Evaluation.
5. Process Area Boundary. The VSAP Process Area boundary included that part of PRS 285 located west of the road. Sampling during removal activities confirmed that the Process Area contamination stopped at the road. The Process Area boundary was modified to exclude the western portion of PRS 285, which was, based on sample results, associated with the SM Hillside contamination and verified as part thereof.

3.0 RESULTS

Sample results, along with acceptable 95% UCL (upper confidence limit) and Sign Test calculations verify that the requirements of the VSAP have been met.

Sample results are provided for verification, preverification, and confirmation samples. No sample result exceeded hot spot criteria. Areas sampled are listed in Table 2, along with the associated sample IDs for each area. Results are presented in Table 1, on Soil Analysis Reports (SARs), or Radiological Survey Data Sheets (RSDSs). Table 2 identifies where data from each area can be found, including obstruction swipes collected in lieu of soil samples. Table 1 (Appendix B) presents sample results and cleanup objectives. SARs and RSDSs are presented in Appendix C.

UCL calculations. Per the VSAP, 95% UCL calculations were required for the Process Area (to include, per the VSAP, verification data in the Process Area, historic Piece B verification data (see Table 3 and Figure 9), and confirmation data collected around Building 38) and any other areas where a COC (contaminant of concern) exceeded its CO (cleanup objective) which only occurred at PRS 267. Per the agreed Sketch (Figure 4 of Appendix A) 95% UCL calculations were required on each survey unit (SU) of PRS

286. UCL calculations were not required for other non-process areas because all sample results were below cleanup objectives. As presented in Appendix D, 95% UCL calculations were performed for the following:

- the Process Area (as described in the VSAP), includes the 38 Footprint, SM Area, Piece B, and Piece C
- PRS 286 (each SU), and
- PRS 267

Sign Test. Per the VSAP, the Sign Test was required for any verification sample event data set containing results above CO but below hot spot criteria. As presented in Appendix D, the Sign Test was performed for the following:

- the Building 38 footprint,
- PRS 286 (each SU), and
- PRS 267
- SMV area

Required **walkover surveys** are documented in the RSDSs in Appendix C.

OTHER RESULTS TO BE REPORTED

38 Footprint. Prior to backfilling the footprint of Building 38, OEPA (Ohio Environmental Protection Agency) requested that an exposed pipe, to be left upon backfilling, be surveyed and resulting RSDS be included in this Data Report. RSDS 04-ER-470 (see Appendix C) documents that the pipe was not contaminated above acceptable levels.

SCR791 and SCR902. Per the VSAP, these two isolated surface soil areas were to be dispositioned by surface scraping, walkover survey, and soil sampling. RSDS 04-ER-423 and RSDS 04-ER-424 (see Appendix C) document the walkover survey and provide SARs (all results are below COs) for samples collected per the VSAP.

PRS 299 The emergency generator underground storage tank (EG-2 UST) was included in the 38 VSAP, but sample requirements were based on State Fire Marshal-approved Removal Plan. Data collected following the tank removal were submitted to the State Fire Marshal in a Closeout Report. The State Fire marshal is currently reviewing the Closeout Report and associated data. The approval letter will be submitted (as an addendum to the OSC Report) upon receipt, along with the PRS 299 Recommendation page.

SCR660. Per Figure 24 of the VSAP, historic sample location SCR660 contained a Pu-238 result of 63 pCi/g, a Th-232 result of 16.2 pCi/g, and was the site of a previous removal during PRS 266 where a corrugated pipe was found. SCR660 in fact was the location of the historic results mentioned above. The previous removal, however, was found to be associated with a location approximately 25 feet north of SCR660, known as PV-75-1 (preverification sample collected as part of PRS 266 removal action).

SCR660 (shown on Figure 2, Appendix A) was dispositioned by walkover survey and collection of a surface soil sample (267PV24), the results of which are included in RSDS04-ER-542 in Appendix C.

PV-75-1 was addressed by chasing the pipe per instruction in the VSAP. The area chased was verified as part of PRS 267, for which it was completely within.

4.0 DATA REVIEW / VALIDATION

All data were reviewed and 10% of offsite data were validated.

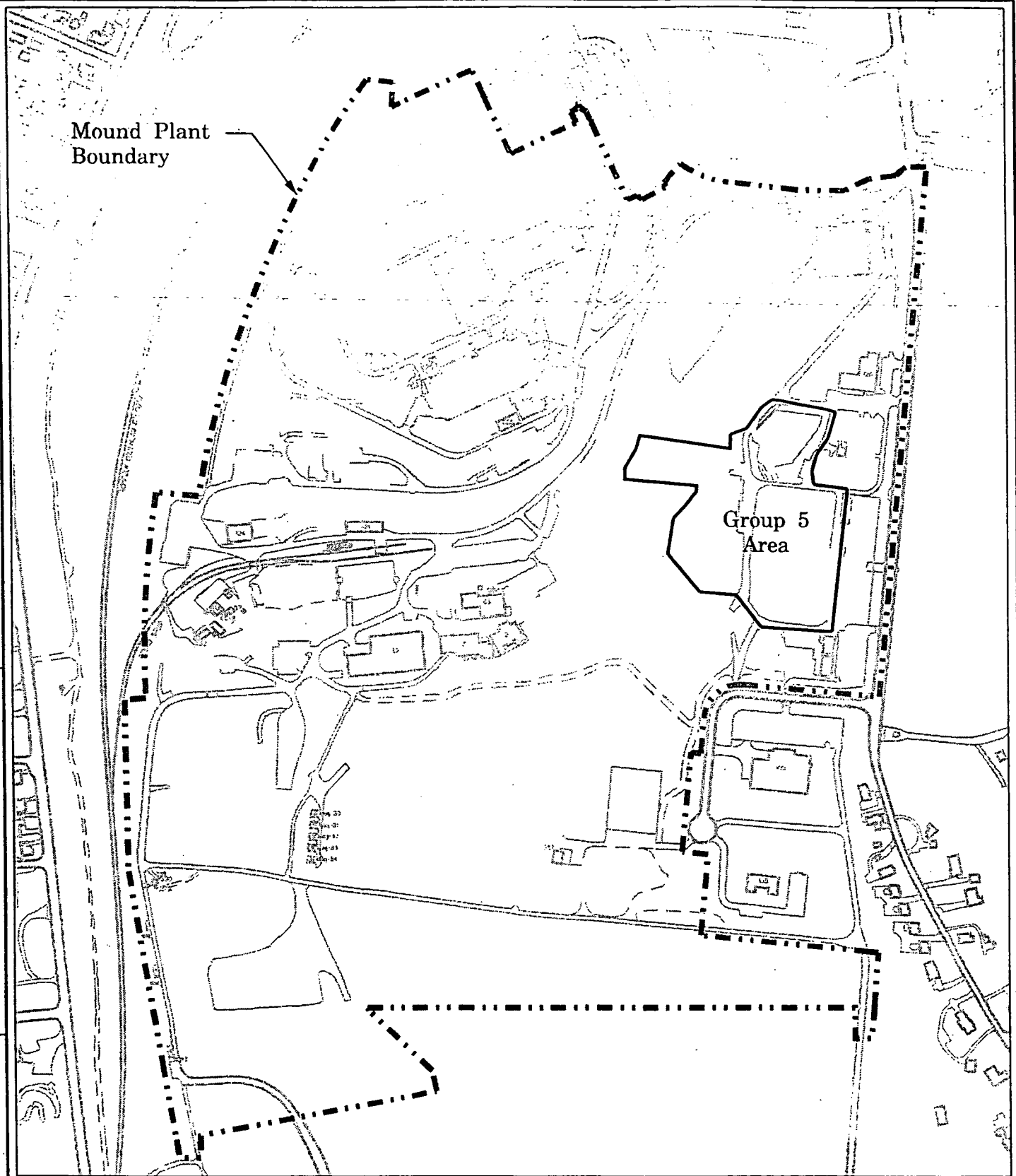
Field and laboratory QC (quality control) were assessed as part of the data review and validation (R&V) process.

Review and validation documentation is provided in three separate reports in Appendix E. One report was prepared by each of the three entities involved in the collection of verification samples.

APPENDIX A

FIGURES

A81530



Legend

- Structures
- Paved roadway
- Unpaved roadway
- Mound Plant boundary
- Railroad

0 100 200 400 600 800 1000
Scale in Feet

MOUND
Environmental Restoration Geographic Information System

Figure 1
Group 5 Area

ISS	DATE	REVISION	BY	CHKD	ENG	SPEC	APVD	V
	03/21/05		SSF					

SHEET 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
ISSUE
SHEET 1 2 3 4 5 6
ISSUE
PART CLASSIFICATION
DRAWING CLASSIFICATION UNCLASSIFIED
SIZE
DRAWING NUMBER gen_site_plan_grp5.dgn
JOB NUMBER
DGN TYPE STE PRNG ER-GIS CADD SCALE SHEET 1 OF
STATUS MD-REL-**/**/** ORIGIN MSTATION / 1

A9/530

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PRS 267 SKETCH

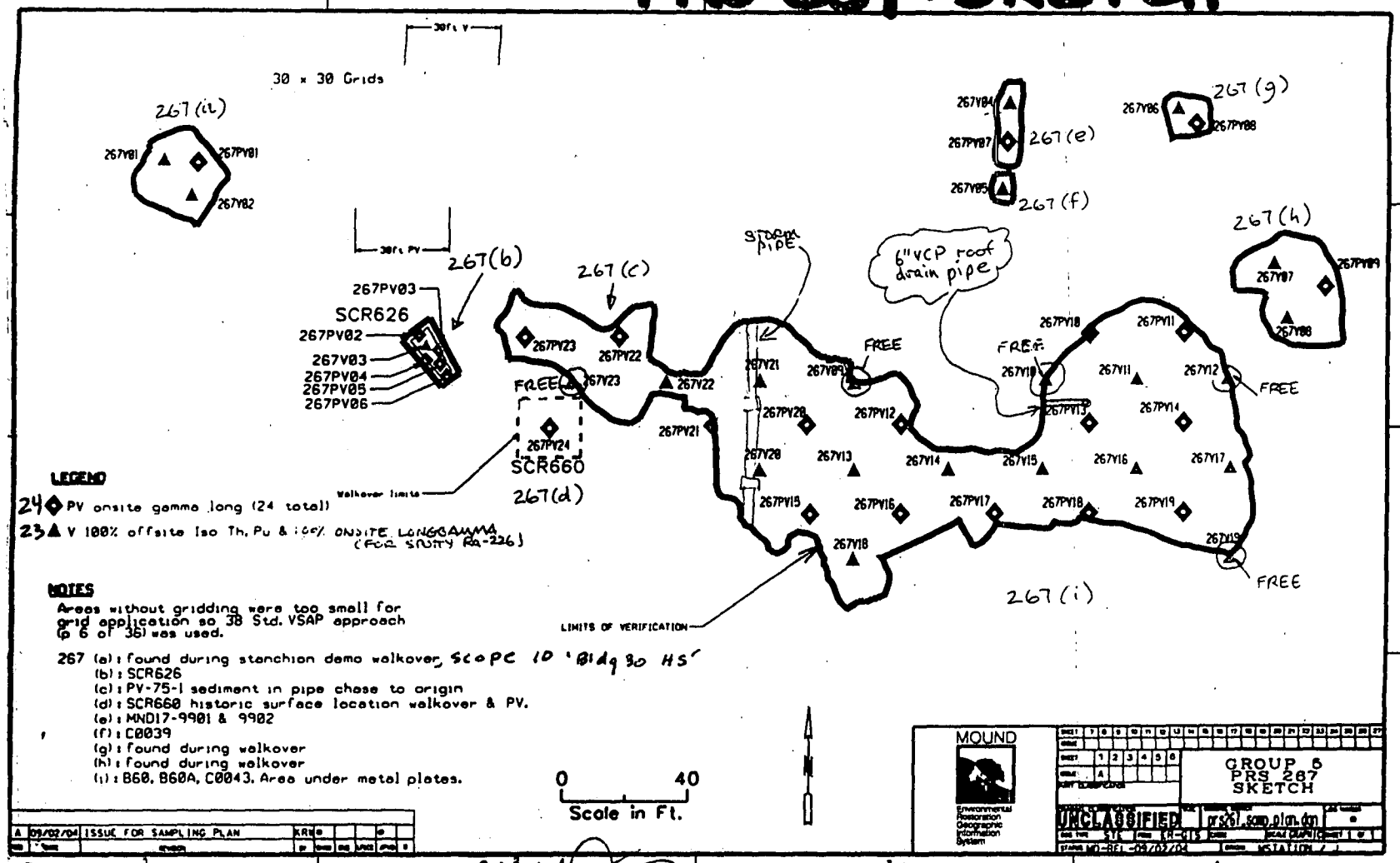

Figure 3: PRS 267 Sketch

4 Oct 4 6 Oct 4 X CKline 10-4-04 X

AW530

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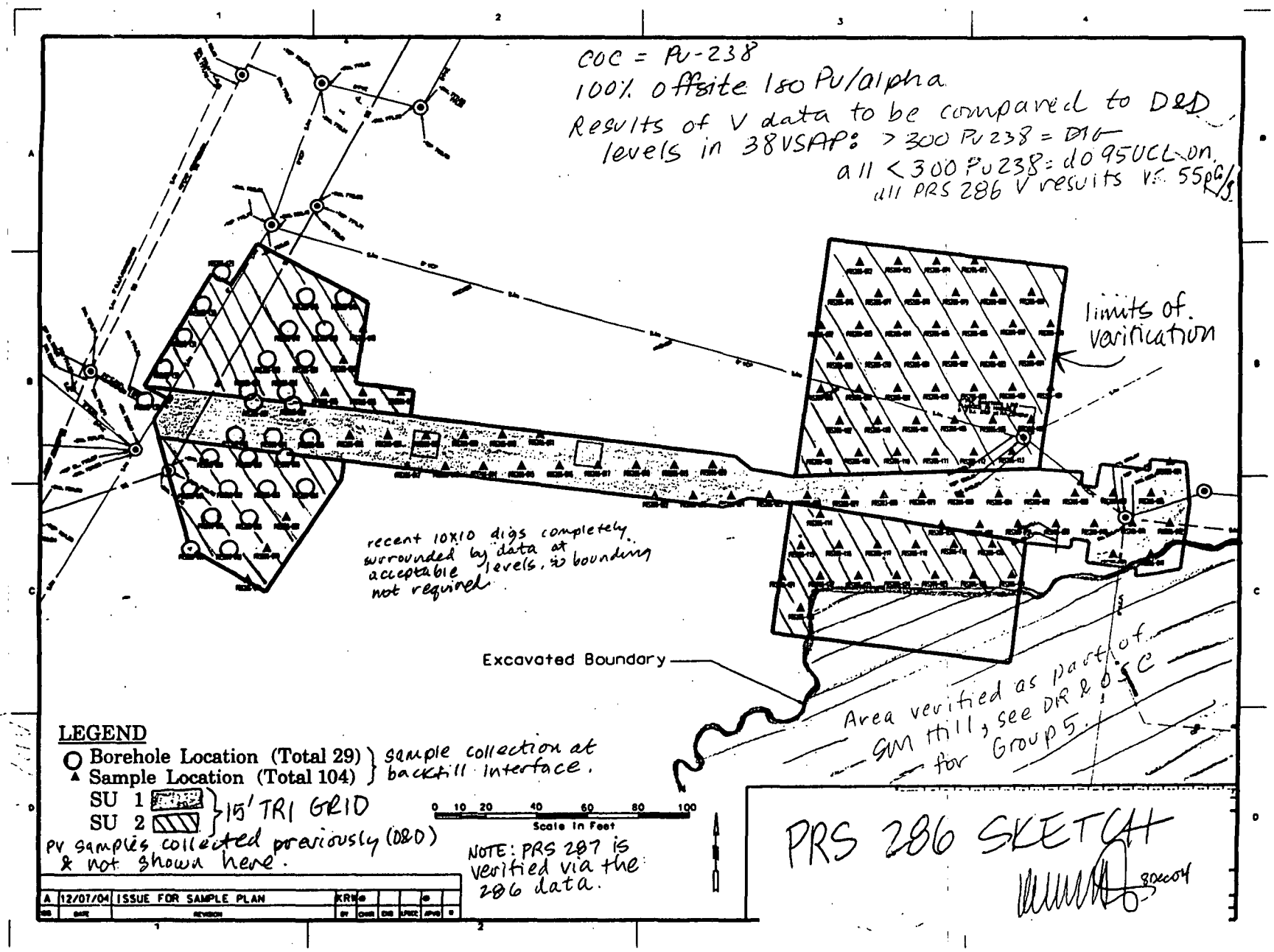
Figure 4: PRS 286 Sketch



AR/530

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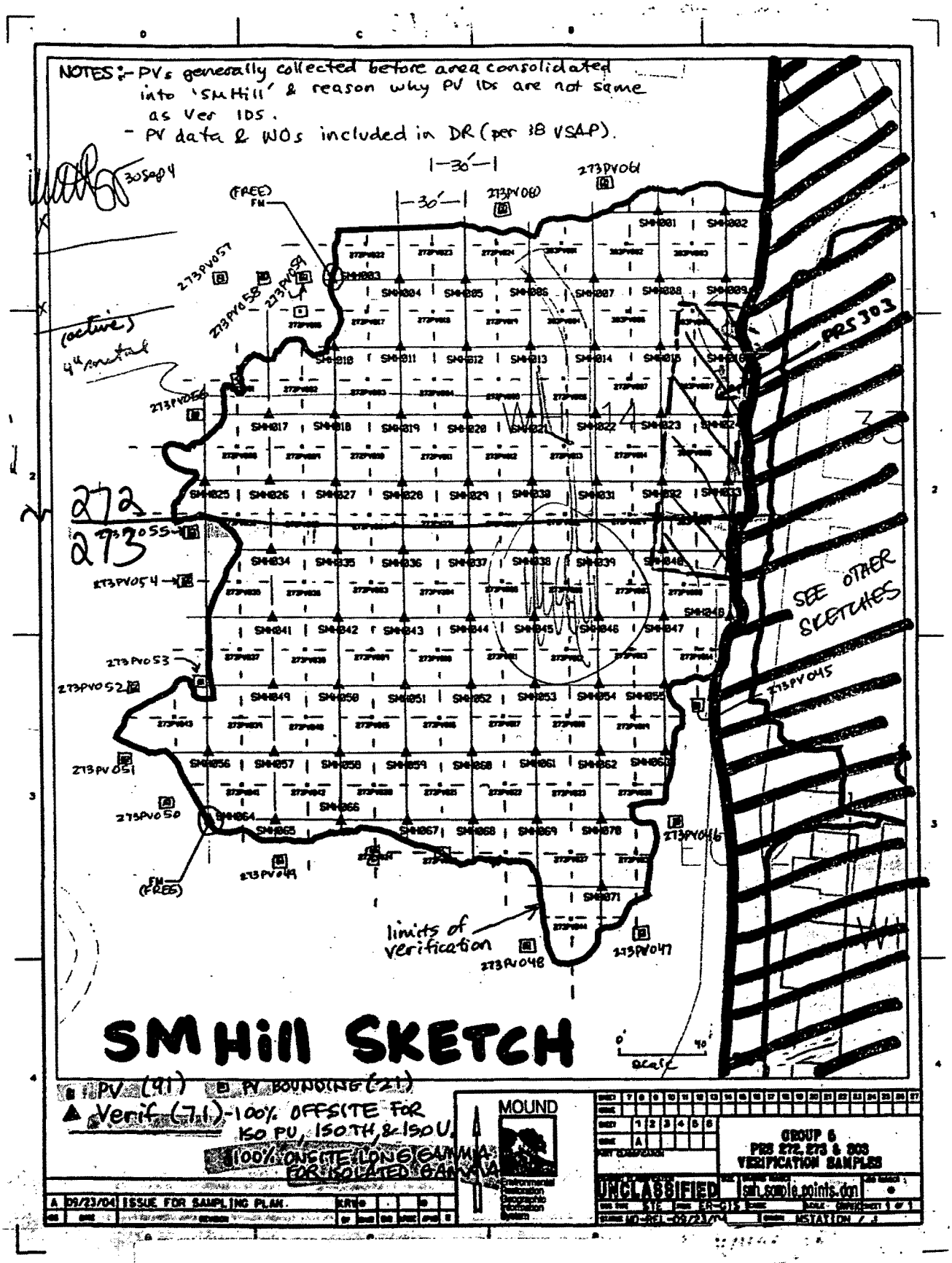

Figure 5: SM Hill Sketch

A13/530

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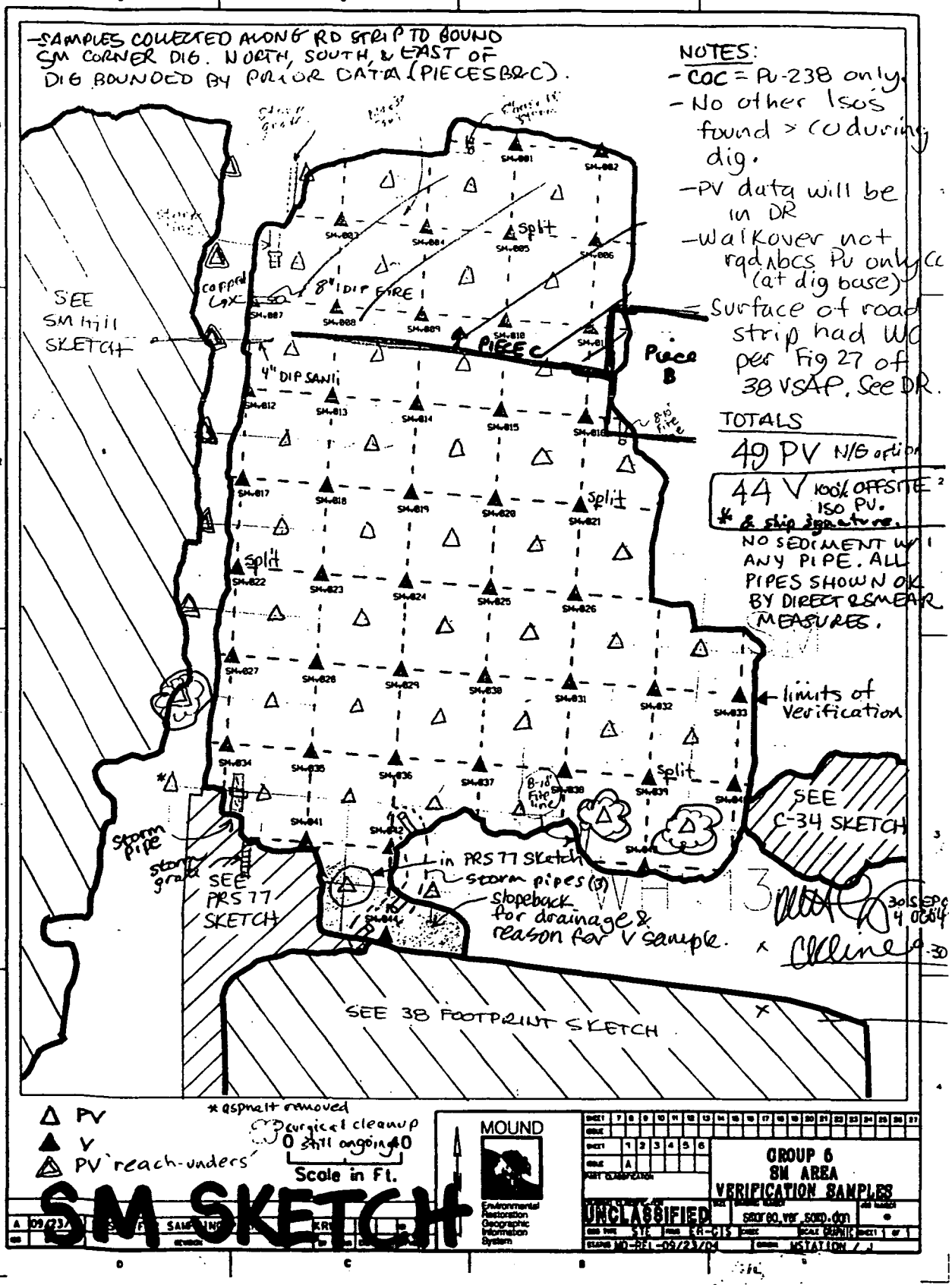

Figure 6: SM Sketch

A141530

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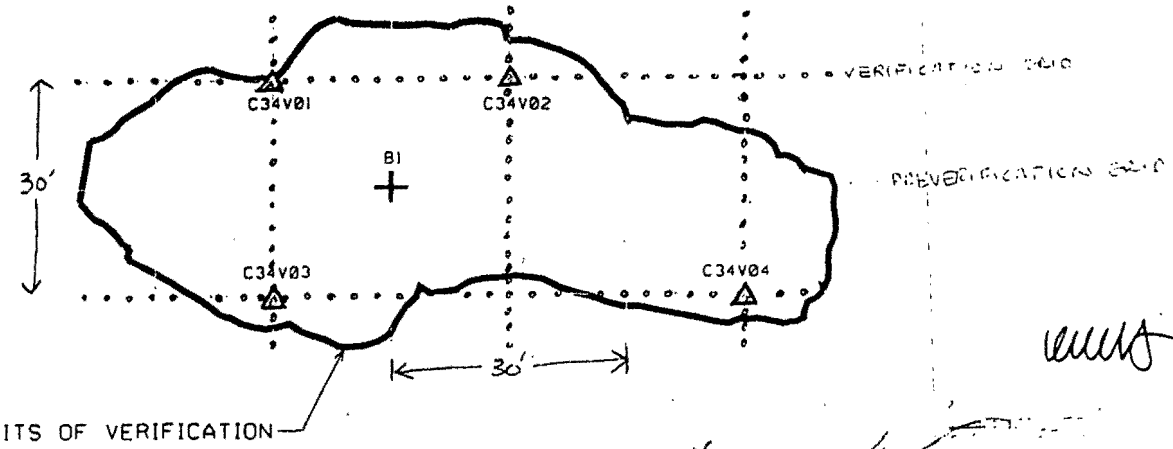
OEPA - Jim
WEM 10-6-04

COC NOTE: Th-232 was confirmed as a COC & Ra-226 was added as a COC based on RadCon sampling conducted during the dig.

PV NOTE: Application of the 38VSAP resulted in 3 PV samples, in lieu of collecting the 3 PVs, OEPA requested submittal of RadCon data already collected on the base & sidewalls totalling 24 locations (see RSDS 04-ER-448)



WMA 6004

NOTES
Grids are 30 ft. x 30 ft.
(4) ▲ Iso Th & gamma (Ra-226)V offsite: VERIFICATION SAMPLES
(1) + Bias sample - OEPA, no splits requested
Wall height is 6 ft.
No sidewall reqd. BCS bound by prior data.
See rsds 04-er-448 for PV data. (includes sidewall samples & walkover documentation)

X Jim Fontaine

C34 SKETCH

Scale (ft) 0 5 10 15 20

A	09/02/04	ISSUE FOR SAMPLING PLAN	XRW				
REV	DATE	REVISION	BY	CHKD	ENG	UNIT	APVD

MOUND
Environmental Restoration Geographic Information System

GROUP 5
C34 SAMPLE PLAN

UNCLASSIFIED
c34_samp_plan.dgn
STE ER-GIS
STATUS MO-REL-09/02/04
MSTATION / J

Figure 7: C34 Sketch

A15/530

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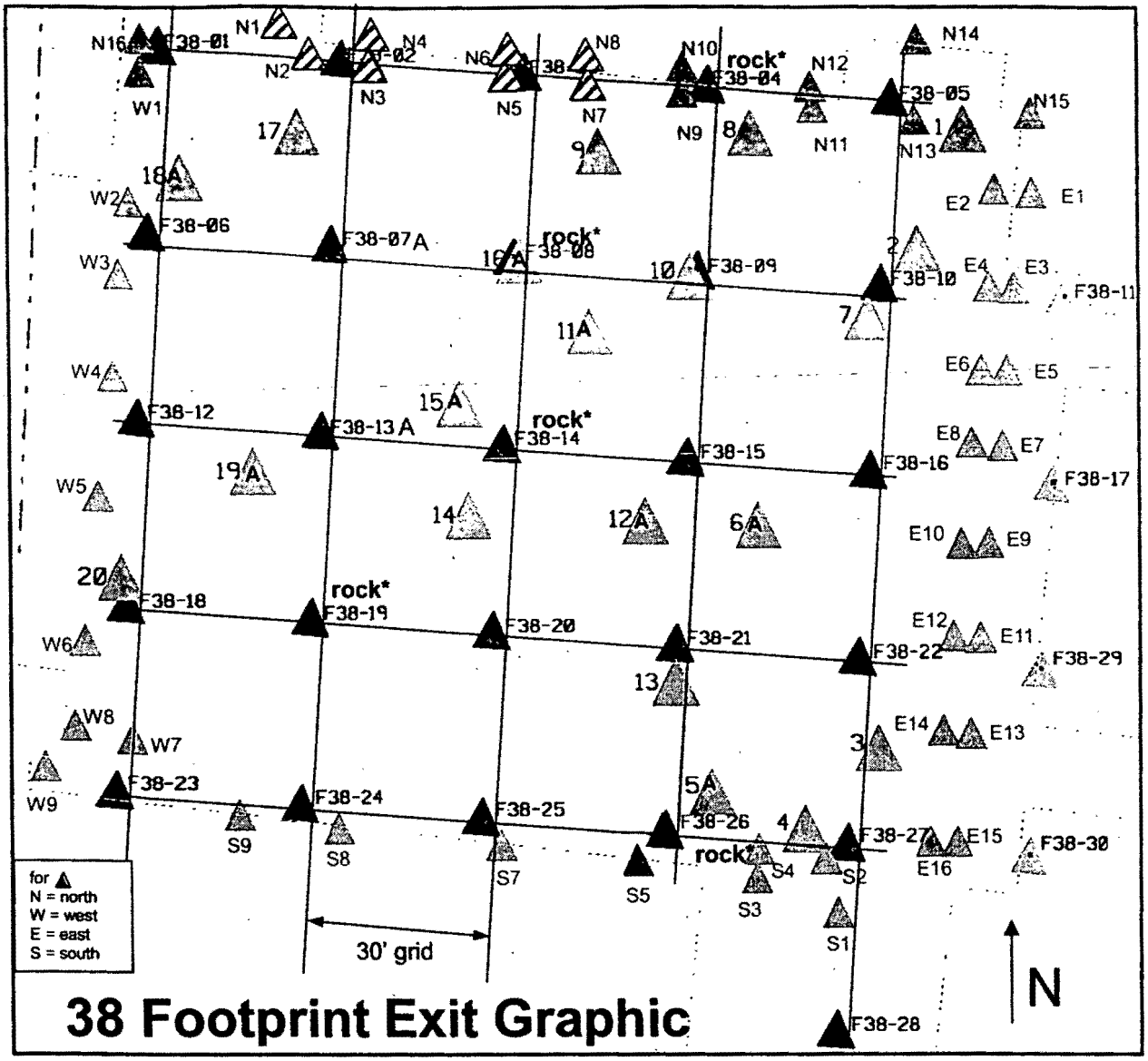

black = verification samples on 30' square grid, see 38 Footprint Exit Table (Attachment 1)
sign test results in Attachment 2. Walkover not required & COC = Pu-238 only per Fig 27 of 38 VSAP.
rock* note: direct/swipe measurements in RSDSs 04-ER-200 & 04-ER-320 are included in and compared to the criteria in Attachment 3.
orange = confirmation samples sent offsite as verification samples, results in Attachment 1
purple = RadCon foundation soil samples, see RSDS 03-ER-1001 (Attachment 4)
green = RadCon base of footprint soil samples, see RSDS 04-ER-123 & 124 (Attachment 5)
Per agreement with OEPA, the purple & green data are in lieu of PV samples collected on a fixed grid.
△ Sidewall locations removed when the foundation wall in that area was removed. Since excavation continued northward, subsequent "wall" samples were not available; however, locations 8-12 on RSDS 04-ER-310 are soil samples collected by RadCon at the base of the footprint in that area. RSDS 04-ER-310 was subsequent to the above agreement but included herein for completeness. As such, locations 8-12 were not assigned coordinates and why they are not shown on this graphic.

PV Sample Summary		**V Sample Summary**	
PV foundation soil	49 (purple)	V soil	25 (21 black & 4 orange)
PV footprint base soil	20 (green)	V rock	5 (black)
Total PV soil	69	Total V	30

23aug04kma

Figure 8: 38 Footprint Sketch

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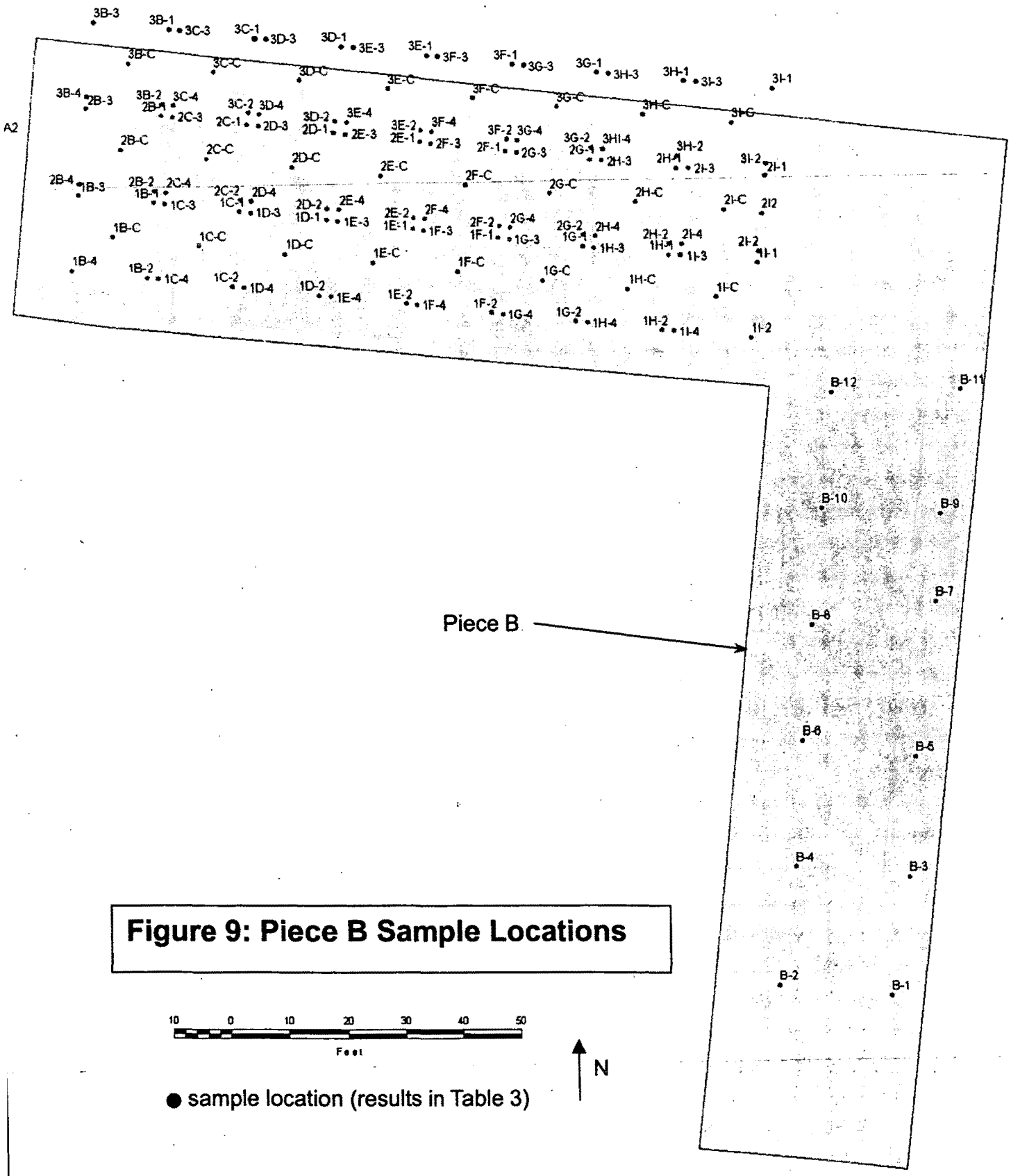

Figure 9: Piece B Sample Locations

A17/530

APPENDIX B

TABLES

A18/530

Table 1: Analytical Results [page 1 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
267V01	0	0	10/22/2004	000170	Plutonium-238	55	0.079	0.034	J	J	1465962.538	598591.102	Dup
267V01	0	0	10/22/2004	000169	Plutonium-238	55	0.043	0.018	J	J	1465962.538	598591.102	
267V01	0	0	10/22/2004	000170	Plutonium-239/240	62	0.020	0.02	U	U	1465962.538	598591.102	Dup
267V01	0	0	10/22/2004	000169	Plutonium-239/240	62	0.005	0.0032	J	J	1465962.538	598591.102	
267V01	0	0	10/22/2004	000170	Thorium-228	2.6	1.010	0.08			1465962.538	598591.102	Dup
267V01	0	0	10/22/2004	000169	Thorium-228	2.6	1.000	0.04			1465962.538	598591.102	
267V01	0	0	10/22/2004	000170	Thorium-230	2.8	1.200	0.04			1465962.538	598591.102	Dup
267V01	0	0	10/22/2004	000169	Thorium-230	2.8	0.900	0.03			1465962.538	598591.102	
267V01	0	0	10/22/2004	000170	Thorium-232	2.1	1.030	0.05			1465962.538	598591.102	Dup
267V01	0	0	10/22/2004	000169	Thorium-232	2.1	1.010	0.02			1465962.538	598591.102	
267V02	0	0	10/22/2004	000171	Plutonium-238	55	0.161	0.011			1465971.502	598578.878	
267V02	0	0	10/22/2004	000171	Plutonium-239/240	62	0.006	0.0033	J	J	1465971.502	598578.878	
267V02	0	0	10/22/2004	000171	Thorium-228	2.6	1.400	0.04			1465971.502	598578.878	
267V02	0	0	10/22/2004	000171	Thorium-230	2.8	1.020	0.03			1465971.502	598578.878	
267V02	0	0	10/22/2004	000171	Thorium-232	2.1	1.210	0.03			1465971.502	598578.878	
267V03	0	0	10/21/2004	000166	Plutonium-238	55	0.024	0.029	U	U	1466046.630	598527.950	
267V03	0	0	10/21/2004	000166	Plutonium-239/240	62	0.020	0.02	U	U	1466046.630	598527.950	
267V03	0	0	10/21/2004	000166	Thorium-228	2.6	0.680	0.06			1466046.630	598527.950	
267V03	0	0	10/21/2004	000166	Thorium-230	2.8	0.730	0.06		U	1466046.630	598527.950	
267V03	0	0	10/21/2004	000166	Thorium-232	2.1	0.880	0.03			1466046.630	598527.950	
267V04	0	0	10/21/2004	000168	Plutonium-238	55	0.166	0.030			1466232.189	598608.023	
267V04	0	0	10/21/2004	000168	Plutonium-239/240	62	0.005	0.021	U	U	1466232.189	598608.023	
267V04	0	0	10/21/2004	000168	Thorium-228	2.6	1.150	0.06			1466232.189	598608.023	
267V04	0	0	10/21/2004	000168	Thorium-230	2.8	1.440	0.03			1466232.189	598608.023	
267V04	0	0	10/21/2004	000168	Thorium-232	2.1	0.800	0.04			1466232.189	598608.023	
267V05	0	0	10/21/2004	000167	Plutonium-238	55	0.798	0.016			1466229.822	598578.950	
267V05	0	0	10/21/2004	000167	Plutonium-239/240	62	0.016	0.012	J	J	1466229.822	598578.950	
267V05	0	0	10/21/2004	000167	Thorium-228	2.6	1.350	0.22			1466229.822	598578.950	
267V05	0	0	10/21/2004	000167	Thorium-230	2.8	1.670	0.12			1466229.822	598578.950	
267V05	0	0	10/21/2004	000167	Thorium-232	2.1	1.670	0.12			1466229.822	598578.950	
267V06	0	0	10/22/2004	000175	Plutonium-238	55	1.180	0.014			1466286.101	598605.869	
267V06	0	0	10/22/2004	000175	Plutonium-239/240	62	0.009	0.0097	U	U	1466286.101	598605.869	
267V06	0	0	10/22/2004	000175	Thorium-228	2.6	1.730	0.04			1466286.101	598605.869	
267V06	0	0	10/22/2004	000175	Thorium-230	2.8	1.420	0.02			1466286.101	598605.869	
267V06	0	0	10/22/2004	000175	Thorium-232	2.1	1.490	0.01			1466286.101	598605.869	
267V07	0	0	10/22/2004	000177	Plutonium-238	55	0.139	0.009			1466316.716	598553.269	
267V07	0	0	10/22/2004	000177	Plutonium-239/240	62	0.003	0.0095	U	U	1466316.716	598553.269	
267V07	0	0	10/22/2004	000177	Thorium-228	2.6	0.311	0.025			1466316.716	598553.269	
267V07	0	0	10/22/2004	000177	Thorium-230	2.8	0.510	0.02		U	1466316.716	598553.269	
267V07	0	0	10/22/2004	000177	Thorium-232	2.1	0.289	0.015			1466316.716	598553.269	
267V08	0	0	10/22/2004	000176	Plutonium-238	55	0.220	0.021			1466320.697	598534.964	
267V08	0	0	10/22/2004	000176	Plutonium-239/240	62	0.003	0.0091	U	U	1466320.697	598534.964	
267V08	0	0	10/22/2004	000176	Thorium-228	2.6	0.176	0.029			1466320.697	598534.964	
267V08	0	0	10/22/2004	000176	Thorium-230	2.8	0.600	0.02		U	1466320.697	598534.964	
267V08	0	0	10/22/2004	000176	Thorium-232	2.1	0.255	0.015			1466320.697	598534.964	
267V09	0	0	10/20/2004	000148	Plutonium-238	55	0.095	0.014			1466182.877	598514.385	
267V09	0	0	10/20/2004	000148	Plutonium-239/240	62	0.009	0.009	U	U	1466182.877	598514.385	
267V09	0	0	10/20/2004	000148	Thorium-228	2.6	1.210	0.04			1466182.877	598514.385	
267V09	0	0	10/20/2004	000148	Thorium-230	2.8	1.180	0.03			1466182.877	598514.385	
267V09	0	0	10/20/2004	000148	Thorium-232	2.1	1.060	0.02			1466182.877	598514.385	
267V10	0	0	10/21/2004	000162	Plutonium-238	55	0.179	0.012			1466243.904	598515.268	
267V10	0	0	10/21/2004	000162	Plutonium-239/240	62	0.006	0.0029	J	J	1466243.904	598515.268	
267V10	0	0	10/21/2004	000162	Thorium-228	2.6	0.760	0.05			1466243.904	598515.268	
267V10	0	0	10/21/2004	000162	Thorium-230	2.8	0.620	0.03		U	1466243.904	598515.268	
267V10	0	0	10/21/2004	000162	Thorium-232	2.1	0.820	0.02			1466243.904	598515.268	
267V11	0	0	10/21/2004	000161	Plutonium-238	55	0.740	0.033			1466273.030	598515.142	
267V11	0	0	10/21/2004	000161	Plutonium-239/240	62	0.016	0.017	U	U	1466273.030	598515.142	
267V11	0	0	10/21/2004	000161	Thorium-228	2.6	0.920	0.08			1466273.030	598515.142	
267V11	0	0	10/21/2004	000161	Thorium-230	2.8	0.930	0.05			1466273.030	598515.142	
267V11	0	0	10/21/2004	000161	Thorium-232	2.1	1.130	0.06			1466273.030	598515.142	
267V12	0	0	10/20/2004	000155	Plutonium-238	55	0.894	0.028			1466302.157	598515.268	
267V12	0	0	10/20/2004	000155	Plutonium-239/240	62	0.012	0.017	U	U	1466302.157	598515.268	
267V12	0	0	10/20/2004	000155	Thorium-228	2.6	1.060	0.06			1466302.157	598515.268	
267V12	0	0	10/20/2004	000155	Thorium-230	2.8	0.810	0.03		U	1466302.157	598515.268	

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Table 1: Analytical Results [page 2 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
267V12	0	0	10/20/2004	000155	Thorium-232	2.1	0.950	0.03			1466302.157	598515.268	
267V13	0	0	10/21/2004	000157	Plutonium-238	55	0.209	0.034			1466183.003	598485.114	
267V13	0	0	10/21/2004	000157	Plutonium-239/240	62	0.002	0.021	U	U	1466183.003	598485.114	
267V13	0	0	10/21/2004	000157	Thorium-228	2.6	1.020	0.07			1466183.003	598485.114	
267V13	0	0	10/21/2004	000157	Thorium-230	2.8	1.150	0.07			1466183.003	598485.114	
267V13	0	0	10/21/2004	000157	Thorium-232	2.1	1.040	0.05			1466183.003	598485.114	
267V14	0	0	10/20/2004	000151	Plutonium-238	55	0.420	0.017			1466213.012	598485.240	
267V14	0	0	10/20/2004	000151	Plutonium-239/240	62	0.009	0.011	U	U	1466213.012	598485.240	
267V14	0	0	10/20/2004	000151	Thorium-228	2.6	0.990	0.04			1466213.012	598485.240	
267V14	0	0	10/20/2004	000151	Thorium-230	2.8	1.180	0.03			1466213.012	598485.240	
267V14	0	0	10/20/2004	000151	Thorium-232	2.1	0.950	0.03			1466213.012	598485.240	
267V15	0	0	10/20/2004	000152	Plutonium-238	55	0.162	0.015			1466243.021	598485.240	
267V15	0	0	10/20/2004	000152	Plutonium-239/240	62	0.010	0.01	U	U	1466243.021	598485.240	
267V15	0	0	10/20/2004	000152	Thorium-228	2.6	0.970	0.08			1466243.021	598485.240	
267V15	0	0	10/20/2004	000152	Thorium-230	2.8	1.100	0.03			1466243.021	598485.240	
267V15	0	0	10/20/2004	000152	Thorium-232	2.1	0.880	0.05			1466243.021	598485.240	
267V16	0	0	10/21/2004	000163	Plutonium-238	55	0.037	0.022	J	J	1466273.156	598485.240	
267V16	0	0	10/21/2004	000163	Plutonium-239/240	62	0.020	0.02	U	U	1466273.156	598485.240	
267V16	0	0	10/21/2004	000163	Thorium-228	2.6	0.920	0.09			1466273.156	598485.240	
267V16	0	0	10/21/2004	000163	Thorium-230	2.8	1.080	0.04			1466273.156	598485.240	
267V16	0	0	10/21/2004	000163	Thorium-232	2.1	0.810	0.06			1466273.156	598485.240	
267V17	0	0	10/20/2004	000153	Plutonium-238	55	0.401	0.017			1466303.039	598485.114	
267V17	0	0	10/20/2004	000153	Plutonium-239/240	62	0.005	0.0032	J	J	1466303.039	598485.114	
267V17	0	0	10/20/2004	000153	Thorium-228	2.6	1.160	0.04			1466303.039	598485.114	
267V17	0	0	10/20/2004	000153	Thorium-230	2.8	1.040	0.03			1466303.039	598485.114	
267V17	0	0	10/20/2004	000153	Thorium-232	2.1	1.030	0.01			1466303.039	598485.114	
267V18	0	0	10/20/2004	000150	Plutonium-238	55	0.149	0.017			1466183.098	598455.181	
267V18	0	0	10/20/2004	000150	Plutonium-239/240	62	0.020	0.02	U	U	1466183.098	598455.181	
267V18	0	0	10/20/2004	000150	Thorium-228	2.6	1.100	0.04			1466183.098	598455.181	
267V18	0	0	10/20/2004	000150	Thorium-230	2.8	0.820	0.03		U	1466183.098	598455.181	
267V18	0	0	10/20/2004	000150	Thorium-232	2.1	1.070	0.03			1466183.098	598455.181	
267V19	0	0	10/20/2004	000154	Plutonium-238	55	0.815	0.019			1466302.948	598455.117	
267V19	0	0	10/20/2004	000154	Plutonium-239/240	62	0.007	0.0031	J	J	1466302.948	598455.117	
267V19	0	0	10/20/2004	000154	Thorium-228	2.6	1.140	0.05			1466302.948	598455.117	
267V19	0	0	10/20/2004	000154	Thorium-230	2.8	0.740	0.03		U	1466302.948	598455.117	
267V19	0	0	10/20/2004	000154	Thorium-232	2.1	1.190	0.02			1466302.948	598455.117	
267V20	0	0	10/20/2004	000149	Plutonium-238	55	1.940	0.03			1466153.175	598485.295	
267V20	0	0	10/20/2004	000149	Plutonium-239/240	62	0.026	0.017	J	J	1466153.175	598485.295	
267V20	0	0	10/20/2004	000149	Thorium-228	2.6	0.187	0.055	J	J	1466153.175	598485.295	
267V20	0	0	10/20/2004	000149	Thorium-230	2.8	0.590	0.03		U	1466153.175	598485.295	
267V20	0	0	10/20/2004	000149	Thorium-232	2.1	0.229	0.043			1466153.175	598485.295	
267V21	0	0	10/21/2004	000160	Plutonium-238	55	0.005	0.011	U	U	1466153.175	598515.124	
267V21	0	0	10/21/2004	000160	Plutonium-239/240	62	0.005	0.0033	J	J	1466153.175	598515.124	
267V21	0	0	10/21/2004	000160	Thorium-228	2.6	0.810	0.05			1466153.175	598515.124	
267V21	0	0	10/21/2004	000160	Thorium-230	2.8	1.040	0.04			1466153.175	598515.124	
267V21	0	0	10/21/2004	000160	Thorium-232	2.1	0.960	0.04			1466153.175	598515.124	
267V22	0	0	10/21/2004	000159	Plutonium-238	55	0.914	0.029			1466123.123	598515.124	Dup
267V22	0	0	10/21/2004	000158	Plutonium-238	55	1.260	0.003			1466123.123	598515.124	
267V22	0	0	10/21/2004	000159	Plutonium-239/240	62	0.024	0.016	J	J	1466123.123	598515.124	Dup
267V22	0	0	10/21/2004	000158	Plutonium-239/240	62	0.028	0.009	J	J	1466123.123	598515.124	
267V22	0	0	10/21/2004	000159	Thorium-228	2.6	1.920	0.08			1466123.123	598515.124	Dup
267V22	0	0	10/21/2004	000158	Thorium-228	2.6	2.730	0.04			1466123.123	598515.124	
267V22	0	0	10/21/2004	000159	Thorium-230	2.8	1.410	0.03			1466123.123	598515.124	Dup
267V22	0	0	10/21/2004	000158	Thorium-230	2.8	1.310	0.03			1466123.123	598515.124	
267V22	0	0	10/21/2004	000159	Thorium-232	2.1	2.070	0.03			1466123.123	598515.124	Dup
267V22	**0**	**0**	**10/21/2004**	**000158**	**Thorium-232**	**2.1**	**2.660**	**0.03**			**1466123.123**	**598515.124**	
267V23	0	0	10/20/2004	000147	Plutonium-238	55	0.017	0.020	U	U	1466093.071	598515.124	
267V23	0	0	10/20/2004	000147	Plutonium-239/240	62	0.004	0.0032	J	J	1466093.071	598515.124	
267V23	0	0	10/20/2004	000147	Thorium-228	2.6	1.100	0.03			1466093.071	598515.124	
267V23	0	0	10/20/2004	000147	Thorium-230	2.8	1.290	0.03			1466093.071	598515.124	
267V23	0	0	10/20/2004	000147	Thorium-232	2.1	0.890	0.02			1466093.071	598515.124	
PRS286-001	14.2	14.9	01/21/2005	000001	Plutonium-239/240	62	0.019	0.020	U	U	1465725.848	598421.061	
PRS286-001	14.2	14.9	01/21/2005	000001	Plutonium-238	100	5.110	0.02		J	1465725.848	598421.061	

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Table 1: Analytical Results [page 3 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
PRS286-002A	0	0	02/24/2005	000002	Plutonium-239/240	62	0.186	0.021			1465740.848	598421.061	
PRS286-002A	0	0	02/24/2005	000002	Plutonium-238	100	13.700	0.04			1465740.848	598421.061	
PRS286-003	5.9	6.6	01/19/2005	000003	Plutonium-239/240	62	0.004	0.011	U	UJ	1465718.348	598408.071	
PRS286-003	5.9	6.6	01/19/2005	000003	Plutonium-238	100	0.061	0.037	J	U	1465718.348	598408.071	
PRS286-004	4.3	5.0	01/19/2005	000004	Plutonium-239/240	62	0.010	0.01	U	U	1465733.348	598408.071	
PRS286-004	4.3	5.0	01/19/2005	000004	Plutonium-238	100	0.660	0.03		J	1465733.348	598408.071	
PRS286-005	6.6	7.3	01/19/2005	000005	Plutonium-239/240	62	0.008	0.023	U	UJ	1465748.348	598408.071	
PRS286-005	6.6	7.3	01/19/2005	000005	Plutonium-238	100	2.380	0.04		J	1465748.348	598408.071	
PRS286-006	0	0	01/12/2005	000006	Plutonium-239/240	62	0.680	0.12		J	1465763.348	598408.071	
PRS286-006	0	0	01/12/2005	000006	Plutonium-238	100	32.300	0.2		J	1465763.348	598408.071	
PRS286-007	0	0	01/12/2005	000007	Plutonium-239/240	62	0.340	0.05		J	1465778.348	598408.071	
PRS286-007	0	0	01/12/2005	000007	Plutonium-238	100	31.700	0.1		J	1465778.348	598408.071	
PRS286-008	0	0	01/12/2005	000008	Plutonium-239/240	62	0.208	0.010		J	1465793.348	598408.071	
PRS286-008	0	0	01/12/2005	000008	Plutonium-238	100	16.600	0.01		J	1465793.348	598408.071	
PRS286-009	0	0	01/12/2005	000009	Plutonium-239/240	62	0.170	0.024		J	1465808.348	598408.071	
PRS286-009	0	0	01/12/2005	000009	Plutonium-238	100	17.700	0.04		J	1465808.348	598408.071	
PRS286-010	0	0	01/12/2005	000010	Plutonium-239/240	62	0.029	0.011	J	J	1465823.348	598408.071	
PRS286-010	0	0	01/12/2005	000010	Plutonium-238	100	2.100	0.03		J	1465823.348	598408.071	
PRS286-011	0	0	01/12/2005	000011	Plutonium-239/240	62	0.031	0.019	J	J	1465838.348	598408.071	
PRS286-011	0	0	01/12/2005	000011	Plutonium-238	100	2.780	0.03		J	1465838.348	598408.071	
PRS286-012	0	0	01/12/2005	000012	Plutonium-239/240	62	0.085	0.012	J	J	1465785.848	598395.080	
PRS286-012	0	0	01/12/2005	000012	Plutonium-238	100	8.700	0.04		J	1465785.848	598395.080	
PRS286-013	0	0	01/12/2005	000013	Plutonium-239/240	62	0.126	0.027		J	1465800.848	598395.080	
PRS286-013	0	0	01/12/2005	000214	Plutonium-239/240	62	0.181	0.020			1465800.848	598395.080	Dup
PRS286-013	0	0	01/12/2005	000214	Plutonium-238	100	13.500	0.01		J	1465800.848	598395.080	Dup
PRS286-013	0	0	01/12/2005	000013	Plutonium-238	100	14.100	0.02		J	1465800.848	598395.080	
PRS286-014	0	0	01/12/2005	000014	Plutonium-239/240	62	0.020	0.020	U	UJ	1465815.848	598395.080	
PRS286-014	0	0	01/12/2005	000014	Plutonium-238	100	2.660	0.03		J	1465815.848	598395.080	
PRS286-015	0	0	01/12/2005	000015	Plutonium-239/240	62	0.007	0.021	U	UJ	1465830.848	598395.080	
PRS286-015	0	0	01/12/2005	000015	Plutonium-238	100	2.100	0.05		J	1465830.848	598395.080	
PRS286-016	0	0	01/12/2005	000016	Plutonium-239/240	62	0.014	0.025	U	UJ	1465845.848	598395.080	
PRS286-016	0	0	01/12/2005	000016	Plutonium-238	100	0.920	0.04		J	1465845.848	598395.080	
PRS286-017	0	0	01/12/2005	000017	Plutonium-239/240	62	0.095	0.010	J	J	1465860.848	598395.080	
PRS286-017	0	0	01/12/2005	000017	Plutonium-238	100	6.820	0.03		J	1465860.848	598395.080	
PRS286-018	0	0	01/12/2005	000018	Plutonium-239/240	62	0.014	0.023	U	UJ	1465875.848	598395.080	
PRS286-018	0	0	01/12/2005	000018	Plutonium-238	100	0.630	0.03		J	1465875.848	598395.080	
PRS286-019	0	0	01/12/2005	000019	Plutonium-239/240	62	0.063	0.032	J	J	1465890.848	598395.080	
PRS286-019	0	0	01/12/2005	000019	Plutonium-238	100	5.690	0.03		J	1465890.848	598395.080	
PRS286-020	0	0	01/12/2005	000020	Plutonium-239/240	62	0.086	0.027	J	J	1465905.848	598395.080	
PRS286-020	0	0	01/12/2005	000020	Plutonium-238	100	6.630	0.04		J	1465905.848	598395.080	
PRS286-021	0	0	01/10/2005	000021	Plutonium-239/240	62	1.480	0.02		J	1466085.848	598395.081	
PRS286-021	0	0	01/10/2005	000021	Plutonium-238	100	6.940	0.04		J	1466085.848	598395.081	
PRS286-022	0	0	01/12/2005	000022	Plutonium-239/240	62	0.032	0.012	J	J	1465883.348	598382.090	
PRS286-022	0	0	01/12/2005	000213	Plutonium-239/240	62	0.089	0.023	J	J	1465883.348	598382.090	Dup
PRS286-022	0	0	01/12/2005	000022	Plutonium-238	100	5.120	0.03		J	1465883.348	598382.090	
PRS286-022	0	0	01/12/2005	000213	Plutonium-238	100	7.430	0.02		J	1465883.348	598382.090	Dup
PRS286-023	0	0	01/12/2005	000023	Plutonium-239/240	62	0.049	0.011	J	J	1465898.348	598382.090	
PRS286-023	0	0	01/12/2005	000023	Plutonium-238	100	4.760	0.02		J	1465898.348	598382.090	
PRS286-024	0	0	01/11/2005	000024	Plutonium-239/240	62	0.033	0.011	J	J	1465913.348	598382.090	
PRS286-024	0	0	01/11/2005	000024	Plutonium-238	100	3.660	0.02		J	1465913.348	598382.090	
PRS286-025	0	0	01/11/2005	000025	Plutonium-239/240	62	0.186	0.014		J	1465928.348	598382.090	
PRS286-025	0	0	01/11/2005	000025	Plutonium-238	100	12.900	0.03		J	1465928.348	598382.090	
PRS286-026	0	0	01/11/2005	000026	Plutonium-239/240	62	0.400	0.08			1465943.348	598382.090	
PRS286-026	0	0	01/11/2005	000026	Plutonium-238	100	23.100	0.2		J	1465943.348	598382.090	
PRS286-027	0	0	01/11/2005	000027	Plutonium-239/240	62	0.280	0.04			1465958.348	598382.090	
PRS286-027	0	0	01/11/2005	000027	Plutonium-238	100	41.600	0.08		J	1465958.348	598382.090	
PRS286-028	0	0	01/11/2005	000028	Plutonium-239/240	62	2.140	0.05			1465973.348	598382.090	
PRS286-028	0	0	01/11/2005	000028	Plutonium-238	100	206.000	0.1		J	1465973.348	598382.090	
PRS286-029	0	0	01/11/2005	000029	Plutonium-239/240	62	0.212	0.023			1465988.348	598382.090	
PRS286-029	0	0	01/11/2005	000029	Plutonium-238	100	26.200	0.03		J	1465988.348	598382.090	
PRS286-030	0	0	01/10/2005	000030	Plutonium-239/240	62	0.402	0.012			1466001.353	598381.178	
PRS286-030	0	0	01/10/2005	000030	Plutonium-238	100	33.300	0.03		J	1466001.353	598381.178	
PRS286-031	0	0	01/10/2005	000031	Plutonium-239/240	62	0.037	0.013	J	J	1466018.348	598382.090	
PRS286-031	0	0	01/10/2005	000031	Plutonium-238	100	2.900	0.02		J	1466018.348	598382.090	

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Table 1: Analytical Results [page 4 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
PRS286-032	0	0	01/10/2005	000032	Plutonium-239/240	62	0.074	0.010	J	J	1466033.348	598382.090	
PRS286-032	0	0	01/10/2005	000032	Plutonium-238	100	10.000	0.02		J	1466033.348	598382.090	
PRS286-033	0	0	01/10/2005	000033	Plutonium-239/240	62	0.063	0.012	J	J	1466048.348	598382.090	
PRS286-033	0	0	01/10/2005	000033	Plutonium-238	100	6.130	0.03		J	1466048.348	598382.090	
PRS286-034	0	0	01/10/2005	000034	Plutonium-239/240	62	0.071	0.018	J	J	1466063.348	598382.090	
PRS286-034	0	0	01/10/2005	000205	Plutonium-239/240	62	0.187	0.011			1466063.348	598382.090	Dup
PRS286-034	0	0	01/10/2005	000034	Plutonium-238	100	7.590	0.02		J	1466063.348	598382.090	
PRS286-034	0	0	01/10/2005	000205	Plutonium-238	100	8.900	0.03		J	1466063.348	598382.090	Dup
PRS286-035	0	0	01/10/2005	000035	Plutonium-239/240	62	0.020	0.02	U	U	1466078.348	598382.090	
PRS286-035	0	0	01/10/2005	000035	Plutonium-238	100	1.000	0.03		J	1466078.348	598382.090	
PRS286-036	0	0	01/10/2005	000036	Plutonium-239/240	62	0.046	0.019			1465995.848	598369.100	
PRS286-036	0	0	01/10/2005	000036	Plutonium-238	100	9.000	0.03		J	1465995.848	598369.100	
PRS286-037	0	0	01/10/2005	000037	Plutonium-239/240	62	0.027	0.012	J	J	1466010.848	598369.100	
PRS286-037	0	0	01/10/2005	000037	Plutonium-238	100	3.340	0.03		J	1466010.848	598369.100	
PRS286-038	0	0	01/10/2005	000038	Plutonium-239/240	62	0.177	0.025			1466025.848	598369.100	
PRS286-038	0	0	01/10/2005	000038	Plutonium-238	100	14.200	0.02		J	1466025.848	598369.100	
PRS286-039	0	0	01/10/2005	000039	Plutonium-239/240	62	0.024	0.017	J	J	1466040.848	598369.100	
PRS286-039	0	0	01/10/2005	000039	Plutonium-238	100	0.990	0.02		J	1466040.848	598369.100	
PRS286-040	0	0	01/10/2005	000040	Plutonium-239/240	62	0.003	0.020	U	UJ	1466055.848	598369.100	
PRS286-040	0	0	01/10/2005	000040	Plutonium-238	100	0.134	0.041		U	1466055.848	598369.100	
PRS286-041	0	0	01/10/2005	000041	Plutonium-239/240	62	0.004	0.033	U	UJ	1466070.848	598369.100	
PRS286-041	0	0	01/10/2005	000041	Plutonium-238	100	0.405	0.044		J	1466070.848	598369.100	
PRS286-042	0	0	01/10/2005	000042	Plutonium-239/240	62	0.060	0.06	U	U	1466085.848	598369.100	
PRS286-042	0	0	01/10/2005	000042	Plutonium-238	100	0.590	0.07		J	1466085.848	598369.100	
PRS286-043	0	0	01/10/2005	000043	Plutonium-239/240	62	0.010	0.048	U	U	1466063.348	598356.110	
PRS286-043	0	0	01/10/2005	000043	Plutonium-238	100	0.281	0.062		U	1466063.348	598356.110	
PRS286-044	0	0	01/10/2005	000044	Plutonium-239/240	62	0.019	0.032	U	UJ	1466078.348	598356.110	
PRS286-044	0	0	01/10/2005	000044	Plutonium-238	100	1.240	0.04		J	1466078.348	598356.110	
PRS286-045	3.2	3.9	01/21/2005	000045	Plutonium-239/240	62	0.025	0.031	U	U	1465745.840	598464.753	
PRS286-045	3.2	3.9	01/21/2005	000045	Plutonium-238	100	7.350	0.03		J	1465745.840	598464.753	
PRS286-046	1.9	2.6	01/21/2005	000046	Plutonium-239/240	62	0.024	0.034	U	UJ	1465760.840	598464.753	
PRS286-046	1.9	2.6	01/21/2005	000046	Plutonium-238	100	4.870	0.04		J	1465760.840	598464.753	
PRS286-047	8.0	8.7	01/21/2005	000047	Plutonium-239/240	62	0.028	0.036	U	UJ	1465738.340	598451.763	
PRS286-047	8.0	8.7	01/21/2005	000047	Plutonium-238	100	17.800	0.06		J	1465738.340	598451.763	
PRS286-048	2.5	3.2	01/21/2005	000048	Plutonium-239/240	62	0.005	0.013	U	UJ	1465753.340	598451.763	
PRS286-048	2.5	3.2	01/21/2005	000217	Plutonium-239/240	62	0.011	0.025	U	UJ	1465753.340	598451.763	Dup
PRS286-048	2.5	3.2	01/21/2005	000048	Plutonium-238	100	0.098	0.036	J	U	1465753.340	598451.763	
PRS286-048	2.5	3.2	01/21/2005	000217	Plutonium-238	100	0.108	0.037		U	1465753.340	598451.763	Dup
PRS286-049	0	0	01/12/2005	000049	Plutonium-239/240	62	0.066	0.024	J	J	1465768.340	598451.763	
PRS286-049	0	0	01/12/2005	000049	Plutonium-238	100	8.370	0.02		J	1465768.340	598451.763	
PRS286-050	12.9	13.6	01/18/2005	000050	Plutonium-239/240	62	0.020	0.02	U	U	1465730.840	598438.773	
PRS286-050	12.9	13.6	01/18/2005	000050	Plutonium-238	100	0.439	0.039		J	1465730.840	598438.773	
PRS286-051	4.2	4.9	01/19/2005	000216	Plutonium-239/240	62	0.002	0.020	U	UJ	1465745.840	598438.773	Dup
PRS286-051	4.2	4.9	01/19/2005	000051	Plutonium-239/240	62	0.008	0.029	U	UJ	1465745.840	598438.773	
PRS286-051	4.2	4.9	01/19/2005	000051	Plutonium-238	100	0.470	0.05		J	1465745.840	598438.773	
PRS286-051	4.2	4.9	01/19/2005	000216	Plutonium-238	100	0.570	0.03		J	1465745.840	598438.773	Dup
PRS286-052	0	0	01/12/2005	000052	Plutonium-239/240	62	0.044	0.047	U	U	1465760.840	598438.773	
PRS286-052	0	0	01/12/2005	000052	Plutonium-238	100	4.770	0.06		J	1465760.840	598438.773	
PRS286-053	12.8	13.5	01/25/2005	000053	Plutonium-239/240	62	0.017	0.0033	J	J	1465723.340	598425.782	
PRS286-053	12.8	13.5	01/25/2005	000053	Plutonium-238	100	2.940	0.008			1465723.340	598425.782	
PRS286-054A	0	0	02/24/2005	000054	Plutonium-239/240	62	0.371	0.023			1465738.340	598425.783	
PRS286-054A	0	0	02/24/2005	000054	Plutonium-238	100	22.800	0.02			1465738.340	598425.783	
PRS286-055	0	0	01/12/2005	000055	Plutonium-239/240	62	0.136	0.035			1465753.340	598425.783	
PRS286-055	0	0	01/12/2005	000055	Plutonium-238	100	17.200	0.04		J	1465753.340	598425.783	
PRS286-056	0	0	01/12/2005	000056	Plutonium-239/240	62	0.540	0.07			1465768.340	598425.783	
PRS286-056	0	0	01/12/2005	000056	Plutonium-238	100	51.800	0.1		J	1465768.340	598425.783	
PRS286-057	0	0	01/12/2005	000057	Plutonium-239/240	62	0.100	0.025	J	J	1465783.340	598425.783	
PRS286-057	0	0	01/12/2005	000057	Plutonium-238	100	11.700	0.04		J	1465783.340	598425.783	
PRS286-058	3.0	3.7	01/25/2005	000058	Plutonium-239/240	62	0.038	0.004	J	J	1465708.340	598399.802	
PRS286-058	3.0	3.7	01/25/2005	000058	Plutonium-238	100	5.430	0.01			1465708.340	598399.802	
PRS286-059	4.2	4.9	01/19/2005	000059	Plutonium-239/240	62	0.009	0.025	U	UJ	1465723.340	598399.802	
PRS286-059	4.2	4.9	01/19/2005	000059	Plutonium-238	100	0.064	0.038	J	U	1465723.340	598399.802	
PRS286-060	6.2	6.9	01/25/2005	000060	Plutonium-239/240	62	0.007	0.007	U	U	1465738.340	598399.802	
PRS286-060	6.2	6.9	01/25/2005	000060	Plutonium-238	100	0.028	0.038	U	U	1465738.340	598399.802	

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Table 1: Analytical Results [page 5 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
PRS286-061	2.6	3.3	01/24/2005	000061	Plutonium-239/240	62	0.016	0.0091	J	J	1465700.840	598386.812	
PRS286-061	2.6	3.3	01/24/2005	000061	Plutonium-238	100	2.030	0.004			1465700.840	598386.812	
PRS286-062	5.0	5.7	01/25/2005	000062	Plutonium-239/240	62	0.010	0.0037	J	J	1465715.840	598386.812	
PRS286-062	5.0	5.7	01/25/2005	000218	Plutonium-239/240	62	0.012	0.011	J	J	1465715.840	598386.812	Dup
PRS286-062	5.0	5.7	01/25/2005	000218	Plutonium-238	100	1.090	0.02			1465715.840	598386.812	Dup
PRS286-062	5.0	5.7	01/25/2005	000062	Plutonium-238	100	1.090	0.01			1465715.840	598386.812	
PRS286-063	0.7	1.4	01/24/2005	000063	Plutonium-239/240	62	0.012	0.011	J	J	1465730.840	598386.812	
PRS286-063	0.7	1.4	01/24/2005	000063	Plutonium-238	100	2.630	0.03		J	1465730.840	598386.812	
PRS286-064	0.8	1.5	01/24/2005	000064	Plutonium-239/240	62	0.003	0.021	U	UJ	1465745.840	598386.812	
PRS286-064	0.8	1.5	01/24/2005	000064	Plutonium-238	100	0.194	0.042		J	1465745.840	598386.812	
PRS286-065	4.8	5.5	01/25/2004	000065	Plutonium-239/240	62	0.004	0.011	U	UJ	1465708.340	598373.823	
PRS286-065	4.8	5.5	01/25/2004	000065	Plutonium-238	100	0.009	0.013	U	U	1465708.340	598373.823	
PRS286-066	2.4	3.1	01/24/2005	000066	Plutonium-239/240	62	0.008	0.011	U	UJ	1465723.340	598373.823	
PRS286-066	2.4	3.1	01/24/2005	000066	Plutonium-238	100	0.015	0.020	U	UJ	1465723.340	598373.823	
PRS286-067	0	0	01/12/2005	000067	Plutonium-239/240	62	0.005	0.012	U	UJ	1465738.340	598373.823	
PRS286-067	0	0	01/12/2005	000215	Plutonium-239/240	62	0.016	0.011	J	J	1465738.340	598373.823	Dup
PRS286-067	0	0	01/12/2005	000067	Plutonium-238	100	1.500	0.05		J	1465738.340	598373.823	
PRS286-067	0	0	01/12/2005	000215	Plutonium-238	100	1.550	0.02		J	1465738.340	598373.823	Dup
PRS286-068	2.8	3.5	01/24/2005	000068	Plutonium-239/240	62	0.002	0.012	U	UJ	1465700.840	598360.832	
PRS286-068	2.8	3.5	01/24/2005	000068	Plutonium-238	100	0.035	0.018	J	J	1465700.840	598360.832	
PRS286-069	2.2	2.9	01/24/2005	000069	Plutonium-239/240	62	0.000	0.011	U	UJ	1465715.840	598360.832	
PRS286-069	2.2	2.9	01/24/2005	000069	Plutonium-238	100	0.018	0.009	J	J	1465715.840	598360.832	
PRS286-070	0	0	01/12/2005	000070	Plutonium-239/240	62	0.007	0.040	U	UJ	1465730.840	598360.832	
PRS286-070	0	0	01/12/2005	000070	Plutonium-238	100	1.070	0.04		J	1465730.840	598360.832	
PRS286-071	0	0	01/12/2005	000071	Plutonium-239/240	62	0.028	0.021	J	J	1465723.340	598347.842	
PRS286-071	0	0	01/12/2005	000071	Plutonium-238	100	1.470	0.03		J	1465723.340	598347.842	
PRS286-072	0	0	01/11/2005	000072	Plutonium-239/240	62	0.077	0.025	J	J	1465963.340	598477.743	
PRS286-072	0	0	01/11/2005	000072	Plutonium-238	100	11.000	0.05		J	1465963.340	598477.743	
PRS286-073	0	0	01/11/2005	000073	Plutonium-239/240	62	0.020	0.021	U	U	1465978.340	598477.743	
PRS286-073	0	0	01/11/2005	000073	Plutonium-238	100	1.560	0.04		J	1465978.340	598477.743	
PRS286-074	0	0	01/11/2005	000074	Plutonium-239/240	62	0.028	0.029	U	U	1465993.340	598477.743	
PRS286-074	0	0	01/11/2005	000074	Plutonium-238	100	3.010	0.03		J	1465993.340	598477.743	
PRS286-075	0	0	01/11/2005	000075	Plutonium-239/240	62	0.017	0.011	J	J	1466008.340	598477.743	
PRS286-075	0	0	01/11/2005	000075	Plutonium-238	100	1.230	0.02		J	1466008.340	598477.743	
PRS286-076	0	0	01/11/2005	000076	Plutonium-239/240	62	0.059	0.024	J	J	1465955.840	598464.753	
PRS286-076	0	0	01/11/2005	000076	Plutonium-238	100	6.940	0.03		J	1465955.840	598464.753	
PRS286-077	0	0	01/11/2005	000077	Plutonium-239/240	62	0.018	0.018	U	U	1465970.840	598464.753	
PRS286-077	0	0	01/11/2005	000077	Plutonium-238	100	3.930	0.03		J	1465970.840	598464.753	
PRS286-078	0	0	01/11/2005	000078	Plutonium-239/240	62	0.050	0.012	J	J	1465985.840	598464.753	
PRS286-078	0	0	01/11/2005	000078	Plutonium-238	100	5.530	0.03		J	1465985.840	598464.753	
PRS286-079	0	0	01/11/2005	000079	Plutonium-239/240	62	0.222	0.020			1466000.840	598464.753	
PRS286-079	0	0	01/11/2005	000079	Plutonium-238	100	33.000	0.03		J	1466000.840	598464.753	
PRS286-080	0	0	01/11/2005	000080	Plutonium-239/240	62	0.088	0.019	J	J	1466015.840	598464.753	
PRS286-080	0	0	01/11/2005	000080	Plutonium-238	100	7.070	0.04		J	1466015.840	598464.753	
PRS286-081	0	0	01/11/2005	000081	Plutonium-239/240	62	0.008	0.024	U	UJ	1466030.840	598464.753	
PRS286-081	0	0	01/11/2005	000081	Plutonium-238	100	0.890	0.02		J	1466030.840	598464.753	
PRS286-082	0	0	01/11/2005	000082	Plutonium-239/240	62	0.017	0.012	J	J	1465948.340	598451.763	
PRS286-082	0	0	01/11/2005	000082	Plutonium-238	100	1.150	0.03		J	1465948.340	598451.763	
PRS286-083	0	0	01/11/2005	000083	Plutonium-239/240	62	0.027	0.019	J	J	1465963.340	598451.763	
PRS286-083	0	0	01/11/2005	000083	Plutonium-238	100	2.640	0.03		J	1465963.340	598451.763	
PRS286-084	0	0	01/11/2005	000211	Plutonium-239/240	62	0.025	0.026	U	U	1465978.340	598451.763	Dup
PRS286-084	0	0	01/11/2005	000084	Plutonium-239/240	62	0.042	0.010	J	J	1465978.340	598451.763	
PRS286-084	0	0	01/11/2005	000084	Plutonium-238	100	2.460	0.03		J	1465978.340	598451.763	
PRS286-084	0	0	01/11/2005	000211	Plutonium-238	100	2.520	0.05		J	1465978.340	598451.763	Dup
PRS286-085	0	0	01/11/2005	000085	Plutonium-239/240	62	0.017	0.012	J	J	1465993.340	598451.763	
PRS286-085	0	0	01/11/2005	000085	Plutonium-238	100	0.700	0.03		J	1465993.340	598451.763	
PRS286-086	0	0	01/11/2005	000086	Plutonium-239/240	62	0.036	0.033	J	J	1466008.340	598451.763	
PRS286-086	0	0	01/11/2005	000086	Plutonium-238	100	3.050	0.05		J	1466008.340	598451.763	
PRS286-087	0	0	01/11/2005	000087	Plutonium-239/240	62	0.060	0.06	U	U	1466023.340	598451.763	
PRS286-087	0	0	01/11/2005	000087	Plutonium-238	100	1.260	0.07		J	1466023.340	598451.763	
PRS286-088	0	0	01/11/2005	000088	Plutonium-239/240	62	0.047	0.046	J	J	1466038.340	598451.763	
PRS286-088	0	0	01/11/2005	000088	Plutonium-238	100	3.510	0.06		J	1466038.340	598451.763	
PRS286-089	0	0	01/11/2005	000089	Plutonium-239/240	62	0.010	0.036	U	UJ	1465955.840	598438.773	
PRS286-089	0	0	01/11/2005	000089	Plutonium-238	100	2.130	0.04		J	1465955.840	598438.773	

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Table 1: Analytical Results [page 6 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
PRS286-090	0	0	01/11/2005	000090	Plutonium-239/240	62	0.017	0.026	U	UJ	1465970.840	598438.773	
PRS286-090	0	0	01/11/2005	000090	Plutonium-238	100	3.570	0.04		J	1465970.840	598438.773	
PRS286-091	0	0	01/11/2005	000091	Plutonium-239/240	62	0.283	0.012			1465985.840	598438.773	
PRS286-091	0	0	01/11/2005	000091	Plutonium-238	100	28.200	0.04		J	1465985.840	598438.773	
PRS286-092	0	0	01/11/2005	000092	Plutonium-239/240	62	0.380	0.06			1466000.840	598438.773	
PRS286-092	0	0	01/11/2005	000092	Plutonium-238	100	33.100	0.1		J	1466000.840	598438.773	
PRS286-093	0	0	01/11/2005	000093	Plutonium-239/240	62	0.380	0.02			1466015.840	598438.773	
PRS286-093	0	0	01/11/2005	000093	Plutonium-238	100	49.900	0.06		J	1466015.840	598438.773	
PRS286-094	0	0	01/12/2005	000212	Plutonium-239/240	62	0.160	0.021			1466030.840	598438.773	Dup
PRS286-094	0	0	01/12/2005	000094	Plutonium-239/240	62	0.300	0.05			1466030.840	598438.773	
PRS286-094	0	0	01/12/2005	000094	Plutonium-238	100	15.800	0.07		J	1466030.840	598438.773	
PRS286-094	0	0	01/12/2005	000212	Plutonium-238	100	19.200	0.03		J	1466030.840	598438.773	Dup
PRS286-095	0	0	01/10/2005	000208	Plutonium-239/240	62	0.500	0.05			1465948.340	598425.783	Dup
PRS286-095	0	0	01/10/2005	000095	Plutonium-239/240	62	0.620	0.04			1465948.340	598425.783	
PRS286-095	0	0	01/10/2005	000095	Plutonium-238	100	67.300	0.06		J	1465948.340	598425.783	
PRS286-095	0	0	01/10/2005	000208	Plutonium-238	100	71.500	0.07		J	1465948.340	598425.783	Dup
PRS286-096	0	0	01/10/2005	000096	Plutonium-239/240	62	0.004	0.025	U	UJ	1465963.340	598425.783	
PRS286-096	0	0	01/10/2005	000096	Plutonium-238	100	1.930	0.03		J	1465963.340	598425.783	
PRS286-097	0	0	01/10/2005	000097	Plutonium-239/240	62	0.047	0.021	J	J	1465978.340	598425.783	
PRS286-097	0	0	01/10/2005	000097	Plutonium-238	100	6.840	0.03		J	1465978.340	598425.783	
PRS286-098	0	0	01/11/2005	000098	Plutonium-239/240	62	0.031	0.019	J	J	1465993.340	598425.783	
PRS286-098	0	0	01/11/2005	000210	Plutonium-239/240	62	0.047	0.029	J	J	1465993.340	598425.783	Dup
PRS286-098	0	0	01/11/2005	000098	Plutonium-238	100	3.500	0.04		J	1465993.340	598425.783	
PRS286-098	0	0	01/11/2005	000210	Plutonium-238	100	3.560	0.04		J	1465993.340	598425.783	Dup
PRS286-099	0	0	01/11/2005	000099	Plutonium-239/240	62	0.009	0.021	U	UJ	1466008.340	598425.783	
PRS286-099	0	0	01/11/2005	000099	Plutonium-238	100	1.720	0.04		J	1466008.340	598425.783	
PRS286-100	0	0	01/11/2005	000100	Plutonium-239/240	62	0.056	0.035	J	J	1466023.340	598425.783	
PRS286-100	0	0	01/11/2005	000100	Plutonium-238	100	5.930	0.04		J	1466023.340	598425.783	
PRS286-101	0	0	01/11/2005	000101	Plutonium-239/240	62	0.083	0.020	J	J	1466038.340	598425.781	
PRS286-101	0	0	01/11/2005	000101	Plutonium-238	100	14.800	0.04		J	1466038.340	598425.781	
PRS286-102	0	0	01/10/2005	000102	Plutonium-239/240	62	0.087	0.011	J	J	1465955.840	598412.793	
PRS286-102	0	0	01/10/2005	000102	Plutonium-238	100	9.900	0.03		J	1465955.840	598412.793	
PRS286-103	0	0	01/10/2005	000103	Plutonium-239/240	62	0.041	0.020	J	J	1465970.840	598412.793	
PRS286-103	0	0	01/10/2005	000103	Plutonium-238	100	4.540	0.03		J	1465970.840	598412.793	
PRS286-104	0	0	01/10/2005	000104	Plutonium-239/240	62	0.020	0.021	U	U	1465985.840	598412.793	
PRS286-104	0	0	01/10/2005	000104	Plutonium-238	100	1.120	0.05		J	1465985.840	598412.793	
PRS286-105	0	0	01/10/2005	000105	Plutonium-239/240	62	0.031	0.021	J	J	1466000.840	598412.793	
PRS286-105	0	0	01/10/2005	000105	Plutonium-238	100	0.930	0.03		J	1466000.840	598412.793	
PRS286-106	0	0	01/10/2005	000106	Plutonium-239/240	62	0.036	0.031	J	J	1466015.840	598412.793	
PRS286-106	0	0	01/10/2005	000106	Plutonium-238	100	1.100	0.03		J	1466015.840	598412.793	
PRS286-107	0	0	01/10/2005	000107	Plutonium-239/240	62	0.075	0.027	J	J	1466030.840	598412.793	
PRS286-107	0	0	01/10/2005	000107	Plutonium-238	100	10.000	0.04		J	1466030.840	598412.793	
PRS286-108	0	0	01/10/2005	000108	Plutonium-239/240	62	0.193	0.021	J	J	1465948.340	598399.801	
PRS286-108	0	0	01/10/2005	000207	Plutonium-239/240	62	0.220	0.09			1465948.340	598399.801	Dup
PRS286-108	0	0	01/10/2005	000207	Plutonium-238	100	19.700	0.09		J	1465948.340	598399.801	Dup
PRS286-108	0	0	01/10/2005	000108	Plutonium-238	100	21.000	0.07		J	1465948.340	598399.801	
PRS286-109	0	0	01/10/2005	000109	Plutonium-239/240	62	0.089	0.01	J	J	1465963.340	598399.801	
PRS286-109	0	0	01/10/2005	000109	Plutonium-238	100	6.200	0.02		J	1465963.340	598399.801	
PRS286-112	0	0	01/10/2005	000112	Plutonium-239/240	62	1.350	0.04			1466008.340	598399.801	
PRS286-112	**0**	**0**	**01/10/2005**	**000112**	**Plutonium-238**	**100**	**104.000**	**0.09**		**J**	**1466008.340**	**598399.801**	
PRS286-110	0	0	01/10/2005	000110	Plutonium-239/240	62	0.129	0.011			1465978.340	598399.801	
PRS286-110	0	0	01/10/2005	000110	Plutonium-238	100	15.300	0.02		J	1465978.340	598399.801	
PRS286-111	0	0	01/10/2005	000111	Plutonium-239/240	62	0.440	0.04			1465993.340	598399.801	
PRS286-111	0	0	01/10/2005	000111	Plutonium-238	100	44.200	0.06		J	1465993.340	598399.801	
PRS286-113	0	0	01/10/2005	000113	Plutonium-239/240	62	0.170	0.021			1466023.340	598399.801	
PRS286-113	0	0	01/10/2005	000206	Plutonium-239/240	62	1.490	0.02			1466023.340	598399.801	Dup
PRS286-113	0	0	01/10/2005	000113	Plutonium-238	100	10.800	0.01		J	1466023.340	598399.801	
PRS286-113	**0**	**0**	**01/10/2005**	**000206**	**Plutonium-238**	**100**	**133.000**	**0.06**		**J**	**1466023.340**	**598399.801**	**Dup**
PRS286-114	0	0	01/11/2005	000114	Plutonium-239/240	62	0.046	0.011	J	J	1465948.340	598373.819	
PRS286-114	0	0	01/11/2005	000114	Plutonium-238	100	3.330	0.03		J	1465948.340	598373.819	
PRS286-115	0	0	01/10/2005	000115	Plutonium-239/240	62	0.044	0.034	J	J	1465940.840	598360.829	
PRS286-115	0	0	01/10/2005	000115	Plutonium-238	100	2.520	0.05		J	1465940.840	598360.829	
PRS286-116	0	0	01/10/2005	000116	Plutonium-239/240	62	0.039	0.039	U	U	1465955.840	598360.829	
PRS286-116	0	0	01/10/2005	000116	Plutonium-238	100	7.060	0.06		J	1465955.840	598360.829	

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Table 1: Analytical Results [page 7 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
PRS286-117	0	0	01/11/2005	000117	Plutonium-239/240	62	0.042	0.061	U	UJ	1465970.840	598360.829	
PRS286-117	0	0	01/11/2005	000209	Plutonium-239/240	62	0.060	0.033	J	J	1465970.840	598360.829	Dup
PRS286-117	0	0	01/11/2005	000117	Plutonium-238	100	4.980	0.07		J	1465970.840	598360.829	
PRS286-117	0	0	01/11/2005	000209	Plutonium-238	100	5.140	0.03		J	1465970.840	598360.829	Dup
PRS286-118	0	0	01/11/2005	000118	Plutonium-239/240	62	0.097	0.046	J	J	1465985.840	598360.829	
PRS286-118	0	0	01/11/2005	000118	Plutonium-238	100	5.790	0.06		J	1465985.840	598360.829	
PRS286-119	0	0	01/10/2005	000119	Plutonium-239/240	62	0.232	0.036			1466000.840	598360.829	
PRS286-119	0	0	01/10/2005	000119	Plutonium-238	100	15.100	0.04		J	1466000.840	598360.829	
PRS286-120	0	0	01/10/2005	000120	Plutonium-239/240	62	0.043	0.022	J	J	1466015.840	598360.829	
PRS286-120	0	0	01/10/2005	000120	Plutonium-238	100	2.780	0.03		J	1466015.840	598360.829	
PRS286-121	0	0	01/10/2005	000121	Plutonium-239/240	62	0.011	0.010	J	J	1465933.340	598347.839	
PRS286-121	0	0	01/10/2005	000121	Plutonium-238	100	2.270	0.04		J	1465933.340	598347.839	
PRS286-122	0	0	01/10/2005	000122	Plutonium-239/240	62	0.008	0.025	U	UJ	1465948.340	598347.839	
PRS286-122	0	0	01/10/2005	000122	Plutonium-238	100	0.570	0.03		J	1465948.340	598347.839	
PRS286-123	0	0	01/10/2005	000123	Plutonium-239/240	62	0.009	0.021	U	UJ	1465963.340	598347.839	
PRS286-123	0	0	01/10/2005	000123	Plutonium-238	100	0.680	0.03		J	1465963.340	598347.839	
PRS286-124	0	0	01/10/2005	000124	Plutonium-239/240	62	0.012	0.024	U	UJ	1465978.340	598347.839	
PRS286-124	0	0	01/10/2005	000124	Plutonium-238	100	1.160	0.04		J	1465978.340	598347.839	
PRS286-125	0	0	01/10/2005	000125	Plutonium-239/240	62	0.020	0.02	U	U	1465993.340	598347.839	
PRS286-125	0	0	01/10/2005	000125	Plutonium-238	100	0.061	0.058	J	U	1465993.340	598347.839	
PRS286-126	0	0	01/10/2005	000126	Plutonium-239/240	62	0.015	0.020	U	UJ	1466008.340	598347.839	
PRS286-126	0	0	01/10/2005	000126	Plutonium-238	100	0.233	0.032		U	1466008.340	598347.839	
PRS286-127	0	0	01/10/2005	000127	Plutonium-239/240	62	0.012	0.020	U	UJ	1466023.340	598347.839	
PRS286-127	0	0	01/10/2005	000127	Plutonium-238	100	0.890	0.05		J	1466023.340	598347.839	
PRS286-128	0	0	01/10/2005	000128	Plutonium-239/240	62	0.046	0.019	J	J	1465940.840	598334.849	
PRS286-128	0	0	01/10/2005	000128	Plutonium-238	100	3.280	0.03		J	1465940.840	598334.849	
SMHV001	0	0	10/11/2004	000061	Plutonium-238	55	3.790	0.02		J	1466093.300	598351.229	
SMHV001	0	0	10/11/2004	000061	Plutonium-239/240	62	0.034	0.011	J	J	1466093.300	598351.229	
SMHV001	0	0	10/11/2004	000061	Thorium-228	2.6	0.991	0.020			1466093.300	598351.229	
SMHV001	0	0	10/11/2004	000061	Thorium-230	2.8	0.966	0.005			1466093.300	598351.229	
SMHV001	0	0	10/11/2004	000061	Thorium-232	2.1	0.877	0.005			1466093.300	598351.229	
SMHV001	0	0	10/11/2004	000061	Uranium-234	2	0.610	0.02			1466093.300	598351.229	
SMHV001	0	0	10/11/2004	000061	Uranium-235	3.2	0.029	0.027	J	J	1466093.300	598351.229	
SMHV001	0	0	10/11/2004	000061	Uranium-238	2.2	0.630	0.02			1466093.300	598351.229	
SMHV002	0	0	10/11/2004	000063	Plutonium-238	55	0.102	0.028		J	1466123.300	598351.229	Dup
SMHV002	0	0	10/11/2004	000062	Plutonium-238	55	0.073	0.019		J	1466123.300	598351.229	
SMHV002	0	0	10/11/2004	000063	Plutonium-239/240	62	0.030	0.03	U	UJ	1466123.300	598351.229	Dup
SMHV002	0	0	10/11/2004	000062	Plutonium-239/240	62	0.005	0.0048	J	J	1466123.300	598351.229	
SMHV002	0	0	10/11/2004	000063	Thorium-228	2.6	0.054	0.14	U	U	1466123.300	598351.229	Dup
SMHV002	0	0	10/11/2004	000062	Thorium-228	2.6	0.100	0.045		U	1466123.300	598351.229	
SMHV002	0	0	10/11/2004	000063	Thorium-230	2.8	0.450	0.07			1466123.300	598351.229	Dup
SMHV002	0	0	10/11/2004	000062	Thorium-230	2.8	0.236	0.009		U	1466123.300	598351.229	
SMHV002	0	0	10/11/2004	000063	Thorium-232	2.1	0.133	0.077			1466123.300	598351.229	Dup
SMHV002	0	0	10/11/2004	000062	Thorium-232	2.1	0.107	0.009			1466123.300	598351.229	
SMHV002	0	0	10/11/2004	000063	Uranium-234	2	0.146	0.033		U	1466123.300	598351.229	Dup
SMHV002	0	0	10/11/2004	000062	Uranium-234	2	0.145	0.017		U	1466123.300	598351.229	
SMHV002	0	0	10/11/2004	000063	Uranium-235	3.2	0.040	0.04	U	UJ	1466123.300	598351.229	Dup
SMHV002	0	0	10/11/2004	000062	Uranium-235	3.2	0.024	0.021	J	J	1466123.300	598351.229	
SMHV002	0	0	10/11/2004	000063	Uranium-238	2.2	0.292	0.026			1466123.300	598351.229	Dup
SMHV002	0	0	10/11/2004	000062	Uranium-238	2.2	0.133	0.017			1466123.300	598351.229	
SMHV003	0	0	10/12/2004	000078	Plutonium-238	55	1.530	0.01			1465943.300	598321.229	Dup
SMHV003	0	0	10/12/2004	000077	Plutonium-238	55	1.590	0.02			1465943.300	598321.229	
SMHV003	0	0	10/12/2004	000078	Plutonium-239/240	62	0.049	0.009	J	J	1465943.300	598321.229	Dup
SMHV003	0	0	10/12/2004	000077	Plutonium-239/240	62	0.015	0.0032	J	J	1465943.300	598321.229	
SMHV003	0	0	10/12/2004	000078	Thorium-228	2.6	1.220	0.04			1465943.300	598321.229	Dup
SMHV003	0	0	10/12/2004	000077	Thorium-228	2.6	1.050	0.04			1465943.300	598321.229	
SMHV003	0	0	10/12/2004	000078	Thorium-230	2.8	1.390	0.02			1465943.300	598321.229	Dup
SMHV003	0	0	10/12/2004	000077	Thorium-230	2.8	1.150	0.02			1465943.300	598321.229	
SMHV003	0	0	10/12/2004	000078	Thorium-232	2.1	1.090	0.02			1465943.300	598321.229	Dup
SMHV003	0	0	10/12/2004	000077	Thorium-232	2.1	1.030	0.01			1465943.300	598321.229	
SMHV003	0	0	10/12/2004	000078	Uranium-234	2	0.770	0.01			1465943.300	598321.229	Dup
SMHV003	0	0	10/12/2004	000077	Uranium-234	2	0.790	0.02			1465943.300	598321.229	
SMHV003	0	0	10/12/2004	000078	Uranium-235	3.2	0.030	0.013	J	J	1465943.300	598321.229	Dup

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Table 1: Analytical Results [page 8 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMHV003	0	0	10/12/2004	000077	Uranium-235	3.2	0.046	0.022	J	J	1465943.300	598321.229	
SMHV003	0	0	10/12/2004	000078	Uranium-238	2.2	1.000	0.01			1465943.300	598321.229	Dup
SMHV003	0	0	10/12/2004	000077	Uranium-238	2.2	0.860	0.02			1465943.300	598321.229	
SMHV004	0	0	10/12/2004	000079	Plutonium-238	55	1.410	0.019			1465973.300	598321.229	
SMHV004	0	0	10/12/2004	000079	Plutonium-239/240	62	0.019	0.011	J	J	1465973.300	598321.229	
SMHV004	0	0	10/12/2004	000079	Thorium-228	2.6	1.000	0.03			1465973.300	598321.229	
SMHV004	0	0	10/12/2004	000079	Thorium-230	2.8	1.200	0.02			1465973.300	598321.229	
SMHV004	0	0	10/12/2004	000079	Thorium-232	2.1	0.990	0.01			1465973.300	598321.229	
SMHV004	0	0	10/12/2004	000079	Uranium-234	2	0.850	0.02			1465973.300	598321.229	
SMHV004	0	0	10/12/2004	000079	Uranium-235	3.2	0.046	0.027	J	J	1465973.300	598321.229	
SMHV004	0	0	10/12/2004	000079	Uranium-238	2.2	0.970	0.02			1465973.300	598321.229	
SMHV005	0	0	10/12/2004	000080	Plutonium-238	55	2.030	0.01			1466003.300	598321.229	
SMHV005	0	0	10/12/2004	000080	Plutonium-239/240	62	0.027	0.009	J	J	1466003.300	598321.229	
SMHV005	0	0	10/12/2004	000080	Thorium-228	2.6	0.980	0.03			1466003.300	598321.229	
SMHV005	0	0	10/12/2004	000080	Thorium-230	2.8	1.010	0.03			1466003.300	598321.229	
SMHV005	0	0	10/12/2004	000080	Thorium-232	2.1	0.720	0.02			1466003.300	598321.229	
SMHV005	0	0	10/12/2004	000080	Uranium-234	2	0.530	0.01			1466003.300	598321.229	
SMHV005	0	0	10/12/2004	000080	Uranium-235	3.2	0.029	0.016	J	J	1466003.300	598321.229	
SMHV005	0	0	10/12/2004	000080	Uranium-238	2.2	0.720	0.03			1466003.300	598321.229	
SMHV006	0	0	10/12/2004	000081	Plutonium-238	55	0.318	0.018			1466033.300	598321.229	
SMHV006	0	0	10/12/2004	000081	Plutonium-239/240	62	0.006	0.011	U	UJ	1466033.300	598321.229	
SMHV006	0	0	10/12/2004	000081	Thorium-228	2.6	0.740	0.04			1466033.300	598321.229	
SMHV006	0	0	10/12/2004	000081	Thorium-230	2.8	0.880	0.03			1466033.300	598321.229	
SMHV006	0	0	10/12/2004	000081	Thorium-232	2.1	0.740	0.01			1466033.300	598321.229	
SMHV006	0	0	10/12/2004	000081	Uranium-234	2	0.520	0.02			1466033.300	598321.229	
SMHV006	0	0	10/12/2004	000081	Uranium-235	3.2	0.027	0.015	J	J	1466033.300	598321.229	
SMHV006	0	0	10/12/2004	000081	Uranium-238	2.2	0.800	0.01			1466033.300	598321.229	
SMHV007	0	0	10/11/2004	000064	Plutonium-238	55	7.830	0.01		J	1466063.300	598321.229	
SMHV007	0	0	10/11/2004	000064	Plutonium-239/240	62	0.092	0.008		J	1466063.300	598321.229	
SMHV007	0	0	10/11/2004	000064	Thorium-228	2.6	0.850	0.08			1466063.300	598321.229	
SMHV007	0	0	10/11/2004	000064	Thorium-230	2.8	0.890	0.05			1466063.300	598321.229	
SMHV007	0	0	10/11/2004	000064	Thorium-232	2.1	0.730	0.02			1466063.300	598321.229	
SMHV007	0	0	10/11/2004	000064	Uranium-234	2	0.470	0.01			1466063.300	598321.229	
SMHV007	0	0	10/11/2004	000064	Uranium-235	3.2	0.055	0.016	J	J	1466063.300	598321.229	
SMHV007	0	0	10/11/2004	000064	Uranium-238	2.2	0.610	0.03			1466063.300	598321.229	
SMHV008	0	0	10/11/2004	000065	Plutonium-238	55	0.242	0.014		J	1466093.300	598321.229	
SMHV008	0	0	10/11/2004	000065	Plutonium-239/240	62	0.007	0.0088	U	U	1466093.300	598321.229	
SMHV008	0	0	10/11/2004	000065	Thorium-228	2.6	1.140	0.13			1466093.300	598321.229	
SMHV008	0	0	10/11/2004	000065	Thorium-230	2.8	1.040	0.07			1466093.300	598321.229	
SMHV008	0	0	10/11/2004	000065	Thorium-232	2.1	1.030	0.05			1466093.300	598321.229	
SMHV008	0	0	10/11/2004	000065	Uranium-234	2	0.660	0.01			1466093.300	598321.229	
SMHV008	0	0	10/11/2004	000065	Uranium-235	3.2	0.025	0.030	U	U	1466093.300	598321.229	
SMHV008	0	0	10/11/2004	000065	Uranium-238	2.2	0.700	0.01			1466093.300	598321.229	
SMHV009	0	0	10/11/2004	000066	Plutonium-238	55	0.013	0.019	U	UJ	1466123.300	598321.229	
SMHV009	0	0	10/11/2004	000066	Plutonium-239/240	62	0.008	0.008	U	U	1466123.300	598321.229	
SMHV009	0	0	10/11/2004	000066	Thorium-228	2.6	0.750	0.11			1466123.300	598321.229	
SMHV009	0	0	10/11/2004	000066	Thorium-230	2.8	0.770	0.05			1466123.300	598321.229	
SMHV009	0	0	10/11/2004	000066	Thorium-232	2.1	0.650	0.02			1466123.300	598321.229	
SMHV009	0	0	10/11/2004	000066	Uranium-234	2	0.440	0.021			1466123.300	598321.229	
SMHV009	0	0	10/11/2004	000066	Uranium-235	3.2	0.017	0.026	U	U	1466123.300	598321.229	
SMHV009	0	0	10/11/2004	000066	Uranium-238	2.2	0.630	0.01			1466123.300	598321.229	
SMHV010	0	0	10/12/2004	000082	Plutonium-238	55	1.000	0.017			1465943.300	598291.229	
SMHV010	0	0	10/12/2004	000082	Plutonium-239/240	62	0.007	0.0030	J	J	1465943.300	598291.229	
SMHV010	0	0	10/12/2004	000082	Thorium-228	2.6	1.200	0.03			1465943.300	598291.229	
SMHV010	0	0	10/12/2004	000082	Thorium-230	2.8	1.320	0.01			1465943.300	598291.229	
SMHV010	0	0	10/12/2004	000082	Thorium-232	2.1	1.010	0.02			1465943.300	598291.229	
SMHV010	0	0	10/12/2004	000082	Uranium-234	2	0.610	0.02			1465943.300	598291.229	
SMHV010	0	0	10/12/2004	000082	Uranium-235	3.2	0.045	0.013	J	J	1465943.300	598291.229	
SMHV010	0	0	10/12/2004	000082	Uranium-238	2.2	0.670	0.01			1465943.300	598291.229	
SMHV011	0	0	10/12/2004	000083	Plutonium-238	55	0.080	0.017	J	J	1465973.300	598291.229	
SMHV011	0	0	10/12/2004	000083	Plutonium-239/240	62	0.003	0.012	U	UJ	1465973.300	598291.229	
SMHV011	0	0	10/12/2004	000083	Thorium-228	2.6	1.190	0.04			1465973.300	598291.229	
SMHV011	0	0	10/12/2004	000083	Thorium-230	2.8	1.100	0.01			1465973.300	598291.229	
SMHV011	0	0	10/12/2004	000083	Thorium-232	2.1	1.080	0.02			1465973.300	598291.229	

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Table 1: Analytical Results [page 9 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMHV011	0	0	10/12/2004	000083	Uranium-234	2	0.620	0.03			1465973.300	598291.229	
SMHV011	0	0	10/12/2004	000083	Uranium-235	3.2	0.048	0.013	J	J	1465973.300	598291.229	
SMHV011	0	0	10/12/2004	000083	Uranium-238	2.2	0.800	0.02			1465973.300	598291.229	
SMHV012	0	0	10/12/2004	000084	Plutonium-238	55	0.059	0.014	J	J	1466003.300	598291.229	
SMHV012	0	0	10/12/2004	000084	Plutonium-239/240	62	0.006	0.0035	J	J	1466003.300	598291.229	
SMHV012	0	0	10/12/2004	000084	Thorium-228	2.6	1.290	0.03			1466003.300	598291.229	
SMHV012	0	0	10/12/2004	000084	Thorium-230	2.8	1.370	0.02			1466003.300	598291.229	
SMHV012	0	0	10/12/2004	000084	Thorium-232	2.1	1.200	0.01			1466003.300	598291.229	
SMHV012	0	0	10/12/2004	000084	Uranium-234	2	0.760	0.01			1466003.300	598291.229	
SMHV012	0	0	10/12/2004	000084	Uranium-235	3.2	0.067	0.013	J	J	1466003.300	598291.229	
SMHV012	0	0	10/12/2004	000084	Uranium-238	2.2	0.730	0.02			1466003.300	598291.229	
SMHV013	0	0	10/12/2004	000085	Plutonium-238	55	3.020	0.01			1466033.300	598291.229	
SMHV013	0	0	10/12/2004	000085	Plutonium-239/240	62	0.036	0.009	J	J	1466033.300	598291.229	
SMHV013	0	0	10/12/2004	000085	Thorium-228	2.6	0.990	0.03			1466033.300	598291.229	
SMHV013	0	0	10/12/2004	000085	Thorium-230	2.8	1.180	0.02			1466033.300	598291.229	
SMHV013	0	0	10/12/2004	000085	Thorium-232	2.1	0.930	0.01			1466033.300	598291.229	
SMHV013	0	0	10/12/2004	000085	Uranium-234	2	0.580	0.02			1466033.300	598291.229	
SMHV013	0	0	10/12/2004	000085	Uranium-235	3.2	0.071	0.023	J	J	1466033.300	598291.229	
SMHV013	0	0	10/12/2004	000085	Uranium-238	2.2	0.680	0.02			1466033.300	598291.229	
SMHV014	0	0	10/11/2004	000067	Plutonium-238	55	1.840	0.01		J	1466063.300	598291.229	
SMHV014	0	0	10/11/2004	000067	Plutonium-239/240	62	0.017	0.0084	J	J	1466063.300	598291.229	
SMHV014	0	0	10/11/2004	000067	Thorium-228	2.6	1.260	0.07			1466063.300	598291.229	
SMHV014	0	0	10/11/2004	000067	Thorium-230	2.8	1.670	0.03			1466063.300	598291.229	
SMHV014	0	0	10/11/2004	000067	Thorium-232	2.1	1.010	0.02			1466063.300	598291.229	
SMHV014	0	0	10/11/2004	000067	Uranium-234	2	0.690	0.02			1466063.300	598291.229	
SMHV014	0	0	10/11/2004	000067	Uranium-235	3.2	0.028	0.026	J	J	1466063.300	598291.229	
SMHV014	0	0	10/11/2004	000067	Uranium-238	2.2	1.000	0.01			1466063.300	598291.229	
SMHV015	0	0	10/11/2004	000068	Plutonium-238	55	0.530	0.017		J	1466093.300	598291.229	
SMHV015	0	0	10/11/2004	000068	Plutonium-239/240	62	0.001	0.013	U	U	1466093.300	598291.229	
SMHV015	0	0	10/11/2004	000068	Thorium-228	2.6	0.890	0.05			1466093.300	598291.229	
SMHV015	0	0	10/11/2004	000068	Thorium-230	2.8	1.040	0.03			1466093.300	598291.229	
SMHV015	0	0	10/11/2004	000068	Thorium-232	2.1	0.870	0.02			1466093.300	598291.229	
SMHV015	0	0	10/11/2004	000068	Uranium-234	2	0.430	0.01			1466093.300	598291.229	
SMHV015	0	0	10/11/2004	000068	Uranium-235	3.2	0.012	0.043	U	U	1466093.300	598291.229	
SMHV015	0	0	10/11/2004	000068	Uranium-238	2.2	0.520	0.02			1466093.300	598291.229	
SMHV016	0	0	10/11/2004	000069	Plutonium-238	55	0.260	0.016		J	1466123.300	598291.229	
SMHV016	0	0	10/11/2004	000069	Plutonium-239/240	62	0.007	0.010	U	U	1466123.300	598291.229	
SMHV016	0	0	10/11/2004	000069	Thorium-228	2.6	1.110	0.03			1466123.300	598291.229	
SMHV016	0	0	10/11/2004	000069	Thorium-230	2.8	1.500	0.01			1466123.300	598291.229	
SMHV016	0	0	10/11/2004	000069	Thorium-232	2.1	1.130	0.01			1466123.300	598291.229	
SMHV016	0	0	10/11/2004	000069	Uranium-234	2	0.630	0.03			1466123.300	598291.229	
SMHV016	0	0	10/11/2004	000069	Uranium-235	3.2	0.042	0.016	J	J	1466123.300	598291.229	
SMHV016	0	0	10/11/2004	000069	Uranium-238	2.2	0.740	0.01			1466123.300	598291.229	
SMHV017	0	0	10/12/2004	000086	Plutonium-238	55	0.018	0.015	J	J	1465913.300	598261.229	
SMHV017	0	0	10/12/2004	000086	Plutonium-239/240	62	0.003	0.0093	U	UJ	1465913.300	598261.229	
SMHV017	0	0	10/12/2004	000086	Thorium-228	2.6	1.330	0.03			1465913.300	598261.229	
SMHV017	0	0	10/12/2004	000086	Thorium-230	2.8	1.530	0.02			1465913.300	598261.229	
SMHV017	0	0	10/12/2004	000086	Thorium-232	2.1	1.240	0.01			1465913.300	598261.229	
SMHV017	0	0	10/12/2004	000086	Uranium-234	2	0.700	0.03			1465913.300	598261.229	
SMHV017	0	0	10/12/2004	000086	Uranium-235	3.2	0.034	0.018	J	J	1465913.300	598261.229	
SMHV017	0	0	10/12/2004	000086	Uranium-238	2.2	0.880	0.03			1465913.300	598261.229	
SMHV018	0	0	10/12/2004	000087	Plutonium-238	55	0.073	0.024	J	J	1465943.300	598261.229	
SMHV018	0	0	10/12/2004	000087	Plutonium-239/240	62	0.003	0.011	U	UJ	1465943.300	598261.229	
SMHV018	0	0	10/12/2004	000087	Thorium-228	2.6	1.170	0.04			1465943.300	598261.229	
SMHV018	0	0	10/12/2004	000087	Thorium-230	2.8	1.160	0.02			1465943.300	598261.229	
SMHV018	0	0	10/12/2004	000087	Thorium-232	2.1	1.060	0.01			1465943.300	598261.229	
SMHV018	0	0	10/12/2004	000087	Uranium-234	2	0.660	0.02			1465943.300	598261.229	
SMHV018	0	0	10/12/2004	000087	Uranium-235	3.2	0.033	0.015	J	J	1465943.300	598261.229	
SMHV018	0	0	10/12/2004	000087	Uranium-238	2.2	0.770	0.01			1465943.300	598261.229	
SMHV019	0	0	10/12/2004	000088	Plutonium-238	55	0.287	0.018			1465973.300	598261.229	
SMHV019	0	0	10/12/2004	000088	Plutonium-239/240	62	0.002	0.011	U	U	1465973.300	598261.229	
SMHV019	0	0	10/12/2004	000088	Thorium-228	2.6	1.100	0.05			1465973.300	598261.229	
SMHV019	0	0	10/12/2004	000088	Thorium-230	2.8	1.190	0.03			1465973.300	598261.229	
SMHV019	0	0	10/12/2004	000088	Thorium-232	2.1	1.040	0.02			1465973.300	598261.229	

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Table 1: Analytical Results [page 10 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMHV019	0	0	10/12/2004	000088	Uranium-234	2	0.680	0.02			1465973.300	598261.229	
SMHV019	0	0	10/12/2004	000088	Uranium-235	3.2	0.029	0.024	J	U	1465973.300	598261.229	
SMHV019	0	0	10/12/2004	000088	Uranium-238	2.2	0.560	0.02			1465973.300	598261.229	
SMHV020	0	0	10/12/2004	000090	Plutonium-238	55	0.519	0.010			1466003.300	598261.229	Dup
SMHV020	0	0	10/12/2004	000089	Plutonium-238	55	0.504	0.015			1466003.300	598261.229	
SMHV020	0	0	10/12/2004	000090	Plutonium-239/240	62	0.013	0.010	J	J	1466003.300	598261.229	Dup
SMHV020	0	0	10/12/2004	000089	Plutonium-239/240	62	0.011	0.011	U	UJ	1466003.300	598261.229	
SMHV020	0	0	10/12/2004	000090	Thorium-228	2.6	1.150	0.04			1466003.300	598261.229	Dup
SMHV020	0	0	10/12/2004	000089	Thorium-228	2.6	1.120	0.03			1466003.300	598261.229	
SMHV020	0	0	10/12/2004	000090	Thorium-230	2.8	1.210	0.02			1466003.300	598261.229	Dup
SMHV020	0	0	10/12/2004	000089	Thorium-230	2.8	1.070	0.01			1466003.300	598261.229	
SMHV020	0	0	10/12/2004	000090	Thorium-232	2.1	1.060	0.01			1466003.300	598261.229	Dup
SMHV020	0	0	10/12/2004	000089	Thorium-232	2.1	0.850	0.02			1466003.300	598261.229	
SMHV020	0	0	10/12/2004	000090	Uranium-234	2	0.610	0.02			1466003.300	598261.229	Dup
SMHV020	0	0	10/12/2004	000089	Uranium-234	2	0.620	0.04			1466003.300	598261.229	
SMHV020	0	0	10/12/2004	000090	Uranium-235	3.2	0.063	0.012	J	J	1466003.300	598261.229	Dup
SMHV020	0	0	10/12/2004	000089	Uranium-235	3.2	0.054	0.029	J	J	1466003.300	598261.229	
SMHV020	0	0	10/12/2004	000090	Uranium-238	2.2	0.710	0.01			1466003.300	598261.229	Dup
SMHV020	0	0	10/12/2004	000089	Uranium-238	2.2	0.560	0.04			1466003.300	598261.229	
SMHV021	0	0	10/12/2004	000091	Plutonium-238	55	0.563	0.018			1466033.300	598261.229	
SMHV021	0	0	10/12/2004	000091	Plutonium-239/240	62	0.006	0.013	U	UJ	1466033.300	598261.229	
SMHV021	0	0	10/12/2004	000091	Thorium-228	2.6	0.970	0.02			1466033.300	598261.229	
SMHV021	0	0	10/12/2004	000091	Thorium-230	2.8	1.070	0.02			1466033.300	598261.229	
SMHV021	0	0	10/12/2004	000091	Thorium-232	2.1	0.880	0.01			1466033.300	598261.229	
SMHV021	0	0	10/12/2004	000091	Uranium-234	2	0.561	0.021			1466033.300	598261.229	
SMHV021	0	0	10/12/2004	000091	Uranium-235	3.2	0.024	0.013	J	J	1466033.300	598261.229	
SMHV021	0	0	10/12/2004	000091	Uranium-238	2.2	0.690	0.02			1466033.300	598261.229	
SMHV022	0	0	10/11/2004	000070	Plutonium-238	55	0.904	0.016		J	1466063.300	598261.229	
SMHV022	0	0	10/11/2004	000070	Plutonium-239/240	62	0.011	0.011	U	U	1466063.300	598261.229	
SMHV022	0	0	10/11/2004	000070	Thorium-228	2.6	0.284	0.039			1466063.300	598261.229	
SMHV022	0	0	10/11/2004	000070	Thorium-230	2.8	0.600	0.02			1466063.300	598261.229	
SMHV022	0	0	10/11/2004	000070	Thorium-232	2.1	0.200	0.026			1466063.300	598261.229	
SMHV022	0	0	10/11/2004	000070	Uranium-234	2	0.460	0.02			1466063.300	598261.229	
SMHV022	0	0	10/11/2004	000070	Uranium-235	3.2	0.054	0.018	J	J	1466063.300	598261.229	
SMHV022	0	0	10/11/2004	000070	Uranium-238	2.2	0.500	0.01			1466063.300	598261.229	
SMHV023	0	0	10/11/2004	000071	Plutonium-238	55	0.861	0.010		J	1466093.300	598261.229	
SMHV023	0	0	10/11/2004	000071	Plutonium-239/240	62	0.024	0.010	J	J	1466093.300	598261.229	
SMHV023	0	0	10/11/2004	000071	Thorium-228	2.6	1.170	0.05			1466093.300	598261.229	
SMHV023	0	0	10/11/2004	000071	Thorium-230	2.8	1.630	0.03			1466093.300	598261.229	
SMHV023	0	0	10/11/2004	000071	Thorium-232	2.1	1.230	0.01			1466093.300	598261.229	
SMHV023	0	0	10/11/2004	000071	Uranium-234	2	0.770	0.03			1466093.300	598261.229	
SMHV023	0	0	10/11/2004	000071	Uranium-235	3.2	0.039	0.018	J	J	1466093.300	598261.229	
SMHV023	0	0	10/11/2004	000071	Uranium-238	2.2	0.950	0.03			1466093.300	598261.229	
SMHV024	0	0	10/11/2004	000072	Plutonium-238	55	1.270	0.019		J	1466123.300	598261.229	
SMHV024	0	0	10/11/2004	000072	Plutonium-239/240	62	0.013	0.013	J	J	1466123.300	598261.229	
SMHV024	0	0	10/11/2004	000072	Thorium-228	2.6	0.940	0.05			1466123.300	598261.229	
SMHV024	0	0	10/11/2004	000072	Thorium-230	2.8	0.980	0.02			1466123.300	598261.229	
SMHV024	0	0	10/11/2004	000072	Thorium-232	2.1	0.780	0.02			1466123.300	598261.229	
SMHV024	0	0	10/11/2004	000072	Uranium-234	2	0.610	0.07			1466123.300	598261.229	
SMHV024	0	0	10/11/2004	000072	Uranium-235	3.2	0.066	0.075	U	U	1466123.300	598261.229	
SMHV024	0	0	10/11/2004	000072	Uranium-238	2.2	0.600	0.03			1466123.300	598261.229	
SMHV025	0	0	10/12/2004	000092	Plutonium-238	55	0.197	0.018			1465883.300	598231.229	
SMHV025	0	0	10/12/2004	000092	Plutonium-239/240	62	0.020	0.02	U	U	1465883.300	598231.229	
SMHV025	0	0	10/12/2004	000092	Thorium-228	2.6	1.300	0.05			1465883.300	598231.229	
SMHV025	0	0	10/12/2004	000092	Thorium-230	2.8	1.420	0.03			1465883.300	598231.229	
SMHV025	0	0	10/12/2004	000092	Thorium-232	2.1	1.300	0.03			1465883.300	598231.229	
SMHV025	0	0	10/12/2004	000092	Uranium-234	2	0.920	0.02			1465883.300	598231.229	
SMHV025	0	0	10/12/2004	000092	Uranium-235	3.2	0.026	0.018	J	J	1465883.300	598231.229	
SMHV025	0	0	10/12/2004	000092	Uranium-238	2.2	0.830	0.01			1465883.300	598231.229	
SMHV026	0	0	10/12/2004	000093	Plutonium-238	55	0.085	0.016	J	J	1465913.300	598231.229	
SMHV026	0	0	10/12/2004	000093	Plutonium-239/240	62	0.010	0.01	U	UJ	1465913.300	598231.229	
SMHV026	0	0	10/12/2004	000093	Thorium-228	2.6	1.290	0.04			1465913.300	598231.229	
SMHV026	0	0	10/12/2004	000093	Thorium-230	2.8	1.530	0.02			1465913.300	598231.229	
SMHV026	0	0	10/12/2004	000093	Thorium-232	2.1	1.350	0.01			1465913.300	598231.229	

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Table 1: Analytical Results [page 11 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMHV026	0	0	10/12/2004	000093	Uranium-234	2	0.640	0.01			1465913.300	598231.229	
SMHV026	0	0	10/12/2004	000093	Uranium-235	3.2	0.070	0.013	J	J	1465913.300	598231.229	
SMHV026	0	0	10/12/2004	000093	Uranium-238	2.2	0.700	0.02			1465913.300	598231.229	
SMHV027	0	0	10/12/2004	000094	Plutonium-238	55	0.040	0.013	J	J	1465943.300	598231.229	
SMHV027	0	0	10/12/2004	000094	Plutonium-239/240	62	0.005	0.0032	J	J	1465943.300	598231.229	
SMHV027	0	0	10/12/2004	000094	Thorium-228	2.6	0.980	0.03			1465943.300	598231.229	
SMHV027	0	0	10/12/2004	000094	Thorium-230	2.8	1.040	0.01			1465943.300	598231.229	
SMHV027	0	0	10/12/2004	000094	Thorium-232	2.1	1.010	0.01			1465943.300	598231.229	
SMHV027	0	0	10/12/2004	000094	Uranium-234	2	0.566	0.010			1465943.300	598231.229	
SMHV027	0	0	10/12/2004	000094	Uranium-235	3.2	0.061	0.013	J	J	1465943.300	598231.229	
SMHV027	0	0	10/12/2004	000094	Uranium-238	2.2	0.690	0.01			1465943.300	598231.229	
SMHV028	0	0	10/12/2004	000095	Plutonium-238	55	0.325	0.016			1465973.300	598231.229	
SMHV028	0	0	10/12/2004	000095	Plutonium-239/240	62	0.013	0.0031	J	J	1465973.300	598231.229	
SMHV028	0	0	10/12/2004	000095	Thorium-228	2.6	1.020	0.03			1465973.300	598231.229	
SMHV028	0	0	10/12/2004	000095	Thorium-230	2.8	1.040	0.02			1465973.300	598231.229	
SMHV028	0	0	10/12/2004	000095	Thorium-232	2.1	1.030	0.03			1465973.300	598231.229	
SMHV028	0	0	10/12/2004	000095	Uranium-234	2	0.513	0.022			1465973.300	598231.229	
SMHV028	0	0	10/12/2004	000095	Uranium-235	3.2	0.028	0.024	J	J	1465973.300	598231.229	
SMHV028	0	0	10/12/2004	000095	Uranium-238	2.2	0.680	0.02			1465973.300	598231.229	
SMHV029	0	0	10/12/2004	000096	Plutonium-238	55	0.444	0.016			1466003.300	598231.229	
SMHV029	0	0	10/12/2004	000096	Plutonium-239/240	62	0.006	0.0032	J	J	1466003.300	598231.229	
SMHV029	0	0	10/12/2004	000096	Thorium-228	2.6	1.190	0.03			1466003.300	598231.229	
SMHV029	0	0	10/12/2004	000096	Thorium-230	2.8	1.090	0.01			1466003.300	598231.229	
SMHV029	0	0	10/12/2004	000096	Thorium-232	2.1	1.210	0.01			1466003.300	598231.229	
SMHV029	0	0	10/12/2004	000096	Uranium-234	2	0.790	0.02			1466003.300	598231.229	
SMHV029	0	0	10/12/2004	000096	Uranium-235	3.2	0.070	0.023	J	J	1466003.300	598231.229	
SMHV029	0	0	10/12/2004	000096	Uranium-238	2.2	0.790	0.02			1466003.300	598231.229	
SMHV030	0	0	10/12/2004	000097	Plutonium-238	55	0.208	0.012			1466033.300	598231.229	
SMHV030	0	0	10/12/2004	000097	Plutonium-239/240	62	0.007	0.0081	U	UJ	1466033.300	598231.229	
SMHV030	0	0	10/12/2004	000097	Thorium-228	2.6	1.090	0.03			1466033.300	598231.229	
SMHV030	0	0	10/12/2004	000097	Thorium-230	2.8	1.120	0.02			1466033.300	598231.229	
SMHV030	0	0	10/12/2004	000097	Thorium-232	2.1	1.170	0.01			1466033.300	598231.229	
SMHV030	0	0	10/12/2004	000097	Uranium-234	2	0.559	0.010			1466033.300	598231.229	
SMHV030	0	0	10/12/2004	000097	Uranium-235	3.2	0.037	0.012	J	J	1466033.300	598231.229	
SMHV030	0	0	10/12/2004	000097	Uranium-238	2.2	0.650	0.01			1466033.300	598231.229	
SMHV031	0	0	10/12/2004	000098	Plutonium-238	55	0.101	0.007			1466063.300	598231.229	
SMHV031	0	0	10/12/2004	000098	Plutonium-239/240	62	0.003	0.0044	U	UJ	1466063.300	598231.229	
SMHV031	0	0	10/12/2004	000098	Thorium-228	2.6	0.310	0.018			1466063.300	598231.229	
SMHV031	0	0	10/12/2004	000098	Thorium-230	2.8	0.553	0.012			1466063.300	598231.229	
SMHV031	0	0	10/12/2004	000098	Thorium-232	2.1	0.279	0.012			1466063.300	598231.229	
SMHV031	0	0	10/12/2004	000098	Uranium-234	2	0.536	0.012			1466063.300	598231.229	
SMHV031	0	0	10/12/2004	000098	Uranium-235	3.2	0.040	0.013	J	J	1466063.300	598231.229	
SMHV031	0	0	10/12/2004	000098	Uranium-238	2.2	0.721	0.009			1466063.300	598231.229	
SMHV032	0	0	10/11/2004	000074	Plutonium-238	55	0.573	0.013		J	1466093.300	598231.229	
SMHV032	0	0	10/11/2004	000074	Plutonium-239/240	62	0.013	0.0034	J	J	1466093.300	598231.229	
SMHV032	0	0	10/11/2004	000074	Thorium-228	2.6	1.130	0.05			1466093.300	598231.229	
SMHV032	0	0	10/11/2004	000074	Thorium-230	2.8	1.110	0.02			1466093.300	598231.229	
SMHV032	0	0	10/11/2004	000074	Thorium-232	2.1	0.970	0.02			1466093.300	598231.229	
SMHV032	0	0	10/11/2004	000074	Uranium-234	2	0.590	0.02			1466093.300	598231.229	
SMHV032	0	0	10/11/2004	000074	Uranium-235	3.2	0.061	0.018	J	J	1466093.300	598231.229	
SMHV032	0	0	10/11/2004	000074	Uranium-238	2.2	0.780	0.03			1466093.300	598231.229	
SMHV033	0	0	10/14/2004	000112	Plutonium-238	55	1.090	0.013			1466123.300	598231.229	
SMHV033	0	0	10/14/2004	000112	Plutonium-239/240	62	0.011	0.0093	J	J	1466123.300	598231.229	
SMHV033	0	0	10/14/2004	000112	Thorium-228	2.6	1.300	0.04			1466123.300	598231.229	
SMHV033	0	0	10/14/2004	000112	Thorium-230	2.8	0.920	0.03			1466123.300	598231.229	
SMHV033	0	0	10/14/2004	000112	Thorium-232	2.1	1.270	0.03			1466123.300	598231.229	
SMHV033	0	0	10/14/2004	000112	Uranium-234	2	0.540	0.02			1466123.300	598231.229	
SMHV033	0	0	10/14/2004	000112	Uranium-235	3.2	0.025	0.014	J	J	1466123.300	598231.229	
SMHV033	0	0	10/14/2004	000112	Uranium-238	2.2	0.750	0.01			1466123.300	598231.229	
SMHV034	0	0	10/12/2004	000100	Plutonium-238	55	0.231	0.009			1465913.300	598201.229	
SMHV034	0	0	10/12/2004	000100	Plutonium-239/240	62	0.006	0.0057	J	J	1465913.300	598201.229	
SMHV034	0	0	10/12/2004	000100	Thorium-228	2.6	0.870	0.03			1465913.300	598201.229	
SMHV034	0	0	10/12/2004	000100	Thorium-230	2.8	0.810	0.01			1465913.300	598201.229	
SMHV034	0	0	10/12/2004	000100	Thorium-232	2.1	0.830	0.008			1465913.300	598201.229	

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Table 1: Analytical Results [page 12 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMHV034	0	0	10/12/2004	000100	Uranium-234	2	0.616	0.006			1465913.300	598201.229	
SMHV034	0	0	10/12/2004	000100	Uranium-235	3.2	0.027	0.012	J	J	1465913.300	598201.229	
SMHV034	0	0	10/12/2004	000100	Uranium-238	2.2	0.615	0.006			1465913.300	598201.229	
SMHV035	0	0	10/12/2004	000102	Plutonium-238	55	0.032	0.01			1465943.300	598201.229	Dup
SMHV035	0	0	10/12/2004	000101	Plutonium-238	55	0.029	0.008			1465943.300	598201.229	
SMHV035	0	0	10/12/2004	000102	Plutonium-239/240	62	0.010	0.01	U	UJ	1465943.300	598201.229	Dup
SMHV035	0	0	10/12/2004	000101	Plutonium-239/240	62	0.001	0.0059	U	UJ	1465943.300	598201.229	
SMHV035	0	0	10/12/2004	000102	Thorium-228	2.6	0.990	0.04			1465943.300	598201.229	Dup
SMHV035	0	0	10/12/2004	000101	Thorium-228	2.6	0.930	0.03			1465943.300	598201.229	
SMHV035	0	0	10/12/2004	000102	Thorium-230	2.8	0.870	0.02			1465943.300	598201.229	Dup
SMHV035	0	0	10/12/2004	000101	Thorium-230	2.8	0.800	0.01			1465943.300	598201.229	
SMHV035	0	0	10/12/2004	000102	Thorium-232	2.1	1.050	0.01			1465943.300	598201.229	Dup
SMHV035	0	0	10/12/2004	000101	Thorium-232	2.1	0.850	0.02			1465943.300	598201.229	
SMHV035	0	0	10/12/2004	000102	Uranium-234	2	0.700	0.02			1465943.300	598201.229	Dup
SMHV035	0	0	10/12/2004	000101	Uranium-234	2	0.597	0.012			1465943.300	598201.229	
SMHV035	0	0	10/12/2004	000102	Uranium-235	3.2	0.020	0.023	U	U	1465943.300	598201.229	Dup
SMHV035	0	0	10/12/2004	000101	Uranium-235	3.2	0.052	0.015	J	J	1465943.300	598201.229	
SMHV035	0	0	10/12/2004	000102	Uranium-238	2.2	0.770	0.01			1465943.300	598201.229	Dup
SMHV035	0	0	10/12/2004	000101	Uranium-238	2.2	0.830	0.007			1465943.300	598201.229	
SMHV036	0	0	10/12/2004	000103	Plutonium-238	55	0.938	0.017			1465973.300	598201.229	
SMHV036	0	0	10/12/2004	000103	Plutonium-239/240	62	0.011	0.012	U	UJ	1465973.300	598201.229	
SMHV036	0	0	10/12/2004	000103	Thorium-228	2.6	0.910	0.03			1465973.300	598201.229	
SMHV036	0	0	10/12/2004	000103	Thorium-230	2.8	1.100	0.02			1465973.300	598201.229	
SMHV036	0	0	10/12/2004	000103	Thorium-232	2.1	0.900	0.02			1465973.300	598201.229	
SMHV036	0	0	10/12/2004	000103	Uranium-234	2	0.870	0.03			1465973.300	598201.229	
SMHV036	0	0	10/12/2004	000103	Uranium-235	3.2	0.011	0.086	U	U	1465973.300	598201.229	
SMHV036	0	0	10/12/2004	000103	Uranium-238	2.2	0.930	0.05			1465973.300	598201.229	
SMHV037	0	0	10/12/2004	000104	Plutonium-238	55	0.056	0.013			1466003.300	598201.229	
SMHV037	0	0	10/12/2004	000104	Plutonium-239/240	62	0.010	0.01	U	UJ	1466003.300	598201.229	
SMHV037	0	0	10/12/2004	000104	Thorium-228	2.6	0.780	0.06			1466003.300	598201.229	
SMHV037	0	0	10/12/2004	000104	Thorium-230	2.8	0.920	0.04			1466003.300	598201.229	
SMHV037	0	0	10/12/2004	000104	Thorium-232	2.1	0.700	0.02			1466003.300	598201.229	
SMHV037	0	0	10/12/2004	000104	Uranium-234	2	0.428	0.020			1466003.300	598201.229	
SMHV037	0	0	10/12/2004	000104	Uranium-235	3.2	0.039	0.013	J	J	1466003.300	598201.229	
SMHV037	0	0	10/12/2004	000104	Uranium-238	2.2	0.620	0.01			1466003.300	598201.229	
SMHV038	0	0	10/12/2004	000105	Plutonium-238	55	1.230	0.02			1466033.300	598201.229	
SMHV038	0	0	10/12/2004	000105	Plutonium-239/240	62	0.018	0.013	J	J	1466033.300	598201.229	
SMHV038	0	0	10/12/2004	000105	Thorium-228	2.6	1.730	0.03			1466033.300	598201.229	
SMHV038	0	0	10/12/2004	000105	Thorium-230	2.8	1.290	0.02			1466033.300	598201.229	
SMHV038	0	0	10/12/2004	000105	Thorium-232	2.1	1.440	0.02			1466033.300	598201.229	
SMHV038	0	0	10/12/2004	000105	Uranium-234	2	0.730	0.02			1466033.300	598201.229	
SMHV038	0	0	10/12/2004	000105	Uranium-235	3.2	0.054	0.013	J	J	1466033.300	598201.229	
SMHV038	0	0	10/12/2004	000105	Uranium-238	2.2	1.160	0.01			1466033.300	598201.229	
SMHV039	0	0	10/14/2004	000114	Plutonium-238	55	0.063	0.009			1466063.300	598201.229	Dup
SMHV039	0	0	10/14/2004	000113	Plutonium-238	55	0.029	0.015			1466063.300	598201.229	
SMHV039	0	0	10/14/2004	000114	Plutonium-239/240	62	0.002	0.0088	U	UJ	1466063.300	598201.229	Dup
SMHV039	0	0	10/14/2004	000113	Plutonium-239/240	62	0.004	0.004	U	UJ	1466063.300	598201.229	
SMHV039	0	0	10/14/2004	000114	Thorium-228	2.6	0.600	0.02			1466063.300	598201.229	Dup
SMHV039	0	0	10/14/2004	000113	Thorium-228	2.6	0.750	0.04			1466063.300	598201.229	
SMHV039	0	0	10/14/2004	000114	Thorium-230	2.8	1.080	0.01			1466063.300	598201.229	Dup
SMHV039	0	0	10/14/2004	000113	Thorium-230	2.8	1.180	0.02			1466063.300	598201.229	
SMHV039	0	0	10/14/2004	000114	Thorium-232	2.1	0.690	0.01			1466063.300	598201.229	Dup
SMHV039	0	0	10/14/2004	000113	Thorium-232	2.1	0.760	0.01			1466063.300	598201.229	
SMHV039	0	0	10/14/2004	000114	Uranium-234	2	0.730	0.01			1466063.300	598201.229	Dup
SMHV039	0	0	10/14/2004	000113	Uranium-234	2	0.730	0.01			1466063.300	598201.229	
SMHV039	0	0	10/14/2004	000114	Uranium-235	3.2	0.041	0.021	J	J	1466063.300	598201.229	Dup
SMHV039	0	0	10/14/2004	000113	Uranium-235	3.2	0.044	0.013	J	J	1466063.300	598201.229	
SMHV039	0	0	10/14/2004	000114	Uranium-238	2.2	0.990	0.02			1466063.300	598201.229	Dup
SMHV039	0	0	10/14/2004	000113	Uranium-238	2.2	0.950	0.02			1466063.300	598201.229	
SMHV040	0	0	10/11/2004	000075	Plutonium-238	55	0.330	0.016		J	1466093.300	598201.229	
SMHV040	0	0	10/11/2004	000075	Plutonium-239/240	62	0.001	0.0030	U	U	1466093.300	598201.229	
SMHV040	0	0	10/11/2004	000075	Thorium-228	2.6	0.850	0.05			1466093.300	598201.229	
SMHV040	0	0	10/11/2004	000075	Thorium-230	2.8	1.060	0.04			1466093.300	598201.229	
SMHV040	0	0	10/11/2004	000075	Thorium-232	2.1	0.740	0.05			1466093.300	598201.229	

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Table 1: Analytical Results [page 13 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMHV040	0	0	10/11/2004	000075	Uranium-234	2	0.351	0.014			1466093.300	598201.229	
SMHV040	0	0	10/11/2004	000075	Uranium-235	3.2	0.032	0.017	J	J	1466093.300	598201.229	
SMHV040	0	0	10/11/2004	000075	Uranium-238	2.2	0.520	0.01			1466093.300	598201.229	
SMHV041	0	0	10/12/2004	000106	Plutonium-238	55	2.730	0.006			1465913.300	598171.229	
SMHV041	0	0	10/12/2004	000106	Plutonium-239/240	62	0.038	0.002		J	1465913.300	598171.229	
SMHV041	0	0	10/12/2004	000106	Thorium-228	2.6	1.070	0.03			1465913.300	598171.229	
SMHV041	0	0	10/12/2004	000106	Thorium-232	2.1	1.070	0.01			1465913.300	598171.229	
SMHV041	0	0	10/12/2004	000106	Uranium-234	2	0.741	0.014			1465913.300	598171.229	
SMHV041	0	0	10/12/2004	000106	Uranium-235	3.2	0.054	0.007	J	J	1465913.300	598171.229	
SMHV041	0	0	10/12/2004	000106	Uranium-238	2.2	0.830	0.01			1465913.300	598171.229	
SMHV042	0	0	10/12/2004	000107	Plutonium-238	55	0.046	0.016			1465943.300	598171.229	
SMHV042	0	0	10/12/2004	000107	Plutonium-239/240	62	0.006	0.0040	J	J	1465943.300	598171.229	
SMHV042	0	0	10/12/2004	000107	Thorium-228	2.6	0.940	0.03			1465943.300	598171.229	
SMHV042	0	0	10/12/2004	000107	Thorium-230	2.8	0.850	0.01			1465943.300	598171.229	
SMHV042	0	0	10/12/2004	000107	Thorium-232	2.1	0.920	0.03			1465943.300	598171.229	
SMHV042	0	0	10/12/2004	000107	Uranium-234	2	0.760	0.03			1465943.300	598171.229	
SMHV042	0	0	10/12/2004	000107	Uranium-235	3.2	0.024	0.027	U	U	1465943.300	598171.229	
SMHV042	0	0	10/12/2004	000107	Uranium-238	2.2	0.690	0.01			1465943.300	598171.229	
SMHV043	0	0	10/12/2004	000108	Plutonium-238	55	0.371	0.007			1465973.300	598171.229	
SMHV043	0	0	10/12/2004	000108	Plutonium-239/240	62	0.006	0.0020	J	J	1465973.300	598171.229	
SMHV043	0	0	10/12/2004	000108	Thorium-228	2.6	0.840	0.02			1465973.300	598171.229	
SMHV043	0	0	10/12/2004	000108	Thorium-230	2.8	0.800	0.01			1465973.300	598171.229	
SMHV043	0	0	10/12/2004	000108	Thorium-232	2.1	0.940	0.01			1465973.300	598171.229	
SMHV043	0	0	10/12/2004	000108	Uranium-234	2	0.615	0.009			1465973.300	598171.229	
SMHV043	0	0	10/12/2004	000108	Uranium-235	3.2	0.033	0.006	J	J	1465973.300	598171.229	
SMHV043	0	0	10/12/2004	000108	Uranium-238	2.2	0.706	0.009			1465973.300	598171.229	
SMHV044	0	0	10/12/2004	000109	Plutonium-238	55	0.487	0.011			1466003.300	598171.229	
SMHV044	0	0	10/12/2004	000109	Plutonium-239/240	62	0.013	0.0064		J	1466003.300	598171.229	
SMHV044	0	0	10/12/2004	000109	Thorium-228	2.6	1.110	0.03			1466003.300	598171.229	
SMHV044	0	0	10/12/2004	000109	Thorium-230	2.8	1.050	0.02			1466003.300	598171.229	
SMHV044	0	0	10/12/2004	000109	Thorium-232	2.1	0.960	0.01			1466003.300	598171.229	
SMHV044	0	0	10/12/2004	000109	Uranium-234	2	0.537	0.011			1466003.300	598171.229	
SMHV044	0	0	10/12/2004	000109	Uranium-235	3.2	0.022	0.009	J	J	1466003.300	598171.229	
SMHV044	0	0	10/12/2004	000109	Uranium-238	2.2	0.632	0.007			1466003.300	598171.229	
SMHV045	0	0	10/12/2004	000110	Plutonium-238	55	0.253	0.007			1466033.300	598171.229	
SMHV045	0	0	10/12/2004	000110	Plutonium-239/240	62	0.007	0.0054	J	J	1466033.300	598171.229	
SMHV045	0	0	10/12/2004	000110	Thorium-228	2.6	0.700	0.01			1466033.300	598171.229	
SMHV045	0	0	10/12/2004	000110	Thorium-230	2.8	0.578	0.015			1466033.300	598171.229	
SMHV045	0	0	10/12/2004	000110	Thorium-232	2.1	0.770	0.01			1466033.300	598171.229	
SMHV045	0	0	10/12/2004	000110	Uranium-234	2	0.610	0.01			1466033.300	598171.229	
SMHV045	0	0	10/12/2004	000110	Uranium-235	3.2	0.054	0.006	J	J	1466033.300	598171.229	
SMHV045	0	0	10/12/2004	000110	Uranium-238	2.2	0.960	0.008			1466033.300	598171.229	
SMHV046	0	0	10/14/2004	000115	Plutonium-238	55	0.035	0.013			1466063.300	598171.229	
SMHV046	0	0	10/14/2004	000115	Plutonium-239/240	62	0.001	0.0086	U	UJ	1466063.300	598171.229	
SMHV046	0	0	10/14/2004	000115	Thorium-228	2.6	1.130	0.04			1466063.300	598171.229	
SMHV046	0	0	10/14/2004	000115	Thorium-230	2.8	1.240	0.03			1466063.300	598171.229	
SMHV046	0	0	10/14/2004	000115	Thorium-232	2.1	1.320	0.03			1466063.300	598171.229	
SMHV046	0	0	10/14/2004	000115	Uranium-234	2	0.790	0.02			1466063.300	598171.229	
SMHV046	0	0	10/14/2004	000115	Uranium-235	3.2	0.040	0.023	J	J	1466063.300	598171.229	
SMHV046	0	0	10/14/2004	000115	Uranium-238	2.2	0.910	0.02			1466063.300	598171.229	
SMHV047	0	0	10/11/2004	000076	Plutonium-238	55	0.653	0.015		J	1466093.300	598171.229	
SMHV047	0	0	10/11/2004	000076	Plutonium-239/240	62	0.010	0.0031	J	J	1466093.300	598171.229	
SMHV047	0	0	10/11/2004	000076	Thorium-228	2.6	0.333	0.042			1466093.300	598171.229	
SMHV047	0	0	10/11/2004	000076	Thorium-230	2.8	0.940	0.01			1466093.300	598171.229	
SMHV047	0	0	10/11/2004	000076	Thorium-232	2.1	0.314	0.015			1466093.300	598171.229	
SMHV047	0	0	10/11/2004	000076	Uranium-234	2	0.620	0.02			1466093.300	598171.229	
SMHV047	0	0	10/11/2004	000076	Uranium-235	3.2	0.025	0.017	J	J	1466093.300	598171.229	
SMHV047	0	0	10/11/2004	000076	Uranium-238	2.2	0.930	0.02			1466093.300	598171.229	
SMHV048	0	0	10/21/2004	000165	Plutonium-238	55	0.965	0.019			1466123.300	598171.229	
SMHV048	0	0	10/21/2004	000165	Plutonium-239/240	62	0.024	0.003	J	J	1466123.300	598171.229	
SMHV048	0	0	10/21/2004	000165	Thorium-228	2.6	0.340	0.035			1466123.300	598171.229	
SMHV048	0	0	10/21/2004	000165	Thorium-230	2.8	0.510	0.01		U	1466123.300	598171.229	
SMHV048	0	0	10/21/2004	000165	Thorium-232	2.1	0.210	0.027			1466123.300	598171.229	
SMHV048	0	0	10/21/2004	000165	Uranium-234	2	0.346	0.027			1466123.300	598171.229	

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Table 1: Analytical Results [page 14 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMHV048	0	0	10/21/2004	000165	Uranium-235	3.2	0.044	0.034	J	J	1466123.300	598171.229	
SMHV048	0	0	10/21/2004	000165	Uranium-238	2.2	0.353	0.016			1466123.300	598171.229	
SMHV049	0	0	10/14/2004	000117	Plutonium-238	55	0.173	0.011			1465913.300	598141.229	
SMHV049	0	0	10/14/2004	000117	Plutonium-239/240	62	0.004	0.0090	U	UJ	1465913.300	598141.229	
SMHV049	0	0	10/14/2004	000117	Thorium-228	2.6	0.860	0.03			1465913.300	598141.229	
SMHV049	0	0	10/14/2004	000117	Thorium-230	2.8	1.240	0.02			1465913.300	598141.229	
SMHV049	0	0	10/14/2004	000117	Thorium-232	2.1	1.010	0.02			1465913.300	598141.229	
SMHV049	0	0	10/14/2004	000117	Uranium-234	2	0.620	0.02			1465913.300	598141.229	
SMHV049	0	0	10/14/2004	000117	Uranium-235	3.2	0.071	0.014	J	J	1465913.300	598141.229	
SMHV050	0	0	10/14/2004	000118	Plutonium-238	55	0.029	0.017			1465943.300	598141.229	
SMHV050	0	0	10/14/2004	000118	Plutonium-239/240	62	0.010	0.01	U	UJ	1465943.300	598141.229	
SMHV050	0	0	10/14/2004	000118	Thorium-228	2.6	0.840	0.02			1465943.300	598141.229	
SMHV050	0	0	10/14/2004	000118	Thorium-230	2.8	0.920	0.02			1465943.300	598141.229	
SMHV050	0	0	10/14/2004	000118	Thorium-232	2.1	0.980	0.02			1465943.300	598141.229	
SMHV050	0	0	10/14/2004	000118	Uranium-234	2	0.590	0.02			1465943.300	598141.229	
SMHV050	0	0	10/14/2004	000118	Uranium-235	3.2	0.059	0.013	J	J	1465943.300	598141.229	
SMHV050	0	0	10/14/2004	000118	Uranium-238	2.2	0.670	0.02			1465943.300	598141.229	
SMHV051	0	0	10/14/2004	000119	Plutonium-238	55	0.552	0.016			1465973.300	598141.229	
SMHV051	0	0	10/14/2004	000119	Plutonium-239/240	62	0.006	0.0038	J	J	1465973.300	598141.229	
SMHV051	0	0	10/14/2004	000119	Thorium-228	2.6	0.900	0.04			1465973.300	598141.229	
SMHV051	0	0	10/14/2004	000119	Thorium-230	2.8	0.940	0.02			1465973.300	598141.229	
SMHV051	0	0	10/14/2004	000119	Thorium-232	2.1	0.980	0.01			1465973.300	598141.229	
SMHV051	0	0	10/14/2004	000119	Uranium-234	2	0.630	0.01			1465973.300	598141.229	
SMHV051	0	0	10/14/2004	000119	Uranium-235	3.2	0.052	0.024	J	J	1465973.300	598141.229	
SMHV051	0	0	10/14/2004	000119	Uranium-238	2.2	0.740	0.02			1465973.300	598141.229	
SMHV052	0	0	10/14/2004	000120	Plutonium-238	55	0.139	0.013			1466003.300	598141.229	
SMHV052	0	0	10/14/2004	000120	Plutonium-239/240	62	0.005	0.0043	J	J	1466003.300	598141.229	
SMHV052	0	0	10/14/2004	000120	Thorium-228	2.6	0.880	0.04			1466003.300	598141.229	
SMHV052	0	0	10/14/2004	000120	Thorium-230	2.8	0.860	0.03			1466003.300	598141.229	
SMHV052	0	0	10/14/2004	000120	Thorium-232	2.1	0.870	0.03			1466003.300	598141.229	
SMHV052	0	0	10/14/2004	000120	Uranium-234	2	0.640	0.02			1466003.300	598141.229	
SMHV052	0	0	10/14/2004	000120	Uranium-235	3.2	0.071	0.021	J	J	1466003.300	598141.229	
SMHV052	0	0	10/14/2004	000120	Uranium-238	2.2	0.720	0.02			1466003.300	598141.229	
SMHV053	0	0	10/21/2004	000164	Plutonium-238	55	0.040	0.013	J	J	1466033.300	598141.229	
SMHV053	0	0	10/21/2004	000164	Plutonium-239/240	62	0.003	0.0034	U	U	1466033.300	598141.229	
SMHV053	0	0	10/21/2004	000164	Thorium-228	2.6	1.260	0.04		J	1466033.300	598141.229	
SMHV053	0	0	10/21/2004	000164	Thorium-230	2.8	1.380	0.07		J	1466033.300	598141.229	
SMHV053	0	0	10/21/2004	000164	Thorium-232	2.1	1.020	0.07		J	1466033.300	598141.229	
SMHV053	0	0	10/21/2004	000164	Uranium-234	2	1.460	0.03			1466033.300	598141.229	
SMHV053	0	0	10/21/2004	000164	Uranium-235	3.2	0.010	0.034	U	U	1466033.300	598141.229	
SMHV053	0	0	10/21/2004	000164	Uranium-238	2.2	1.640	0.03			1466033.300	598141.229	
SMHV054	0	0	10/14/2004	000116	Plutonium-238	55	0.081	0.017			1466063.300	598141.229	
SMHV054	0	0	10/14/2004	000116	Plutonium-239/240	62	0.004	0.011	U	UJ	1466063.300	598141.229	
SMHV054	0	0	10/14/2004	000116	Thorium-228	2.6	0.940	0.04			1466063.300	598141.229	
SMHV054	0	0	10/14/2004	000116	Thorium-230	2.8	1.200	0.02			1466063.300	598141.229	
SMHV054	0	0	10/14/2004	000116	Thorium-232	2.1	0.970	0.01			1466063.300	598141.229	
SMHV054	0	0	10/14/2004	000116	Uranium-234	2	0.850	0.02			1466063.300	598141.229	
SMHV054	0	0	10/14/2004	000116	Uranium-235	3.2	0.048	0.013	J	J	1466063.300	598141.229	
SMHV054	0	0	10/14/2004	000116	Uranium-238	2.2	1.000	0.02			1466063.300	598141.229	
SMHV055	0	0	10/20/2004	000132	Plutonium-238	55	0.586	0.024			1466093.300	598141.229	Dup
SMHV055	0	0	10/20/2004	000131	Plutonium-238	55	0.637	0.010			1466093.300	598141.229	
SMHV055	0	0	10/20/2004	000132	Plutonium-239/240	62	0.013	0.006	J	J	1466093.300	598141.229	Dup
SMHV055	0	0	10/20/2004	000131	Plutonium-239/240	62	0.009	0.0080	J	J	1466093.300	598141.229	
SMHV055	0	0	10/20/2004	000132	Thorium-228	2.6	0.970	0.06			1466093.300	598141.229	Dup
SMHV055	0	0	10/20/2004	000131	Thorium-228	2.6	0.680	0.03			1466093.300	598141.229	
SMHV055	0	0	10/20/2004	000132	Thorium-230	2.8	1.090	0.05			1466093.300	598141.229	Dup
SMHV055	0	0	10/20/2004	000131	Thorium-230	2.8	0.950	0.03			1466093.300	598141.229	
SMHV055	0	0	10/20/2004	000132	Thorium-232	2.1	0.910	0.03			1466093.300	598141.229	Dup
SMHV055	0	0	10/20/2004	000131	Thorium-232	2.1	0.520	0.03			1466093.300	598141.229	
SMHV055	0	0	10/20/2004	000132	Uranium-234	2	0.580	0.05			1466093.300	598141.229	Dup
SMHV055	0	0	10/20/2004	000131	Uranium-234	2	0.610	0.01			1466093.300	598141.229	
SMHV055	0	0	10/20/2004	000132	Uranium-235	3.2	0.035	0.032	J	J	1466093.300	598141.229	Dup
SMHV055	0	0	10/20/2004	000131	Uranium-235	3.2	0.006	0.016	U	U	1466093.300	598141.229	
SMHV055	0	0	10/20/2004	000132	Uranium-238	2.2	0.440	0.05			1466093.300	598141.229	Dup

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Table 1: Analytical Results [page 15 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMHV055	0	0	10/20/2004	000131	Uranium-238	2.2	0.700	0.02			1466093.300	598141.229	
SMHV056	0	0	10/14/2004	000122	Plutonium-238	55	0.126	0.015			1465883.300	598111.299	
SMHV056	0	0	10/14/2004	000122	Plutonium-239/240	62	0.010	0.01	U	UJ	1465883.300	598111.299	
SMHV056	0	0	10/14/2004	000122	Thorium-228	2.6	0.780	0.04			1465883.300	598111.299	
SMHV056	0	0	10/14/2004	000122	Thorium-230	2.8	1.000	0.02			1465883.300	598111.299	
SMHV056	0	0	10/14/2004	000122	Thorium-232	2.1	0.920	0.01			1465883.300	598111.299	
SMHV056	0	0	10/14/2004	000122	Uranium-234	2	0.680	0.01			1465883.300	598111.299	
SMHV056	0	0	10/14/2004	000122	Uranium-235	3.2	0.050	0.014	J	J	1465883.300	598111.299	
SMHV056	0	0	10/14/2004	000122	Uranium-238	2.2	0.780	0.01			1465883.300	598111.299	
SMHV057	0	0	10/14/2004	000124	Plutonium-238	55	0.347	0.020			1465913.300	598111.299	Dup
SMHV057	0	0	10/14/2004	000123	Plutonium-238	55	0.345	0.013			1465913.300	598111.299	
SMHV057	0	0	10/14/2004	000124	Plutonium-239/240	62	0.005	0.013	U	UJ	1465913.300	598111.299	Dup
SMHV057	0	0	10/14/2004	000123	Plutonium-239/240	62	0.008	0.0086	U	UJ	1465913.300	598111.299	
SMHV057	0	0	10/14/2004	000124	Thorium-228	2.6	0.970	0.03			1465913.300	598111.299	Dup
SMHV057	0	0	10/14/2004	000123	Thorium-228	2.6	0.950	0.03			1465913.300	598111.299	
SMHV057	0	0	10/14/2004	000124	Thorium-230	2.8	0.940	0.03			1465913.300	598111.299	Dup
SMHV057	0	0	10/14/2004	000123	Thorium-230	2.8	0.920	0.02			1465913.300	598111.299	
SMHV057	0	0	10/14/2004	000124	Thorium-232	2.1	0.960	0.03			1465913.300	598111.299	Dup
SMHV057	0	0	10/14/2004	000123	Thorium-232	2.1	0.920	0.02			1465913.300	598111.299	
SMHV057	0	0	10/14/2004	000124	Uranium-234	2	0.590	0.02			1465913.300	598111.299	Dup
SMHV057	0	0	10/14/2004	000123	Uranium-234	2	0.720	0.02			1465913.300	598111.299	
SMHV057	0	0	10/14/2004	000124	Uranium-235	3.2	0.026	0.023	J	J	1465913.300	598111.299	Dup
SMHV057	0	0	10/14/2004	000123	Uranium-235	3.2	0.044	0.027	J	J	1465913.300	598111.299	
SMHV057	0	0	10/14/2004	000124	Uranium-238	2.2	0.700	0.04			1465913.300	598111.299	Dup
SMHV057	0	0	10/14/2004	000123	Uranium-238	2.2	0.800	0.02			1465913.300	598111.299	
SMHV058	0	0	10/14/2004	000125	Plutonium-238	55	0.103	0.019			1465943.300	598111.299	
SMHV058	0	0	10/14/2004	000125	Plutonium-239/240	62	0.001	0.0092	U	UJ	1465943.300	598111.299	
SMHV058	0	0	10/14/2004	000125	Thorium-228	2.6	1.130	0.05			1465943.300	598111.299	
SMHV058	0	0	10/14/2004	000125	Thorium-230	2.8	0.870	0.03			1465943.300	598111.299	
SMHV058	0	0	10/14/2004	000125	Thorium-232	2.1	0.870	0.02			1465943.300	598111.299	
SMHV058	0	0	10/14/2004	000125	Uranium-234	2	0.740	0.01			1465943.300	598111.299	
SMHV058	0	0	10/14/2004	000125	Uranium-235	3.2	0.024	0.022	J	J	1465943.300	598111.299	
SMHV058	0	0	10/14/2004	000125	Uranium-238	2.2	0.700	0.01			1465943.300	598111.299	
SMHV059	0	0	10/20/2004	000128	Plutonium-238	55	0.076	0.034	J	J	1465973.300	598111.299	
SMHV059	0	0	10/20/2004	000128	Plutonium-239/240	62	0.002	0.0065	U	U	1465973.300	598111.299	
SMHV059	0	0	10/20/2004	000128	Thorium-228	2.6	1.200	0.07			1465973.300	598111.299	
SMHV059	0	0	10/20/2004	000128	Thorium-230	2.8	1.150	0.05			1465973.300	598111.299	
SMHV059	0	0	10/20/2004	000128	Thorium-232	2.1	1.250	0.05			1465973.300	598111.299	
SMHV059	0	0	10/20/2004	000128	Uranium-234	2	0.690	0.05			1465973.300	598111.299	
SMHV059	0	0	10/20/2004	000128	Uranium-235	3.2	0.025	0.034	U	U	1465973.300	598111.299	
SMHV059	0	0	10/20/2004	000128	Uranium-238	2.2	0.660	0.05			1465973.300	598111.299	
SMHV060	0	0	10/14/2004	000126	Plutonium-238	55	0.467	0.015			1466003.300	598111.299	
SMHV060	0	0	10/14/2004	000126	Plutonium-239/240	62	0.002	0.0087	U	UJ	1466003.300	598111.299	
SMHV060	0	0	10/14/2004	000126	Thorium-228	2.6	0.910	0.03			1466003.300	598111.299	
SMHV060	0	0	10/14/2004	000126	Thorium-230	2.8	0.780	0.01			1466003.300	598111.299	
SMHV060	0	0	10/14/2004	000126	Thorium-232	2.1	0.820	0.03			1466003.300	598111.299	
SMHV060	0	0	10/14/2004	000126	Uranium-234	2	0.540	0.02			1466003.300	598111.299	
SMHV060	0	0	10/14/2004	000126	Uranium-235	3.2	0.025	0.023	J	J	1466003.300	598111.299	
SMHV060	0	0	10/14/2004	000126	Uranium-238	2.2	0.620	0.01			1466003.300	598111.299	
SMHV061	0	0	10/20/2004	000129	Plutonium-238	55	0.059	0.019			1466033.300	598111.299	
SMHV061	0	0	10/20/2004	000129	Plutonium-239/240	62	0.004	0.0034	J	J	1466033.300	598111.299	
SMHV061	0	0	10/20/2004	000129	Thorium-228	2.6	0.800	0.04			1466033.300	598111.299	
SMHV061	0	0	10/20/2004	000129	Thorium-230	2.8	0.890	0.02			1466033.300	598111.299	
SMHV061	0	0	10/20/2004	000129	Thorium-232	2.1	0.680	0.02			1466033.300	598111.299	
SMHV061	0	0	10/20/2004	000129	Uranium-234	2	0.700	0.02			1466033.300	598111.299	
SMHV061	0	0	10/20/2004	000129	Uranium-235	3.2	0.030	0.028	J	J	1466033.300	598111.299	
SMHV061	0	0	10/20/2004	000129	Uranium-238	2.2	0.670	0.03			1466033.300	598111.299	
SMHV062	0	0	10/20/2004	000130	Plutonium-238	55	0.019	0.018	J	J	1466063.300	598111.299	
SMHV062	0	0	10/20/2004	000130	Plutonium-239/240	62	0.001	0.0094	U	U	1466063.300	598111.299	
SMHV062	0	0	10/20/2004	000130	Thorium-228	2.6	1.210	0.04			1466063.300	598111.299	
SMHV062	0	0	10/20/2004	000130	Thorium-230	2.8	0.990	0.03			1466063.300	598111.299	
SMHV062	0	0	10/20/2004	000130	Thorium-232	2.1	1.220	0.03			1466063.300	598111.299	
SMHV062	0	0	10/20/2004	000130	Uranium-234	2	0.580	0.02			1466063.300	598111.299	
SMHV062	0	0	10/20/2004	000130	Uranium-235	3.2	0.026	0.017	J	J	1466063.300	598111.299	

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Table 1: Analytical Results [page 16 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMHV062	0	0	10/20/2004	000130	Uranium-238	2.2	0.720	0.01		U	1466063.300	598111.299	
SMHV063	0	0	10/20/2004	000142	Plutonium-238	55	0.003	0.018	U	U	1466093.300	598111.299	Dup
SMHV063	0	0	10/20/2004	000141	Plutonium-238	55	0.945	0.016			1466093.300	598111.299	
SMHV063	0	0	10/20/2004	000142	Plutonium-239/240	62	0.006	0.0034	J	J	1466093.300	598111.299	Dup
SMHV063	0	0	10/20/2004	000141	Plutonium-239/240	62	0.023	0.011	J	J	1466093.300	598111.299	
SMHV063	0	0	10/20/2004	000142	Thorium-228	2.6	0.800	0.04			1466093.300	598111.299	Dup
SMHV063	0	0	10/20/2004	000141	Thorium-228	2.6	0.260	0.04		J	1466093.300	598111.299	
SMHV063	0	0	10/20/2004	000142	Thorium-230	2.8	0.890	0.02			1466093.300	598111.299	Dup
SMHV063	0	0	10/20/2004	000141	Thorium-230	2.8	0.690	0.07		J	1466093.300	598111.299	
SMHV063	0	0	10/20/2004	000142	Thorium-232	2.1	0.820	0.03			1466093.300	598111.299	Dup
SMHV063	0	0	10/20/2004	000141	Thorium-232	2.1	0.230	0.07		J	1466093.300	598111.299	
SMHV063	0	0	10/20/2004	000142	Uranium-234	2	0.610	0.02			1466093.300	598111.299	Dup
SMHV063	0	0	10/20/2004	000141	Uranium-234	2	0.450	0.03			1466093.300	598111.299	
SMHV063	0	0	10/20/2004	000142	Uranium-235	3.2	0.026	0.030	U	U	1466093.300	598111.299	Dup
SMHV063	0	0	10/20/2004	000141	Uranium-235	3.2	0.044	0.035	J	J	1466093.300	598111.299	
SMHV063	0	0	10/20/2004	000142	Uranium-238	2.2	0.540	0.01			1466093.300	598111.299	Dup
SMHV063	0	0	10/20/2004	000141	Uranium-238	2.2	0.376	0.028			1466093.300	598111.299	
SMHV064	0	0	10/20/2004	000133	Plutonium-238	55	5.180	0.02			1465883.300	598081.229	
SMHV064	0	0	10/20/2004	000133	Plutonium-239/240	62	0.074	0.004			1465883.300	598081.229	
SMHV064	0	0	10/20/2004	000133	Thorium-228	2.6	0.970	0.05			1465883.300	598081.229	
SMHV064	0	0	10/20/2004	000133	Thorium-230	2.8	1.160	0.03			1465883.300	598081.229	
SMHV064	0	0	10/20/2004	000133	Thorium-232	2.1	0.820	0.02			1465883.300	598081.229	
SMHV064	0	0	10/20/2004	000133	Uranium-234	2	0.760	0.02			1465883.300	598081.229	
SMHV064	0	0	10/20/2004	000133	Uranium-235	3.2	0.056	0.022	J	J	1465883.300	598081.229	
SMHV064	0	0	10/20/2004	000133	Uranium-238	2.2	0.760	0.03			1465883.300	598081.229	
SMHV065	0	0	10/20/2004	000134	Plutonium-238	55	0.020	0.030	U	U	1465913.300	598081.229	
SMHV065	0	0	10/20/2004	000134	Plutonium-239/240	62	0.020	0.02	U	U	1465913.300	598081.229	
SMHV065	0	0	10/20/2004	000134	Thorium-228	2.6	1.260	0.07			1465913.300	598081.229	
SMHV065	0	0	10/20/2004	000134	Thorium-230	2.8	1.350	0.04			1465913.300	598081.229	
SMHV065	0	0	10/20/2004	000134	Thorium-232	2.1	0.850	0.04			1465913.300	598081.229	
SMHV065	0	0	10/20/2004	000134	Uranium-234	2	0.560	0.05			1465913.300	598081.229	
SMHV065	0	0	10/20/2004	000134	Uranium-235	3.2	0.012	0.034	U	U	1465913.300	598081.229	
SMHV065	0	0	10/20/2004	000134	Uranium-238	2.2	1.040	0.03			1465913.300	598081.229	
SMHV066	0	0	10/20/2004	000135	Plutonium-238	55	0.037	0.017	J	J	1465943.300	598081.229	
SMHV066	0	0	10/20/2004	000135	Plutonium-239/240	62	0.010	0.01	U	U	1465943.300	598081.229	
SMHV066	0	0	10/20/2004	000135	Thorium-228	2.6	0.990	0.04			1465943.300	598081.229	
SMHV066	0	0	10/20/2004	000135	Thorium-230	2.8	1.000	0.02			1465943.300	598081.229	
SMHV066	0	0	10/20/2004	000135	Thorium-232	2.1	0.880	0.03			1465943.300	598081.229	
SMHV066	0	0	10/20/2004	000135	Uranium-234	2	0.429	0.033			1465943.300	598081.229	
SMHV066	0	0	10/20/2004	000135	Uranium-235	3.2	0.013	0.017	U	U	1465943.300	598081.229	
SMHV066	0	0	10/20/2004	000135	Uranium-238	2.2	0.560	0.01			1465943.300	598081.229	
SMHV067	0	0	10/20/2004	000136	Plutonium-238	55	0.007	0.014	U	U	1465973.300	598081.229	
SMHV067	0	0	10/20/2004	000136	Plutonium-239/240	62	0.001	0.010	U	U	1465973.300	598081.229	
SMHV067	0	0	10/20/2004	000136	Thorium-228	2.6	1.130	0.05			1465973.300	598081.229	
SMHV067	0	0	10/20/2004	000136	Thorium-230	2.8	0.930	0.02			1465973.300	598081.229	
SMHV067	0	0	10/20/2004	000136	Thorium-232	2.1	0.930	0.02			1465973.300	598081.229	
SMHV067	0	0	10/20/2004	000136	Uranium-234	2	0.510	0.02			1465973.300	598081.229	
SMHV067	0	0	10/20/2004	000136	Uranium-235	3.2	0.071	0.016	J	J	1465973.300	598081.229	
SMHV067	0	0	10/20/2004	000136	Uranium-238	2.2	0.660	0.01			1465973.300	598081.229	
SMHV068	0	0	10/20/2004	000137	Plutonium-238	55	0.099	0.021			1466003.300	598081.229	
SMHV068	0	0	10/20/2004	000137	Plutonium-239/240	62	0.001	0.0092	U	U	1466003.300	598081.229	
SMHV068	0	0	10/20/2004	000137	Thorium-228	2.6	0.930	0.03			1466003.300	598081.229	
SMHV068	0	0	10/20/2004	000137	Thorium-230	2.8	0.850	0.02			1466003.300	598081.229	
SMHV068	0	0	10/20/2004	000137	Thorium-232	2.1	0.880	0.02			1466003.300	598081.229	
SMHV068	0	0	10/20/2004	000137	Uranium-234	2	0.530	0.02			1466003.300	598081.229	
SMHV068	0	0	10/20/2004	000137	Uranium-235	3.2	0.024	0.029	U	U	1466003.300	598081.229	
SMHV068	0	0	10/20/2004	000137	Uranium-238	2.2	0.630	0.01			1466003.300	598081.229	
SMHV069	0	0	10/20/2004	000138	Plutonium-238	55	0.379	0.008			1466033.300	598081.229	
SMHV069	0	0	10/20/2004	000138	Plutonium-239/240	62	0.007	0.0084	U	U	1466033.300	598081.229	
SMHV069	0	0	10/20/2004	000138	Thorium-228	2.6	0.323	0.035			1466033.300	598081.229	
SMHV069	0	0	10/20/2004	000138	Thorium-230	2.8	0.570	0.01		U	1466033.300	598081.229	
SMHV069	0	0	10/20/2004	000138	Thorium-232	2.1	0.305	0.026			1466033.300	598081.229	
SMHV069	0	0	10/20/2004	000138	Uranium-234	2	0.443	0.022			1466033.300	598081.229	
SMHV069	0	0	10/20/2004	000138	Uranium-235	3.2	0.036	0.016	J	J	1466033.300	598081.229	

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Table 1: Analytical Results [page 17 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMHV069	0	0	10/20/2004	000138	Uranium-238	2.2	0.407	0.025			1466033.300	598081.229	
SMHV070	0	0	10/20/2004	000139	Plutonium-238	55	0.958	0.011			1466063.300	598081.229	
SMHV070	0	0	10/20/2004	000139	Plutonium-239/240	62	0.021	0.008	J	J	1466063.300	598081.229	
SMHV070	0	0	10/20/2004	000139	Thorium-228	2.6	1.150	0.04			1466063.300	598081.229	
SMHV070	0	0	10/20/2004	000139	Thorium-230	2.8	1.120	0.03			1466063.300	598081.229	
SMHV070	0	0	10/20/2004	000139	Thorium-232	2.1	1.060	0.02			1466063.300	598081.229	
SMHV070	0	0	10/20/2004	000139	Uranium-234	2	0.510	0.01			1466063.300	598081.229	
SMHV070	0	0	10/20/2004	000139	Uranium-235	3.2	0.047	0.016	J	J	1466063.300	598081.229	
SMHV070	0	0	10/20/2004	000139	Uranium-238	2.2	0.580	0.02			1466063.300	598081.229	
SMHV071	0	0	10/20/2004	000140	Plutonium-238	55	0.482	0.014			1466063.300	598051.229	
SMHV071	0	0	10/20/2004	000140	Plutonium-239/240	62	0.009	0.0031	J	J	1466063.300	598051.229	
SMHV071	0	0	10/20/2004	000140	Thorium-228	2.6	0.680	0.03			1466063.300	598051.229	
SMHV071	0	0	10/20/2004	000140	Thorium-230	2.8	0.890	0.01			1466063.300	598051.229	
SMHV071	0	0	10/20/2004	000140	Thorium-232	2.1	0.530	0.02			1466063.300	598051.229	
SMHV071	0	0	10/20/2004	000140	Uranium-234	2	0.530	0.03			1466063.300	598051.229	
SMHV071	0	0	10/20/2004	000140	Uranium-235	3.2	0.037	0.016	J	J	1466063.300	598051.229	
SMHV071	0	0	10/20/2004	000140	Uranium-238	2.2	0.580	0.03			1466063.300	598051.229	
SMHV072	0	0	10/28/2004	000198	Plutonium-238	55	0.274	0.020			1466123.300	598201.229	
SMHV072	0	0	10/28/2004	000198	Plutonium-239/240	62	0.011	0.0039	J	J	1466123.300	598201.229	
SMHV072	0	0	10/28/2004	000198	Thorium-228	2.6	0.890	0.04			1466123.300	598201.229	
SMHV072	0	0	10/28/2004	000198	Thorium-230	2.8	0.720	0.03			1466123.300	598201.229	
SMHV072	0	0	10/28/2004	000198	Thorium-232	2.1	0.810	0.02			1466123.300	598201.229	
SMHV072	0	0	10/28/2004	000198	Uranium-234	2	0.610	0.03			1466123.300	598201.229	
SMHV072	0	0	10/28/2004	000198	Uranium-235	3.2	0.038	0.021	J	J	1466123.300	598201.229	
SMHV072	0	0	10/28/2004	000198	Uranium-238	2.2	0.600	0.03			1466123.300	598201.229	
SMHV073	0	0	10/28/2004	000199	Plutonium-238	55	0.138	0.016			1466123.300	598141.229	
SMHV073	0	0	10/28/2004	000199	Plutonium-239/240	62	0.002	0.011	U	U	1466123.300	598141.229	
SMHV073	0	0	10/28/2004	000199	Thorium-228	2.6	0.450	0.03			1466123.300	598141.229	
SMHV073	0	0	10/28/2004	000199	Thorium-230	2.8	0.740	0.02			1466123.300	598141.229	
SMHV073	0	0	10/28/2004	000199	Thorium-232	2.1	0.460	0.02			1466123.300	598141.229	
SMHV073	0	0	10/28/2004	000199	Uranium-234	2	0.500	0.02			1466123.300	598141.229	
SMHV073	0	0	10/28/2004	000199	Uranium-235	3.2	0.033	0.031	J	J	1466123.300	598141.229	
SMHV073	0	0	10/28/2004	000199	Uranium-238	2.2	0.500	0.02			1466123.300	598141.229	
SMV001	0	0	10/06/2004	000001	Plutonium-238	55	0.471	0.009			1466245.649	598350.961	
SMV001	0	0	10/06/2004	000001	Plutonium-239/240	62	0.010	0.0028			1466245.649	598350.961	
SMV002	0	0	10/06/2004	000002	Plutonium-238	55	0.269	0.009			1466275.565	598348.880	
SMV002	0	0	10/06/2004	000002	Plutonium-239/240	62	0.005	0.0061	U	U	1466275.565	598348.880	
SMV003	0	0	10/06/2004	000003	Plutonium-238	55	0.185	0.012			1466183.577	598325.188	
SMV003	0	0	10/06/2004	000003	Plutonium-239/240	62	0.002	0.0057	U	U	1466183.577	598325.188	
SMV004	0	0	10/06/2004	000004	Plutonium-238	55	0.249	0.024			1466213.493	598323.107	
SMV004	0	0	10/06/2004	000004	Plutonium-239/240	62	0.010	0.01	U	U	1466213.493	598323.107	
SMV005	0	0	10/06/2004	000005	Plutonium-238	55	0.252	0.010			1466243.569	598321.026	
SMV005	0	0	10/06/2004	000005	Plutonium-239/240	62	0.003	0.0080	U	U	1466243.569	598321.026	
SMV006	0	0	10/06/2004	000008	Plutonium-238	55	2.450	0.01			1466273.485	598318.784	Dup
SMV006	0	0	10/06/2004	000007	Plutonium-238	55	2.980	0.02			1466273.485	598318.784	
SMV006	0	0	10/06/2004	000008	Plutonium-239/240	62	0.026	0.007			1466273.485	598318.784	Dup
SMV006	0	0	10/06/2004	000007	Plutonium-239/240	62	0.032	0.014			1466273.485	598318.784	
SMV007	0	0	10/06/2004	000009	Plutonium-238	55	9.500	0.007			1466151.741	598297.493	
SMV007	0	0	10/06/2004	000009	Plutonium-239/240	62	0.094	0.007			1466151.741	598297.493	
SMV008	0	0	10/06/2004	000010	Plutonium-238	55	15.300	0.02			1466181.497	598295.572	
SMV008	0	0	10/06/2004	000010	Plutonium-239/240	62	0.107	0.015			1466181.497	598295.572	
SMV009	0	0	10/06/2004	000011	Plutonium-238	55	0.172	0.015			1466211.573	598293.491	
SMV009	0	0	10/06/2004	000011	Plutonium-239/240	62	0.020	0.02	U	U	1466211.573	598293.491	
SMV010	0	0	10/06/2004	000012	Plutonium-238	55	14.100	0.03			1466241.809	598291.250	
SMV010	0	0	10/06/2004	000012	Plutonium-239/240	62	0.113	0.015			1466241.809	598291.250	
SMV011	0	0	10/06/2004	000013	Plutonium-238	55	1.010	0.009			1466271.406	598289.329	
SMV011	0	0	10/06/2004	000013	Plutonium-239/240	62	0.009	0.0072	J	J	1466271.406	598289.329	
SMV012	0	0	10/06/2004	000014	Plutonium-238	55	3.500	0.008			1466149.512	598267.545	
SMV012	0	0	10/06/2004	000014	Plutonium-239/240	62	0.024	0.0056			1466149.512	598267.545	
SMV013	0	0	10/06/2004	000016	Plutonium-238	55	3.510	0.01			1466179.269	598265.464	Dup
SMV013	0	0	10/06/2004	000015	Plutonium-238	55	4.120	0.01			1466179.269	598265.464	
SMV013	0	0	10/06/2004	000016	Plutonium-239/240	62	0.034	0.009	J	J	1466179.269	598265.464	Dup
SMV013	0	0	10/06/2004	000015	Plutonium-239/240	62	0.044	0.002			1466179.269	598265.464	

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Table 1: Analytical Results [page 18 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMV014	0	0	10/06/2004	000017	Plutonium-238	55	1.580	0.03			1466209.345	598263.383	
SMV014	0	0	10/06/2004	000017	Plutonium-239/240	62	0.019	0.013	J	J	1466209.345	598263.383	
SMV015	0	0	10/06/2004	000018	Plutonium-238	55	8.140	0.02			1466239.261	598261.302	
SMV015	0	0	10/06/2004	000018	Plutonium-239/240	62	0.055	0.009	J	J	1466239.261	598261.302	
SMV016	**0**	**0**	**10/06/2004**	**000019**	**Plutonium-238**	**55**	**161.000**	**0.02**			**1466269.337**	**598259.061**	
SMV016	0	0	10/06/2004	000019	Plutonium-239/240	62	1.350	0.012			1466269.337	598259.061	
SMV017	0	0	10/06/2004	000020	Plutonium-238	55	7.700	0.02			1466147.113	598237.609	
SMV017	0	0	10/06/2004	000020	Plutonium-239/240	62	0.074	0.011	J	J	1466147.113	598237.609	
SMV018	0	0	10/06/2004	000021	Plutonium-238	55	0.364	0.015			1466177.373	5982354.532	
SMV018	0	0	10/06/2004	000021	Plutonium-239/240	62	0.001	0.010	U	U	1466177.373	5982354.532	
SMV019	0	0	10/06/2004	000022	Plutonium-238	55	0.390	0.012			1466207.265	598233.447	
SMV019	0	0	10/06/2004	000022	Plutonium-239/240	62	0.010	0.01	U	U	1466207.265	598233.447	
SMV020	0	0	10/06/2004	000023	Plutonium-238	55	2.990	0.02			1466237.181	598231.366	
SMV020	0	0	10/06/2004	000023	Plutonium-239/240	62	0.019	0.013	J	J	1466237.181	598231.366	
SMV021	0	0	10/06/2004	000024	Plutonium-238	55	1.010	0.013			1466267.258	598229.125	
SMV021	0	0	10/06/2004	000024	Plutonium-239/240	62	0.009	0.015	U	U	1466267.258	598229.125	
SMV022	0	0	10/06/2004	000025	Plutonium-238	55	3.560	0.02			1466145.193	598207.674	
SMV022	0	0	10/06/2004	000025	Plutonium-239/240	62	0.046	0.012	J	J	1466145.193	598207.674	
SMV023	0	0	10/06/2004	000026	Plutonium-238	55	4.170	0.02			1466175.109	598205.593	
SMV023	0	0	10/06/2004	000026	Plutonium-239/240	62	0.044	0.013	J	J	1466175.109	598205.593	
SMV024	0	0	10/06/2004	000028	Plutonium-238	55	14.600	0.02			1466205.185	598203.512	Dup
SMV024	0	0	10/06/2004	000027	Plutonium-238	55	25.500	0.01			1466205.185	598203.512	
SMV024	0	0	10/06/2004	000028	Plutonium-239/240	62	0.166	0.014			1466205.185	598203.512	Dup
SMV024	0	0	10/06/2004	000027	Plutonium-239/240	62	0.264	0.013			1466205.185	598203.512	
SMV025	0	0	10/06/2004	000029	Plutonium-238	55	3.330	0.01			1466235.262	598201.271	
SMV025	0	0	10/06/2004	000029	Plutonium-239/240	62	0.020	0.003	J	J	1466235.262	598201.271	
SMV026	0	0	10/06/2004	000031	Plutonium-238	55	3.410	0.02			1466265.178	598199.190	
SMV026	0	0	10/06/2004	000031	Plutonium-239/240	62	0.035	0.003	J	J	1466265.178	598199.190	
SMV027	0	0	10/06/2004	000032	Plutonium-238	55	25.400	0.02			1466143.163	598177.754	
SMV027	0	0	10/06/2004	000032	Plutonium-239/240	62	0.277	0.003			1466143.163	598177.754	
SMV028	0	0	10/06/2004	000033	Plutonium-238	55	0.993	0.023			1466172.813	598175.618	
SMV028	0	0	10/06/2004	000033	Plutonium-239/240	62	0.009	0.013	U	U	1466172.813	598175.618	
SMV029	0	0	10/06/2004	000034	Plutonium-238	55	0.198	0.015			1466202.938	598173.482	
SMV029	0	0	10/06/2004	000034	Plutonium-239/240	62	0.003	0.012	U	U	1466202.938	598173.482	
SMV030	0	0	10/06/2004	000035	Plutonium-238	55	9.000	0.01			1466232.826	598171.346	
SMV030	0	0	10/06/2004	000035	Plutonium-239/240	62	0.110	0.008			1466232.826	598171.346	
SMV031	0	0	10/06/2004	000036	Plutonium-238	55	1.940	0.02			1466262.951	598169.447	
SMV031	0	0	10/06/2004	000036	Plutonium-239/240	62	0.021	0.003	J	J	1466262.951	598169.447	
SMV032	**0**	**0**	**10/06/2004**	**000037**	**Plutonium-238**	**55**	**76.500**	**0.007**			**1466292.838**	**598167.311**	
SMV032	0	0	10/06/2004	000037	Plutonium-239/240	62	0.944	0.007			1466292.838	598167.311	
SMV033	0	0	10/06/2004	000039	Plutonium-238	55	2.590	0.02			1466322.726	598164.937	Dup
SMV033	0	0	10/06/2004	000038	Plutonium-238	55	4.950	0.02			1466322.726	598164.937	
SMV033	0	0	10/06/2004	000039	Plutonium-239/240	62	0.033	0.010	J	J	1466322.726	598164.937	Dup
SMV033	0	0	10/06/2004	000038	Plutonium-239/240	62	0.095	0.011	J	J	1466322.726	598164.937	
SMV034	**0**	**0**	**10/06/2004**	**000040**	**Plutonium-238**	**55**	**71.700**	**0.01**			**1466140.791**	**598147.847**	
SMV034	0	0	10/06/2004	000040	Plutonium-239/240	62	0.720	0.009			1466140.791	598147.847	
SMV035	0	0	10/06/2004	000041	Plutonium-238	55	47.300	0.02			1466171.153	598145.711	
SMV035	0	0	10/06/2004	000041	Plutonium-239/240	62	0.564	0.011			1466171.153	598145.711	
SMV036	**0**	**0**	**10/06/2004**	**000042**	**Plutonium-238**	**55**	**56.100**	**0.02**			**1466201.041**	**598143.575**	
SMV036	0	0	10/06/2004	000042	Plutonium-239/240	62	0.668	0.003			1466201.041	598143.575	
SMV038	0	0	10/06/2004	000043	Plutonium-238	55	1.840	0.02			1466260.816	598139.540	
SMV038	0	0	10/06/2004	000043	Plutonium-239/240	62	0.025	0.012	J	J	1466260.816	598139.540	
SMV039	0	0	10/06/2004	000044	Plutonium-238	55	3.430	0.01			1466290.704	598137.404	
SMV039	0	0	10/06/2004	000044	Plutonium-239/240	62	0.046	0.009	J	J	1466290.704	598137.404	
SMV040	0	0	10/06/2004	000045	Plutonium-238	55	7.210	0.02			1466320.828	598135.267	
SMV040	0	0	10/06/2004	000045	Plutonium-239/240	62	0.073	0.018	J	J	1466320.828	598135.267	
SMV041	0	0	10/06/2004	000046	Plutonium-238	55	5.790	0.02			1466168.781	598115.804	
SMV041	0	0	10/06/2004	000046	Plutonium-239/240	62	0.085	0.003	J	J	1466168.781	598115.804	
SMV042	0	0	10/06/2004	000047	Plutonium-238	55	1.320	0.02			1466198.669	598113.668	
SMV042	0	0	10/06/2004	000047	Plutonium-239/240	62	0.003	0.023	U	U	1466198.669	598113.668	
SMV043	**0**	**0**	**10/06/2004**	**000050**	**Plutonium-238**	**55**	**68.600**	**0.02**			**1466288.806**	**598107.497**	
SMV043	0	0	10/06/2004	000050	Plutonium-239/240	62	0.570	0.003			1466288.806	598107.497	
SMV044	0	0	10/06/2004	000049	Plutonium-238	55	0.166	0.017			1466196.771	598083.761	Dup
SMV044	0	0	10/06/2004	000048	Plutonium-238	55	0.160	0.025			1466196.771	598083.761	

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Table 1: Analytical Results [page 19 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMV044	0	0	10/06/2004	000049	Plutonium-239/240	62	0.007	0.012	U	U	1466196.771	598083.761	Dup
SMV044	0	0	10/06/2004	000048	Plutonium-239/240	62	0.007	0.014	U	U	1466196.771	598083.761	
C03	8.0	10.0	04/13/2004	000015	Thorium-228	2.6	0.414	0.0224			1466245.599	598345.653	
C03	8.0	10.0	04/13/2004	000015	Thorium-230	2.8	0.312	0.0104			1466245.599	598345.653	
C03	8.0	10.0	04/13/2004	000015	Thorium-232	3.5	0.306	0.0104			1466245.599	598345.653	
C04	7.0	9.0	04/13/2004	000014	Plutonium-238	100	6.160	0.00297			1466275.445	598342.622	
C04	7.0	9.0	04/13/2004	000014	Plutonium-239/240	62	0.023	0.00134			1466275.445	598342.622	
C04	7.0	9.0	04/13/2004	000014	Thorium-228	2.6	0.585	0.0158			1466275.445	598342.622	
C04	7.0	9.0	04/13/2004	000014	Thorium-230	2.8	0.439	0.00923			1466275.445	598342.622	
C04	7.0	9.0	04/13/2004	000014	Thorium-232	3.5	0.456	0.0103			1466275.445	598342.622	
C05	3.0	5.0	04/12/2004	000013	Plutonium-238	100	1.710	0.00136			1466305.292	598339.590	
C05	3.0	5.0	04/12/2004	000013	Plutonium-239/240	62	0.019	0.00300			1466305.292	598339.590	
C05	3.0	5.0	04/12/2004	000013	Thorium-228	2.6	2.230	0.0197			1466305.292	598339.590	
C05	3.0	5.0	04/12/2004	000013	Thorium-230	2.8	0.829	0.0144			1466305.292	598339.590	
C05	3.0	5.0	04/12/2004	000013	Thorium-232	3.5	2.790	0.0161			1466305.292	598339.590	
C06	3.0	5.0	04/14/2004	000030	Plutonium-238	100	0.141	0.00338			1466335.138	598336.558	
C06	3.0	5.0	04/14/2004	000030	Plutonium-239/240	62	0.002	0.00153	U		1466335.138	598336.558	
C06	3.0	5.0	04/14/2004	000030	Thorium-228	2.6	0.439	0.00676			1466335.138	598336.558	
C06	3.0	5.0	04/14/2004	000030	Thorium-230	2.8	0.455	0.0144			1466335.138	598336.558	
C06	3.0	5.0	04/14/2004	000030	Thorium-232	3.5	0.389	0.00651			1466335.138	598336.558	
C07	4.0	6.0	04/14/2004	000029	Plutonium-238	100	0.729	0.00205			1466364.985	598333.526	
C07	4.0	6.0	04/14/2004	000029	Plutonium-239/240	62	0.005	0.00453	U		1466364.985	598333.526	
C07	4.0	6.0	04/14/2004	000029	Thorium-228	2.6	0.693	0.00912			1466364.985	598333.526	
C07	4.0	6.0	04/14/2004	000029	Thorium-230	2.8	0.502	0.00878			1466364.985	598333.526	
C07	4.0	6.0	04/14/2004	000029	Thorium-232	3.5	0.672	0.0194			1466364.985	598333.526	
C08	0.5	2.5	04/14/2004	000032	Plutonium-238	100	1.230	0.00133			1466394.831	598330.495	Dup
C08	0.5	2.5	04/14/2004	000031	Plutonium-238	100	1.680	0.00465			1466394.831	598330.495	
C08	0.5	2.5	04/14/2004	000032	Plutonium-239/240	62	0.003	0.00133	J		1466394.831	598330.495	Dup
C08	0.5	2.5	04/14/2004	000031	Plutonium-239/240	62	0.005	0.00464	U		1466394.831	598330.495	
C08	0.5	2.5	04/14/2004	000032	Thorium-228	2.6	0.524	0.0135			1466394.831	598330.495	Dup
C08	0.5	2.5	04/14/2004	000031	Thorium-228	2.6	0.610	0.0111			1466394.831	598330.495	
C08	0.5	2.5	04/14/2004	000032	Thorium-230	2.8	0.509	0.00587			1466394.831	598330.495	Dup
C08	0.5	2.5	04/14/2004	000031	Thorium-230	2.8	0.531	0.0107			1466394.831	598330.495	
C08	0.5	2.5	04/14/2004	000031	Thorium-232	3.5	0.501	0.00484			1466394.831	598330.495	
C08	0.5	2.5	04/14/2004	000032	Thorium-232	3.5	0.600	0.00587			1466394.831	598330.495	Dup
C09	1.5	2.5	04/15/2004	000044	Plutonium-238	100	1.480	0.00137			1466424.677	598327.463	
C09	1.5	2.5	04/15/2004	000044	Plutonium-239/240	62	0.013	0.00303			1466424.677	598327.463	
C09	1.5	2.5	04/15/2004	000044	Thorium-228	2.6	0.996	0.00579			1466424.677	598327.463	
C09	1.5	2.5	04/15/2004	000044	Thorium-230	2.8	0.562	0.0123			1466424.677	598327.463	
C09	1.5	2.5	04/15/2004	000044	Thorium-232	3.5	0.896	0.00557			1466424.677	598327.463	
C14	3.0	5.0	04/12/2004	000005	Plutonium-238	100	0.276	0.00140			1466302.260	598309.743	
C14	3.0	5.0	04/12/2004	000005	Plutonium-239/240	62	0.004	0.00379	U		1466302.260	598309.743	
C14	3.0	5.0	04/12/2004	000005	Thorium-228	2.6	0.372	0.0167			1466302.260	598309.743	
C14	3.0	5.0	04/12/2004	000005	Thorium-230	2.8	0.537	0.00986			1466302.260	598309.743	
C14	3.0	5.0	04/12/2004	000005	Thorium-232	3.5	0.294	0.00986			1466302.260	598309.743	
C15	1.0	3.0	04/12/2004	000006	Plutonium-238	100	0.043	0.00352			1466332.106	598306.712	
C15	1.0	3.0	04/12/2004	000006	Plutonium-239/240	62	0.004	0.00352	U		1466332.106	598306.712	
C15	1.0	3.0	04/12/2004	000006	Thorium-228	2.6	0.363	0.0222			1466332.106	598306.712	
C15	1.0	3.0	04/12/2004	000006	Thorium-230	2.8	0.532	0.0135			1466332.106	598306.712	
C15	1.0	3.0	04/12/2004	000006	Thorium-232	3.5	0.360	0.0114			1466332.106	598306.712	
C16	2.0	4.0	04/12/2004	000007	Plutonium-238	100	0.129	0.00425			1466361.953	598303.680	
C16	2.0	4.0	04/12/2004	000007	Plutonium-239/240	62	0.002	0.00156	U		1466361.953	598303.680	
C16	2.0	4.0	04/12/2004	000007	Thorium-228	2.6	0.442	0.00992			1466361.953	598303.680	
C16	2.0	4.0	04/12/2004	000007	Thorium-230	2.8	0.556	0.00954			1466361.953	598303.680	
C16	2.0	4.0	04/12/2004	000007	Thorium-232	3.5	0.361	0.00431			1466361.953	598303.680	
C17	2.0	4.0	04/14/2004	000033	Plutonium-238	100	0.092	0.00466			1466391.799	598300.648	
C17	2.0	4.0	04/14/2004	000033	Plutonium-239/240	62	0.002	0.00171	U		1466391.799	598300.648	
C17	2.0	4.0	04/14/2004	000033	Thorium-228	2.6	0.609	0.00660			1466391.799	598300.648	
C17	2.0	4.0	04/14/2004	000033	Thorium-230	2.8	0.449	0.0172			1466391.799	598300.648	
C17	2.0	4.0	04/14/2004	000033	Thorium-232	3.5	0.588	0.0140			1466391.799	598300.648	
C18	2.0	4.0	04/14/2004	000034	Plutonium-238	100	0.037	0.00844			1466421.646	598297.617	
C18	2.0	4.0	04/14/2004	000034	Plutonium-239/240	62	0.004	0.00381	J		1466421.646	598297.617	
C18	2.0	4.0	04/14/2004	000034	Thorium-228	2.6	0.552	0.0108			1466421.646	598297.617	

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Table 1: Analytical Results [page 20 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
C18	2.0	4.0	04/14/2004	000034	Thorium-230	2.8	0.539	0.0103			1466421.646	598297.617	
C18	2.0	4.0	04/14/2004	000034	Thorium-232	3.5	0.489	0.00467			1466421.646	598297.617	
C19	8.0	10.0	04/12/2004	000008	Plutonium-238	100	0.031	0.00721			1466179.843	598292.024	
C19	8.0	10.0	04/12/2004	000008	Plutonium-239/240	62	0.004	0.00326	J		1466179.843	598292.024	
C19	8.0	10.0	04/12/2004	000008	Thorium-228	2.6	0.666	0.00516			1466179.843	598292.024	
C19	8.0	10.0	04/12/2004	000008	Thorium-230	2.8	0.369	0.0110			1466179.843	598292.024	
C19	8.0	10.0	04/12/2004	000008	Thorium-232	3.5	0.518	0.00496			1466179.843	598292.024	
C20	3.0	5.0	04/12/2004	000010	Plutonium-238	100	5.960	0.00142			1466209.689	598288.992	Dup
C20	3.0	5.0	04/12/2004	000010	Plutonium-239/240	62	0.070	0.00313			1466209.689	598288.992	Dup
C20	3.0	5.0	04/12/2004	000010	Thorium-228	2.6	1.120	0.00622			1466209.689	598288.992	Dup
C20	3.0	5.0	04/12/2004	000010	Thorium-230	2.8	0.614	0.0163			1466209.689	598288.992	Dup
C20	3.0	5.0	04/12/2004	000010	Thorium-232	3.5	1.110	0.0133			1466209.689	598288.992	Dup
C23	4.5	6.5	04/15/2004	000036	Plutonium-238	100	0.161	0.00293			1466294.222	598226.718	
C23	4.5	6.5	04/15/2004	000036	Plutonium-239/240	62	0.006	0.00649	U		1466294.222	598226.718	
C23	4.5	6.5	04/15/2004	000036	Thorium-228	2.6	0.281	0.00599			1466294.222	598226.718	
C23	4.5	6.5	04/15/2004	000036	Thorium-230	2.8	0.195	0.0128			1466294.222	598226.718	
C23	4.5	6.5	04/15/2004	000036	Thorium-232	3.5	0.270	0.00576			1466294.222	598226.718	
C24	3.8	5.8	04/14/2004	000027	Plutonium-238	100	0.223	0.0550			1466324.069	598223.687	
C24	3.8	5.8	04/14/2004	000027	Plutonium-238/239	62	0.024	0.0242	U		1466324.069	598223.687	
C24	3.8	5.8	04/14/2004	000027	Thorium-228	2.6	0.465	0.00994			1466324.069	598223.687	
C24	3.8	5.8	04/14/2004	000027	Thorium-230	2.8	0.206	0.0117			1466324.069	598223.687	
C24	3.8	5.8	04/14/2004	000027	Thorium-232	3.5	0.418	0.00433			1466324.069	598223.687	
C25	3.0	5.0	04/14/2004	000025	Plutonium-238	100	2.710	0.00214			1466353.915	598220.655	
C25	3.0	5.0	04/14/2004	000025	Plutonium-239/240	62	0.018	0.00214			1466353.915	598220.655	
C25	3.0	5.0	04/14/2004	000025	Thorium-228	2.6	0.501	0.0104			1466353.915	598220.655	
C25	3.0	5.0	04/14/2004	000025	Thorium-230	2.8	0.254	0.0100			1466353.915	598220.655	
C25	3.0	5.0	04/14/2004	000025	Thorium-232	3.5	0.404	0.00452			1466353.915	598220.655	
C26	**2.5**	**4.5**	**04/14/2004**	**000026**	**Plutonium-238**	**100**	**106.000**	**0.00183**			**1466383.762**	**598217.623**	
C26	2.5	4.5	04/14/2004	000026	Plutonium-239/240	62	1.090	0.00406			1466383.762	598217.623	
C26	2.5	4.5	04/14/2004	000026	Thorium-228	2.6	0.705	0.00475			1466383.762	598217.623	
C26	2.5	4.5	04/14/2004	000026	Thorium-230	2.8	0.153	0.0101			1466383.762	598217.623	
C26	2.5	4.5	04/14/2004	000026	Thorium-232	3.5	0.165	0.00458			1466383.762	598217.623	
C29	2.0	4.0	04/14/2004	000035	Plutonium-238	100	8.400	0.00327			1466350.883	598190.808	
C29	2.0	4.0	04/14/2004	000035	Plutonium-239/240	62	0.105	0.00327			1466350.883	598190.808	
C29	2.0	4.0	04/14/2004	000035	Thorium-228	2.6	0.363	0.00453			1466350.883	598190.808	
C29	2.0	4.0	04/14/2004	000035	Thorium-230	2.8	0.165	0.00435			1466350.883	598190.808	
C29	2.0	4.0	04/14/2004	000035	Thorium-232	3.5	0.208	0.00963			1466350.883	598190.808	
C30	2.0	4.0	04/14/2004	000024	Plutonium-238	100	0.197	0.00240			1466380.730	598187.777	
C30	2.0	4.0	04/14/2004	000024	Plutonium-239/240	62	0.003	0.00240	J		1466380.730	598187.777	
C30	2.0	4.0	04/14/2004	000024	Thorium-228	2.6	0.374	0.0108			1466380.730	598187.777	
C30	2.0	4.0	04/14/2004	000024	Thorium-230	2.8	0.300	0.0104			1466380.730	598187.777	
C30	2.0	4.0	04/14/2004	000024	Thorium-232	3.5	0.290	0.0128			1466380.730	598187.777	
C31	3.5	5.5	04/13/2004	000023	Plutonium-238	100	4.280	0.00673			1466347.851	598160.962	
C31	3.5	5.5	04/13/2004	000023	Plutonium-239/240	62	0.026	0.00304			1466347.851	598160.962	
C31	3.5	5.5	04/13/2004	000023	Thorium-228	2.6	0.536	0.00621			1466347.851	598160.962	
C31	3.5	5.5	04/13/2004	000023	Thorium-230	2.8	0.226	0.0132			1466347.851	598160.962	
C31	3.5	5.5	04/13/2004	000023	Thorium-232	3.5	0.393	0.00598			1466347.851	598160.962	
C32	2.0	4.0	04/13/2004	000022	Plutonium-238	100	0.138	0.00812			1466377.698	598157.930	
C32	2.0	4.0	04/13/2004	000022	Plutonium-239/240	62	0.003	0.00299	U		1466377.698	598157.930	
C32	2.0	4.0	04/13/2004	000022	Thorium-228	2.6	0.453	0.00429			1466377.698	598157.930	
C32	2.0	4.0	04/13/2004	000022	Thorium-230	2.8	0.460	0.00413			1466377.698	598157.930	
C32	2.0	4.0	04/13/2004	000022	Thorium-232	3.5	0.394	0.00914			1466377.698	598157.930	
C34	3.5	5.5	04/13/2004	000020	Plutonium-238	100	2.030	0.00170			1466374.667	598128.084	Dup
C34	3.5	5.5	04/13/2004	000020	Plutonium-239/240	62	0.005	0.00461	U		1466374.667	598128.084	Dup
C34	3.5	5.5	04/13/2004	000020	Thorium-228	2.6	2.570	0.00619			1466374.667	598128.084	Dup
C34	3.5	5.5	04/13/2004	000020	Thorium-230	2.8	1.120	0.0162			1466374.667	598128.084	Dup
C36	7.0	9.0	04/15/2004	000042	Plutonium-238	100	0.424	0.00301			1466282.096	598107.333	
C36	7.0	9.0	04/15/2004	000042	Plutonium-239/240	62	0.004	0.00136	J		1466282.096	598107.333	
C36	7.0	9.0	04/15/2004	000042	Thorium-228	2.6	0.554	0.0106			1466282.096	598107.333	
C36	7.0	9.0	04/15/2004	000042	Thorium-230	2.8	0.905	0.0125			1466282.096	598107.333	
C36	7.0	9.0	04/15/2004	000042	Thorium-232	3.5	0.571	0.00460			1466282.096	598107.333	
C37	5.0	7.0	04/15/2004	000043	Plutonium-238	100	0.087	0.00155			1466311.942	598104.301	
C37	5.0	7.0	04/15/2004	000043	Plutonium-239/240	62	0.002	0.00155	U		1466311.942	598104.301	
C37	5.0	7.0	04/15/2004	000043	Thorium-228	2.6	0.460	0.00436			1466311.942	598104.301	

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Table 1: Analytical Results [page 21 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
C37	5.0	7.0	04/15/2004	000043	Thorium-230	2.8	0.224	0.00419			1466311.942	598104.301	
C37	5.0	7.0	04/15/2004	000043	Thorium-232	3.5	0.383	0.00928			1466311.942	598104.301	
C38	3.5	5.5	04/13/2004	000018	Plutonium-238	100	0.131	0.00228			1466341.788	598101.269	
C38	3.5	5.5	04/13/2004	000018	Plutonium-239/240	62	0.005	0.00505	U		1466341.788	598101.269	
C38	3.5	5.5	04/13/2004	000018	Thorium-228	2.6	0.522	0.00464			1466341.788	598101.269	
C38	3.5	5.5	04/13/2004	000018	Thorium-230	2.8	0.331	0.00989			1466341.788	598101.269	
C38	3.5	5.5	04/13/2004	000018	Thorium-232	3.5	0.467	0.00447			1466341.788	598101.269	
C39	3.5	5.5	04/13/2004	000017	Plutonium-238	100	0.048	0.00559			1466371.635	598098.238	
C39	3.5	5.5	04/13/2004	000017	Plutonium-239/240	62	0.003	0.00252	U		1466371.635	598098.238	
C39	3.5	5.5	04/13/2004	000017	Thorium-228	2.6	0.430	0.0104			1466371.635	598098.238	
C39	3.5	5.5	04/13/2004	000017	Thorium-230	2.8	0.272	0.0100			1466371.635	598098.238	
C39	3.5	5.5	04/13/2004	000017	Thorium-232	3.5	0.338	0.00452			1466371.635	598098.238	
C40	1.5	3.5	04/15/2004	000041	Plutonium-238	100	1.040	0.00157			1466249.217	598080.518	
C40	1.5	3.5	04/15/2004	000041	Plutonium-239/240	62	0.011	0.00347			1466249.217	598080.518	
C40	1.5	3.5	04/15/2004	000041	Thorium-228	2.6	0.589	0.00619			1466249.217	598080.518	
C40	1.5	3.5	04/15/2004	000041	Thorium-230	2.8	0.540	0.0162			1466249.217	598080.518	
C40	1.5	3.5	04/15/2004	000041	Thorium-232	3.5	0.530	0.0132			1466249.217	598080.518	
C41	2.5	4.5	04/15/2004	000039	Plutonium-238	100	18.100	0.00263			1466279.064	598077.486	
C41	2.5	4.5	04/15/2004	000040	Plutonium-238	100	25.600	0.00303			1466279.064	598077.486	Dup
C41	2.5	4.5	04/15/2004	000040	Plutonium-239/240	62	0.073	0.00303			1466279.064	598077.486	Dup
C41	2.5	4.5	04/15/2004	000039	Plutonium-239/240	62	0.345	0.00263			1466279.064	598077.486	
C41	2.5	4.5	04/15/2004	000040	Thorium-228	2.6	0.503	0.0126			1466279.064	598077.486	Dup
C41	2.5	4.5	04/15/2004	000039	Thorium-228	2.6	0.587	0.00453			1466279.064	598077.486	
C41	2.5	4.5	04/15/2004	000039	Thorium-230	2.8	0.451	0.00964			1466279.064	598077.486	
C41	2.5	4.5	04/15/2004	000040	Thorium-230	2.8	0.452	0.00547			1466279.064	598077.486	Dup
C41	2.5	4.5	04/15/2004	000040	Thorium-232	3.5	0.428	0.00547			1466279.064	598077.486	Dup
C41	2.5	4.5	04/15/2004	000039	Thorium-232	3.5	0.484	0.00436			1466279.064	598077.486	
C42	3.0	5.0	04/15/2004	000038	Plutonium-238	100	5.840	0.00137			1466308.910	598074.454	
C42	3.0	5.0	04/15/2004	000038	Plutonium-239/240	62	0.021	0.00137			1466308.910	598074.454	
C42	3.0	5.0	04/15/2004	000038	Thorium-228	2.6	0.664	0.0107			1466308.910	598074.454	
C42	3.0	5.0	04/15/2004	000038	Thorium-230	2.8	0.487	0.0103			1466308.910	598074.454	
C42	3.0	5.0	04/15/2004	000038	Thorium-232	3.5	0.617	0.00466			1466308.910	598074.454	
C43	3.5	5.5	04/15/2004	000037	Plutonium-238	100	0.578	0.00257			1466338.757	598071.423	
C43	3.5	5.5	04/15/2004	000037	Plutonium-239/240	62	0.009	0.00568	J		1466338.757	598071.423	
C43	3.5	5.5	04/15/2004	000037	Thorium-228	2.6	0.879	0.0162			1466338.757	598071.423	
C43	3.5	5.5	04/15/2004	000037	Thorium-230	2.8	0.660	0.0111			1466338.757	598071.423	
C43	3.5	5.5	04/15/2004	000037	Thorium-232	3.5	0.741	0.0137			1466338.757	598071.423	
C44	2.5	4.5	04/13/2004	000016	Plutonium-238	100	0.068	0.00185			1466368.603	598068.391	
C44	2.5	4.5	04/13/2004	000016	Plutonium-239/240	62	0.004	0.00409	U		1466368.603	598068.391	
C44	2.5	4.5	04/13/2004	000016	Thorium-228	2.6	0.891	0.0174			1466368.603	598068.391	
C44	2.5	4.5	04/13/2004	000016	Thorium-230	2.8	0.811	0.0103			1466368.603	598068.391	
C44	2.5	4.5	04/13/2004	000016	Thorium-232	3.5	0.761	0.0121			1466368.603	598068.391	
C34V01	0	0	10/11/2004		Actinium-227	4.6	-0.160	0.25	U	UJ	1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Americium-241	63	0.027	0.12	U	U	1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Bismuth-207	1.2	0.028	0.059	U	U	1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Bismuth-210M	8.3	-0.020	0.064	U	UJ	1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Cesium-137	3.8	0.012	0.068	U	U	1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Cobalt-60	0.7	0.037	0.099	U	U	1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Lead-210	7.4	-0.420	1.5	U	UJ	1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Lead-212		0.232	0.087			1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Potassium-40		4.500	0.6			1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Protactinium-231	4	1.360	1.9	U	U	1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Radium-226	2.9	0.111	0.20	U	UJ	1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Radium-228	2.1	0.190	0.38	U	U	1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Thallium-208		0.102	0.064			1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Thorium-228	2.6	0.400	0.06			1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Thorium-230	2.8	0.500	0.02			1466348.157	598137.108	
C34V01	0	0	10/11/2004	000056	Thorium-232	2.1	0.330	0.04			1466348.157	598137.108	
C34V02	0	0	10/11/2004		Actinium-227	4.6	0.200	0.38	U	U	1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Americium-241	63	0.005	0.13	U	U	1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Bismuth-207	1.2	0.003	0.058	U	U	1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Bismuth-210M	8.3	-0.012	0.078	U	UJ	1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Bismuth-214		0.240	0.12			1466378.174	598137.108	

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Table 1: Analytical Results [page 22 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
C34V02	0	0	10/11/2004	000058	Cesium-137	3.8	-0.005	0.061	U	UJ	1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Cobalt-60	0.7	-0.012	0.072	U	UJ	1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Lead-210	7.4	-0.550	1.4	U	UJ	1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Lead-212		0.400	0.12			1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Lead-214		0.330	0.09			1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Potassium-40		8.800	1			1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Protactinium-231	4	0.070	1.5	U	U	1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Radium-226	2.9	0.240	0.12		J	1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Radium-228	2.1	0.680	0.56			1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Thallium-208		0.166	0.058			1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Thorium-228	2.6	0.723	0.029			1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Thorium-230	2.8	0.616	0.014			1466378.174	598137.108	
C34V02	0	0	10/11/2004	000058	Thorium-232	2.1	0.675	0.005			1466378.174	598137.108	
C34V03	0	0	10/11/2004		Actinium-227	4.6	0.080	0.32	U	U	1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Americium-241	63	-0.014	0.12	U	UJ	1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Bismuth-207	1.2	-0.012	0.052	U	UJ	1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Bismuth-210M	8.3	-0.003	0.075	U	UJ	1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Bismuth-214		0.310	0.12			1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Cesium-137	3.8	0.012	0.075	U	U	1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Cobalt-60	0.7	-0.066	0.048	U	U	1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Lead-210	7.4	-0.450	1.3	U	UJ	1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Lead-212		0.280	0.12			1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Lead-214		0.250	0.10			1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Potassium-40		9.400	0.6			1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Protactinium-231	4	0.200	1.6	U	U	1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Radium-226	2.9	0.310	0.12		J	1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Radium-228	2.1	0.320	0.40	U	U	1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Thallium-208		0.131	0.058			1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Thorium-228	2.6	0.442	0.041			1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Thorium-230	2.8	0.582	0.019			1466348.157	598107.072	
C34V03	0	0	10/11/2004	000057	Thorium-232	2.1	0.461	0.024			1466348.157	598107.072	
C34V04	0	0	10/11/2004		Actinium-227	4.6	0.200	0.42	U	U	1466408.191	598107.072	
C34V04	0	0	10/11/2004		Actinium-228		0.540	0.33			1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Americium-241	63	0.004	0.16	U	U	1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Bismuth-207	1.2	0.003	0.069	U	U	1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Bismuth-210M	8.3	0.004	0.094	U	U	1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Bismuth-214		1.040	0.15			1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Cesium-137	3.8	-0.041	0.079	U	UJ	1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Cobalt-60	0.7	0.029	0.12	U	U	1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Lead-210	7.4	1.600	2.2	U	U	1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Lead-212		0.610	0.15			1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Lead-214		0.810	0.15			1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Potassium-40		12.800	0.9			1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Protactinium-231	4	1.100	2.3	U	U	1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Radium-226	2.9	1.040	0.15		J	1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Radium-228	2.1	0.540	0.33			1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Thallium-208		0.312	0.074			1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Thorium-228	2.6	1.000	0.03			1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Thorium-230	2.8	1.640	0.006			1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Thorium-232	2.1	0.876	0.020			1466408.191	598107.072	
C34V04	0	0	10/11/2004	000059	Thorium-232	2.1	0.540	0.33			1466408.191	598107.072	
PRS7701	0	0	09/25/2004		Actinium-227	4.6	0.150	0.15	U		1466153.013	598101.843	
PRS7701	0	0	09/25/2004		Americium-241	63	0.050	0.05	U		1466153.013	598101.843	
PRS7701	0	0	09/25/2004		Bismuth-210M	8.3	0.040	0.04	U		1466153.013	598101.843	
PRS7701	0	0	09/25/2004		Cesium-137	3.8	0.060	0.03			1466153.013	598101.843	
PRS7701	0	0	09/25/2004		Cobalt-60	0.7	0.030	0.03	U		1466153.013	598101.843	
PRS7701	0	0	09/25/2004		Lead-210	7.4	0.430	0.43	U		1466153.013	598101.843	
PRS7701	0	0	09/25/2004		Plutonium-238	55	15.600	11.59			1466153.013	598101.843	
PRS7701	0	0	09/25/2004		Radium-226	2.9	0.670	0.58			1466153.013	598101.843	
PRS7701	0	0	09/25/2004		Thorium-230	2.8	4.870	4.87	U		1466153.013	598101.843	
PRS7701	0	0	09/25/2004		Thorium-232	2.1	0.310	0.13			1466153.013	598101.843	
PRS7702	0	0	09/24/2004		Actinium-227	4.6	0.180	0.18	U		1466182.902	598100.068	
PRS7702	0	0	09/24/2004		Americium-241	63	0.050	0.05	U		1466182.902	598100.068	

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Table 1: Analytical Results [page 23 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
PRS7702	0	0	09/24/2004		Bismuth-210M	8.3	0.040	0.04	U		1466182.902	598100.068	
PRS7702	0	0	09/24/2004		Cesium-137	3.8	0.030	0.03	U		1466182.902	598100.068	
PRS7702	0	0	09/24/2004		Cobalt-60	0.7	0.030	0.03	U		1466182.902	598100.068	
PRS7702	0	0	09/24/2004		Lead-210	7.4	0.470	0.47	U		1466182.902	598100.068	
PRS7702	0	0	09/24/2004		Plutonium-238	55	9.150	9.15	U		1466182.902	598100.068	
PRS7702	0	0	09/24/2004		Radium-226	2.9	1.310	0.44			1466182.902	598100.068	
PRS7702	0	0	09/24/2004		Thorium-230	2.8	4.850	4.85	U		1466182.902	598100.068	
PRS7702	0	0	09/24/2004		Thorium-232	2.1	0.250	0.13			1466182.902	598100.068	
PRS7703	0	0	09/25/2004		Actinium-227	4.6	0.240	0.24	U		1466141.867	598087.902	
PRS7703	0	0	09/25/2004		Americium-241	63	0.060	0.06	U		1466141.867	598087.902	
PRS7703	0	0	09/25/2004		Bismuth-210M	8.3	0.050	0.05	U		1466141.867	598087.902	
PRS7703	0	0	09/25/2004		Cesium-137	3.8	0.110	0.04			1466141.867	598087.902	
PRS7703	0	0	09/25/2004		Cobalt-60	0.7	0.070	0.07	U		1466141.867	598087.902	
PRS7703	0	0	09/25/2004		Lead-210	7.4	0.670	0.55			1466141.867	598087.902	
PRS7703	0	0	09/25/2004		Plutonium-238	55	14.120	14.12	U		1466141.867	598087.902	
PRS7703	0	0	09/25/2004		Radium-226	2.9	0.800	0.73			1466141.867	598087.902	
PRS7703	0	0	09/25/2004		Thorium-230	2.8	6.780	6.78	U		1466141.867	598087.902	
PRS7703	0	0	09/25/2004		Thorium-232	2.1	0.630	0.16			1466141.867	598087.902	
PRS7704	0	0	09/24/2004		Actinium-227	4.6	0.230	0.23	U		1466166.944	598085.874	
PRS7704	0	0	09/24/2004		Americium-241	63	0.070	0.07	U		1466166.944	598085.874	
PRS7704	0	0	09/24/2004		Bismuth-210M	8.3	0.050	0.05	U		1466166.944	598085.874	
PRS7704	0	0	09/24/2004		Cesium-137	3.8	0.050	0.05	U		1466166.944	598085.874	
PRS7704	0	0	09/24/2004		Cobalt-60	0.7	0.060	0.06	U		1466166.944	598085.874	
PRS7704	0	0	09/24/2004		Lead-210	7.4	2.150	0.58			1466166.944	598085.874	
PRS7704	0	0	09/24/2004		Plutonium-238	55	12.260	12.26	U		1466166.944	598085.874	
PRS7704	0	0	09/24/2004		Radium-226	2.9	0.970	0.59			1466166.944	598085.874	
PRS7704	0	0	09/24/2004		Thorium-230	2.8	6.070	6.07	U		1466166.944	598085.874	
PRS7704	0	0	09/24/2004		Thorium-232	2.1	0.280	0.17			1466166.944	598085.874	
PRS7705	0	0	09/25/2004		Actinium-227	4.6	0.230	0.23	U		1466142.100	598057.427	
PRS7705	0	0	09/25/2004		Americium-241	63	0.060	0.06			1466142.100	598057.427	
PRS7705	0	0	09/25/2004		Bismuth-210M	8.3	0.050	0.05	U		1466142.100	598057.427	
PRS7705	0	0	09/25/2004		Cesium-137	3.8	0.100	0.04			1466142.100	598057.427	
PRS7705	0	0	09/25/2004		Cobalt-60	0.7	0.050	0.05	U		1466142.100	598057.427	
PRS7705	0	0	09/25/2004		Lead-210	7.4	0.590	0.59	U		1466142.100	598057.427	
PRS7705	0	0	09/25/2004		Plutonium-238	55	48.320	16.64			1466142.100	598057.427	
PRS7705	0	0	09/25/2004		Radium-226	2.9	1.050	0.71			1466142.100	598057.427	
PRS7705	0	0	09/25/2004		Thorium-230	2.8	5.760	5.76	U		1466142.100	598057.427	
PRS7705	0	0	09/25/2004		Thorium-232	2.1	0.530	0.17			1466142.100	598057.427	
PRS7706	0	0	09/25/2004		Actinium-227	4.6	0.310	0.31	U		1466164.664	598055.966	
PRS7706	0	0	09/25/2004		Americium-241	63	0.070	0.07	U		1466164.664	598055.966	
PRS7706	0	0	09/25/2004		Bismuth-210M	8.3	0.050	0.05	U		1466164.664	598055.966	
PRS7706	0	0	09/25/2004		Cesium-137	3.8	0.040	0.04			1466164.664	598055.966	
PRS7706	0	0	09/25/2004		Cobalt-60	0.7	0.050	0.04			1466164.664	598055.966	
PRS7706	0	0	09/25/2004		Lead-210	7.4	0.880	0.69			1466164.664	598055.966	
PRS7706	0	0	09/25/2004		Plutonium-238	55	17.290	17.29	U		1466164.664	598055.966	
PRS7706	0	0	09/25/2004		Radium-226	2.9	1.300	0.86			1466164.664	598055.966	
PRS7706	0	0	09/25/2004		Thorium-230	2.8	7.720	7.72	U		1466164.664	598055.966	
PRS7706	0	0	09/25/2004		Thorium-232	2.1	1.010	0.17			1466164.664	598055.966	
PRS7707	0	0	09/25/2004		Actinium-227	4.6	0.200	0.2	U		1466140.239	598028.334	
PRS7707	0	0	09/25/2004		Americium-241	63	0.050	0.05	U		1466140.239	598028.334	
PRS7707	0	0	09/25/2004		Bismuth-210M	8.3	0.040	0.04	U		1466140.239	598028.334	
PRS7707	0	0	09/25/2004		Cesium-137	3.8	0.030	0.03			1466140.239	598028.334	
PRS7707	0	0	09/25/2004		Cobalt-60	0.7	0.030	0.03	U		1466140.239	598028.334	
PRS7707	0	0	09/25/2004		Lead-210	7.4	0.560	0.5			1466140.239	598028.334	
PRS7707	0	0	09/25/2004		Plutonium-238	55	11.990	11.99	U		1466140.239	598028.334	
PRS7707	0	0	09/25/2004		Radium-226	2.9	0.970	0.64			1466140.239	598028.334	
PRS7707	0	0	09/25/2004		Thorium-230	2.8	5.490	5.49	U		1466140.239	598028.334	
PRS7707	0	0	09/25/2004		Thorium-232	2.1	0.270	0.2			1466140.239	598028.334	
PRS7708	0	0	09/24/2004		Actinium-227	4.6	0.200	0.2	U		1466162.638	598026.057	
PRS7708	0	0	09/24/2004		Americium-241	63	0.050	0.05	U		1466162.638	598026.057	
PRS7708	0	0	09/24/2004		Bismuth-210M	8.3	0.040	0.04	U		1466162.638	598026.057	
PRS7708	0	0	09/24/2004		Cesium-137	3.8	0.040	0.04	U		1466162.638	598026.057	
PRS7708	0	0	09/24/2004		Cobalt-60	0.7	0.040	0.04	U		1466162.638	598026.057	
PRS7708	0	0	09/24/2004		Lead-210	7.4	0.550	0.5			1466162.638	598026.057	

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Table 1: Analytical Results [page 24 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
PRS7708	0	0	09/24/2004		Plutonium-238	55	9.510	9.51	U		1466162.638	598026.057	
PRS7708	0	0	09/24/2004		Radium-226	2.9	1.310	0.56			1466162.638	598026.057	
PRS7708	0	0	09/24/2004		Thorium-230	2.8	5.290	5.29	U		1466162.638	598026.057	
PRS7708	0	0	09/24/2004		Thorium-232	2.1	0.340	0.11			1466162.638	598026.057	
PRS7709	0	0	09/25/2004		Actinium-227	4.6	0.260	0.26	U		1466139.309	597998.310	
PRS7709	0	0	09/25/2004		Americium-241	63	0.070	0.07	U		1466139.309	597998.310	
PRS7709	0	0	09/25/2004		Bismuth-210M	8.3	0.050	0.05	U		1466139.309	597998.310	
PRS7709	0	0	09/25/2004		Cesium-137	3.8	0.050	0.05	U		1466139.309	597998.310	
PRS7709	0	0	09/25/2004		Cobalt-60	0.7	0.040	0.04			1466139.309	597998.310	
PRS7709	0	0	09/25/2004		Lead-210	7.4	1.050	0.68			1466139.309	597998.310	
PRS7709	0	0	09/25/2004		Plutonium-238	55	16.420	16.42	U		1466139.309	597998.310	
PRS7709	0	0	09/25/2004		Radium-226	2.9	1.590	0.79			1466139.309	597998.310	
PRS7709	0	0	09/25/2004		Thorium-230	2.8	7.340	7.34	U		1466139.309	597998.310	
PRS7709	0	0	09/25/2004		Thorium-232	2.1	0.930	0.16			1466139.309	597998.310	
PRS7710	0	0	09/24/2004		Actinium-227	4.6	0.240	0.24	U		1466160.358	597996.148	
PRS7710	0	0	09/24/2004		Americium-241	63	0.070	0.07			1466160.358	597996.148	
PRS7710	0	0	09/24/2004		Bismuth-210M	8.3	0.040	0.04	U		1466160.358	597996.148	
PRS7710	0	0	09/24/2004		Cesium-137	3.8	0.060	0.06	U		1466160.358	597996.148	
PRS7710	0	0	09/24/2004		Cobalt-60	0.7	0.050	0.05	U		1466160.358	597996.148	
PRS7710	0	0	09/24/2004		Lead-210	7.4	0.650	0.59			1466160.358	597996.148	
PRS7710	0	0	09/24/2004		Plutonium-238	55	11.860	11.86	U		1466160.358	597996.148	
PRS7710	0	0	09/24/2004		Radium-226	2.9	1.050	0.71			1466160.358	597996.148	
PRS7710	0	0	09/24/2004		Thorium-230	2.8	6.620	6.62	U		1466160.358	597996.148	
PRS7710	0	0	09/24/2004		Thorium-232	2.1	0.530	0.2			1466160.358	597996.148	
PRS7711	0	0	09/25/2004		Actinium-227	4.6	0.240	0.24	U		1466128.189	597968.267	
PRS7711	0	0	09/25/2004		Americium-241	63	0.080	0.08	U		1466128.189	597968.267	
PRS7711	0	0	09/25/2004		Bismuth-210M	8.3	0.050	0.05	U		1466128.189	597968.267	
PRS7711	0	0	09/25/2004		Cesium-137	3.8	0.060	0.06	U		1466128.189	597968.267	
PRS7711	0	0	09/25/2004		Cobalt-60	0.7	0.050	0.03			1466128.189	597968.267	
PRS7711	0	0	09/25/2004		Lead-210	7.4	0.620	0.62	U		1466128.189	597968.267	
PRS7711	0	0	09/25/2004		Plutonium-238	55	13.220	13.22	U		1466128.189	597968.267	
PRS7711	0	0	09/25/2004		Radium-226	2.9	1.980	0.69			1466128.189	597968.267	
PRS7711	0	0	09/25/2004		Thorium-230	2.8	7.250	7.25	U		1466128.189	597968.267	
PRS7711	0	0	09/25/2004		Thorium-232	2.1	0.670	0.22			1466128.189	597968.267	
PRS7712	0	0	09/24/2004		Actinium-227	4.6	0.180	0.18	U		1466158.332	597966.239	
PRS7712	0	0	09/24/2004		Americium-241	63	0.060	0.06	U		1466158.332	597966.239	
PRS7712	0	0	09/24/2004		Bismuth-210M	8.3	0.040	0.04	U		1466158.332	597966.239	
PRS7712	0	0	09/24/2004		Cesium-137	3.8	0.050	0.05	U		1466158.332	597966.239	
PRS7712	0	0	09/24/2004		Cobalt-60	0.7	0.040	0.04	U		1466158.332	597966.239	
PRS7712	0	0	09/24/2004		Lead-210	7.4	0.880	0.47			1466158.332	597966.239	
PRS7712	0	0	09/24/2004		Plutonium-238	55	11.730	11.73	U		1466158.332	597966.239	
PRS7712	0	0	09/24/2004		Radium-226	2.9	0.710	0.71	U		1466158.332	597966.239	
PRS7712	0	0	09/24/2004		Thorium-230	2.8	5.810	5.81	U		1466158.332	597966.239	
PRS7712	0	0	09/24/2004		Thorium-232	2.1	0.420	0.12			1466158.332	597966.239	
SMP047	0	0	10/21/2004		Actinium-227	4.6	0.170	0.17	U		1466156.277	597936.274	
SMP047	0	0	10/21/2004		Americium-241	63	0.040	0.04	U		1466156.277	597936.274	
SMP047	0	0	10/21/2004		Cesium-137	3.8	0.030	0.03	U		1466156.277	597936.274	
SMP047	0	0	10/21/2004		Cobalt-60	0.7	0.030	0.03	U		1466156.277	597936.274	
SMP047	0	0	10/21/2004		Lead-210	7.4	0.370	0.37	U		1466156.277	597936.274	
SMP047	0	0	10/21/2004		Plutonium-238	55	10.020	10.02	U		1466156.277	597936.274	
SMP047	0	0	10/21/2004		Radium-226	2.9	0.620	0.41			1466156.277	597936.274	
SMP047	0	0	10/21/2004		Thorium-230	2.8	4.210	4.21	U		1466156.277	597936.274	
SMP047	0	0	10/21/2004		Thorium-232	2.1	0.170	0.11			1466156.277	597936.274	
SMP048	0	0	10/21/2004		Actinium-227	4.6	0.190	0.19	U		1466154.167	597906.348	
SMP048	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466154.167	597906.348	
SMP048	0	0	10/21/2004		Cesium-137	3.8	0.030	0.03	U		1466154.167	597906.348	
SMP048	0	0	10/21/2004		Cobalt-60	0.7	0.040	0.04	U		1466154.167	597906.348	
SMP048	0	0	10/21/2004		Lead-210	7.4	0.500	0.5	U		1466154.167	597906.348	
SMP048	0	0	10/21/2004		Plutonium-238	55	10.740	10.74	U		1466154.167	597906.348	
SMP048	0	0	10/21/2004		Radium-226	2.9	0.670	0.67	U		1466154.167	597906.348	
SMP048	0	0	10/21/2004		Thorium-230	2.8	4.700	4.7	U		1466154.167	597906.348	
SMP048	0	0	10/21/2004		Thorium-232	2.1	0.400	0.02			1466154.167	597906.348	
SMP049	0	0	10/21/2004		Actinium-227	4.6	0.210	0.21	U		1466184.054	597904.079	

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Table 1: Analytical Results [page 25 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMP049	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466184.054	597904.079	
SMP049	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466184.054	597904.079	
SMP049	0	0	10/21/2004		Cobalt-60	0.7	0.050	0.05	U		1466184.054	597904.079	
SMP049	0	0	10/21/2004		Lead-210	7.4	0.790	0.49			1466184.054	597904.079	
SMP049	0	0	10/21/2004		Plutonium-238	55	11.890	11.89	U		1466184.054	597904.079	
SMP049	0	0	10/21/2004		Radium-226	2.9	0.760	0.62			1466184.054	597904.079	
SMP049	0	0	10/21/2004		Thorium-230	2.8	5.160	5.16	U		1466184.054	597904.079	
SMP049	0	0	10/21/2004		Thorium-232	2.1	0.240	0.15			1466184.054	597904.079	
SMP050	0	0	10/21/2004		Actinium-227	4.6	0.170	0.17	U		1466213.988	597902.104	
SMP050	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466213.988	597902.104	
SMP050	0	0	10/21/2004		Cesium-137	3.8	0.030	0.03	U		1466213.988	597902.104	
SMP050	0	0	10/21/2004		Cobalt-60	0.7	0.030	0.03	U		1466213.988	597902.104	
SMP050	0	0	10/21/2004		Lead-210	7.4	0.450	0.38			1466213.988	597902.104	
SMP050	0	0	10/21/2004		Plutonium-238	55	10.860	10.86	U		1466213.988	597902.104	
SMP050	0	0	10/21/2004		Radium-226	2.9	1.020	0.51			1466213.988	597902.104	
SMP050	0	0	10/21/2004		Thorium-230	2.8	4.480	4.48	U		1466213.988	597902.104	
SMP050	0	0	10/21/2004		Thorium-232	2.1	0.260	0.15			1466213.988	597902.104	
SMP051	0	0	10/21/2004		Actinium-227	4.6	0.180	0.18	U		1466243.921	597900.129	
SMP051	0	0	10/21/2004		Americium-241	63	0.040	0.04	U		1466243.921	597900.129	
SMP051	0	0	10/21/2004		Cesium-137	3.8	0.030	0.03	U		1466243.921	597900.129	
SMP051	0	0	10/21/2004		Cobalt-60	0.7	0.030	0.03	U		1466243.921	597900.129	
SMP051	0	0	10/21/2004		Lead-210	7.4	0.700	0.43			1466243.921	597900.129	
SMP051	0	0	10/21/2004		Plutonium-238	55	10.010	10.01	U		1466243.921	597900.129	
SMP051	0	0	10/21/2004		Radium-226	2.9	1.330	0.52			1466243.921	597900.129	
SMP051	0	0	10/21/2004		Thorium-230	2.8	4.640	4.64	U		1466243.921	597900.129	
SMP051	0	0	10/21/2004		Thorium-232	2.1	0.400	0.12			1466243.921	597900.129	
SMP052	0	0	10/21/2004		Actinium-227	4.6	0.200	0.2	U		1466273.854	597897.825	
SMP052	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466273.854	597897.825	
SMP052	0	0	10/21/2004		Cesium-137	3.8	0.050	0.05	U		1466273.854	597897.825	
SMP052	0	0	10/21/2004		Cobalt-60	0.7	0.060	0.06	U		1466273.854	597897.825	
SMP052	0	0	10/21/2004		Lead-210	7.4	0.780	0.46			1466273.854	597897.825	
SMP052	0	0	10/21/2004		Plutonium-238	55	10.340	10.34	U		1466273.854	597897.825	
SMP052	0	0	10/21/2004		Radium-226	2.9	1.630	0.59			1466273.854	597897.825	
SMP052	0	0	10/21/2004		Thorium-230	2.8	5.270	5.27	U		1466273.854	597897.825	
SMP052	0	0	10/21/2004		Thorium-232	2.1	0.420	0.17			1466273.854	597897.825	
SMP053	0	0	10/21/2004		Actinium-227	4.6	0.210	0.21	U		1466182.081	597874.455	
SMP053	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466182.081	597874.455	
SMP053	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466182.081	597874.455	
SMP053	0	0	10/21/2004		Cobalt-60	0.7	0.040	0.04	U		1466182.081	597874.455	
SMP053	0	0	10/21/2004		Lead-210	7.4	0.500	0.49			1466182.081	597874.455	
SMP053	0	0	10/21/2004		Plutonium-238	55	11.950	11.95	U		1466182.081	597874.455	
SMP053	0	0	10/21/2004		Radium-226	2.9	1.090	0.59			1466182.081	597874.455	
SMP053	0	0	10/21/2004		Thorium-230	2.8	5.300	5.3	U		1466182.081	597874.455	
SMP053	0	0	10/21/2004		Thorium-232	2.1	0.580	0.14			1466182.081	597874.455	
SMP054	0	0	10/21/2004		Actinium-227	4.6	0.180	0.18	U		1466212.014	597872.151	
SMP054	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466212.014	597872.151	
SMP054	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466212.014	597872.151	
SMP054	0	0	10/21/2004		Cobalt-60	0.7	0.060	0.06	U		1466212.014	597872.151	
SMP054	0	0	10/21/2004		Lead-210	7.4	0.450	0.45			1466212.014	597872.151	
SMP054	0	0	10/21/2004		Plutonium-238	55	11.110	11.11	U		1466212.014	597872.151	
SMP054	0	0	10/21/2004		Radium-226	2.9	1.100	0.58			1466212.014	597872.151	
SMP054	0	0	10/21/2004		Thorium-230	2.8	4.720	4.72	U		1466212.014	597872.151	
SMP054	0	0	10/21/2004		Thorium-232	2.1	0.280	0.15			1466212.014	597872.151	
SMP055	0	0	10/21/2004		Actinium-227	4.6	0.220	0.22	U		1466241.947	597870.176	
SMP055	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466241.947	597870.176	
SMP055	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466241.947	597870.176	
SMP055	0	0	10/21/2004		Cobalt-60	0.7	0.040	0.04	U		1466241.947	597870.176	
SMP055	0	0	10/21/2004		Lead-210	7.4	0.670	0.54			1466241.947	597870.176	
SMP055	0	0	10/21/2004		Plutonium-238	55	13.590	13.59	U		1466241.947	597870.176	
SMP055	0	0	10/21/2004		Radium-226	2.9	0.780	0.59			1466241.947	597870.176	
SMP055	0	0	10/21/2004		Thorium-230	2.8	6.130	6.13	U		1466241.947	597870.176	
SMP055	0	0	10/21/2004		Thorium-232	2.1	0.600	0.19			1466241.947	597870.176	
SMP056	0	0	10/21/2004		Actinium-227	4.6	0.230	0.23	U		1466271.881	597867.543	
SMP056	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466271.881	597867.543	

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Table 1: Analytical Results [page 26 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMP056	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466271.881	597867.543	
SMP056	0	0	10/21/2004		Cobalt-60	0.7	0.040	0.04	U		1466271.881	597867.543	
SMP056	0	0	10/21/2004		Lead-210	7.4	0.770	0.57			1466271.881	597867.543	
SMP056	0	0	10/21/2004		Plutonium-238	55	13.300	13.3	U		1466271.881	597867.543	
SMP056	0	0	10/21/2004		Radium-226	2.9	1.180	0.77			1466271.881	597867.543	
SMP056	0	0	10/21/2004		Thorium-230	2.8	5.850	5.85	U		1466271.881	597867.543	
SMP056	0	0	10/21/2004		Thorium-232	2.1	0.540	0.15			1466271.881	597867.543	
SMP057	0	0	10/21/2004		Actinium-227	4.6	0.150	0.15	U		1466301.814	597865.897	
SMP057	0	0	10/21/2004		Americium-241	63	0.040	0.04	U		1466301.814	597865.897	
SMP057	0	0	10/21/2004		Cesium-137	3.8	0.030	0.03	U		1466301.814	597865.897	
SMP057	0	0	10/21/2004		Cobalt-60	0.7	0.040	0.04	U		1466301.814	597865.897	
SMP057	0	0	10/21/2004		Lead-210	7.4	0.390	0.39	U		1466301.814	597865.897	
SMP057	0	0	10/21/2004		Plutonium-238	55	8.690	8.69	U		1466301.814	597865.897	
SMP057	0	0	10/21/2004		Radium-226	2.9	0.740	0.48			1466301.814	597865.897	
SMP057	0	0	10/21/2004		Thorium-230	2.8	3.950	3.95	U		1466301.814	597865.897	
SMP057	0	0	10/21/2004		Thorium-232	2.1	0.290	0.1			1466301.814	597865.897	
SMP058	0	0	10/21/2004		Actinium-227	4.6	0.190	0.19	U		1466331.747	597863.922	
SMP058	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466331.747	597863.922	
SMP058	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466331.747	597863.922	
SMP058	0	0	10/21/2004		Cobalt-60	0.7	0.040	0.04	U		1466331.747	597863.922	
SMP058	0	0	10/21/2004		Lead-210	7.4	0.710	0.43			1466331.747	597863.922	
SMP058	0	0	10/21/2004		Plutonium-238	55	11.420	11.42	U		1466331.747	597863.922	
SMP058	0	0	10/21/2004		Radium-226	2.9	1.220	0.6			1466331.747	597863.922	
SMP058	0	0	10/21/2004		Thorium-230	2.8	4.940	4.94	U		1466331.747	597863.922	
SMP058	0	0	10/21/2004		Thorium-232	2.1	0.260	0.18			1466331.747	597863.922	
SMP059	0	0	10/21/2004		Actinium-227	4.6	0.230	0.23	U		1466361.680	597861.618	
SMP059	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466361.680	597861.618	
SMP059	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466361.680	597861.618	
SMP059	0	0	10/21/2004		Cobalt-60	0.7	0.040	0.04	U		1466361.680	597861.618	
SMP059	0	0	10/21/2004		Lead-210	7.4	0.550	0.55	U		1466361.680	597861.618	
SMP059	0	0	10/21/2004		Plutonium-238	55	9.900	9.9	U		1466361.680	597861.618	
SMP059	0	0	10/21/2004		Radium-226	2.9	1.480	0.62			1466361.680	597861.618	
SMP059	0	0	10/21/2004		Thorium-230	2.8	5.940	5.94	U		1466361.680	597861.618	
SMP059	0	0	10/21/2004		Thorium-232	2.1	0.240	0.14			1466361.680	597861.618	
SMP060	0	0	10/21/2004		Actinium-227	4.6	0.190	0.19	U		1466391.614	597859.643	
SMP060	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466391.614	597859.643	
SMP060	0	0	10/21/2004		Cesium-137	3.8	0.050	0.05	U		1466391.614	597859.643	
SMP060	0	0	10/21/2004		Cobalt-60	0.7	0.050	0.05	U		1466391.614	597859.643	
SMP060	0	0	10/21/2004		Lead-210	7.4	0.590	0.59	U		1466391.614	597859.643	
SMP060	0	0	10/21/2004		Plutonium-238	55	10.790	10.79	U		1466391.614	597859.643	
SMP060	0	0	10/21/2004		Radium-226	2.9	1.430	0.64			1466391.614	597859.643	
SMP060	0	0	10/21/2004		Thorium-230	2.8	5.590	5.59	U		1466391.614	597859.643	
SMP060	0	0	10/21/2004		Thorium-232	2.1	0.430	0.15			1466391.614	597859.643	
SMP061	0	0	10/21/2004		Actinium-227	4.6	0.140	0.14	U		1466333.721	597893.546	
SMP061	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466333.721	597893.546	
SMP061	0	0	10/21/2004		Cesium-137	3.8	0.030	0.03	U		1466333.721	597893.546	
SMP061	0	0	10/21/2004		Cobalt-60	0.7	0.020	0.004			1466333.721	597893.546	
SMP061	0	0	10/21/2004		Lead-210	7.4	0.420	0.42	U		1466333.721	597893.546	
SMP061	0	0	10/21/2004		Plutonium-238	55	7.400	7.4	U		1466333.721	597893.546	
SMP061	0	0	10/21/2004		Radium-226	2.9	0.940	0.47			1466333.721	597893.546	
SMP061	0	0	10/21/2004		Thorium-230	2.8	4.390	4.39	U		1466333.721	597893.546	
SMP061	0	0	10/21/2004		Thorium-232	2.1	0.250	0.11			1466333.721	597893.546	
SMP062	0	0	10/21/2004		Actinium-227	4.6	0.200	0.2	U		1466363.654	597891.571	
SMP062	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466363.654	597891.571	
SMP062	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466363.654	597891.571	
SMP062	0	0	10/21/2004		Cobalt-60	0.7	0.060	0.06	U		1466363.654	597891.571	
SMP062	0	0	10/21/2004		Lead-210	7.4	0.510	0.51	U		1466363.654	597891.571	
SMP062	0	0	10/21/2004		Plutonium-238	55	9.540	9.54	U		1466363.654	597891.571	
SMP062	0	0	10/21/2004		Radium-226	2.9	0.930	0.54			1466363.654	597891.571	
SMP062	0	0	10/21/2004		Thorium-230	2.8	5.180	5.18	U		1466363.654	597891.571	
SMP062	0	0	10/21/2004		Thorium-232	2.1	0.160	0.16	U		1466363.654	597891.571	
SMP063	0	0	10/21/2004		Actinium-227	4.6	0.250	0.25	U		1466393.587	597889.596	
SMP063	0	0	10/21/2004		Americium-241	63	0.080	0.08	U		1466393.587	597889.596	
SMP063	0	0	10/21/2004		Cesium-137	3.8	0.060	0.06	U		1466393.587	597889.596	

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Table 1: Analytical Results [page 27 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMP063	0	0	10/21/2004		Cobalt-60	0.7	0.100	0.1	U		1466393.587	597889.596	
SMP063	0	0	10/21/2004		Lead-210	7.4	3.570	0.87			1466393.587	597889.596	
SMP063	0	0	10/21/2004		Plutonium-238	55	14.790	14.79	U		1466393.587	597889.596	
SMP063	0	0	10/21/2004		Radium-226	2.9	1.560	0.86			1466393.587	597889.596	
SMP063	0	0	10/21/2004		Thorium-230	2.8	6.890	6.89	U		1466393.587	597889.596	
SMP063	0	0	10/21/2004		Thorium-232	2.1	0.350	0.19			1466393.587	597889.596	
SMP064	0	0	10/21/2004		Actinium-227	4.6	0.240	0.24	U		1466423.520	597887.292	
SMP064	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466423.520	597887.292	
SMP064	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466423.520	597887.292	
SMP064	0	0	10/21/2004		Cobalt-60	0.7	0.040	0.04	U		1466423.520	597887.292	
SMP064	0	0	10/21/2004		Lead-210	7.4	1.210	0.57			1466423.520	597887.292	
SMP064	0	0	10/21/2004		Plutonium-238	55	10.220	10.22	U		1466423.520	597887.292	
SMP064	0	0	10/21/2004		Radium-226	2.9	0.770	0.62			1466423.520	597887.292	
SMP064	0	0	10/21/2004		Thorium-230	2.8	5.880	5.88	U		1466423.520	597887.292	
SMP064	0	0	10/21/2004		Thorium-232	2.1	0.230	0.15			1466423.520	597887.292	
SMP065	0	0	10/21/2004		Actinium-227	4.6	0.180	0.18	U		1466365.627	597921.194	
SMP065	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466365.627	597921.194	
SMP065	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466365.627	597921.194	
SMP065	0	0	10/21/2004		Cobalt-60	0.7	0.050	0.05	U		1466365.627	597921.194	
SMP065	0	0	10/21/2004		Lead-210	7.4	0.470	0.47	U		1466365.627	597921.194	
SMP065	0	0	10/21/2004		Plutonium-238	55	9.140	9.14	U		1466365.627	597921.194	
SMP065	0	0	10/21/2004		Radium-226	2.9	0.640	0.64	U		1466365.627	597921.194	
SMP065	0	0	10/21/2004		Thorium-230	2.8	4.830	4.83	U		1466365.627	597921.194	
SMP065	0	0	10/21/2004		Thorium-232	2.1	0.220	0.14			1466365.627	597921.194	
SMP066	0	0	10/21/2004		Actinium-227	4.6	0.230	0.23	U		1466395.232	597919.220	
SMP066	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466395.232	597919.220	
SMP066	0	0	10/21/2004		Cesium-137	3.8	0.060	0.05			1466395.232	597919.220	
SMP066	0	0	10/21/2004		Cobalt-60	0.7	0.080	0.08	U		1466395.232	597919.220	
SMP066	0	0	10/21/2004		Lead-210	7.4	2.120	0.59			1466395.232	597919.220	
SMP066	0	0	10/21/2004		Plutonium-238	55	12.300	12.3	U		1466395.232	597919.220	
SMP066	0	0	10/21/2004		Radium-226	2.9	1.200	0.65			1466395.232	597919.220	
SMP066	0	0	10/21/2004		Thorium-230	2.8	5.760	5.76	U		1466395.232	597919.220	
SMP066	0	0	10/21/2004		Thorium-232	2.1	0.300	0.11			1466395.232	597919.220	
SMP067	0	0	10/21/2004		Actinium-227	4.6	0.420	0.42	U		1466425.494	597916.916	
SMP067	0	0	10/21/2004		Americium-241	63	0.100	0.1	U		1466425.494	597916.916	
SMP067	0	0	10/21/2004		Cesium-137	3.8	0.160	0.07			1466425.494	597916.916	
SMP067	0	0	10/21/2004		Cobalt-60	0.7	0.070	0.07	U		1466425.494	597916.916	
SMP067	0	0	10/21/2004		Lead-210	7.4	1.200	0.81			1466425.494	597916.916	
SMP067	0	0	10/21/2004		Plutonium-238	55	16.950	16.95	U		1466425.494	597916.916	
SMP067	0	0	10/21/2004		Radium-226	2.9	2.070	0.81			1466425.494	597916.916	
SMP067	0	0	10/21/2004		Thorium-230	2.8	8.820	8.82	U		1466425.494	597916.916	
SMP067	0	0	10/21/2004		Thorium-232	2.1	0.760	0.18			1466425.494	597916.916	
SMP068	0	0	10/21/2004		Actinium-227	4.6	0.170	0.17	U		1466367.786	597951.408	
SMP068	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466367.786	597951.408	
SMP068	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466367.786	597951.408	
SMP068	0	0	10/21/2004		Cobalt-60	0.7	0.040	0.04	U		1466367.786	597951.408	
SMP068	0	0	10/21/2004		Lead-210	7.4	0.480	0.4			1466367.786	597951.408	
SMP068	0	0	10/21/2004		Plutonium-238	55	10.190	10.19	U		1466367.786	597951.408	
SMP068	0	0	10/21/2004		Radium-226	2.9	0.930	0.54			1466367.786	597951.408	
SMP068	0	0	10/21/2004		Thorium-230	2.8	4.800	4.8	U		1466367.786	597951.408	
SMP068	0	0	10/21/2004		Thorium-232	2.1	0.340	0.09			1466367.786	597951.408	
SMP069	0	0	10/21/2004		Actinium-227	4.6	0.220	0.22	U		1466397.503	597949.038	
SMP069	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466397.503	597949.038	
SMP069	0	0	10/21/2004		Cesium-137	3.8	0.070	0.04			1466397.503	597949.038	
SMP069	0	0	10/21/2004		Cobalt-60	0.7	0.050	0.05	U		1466397.503	597949.038	
SMP069	0	0	10/21/2004		Lead-210	7.4	1.340	0.59			1466397.503	597949.038	
SMP069	0	0	10/21/2004		Plutonium-238	55	11.710	11.71	U		1466397.503	597949.038	
SMP069	0	0	10/21/2004		Radium-226	2.9	0.960	0.67			1466397.503	597949.038	
SMP069	0	0	10/21/2004		Thorium-230	2.8	6.130	6.13	U		1466397.503	597949.038	
SMP069	0	0	10/21/2004		Thorium-232	2.1	0.310	0.12			1466397.503	597949.038	
SMP070	0	0	10/21/2004		Actinium-227	4.6	0.210	0.21	U		1466427.651	597947.314	
SMP070	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466427.651	597947.314	
SMP070	0	0	10/21/2004		Cesium-137	3.8	0.050	0.05	U		1466427.651	597947.314	
SMP070	0	0	10/21/2004		Cobalt-60	0.7	0.050	0.05	U		1466427.651	597947.314	

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Table 1: Analytical Results [page 28 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMP070	0	0	10/21/2004		Lead-210	7.4	2.120	0.58			1466427.651	597947.314	
SMP070	0	0	10/21/2004		Plutonium-238	55	10.000	10	U		1466427.651	597947.314	
SMP070	0	0	10/21/2004		Radium-226	2.9	0.880	0.66			1466427.651	597947.314	
SMP070	0	0	10/21/2004		Thorium-230	2.8	6.080	6.08	U		1466427.651	597947.314	
SMP070	0	0	10/21/2004		Thorium-232	2.1	0.360	0.14			1466427.651	597947.314	
SMP071	0	0	10/21/2004		Actinium-227	4.6	0.220	0.22	U		1466369.939	597981.360	
SMP071	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466369.939	597981.360	
SMP071	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466369.939	597981.360	
SMP071	0	0	10/21/2004		Cobalt-60	0.7	0.050	0.05	U		1466369.939	597981.360	
SMP071	0	0	10/21/2004		Lead-210	7.4	0.530	0.53	U		1466369.939	597981.360	
SMP071	0	0	10/21/2004		Plutonium-238	55	10.070	10.07	U		1466369.939	597981.360	
SMP071	0	0	10/21/2004		Radium-226	2.9	1.210	0.64			1466369.939	597981.360	
SMP071	0	0	10/21/2004		Thorium-230	2.8	5.240	5.24	U		1466369.939	597981.360	
SMP071	0	0	10/21/2004		Thorium-232	2.1	0.240	0.15			1466369.939	597981.360	
SMP072	0	0	10/21/2004		Actinium-227	4.6	0.300	0.3	U		1466399.872	597979.205	
SMP072	0	0	10/21/2004		Americium-241	63	0.090	0.09	U		1466399.872	597979.205	
SMP072	0	0	10/21/2004		Cesium-137	3.8	0.090	0.06			1466399.872	597979.205	
SMP072	0	0	10/21/2004		Cobalt-60	0.7	0.070	0.07	U		1466399.872	597979.205	
SMP072	0	0	10/21/2004		Lead-210	7.4	0.870	0.82			1466399.872	597979.205	
SMP072	0	0	10/21/2004		Plutonium-238	55	17.610	17.61	U		1466399.872	597979.205	
SMP072	0	0	10/21/2004		Radium-226	2.9	1.500	0.91			1466399.872	597979.205	
SMP072	0	0	10/21/2004		Thorium-230	2.8	8.930	8.93	U		1466399.872	597979.205	
SMP072	0	0	10/21/2004		Thorium-232	2.1	0.800	0.22			1466399.872	597979.205	
SMP073	0	0	10/21/2004		Actinium-227	4.6	0.200	0.2	U		1466429.589	597977.051	
SMP073	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466429.589	597977.051	
SMP073	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466429.589	597977.051	
SMP073	0	0	10/21/2004		Cobalt-60	0.7	0.040	0.04	U		1466429.589	597977.051	
SMP073	0	0	10/21/2004		Lead-210	7.4	2.160	0.52			1466429.589	597977.051	
SMP073	0	0	10/21/2004		Plutonium-238	55	10.690	10.69	U		1466429.589	597977.051	
SMP073	0	0	10/21/2004		Radium-226	2.9	0.660	0.6			1466429.589	597977.051	
SMP073	0	0	10/21/2004		Thorium-230	2.8	4.920	4.92	U		1466429.589	597977.051	
SMP073	0	0	10/21/2004		Thorium-232	2.1	0.180	0.18	U		1466429.589	597977.051	
SMP074	0	0	10/21/2004		Actinium-227	4.6	0.180	0.18	U		1466372.092	598011.312	
SMP074	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466372.092	598011.312	
SMP074	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466372.092	598011.312	
SMP074	0	0	10/21/2004		Cobalt-60	0.7	0.030	0.03			1466372.092	598011.312	
SMP074	0	0	10/21/2004		Lead-210	7.4	0.670	0.51			1466372.092	598011.312	
SMP074	0	0	10/21/2004		Plutonium-238	55	10.930	10.93	U		1466372.092	598011.312	
SMP074	0	0	10/21/2004		Radium-226	2.9	1.180	0.63			1466372.092	598011.312	
SMP074	0	0	10/21/2004		Thorium-230	2.8	5.240	5.24	U		1466372.092	598011.312	
SMP074	0	0	10/21/2004		Thorium-232	2.1	0.460	0.13			1466372.092	598011.312	
SMP075	0	0	10/21/2004		Actinium-227	4.6	0.220	0.22	U		1466402.240	598009.157	
SMP075	0	0	10/21/2004		Americium-241	63	0.070	0.07	U		1466402.240	598009.157	
SMP075	0	0	10/21/2004		Cesium-137	3.8	0.050	0.04			1466402.240	598009.157	
SMP075	0	0	10/21/2004		Cobalt-60	0.7	0.050	0.05	U		1466402.240	598009.157	
SMP075	0	0	10/21/2004		Lead-210	7.4	0.600	0.6	U		1466402.240	598009.157	
SMP075	0	0	10/21/2004		Plutonium-238	55	12.180	12.18	U		1466402.240	598009.157	
SMP075	0	0	10/21/2004		Radium-226	2.9	1.150	0.66			1466402.240	598009.157	
SMP075	0	0	10/21/2004		Thorium-230	2.8	6.360	6.36	U		1466402.240	598009.157	
SMP075	0	0	10/21/2004		Thorium-232	2.1	0.500	0.15			1466402.240	598009.157	
SMP076	0	0	10/21/2004		Actinium-227	4.6	0.240	0.24	U		1466431.958	598007.002	
SMP076	0	0	10/21/2004		Americium-241	63	0.070	0.07	U		1466431.958	598007.002	
SMP076	0	0	10/21/2004		Cesium-137	3.8	0.050	0.05	U		1466431.958	598007.002	
SMP076	0	0	10/21/2004		Cobalt-60	0.7	0.080	0.08	U		1466431.958	598007.002	
SMP076	0	0	10/21/2004		Lead-210	7.4	0.970	0.65			1466431.958	598007.002	
SMP076	0	0	10/21/2004		Plutonium-238	55	14.360	14.36	U		1466431.958	598007.002	
SMP076	0	0	10/21/2004		Radium-226	2.9	1.390	0.78			1466431.958	598007.002	
SMP076	0	0	10/21/2004		Thorium-230	2.8	6.580	6.58	U		1466431.958	598007.002	
SMP076	0	0	10/21/2004		Thorium-232	2.1	0.270	0.27	U		1466431.958	598007.002	
SMP077	0	0	10/21/2004		Actinium-227	4.6	0.260	0.26	U		1466344.098	598043.419	
SMP077	0	0	10/21/2004		Americium-241	63	0.070	0.07	U		1466344.098	598043.419	
SMP077	0	0	10/21/2004		Cesium-137	3.8	0.050	0.05	U		1466344.098	598043.419	
SMP077	0	0	10/21/2004		Cobalt-60	0.7	0.070	0.07	U		1466344.098	598043.419	
SMP077	0	0	10/21/2004		Lead-210	7.4	0.710	0.71	U		1466344.098	598043.419	

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Table 1: Analytical Results [page 29 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
SMP077	0	0	10/21/2004		Plutonium-238	55	13.730	13.73	U		1466344.098	598043.419	
SMP077	0	0	10/21/2004		Radium-226	2.9	1.790	0.73			1466344.098	598043.419	
SMP077	0	0	10/21/2004		Thorium-230	2.8	7.100	7.1	U		1466344.098	598043.419	
SMP077	0	0	10/21/2004		Thorium-232	2.1	0.680	0.13			1466344.098	598043.419	
SMP078	0	0	10/21/2004		Actinium-227	4.6	0.170	0.17	U		1466374.461	598041.264	
SMP078	0	0	10/21/2004		Americium-241	63	0.050	0.05	U		1466374.461	598041.264	
SMP078	0	0	10/21/2004		Cesium-137	3.8	0.030	0.03	U		1466374.461	598041.264	
SMP078	0	0	10/21/2004		Cobalt-60	0.7	0.030	0.03	U		1466374.461	598041.264	
SMP078	0	0	10/21/2004		Lead-210	7.4	0.400	0.4	U		1466374.461	598041.264	
SMP078	0	0	10/21/2004		Plutonium-238	55	7.950	7.95	U		1466374.461	598041.264	
SMP078	0	0	10/21/2004		Radium-226	2.9	0.550	0.48			1466374.461	598041.264	
SMP078	0	0	10/21/2004		Thorium-230	2.8	4.220	4.22	U		1466374.461	598041.264	
SMP078	0	0	10/21/2004		Thorium-232	2.1	0.130	0.11			1466374.461	598041.264	
SMP079	0	0	10/21/2004		Actinium-227	4.6	0.230	0.23	U		1466404.394	598038.894	
SMP079	0	0	10/21/2004		Americium-241	63	0.070	0.07	U		1466404.394	598038.894	
SMP079	0	0	10/21/2004		Cesium-137	3.8	0.050	0.05	U		1466404.394	598038.894	
SMP079	0	0	10/21/2004		Cobalt-60	0.7	0.060	0.06	U		1466404.394	598038.894	
SMP079	0	0	10/21/2004		Lead-210	7.4	0.860	0.6			1466404.394	598038.894	
SMP079	0	0	10/21/2004		Plutonium-238	55	11.540	11.54	U		1466404.394	598038.894	
SMP079	0	0	10/21/2004		Radium-226	2.9	1.090	0.71			1466404.394	598038.894	
SMP079	0	0	10/21/2004		Thorium-230	2.8	6.360	6.36	U		1466404.394	598038.894	
SMP079	0	0	10/21/2004		Thorium-232	2.1	0.690	0.09			1466404.394	598038.894	
SMP080	0	0	10/21/2004		Actinium-227	4.6	0.150	0.15	U		1466434.111	598036.954	
SMP080	0	0	10/21/2004		Americium-241	63	0.040	0.04			1466434.111	598036.954	
SMP080	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466434.111	598036.954	
SMP080	0	0	10/21/2004		Cobalt-60	0.7	0.040	0.04	U		1466434.111	598036.954	
SMP080	0	0	10/21/2004		Lead-210	7.4	0.410	0.4			1466434.111	598036.954	
SMP080	0	0	10/21/2004		Plutonium-238	55	8.800	8.8	U		1466434.111	598036.954	
SMP080	0	0	10/21/2004		Radium-226	2.9	0.830	0.5			1466434.111	598036.954	
SMP080	0	0	10/21/2004		Thorium-230	2.8	4.080	4.08	U		1466434.111	598036.954	
SMP080	0	0	10/21/2004		Thorium-232	2.1	0.220	0.08			1466434.111	598036.954	
SMP081	0	0	10/21/2004		Actinium-227	4.6	0.320	0.32	U		1466406.547	598069.061	
SMP081	0	0	10/21/2004		Americium-241	63	0.110	0.11	U		1466406.547	598069.061	
SMP081	0	0	10/21/2004		Cesium-137	3.8	0.120	0.05			1466406.547	598069.061	
SMP081	0	0	10/21/2004		Cobalt-60	0.7	0.070	0.07	U		1466406.547	598069.061	
SMP081	0	0	10/21/2004		Lead-210	7.4	0.810	0.81			1466406.547	598069.061	
SMP081	0	0	10/21/2004		Plutonium-238	55	15.980	15.98	U		1466406.547	598069.061	
SMP081	0	0	10/21/2004		Radium-226	2.9	1.870	0.95			1466406.547	598069.061	
SMP081	0	0	10/21/2004		Thorium-230	2.8	9.040	9.04	U		1466406.547	598069.061	
SMP081	0	0	10/21/2004		Thorium-232	2.1	1.650	0.27			1466406.547	598069.061	
SMP082	0	0	10/21/2004		Actinium-227	4.6	0.190	0.19	U		1466435.834	598066.906	
SMP082	0	0	10/21/2004		Americium-241	63	0.060	0.06	U		1466435.834	598066.906	
SMP082	0	0	10/21/2004		Cesium-137	3.8	0.040	0.04	U		1466435.834	598066.906	
SMP082	0	0	10/21/2004		Cobalt-60	0.7	0.050	0.05	U		1466435.834	598066.906	
SMP082	0	0	10/21/2004		Lead-210	7.4	0.520	0.52	U		1466435.834	598066.906	
SMP082	0	0	10/21/2004		Plutonium-238	55	9.850	9.85	U		1466435.834	598066.906	
SMP082	0	0	10/21/2004		Radium-226	2.9	0.740	0.63			1466435.834	598066.906	
SMP082	0	0	10/21/2004		Thorium-230	2.8	5.090	5.09	U		1466435.834	598066.906	
SMP082	0	0	10/21/2004		Thorium-232	2.1	0.160	0.13			1466435.834	598066.906	
F38-01	**0**	**0**	**06/09/2004**	**F38-01**	**Plutonium-238**	**55**	**78.100**	**0.118**			**1466194.640**	**598053.870**	
F38-01	0	0	06/09/2004	F38-01	Plutonium-239/240	62	2.460	0.075			1466194.640	598053.870	
F38-02	**0**	**0**	**06/09/2004**	**F38-02**	**Plutonium-238**	**55**	**72.100**	**0.054**			**1466224.570**	**598051.760**	
F38-02	0	0	06/09/2004	F38-02	Plutonium-239/240	62	0.638	0.012			1466224.570	598051.760	
F38-03	0	0	06/09/2004	F38-03	Plutonium-238	55	47.600	0.113			1466254.490	598049.650	
F38-03	0	0	06/09/2004	F38-03	Plutonium-239/240	62	7.260	0.054			1466254.490	598049.650	
F38-05	0	0	04/07/2004	F38-05	Plutonium-238	55	0.734	0.051			1466314.340	598045.430	
F38-05	0	0	04/07/2004	F38-05	Plutonium-239/240	62	0.098	0.012			1466314.340	598045.430	
F38-06	0	0	06/09/2004	F38-06	Plutonium-238	55	26.600	0.056			1466192.530	598023.940	
F38-06	0	0	06/09/2004	F38-06	Plutonium-239/240	62	0.542	0.013			1466192.530	598023.940	
F38-07A	0	0	07/12/2004		Plutonium-238	55	1.960	0.190			1466222.460	598021.830	
F38-07A	0	0	07/12/2004		Plutonium-239/240	62	0.106	0.106	U		1466222.460	598021.830	
F38-09	0	0	04/07/2004		Plutonium-238	55	0.626	0.051			1466282.310	598017.610	
F38-09	0	0	04/07/2004		Plutonium-239/240	62	0.035	0.035	U		1466282.310	598017.610	

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Table 1: Analytical Results [page 30 of 30]

Location	Depth (feet)		Date Collected	MEIMS ID	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
F38-10	0	0	04/07/2004		Plutonium-238	55	1.170	0.048			1466312.230	598015.500	
F38-10	0	0	04/07/2004		Plutonium-239/240	62	0.130	0.033			1466312.230	598015.500	
F38-11	0	0	04/07/2004		Plutonium-238	55	0.347	0.041			1466342.160	598013.390	
F38-11	0	0	04/07/2004		Plutonium-239/240	62	0.022	0.012			1466342.160	598013.390	
F38-12	0	0	06/09/2004		Plutonium-238	55	5.890	0.056			1466190.420	597994.020	
F38-12	0	0	06/09/2004		Plutonium-239/240	62	0.146	0.013			1466190.420	597994.020	
F38-13A	0	0	06/09/2004		Plutonium-238	55	4.430	0.136			1466220.350	597991.910	
F38-13A	0	0	06/09/2004		Plutonium-239/240	62	0.116	0.116	U		1466220.350	597991.910	
F38-15	0	0	04/07/2004		Plutonium-238	55	8.730	0.046			1466280.200	597987.690	
F38-15	0	0	04/07/2004		Plutonium-239/240	62	0.191	0.013			1466280.200	597987.690	
F38-16	0	0	04/07/2004		Plutonium-238	55	0.051	0.051	U		1466310.130	597985.580	
F38-16	0	0	04/07/2004		Plutonium-239/240	62	0.013	0.013	U		1466310.130	597985.580	
F38-16FD	0	0	04/07/2004		Plutonium-238	55	0.326	0.100			1466310.130	597985.580	Dup
F38-16FD	0	0	04/07/2004		Plutonium-239/240	62	0.074	0.070			1466310.130	597985.580	Dup
F38-17	0	0	04/07/2004		Plutonium-238	55	0.503	0.034			1466340.050	597983.470	
F38-17	0	0	04/07/2004		Plutonium-239/240	62	0.014	0.012			1466340.050	597983.470	
F38-18	0	0	06/09/2004		Plutonium-238	55	11.200	0.071			1466188.310	597964.090	
F38-18	0	0	06/09/2004		Plutonium-239/240	62	0.176	0.044			1466188.310	597964.090	
F38-20	0	0	06/09/2004		Plutonium-238	55	35.900	0.052			1466248.160	597959.870	
F38-20	0	0	06/09/2004		Plutonium-239/240	62	0.601	0.052			1466248.160	597959.870	
F38-21	0	0	06/09/2004		Plutonium-238	55	7.610	0.057			1466278.090	597957.760	
F38-21	0	0	06/09/2004		Plutonium-239/240	62	0.061	0.044			1466278.090	597957.760	
F38-22	0	0	06/09/2004		Plutonium-238	55	9.570	0.077			1466308.020	597955.650	
F38-22	0	0	06/09/2004		Plutonium-239/240	62	0.248	0.094			1466308.020	597955.650	
F38-23	0	0	06/09/2004		Plutonium-238	55	54.400	0.050			1466186.200	597934.170	
F38-23	0	0	06/09/2004		Plutonium-239/240	62	0.787	0.013			1466186.200	597934.170	
F38-24	0	0	06/21/2004		Plutonium-238	55	3.510	0.061			1466216.130	597932.060	
F38-24	0	0	06/21/2004		Plutonium-239/240	62	0.086	0.054			1466216.130	597932.060	
F38-25	0	0	06/21/2004		Plutonium-238	55	9.970	0.067			1466246.050	597929.950	
F38-25	0	0	06/21/2004		Plutonium-239/240	62	0.606	0.031			1466246.050	597929.950	
F38-27	0	0	06/23/2004		Plutonium-238	55	0.094	0.075			1466305.910	597925.730	
F38-27	0	0	06/23/2004		Plutonium-239/240	62	0.035	0.035	U		1466305.910	597925.730	
F38-28	0	0	06/23/2004		Plutonium-238	55	0.038	0.038	U		1466303.800	597895.800	
F38-28	0	0	06/23/2004		Plutonium-239/240	62	0.014	0.014	U		1466303.800	597895.800	
F38-29	0	0	06/23/2004		Plutonium-238	55	0.518	0.054			1466337.939	597953.545	
F38-29	0	0	06/23/2004		Plutonium-239/240	62	0.035	0.014			1466337.939	597953.545	
F38-30	0	0	06/23/2004		Plutonium-238	55	0.299	0.083			1466335.829	597923.619	
F38-30	0	0	06/23/2004		Plutonium-239/240	62	0.054	0.054	U		1466335.829	597923.619	

CO: cleanup objective
Dup: field duplicate sample
J: estimated
MDA: minimum detectable activitiy
U: not detected
MEIMS: Mound Environmental Information Management System

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Table 2: Sample and Analysis Summary [page 1 of 1]

(includes verification, preverification, and confirmation samples)

Area	Type	Analysis	Sample IDs	Where to find Results
PRS 267	PV	Onsite gamma spec	267PV01-267PV24	App. C (RSDS 04-ER-542)
	V	Onsite gamma spec	267V01-267V23	App. C (multiple SARs)
	V	Offsite Iso Pu & Th	267V01-267V23	App. B (Table 1)
Bldg 30	C	Onsite gamma spec	B30C01-B30C05	App. C (RSDS 04-ER-597)
PRS 286 (includes PRS 287)	2-10x10s	NaI & select onsite gamma	39-1 to 39-5 & 51-1 to 51-5	App. C (RSDSs 04-ER-455 & 738)
	V	Offsite Iso Pu	Borings: PRS286001, 003-005, 045-048, 050-051, 53-54, 58-66, 68-69	App. B (Table 1)
	V	Offsite Iso Pu	Surface: PRS286002, 006-044, 049, 052, 055-057, 067, 070-128	App. B (Table 1)
SM Hill (inlcudes PRSs 272, 273, 303)	V	Onsite gamma spec	SMHV001-073	App. C (multiple SARs)
	V	Offsite Iso Pu, Th, & U	SMHV001-073	App. B (Table 1)
	PV	Onsite gamma spec	272PV001-014, 016-019, 022-024; 273PV001-061; 303PV001-009	App. C (RSDSs 04-ER-496, 497, 498, & 530, also SARs)
SMV Area (includes PRSs 78, 285, 288-293, 296)	V	Offsite Iso Pu	SMV001-036, 038-044	App. B (Table 1)
	V	Obstruction swipe	SMV037	App. C (RSDS 04-ER-557)
	PV	Onsite gamma	DDPV001-017	App. C (RSDS 04-ER-541)
	PV	Onsite gamma	SMP001-004, 006-011, 013-018, 020-026, 028-031, 033-041	App. C (RSDS 04-ER-558)
Piece C Borings	V	Offsite Iso Th & Pu	C03-09, C14-19, C23-26, C29-32, C37-44	App. B (Table 1)
	V	Offsite Iso Th & Pu	C01, C02, C27, C28, C35	No data due to variance.
C34	V	Offsite gamma & Iso Th	C34V01-04	App. B (Table 1)
	PV	Onsite gamma spec	RadCon samples 1-24	App. C (RSDS 04-ER-448, excerpt)
PRS 77	C	Onsite gamma	PRS7701-PRS7712	App. B (Table 1)
Bldg 38 Area	C	Onsite gamma	SMP047-082	App. B (Table 1)
Bldg 38 Footprint	PV	Onsite gamma	Various per agreement	App. C (excerpt from 38 Exit Pkg.)
	V	Offsite Iso Pu	F38-01 – 03, 05-07, 09-13, 15-18, 20-25, 27-30,	App. B (Table 1)
	V	Obstruction swipe	F38-04, 08, 14, 19, 26	App. C (RSDSs 04-ER-200 & 320)

PV: preverification
V: verification
C: confirmation
Iso: Isotopic
NaI: sodium iodide detector

NOTE:
PRS 299 confirmation sampling reported in the Completion Report submitted to the State Fire Marshal in Dec 2004.
The Process Area includes PRSs 77, 78, 285. 288-293, 296, Piece B, Piece C

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08/04/05 @ 8:45 AM

Table 3: Historic Data for Piece B Area (used in Process Area UCL Calc.)

Location	Depth (feet)		Date Collected	Sample Id	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
1B-1	2.0	2.0	11/15/1990		Plutonium-238	55	0.000				1466299.200	598263.620	
1B-1	2.0	2.0	11/15/1990		Thorium-232	2.1	0.900				1466299.200	598263.620	
1B-2	2.0	2.0	11/19/1990		Plutonium-238	55	12.000				1466297.900	598250.740	
1B-2	2.0	2.0	11/19/1990		Thorium-232	2.1	1.400				1466297.900	598250.740	
1B-3	2.0	2.0	11/15/1990		Plutonium-238	55	21.000				1466286.270	598264.910	
1B-3	2.0	2.0	11/15/1990		Thorium-232	2.1	0.800				1466286.270	598264.910	
1B-C	2.0	2.0	11/15/1990		Plutonium-238	55	0.000				1466292.080	598257.800	
1B-C	2.0	2.0	11/15/1990		Thorium-232	2.1	1.100				1466292.080	598257.800	
1C-1	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466314.130	598262.100	
1C-1	2.0	2.0	11/20/1990		Thorium-232	2.1	0.500				1466314.130	598262.100	
1C-2	2.0	2.0	11/20/1990		Plutonium-238	55	8.000				1466312.820	598249.220	
1C-2	2.0	2.0	06/10/1991		Plutonium-238	55	48.000				1466312.820	598249.220	
1C-2	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466312.820	598249.220	
1C-2	2.0	2.0	06/10/1991		Thorium-232	2.1	0.800				1466312.820	598249.220	
1C-3	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466301.190	598263.400	
1C-3	2.0	2.0	11/20/1990		Thorium-232	2.1	1.100				1466301.190	598263.400	
1C-4	2.0	2.0	12/11/1990		Plutonium-238	55	7.000				1466299.880	598250.520	
1C-4	2.0	2.0	12/11/1990		Thorium-232	2.1	0.800				1466299.880	598250.520	
1C-C	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466307.000	598256.290	
1C-C	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466307.000	598256.290	
1D-1	2.0	2.0	11/20/1990		Plutonium-238	55	3.000				1466329.050	598260.590	
1D-1	2.0	2.0	11/20/1990		Thorium-232	2.1	0.600				1466329.050	598260.590	
1D-2	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466327.740	598247.710	
1D-2	2.0	2.0	11/20/1990		Thorium-232	2.1	1.300				1466327.740	598247.710	
1D-3	2.0	2.0	11/20/1990		Plutonium-238	55	6.000				1466316.110	598261.880	
1D-3	2.0	2.0	11/20/1990		Thorium-232	2.1	0.500				1466316.110	598261.880	
1D-4	2.0	2.0	11/20/1990		Plutonium-238	55	21.000				1466314.810	598249.000	
1D-4	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466314.810	598249.000	
1D-C	2.0	2.0	11/20/1990		Plutonium-238	55	14.000				1466321.930	598254.770	
1D-C	2.0	2.0	06/10/1991		Plutonium-238	55	0.000				1466321.930	598254.770	
1D-C	2.0	2.0	11/20/1990		Thorium-232	2.1	0.800				1466321.930	598254.770	
1D-C	2.0	2.0	06/10/1991		Thorium-232	2.1	1.000				1466321.930	598254.770	
1E-1	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466343.970	598259.070	
1E-1	2.0	2.0	11/20/1990		Thorium-232	2.1	0.900				1466343.970	598259.070	
1E-2	2.0	2.0	11/20/1990		Plutonium-238	55	2.000				1466342.670	598246.190	
1E-2	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466342.670	598246.190	
1E-3	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466331.040	598260.370	
1E-3	2.0	2.0	11/20/1990		Thorium-232	2.1	0.500				1466331.040	598260.370	
1E-4	2.0	2.0	11/19/1990		Plutonium-238	55	0.000				1466329.730	598247.490	
1E-4	2.0	2.0	11/19/1990		Thorium-232	2.1	0.600				1466329.730	598247.490	
1E-C	2.0	2.0	11/20/1990		Plutonium-238	55	10.000				1466336.850	598253.260	
1E-C	2.0	2.0	11/20/1990		Thorium-232	2.1	2.500				1466336.850	598253.260	
1F-1	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466358.900	598257.560	
1F-1	2.0	2.0	11/20/1990		Thorium-232	2.1	1.400				1466358.900	598257.560	
1F-2	2.0	2.0	11/20/1990		Plutonium-238	55	1.000				1466357.590	598244.680	
1F-2	2.0	2.0	06/10/1991		Plutonium-238	55	114.000				1466357.590	598244.680	
1F-2	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466357.590	598244.680	
1F-2	2.0	2.0	06/10/1991		Thorium-232	2.1	0.700				1466357.590	598244.680	
1F-3	2.0	2.0	11/20/1990		Plutonium-238	55	5.000				1466345.960	598258.850	
1F-3	2.0	2.0	11/20/1990		Thorium-232	2.1	0.800				1466345.960	598258.850	
1F-4	2.0	2.0	11/20/1990		Plutonium-238	55	25.000				1466344.650	598245.970	
1F-4	2.0	2.0	11/20/1990		Thorium-232	2.1	2.200				1466344.650	598245.970	
1F-C	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466351.770	598251.740	
1F-C	2.0	2.0	11/20/1990		Thorium-232	2.1	0.500				1466351.770	598251.740	
1G-1	2.0	2.0	11/20/1990		Plutonium-238	55	3.000				1466373.820	598256.040	
1G-1	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466373.820	598256.040	
1G-2	2.0	2.0	11/20/1990		Plutonium-238	55	4.000				1466372.510	598243.160	
1G-2	2.0	2.0	11/20/1990		Thorium-232	2.1	0.600				1466372.510	598243.160	

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Table 3: Historic Data for Piece B Area (used in Process Area UCL Calc.)

Location	Depth (feet)		Date Collected	Sample Id	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
1G-3	2.0	2.0	11/20/1990		Plutonium-238	55	4.000				1466360.880	598257.340	
1G-3	2.0	2.0	11/20/1990		Thorium-232	2.1	0.500				1466360.880	598257.340	
1G-4	2.0	2.0	11/20/1990		Plutonium-238	55	182.000				1466359.580	598244.460	
1G-4	2.0	2.0	06/10/1991		Plutonium-238	55	14.000				1466359.580	598244.460	
1G-4	2.0	2.0	11/20/1990		Thorium-232	2.1	1.100				1466359.580	598244.460	
1G-4	2.0	2.0	06/10/1991		Thorium-232	2.1	0.600				1466359.580	598244.460	
1G-C	2.0	2.0	11/20/1990		Plutonium-238	55	105.000				1466366.700	598250.230	
1G-C	2.0	2.0	11/20/1990		Thorium-232	2.1	0.900				1466366.700	598250.230	
1H-1	2.0	2.0	11/28/1990		Plutonium-238	55	19.000				1466388.740	598254.530	
1H-1	2.0	2.0	11/28/1990		Thorium-232	2.1	0.600				1466388.740	598254.530	
1H-2	2.0	2.0	12/06/1990		Plutonium-238	55	0.000				1466387.440	598241.650	
1H-2	2.0	2.0	12/06/1990		Thorium-232	2.1	0.800				1466387.440	598241.650	
1H-3	2.0	2.0	11/28/1990		Plutonium-238	55	0.000				1466375.810	598255.820	
1H-3	2.0	2.0	11/28/1990		Thorium-232	2.1	1.000				1466375.810	598255.820	
1H-4	2.0	2.0	11/28/1990		Plutonium-238	55	13.000				1466374.500	598242.940	
1H-4	2.0	2.0	11/28/1990		Thorium-232	2.1	0.800				1466374.500	598242.940	
1H-C	2.0	2.0	11/28/1990		Plutonium-238	55	1.000				1466381.620	598248.710	
1H-C	2.0	2.0	11/28/1990		Thorium-232	2.1	0.600				1466381.620	598248.710	
1I-1	2.0	2.0	11/28/1990		Plutonium-238	55	8.000				1466403.770	598253.190	
1I-1	2.0	2.0	11/28/1990		Thorium-232	2.1	0.500				1466403.770	598253.190	
1I-2	2.0	2.0	12/06/1990		Plutonium-238	55	82.000				1466402.460	598240.310	
1I-2	2.0	2.0	12/06/1990		Thorium-232	2.1	1.000				1466402.460	598240.310	
1I-3	2.0	2.0	11/28/1990		Plutonium-238	55	2.000				1466390.830	598254.490	
1I-3	2.0	2.0	11/28/1990		Thorium-232	2.1	1.200				1466390.830	598254.490	
1I-4	2.0	2.0	11/28/1990		Plutonium-238	55	23.000				1466389.520	598241.600	
1I-4	2.0	2.0	11/28/1990		Thorium-232	2.1	1.200				1466389.520	598241.600	
1I-C	2.0	2.0	11/28/1990		Plutonium-238	55	0.000				1466396.640	598247.370	
1I-C	2.0	2.0	11/28/1990		Thorium-232	2.1	0.500				1466396.640	598247.370	
2B-1	2.0	2.0	11/15/1990		Plutonium-238	55	19.000				1466300.720	598278.540	
2B-1	2.0	2.0	11/15/1990		Thorium-232	2.1	0.800				1466300.720	598278.540	
2B-2	2.0	2.0	11/19/1990		Plutonium-238	55	38.000				1466299.410	598265.610	
2B-2	2.0	2.0	11/19/1990		Thorium-232	2.1	1.100				1466299.410	598265.610	
2B-3	2.0	2.0	11/15/1990		Plutonium-238	55	16.000				1466287.780	598279.840	
2B-3	2.0	2.0	11/15/1990		Thorium-232	2.1	0.700				1466287.780	598279.840	
2B-4	2.0	2.0	11/19/1990		Plutonium-238	55	254.000				1466286.470	598266.900	
2B-4	2.0	2.0	06/10/1991		Plutonium-238	55	27.000				1466286.470	598266.900	
2B-4	2.0	2.0	11/19/1990		Thorium-232	2.1	1.000				1466286.470	598266.900	
2B-4	2.0	2.0	06/10/1991		Thorium-232	2.1	0.900				1466286.470	598266.900	
2B-C	2.0	2.0	11/15/1990		Plutonium-238	55	34.000				1466293.590	598272.720	
2B-C	2.0	2.0	11/15/1990		Thorium-232	2.1	1.000				1466293.590	598272.720	
2C-1	2.0	2.0	11/20/1990		Plutonium-238	55	34.000				1466315.640	598277.030	
2C-1	2.0	2.0	11/20/1990		Thorium-232	2.1	0.900				1466315.640	598277.030	
2C-2	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466314.330	598264.090	
2C-2	2.0	2.0	06/10/1991		Plutonium-238	55	19.000				1466314.330	598264.090	
2C-2	2.0	2.0	11/20/1990		Thorium-232	2.1	0.600				1466314.330	598264.090	
2C-2	2.0	2.0	06/10/1991		Thorium-232	2.1	0.400				1466314.330	598264.090	
2C-3	2.0	2.0	11/19/1990		Plutonium-238	55	0.000				1466302.710	598278.320	
2C-3	2.0	2.0	11/19/1990		Thorium-232	2.1	0.600				1466302.710	598278.320	
2C-4	2.0	2.0	11/20/1990		Plutonium-238	55	13.000				1466301.390	598265.390	
2C-4	2.0	2.0	11/20/1990		Thorium-232	2.1	0.800				1466301.390	598265.390	
2C-C	2.0	2.0	11/20/1990		Plutonium-238	55	9.000				1466308.520	598271.210	
2C-C	2.0	2.0	11/20/1990		Thorium-232	2.1	0.500				1466308.520	598271.210	
2D-1	2.0	2.0	11/20/1990		Plutonium-238	55	9.000				1466330.560	598275.510	
2D-1	2.0	2.0	11/20/1990		Thorium-232	2.1	0.900				1466330.560	598275.510	
2D-2	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466329.250	598262.580	
2D-2	2.0	2.0	11/20/1990		Thorium-232	2.1	0.600				1466329.250	598262.580	
2D-3	2.0	2.0	11/20/1990		Plutonium-238	55	6.000				1466317.630	598276.810	
2D-3	2.0	2.0	11/20/1990		Thorium-232	2.1	0.900				1466317.630	598276.810	

Table 3: Historic Data for Piece B Area (used in Process Area UCL Calc.)

Location	Depth (feet)		Date Collected	Sample Id	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
2D-4	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466316.320	598263.870	
2D-4	2.0	2.0	11/20/1990		Thorium-232	2.1	0.900				1466316.320	598263.870	
2D-C	2.0	2.0	11/20/1990		Plutonium-238	55	10.000				1466323.440	598269.690	
2D-C	2.0	2.0	11/20/1990		Thorium-232	2.1	0.300				1466323.440	598269.690	
2E-1	2.0	2.0	12/06/1990		Plutonium-238	55	4.000				1466345.490	598274.000	
2E-1	2.0	2.0	12/06/1990		Thorium-232	2.1	1.200				1466345.490	598274.000	
2E-2	2.0	2.0	12/06/1990		Plutonium-238	55	12.000				1466344.180	598261.060	
2E-2	2.0	2.0	06/10/1991		Plutonium-238	55	13.000				1466344.180	598261.060	
2E-2	2.0	2.0	12/06/1990		Thorium-232	2.1	1.200				1466344.180	598261.060	
2E-2	2.0	2.0	06/10/1991		Thorium-232	2.1	1.000				1466344.180	598261.060	
2E-3	2.0	2.0	12/06/1990		Plutonium-238	55	3.000				1466332.550	598275.290	
2E-3	2.0	2.0	12/06/1990		Thorium-232	2.1	0.800				1466332.550	598275.290	
2E-4	2.0	2.0	12/06/1990		Plutonium-238	55	0.000				1466331.240	598262.360	
2E-4	2.0	2.0	12/06/1990		Thorium-232	2.1	0.700				1466331.240	598262.360	
2E-C	2.0	2.0	12/06/1990		Plutonium-238	55	3.000				1466338.360	598268.180	
2E-C	2.0	2.0	12/06/1990		Thorium-232	2.1	1.100				1466338.360	598268.180	
2F-1	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466360.410	598272.480	
2F-1	2.0	2.0	11/20/1990		Thorium-232	2.1	0.900				1466360.410	598272.480	
2F-2	2.0	2.0	11/20/1990		Plutonium-238	55	7.000				1466359.100	598259.550	
2F-2	2.0	2.0	11/20/1990		Thorium-232	2.1	1.000				1466359.100	598259.550	
2F-3	2.0	2.0	11/20/1990		Plutonium-238	55	2.000				1466347.480	598273.780	
2F-3	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466347.480	598273.780	
2F-4	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466346.160	598260.840	
2F-4	2.0	2.0	11/20/1990		Thorium-232	2.1	0.900				1466346.160	598260.840	
2F-C	2.0	2.0	11/20/1990		Plutonium-238	55	7.000				1466353.290	598266.660	
2F-C	2.0	2.0	11/20/1990		Thorium-232	2.1	1.100				1466353.290	598266.660	
2G-1	2.0	2.0	11/20/1990		Plutonium-238	55	7.000				1466375.330	598270.970	
2G-1	2.0	2.0	11/20/1990		Thorium-232	2.1	0.800				1466375.330	598270.970	
2G-2	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466374.020	598258.030	
2G-2	2.0	2.0	11/20/1990		Thorium-232	2.1	0.500				1466374.020	598258.030	
2G-3	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466362.400	598272.260	
2G-3	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466362.400	598272.260	
2G-4	2.0	2.0	11/20/1990		Plutonium-238	55	3.000				1466361.090	598259.330	
2G-4	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466361.090	598259.330	
2G-C	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466368.210	598265.150	
2G-C	2.0	2.0	11/20/1990		Thorium-232	2.1	0.800				1466368.210	598265.150	
2H-1	2.0	2.0	12/06/1990		Plutonium-238	55	0.000				1466390.260	598269.450	
2H-1	2.0	2.0	12/06/1990		Thorium-232	2.1	0.300				1466390.260	598269.450	
2H-2	2.0	2.0	12/06/1990		Plutonium-238	55	16.000				1466388.940	598256.520	
2H-2	2.0	2.0	12/06/1990		Thorium-232	2.1	0.500				1466388.940	598256.520	
2H-3	2.0	2.0	12/06/1990		Plutonium-238	55	16.000				1466377.320	598270.750	
2H-3	2.0	2.0	12/06/1990		Thorium-232	2.1	0.700				1466377.320	598270.750	
2H-4	2.0	2.0	12/06/1990		Plutonium-238	55	0.000				1466376.010	598257.810	
2H-4	2.0	2.0	12/06/1990		Thorium-232	2.1	0.700				1466376.010	598257.810	
2H-C	2.0	2.0	12/06/1990		Plutonium-238	55	87.000				1466383.130	598263.630	
2H-C	2.0	2.0	12/06/1990		Thorium-232	2.1	1.000				1466383.130	598263.630	
2I-1	2.0	2.0	11/28/1990		Plutonium-238	55	6.000				1466405.280	598268.120	
2I-1	2.0	2.0	12/06/1990		Plutonium-238	55	3.000				1466405.280	598268.120	
2I-1	2.0	2.0	11/28/1990		Thorium-232	2.1	0.800				1466405.280	598268.120	
2I-1	2.0	2.0	12/06/1990		Thorium-232	2.1	0.600				1466405.280	598268.120	
2I2	2.0	2.0	06/10/1991		Plutonium-238	55	11.000				1466404.625	598261.649	
2I2	2.0	2.0	06/10/1991		Thorium-232	2.1	3.000				1466404.625	598261.649	
2I-2	2.0	2.0	12/06/1990		Plutonium-238	55	16.000				1466403.970	598255.180	
2I-2	2.0	2.0	12/06/1990		Thorium-232	2.1	0.600				1466403.970	598255.180	
2I-3	2.0	2.0	12/06/1990		Plutonium-238	55	0.000				1466392.350	598269.410	
2I-3	2.0	2.0	12/06/1990		Thorium-232	2.1	1.000				1466392.350	598269.410	
2I-4	2.0	2.0	11/28/1990		Plutonium-238	55	10.000				1466391.030	598256.480	
2I-4	2.0	2.0	12/06/1990		Plutonium-238	55	13.000				1466391.030	598256.480	

Table 3: Historic Data for Piece B Area (used in Process Area UCL Calc.)

Location	Depth (feet)		Date Collected	Sample Id	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
2I-4	2.0	2.0	11/28/1990		Thorium-232	2.1	0.300				1466391.030	598256.480	
2I-4	2.0	2.0	12/06/1990		Thorium-232	2.1	0.700				1466391.030	598256.480	
2I-C	2.0	2.0	11/28/1990		Plutonium-238	55	7.000				1466398.160	598262.300	
2I-C	2.0	2.0	12/06/1990		Plutonium-238	55	10.000				1466398.160	598262.300	
2I-C	2.0	2.0	11/28/1990		Thorium-232	2.1	1.000				1466398.160	598262.300	
2I-C	2.0	2.0	12/06/1990		Thorium-232	2.1	0.800				1466398.160	598262.300	
3B-1	2.0	2.0	11/15/1990		Plutonium-238	55	0.000				1466302.230	598293.470	
3B-1	2.0	2.0	11/15/1990		Thorium-232	2.1	0.700				1466302.230	598293.470	
3B-2	2.0	2.0	11/15/1990		Plutonium-238	55	40.000				1466300.920	598280.530	
3B-2	2.0	2.0	11/15/1990		Thorium-232	2.1	0.800				1466300.920	598280.530	
3B-3	2.0	2.0	11/19/1990		Plutonium-238	55	11.000				1466289.300	598294.760	
3B-3	2.0	2.0	11/19/1990		Thorium-232	2.1	1.100				1466289.300	598294.760	
3B-4	2.0	2.0	11/15/1990		Plutonium-238	55	0.000				1466287.980	598281.830	
3B-4	2.0	2.0	11/15/1990		Thorium-232	2.1	0.800				1466287.980	598281.830	
3B-C	2.0	2.0	11/19/1990		Plutonium-238	55	10.000				1466295.110	598287.650	
3B-C	2.0	2.0	11/19/1990		Thorium-232	2.1	1.000				1466295.110	598287.650	
3C-1	2.0	2.0	11/19/1990		Plutonium-238	55	39.000				1466317.160	598291.950	
3C-1	2.0	2.0	06/10/1991		Plutonium-238	55	0.000				1466317.160	598291.950	
3C-1	2.0	2.0	11/19/1990		Thorium-232	2.1	1.400				1466317.160	598291.950	
3C-1	2.0	2.0	06/10/1991		Thorium-232	2.1	1.300				1466317.160	598291.950	
3C-2	2.0	2.0	12/11/1990		Plutonium-238	55	97.000				1466315.840	598279.020	
3C-2	2.0	2.0	12/11/1990		Thorium-232	2.1	1.000				1466315.840	598279.020	
3C-3	2.0	2.0	11/19/1990		Plutonium-238	55	0.000				1466304.220	598293.250	
3C-3	2.0	2.0	11/19/1990		Thorium-232	2.1	0.500				1466304.220	598293.250	
3C-4	2.0	2.0	11/19/1990		Plutonium-238	55	0.000				1466302.910	598280.310	
3C-4	2.0	2.0	11/19/1990		Thorium-232	2.1	0.600				1466302.910	598280.310	
3C-C	2.0	2.0	11/19/1990		Plutonium-238	55	59.000				1466310.030	598286.130	
3C-C	2.0	2.0	11/19/1990		Thorium-232	2.1	1.200				1466310.030	598286.130	
3D-1	2.0	2.0	11/20/1990		Plutonium-238	55	6.000				1466332.080	598290.440	
3D-1	2.0	2.0	11/20/1990		Thorium-232	2.1	1.200				1466332.080	598290.440	
3D-2	2.0	2.0	11/20/1990		Plutonium-238	55	3.000				1466330.770	598277.500	
3D-2	2.0	2.0	11/20/1990		Thorium-232	2.1	0.600				1466330.770	598277.500	
3D-3	2.0	2.0	11/20/1990		Plutonium-238	55	14.000				1466319.140	598291.730	
3D-3	2.0	2.0	11/20/1990		Thorium-232	2.1	0.800				1466319.140	598291.730	
3D-4	2.0	2.0	11/20/1990		Plutonium-238	55	5.000				1466317.830	598278.800	
3D-4	2.0	2.0	11/20/1990		Thorium-232	2.1	0.500				1466317.830	598278.800	
3D-C	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466324.960	598284.620	
3D-C	2.0	2.0	06/10/1991		Plutonium-238	55	18.000				1466324.960	598284.620	
3D-C	2.0	2.0	11/20/1990		Thorium-232	2.1	0.800				1466324.960	598284.620	
3D-C	2.0	2.0	06/10/1991		Thorium-232	2.1	0.400				1466324.960	598284.620	
3E-1	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466347.000	598288.920	
3E-1	2.0	2.0	11/20/1990		Thorium-232	2.1	0.600				1466347.000	598288.920	
3E-2	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466345.690	598275.990	
3E-2	2.0	2.0	11/20/1990		Thorium-232	2.1	0.900				1466345.690	598275.990	
3E-3	2.0	2.0	11/19/1990		Plutonium-238	55	15.000				1466334.070	598290.220	
3E-3	2.0	2.0	11/19/1990		Thorium-232	2.1	1.300				1466334.070	598290.220	
3E-4	2.0	2.0	11/19/1990		Plutonium-238	55	63.000				1466332.750	598277.280	
3E-4	2.0	2.0	11/19/1990		Thorium-232	2.1	4.400				1466332.750	598277.280	
3E-C	2.0	2.0	11/20/1990		Plutonium-238	55	7.000				1466339.880	598283.100	
3E-C	2.0	2.0	11/20/1990		Thorium-232	2.1	0.800				1466339.880	598283.100	
3F-1	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466361.930	598287.410	
3F-1	2.0	2.0	06/10/1991		Plutonium-238	55	8.000				1466361.930	598287.410	
3F-1	2.0	2.0	11/20/1990		Thorium-232	2.1	0.300				1466361.930	598287.410	
3F-1	2.0	2.0	06/10/1991		Thorium-232	2.1	0.200				1466361.930	598287.410	
3F-2	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466360.610	598274.470	
3F-2	2.0	2.0	11/20/1990		Thorium-232	2.1	1.000				1466360.610	598274.470	
3F-3	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466348.990	598288.700	
3F-3	2.0	2.0	11/20/1990		Thorium-232	2.1	0.500				1466348.990	598288.700	

Table 3: Historic Data for Piece B Area (used in Process Area UCL Calc.)

Location	Depth (feet)		Date Collected	Sample Id	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
3F-4	2.0	2.0	11/20/1990		Plutonium-238	55	3.000				1466347.680	598275.770	
3F-4	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466347.680	598275.770	
3F-C	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466354.800	598281.590	
3F-C	2.0	2.0	11/20/1990		Thorium-232	2.1	1.200				1466354.800	598281.590	
3G-1	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466376.850	598285.890	
3G-1	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466376.850	598285.890	
3G-2	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466375.540	598272.960	
3G-2	2.0	2.0	11/20/1990		Thorium-232	2.1	0.900				1466375.540	598272.960	
3G-3	2.0	2.0	11/20/1990		Plutonium-238	55	2.000				1466363.910	598287.190	
3G-3	2.0	2.0	11/20/1990		Thorium-232	2.1	0.700				1466363.910	598287.190	
3G-4	2.0	2.0	11/20/1990		Plutonium-238	55	5.000				1466362.600	598274.250	
3G-4	2.0	2.0	11/20/1990		Thorium-232	2.1	0.400				1466362.600	598274.250	
3G-C	2.0	2.0	11/20/1990		Plutonium-238	55	0.000				1466369.730	598280.070	
3G-C	2.0	2.0	06/10/1991		Plutonium-238	55	5.000				1466369.730	598280.070	
3G-C	2.0	2.0	11/20/1990		Thorium-232	2.1	1.000				1466369.730	598280.070	
3G-C	2.0	2.0	06/10/1991		Thorium-232	2.1	1.100				1466369.730	598280.070	
3H-1	2.0	2.0	12/06/1990		Plutonium-238	55	0.000				1466391.770	598284.380	
3H-1	2.0	2.0	12/06/1990		Thorium-232	2.1	0.800				1466391.770	598284.380	
3H-2	2.0	2.0	12/06/1990		Plutonium-238	55	9.000				1466390.460	598271.440	
3H-2	2.0	2.0	12/06/1990		Thorium-232	2.1	0.500				1466390.460	598271.440	
3H-3	2.0	2.0	12/06/1990		Plutonium-238	55	0.000				1466378.840	598285.670	
3H-3	2.0	2.0	12/06/1990		Thorium-232	2.1	0.800				1466378.840	598285.670	
3H-C	2.0	2.0	12/06/1990		Plutonium-238	55	0.000				1466384.650	598278.560	
3H-C	2.0	2.0	12/06/1990		Thorium-232	2.1	0.600				1466384.650	598278.560	
3HI-4	2.0	2.0	12/06/1990		Plutonium-238	55	0.000				1466377.520	598272.740	
3HI-4	2.0	2.0	12/06/1990		Thorium-232	2.1	0.600				1466377.520	598272.740	
3I-1	2.0	2.0	11/28/1990		Plutonium-238	55	5.000				1466406.800	598283.040	
3I-1	2.0	2.0	11/28/1990		Thorium-232	2.1	0.600				1466406.800	598283.040	
3I-2	2.0	2.0	11/28/1990		Plutonium-238	55	14.000				1466405.480	598270.110	
3I-2	2.0	2.0	11/28/1990		Thorium-232	2.1	0.200				1466405.480	598270.110	
3I-3	2.0	2.0	11/28/1990		Plutonium-238	55	0.000				1466393.860	598284.330	
3I-3	2.0	2.0	11/28/1990		Thorium-232	2.1	0.900				1466393.860	598284.330	
3I-4	2.0	2.0	11/28/1990		Plutonium-238	55	4.000				1466392.550	598271.400	
3I-4	2.0	2.0	11/28/1990		Thorium-232	2.1	0.700				1466392.550	598271.400	
3I-C	2.0	2.0	11/28/1990		Plutonium-238	55	6.000				1466399.670	598277.220	
3I-C	2.0	2.0	11/28/1990		Thorium-232	2.1	0.500				1466399.670	598277.220	
B-1	5.0	7.0	04/18/1995		Plutonium-238	55	2.070	0.04			1466425.700	598127.230	Dup
B-1	5.0	7.0	04/18/1995		Plutonium-238	55	0.230	0.02			1466425.700	598127.230	
B-1	5.0	7.0	04/18/1995		Plutonium-239/2	62	-0.010	0.03	U		1466425.700	598127.230	Dup
B-1	5.0	7.0	04/18/1995		Plutonium-239/2	62	0.010	0.01	U		1466425.700	598127.230	
B-1	5.0	7.0	04/18/1995		Thorium-228	2.6	0.570	0.02			1466425.700	598127.230	Dup
B-1	5.0	7.0	04/18/1995		Thorium-228	2.6	0.820	0.05			1466425.700	598127.230	
B-1	5.0	7.0	04/18/1995		Thorium-230	2.8	1.050	0.02			1466425.700	598127.230	Dup
B-1	5.0	7.0	04/18/1995		Thorium-230	2.8	1.310	0.03			1466425.700	598127.230	
B-1	5.0	7.0	04/18/1995		Thorium-232	2.1	0.600	0.02			1466425.700	598127.230	Dup
B-1	5.0	7.0	04/18/1995		Thorium-232	2.1	0.640	0.03			1466425.700	598127.230	
B-1	5.0	7.0	04/18/1995		Uranium-234	2	0.530	0.01			1466425.700	598127.230	Dup
B-1	5.0	7.0	04/18/1995		Uranium-234	2	0.820	0.02			1466425.700	598127.230	
B-1	5.0	7.0	04/18/1995		Uranium-235	3.2	0.020	0.01	J		1466425.700	598127.230	Dup
B-1	5.0	7.0	04/18/1995		Uranium-235	3.2	0.010	0.02	U		1466425.700	598127.230	
B-1	5.0	7.0	04/18/1995		Uranium-238	2.2	0.620	0.01			1466425.700	598127.230	Dup
B-1	5.0	7.0	04/18/1995		Uranium-238	2.2	1.020	0.02			1466425.700	598127.230	
B-10	5.0	7.0	04/18/1995		Americium-241	63	0.360	0.36	U		1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Bismuth-207	1.2	0.040	0.04	U		1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Bismuth-210		0.060	0.06	U		1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Cesium-137	3.8	0.050	0.05	U		1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Cobalt-60	0.7	0.040	0.04	U		1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Plutonium-238	55	0.700	0.01			1466414.300	598210.890	

Table 3: Historic Data for Piece B Area (used in Process Area UCL Calc.)

Location	Depth (feet)		Date Collected	Sample Id	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
B-10	5.0	7.0	04/18/1995		Plutonium-239/2	62	-0.010	0.01	U		1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Potassium-40		9.020	10.00			1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Radium-226	2.9	0.570	0.30			1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Thorium-228	2.6	0.190	0.01			1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Thorium-230	2.8	0.630	0.01			1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Thorium-232	2.1	0.220	0.01			1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Uranium-234	2	0.450	0.02			1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Uranium-235	3.2	0.000	0.02			1466414.300	598210.890	
B-10	5.0	7.0	04/18/1995		Uranium-238	2.2	0.600	0.02			1466414.300	598210.890	
B-11	5.0	7.0	04/18/1995		Americium-241	63	0.360	0.36	U		1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Americium-241	63	0.280	0.28	U		1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Bismuth-207	1.2	0.040	0.04	U		1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Bismuth-207	1.2	0.030	0.03	U		1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Bismuth-210		0.060	0.06	U		1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Bismuth-210		0.050	0.05	U		1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Cesium-137	3.8	0.050	0.05	U		1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Cesium-137	3.8	0.040	1.00	J		1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Cobalt-60	0.7	0.040	0.04	U		1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Cobalt-60	0.7	0.040	0.04	U		1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Plutonium-238	55	0.040	0.02	J		1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Plutonium-238	55	0.090	0.03			1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Plutonium-239/2	62	0.000	0.01	U		1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Plutonium-239/2	62	-0.010	0.02	U		1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Potassium-40		12.360	10.00			1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Potassium-40		9.520	10.00			1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Radium-226	2.9	0.610	0.30			1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Radium-226	2.9	0.440	0.30			1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Thorium-228	2.6	0.220	0.04			1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Thorium-228	2.6	0.670	0.03			1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Thorium-230	2.8	0.460	0.02			1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Thorium-230	2.8	0.790	0.02			1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Thorium-232	2.1	0.260	0.02			1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Thorium-232	2.1	0.660	0.02			1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Uranium-234	2	0.500	0.01			1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Uranium-234	2	0.610	0.01			1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Uranium-235	3.2	0.010	0.01	U		1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Uranium-235	3.2	0.030	0.01	J		1466438.800	598231.460	
B-11	5.0	7.0	04/18/1995		Uranium-238	2.2	0.580	0.01			1466438.800	598231.460	Dup
B-11	5.0	7.0	04/18/1995		Uranium-238	2.2	0.720	0.01			1466438.800	598231.460	
B-12	5.0	7.0	04/18/1995		Americium-241	63	0.310	0.31	U		1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Bismuth-207	1.2	0.040	0.04	U		1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Bismuth-210		0.060	0.06	U		1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Cesium-137	3.8	0.040	0.04	U		1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Cobalt-60	0.7	0.040	0.04	U		1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Plutonium-238	55	0.020	0.02			1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Plutonium-239/2	62	0.000	0.01			1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Potassium-40		7.420	10.00			1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Radium-226	2.9	0.290	0.30			1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Thorium-228	2.6	0.230	0.02			1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Thorium-230	2.8	0.340	0.01			1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Thorium-232	2.1	0.260	0.01			1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Uranium-234	2	0.550	0.01			1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Uranium-235	3.2	0.010	0.01	J		1466416.200	598230.910	
B-12	5.0	7.0	04/18/1995		Uranium-238	2.2	0.640	0.01			1466416.200	598230.910	
B-2	5.0	7.0	04/18/1995		Plutonium-238	55	0.050	0.03	J		1466406.100	598128.900	
B-2	5.0	7.0	04/18/1995		Plutonium-239/2	62	0.000	0.02	U		1466406.100	598128.900	
B-2	5.0	7.0	04/18/1995		Thorium-228	2.6	0.400	0.05			1466406.100	598128.900	
B-2	5.0	7.0	04/18/1995		Thorium-230	2.8	1.050	0.03			1466406.100	598128.900	

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Table 3: Historic Data for Piece B Area (used in Process Area UCL Calc.)

Location	Depth (feet)		Date Collected	Sample Id	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
B-2	5.0	7.0	04/18/1995		Thorium-232	2.1	1.200	0.03			1466406.100	598128.900	
B-2	5.0	7.0	04/18/1995		Uranium-234	2	0.620	0.01			1466406.100	598128.900	
B-2	5.0	7.0	04/18/1995		Uranium-235	3.2	0.020	0.01	J		1466406.100	598128.900	
B-2	5.0	7.0	04/18/1995		Uranium-238	2.2	0.610	0.01			1466406.100	598128.900	
B-3	5.0	7.0	04/18/1995		Plutonium-238	55	4.090	0.03			1466428.900	598147.730	
B-3	5.0	7.0	04/18/1995		Plutonium-239/2	62	0.050	0.02	J		1466428.900	598147.730	
B-3	5.0	7.0	04/18/1995		Thorium-228	2.6	0.860	0.02			1466428.900	598147.730	
B-3	5.0	7.0	04/18/1995		Thorium-230	2.8	0.980	0.02			1466428.900	598147.730	
B-3	5.0	7.0	04/18/1995		Thorium-232	2.1	0.840	0.02			1466428.900	598147.730	
B-3	5.0	7.0	04/18/1995		Uranium-234	2	0.560	0.01			1466428.900	598147.730	
B-3	5.0	7.0	04/18/1995		Uranium-235	3.2	0.010	0.01	U		1466428.900	598147.730	
B-3	5.0	7.0	04/18/1995		Uranium-238	2.2	0.720	0.01			1466428.900	598147.730	
B-4	5.0	7.0	04/18/1995		Plutonium-238	55	0.050	0.02			1466409.100	598149.290	
B-4	5.0	7.0	04/18/1995		Plutonium-239/2	62	0.000	0.01	U		1466409.100	598149.290	
B-4	5.0	7.0	04/18/1995		Thorium-228	2.6	0.390	0.04			1466409.100	598149.290	
B-4	5.0	7.0	04/18/1995		Thorium-230	2.8	0.740	0.03			1466409.100	598149.290	
B-4	5.0	7.0	04/18/1995		Thorium-232	2.1	0.380	0.02			1466409.100	598149.290	
B-4	5.0	7.0	04/18/1995		Uranium-234	2	0.630	0.02			1466409.100	598149.290	
B-4	5.0	7.0	04/18/1995		Uranium-235	3.2	0.010	0.02	U		1466409.100	598149.290	
B-4	5.0	7.0	04/18/1995		Uranium-238	2.2	0.660	0.02			1466409.100	598149.290	
B-5	5.0	7.0	04/18/1995		Americium-241	63	0.370	0.37	U		1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Bismuth-207	1.2	0.040	0.04	U		1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Bismuth-210		0.070	0.07	U		1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Cesium-137	3.8	0.060	0.06	U		1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Cobalt-60	0.7	0.050	0.05	U		1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Plutonium-238	55	0.680	0.01			1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Plutonium-239/2	62	-0.010	0.01	U		1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Potassium-40		7.620	10.00			1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Radium-226	2.9	0.170	0.17	U		1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Thorium-228	2.6	0.450	0.04			1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Thorium-230	2.8	0.500	0.02			1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Thorium-232	2.1	0.410	0.02			1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Uranium-234	2	0.470	0.01			1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Uranium-235	3.2	0.020	0.01	J		1466430.400	598168.310	
B-5	5.0	7.0	04/18/1995		Uranium-238	2.2	0.590	0.01			1466430.400	598168.310	
B-6	5.0	7.0	04/18/1995		Americium-241	63	0.310	0.31	U		1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Bismuth-207	1.2	0.030	0.03	U		1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Bismuth-210		0.050	0.05	U		1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Cesium-137	3.8	0.050	0.05	U		1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Cobalt-60	0.7	0.040	0.04	U		1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Plutonium-238	55	1.360	0.03			1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Plutonium-239/2	62	-0.010	0.02	U		1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Potassium-40		6.980	10.00			1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Radium-226	2.9	0.390	0.30			1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Thorium-228	2.6	0.690	0.09			1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Thorium-230	2.8	0.940	0.04			1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Thorium-232	2.1	0.280	0.04			1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Uranium-234	2	0.470	0.01			1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Uranium-235	3.2	0.020	0.01	J		1466410.500	598170.970	
B-6	5.0	7.0	04/18/1995		Uranium-238	2.2	0.580	0.01			1466410.500	598170.970	
B-7	5.0	7.0	04/18/1995		Americium-241	63	0.330	0.33	U		1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Bismuth-207	1.2	0.040	0.04	U		1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Bismuth-210		0.060	0.06	U		1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Cesium-137	3.8	0.050	0.05	U		1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Cobalt-60	0.7	0.040	0.04	U		1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Plutonium-238	55	0.030	0.02	J		1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Plutonium-239/2	62	0.000	0.02	U		1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Potassium-40		7.790	10.00			1466434.000	598194.900	

Table 3: Historic Data for Piece B Area (used in Process Area UCL Calc.)

Location	Depth (feet)		Date Collected	Sample Id	Analyte	CO (pCi/g)	Result (pCi/g)	MDA	Qualifier		Coordinates		Dup
									lab	data	X	Y	
B-7	5.0	7.0	04/18/1995		Radium-226	2.9	0.530	0.30			1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Thorium-228	2.6	0.610	0.05			1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Thorium-230	2.8	1.220	0.02			1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Thorium-232	2.1	0.540	0.02			1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Uranium-234	2	0.560	0.03			1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Uranium-235	3.2	0.050	0.03	J		1466434.000	598194.900	
B-7	5.0	7.0	04/18/1995		Uranium-238	2.2	0.700	0.03			1466434.000	598194.900	
B-8	5.0	7.0	04/18/1995		Americium-241	63	0.280	0.28	U		1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Bismuth-207	1.2	0.030	0.03	U		1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Bismuth-210		0.050	0.05	U		1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Cesium-137	3.8	0.040	0.04	U		1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Cobalt-60	0.7	0.040	0.04	U		1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Plutonium-238	55	0.160	0.03			1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Plutonium-239/2	62	0.000	0.02			1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Potassium-40		4.010	10.00			1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Radium-226	2.9	0.230	0.30			1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Thorium-228	2.6	0.090	0.04			1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Thorium-230	2.8	0.200	0.02			1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Thorium-232	2.1	0.010	0.02	U		1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Uranium-234	2	0.170	0.02			1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Uranium-235	3.2	0.060	0.02	J		1466412.400	598190.830	
B-8	5.0	7.0	04/18/1995		Uranium-238	2.2	0.190	0.02			1466412.400	598190.830	
B-9	5.0	7.0	04/18/1995		Americium-241	63	0.300	0.30	U		1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Bismuth-207	1.2	0.030	0.03	U		1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Bismuth-210		0.060	0.06	U		1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Cesium-137	3.8	0.040	0.04	U		1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Cobalt-60	0.7	0.040	0.04	U		1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Plutonium-238	55	0.100	0.01			1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Plutonium-239/2	62	0.000	0.01	U		1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Potassium-40		5.710	10.00			1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Radium-226	2.9	0.410	0.30			1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Thorium-228	2.6	0.290	0.02			1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Thorium-230	2.8	0.780	0.01			1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Thorium-232	2.1	0.620	0.01			1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Uranium-234	2	0.380	0.02			1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Uranium-235	3.2	0.020	0.02	J		1466435.000	598210.000	
B-9	5.0	7.0	04/18/1995		Uranium-238	2.2	0.540	0.02			1466435.000	598210.000	

CO: cleanup objective
Dup: field duplicate sample
J: estimated
MDA: minimum detectable activitiy
U: not detected

A-57/530

APPENDIX C

SARs/RSDSs

A58/530

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) 38 BLDG, FOOTPRINT.	SURVEY NO. 03-ER-1001
PURPOSE: SOIL SAMPLE CHARACTERIZATION, NORTH, SOUTH, EAST, WEST, FOOTER + WALL. OLD MENS AND WEST OF OLD MENS RESTROOM.	RWP NO. 1452
	DATE: 12-4-03
	TIME: 1600 hrs

23Aug4

MAP/DRAWING

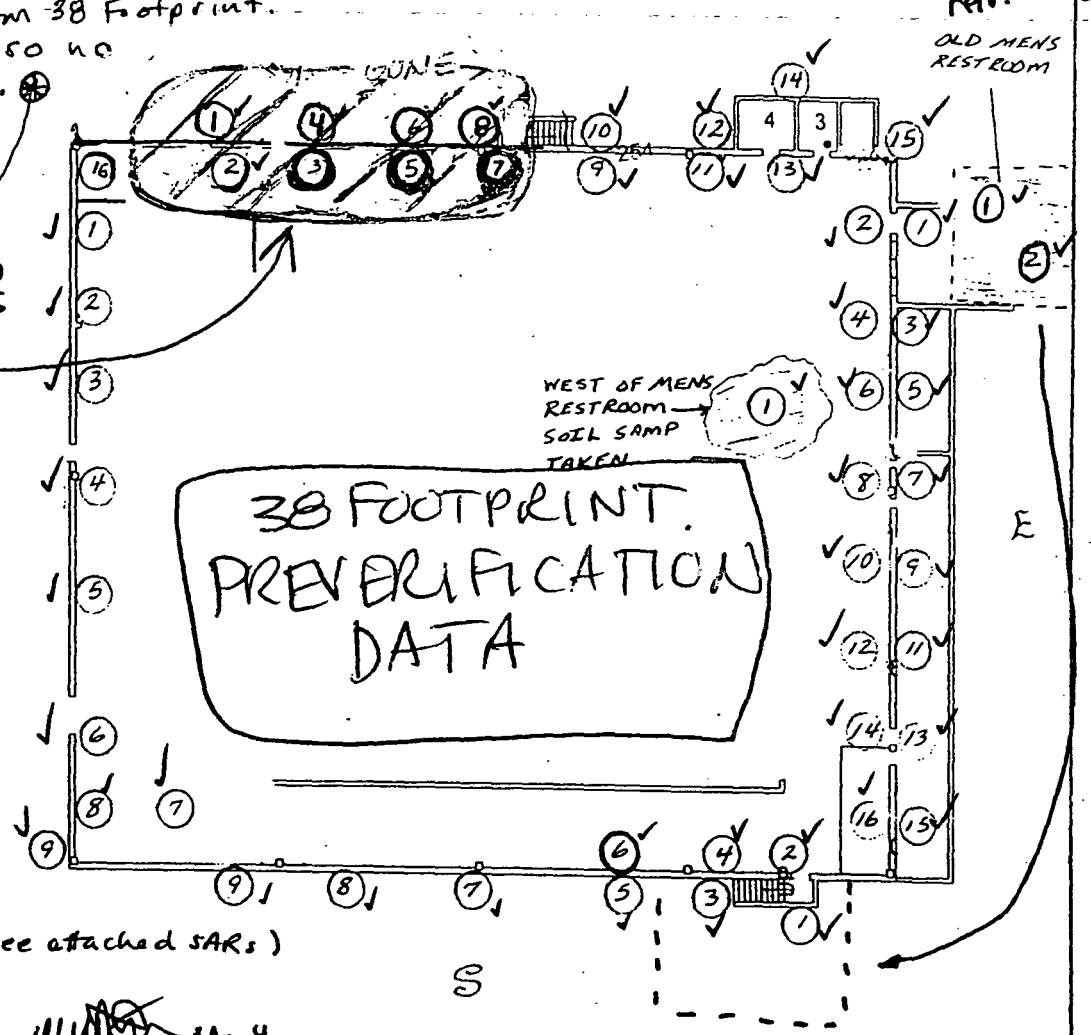
NOTE: THESE SAMPLE LOCATIONS CORRESPOND TO THE PURPLE TRIANGLES ON THE 38 FOOTPRINT GRAPHIC.

Samples 1-8 chased out laterally from 38 Footprint. Wall gone so no resample. ⊛

SAug4

⊛ SEE RSDS-04-ER-310 FOR RESAMPLES @ BASE IN THIS AREA.

3Aug4



✓ = Pu-238 < co (see attached SARs)

3Aug4

LEGEND: # = mrem/hr (γ) whole body; # E = mrem/hr (β+n+γ) extremity on; # = mrem/hr neutron; (#) = grid number; (# /α or /β) = direct contamination

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5748-5736	1-22-04
3030	5746	5-21-04

[redacted]	HPS 534-9	Date: 12-10-03
	HPS 534-9	Date: 12-10-03
[redacted]		
[redacted]	7725	12-11-03

Reviewed/Approved by: (Print) [redacted]

ML-0620 (2/98)

A59/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00619
File ID: MG102673.s0
Priority: Yes

Description\Location
West of mens change room soil #1
Long Count

Collector: 5349
Date Received: 12/4/03
Date Collected: 12/4/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.09	45,000
Cs-137		0.31	0.07	45,000
Pb-210		0.95	0.73	45,000
Ra-226		1.39	0.89	800
Ac-227 (D)	*	0	0.31	40
Th-230	*	1.34	6.43	800
Th-232 (D)		0.29	0.27	130
Pu-238	*	1.51	17.06	500
Am-241	*	0.02	0.08	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/8/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00617
File ID: MG102671.s0
Priority: Yes

Description\Location
38 Old Mens Rest Soil #1
Long Count

Collector: 5349
Date Received: 12/4/03
Date Collected: 12/4/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.04	45,000
Cs-137	*	0.01	0.05	45,000
Pb-210		0.69	0.48	45,000
Ra-226	*	0.52	0.82	800
Ac-227 (D)	*	0.01	0.22	40
Th-230	*	0.32	5.02	800
Th-232 (D)		0.25	0.14	130
Pu-238	*	2.88	11.41	500
Am-241	*	0.01	0.05	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/8/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00618
File ID: MG102672.s0
Priority: Yes

Description\Location
38 Old Mens Rest Soil #2
Long Count

Collector: 5349
Date Received: 12/4/03
Date Collected: 12/4/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.01	0.06	45,000
Cs-137	*	0	0.05	45,000
Pb-210	*	0	0.78	45,000
Ra-226	*	0.74	0.82	800
Ac-227 (D)	*	0	0.29	40
Th-230	*	1.88	5.4	800
Th-232 (D)	*	0.03	0.25	130
Pu-238	*	9.58	11.88	500
Am-241	*	0	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Bi-210m	0.06	0.04	

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/8/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00512
File ID: MG102591.s0
Priority: Yes

Description\Location
38 Wall North #9
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.08	45,000
Cs-137	*	0	0.05	45,000
Pb-210	*	0	1.06	45,000
Ra-226	*	0.48	0.84	800
Ac-227 (D)	*	0	0.26	40
Th-230	*	0.46	6.05	800
Th-232 (D)		0.3	0.22	130
Pu-238		24.9 ✓	23.46	500
Am-241		2.43 ✓	0.09	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.04 nCi/g

$\Sigma_{Respirator}$ 0.07

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00513
File ID: MG102592.s0
Priority: Yes

Description\Location
38 Wall North #10
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.03	0.05	45,000
Cs-137	*	0	0.06	45,000
Pb-210	*	0.18	0.7	45,000
Ra-226		1.34	0.77	800
Ac-227 (D)	*	0	0.33	40
Th-230	*	0	5.9	800
Th-232 (D)		0.22	0.19	130
Pu-238	*	6.1	12.4✓	500
Am-241	*	0.01	0.06	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

A64/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00514
File ID: MG102593.s0
Priority: Yes

Description\Location
38 Wall North #11
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.04	0.05	45,000
Cs-137	*	0	0.06	45,000
Pb-210		0.97	0.68	45,000
Ra-226		1.25	0.78	800
Ac-227 (D)	*	0	0.33	40
Th-230	*	0.14	6.11	800
Th-232 (D)	*	0.16	0.23	130
Pu-238	*	0	17.32	500
Am-241	*	0	0.08	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00515
File ID: MG102594.s0
Priority: Yes

Description\Location
38 Wall North #12
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.07	45,000
Cs-137	*	0	0.05	45,000
Pb-210		0.68	0.59	45,000
Ra-226	*	0.63	0.82	800
Ac-227 (D)	*	0.09	0.21	40
Th-230	*	3.98	4.89 ✓	800
Th-232 (D)		0.46	0.12	130
Pu-238	*	6.39	12.5 ✓	500
Am-241	*	0	0.06	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit. total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00516
File ID: MG102595.s0
Priority: Yes

Description\Location
38 Wall North #13
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.09	45,000
Cs-137	*	0	0.08	45,000
Pb-210	*	0.32	0.87	45,000
Ra-226		1.46	0.96	800
Ac-227 (D)	*	0	0.36	40
Th-230	*	0	8.3	800
Th-232 (D)		0.8	0.25	130
Pu-238	*	1.59	18.68✓	500
Am-241	*	0.01	0.09	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.07

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00517
File ID: MG102596.s0
Priority: Yes

Description\Location
38 Wall North #14
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.03	0.08	45,000
Cs-137		0.18	0.06	45,000
Pb-210	*	0.67	1.15	45,000
Ra-226		1.55	1.46	800
Ac-227 (D)	*	0	0.45	40
Th-230	*	1.36	9.08	800
Th-232 (D)		0.42	0.38	130
Pu-238	*	0	23.61✓	500
Am-241	*	0	0.12	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.04 nCi/g

$\Sigma_{Respirator}$ 0.08

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00518
File ID: MG102597.s0
Priority: Yes

Description\Location
38 Wall North #15
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.03	0.05	45,000
Cs-137	*	0.03	0.04	45,000
Pb-210		0.95	0.67	45,000
Ra-226		1.53	0.85	800
Ac-227 (D)	*	0	0.3	40
Th-230	*	2.15	6.16	800
Th-232 (D)		0.56	0.19	130
Pu-238	*	4.39	16.66✓	500
Am-241	*	0	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00519
File ID: MG102598.s0
Priority: Yes

Description\Location
38 Wall North #16
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.08	45,000
Cs-137	*	0	0.07	45,000
Pb-210	*	0	0.85	45,000
Ra-226	*	0.85	0.89	800
Ac-227 (D)	*	0	0.32	40
Th-230	*	0	7.21	800
Th-232 (D)		0.33	0.25	130
Pu-238	*	0	17.22✓	500
Am-241	*	0.02	0.06	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 , Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00544
File ID: MG102615.s0
Priority: Yes

Description\Location
38 Wall South #1
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.02	0.05	45,000
Cs-137	*	0.01	0.05	45,000
Pb-210	*	0.32	0.63	45,000
Ra-226		1.36	0.72	800
Ac-227 (D)	*	0.08	0.25	40
Th-230	*	4.6	5.01	800
Th-232 (D)	*	0.13	0.24	130
Pu-238	*	5.82	13.45✓	500
Am-241	*	0	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00545
File ID: MG102616.s0
Priority: Yes

Description\Location
38 Wall South #2
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60		0.02	0.01	45,000
Cs-137	*	0	0.05	45,000
Pb-210	*	0.03	0.63	45,000
Ra-226	*	0.43	0.88	800
Ac-227 (D)	*	0	0.21	40
Th-230	*	0	5.26	800
Th-232 (D)		0.2	0.16	130
Pu-238		11.91✓	11.17	500
Am-241		0.07	0.04	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00546
File ID: MG102617.s0
Priority: Yes

Description\Location
38 Wall South #3
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60		0.06	0.01	45,000
Cs-137	*	0	0.05	45,000
Pb-210	*	0	0.73	45,000
Ra-226	*	0.71	0.76	800
Ac-227 (D)	*	0.1	0.23	40
Th-230	*	2.64	5.47	800
Th-232 (D)		0.18	0.14	130
Pu-238	*	0.57	13.26✓	500
Am-241	*	0	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00547
File ID: MG102618.s0
Priority: Yes

Description\Location
38 Wall South #4
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.07	45,000
Cs-137	*	0	0.05	45,000
Pb-210	*	0.44	0.56	45,000
Ra-226		0.74	0.74	800
Ac-227 (D)	*	0.11	0.19	40
Th-230	*	0.63	5.51	800
Th-232 (D)	*	0.11	0.23	130
Pu-238	*	0	14.8✓	500
Am-241	*	0	0.06	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00548
File ID: MG102619.s0
Priority: Yes

Description\Location
38 Wall South #5
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.06	45,000
Cs-137	*	0	0.07	45,000
Pb-210	*	0.54	0.66	45,000
Ra-226	*	0.72	0.88	800
Ac-227 (D)	*	0	0.29	40
Th-230	*	2.48	4.72	800
Th-232 (D)		0.19	0.17	130
Pu-238	*	1.97	13.08✓	500
Am-241	*	0.01	0.06	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00550
File ID: MG102621.s0
Priority: Yes

Description\Location
38 Wall South #7
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.06	45,000
Cs-137	*	0.02	0.04	45,000
Pb-210	*	0.04	0.69	45,000
Ra-226	*	0.66	0.74	800
Ac-227 (D)	*	0.03	0.24	40
Th-230	*	0	5.7	800
Th-232 (D)		0.26	0.17	130
Pu-238	*	0	13.54 ✓	500
Am-241	*	0.01	0.06	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00551
File ID: MG102622.s0
Priority: Yes

Description\Location
38 Wall South #8
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.07	45,000
Cs-137	*	0.03	0.04	45,000
Pb-210	*	0.51	0.69	45,000
Ra-226		1.82	0.71	800
Ac-227 (D)	*	0	0.37	40
Th-230	*	0	6.68	800
Th-232 (D)		0.39	0.15	130
Pu-238	*	0	16.85✓	500
Am-241	*	0.02	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00552
File ID: MG102623.s0
Priority: Yes

Description\Location
38 Wall South #9
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.11	45,000
Cs-137	*	0	0.06	45,000
Pb-210	*	0.08	0.71	45,000
Ra-226		1.12	0.67	800
Ac-227 (D)	*	0	0.25	40
Th-230	*	1.27	5.14	800
Th-232 (D)		0.24	0.13	130
Pu-238	*	1.98	14.27 ✓	500
Am-241	*	0	0.06	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00528
File ID: MG102599.s0
Priority: Yes

Description\Location
38 Wall East #1
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.07	45,000
Cs-137	*	0	0.06	45,000
Pb-210	*	0.44	0.73	45,000
Ra-226	*	0.5	0.87	800
Ac-227 (D)	*	0.01	0.28	40
Th-230	*	0	5.91	800
Th-232 (D)		0.46	0.13	130
Pu-238	*	0	16.3 ✓	500
Am-241	*	0.01	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00529
File ID: MG102600.s0
Priority: Yes

Description\Location
38 Wall East #2
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.01	0.04	45,000
Cs-137	*	0	0.04	45,000
Pb-210	*	0.36	0.58	45,000
Ra-226	*	0.61	0.62	800
Ac-227 (D)	*	0	0.25	40
Th-230	*	0	5.05	800
Th-232 (D)		0.22	0.12	130
Pu-238	*	1.79	11.47✓	500
Am-241	*	0.02	0.05	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00530
File ID: MG102601.s0
Priority: Yes

Description\Location
38 Wall East #3
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60		0.02	0.01	45,000
Cs-137	*	0	0.05	45,000
Pb-210	*	0.24	0.65	45,000
Ra-226	*	0.17	0.81	800
Ac-227 (D)	*	0.09	0.19	40
Th-230	*	3.06	4.37	800
Th-232 (D)	*	0.12	0.19	130
Pu-238	*	3.23	11.98✓	500
Am-241		0.05	0.05	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00531
File ID: MG102602.s0
Priority: Yes

Description\Location
38 Wall East #4
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.01	0.06	45,000
Cs-137	*	0.02	0.03	45,000
Pb-210	*	0.48	0.57	45,000
Ra-226		1.04	0.67	800
Ac-227 (D)	*	0	0.24	40
Th-230	*	0.77	4.8	800
Th-232 (D)	*	0.17	0.2	130
Pu-238	*	0	12.8 ✓	500
Am-241	*	0	0.06	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00532
File ID: MG102603.s0
Priority: Yes

Description\Location
38 Wall East #5
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.02	0.08	45,000
Cs-137	*	0.03	0.06	45,000
Pb-210	*	0	0.86	45,000
Ra-226	*	0.06	1.03	800
Ac-227 (D)	*	0	0.34	40
Th-230	*	0	7.07	800
Th-232 (D)		0.63	0.23	130
Pu-238	*	12.14	17.56✓	500
Am-241	*	0.01	0.09	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

Σ Respirator <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00533
File ID: MG102604.s0
Priority: Yes

Description\Location
38 Wall East #6
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.02	0.06	45,000
Cs-137	*	0.02	0.05	45,000
Pb-210	*	0.52	0.62	45,000
Ra-226		1.07	0.81	800
Ac-227 (D)	*	0.06	0.24	40
Th-230	*	3.17	5.73	800
Th-232 (D)		0.32	0.23	130
Pu-238	*	0	14.63✓	500
Am-241	*	0.03	0.06	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A84/530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00534
File ID: MG102605.s0
Priority: Yes

Description\Location
38 Wall East #7
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.08	45,000
Cs-137	*	0	0.06	45,000
Pb-210	*	0	0.93	45,000
Ra-226	*	0	0.98	800
Ac-227 (D)	*	0	0.31	40
Th-230	*	1.71	5.95	800
Th-232 (D)		0.35	0.11	130
Pu-238	*	11.56	15.49✓	500
Am-241	*	0	0.08	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00535
File ID: MG102606.s0
Priority: Yes

Description\Location
38 Wall East #8
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.12	45,000
Cs-137	*	0	0.07	45,000
Pb-210	*	0.41	0.75	45,000
Ra-226	*	0.77	0.83	800
Ac-227 (D)	*	0	0.32	40
Th-230	*	1.49	6.07	800
Th-232 (D)		0.35	0.18	130
Pu-238	*	1.54	15.65✓	500
Am-241	*	0	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g

$\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A86/520

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00536
File ID: MG102607.s0
Priority: Yes

Description\Location
38 Wall East #9
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.08	45,000
Cs-137	*	0	0.05	45,000
Pb-210		0.74	0.66	45,000
Ra-226		0.98	0.87	800
Ac-227 (D)	*	0	0.3	40
Th-230	*	0	6.38	800
Th-232 (D)		0.37	0.2	130
Pu-238	*	0	15.16 ✓	500
Am-241	*	0	0.08	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.05

Σ Respirator <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A87/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00537
File ID: MG102608.s0
Priority: Yes

Description\Location
38 Wall East #10
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.02	0.04	45,000
Cs-137	*	0.04	0.05	45,000
Pb-210	*	0	0.75	45,000
Ra-226	*	0.75	0.83	800
Ac-227 (D)	*	0	0.27	40
Th-230	*	2.75	5.05	800
Th-232 (D)	*	0.15	0.23	130
Pu-238	*	0	15.29✓	500
Am-241	*	0	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A88/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00538
File ID: MG102609.s0
Priority: Yes

Description\Location
38 Wall East #11
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.02	0.06	45,000
Cs-137	*	0	0.06	45,000
Pb-210	*	0.34	0.72	45,000
Ra-226		1.12	0.77	800
Ac-227 (D)	*	0	0.32	40
Th-230	*	1.69	6.16	800
Th-232 (D)		0.27	0.19	130
Pu-238	*	0	15.9	500
Am-241	*	0	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

A89/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00539
File ID: MG102610.s0
Priority: Yes

Description\Location
38 Wall East #12
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.09	45,000
Cs-137	*	0	0.06	45,000
Pb-210	*	0.54	0.77	45,000
Ra-226		1.46	0.88	800
Ac-227 (D)		0.25	0.24	40
Th-230	*	0	6.93	800
Th-232 (D)		0.37	0.21	130
Pu-238	*	0	18.9✓	500
Am-241	*	0	0.08	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

A90/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00540
File ID: MG102611.s0
Priority: Yes

Description\Location
38 Wall East #13
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.11	45,000
Cs-137	*	0.01	0.06	45,000
Pb-210		0.76	0.76	45,000
Ra-226	*	0.9	0.98	800
Ac-227 (D)	*	0	0.33	40
Th-230	*	1.72	6.65	800
Th-232 (D)		0.43	0.27	130
Pu-238	*	0	18.97✓	500
Am-241	*	0	0.08	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g

$\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

A91/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00541
File ID: MG102612.s0
Priority: Yes

Description\Location
38 Wall East #14
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.04	0.07	45,000
Cs-137	*	0.02	0.05	45,000
Pb-210	*	0.07	0.71	45,000
Ra-226	*	0.53	0.87	800
Ac-227 (D)	*	0.07	0.29	40
Th-230	*	2.36	5.75	800
Th-232 (D)		0.43	0.18	130
Pu-238	*	0	14.81	500
Am-241	*	0	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

A92/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00542
File ID: MG102613.s0
Priority: Yes

Description\Location
38 Wall East #15
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.06	45,000
Cs-137	*	0	0.05	45,000
Pb-210	*	0.14	0.61	45,000
Ra-226		0.89	0.64	800
Ac-227 (D)	*	0	0.25	40
Th-230	*	0.94	5.19	800
Th-232 (D)		0.21	0.15	130
Pu-238	*	0	16.42 ✓	500
Am-241	*	0.02	0.05	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.05

Σ Respirator <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

A93/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00543
File ID: MG102614.s0
Priority: Yes

Description\Location
38 Wall East #16
Long Count

Collector: 5349
Date Received: 11/26/03
Date Collected: 11/25/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.08	45,000
Cs-137	*	0	0.05	45,000
Pb-210	*	0.45	0.7	45,000
Ra-226		1.35	0.7	800
Ac-227 (D)	*	0.01	0.27	40
Th-230	*	1.58	5.61	800
Th-232 (D)		0.23	0.2	130
Pu-238	*	2.25	14.69	500
Am-241	*	0	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g

$\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

A94/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00553
File ID: MG102624.s0
Priority: Yes

Description\Location
38 Wall West #1
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.09	45,000
Cs-137	*	0.02	0.04	45,000
Pb-210	*	0.19	0.8	45,000
Ra-226	*	0.71	0.85	800
Ac-227 (D)	*	0	0.29	40
Th-230	*	1.55	5.83	800
Th-232 (D)	*	0.13	0.23	130
Pu-238	*	11.13	12.95 ✓	500
Am-241		0.11	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g

$\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A95/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00554
File ID: MG102625.s0
Priority: Yes

Description\Location
38 Wall West #2
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.08	45,000
Cs-137	*	0	0.06	45,000
Pb-210		0.89	0.54	45,000
Ra-226	*	0.77	0.84	800
Ac-227 (D)	*	0	0.31	40
Th-230	*	4.11	5.47	800
Th-232 (D)		0.22	0.22	130
Pu-238	*	0	18.12 ✓	500
Am-241		0.11	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00555
File ID: MG102626.s0
Priority: Yes

Description\Location
38 Wall West #3
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.08	45,000
Cs-137	*	0.01	0.04	45,000
Pb-210	*	0.18	0.67	45,000
Ra-226	*	0.43	0.87	800
Ac-227 (D)	*	0.07	0.25	40
Th-230	*	2.48	5.5	800
Th-232 (D)		0.38	0.18	130
Pu-238	*	8.64	12.79 ✓	500
Am-241	*	0	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

Σ Respirator <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A97/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00556
File ID: MG102627.s0
Priority: Yes

Description\Location
38 Wall West #4
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.02	0.05	45,000
Cs-137	*	0	0.05	45,000
Pb-210	*	0.46	0.59	45,000
Ra-226		0.94	0.73	800
Ac-227 (D)	*	0	0.31	40
Th-230	*	0	5.47	800
Th-232 (D)		0.27	0.17	130
Pu-238	*	14.72	17.04✓	500
Am-241		0.07	0.06	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00557
File ID: MG102628.s0
Priority: Yes

Description\Location
38 Wall West #5
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.07	45,000
Cs-137	*	0.01	0.05	45,000
Pb-210	*	0.28	0.68	45,000
Ra-226		1.12	0.72	800
Ac-227 (D)	*	0	0.28	40
Th-230	*	1.47	5.03	800
Th-232 (D)	*	0.13	0.23	130
Pu-238	*	0	13.39✓	500
Am-241		0.09	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.04

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A99/530

5/31/04

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00558
File ID: MG102629.s0
Priority: Yes

Description\Location
38 Wall West #6
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.08	45,000
Cs-137		0.04	0.04	45,000
Pb-210		0.97	0.62	45,000
Ra-226	*	0.69	1.06	800
Ac-227 (D)	*	0	0.36	40
Th-230	*	0	7.14	800
Th-232 (D)		0.39	0.23	130
Pu-238	*	0	20.83✓	500
Am-241	*	0	0.1	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A100/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00559
File ID: MG102630.s0
Priority: Yes

Description\Location
38 Wall West #7
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.07	45,000
Cs-137		0.3	0.04	45,000
Pb-210	*	0.38	0.75	45,000
Ra-226		1.04	0.78	800
Ac-227 (D)	*	0.14	0.22	40
Th-230	*	4.43	4.96	800
Th-232 (D)	*	0.09	0.28	130
Pu-238	*	0	18.09 ✓	500
Am-241	*	0.05	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A101/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00560
File ID: MG102631.s0
Priority: Yes

Description\Location
38 Wall West #8
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.08	45,000
Cs-137	*	0	0.05	45,000
Pb-210	*	0.26	0.76	45,000
Ra-226		1.27	0.83	800
Ac-227 (D)	*	0	0.31	40
Th-230	*	0	5.85	800
Th-232 (D)		0.24	0.23	130
Pu-238	*	0	17.56✓	500
Am-241	*	0	0.07	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A102/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00561
File ID: MG102632.s0
Priority: Yes

Description\Location
38 Wall West #9
Long Count

Collector: 7793
Date Received: 11/26/03
Date Collected: 11/26/03

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.11	45,000
Cs-137	*	0.03	0.06	45,000
Pb-210		1.08	0.75	45,000
Ra-226	*	0.13	1.2	800
Ac-227 (D)	*	0	0.4	40
Th-230	*	0	8.88	800
Th-232 (D)		0.49	0.32	130
Pu-238	*	5.85	17.96	500
Am-241	*	0.07	0.08	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

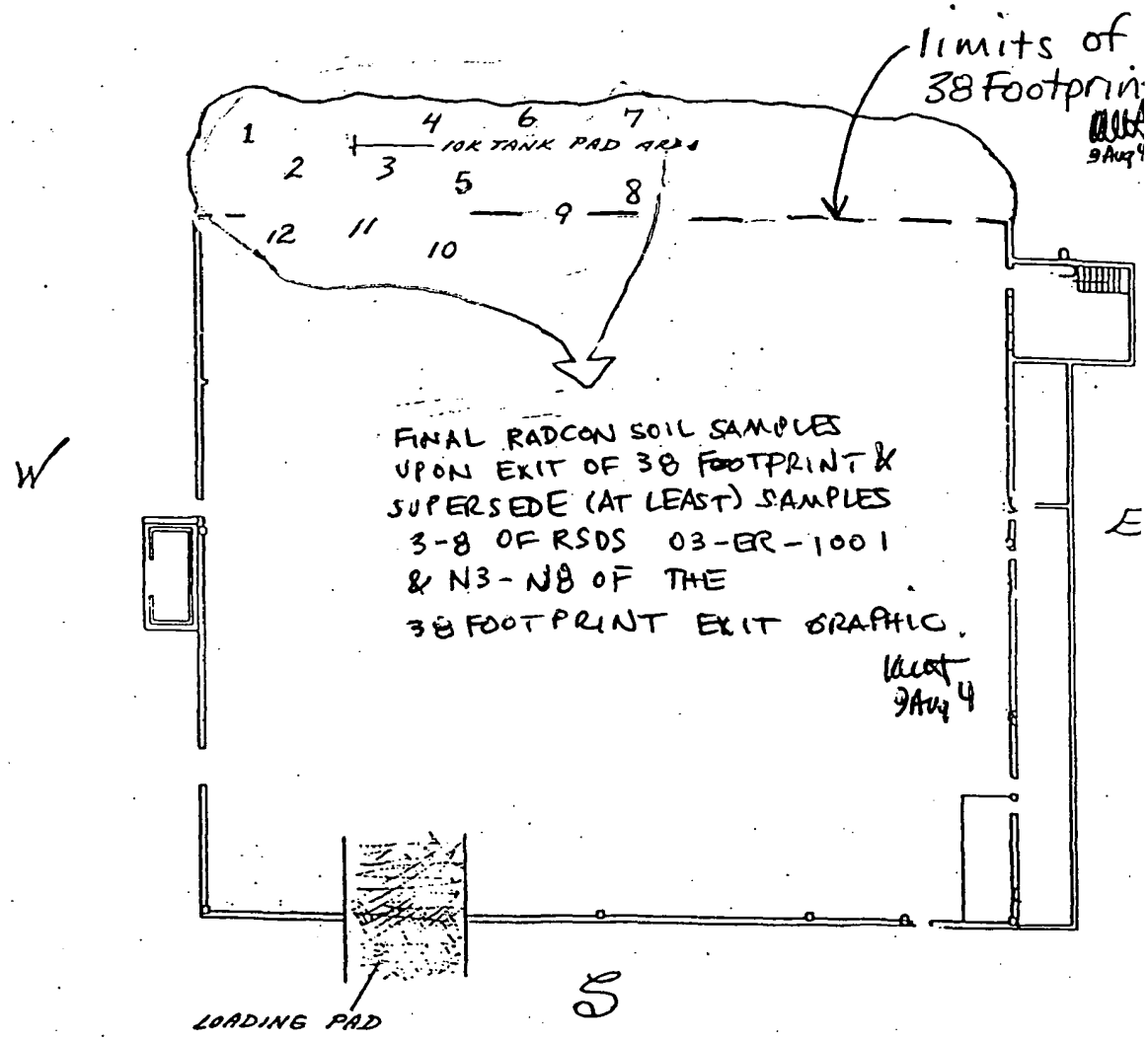
Date: 12/1/03 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A103/530

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) 38 FOOTPRINT	SURVEY NO. 04-ER-310
PURPOSE: SOIL SAMPLES TAKEN AT, 38 FOOTPRINT NORTH END.	RWP NO. 1502
	DATE: 06-03-04
	TIME: 1500 hrs

MAP/DRAWING



LEGEND:
= mrem/hr (γ) whole body
E = mrem/hr (β+n+γ) extremity on contact
= mrem/hr neutron
= swipe number
/α or /β = direct contaminat measurement in dpm/100

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5752/5732	10-23-04
3030	5823	5-25-05
A	A	A
N	N	N

[redacted]

HPI 5344	Date 06-03
[redacted]	
HPI 5344	Date 06-03
ERS	
7725	Date 6-10-0

A1041/5

FS00404 38 FOOTPRINT NORTH END #1
Jun/7/2004 8:54:07AM

ksb

:ADER INFORMATION in PS100091.S0 Collected 06/07/04 by 5349

lentification		Acquisition	
User	: 5268	Started	: Jun/7/2004 7:29:40AM
MCArd	: 1	Stopped	: Jun/7/2004 7:44:40AM
Detector	: F1	True Time	: 900.067 sec
Geometry	: F1	Live Time	: 900.000 sec
Sample	:	Dead Time	: 0.01 %
Channels	: 2048	Gross Count	: 6340 counts
		LTC	: 1.0000011
		Gross Rate	: 7.04445 cps

ample
Sampled from Jun/7/2004 7:29:40AM to Jun/7/2004 7:44:40AM
Sample Quantity 652 ± 130.4 g

Energy Calibration Jun/7/2004 6:11:21AM QE100030.S0
esolution Calibration Sep/24/2003 12:36:50PM F1CALALL.S0
fficiency Calibration Jan/5/2004 10:04:47AM F1CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

:TIVITY INFORMATION with MDA's for PS100091.S0 Collected 06/07/04 by 5349

ame	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
a-238	16.00		18.90	± 11.49	17.20	± 3.44
rand Total			18.90	± 11.49		

:tivity (pCi) at Jun/7/2004 7:29:40AM
Divided by Sample Quantity 652 ± 130.4 g
rrors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

A105/530

FS00405 38 FOOTPRINT NORTH END #2
Jun/7/2004 8:55:51AM

HEADER INFORMATION in PS200081.S0 Collected 06/07/04 by 5349

Identification
User : 5268
MCArd : 2
Detector : F2
Geometry : F2
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 7:30:51AM
Stopped : Jun/7/2004 7:45:51AM
True Time : 900.074 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 6880 counts
LTC : 1
Gross Rate : 7.64444 cps

Sample
Sampled from Jun/7/2004 7:30:51AM to Jun/7/2004 7:45:51AM
Sample Quantity 728 ± 145.6 g

Energy Calibration Jun/7/2004 6:14:15AM QE200030.S0
Resolution Calibration Sep/26/2003 11:21:43AM F2ENEMG1.S0
Efficiency Calibration Jan/5/2004 10:07:42AM F2CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS200081.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00		18.99	± 10.08	14.62	± 2.9
Grand Total			18.99	± 10.08		

Activity (pCi) at Jun/7/2004 7:30:51AM
Divided by Sample Quantity 728 ± 145.6 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

A106/530

FS00406 38 FOOTPRINT NORTH END #3
Jun/7/2004 8:56:40AM

EADER INFORMATION in PS300075.S0 Collected 06/07/04 by 5349

dentification
User : 5268
MCArd : 3
Detector : F3
Geometry : F3
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 7:31:48AM
Stopped : Jun/7/2004 7:46:48AM
True Time : 900.080 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 8049 counts
LTC : 1
Gross Rate : 8.94333 cps

ample
Sampled from Jun/7/2004 7:31:48AM to Jun/7/2004 7:46:48AM
Sample Quantity 665 ± 133 g

Energy Calibration Jun/3/2004 6:21:11AM QE300028.S0
esolution Calibration Sep/26/2003 2:52:35PM FID3MULT.S0
fficiency Calibration Jan/5/2004 10:11:02AM F3CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

CTIVITY INFORMATION with MDA's for PS300075.S0 Collected 06/07/04 by 5349

lame	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
u-238	16.00	?	17.86	± 13.39	20.87	± 4.173
rand Total			17.86	± 13.39		

ctivity (pCi) at Jun/7/2004 7:31:48AM
Divided by Sample Quantity 665 ± 133 g
rrors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

lags	Meaning
?	Activity shown is less than MDA value

A107/530

FS00407 38 FOOTPRINT NORTH END #4
Jun/7/2004 7:38:17AM

bob

HEADER INFORMATION in PS400080.S0 Collected 06/07/04 by 5349

Identification
User : 5268
MCArd : 4
Detector : F4
Geometry : F4
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 7:23:15AM
Stopped : Jun/7/2004 7:38:15AM
True Time : 900.078 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 6735 counts
LTC : 1.0000011
Gross Rate : 7.48334 cps

Sample
Sampled from Jun/7/2004 7:23:15AM to Jun/7/2004 7:23:15AM
Sample Quantity 694 ± 138.8 g
W Constant 1 ± 0

Energy Calibration Jun/7/2004 6:24:43AM QE400028.S0
Resolution Calibration Oct/13/2003 10:54:30AM F4CALROI.S0
Efficiency Calibration Jan/5/2004 9:56:50AM F4CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS400080.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Erro pCi/
Pu-238	16.00	*	30.95	± 14.41	20.30	± 4.
Grand Total			30.95	± 14.41		

Activity (pCi) at Jun/7/2004 7:23:15AM
Divided by Sample Quantity 694 ± 138.8 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification

A108/530

FS00408 38 FOOTPRINT NORTH END #5
Jun/7/2004 7:40:43AM

ADER INFORMATION in PS500074.S0 Collected 06/07/04 by 5349

entification		Acquisition	
User	: 5268	Started	: Jun/7/2004 7:25:39AM
MCArd	: 5	Stopped	: Jun/7/2004 7:40:40AM
Detector	: F5	True Time	: 900.202 sec
Geometry	: F5	Live Time	: 900.000 sec
Sample	:	Dead Time	: 0.02 %
Channels	: 2048	Gross Count	: 6927 counts
		LTC	: 1.00003
		Gross Rate	: 7.6969 cps

mple
Sampled from Jun/7/2004 7:25:39AM to Jun/7/2004 7:25:39AM
Sample Quantity 653 ± 130.6 g

Energy Calibration Jun/7/2004 6:30:05AM QE500029.S0
solution Calibration Oct/13/2003 2:46:33PM F5CALALL.S0
ficiency Calibration Jan/5/2004 9:53:48AM F5CALALL.S0
otope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

TIVITY INFORMATION with MDA's for PS500074.S0 Collected 06/07/04 by 5349

me	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
-238	16.00	*?	13.53	± 11.54	18.17	± 3.633
and Total			13.53	± 11.54		

tivity (pCi) at Jun/7/2004 7:25:39AM
Divided by Sample Quantity 653 ± 130.6 g
rors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

lags	Meaning
*	Forced MDA from identification
?	Activity shown is less than MDA value

A109/530

FS00409 38 FOOTPRINT NORTH END #6
Jun/7/2004 7:43:18AM

HEADER INFORMATION in PS600053.S0 Collected 06/07/04 by 5349

Identification
User : 5268
MCArd : 6
Detector : F6
Geometry : F6
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 7:28:14AM
Stopped : Jun/7/2004 7:43:14AM
True Time : 900.081 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 8316 counts
LTC : 1.0000011
Gross Rate : 9.24001 cps

Sample
Sampled from Jun/7/2004 7:28:14AM to Jun/7/2004 7:28:14AM
Sample Quantity 715 ± 143 g
W Constant 1 ± 0

Energy Calibration Jun/7/2004 6:28:35AM QE600029.S0
Resolution Calibration Oct/14/2003 8:34:38AM F6CALALL.S0
Efficiency Calibration Jan/5/2004 9:48:36AM F6CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS600053.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Erro pCi/
Pu-238	16.00	*	60.73	± 17.97	19.31	± 3.
Grand Total			60.73	± 17.97		

Activity (pCi) at Jun/7/2004 7:28:14AM
Divided by Sample Quantity 715 ± 143 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

$< 10^{-5}$ & NOT PART OF FOOTPRINT SAMPLES.

Flags	Meaning
*	Forced MDA from identification

A110/530

FS00410 38 FOOTPRINT NORHT END #7
Jun/7/2004 8:20:24AM

hot

EADER INFORMATION in PS100092.S0 Collected 06/07/04 by 5349

dentification
User : 5268
MCArd : 1
Detector : F1
Geometry : F1
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 8:05:23AM
Stopped : Jun/7/2004 8:20:23AM
True Time : 900.075 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 7396 counts
LTC : 1.0000011
Gross Rate : 8.21779 cps

ample
Sampled from Jun/7/2004 8:05:23AM to Jun/7/2004 8:20:23AM
Sample Quantity 689 ± 137.8 g

Energy Calibration Jun/7/2004 6:11:21AM QE100030.S0
esolution Calibration Sep/24/2003 12:36:50PM F1CALALL.S0
fficiency Calibration Jan/5/2004 10:04:47AM F1CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

CTIVITY INFORMATION with MDA's for PS100092.S0 Collected 06/07/04 by 5349

ame	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
u-238	16.00	*	29.18	± 13.6	19.15	± 3.83
rand Total			29.18	± 13.6		

ctivity (pCi) at Jun/7/2004 8:05:23AM
Divided by Sample Quantity 689 ± 137.8 g
rrors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

lags	Meaning
*	Forced MDA from identification

A111/530

FS00411 38 FOOTPRINT NORHT END #8
Jun/7/2004 8:44:29AM

HEADER INFORMATION in PS200082.S0 Collected 06/07/04 by 5349

Identification
User : 5268
MCArd : 2
Detector : F2
Geometry : F2
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 8:06:39AM
Stopped : Jun/7/2004 8:21:39AM
True Time : 900.087 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 8425 counts
LTC : 1
Gross Rate : 9.36111 cps

Sample
Sampled from Jun/7/2004 8:06:39AM to Jun/7/2004 8:21:39AM
Sample Quantity 741 ± 148.2 g

Energy Calibration Jun/7/2004 6:14:15AM QE200030.S0
Resolution Calibration Sep/26/2003 11:21:43AM F2ENEMG1.S0
Efficiency Calibration Jan/5/2004 10:07:42AM F2CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS200082.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Erro pCi/
Pu-238	16.00	?	13.06	± 10.83	17.04	± 3.
Grand Total			13.06	± 10.83		

Activity (pCi) at Jun/7/2004 8:06:39AM
Divided by Sample Quantity 741 ± 148.2 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
?	Activity shown is less than MDA value

A112/530

FS00412 38 FOOTPRINT NORHT END #9
Jun/7/2004 8:22:39AM

EADER INFORMATION in PS300076.S0 Collected 06/07/04 by 5349

dentification
User : 5268
MCArd : 3
Detector : F3
Geometry : F3
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 8:07:33AM
Stopped : Jun/7/2004 8:22:33AM
True Time : 900.104 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 10855 counts
LTC : 1.0000011
Gross Rate : 12.0611 cps

ample
Sampled from Jun/7/2004 8:07:33AM to Jun/7/2004 8:22:33AM
Sample Quantity 750 ± 150 g

Energy Calibration Jun/3/2004 6:21:11AM QE300028.S0
esolution Calibration Sep/26/2003 2:52:35PM FID3MULT.S0
fficiency Calibration Jan/5/2004 10:11:02AM F3CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

CTIVITY INFORMATION with MDA's for PS300076.S0 Collected 06/07/04 by 5349

ame	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
a-238	16.00	*?	9.197	± 13	21.22	± 4.244
rand Total			9.197	± 13		

ctivity (pCi) at Jun/7/2004 8:07:33AM
Divided by Sample Quantity 750 ± 150 g
rrors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

lags	Meaning
*	Forced MDA from identification
?	Activity shown is less than MDA value

A113/530

FS00413 38 FOOTPRINT NORTH END #10
Jun/7/2004 8:16:41AM

HEADER INFORMATION in PS400081.S0 Collected 06/07/04 by 5349

Identification
User : 5268
MCArd : 4
Detector : F4
Geometry : F4
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 8:01:40AM
Stopped : Jun/7/2004 8:16:40AM
True Time : 900.080 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 6955 counts
LTC : 1.0000011
Gross Rate : 7.72779 cps

Sample
Sampled from Jun/7/2004 8:01:40AM to Jun/7/2004 8:01:40AM
Sample Quantity 828 ± 165.6 g
W Constant 1 ± 0

Energy Calibration Jun/7/2004 6:24:43AM QE400028.S0
Resolution Calibration Oct/13/2003 10:54:30AM F4CALROI.S0
Efficiency Calibration Jan/5/2004 9:56:50AM F4CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS400081.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00	*	41.36	± 13.61	15.97	± 3.[illegible]
Grand Total			41.36	± 13.61		

Activity (pCi) at Jun/7/2004 8:01:40AM
Divided by Sample Quantity 828 ± 165.6 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification

A-114/530

FS00414 38 FOOTPRINT NORTH END #11
Jun/7/2004 8:59:23AM

EADER INFORMATION in PS500075.S0 Collected 06/0704 by 5349

dentification
User : 5268
MCArd : 5
Detector : F5
Geometry : F5
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 8:02:49AM
Stopped : Jun/7/2004 8:17:49AM
True Time : 900.223 sec
Live Time : 900.000 sec
Dead Time : 0.02 %
Gross Count : 8675 counts
LTC : 1.0000344
Gross Rate : 9.63922 cps

ample
Sampled from Jun/7/2004 8:02:49AM to Jun/7/2004 8:02:49AM
Sample Quantity 754 ± 150.8 g

Energy Calibration Jun/7/2004 6:30:05AM QE500029.S0
esolution Calibration Oct/13/2003 2:46:33PM F5CALALL.S0
fficiency Calibration Jan/5/2004 9:53:48AM F5CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

CTIVITY INFORMATION with MDA's for PS500075.S0 Collected 06/0704 by 5349

ame	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
u-238	16.00	?	0.0000		14.86	± 2.972
rand Total			0.0000			

ctivity (pCi) at Jun/7/2004 8:02:49AM
Divided by Sample Quantity 754 ± 150.8 g
rrors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

lags	Meaning
?	Activity shown is less than MDA value

A115/520

FS00415 38 FOOTPRINT NORTH END #12
Jun/7/2004 8:37:31AM

HEADER INFORMATION in PS600054.S0 Collected 06/07/04 by 5349

Identification
User : 5268
MCArd : 6
Detector : F6
Geometry : F6
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 8:04:08AM
Stopped : Jun/7/2004 8:19:09AM
True Time : 900.072 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 7167 counts
LTC : 1.0000011
Gross Rate : 7.96334 cps

Sample
Sampled from Jun/7/2004 8:04:08AM to Jun/7/2004 8:04:08AM
Sample Quantity 700 ± 140 g
W Constant 1 ± 0

Energy Calibration Jun/7/2004 6:28:35AM QE600029.S0
Resolution Calibration Oct/14/2003 8:34:38AM F6CALALL.S0
Efficiency Calibration Jan/5/2004 9:48:36AM F6CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS600054.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00	?	12.55	± 14.84	24.03	± 4.8
Grand Total			12.55	± 14.84		

Activity (pCi) at Jun/7/2004 8:04:08AM
Divided by Sample Quantity 700 ± 140 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
?	Activity shown is less than MDA value

hot

A116/530

38 Footprint Pkg.

Attachment 5

A117/530

RADIOLOGICAL SURVEY DATA SHEET

 13 Mar 04

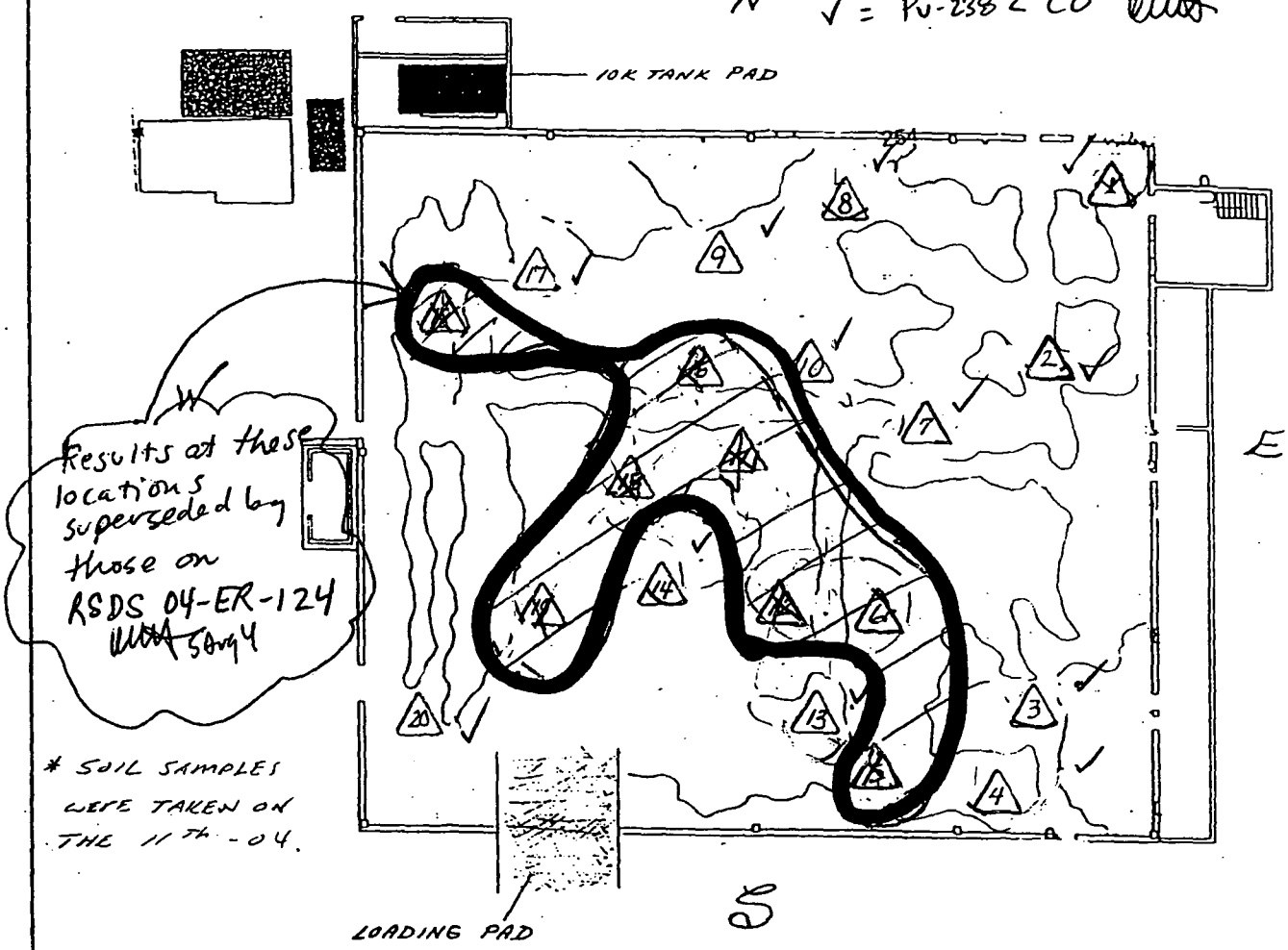
LOCATION: (BLDG/AREA/ROOM) 38 - FOOTPRINT	SURVEY NO. 04-ER-123
PURPOSE: SOIL SAMPLE LOCATIONS INSIDE 38 FOOTPRINT.	RWP NO. 1503
	DATE: 03-13-04
	TIME: 1630

MAP/DRAWING

NaI / soil
green / triang

N

✓ = Pu-238 < CO



LEGEND:
= mrem/hr (γ) whole body
E = mrem/hr (β+n+γ) extremity on contact
= mrem/hr neutron
= swipe number
(# /α) or /β = direct contamination measurement in dpm/100cm²
= air sample number

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date			
2360	5752-5732	10-23-04	[redacted]	HPI 5349	Date 3-13-04
3030	5823	5-20-04	[redacted]	HPI 5349	Date 3-13-04
A	A	A	[redacted]		A118/53
N	N	N	[redacted]	7725	Date 3-17-04

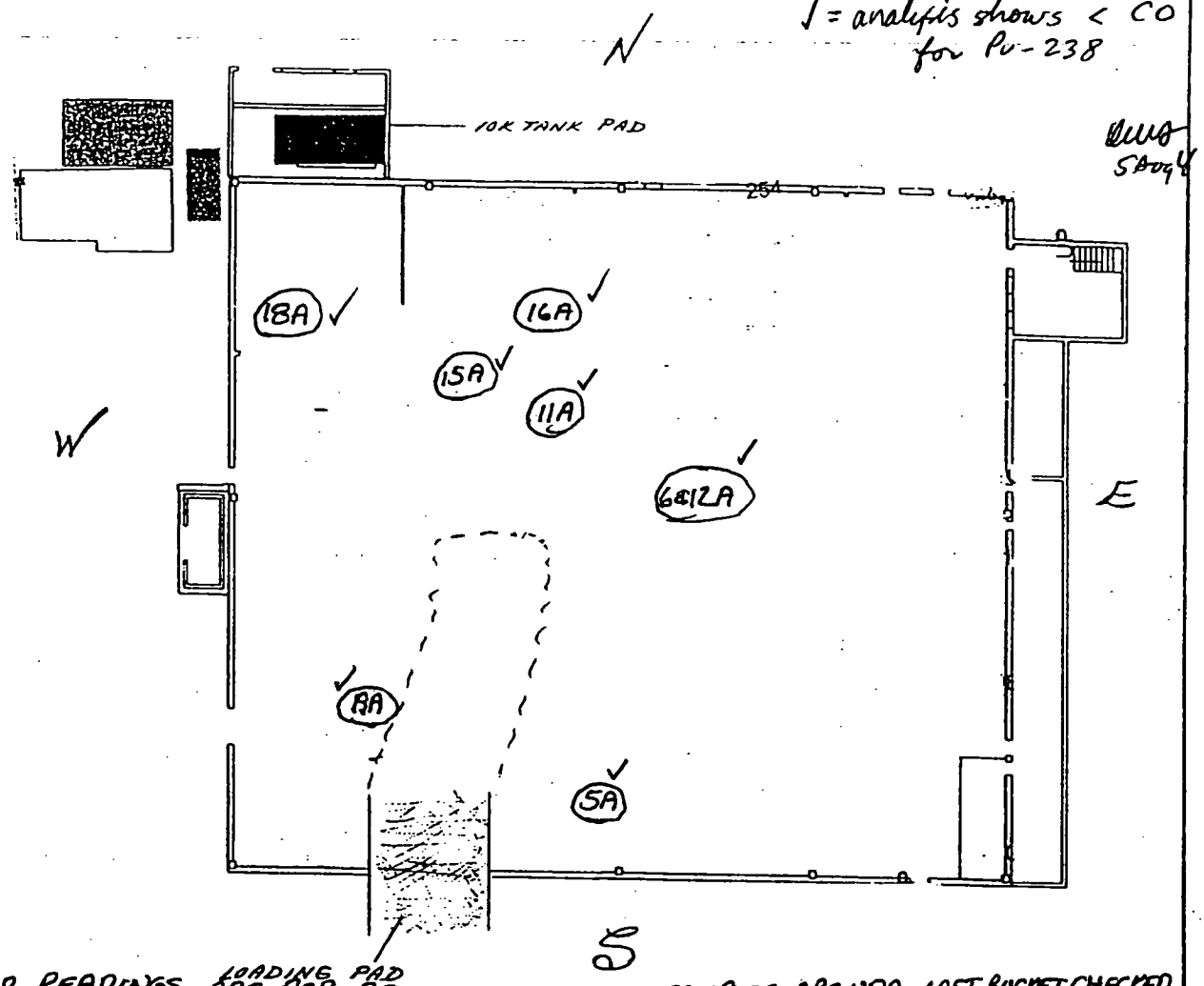
RADIOLOGICAL SURVEY DATA SHEET

15 Mar 04

LOCATION: (BLDG/AREA/ROOM) 38 FOOTPRINT	SURVEY NO. 04-ER-124
PURPOSE: CLEANUP & RESAMPLE 'HOT' SPOTS. DIRT WAS REMOVED DOWN TO SHALE BEDROCK. LAST BUCKET (EXCAVATOR) WAS FIDLED & SAMPLED. NO LOOSE SOIL REMAINS AT SAMPLE LOCATIONS.	RWP NO. 1503
	DATE: 3-15-04
	TIME: 1620

MAP/DRAWING

✓ = analysis shows < CO for Pu-238



FIDLER READINGS ARE FOR DETECTION ONLY. ALL SAMPLES ARE NDA. LAST BUCKET CHECKED FIDLER BKGND = 160 CPM (CH1), SAMPLES TAKEN AT END OF EACH LOCATION CLEANUP, NDA.

LEGEND: # = mrem/hr (γ) whole body; # E = mrem/hr (β+n+γ) extremity on contact; # = mrem/hr neutron; # = air sample result; (# W) = swipe number; (# Iα) or Iβ = direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	N/A	
3030	5823	5-20-04
FIDLER	3829/3430	4-29-04

[redacted]	HPS 7760	Date 3-18-04
	HPS 7760	Date 3-15-04
	HPS 7725	Date 3-19-04

A119

FS00063 38 FTPRT #1
Mar/11/2004 3:01:15PM

HEADER INFORMATION in PS100013.S0 Collected 03/11/04 by 7793

Identification
User : 2257
MCArd : 1
Detector : F1
Geometry : F1
Sample :
Channels : 2048

Acquisition
Started : Mar/11/2004 2:19:52PM
Stopped : Mar/11/2004 2:34:52PM
True Time : 900.074 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 7164 counts
LTC : 1.0000011
Gross Rate : 7.96001 cps

Sample
Sampled from Mar/11/2004 2:19:52PM to Mar/11/2004 2:34:52PM
Sample Quantity 928 ± 185.6 g

Energy Calibration Mar/11/2004 5:25:52AM F1CALALL.S0
Resolution Calibration Sep/24/2003 12:36:50PM F1CALALL.S0
Efficiency Calibration Jan/5/2004 10:04:47AM F1CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS100013.S0 Collected 03/11/04 by 7793

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00		15.23	± 6.378	8.575	± 1.7
Grand Total			15.23	± 6.378		

Activity (pCi) at Mar/11/2004 2:19:52PM
Divided by Sample Quantity 928 ± 185.6 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

A120/530

:\WINDOWS\APTEC\PS100013.S0

FS00064 38 FTPRT #2
Mar/11/2004 3:02:22PM

HEADER INFORMATION in PS200013.S0 Collected 03/11/04 by 7793

Identification
User : 2257
MCArd : 2
Detector : F2
Geometry : F2
Sample :
Channels : 2048

Acquisition
Started : Mar/11/2004 2:21:36PM
Stopped : Mar/11/2004 2:36:36PM
True Time : 900.082 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 7826 counts
LTC : 1
Gross Rate : 8.69556 cps

ample
Sampled from Mar/11/2004 2:21:36PM to Mar/11/2004 2:36:36PM
Sample Quantity 932 ± 186.4 g

Energy Calibration Mar/11/2004 5:26:45AM F1CALALL.S0
esolution Calibration Sep/26/2003 11:21:43AM F2ENEMG1.S0
fficiency Calibration Jan/5/2004 10:07:42AM F2CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

CTIVITY INFORMATION with MDA's for PS200013.S0 Collected 03/11/04 by 7793

me	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
-238	16.00	?	2.650	± 9.39	15.66	± 3.132
and Total			2.650	± 9.39		

tivity (pCi) at Mar/11/2004 2:21:36PM
Divided by Sample Quantity 932 ± 186.4 g
rors Quoted at 2 Sigma
A's Quoted at 1.645 Sigma

gs	Meaning
--	Activity shown is less than MDA value

A121/530

NDOWS\APTEC\PS200013.S0

FS00065 38 FTPRT #3
Mar/11/2004 3:03:14PM

HEADER INFORMATION in PS300013.S0 Collected 03/11/04 by 7793

Identification
User : 2257
MCArd : 3
Detector : F3
Geometry : F3
Sample :
Channels : 2048

Acquisition
Started : Mar/11/2004 2:22:16PM
Stopped : Mar/11/2004 2:37:16PM
True Time : 900.081 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 8141 counts
LTC : 1.0000011
Gross Rate : 9.04557 cps

Sample
Sampled from Mar/11/2004 2:22:16PM to Mar/11/2004 2:37:16PM
Sample Quantity 1026 ± 205.2 g

Energy Calibration Mar/11/2004 5:28:44AM FID3MULT.S0
Resolution Calibration Sep/26/2003 2:52:35PM FID3MULT.S0
Efficiency Calibration Jan/5/2004 10:11:02AM F3CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS300013.S0 Collected 03/11/04 by 7793

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00	?	0.0000		16.19	± 3.2
Grand Total			0.0000			

Activity (pCi) at Mar/11/2004 2:22:16PM
Divided by Sample Quantity 1026 ± 205.2 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
?	Activity shown is less than MDA value

A122/530

:\WINDOWS\APTEC\PS300013.S0

FS00066 38 FTPRT #4
Mar/11/2004 3:02:14PM

GB

HEADER INFORMATION in PS400012.S0 Collected 03/11/04 by 7793

Identification
User : 2257
MCArd : 4
Detector : F4
Geometry : F4
Sample :
Channels : 2048

Acquisition
Started : Mar/11/2004 2:22:57PM
Stopped : Mar/11/2004 2:37:57PM
True Time : 900.079 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 6628 counts
LTC : 1.0000011
Gross Rate : 7.36445 cps

Sample
Sampled from Mar/11/2004 2:22:57PM to Mar/11/2004 2:22:57PM
Sample Quantity 1032 ± 206.4 g
W Constant 1 ± 0

Energy Calibration Mar/11/2004 5:32:19AM F5CALALL.S0
esolution Calibration Oct/13/2003 10:54:30AM F4CALROI.S0
fficiency Calibration Jan/5/2004 9:56:50AM F4CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

CTIVITY INFORMATION with MDA's for PS400012.S0 Collected 03/11/04 by 7793

ame	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
-238	16.00		26.99	± 9.152	10.78	± 2.156
and Total			26.99	± 9.152		

tivity (pCi) at Mar/11/2004 2:22:57PM
Divided by Sample Quantity 1032 ± 206.4 g
rors Quoted at 2 Sigma
A's Quoted at 1.645 Sigma

A123/530

INDOWS\APTEC\PS400012.S0

CHECKED Pg 3a
GB

HEADER INFORMATION in PS100025.S0 Collected 03/15/04 by 7760

Identification
- User : 2257
- MCArd : 1
- Detector : F1
- Geometry : F1
- Sample :
- Channels : 2048

Acquisition
- Started : Mar/16/2004 9:33:24AM
- Stopped : Mar/16/2004 9:48:24AM
- True Time : 900.078 sec
- Live Time : 900.000 sec
- Dead Time : 0.01 %
- Gross Count : 7688 counts
- LTC : 1
- Gross Rate : 8.54222 cps

Sample
Sampled from Mar/16/2004 9:33:24AM to Mar/16/2004 9:48:24AM
Sample Quantity 1033 ± 206.6 g

Energy Calibration Mar/16/2004 9:01:22AM F1CALALL.S0
Resolution Calibration Sep/24/2003 12:36:50PM F1CALALL.S0
Efficiency Calibration Jan/5/2004 10:04:47AM F1CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS100025.S0 Collected 03/15/04 by 7760

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00		50.14	± 13.26	11.96	± 2.3
Grand Total			50.14	± 13.26		

Activity (pCi) at Mar/16/2004 9:33:24AM
Divided by Sample Quantity 1033 ± 206.6 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

A124/530

FS00118 Bldg. 38 Location 6 & 12A
Mar/16/2004 9:49:25AM

04ER124 Pg 4 of 9
GB
16

EADER INFORMATION in PS200024.S0 Collected 03/15/04 by 7760

Identification		Acquisition	
User	: 2257	Started	: Mar/16/2004 9:34:23AM
MCArd	: 2	Stopped	: Mar/16/2004 9:49:23AM
Detector	: F2	True Time	: 900.094 sec
Geometry	: F2	Live Time	: 900.000 sec
Sample	:	Dead Time	: 0.01 %
Channels	: 2048	Gross Count	: 9276 counts
		LTC	: 1
		Gross Rate	: 10.3067 cps

ample
Sampled from Mar/16/2004 9:34:23AM to Mar/16/2004 9:49:23AM
Sample Quantity 1084 ± 216.8 g

Energy Calibration Mar/16/2004 9:02:29AM F1CALALL.S0
esolution Calibration Sep/26/2003 11:21:43AM F2ENEMG1.S0
fficiency Calibration Jan/5/2004 10:07:42AM F2CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

CTIVITY INFORMATION with MDA's for PS200024.S0 Collected 03/15/04 by 7760

ame	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
u-238	16.00		92.68	± 21.13	13.02	± 2.604
rand Total			92.68	± 21.13		

ctivity (pCi) at Mar/16/2004 9:34:23AM
Divided by Sample Quantity 1084 ± 216.8 g
rrors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

long count gamma spec confirmed that this screen was a false positive. See SAR for same location.
DWA 5/24/04

This is for locations 6 & 12.

A125/530

FS00069 38 FTPRT #7
Mar/11/2004 3:02:45PM

HEADER INFORMATION in PS200014.S0 Collected 03/11/04 by 7793

Identification
User : 2257
MCArd : 2
Detector : F2
Geometry : F2
Sample :
Channels : 2048

Acquisition
Started : Mar/11/2004 2:38:56PM
Stopped : Mar/11/2004 2:53:56PM
True Time : 900.086 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 8442 counts
LTC : 1.0000011
Gross Rate : 9.38001 cps

Sample
Sampled from Mar/11/2004 2:38:56PM to Mar/11/2004 2:53:56PM
Sample Quantity 985 ± 197 g

Energy Calibration Mar/11/2004 5:26:45AM F1CALALL.S0
Resolution Calibration Sep/26/2003 11:21:43AM F2ENEMG1.S0
Efficiency Calibration Jan/5/2004 10:07:42AM F2CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS200014.S0 Collected 03/11/04 by 7793

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Erro pCi/
Pu-238	16.00		40.50	± 14.01	17.58	± 3.
Grand Total			40.50	± 14.01		

Activity (pCi) at Mar/11/2004 2:38:56PM
Divided by Sample Quantity 985 ± 197 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

A126/530

FS00070 38 FTPRT #8
Mar/11/2004 3:03:39PM

EADER INFORMATION in PS300014.S0 Collected 03/11/04 by 7793

dentification
User : 2257
MCArd : 3
Detector : F3
Geometry : F3
Sample :
Channels : 2048

Acquisition
Started : Mar/11/2004 2:39:33PM
Stopped : Mar/11/2004 2:54:33PM
True Time : 900.091 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 9357 counts
LTC : 1.0000011
Gross Rate : 10.3967 cps

ample
Sampled from Mar/11/2004 2:39:33PM to Mar/11/2004 2:54:33PM
Sample Quantity 936 ± 187.2 g

Energy Calibration Mar/11/2004 5:28:44AM FID3MULT.S0
esolution Calibration Sep/26/2003 2:52:35PM FID3MULT.S0
fficiency Calibration Jan/5/2004 10:11:02AM F3CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

TIVITY INFORMATION with MDA's for PS300014.S0 Collected 03/11/04 by 7793

me	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
-238	16.00	?	16.20	± 10.97	16.91	± 3.382
and Total			16.20	± 10.97		

tivity (pCi) at Mar/11/2004 2:39:33PM
Divided by Sample Quantity 936 ± 187.2 g
rors Quoted at 2 Sigma
A's Quoted at 1.645 Sigma

ags	Meaning
?	Activity shown is less than MDA value

A127/530

FS00071 38 FTPRT #9
Mar/11/2004 3:00:42PM

GB

HEADER INFORMATION in PS400013.S0 Collected 03/11/04 by 7793

Identification
- User : 2257
- MCArd : 4
- Detector : F4
- Geometry : F4
- Sample :
- Channels : 2048

Acquisition
- Started : Mar/11/2004 2:40:20PM
- Stopped : Mar/11/2004 2:55:20PM
- True Time : 900.097 sec
- Live Time : 900.000 sec
- Dead Time : 0.01 %
- Gross Count : 8933 counts
- LTC : 1.0000011
- Gross Rate : 9.92557 cps

Sample
Sampled from Mar/11/2004 2:40:20PM to Mar/11/2004 2:40:20PM
Sample Quantity 976 ± 195.2 g
W Constant 1 ± 0

Energy Calibration Mar/11/2004 5:32:19AM F5CALALL.S0
Resolution Calibration Oct/13/2003 10:54:30AM F4CALROI.S0
Efficiency Calibration Jan/5/2004 9:56:50AM F4CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS400013.S0 Collected 03/11/04 by 7793

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00		44.27	± 14.23	16.73	± 3.3
Grand Total			44.27	± 14.23		

Activity (pCi) at Mar/11/2004 2:40:20PM
Divided by Sample Quantity 976 ± 195.2 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

A128/53

FS00072 38 FTPRT #10
Mar/11/2004 3:01:22PM

EADER INFORMATION in PS500012.S0 Collected 03/11/04 by 7793

dentification
User : 2257
MCArd : 5
Detector : F5
Geometry : F5
Sample :
Channels : 2048

Acquisition
Started : Mar/11/2004 2:41:01PM
Stopped : Mar/11/2004 2:56:01PM
True Time : 900.149 sec
Live Time : 900.000 sec
Dead Time : 0.02 %
Gross Count : 7160 counts
LTC : 1.0000611
Gross Rate : 7.95604 cps

ample
Sampled from Mar/11/2004 2:41:01PM to Mar/11/2004 2:41:01PM
Sample Quantity 941 ± 188.2 g

Energy Calibration Mar/11/2004 5:33:03AM F5CALALL.S0
esolution Calibration Oct/13/2003 2:46:33PM F5CALALL.S0
Efficiency Calibration Jan/5/2004 9:53:48AM F5CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

CTIVITY INFORMATION with MDA's for PS500012.S0 Collected 03/11/04 by 7793

ame	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
a-238	16.00	?	3.227	± 9.023	15.03	± 3.006
rand Total			3.227	± 9.023		

ctivity (pCi) at Mar/11/2004 2:41:01PM
Divided by Sample Quantity 941 ± 188.2 g
rrors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

lags	Meaning
?	Activity shown is less than MDA value

A129/530

04ER124 Pg 50
GB

HEADER INFORMATION in PS300024.S0 Collected 03/15/04 by 7760

Identification
- User : 2257
- MCArd : 3
- Detector : F3
- Geometry : F3
- Sample :
- Channels : 2048

Acquisition
- Started : Mar/16/2004 9:35:34AM
- Stopped : Mar/16/2004 9:50:34AM
- True Time : 900.086 sec
- Live Time : 900.000 sec
- Dead Time : 0.01 %
- Gross Count : 8738 counts
- LTC : 1.0000011
- Gross Rate : 9.7089 cps

Sample
Sampled from Mar/16/2004 9:35:34AM to Mar/16/2004 9:50:34AM
Sample Quantity 602 ± 120.4 g

Energy Calibration Mar/16/2004 9:03:41AM FID3MULT.S0
Resolution Calibration Sep/26/2003 2:52:35PM FID3MULT.S0
Efficiency Calibration Jan/5/2004 10:11:02AM F3CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS300024.S0 Collected 03/15/04 by 7760

Name	Energy keV	Activity Flag	Activity pCi/g	Error pCi/g	MDA pCi/g	Erro pCi/
Pu-238	16.00	?	17.73	± 17.82	28.58	± 5.
Grand Total			17.73	± 17.82		

Activity (pCi) at Mar/16/2004 9:35:34AM
Divided by Sample Quantity 602 ± 120.4 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
?	Activity shown is less than MDA value

A130/530

FS00075 FTPRT #13
Mar/11/2004 3:12:16PM

:ADER INFORMATION in PS300015.S0 Collected 03/11/04 by 7793

lentification
User : 2257
MCArd : 3
Detector : F3
Geometry : F3
Sample :
Channels : 2048

Acquisition
Started : Mar/11/2004 2:57:12PM
Stopped : Mar/11/2004 3:12:13PM
True Time : 900.103 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 10808 counts
LTC : 1
Gross Rate : 12.0089 cps

mple
Sampled from Mar/11/2004 2:57:12PM to Mar/11/2004 3:12:13PM
Sample Quantity 960 ± 192 g

Energy Calibration Mar/11/2004 5:28:44AM FID3MULT.S0
solution Calibration Sep/26/2003 2:52:35PM FID3MULT.S0
ficiency Calibration Jan/5/2004 10:11:02AM F3CALALL.S0
otope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

TIVITY INFORMATION with MDA's for PS300015.S0 Collected 03/11/04 by 7793

me	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
-238	16.00		35.50	± 13.68	18.25	± 3.649
and Total			35.50	± 13.68		

:ivity (pCi) at Mar/11/2004 2:57:12PM
Divided by Sample Quantity 960 ± 192 g
rors Quoted at 2 Sigma
A's Quoted at 1.645 Sigma

A131/530

WINDOWS\APTEC\PS300015.S0 Mar/11/2004 3:12:16PM

FS00076 38 FTPRT #14
Mar/11/2004 3:17:21PM

GB

HEADER INFORMATION in PS400014.S0 Collected 03/11/04 by 7793

Identification
User : 5288
MCArd : 4
Detector : F4
Geometry : F4
Sample :
Channels : 2048

Acquisition
Started : Mar/11/2004 2:56:53PM
Stopped : Mar/11/2004 3:11:53PM
True Time : 900.083 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 7285 counts
LTC : 1.0000011
Gross Rate : 8.09445 cps

Sample
Sampled from Mar/11/2004 2:56:53PM to Mar/11/2004 2:56:53PM
Sample Quantity 940 ± 188 g
W Constant 1 ± 0

Energy Calibration Mar/11/2004 5:32:19AM F5CALALL.S0
Resolution Calibration Oct/13/2003 10:54:30AM F4CALROI.S0
Efficiency Calibration Jan/5/2004 9:56:50AM F4CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS400014.S0 Collected 03/11/04 by 7793

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Erro pCi/
Pu-238	16.00		42.47	± 13.43	15.38	± 3.
Grand Total			42.47	± 13.43		

Activity (pCi) at Mar/11/2004 2:56:53PM
Divided by Sample Quantity 940 ± 188 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

A132/530

04ER124 Pg 60 5/8 3.18
GB
16

FS00120 Bldg. 38 Location 15A
Mar/16/2004 9:51:38AM

ADER INFORMATION in PS400022.S0 Collected 03/15/04 by 7760

entification		Acquisition	
User	: 2257	Started	: Mar/16/2004 9:36:33AM
MCArd	: 4	Stopped	: Mar/16/2004 9:51:34AM
Detector	: F4	True Time	: 900.079 sec
Geometry	: F4	Live Time	: 900.000 sec
Sample	:	Dead Time	: 0.01 %
Channels	: 2048	Gross Count	: 6598 counts
		LTC	: 1.0000011
		Gross Rate	: 7.33112 cps

mple
Sampled from Mar/16/2004 9:36:33AM to Mar/16/2004 9:36:33AM
Sample Quantity 700 ± 140 g
W Constant 1 ± 0

Energy Calibration Mar/16/2004 9:12:04AM F5CALALL.S0
solution Calibration Oct/13/2003 10:54:30AM F4CALROI.S0
ficiency Calibration Jan/5/2004 9:56:50AM F4CALALL.S0
otope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

TIVITY INFORMATION with MDA's for PS400022.S0 Collected 03/15/04 by 7760

me	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
-238	16.00	*?	8.620	± 12.38	20.23	± 4.047
and Total			8.620	± 12.38		

tivity (pCi) at Mar/16/2004 9:36:33AM
Divided by Sample Quantity 700 ± 140 g
rors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

ags	Meaning
*	Forced MDA from identification
?	Activity shown is less than MDA value

A 133/530

FS00121 Bldg. 38 Location 16A
Mar/16/2004 9:53:19AM

04ER124 GB. Pg 7 of 5

HEADER INFORMATION in PS500021.S0 Collected 03/15/04 by 7760

Identification
User : 2257
MCArd : 5
Detector : F5
Geometry : F5
Sample :
Channels : 2048

Acquisition
Started : Mar/16/2004 9:38:17AM
Stopped : Mar/16/2004 9:53:17AM
True Time : 900.172 sec
Live Time : 900.000 sec
Dead Time : 0.02 %
Gross Count : 9404 counts
LTC : 1.00006
Gross Rate : 10.4495 cps

Sample
Sampled from Mar/16/2004 9:38:17AM to Mar/16/2004 9:38:17AM
Sample Quantity 919 ± 183.8 g

Energy Calibration Mar/15/2004 5:51:09AM F5CALALL.S0
Resolution Calibration Oct/13/2003 2:46:33PM F5CALALL.S0
Efficiency Calibration Jan/5/2004 9:53:48AM F5CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS500021.S0 Collected 03/15/04 by 7760

Name	Energy keV	Activity Flag	Activity pCi/g	Error pCi/g	MDA pCi/g	Err pCi
Pu-238	16.00	*?	6.027	± 11.58	19.09	± 3
Grand Total			6.027	± 11.58		

Activity (pCi) at Mar/16/2004 9:38:17AM
Divided by Sample Quantity 919 ± 183.8 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification
?	Activity shown is less than MDA value

A134/530

FS00079 38 FTPRT #17
Mar/11/2004 3:29:56PM

DER INFORMATION in PS200016.S0 Collected 03/11/04 by 7793

ntification
ser : 2257
CArd : 2
etector : F2
eometry : F2
ample :
hannels : 2048

Acquisition
Started : Mar/11/2004 3:14:52PM
Stopped : Mar/11/2004 3:29:53PM
True Time : 900.098 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 9833 counts
LTC : 1
Gross Rate : 10.9256 cps

ple
ampled from Mar/11/2004 3:14:52PM to Mar/11/2004 3:29:53PM
ample Quantity 947 ± 189.4 g

Energy Calibration Mar/11/2004 5:26:45AM F1CALALL.S0
olution Calibration Sep/26/2003 11:21:43AM F2ENEMG1.S0
iciency Calibration Jan/5/2004 10:07:42AM F2CALALL.S0
tope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

'IVITY INFORMATION with MDA's for PS200016.S0 Collected 03/11/04 by 7793

ıe	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
·238	16.00	?	4.151	± 10.73	17.78	± 3.556
ınd Total			4.151	± 10.73		

:ivity (pCi) at Mar/11/2004 3:14:52PM
Divided by Sample Quantity 947 ± 189.4 g
:ors Quoted at 2 Sigma
A's Quoted at 1.645 Sigma

ags	Meaning
?	Activity shown is less than MDA value

A135/530

04EK1C4 Pg 8of5
GB

FS00122 Bldg. 38 Location 18A
Mar/16/2004 9:54:40AM

HEADER INFORMATION in PS600006.S0 Collected 03/15/04 by 7760

Identification
User : 2257
MCArd : 6
Detector : F6
Geometry : F6
Sample :
Channels : 2048

Acquisition
Started : Mar/16/2004 9:39:38AM
Stopped : Mar/16/2004 9:54:38AM
True Time : 900.080 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 8026 counts
LTC : 1.0000011
Gross Rate : 8.91779 cps

Sample
Sampled from Mar/16/2004 9:39:38AM to Mar/16/2004 9:39:38AM
Sample Quantity 645 ± 129 g
W Constant 1 ± 0

Energy Calibration Mar/16/2004 9:15:14AM F6CALALL.S0
Resolution Calibration Oct/14/2003 8:34:38AM F6CALALL.S0
Efficiency Calibration Jan/5/2004 9:48:36AM F6CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS600006.S0 Collected 03/15/04 by 7760

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Erro pCi/
Pu-238	16.00	*?	20.60	± 13.84	21.22	± 4
Grand Total			20.60	± 13.84		

Activity (pCi) at Mar/16/2004 9:39:38AM
Divided by Sample Quantity 645 ± 129 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification
?	Activity shown is less than MDA value

A136/53C

FS00123 Bldg. 38 Location 19A
Mar/16/2004 10:13:27AM

04ER124 Pg 9 of 16

DER INFORMATION in PS100026.S0 Collected 03/15/04 by 7760

ntification		Acquisition	
ser	: 5288	Started	: Mar/16/2004 9:53:57AM
CArd	: 1	Stopped	: Mar/16/2004 10:08:57AM
etector	: F1	True Time	: 900.084 sec
eometry	: F1	Live Time	: 900.000 sec
ample	:	Dead Time	: 0.01 %
hannels	: 2048	Gross Count	: 8326 counts
		LTC	: 1.0000011
		Gross Rate	: 9.25112 cps

ple
ampled from Mar/16/2004 9:53:57AM to Mar/16/2004 10:08:57AM
ample Quantity 728 ± 145.6 g

Energy Calibration Mar/16/2004 9:01:22AM F1CALALL.S0
olution Calibration Sep/24/2003 12:36:50PM F1CALALL.S0
iciency Calibration Jan/5/2004 10:04:47AM F1CALALL.S0
tope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

IVITY INFORMATION with MDA's for PS100026.S0 Collected 03/15/04 by 7760

e	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
238	16.00	*	79.55	± 20.16	16.59	± 3.319
nd Total			79.55	± 20.16		

ivity (pCi) at Mar/16/2004 9:53:57AM
Divided by Sample Quantity 728 ± 145.6 g
ors Quoted at 2 Sigma
's Quoted at 1.645 Sigma

gs	Meaning
	Forced MDA from identification

this result superseded by SAR for long count gamma
5 Aug 4

A137/530

FS00082 38 FTPRT #20
Mar/11/2004 3:29:13PM

GB

HEADER INFORMATION in PS500014.S0 Collected 03/11/04 by 7793

Identification
User : 5288
MCArd : 5
Detector : F5
Geometry : F5
Sample :
Channels : 2048

Acquisition
Started : Mar/11/2004 3:14:10PM
Stopped : Mar/11/2004 3:29:10PM
True Time : 900.152 sec
Live Time : 900.000 sec
Dead Time : 0.02 %
Gross Count : 7649 counts
LTC : 1.0000611
Gross Rate : 8.49941 cps

Sample
Sampled from Mar/11/2004 3:14:10PM to Mar/11/2004 3:14:10PM
Sample Quantity 1021 ± 204.2 g

Energy Calibration Mar/11/2004 5:33:03AM F5CALALL.S0
Resolution Calibration Oct/13/2003 2:46:33PM F5CALALL.S0
Efficiency Calibration Jan/5/2004 9:53:48AM F5CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS500014.S0 Collected 03/11/04 by 7793

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Err pCi
Pu-238	16.00	*	15.44	± 9.49	14.34	± 2
Grand Total			15.44	± 9.49		

Activity (pCi) at Mar/11/2004 3:14:10PM
Divided by Sample Quantity 1021 ± 204.2 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification

A138/530

108 16

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00925
File ID: MG102833.s0
Priority: Yes

Description\Location
Rct FS00117 38 Location 5A
Long Count

Collector: 7760
Date Received: 03/16/04
Date Collected: 03/15/04

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60		0.02	0.01	45,000
Cs-137	*	0.01	0.04	45,000
Pb-210	*	0.2	0.54	45,000
Ra-226		1.25	0.55	800
Ac-227 (D)	*	0.02	0.21	40
Th-230	*	2.25	4.91	800
Th-232 (D)		0.4	0.15	130
Pu-238		19.68	12.56	500
Am-241		0.07	0.05	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
U-238D	0.69	0.25	

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 03/16/04 Counted By: 7559 Analyzed By: 7559 Initials [redacted]

A139/53

11 8 16

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00926
File ID: MG102834.s0
Priority: Yes

Description\Location
Bldg.38 Location 6 & 12A Rct
Long Count

Collector: 7760
Date Received: 03/16/04
Date Collected: 03/15/04

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.01	0.04	45,000
Cs-137	*	0	0.04	45,000
Pb-210	*	0	0.66	45,000
Ra-226		0.76	0.62	800
Ac-227 (D)	*	0.07	0.19	40
Th-230	*	0	4.92	800
Th-232 (D)		0.26	0.18	30
Pu-238		28.2 ✓	15.51	800
Am-241		0.11	0.05	800

This supersedes the Pu-on 8/8 results

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
U-238D	0.57	0.29	

Σ_{DOT} 0.04 nCi/g $\Sigma_{Respirator}$ 0.07

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Gennanium

Comments:

Date: 03/16/04 Counted By: 5268 Analyzed By: 7559 Initials [redacted]

A140/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00928
File ID: MG102836.s0
Priority: No

Description\Location
Bldg. 38 Location 11A
Long Count

Collector: 7760
Date Received: 3/16/04
Date Collected: 3/15/04

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.11	45,000
Cs-137	*	0	0.08	45,000
Pb-210		1.45	0.86	45,000
Ra-226		1.76	0.98	800
Ac-227 (D)	*	0	0.39	40
Th-230	*	0	8.67	800
Th-232 (D)		0.63	0.23	130
Pu-238	*	17.01	20.27	500
Am-241	*	0.06	0.1	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
U-235	0.29	0.28	

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.07

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 3/17/04 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

1381

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00929
File ID: MG102837.s0
Priority: No

Description\Location
Bldg. 38 Location 15A
Long Count

Collector: 7760
Date Received: 3/16/04
Date Collected: 3/15/04

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0.03	0.07	45,000
Cs-137	*	0.02	0.06	45,000
Pb-210		0.97	0.73	45,000
Ra-226		1.13	0.92	800
Ac-227 (D)	*	0	0.32	40
Th-230	*	2.47	6.76	800
Th-232 (D)		0.32	0.31	130
Pu-238	*	0	19.73	500
Am-241	*	0	0.09	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 3/17/04 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

A142/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00930
File ID: MG102838.s0
Priority: No

Description\Location
Bldg. 38 Location 16A
Long Count

Collector: 7760
Date Received: 3/16/04
Date Collected: 3/15/04

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.08	45,000
Cs-137	*	0	0.06	45,000
Pb-210	*	0.53	0.7	45,000
Ra-226	*	0.02	0.94	800
Ac-227 (D)	*	0.07	0.22	40
Th-230	*	0	6.84	800
Th-232 (D)		0.54	0.19	130
Pu-238	*	11.07	14.4 ✓	500
Am-241		0.22	0.08	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 3/17/04 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

A143/530

15 of 16

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00931
File ID: MG102839.s0
Priority: No

Description\Location
Bldg. 38 Location 18A
Long Count

Collector: 7760
Date Received: 3/16/04
Date Collected: 3/15/04

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.12	45,000
Cs-137	*	0.01	0.06	45,000
Pb-210	*	0	1.06	45,000
Ra-226		1.03	0.99	800
Ac-227 (D)	*	0	0.33	40
Th-230	*	2.36	8.2	800
Th-232 (D)		0.42	0.29	130
Pu-238	*	0	20.5 ✓	500
Am-241	*	0	0.1	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 3/17/04 Counted By: 2257 Analyzed By: 7559 Initials [redacted]

A144/53

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL00927
File ID: MG102835.s0
Priority: Yes

Description\Location
Rct FS00123 38 Location 19A
Long Count

Collector: 7760
Date Received: 03/16/04
Date Collected: 03/15/04

Radionuclide		Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Co-60	*	0	0.09	45,000
Cs-137	*	0.04	0.05	45,000
Pb-210	*	0.01	0.87	45,000
Ra-226		1.37	0.93	800
Ac-227 (D)	*	0	0.33	40
Th-230	*	0	6.99	800
Th-232 (D)		0.58	0.17	130
Pu-238		27.44 ✓	20.59	500
Am-241		0.1	0.08	500

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.04 nCi/g $\Sigma_{Respirator}$ 0.08

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 03/16/04 Counted By: 5288 Analyzed By: 7559 Initials [redacted]

A 145/530

38 Footprint

Exit Package
Addendum 1

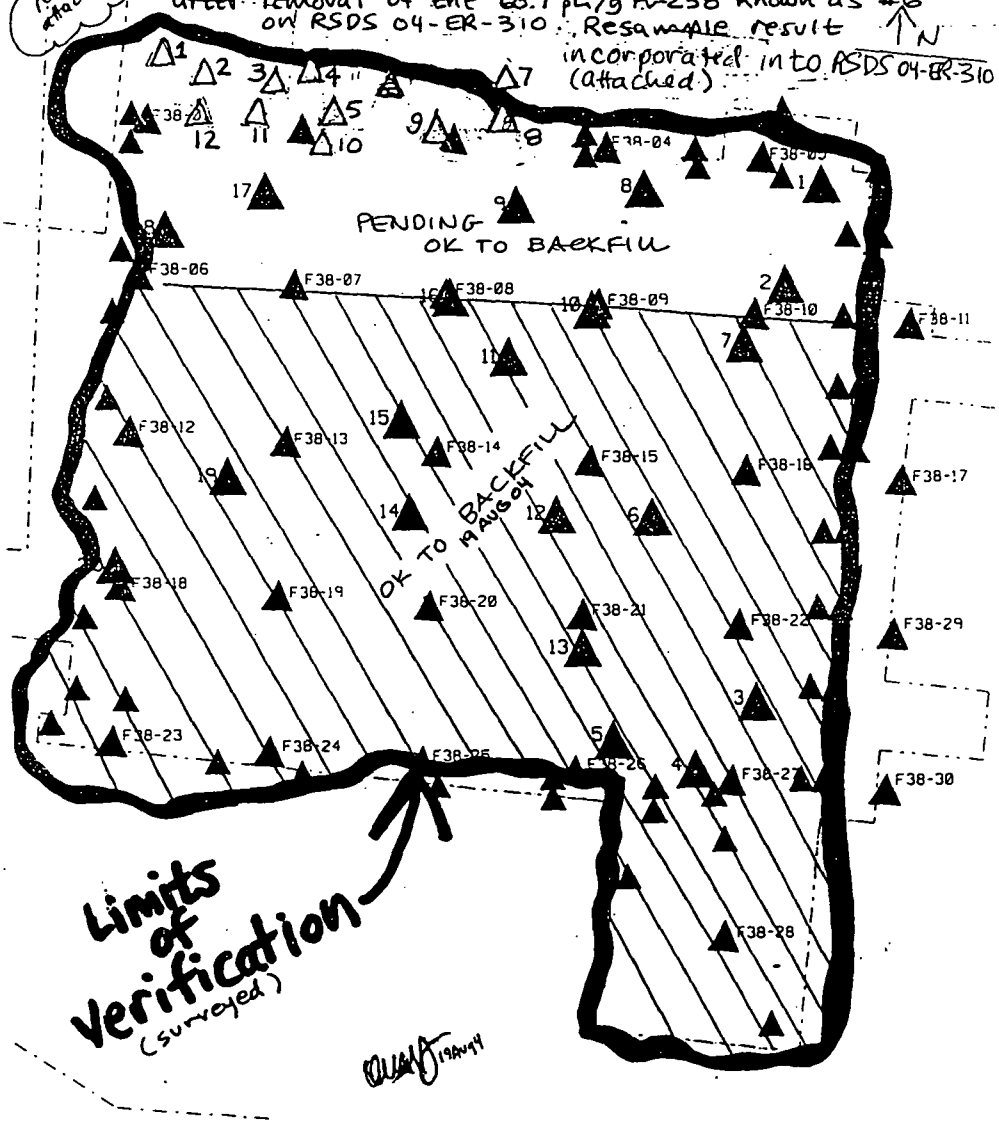
This addendum supplements the 10Aug04 38 Footprint Exit Pkg. which was clarified (summary below) to resolve regulator comment.

- ✓ surveyed limits of verification (not shown on original graphic)
- ✓ north end of verification area updated to only show as-left sample locations (wall locations that are gone were removed from graphic for clarification)
- ✓ onsite gamma spec sheet after removal of 60.7 pCi/g Pu-238 RadCon sample shown in original package

A146/530

As-left condition sample locations shown below. white samples were visually superimposed onto this graphic from RSDS 04-ER-310. Stripe sample collected after removal of the 60.7 pCi/g Pu-238 known as #6 on RSDS 04-ER-310. Resample result incorporated into RSDS 04-ER-310 (attached).

results attached



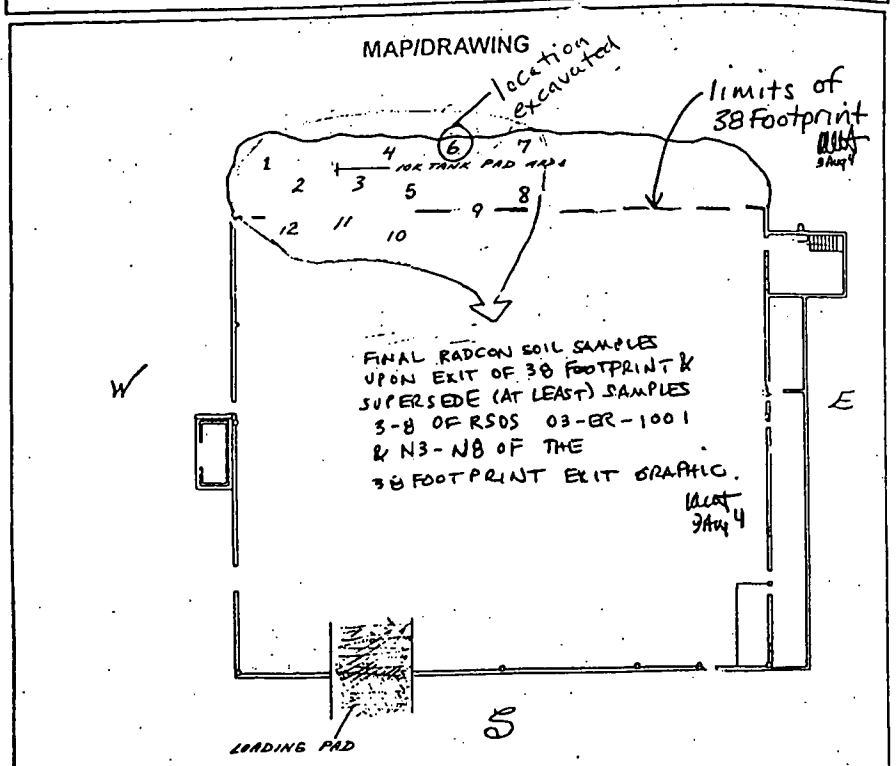
A147/530

RADIOLOGICAL SURVEY DATA SHEET

Page 1 of 1

LOCATION: (BLDG/AREA/ROOM) 38 FOOTPRINT	SURVEY NO. 04-ER-310
PURPOSE: SOIL SAMPLES TAKEN AT, 38 FOOTPRINT NORTH END.	RWP NO. 1502
	DATE: 06-03-04
	TIME: 1500 hrs

MAP/DRAWING



LEGEND: # = mrem/hr (γ) whole body; # E = mrem/hr (β+n+γ) extremity on contact; # = mrem/hr neutron; # = swipe number; # α or # β = direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date	[redacted]	Date
2360	5752/5732	10-23-04	5349	06-03-04
3030	5823	5-25-05	5349	06-03-04
A	A	A		
N	N	N	7725	6-10-04

A148/530

FS00404 38 FOOTPRINT NORTH END #1
Jun/7/2004 8:54:07AM

HEADER INFORMATION in PS100091.S0 Collected 06/07/04 by 5349

Identification
- User : 5268
- MCArd : 1
- Detector : F1
- Geometry : F1
- Sample :
- Channels : 2048

Acquisition
- Started : Jun/7/2004 7:29:40AM
- Stopped : Jun/7/2004 7:44:40AM
- True Time : 900.067 sec
- Live Time : 900.000 sec
- Dead Time : 0.01 %
- Gross Count : 6340 counts
- LTC : 1.0000011
- Gross Rate : 7.04445 cps

Sample
Sampled from Jun/7/2004 7:29:40AM to Jun/7/2004 7:44:40AM
Sample Quantity 652 ± 130.4 g

Energy Calibration Jun/7/2004 6:11:21AM QE100030.S0
Resolution Calibration Sep/24/2003 12:36:50PM F1CALALL.S0
Efficiency Calibration Jan/5/2004 10:04:47AM F1CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS100091.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	Activity pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00		18.90	± 11.49	17.20	± 3.44
Grand Total			18.90	± 11.49		

Activity (pCi) at Jun/7/2004 7:29:40AM
Divided by Sample Quantity 652 ± 130.4 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

FS00405 38 FOOTPRINT NORTH END #2
Jun/7/2004 8:55:51AM

EADER INFORMATION in PS200081.S0 Collected 06/07/04 by 5349

Identification		Acquisition	
User	: 5268	Started	: Jun/7/2004 7:30:51AM
MCArd	: 2	Stopped	: Jun/7/2004 7:45:51AM
Detector	: F2	True Time	: 900.074 sec
Geometry	: F2	Live Time	: 900.000 sec
Sample	:	Dead Time	: 0.01 %
Channels	: 2048	Gross Count	: 6880 counts
		LTC	: 1
		Gross Rate	: 7.64444 cps

ample
Sampled from Jun/7/2004 7:30:51AM to Jun/7/2004 7:45:51AM
Sample Quantity 728 ± 145.6 g

Energy Calibration Jun/7/2004 6:14:15AM QE200030.S0
esolution Calibration Sep/26/2003 11:21:43AM F2ENEMG1.S0
fficiency Calibration Jan/5/2004 10:07:42AM F2CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

CTIVITY INFORMATION with MDA's for PS200081.S0 Collected 06/07/04 by 5349

ame	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
:-238	16.00		18.99	± 10.08	14.62	± 2.924
rand Total			18.99	± 10.08		

ctivity (pCi) at Jun/7/2004 7:30:51AM
Divided by Sample Quantity 728 ± 145.6 g
rrors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

A149/536

FS00406 38 FOOTPRINT NORTH END #3
Jun/7/2004 8:56:40AM

HEADER INFORMATION in PS300075.S0 Collected 06/07/04 by 5349

Identification		Acquisition	
User	: 5268	Started	: Jun/7/2004 7:31:48AM
MCArd	: 3	Stopped	: Jun/7/2004 7:46:48AM
Detector	: F3	True Time	: 900.080 sec
Geometry	: F3	Live Time	: 900.000 sec
Sample	:	Dead Time	: 0.01 %
Channels	: 2048	Gross Count	: 8049 counts
		LTC	: 1
		Gross Rate	: 8.94333 cps

Sample
Sampled from Jun/7/2004 7:31:48AM to Jun/7/2004 7:46:48AM
Sample Quantity 665 ± 133 g

Energy Calibration Jun/3/2004 6:21:11AM QE300028.S0
Resolution Calibration Sep/26/2003 2:52:35PM FID3MULT.S0
Efficiency Calibration Jan/5/2004 10:11:02AM F3CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS300075.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00	?	17.86	± 13.39	20.87	± 4.173
Grand Total			17.86	± 13.39		

Activity (pCi) at Jun/7/2004 7:31:48AM
Divided by Sample Quantity 665 ± 133 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
?	Activity shown is less than MDA value

FS00407 38 FOOTPRINT NORTH END #4
Jun/7/2004 7:38:17AM

EADER INFORMATION in FS400080.S0 Collected 06/07/04 by 5349

dentification
User : 5268
MCArd : 4
Detector : F4
Geometry : F4
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 7:23:15AM
Stopped : Jun/7/2004 7:38:15AM
True Time : 900.078 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 6735 counts
LTC : 1.0000011
Gross Rate : 7.48334 cps

ample
Sampled from Jun/7/2004 7:23:15AM to Jun/7/2004 7:23:15AM
Sample Quantity 694 ± 138.8 g
W Constant 1 ± 0

Energy Calibration Jun/7/2004 6:24:43AM QE400028.S0
esolution Calibration Oct/13/2003 10:54:30AM F4CALROI.S0
fficiency Calibration Jan/5/2004 9:56:50AM F4CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

CTIVITY INFORMATION with MDA's for PS400080.S0 Collected 06/07/04 by 5349

ame	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
u-238	16.00	*	30.95	± 14.41	20.30	± 4.061
rand Total			30.95	± 14.41		

ctivity (pCi) at Jun/7/2004 7:23:15AM
Divided by Sample Quantity 694 ± 138.8 g
rrors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

lags	Meaning
*	Forced MDA from identification

A150/530

FS00408 38 FOOTPRINT NORTH END #5
Jun/7/2004 7:40:43AM

HEADER INFORMATION in PS500074.S0 Collected 06/07/04 by 5349

Identification
User : 5268
MCArd : 5
Detector : F5
Geometry : F5
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 7:25:39AM
Stopped : Jun/7/2004 7:40:40AM
True Time : 900.202 sec
Live Time : 900.000 sec
Dead Time : 0.02 %
Gross Count : 6927 counts
LTC : 1.00003
Gross Rate : 7.6969 cps

Sample
Sampled from Jun/7/2004 7:25:39AM to Jun/7/2004 7:25:39AM
Sample Quantity 653 ± 130.6 g

Energy Calibration Jun/7/2004 6:30:05AM QE500029.S0
Resolution Calibration Oct/13/2003 2:46:33PM F5CALALL.S0
Efficiency Calibration Jan/5/2004 9:53:48AM F5CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS500074.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00	*?	13.53	± 11.54	18.17	± 3.633
Grand Total			13.53	± 11.54		

Activity (pCi) at Jun/7/2004 7:25:39AM
Divided by Sample Quantity 653 ± 130.6 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification
?	Activity shown is less than MDA value

FS00409 38 FOOTPRINT NORTH END #6
Jun/7/2004 7:43:18AM

HEADER INFORMATION in PS600053.S0 Collected 06/07/04 by 5349

Identification
User : 5268
MCArd : 6
Detector : F6
Geometry : F6
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 7:28:14AM
Stopped : Jun/7/2004 7:43:14AM
True Time : 900.081 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 8316 counts
LTC : 1.0000011
Gross Rate : 9.24001 cps

Sample
Sampled from Jun/7/2004 7:28:14AM to Jun/7/2004 7:28:14AM
Sample Quantity 715 ± 143 g
W Constant 1 ± 0

Energy Calibration Jun/7/2004 6:28:35AM QE600029.S0
Resolution Calibration Oct/14/2003 8:34:38AM F6CALALL.S0
Efficiency Calibration Jan/5/2004 9:48:36AM F6CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS600053.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	Activity pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00	*	60.73	± 17.97	19.31	± 3.862
Grand Total			60.73	± 17.97		

Activity (pCi) at Jun/7/2004 7:28:14AM
Divided by Sample Quantity 715 ± 143 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification

Dug out → new Sample result →

A151/530

C:\WINDOWS\APTEC\PS600053.S0 Jun/7/2004 7:43:18AM

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02362
File ID: MG500602.s0
Priority: Yes

Description\Location
38 N. Foundation #6A
Long Count

Collector: 4992
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137		0.04	0.04
Pb-210		1.05	0.93
Ra-226		1.88	0.93
Ac-227 (D)	*	0.09	0.44
Th-230	*	0	9.99
Th-232 (D)		0.73	0.13
Pu-238	*	13.38	19.4
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.
(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.
* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

COPY

FS00410 38 FOOTPRINT NORHT END #7
Jun/7/2004 8:20:24AM

EADER INFORMATION in PS100092.S0 Collected 06/07/04 by 5349

dentification
User : 5268
MCArd : 1
Detector : F1
Geometry : F1
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 8:05:23AM
Stopped : Jun/7/2004 8:20:23AM
True Time : 900.075 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 7396 counts
LTC : 1.0000011
Gross Rate : 8.21779 cps

ample
Sampled from Jun/7/2004 8:05:23AM to Jun/7/2004 8:20:23AM
Sample Quantity 689 ± 137.8 g

Energy Calibration Jun/7/2004 6:11:21AM QE100030.S0
esolution Calibration Sep/24/2003 12:36:50PM F1CALALL.S0
fficiency Calibration Jan/5/2004 10:04:47AM F1CALALL.S0
sotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

CTIVITY INFORMATION with MDA's for PS100092.S0 Collected 06/07/04 by 5349

ame	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
u-238	16.00	*	29.18	± 13.6	19.15	± 3.83
rand Total			29.18	± 13.6		

ctivity (pCi) at Jun/7/2004 8:05:23AM
Divided by Sample Quantity 689 ± 137.8 g
rrors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification

4152/530

FS00411 38 FOOTPRINT NORHT END #8
Jun/7/2004 8:44:29AM

HEADER INFORMATION in PS200082.S0 Collected 06/07/04 by 5349

Identification
User : 5268
MCArd : 2
Detector : F2
Geometry : F2
Sample :
Channels : 2048

Acquisition
Started : Jun/7/2004 8:06:39AM
Stopped : Jun/7/2004 8:21:39AM
True Time : 900.087 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 8425 counts
LTC : 1
Gross Rate : 9.36111 cps

Sample
Sampled from Jun/7/2004 8:06:39AM to Jun/7/2004 8:21:39AM
Sample Quantity 741 ± 148.2 g

Energy Calibration Jun/7/2004 6:14:15AM QE200030.S0
Resolution Calibration Sep/26/2003 11:21:43AM F2ENEMG1.S0
Efficiency Calibration Jan/5/2004 10:07:42AM F2CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS200082.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00	?	13.06	± 10.83	17.04	± 3.409
Grand Total			13.06	± 10.83		

Activity (pCi) at Jun/7/2004 8:06:39AM
Divided by Sample Quantity 741 ± 148.2 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
?	Activity shown is less than MDA value

FS00412 38 FOOTPRINT NORHT END #9
Jun/7/2004 8:22:39AM

HEADER INFORMATION in PS300076.S0 Collected 06/07/04 by 5349

Identification		Acquisition	
User	: 5268	Started	: Jun/7/2004 8:07:33AM
MCArd	: 3	Stopped	: Jun/7/2004 8:22:33AM
Detector	: F3	True Time	: 900.104 sec
Geometry	: F3	Live Time	: 900.000 sec
Sample	:	Dead Time	: 0.01 %
Channels	: 2048	Gross Count	: 10855 counts
		LTC	: 1.0000011
		Gross Rate	: 12.0611 cps

Sample
Sampled from Jun/7/2004 8:07:33AM to Jun/7/2004 8:22:33AM
Sample Quantity 750 ± 150 g

Energy Calibration Jun/3/2004 6:21:11AM QE300028.S0
Resolution Calibration Sep/26/2003 2:52:35PM FID3MULT.S0
Efficiency Calibration Jan/5/2004 10:11:02AM F3CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS300076.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	Activity pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00	*?	9.197	± 13	21.22	± 4.244
Grand Total			9.197	± 13		

Activity (pCi) at Jun/7/2004 8:07:33AM
Divided by Sample Quantity 750 ± 150 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification
?	Activity shown is less than MDA value

A153/530

FS00413 38 FOOTPRINT NORTH END #10
Jun/7/2004 8:16:41AM

HEADER INFORMATION in PS400081.S0 Collected 06/07/04 by 5349

Identification		Acquisition	
User	: 5268	Started	: Jun/7/2004 8:01:40AM
MCArd	: 4	Stopped	: Jun/7/2004 8:16:40AM
Detector	: F4	True Time	: 900.080 sec
Geometry	: F4	Live Time	: 900.000 sec
Sample	:	Dead Time	: 0.01 %
Channels	: 2048	Gross Count	: 6955 counts
		LTC	: 1.0000011
		Gross Rate	: 7.72779 cps

Sample
Sampled from Jun/7/2004 8:01:40AM to Jun/7/2004 8:01:40AM
Sample Quantity 828 ± 165.6 g
W Constant 1 ± 0

Energy Calibration Jun/7/2004 6:24:43AM QE400028.S0
Resolution Calibration Oct/13/2003 10:54:30AM F4CALROI.S0
Efficiency Calibration Jan/5/2004 9:56:50AM F4CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS400081.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	Activity pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00	*	41.36	± 13.61	15.97	± 3.1
Grand Total			41.36	± 13.61		

Activity (pCi) at Jun/7/2004 8:01:40AM
Divided by Sample Quantity 828 ± 165.6 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification

FS00414 38 FOOTPRINT NORTH END #11
Jun/7/2004 8:59:23AM

HEADER INFORMATION in PS500075.S0 Collected 06/0704 by 5349

Identification		Acquisition	
User	: 5268	Started	: Jun/7/2004 8:02:49AM
MCArd	: 5	Stopped	: Jun/7/2004 8:17:49AM
Detector	: F5	True Time	: 900.223 sec
Geometry	: F5	Live Time	: 900.000 sec
Sample	:	Dead Time	: 0.02 %
Channels	: 2048	Gross Count	: 8675 counts
		LTC	: 1.0000344
		Gross Rate	: 9.63922 cps

Sample
Sampled from Jun/7/2004 8:02:49AM to Jun/7/2004 8:02:49AM
Sample Quantity 754 ± 150.8 g

Energy Calibration Jun/7/2004 6:30:05AM QE500029.S0
Resolution Calibration Oct/13/2003 2:46:33PM F5CALALL.S0
Efficiency Calibration Jan/5/2004 9:53:48AM F5CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS500075.S0 Collected 06/0704 by 5349

Name	Energy keV	Activity Flag	Activity pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00	?	0.0000		14.86	± 2.972
Grand Total			0.0000			

Activity (pCi) at Jun/7/2004 8:02:49AM
Divided by Sample Quantity 754 ± 150.8 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
?	Activity shown is less than MDA value

FS00415 38 FOOTPRINT NORTH END #12
Jun/7/2004 8:37:31AM

HEADER INFORMATION in PS600054.S0 Collected 06/07/04 by 5349

Identification		Acquisition	
User	: 5268	Started	: Jun/7/2004 8:04:08AM
MCArd	: 6	Stopped	: Jun/7/2004 8:19:09AM
Detector	: F6	True Time	: 900.072 sec
Geometry	: F6	Live Time	: 900.000 sec
Sample	:	Dead Time	: 0.01 %
Channels	: 2048	Gross Count	: 7167 counts
		LTC	: 1.0000011
		Gross Rate	: 7.96334 cps

Sample
Sampled from Jun/7/2004 8:04:08AM to Jun/7/2004 8:04:08AM
Sample Quantity 700 ± 140 g
W Constant 1 ± 0

Energy Calibration Jun/7/2004 6:28:35AM QE600029.S0
Resolution Calibration Oct/14/2003 8:34:38AM F6CALALL.S0
Efficiency Calibration Jan/5/2004 9:48:36AM F6CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 12:40:08PM

ACTIVITY INFORMATION with MDA's for PS600054.S0 Collected 06/07/04 by 5349

Name	Energy keV	Activity Flag	Activity pCi/g	Error pCi/g	MDA pCi/g	Err pCi
Pu-238	16.00	?	12.55	± 14.84	24.03	± 4
Grand Total			12.55	± 14.84		

Activity (pCi) at Jun/7/2004 8:04:08AM
Divided by Sample Quantity 700 ± 140 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
?	Activity shown is less than MDA value

A154/520

RADIOLOGICAL SURVEY DATA SHEET

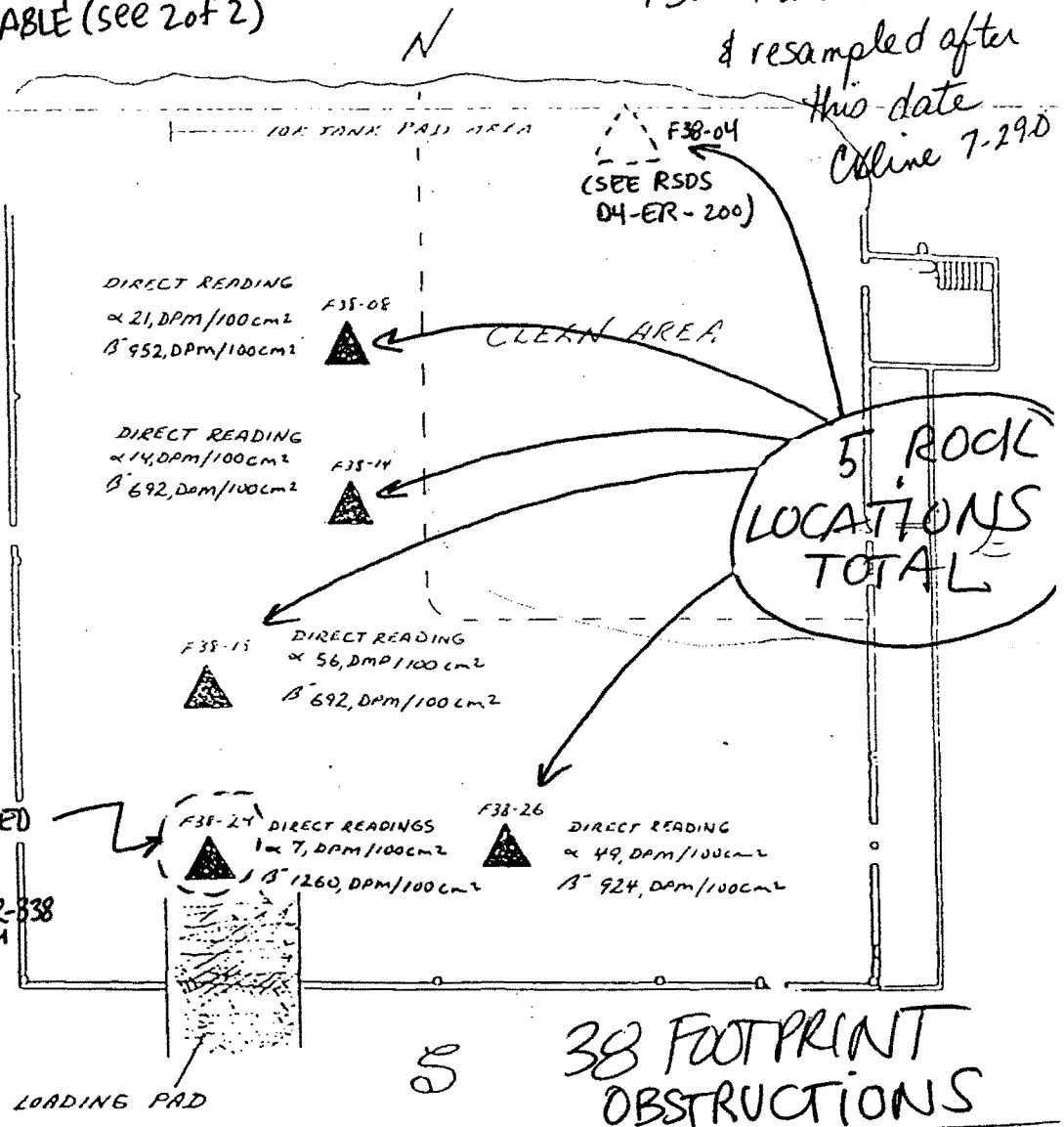
9 JUNE 04

LOCATION: (BLDG. / ROOM / AREA) 38 FOOTPRINT	SURVEY NO. 04-EE-320
PURPOSE: ALL SAMPLE LOCATIONS LISTED BELOW WERE ON ROCK WITH NO SOIL. RCT PERFORMED SMEAR AND DIRECT READINGS AT LOCATIONS. ROCK	RWP NO. NA
	DATE: 06-09-04
	TIME: 1600 hrs

MAP / DRAWING

ROCK DIRECT αβ REMOVABLE (see 2 of 2)

F38-24 was disturbed & resampled after this date Cline 7-29-D



DMAKE VALUES THIS PG TO:
α < 300 max, avg < 100
β < 15K max, avg < 5K
DMA 3Aug4

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — = radiological boundary
= mrem/hr neutron
= swipe number
= air sample number
#/α or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5752-5732	10-23-04
3030	5823	5-25-05
A	A	A
N	N	N

[redacted]

HP# 5349	Date: 6-9-04
HP# 5349	Date: 6-9-04
HP# 7725	Date: 6-14-04

A155/530

ML-9620 (2-98) Computer Generated

Survey No. 04-ER 32.0

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha		Comments
1	0	0		F 38-08
2	0	2		F 38-14
3	17	0		F 38-19
4	5	0		F 38-24
5	13	0		F 38-26
	OK	OK		
			A	
		N		

MEETS SURFACE CRITERIA IF α < 20 & β/γ < 1,000

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha		Comments
			A	
		N		

COMMENTS: A N

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

A156/53

ML-9620A (4-98)

RADIOLOGICAL SURVEY DATA SHEET

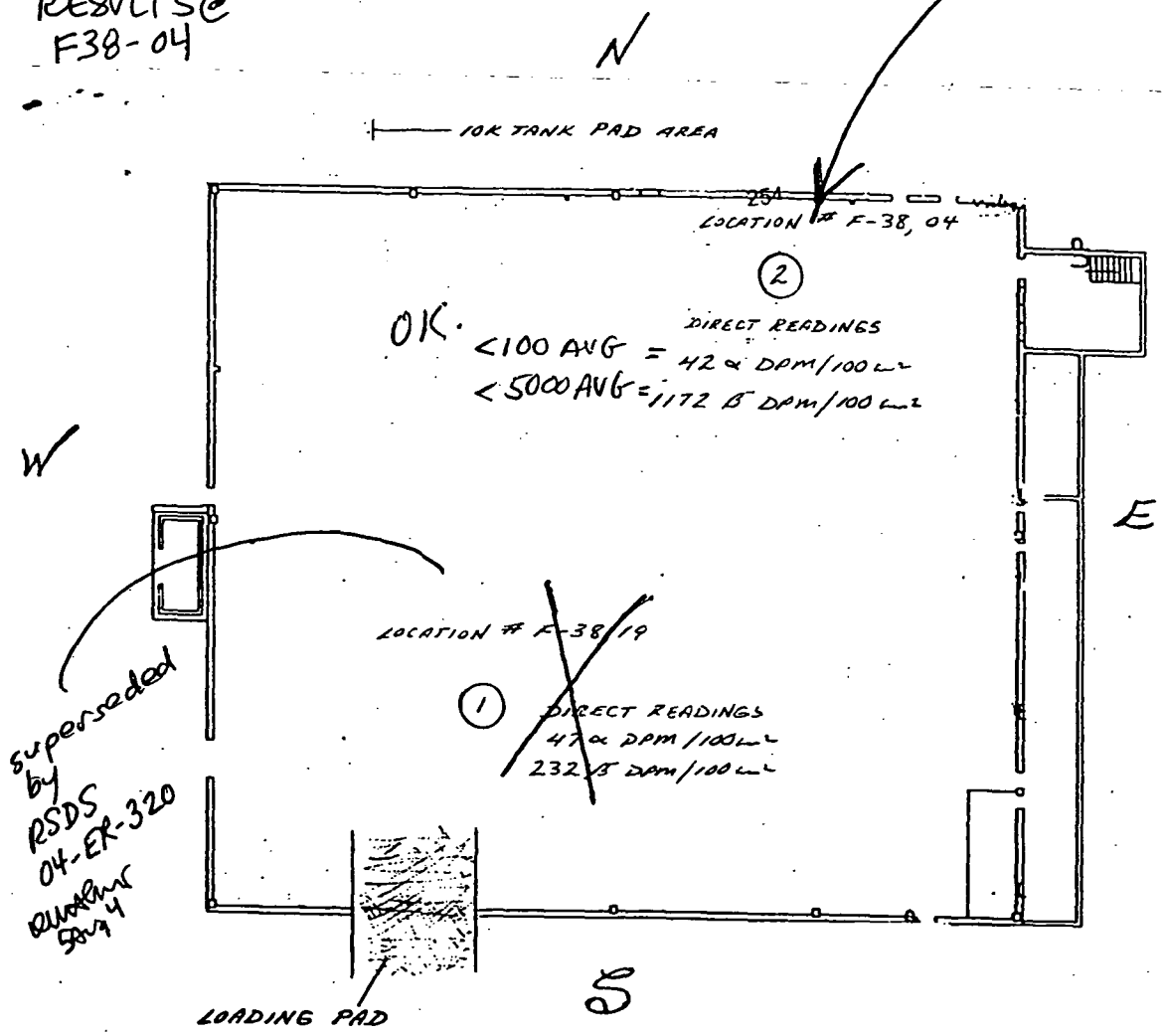
 7 April 04

LOCATION: (BLDG/AREA/ROOM) 38 - FOOTPRINT	SURVEY NO. 04-ER-200
PURPOSE: SAMPLE LOCATIONS #04 AND #19 WERE ROCK WITH NO SOIL, RCT PERFORMED SMEAR AND DIRECT READINGS, AT LOCATIONS	RWP NO. 1503
	DATE: 4-7-04
	TIME: 1400 hrs

ROCK DIRECT & REMOVABLE RESULTS @ F38-04

MAP/DRAWING

ROCK LOCATION



LEGEND: # = mrem/hr (γ) whole body
E = mrem/hr (β+n+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
/α or /β = direct contamination measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5745/5799	10-8-04
3030	5823	5-20-04

[redacted]	HPII 5349	Date 4-7-04
	HPII 5349	Date 4-7-04
	7725	Date 4-7-04

A157/530

 RSDS# 04-ER-200

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm2)				
Sample#	β/γ	Alpha		Comments
1	2	2		F-38-19
2	5	0		F-38-04
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
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22				
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25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm2)				
Sample#	β/γ	Alpha		Comments
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
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63				
64				
65				
66				
67				
68				
69				
70				

N A

N A

COMMENTS:

N A

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO count Room analysis for β/γ alpha or tritium leave column blank. Mark column N/A if not needed. If [illegible] are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

A159/530

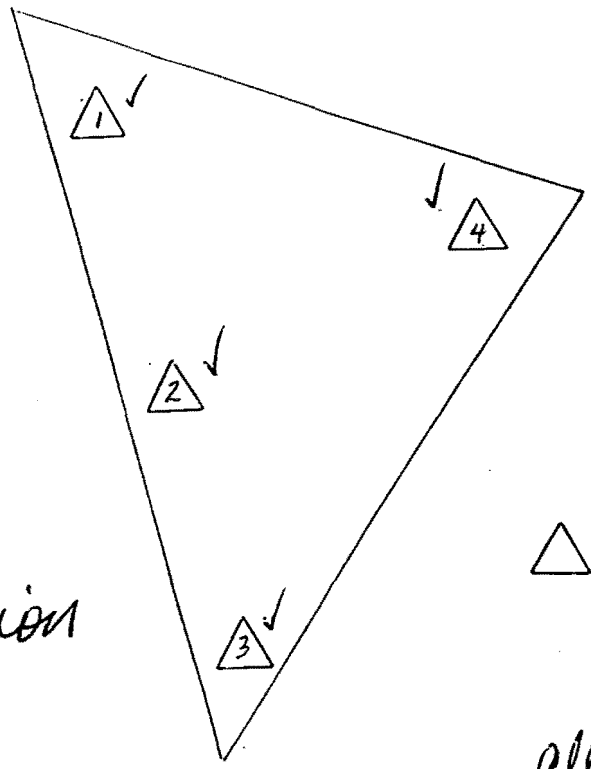
DR&OSC

RADIOLOGICAL SURVEY DATA SHEET

Page 1 of 6. copy

LOCATION: (BLDG. / ROOM / AREA) SM-PP	SURVEY NO. 04-ER-423
PURPOSE: SCR791 mini dig, Fidler scan & soil sampling.	RWP NO. NA
	DATE: 08-05-04
	TIME: 0735

MAP / DRAWING SCR791



Per 38VSAP, samples analyzed @ onsite gamma lab only.

△ SOIL SAMPLING LOCATIONS.

Walkover documentation

BICRON FIDLER,
BKG CH-1, 200 CPM, PU.
BKG CH-OUT 6K CPM, TH.
ALL SCAN READINGS WERE AT BKG.
(FIDLER USED AS INDICATOR ONLY.)

all results < CO
18 Aug 4

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · · = radiological boundary
△# = mrem/hr neutron
= air sample number
(#) = swipe number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
FIDLER	3829/3430	5-6-05
2360	5752/5732	10-23-04
A	A	A
N	N	N

[redacted]

HP#	Date:
5349	08-05-04
5349	08-05-04
7725	8-16-04

ML-0620 (2-06) Computer Generated

A159/530

Survey No.
04-CK-423

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha		Comments
N/A				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha		Comments
N/A				

COMMENTS: N/A

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

ML-9620A (4-98)

A160/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02098
File ID: ISC00223.S0
Priority: Yes

Description\Location
SCR791-1
LONG

Collector: 5349
Date Received: 08/05/04
Date Collected: 08/05/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.13
Cs-137	*	0.04	0.09
Pb-210	*	0.66	0.96
Ra-226		1.89	1.08
Ac-227 (D)		0.44	0.35
Th-230	*	7.15	9.96
Th-232 (D)		0.62	0.34
Pu-238	*	4.77	17.2
Am-241	*	0.03	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/09/04 Counted By: 5268 Analyzed By: 5755 Initia[redacted]

/530

4 of 1.

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL 02099
File ID: 1SC00227 S0
Priority: Yes

Description\Location
SCR791-2
LONG

Collector: 5349
Date Received: 08/05/04
Date Collected: 08/05/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0.01	0.06
Pb-210		1.51	0.7
Ra-226		1.62	1.01
Ac-227 (D)	*	0.13	0.32
Th-230	*	4.98	8.66
Th-232 (D)		0.63	0.2
Pu-238	*	0	17.04
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/09/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

2/530

Sol.

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02097
File ID: 1SC00222.S0
Priority: Yes

Description\Location
SCR791-3
LONG

Collector: 5349
Date Received: 08/05/04
Date Collected: 08/05/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0	0.07
Pb-210	*	0	0.89
Ra-226		1.91	0.94
Ac-227 (D)	*	0.07	0.34
Th-230	*	5.84	8.04
Th-232 (D)		0.47	0.2
Pu-238	*	0.5	15.96
Am-241	*	0.05	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

$\sum_{DOT}$ 0.03 nCi/g

Instrument type: High Purity Germanium

$\sum_{DOT}$ 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA MDA used in limits calculation

Comments:

Date: 08/09/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A163/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL0?096
File ID: 1SC00221.S0
Priority: Yes

Description\Location
SCR791-4
LONG

Collector: 5349
Date Received: 08/05/04
Date Collected: 08/05/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0	0.07
Pb-210	*	0.48	0.85
Ra-226		1.77	0.88
Ac-227 (D)		0.3	0.3
Th-230	*	0	9.91
Th-232 (D)		0.34	0.25
Pu-238	*	0	16.91
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA MDA used in limits calculation

Comments:

Date: 08/09/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A164/530

DR & OSC

RADIOLOGICAL SURVEY DATA SHEET

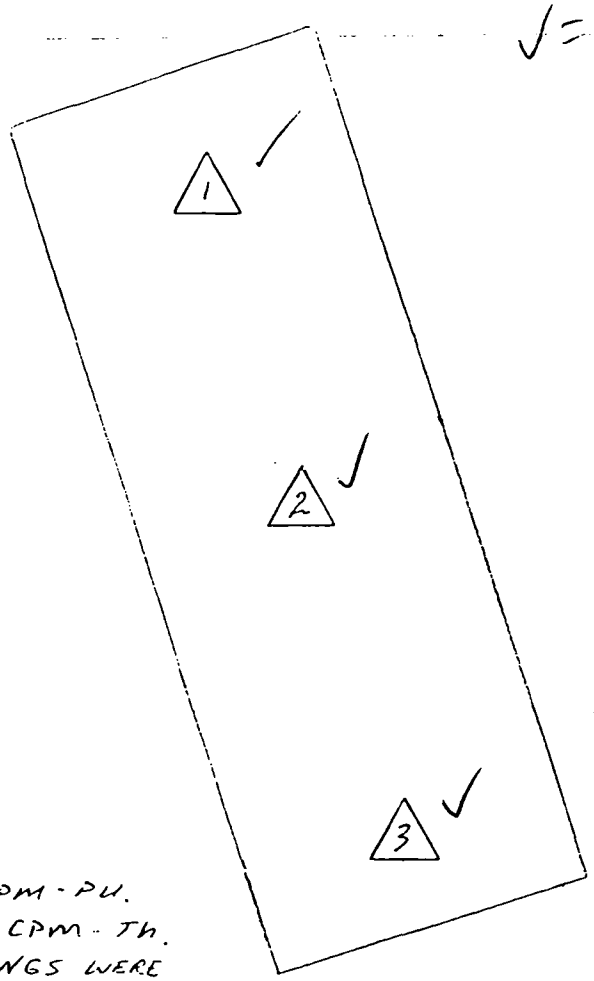
 copy

LOCATION: (BLDG. / ROOM / AREA) SMC - PP	SURVEY NO. 04-ER-424
PURPOSE: SCR902 MINE DIG, FIDLER SCAN, SOIL SAMPLING.	RWP NO. NA
	DATE: 08-05-04
	TIME: 1100

MAP / DRAWING

SCR902

✓ = results < CO
18Aug04



△ SOIL SAMPLING LOCATIONS
Per 38VSAP, only onsite gamma spec required, no offsite.
3Aug4

walkover documentation

BICRON FIDLER,
BKG CH-1, 200 CPM - PU.
BKG CH-OUT 6K CPM - Th.
ALL SCAN READINGS WERE AT BKG. ✓ OK
(FIDLER USED AS INDICATOR ONLY.)

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
—·—·— = radiological boundary
△# = mrem/hr neutron
= air sample number
(#) = swipe number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date	[redacted]	HP#	Date:
				5349	8-5-04
FIDLER	3829 / 3430	5-6-05			
2360	5752 / 5732	10-23-04		HP# 5349	Date: 8-5-04
A	A	A		HP# 7725	Date: 8-16-04
N	N	N			

ML-0620 (2-96) Computer Generated

A165/530

7 of 5

Survey No.
04-ER-424

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha		Comments
			A	
		N		

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha		Comments
			A	
		N		

COMMENTS: A N

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

ML-0620A (4-98)

A166/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02104
File ID: 1SC00228.S0
Priority: Yes

Description/Location
[illegible] Soil Sample #1
[illegible]

Collector: 5349
Date Received: 8/5/04
Date Collected: 8/5/04

Radionuclide		Activity (pCi/g)	MDA
[illegible]	*	0	0.1
[illegible]-137	*	0	0.08
[illegible]-210	*	0.45	0.99
Ra-226		2.02	1.18
[illegible]-227 (D)	*	0.16	0.35
Th-230	*	2.55	9.82
[illegible]-232 (D)		0.55	0.21
[illegible]-238	*	0.38	17.96
[illegible]-241	*	0	0.09

Other Radionuclides

Radionuclide	Activity (pCi/g)	MDA

$\sum_{DOT}$ 0.03 nCi/g

Instrument type: High Purity Germanium

$\sum_{DOT}$ [illegible] limit, total activity.

(D) [illegible] activity based on daughter emissions [illegible] assumed to be in secular equilibrium

[illegible] MDA MDA used in limits calculation

Comments:

Date: [illegible] Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A161/530

4 of 8

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL0210's
File ID: ISC00229.S0
Priority: Yes

Description\Location
SCR-902-2 Soil Sample #2
LONG

Collector: 5349
Date Received: 08/05/04
Date Collected: 08/05/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.08
Pb-210		1.47	0.74
Ra-226		1.33	1.05
Ac-227 (D)	*	0	0.37
Th-230	*	3.17	9.21
Th-232 (D)		0.51	0.2
Pu-238	*	6.16	16.07
Am-241	*	0.01	0.1

J

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/09/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A168/530

3-4-5

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: G1 02106
File ID: 150 00230 50
Priority: Yes

Description/Location
SCR 90.2 3 Soil Sample #
LONG

Collector: [illegible]
Date Received: 08/0[illegible]/04
Date Collected: 08/0[illegible]/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0	0.06
Pb-210	*	0.63	0.98
Ra-226		2.26	0.95
Ac-227 (D)	*	0.17	0.38
Th-230	*	2.81	9.5
Th-232 (D)		0.71	0.16
Pu-238	*	0.83	17.87
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA; MDA used in limits calculation

Comments:

Date: 08/09/04 Counted By: 5288 Analyzed By: 5755 Initia[redacted]

A169/530

C34 RSDS

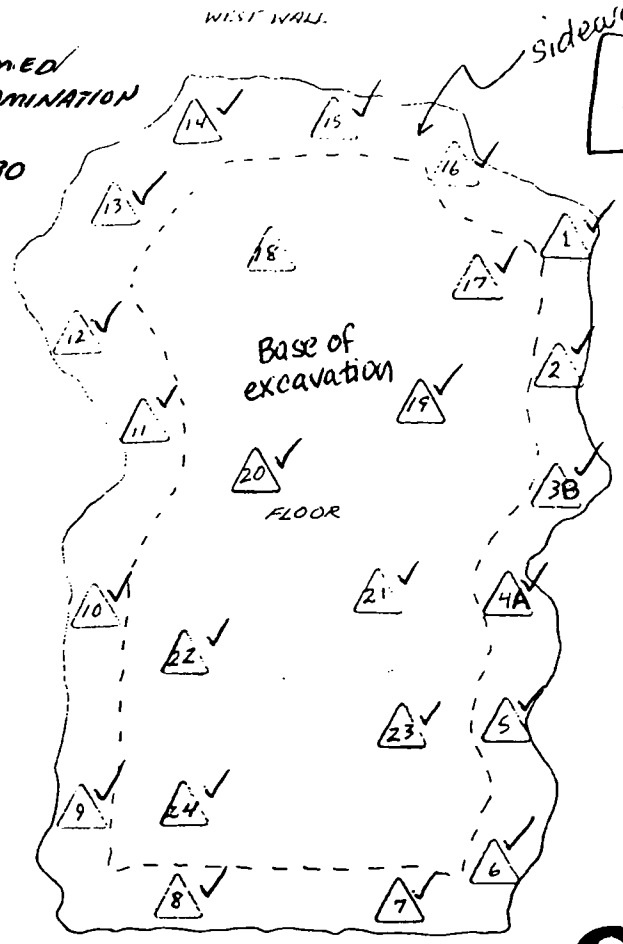
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) SM-PP	SURVEY NO 04-12 448
PURPOSE: C-34 PV VERIFICATION SOIL SAMPLES.	RWP NO. 1501
	DATE: 08-23-04
	TIME: 1600 hrs

MAP / DRAWING

FIDLER SURVEY OUT CH,
100 % WALK OVER performed
No DETECTABLE CONTAMINATION
FOUND.
FIDLER USED #3829-3430
NEXT CALIB: 5-6-05.
FIDLER USED AS
Indicator Only.

PV
C34 1-24



△ INDICATE,
PRE-VERIFICATION
SOIL SAMPLES TAKEN.

COPY

✓ = attached results < CO 30aug04

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — = radiological boundary
~~# = mrem/hr neutron~~ N/A cgu 8-26-04
= air sample number
= swipe number
or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
3030	5823	5-25-05
2360	5704-5714	10-06-04
N/A	N/A	N/A

Completed by: (Signature)	HP#	Date:
[redacted]	5349	08-23-04
[redacted]	5349	08-23-
[redacted]	9725	8-26-04

ML-6620 (2-96) Computer Generated

A170/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02338
File ID: 2SC00067.s0
Priority: Yes

Description\Location
C-34 Sample #1
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0	0.03
Pb-210	*	0	0.41
Ra-226	*	0.36	0.51 ✓
Ac-227 (D)	*	0	0.18
Th-230	*	0	4.61
Th-232 (D)		0.31 ✓	0.06
Pu-238	*	0	10.6
Am-241	*	0.03	0.04

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A171/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02339
File ID: 2SC00068.s0
Priority: Yes

Description\Location
C-34 Sample #2
Long Count

Collector: 5349
Date Received: 08/19/04
Date Collected: 08/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0.02	0.05
Pb-210		1.05	0.66
Ra-226		2.2 ✓	0.87
Ac-227 (D)	*	0	0.28
Th-230	*	2.56	6.9
Th-232 (D)		1.14 ✓	0.21
Pu-238	*	0	15.93
Am-241	*	0.03	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA MDA used in limits calculation

Comments:

Date: 08/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A172/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02387
File ID: 2SC00103.s0
Priority: Yes

Description\Location
C-34 Sample 3B
Long Count

Collector: 5349
Date Received: 8/23/04
Date Collected: 8/23/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0.01	0.04
Pb-210		0.88	0.67
Ra-226		2.42 ✓	0.83
Ac-227 (D)	*	0.12	0.25
Th-230	*	0	7.79
Th-232 (D)		1.16 ✓	0.19
Pu-238	*	9.61	14.83
Am-241	*	0.04	0.07

as-left result

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Samples 3 & 3A were removed so not included herein - not as left 30Aug04

Date: 8/24/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A173/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02379
File ID: 2SC00084.s0
Priority: Yes

Description\Location
C-34 #4A
Long Count

Collector: 5520
Date Received: 8/20/04
Date Collected: 8/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0.03	0.04
Pb-210	*	0.3	0.54
Ra-226		1 ✓	0.66
Ac-227 (D)	*	0	0.24
Th-230	*	1.25	5.95
Th-232 (D)		0.89 ✓	0.14
Pu-238	*	0.34	13.43
Am-241	*	0	0.06

as-left result
CWJ

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: sample #4 was removed, not as-left so not included herein CWJ 30 Aug 4

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A174/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02342
File ID: 2SC00071.s0
Priority: Yes

Description\Location
C-34 Sample #5
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0.02	0.04
Pb-210		1.2	0.68
Ra-226		2.61 ✓	0.85
Ac-227 (D)	*	0.21	0.25
Th-230	*	3.2	7.4
Th-232 (D)		0.83 ✓	0.21
Pu-238	*	0	17.29
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A175/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 02343
File ID: 2S 00072 .0
Priority: Yes

Description\Location
C-34 Sample #6
Long Count

Collector: 5349
Date Received: 08/19/04
Date Collected: 08/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0	0.05
Pb-210		1.06	0.64
Ra-226		1.83 ✓	0.81
Ac-227 (D)	*	0	0.26
Th-230	*	3.72	6.34
Th-232 (D)		0.64 ✓	0.19
Pu-238	*	0.01	13.72
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA MDA used in limits calculation

Comments:

Date: 08/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A176/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: G1.02344
File ID: 2SC00073.s0
Priority: Yes

Description\Location
C-34 Sample #7
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0.03	0.04
Pb-210		0.84	0.61
Ra-226		1.81 ✓	0.81
Ac-227 (D)	*	0	0.25
Th-230	*	0.31	6.48
Th-232 (D)		0.62 ✓	0.16
Pu-238	*	0.71	13.99
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A177/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02345
File ID: 2SC00074.s0
Priority: Yes

Description\Location
C-34 Sample #8
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0	0.05
Pb-210		1.02	0.69
Ra-226		2.71 ✓	0.78
Ac-227 (D)	*	0.03	0.27
Th-230	*	4	6.93
Th-232 (D)		0.79 ✓	0.17
Pu-238	*	0	16.24
Am-241	*	0.01	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A178/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02346
File ID: 2SC00075.s0
Priority: Yes

Description\Location
C-34 Sample #9
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.06
Pb-210		1.54	0.73
Ra-226		2.56 ✓	0.98
Ac-227 (D)	*	0.05	0.29
Th-230	*	5.12	7.35
Th-232 (D)		1 ✓	0.23
Pu-238	*	0	16.97
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A179/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02347
File ID: 2SC00076.s0
Priority: Yes

Description\Location
C-34 Sample #10
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0.02	0.03
Pb-210		1.06	0.61
Ra-226		1.94 ✓	0.77
Ac-227 (D)	*	0.13	0.25
Th-230	*	3.14	6.7
Th-232 (D)		0.67 ✓	0.19
Pu-238	*	0	14.86
Am-241	*	0	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A180/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02348
File ID: 2SC00077.s0
Priority: Yes

Description\Location
C-34 Sample #11
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.03
Cs-137	*	0	0.03
Pb-210	*	0.35	0.4
Ra-226		0.77 ✓	0.54
Ac-227 (D)	*	0	0.21
Th-230	*	0	4.61
Th-232 (D)		0.22 ✓	0.14
Pu-238	*	0	10.4
Am-241	*	0.02	0.04

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A181/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02349
File ID: 2SC00078.s0
Priority: Yes

Description\Location
C-34 Sample #12
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137		0.03	0.03
Pb-210		0.62	0.43
Ra-226	*	0.45	0.55 ✓
Ac-227 (D)	*	0.06	0.16
Th-230	*	1.3	4.14
Th-232 (D)		0.24 ✓	0.18
Pu-238	*	2.35	9.36
Am-241	*	0	0.04

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A182/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02350
File ID: 1SC00316.s0
Priority: Yes

Description\Location
C-34 Sample #13
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.04
Cs-137		0.12	0.05
Pb-210		0.63	0.61
Ra-226		1.04✓	0.81
Ac-227 (D)	*	0	0.32
Th-230	*	0	6.74
Th-232 (D)		0.5✓	0.19
Pu-238	*	0	13.26
Am-241	*	0	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A183/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02351
File ID: 1SC00347.s0
Priority: Yes

Description\Location
C-34 Sample #14
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.04
Cs-137	*	0.02	0.04
Pb-210	*	0	0.7
Ra-226	*	0.75	0.8✓
Ac-227 (D)	*	0	0.3
Th-230	*	0	6.91
Th-232 (D)		0.64 ✓	0.15
Pu-238	*	0	12.44
Am-241	*	0.02	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A184/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02352
File ID: 1SC00348.s0
Priority: Yes

Description\Location
C-34 Sample #15
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.06
Cs-137	*	0.01	0.07
Pb-210	*	0.63	0.91
Ra-226		1.95 ✓	0.92
Ac-227 (D)	*	0	0.43
Th-230	*	0	9.98
Th-232 (D)		1.29 ✓	0.24
Pu-238	*	7.98	15.47
Am-241	*	0.03	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A185/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02353
File ID: 1SC00349.s0
Priority: Yes

Description\Location
C-34 Sample #16
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137		0.15	0.04
Pb-210		0.7	0.69
Ra-226		1.55✓	0.83
Ac-227 (D)	*	0	0.36
Th-230	*	0	7.99
Th-232 (D)		0.86✓	0.21
Pu-238	*	0	15.08
Am-241	*	0.02	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A186/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL023564
File ID: 1SC00350.s0
Priority: Yes

Description\Location
C-34 Sample #17
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.05
Cs-137	*	0.04	0.05
Pb-210	*	0.01	0.72
Ra-226	*	0.75	0.76✓
Ac-227 (D)	*	0.04	0.32
Th-230	*	0	7.59
Th-232 (D)		0.72✓	0.2
Pu-238	*	0.64	12.49
Am-241	*	0.03	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

[1] Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A187/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02355
File ID: 1SC00351.s0
Priority: Yes

Description\Location
C-34 Sample #18
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.06
Cs-137	*	0	0.06
Pb-210	*	0.4	0.73
Ra-226		1.14✓	0.79
Ac-227 (D)	*	0.26	0.33
Th-230	*	3.67	7.46
Th-232 (D)		0.69✓	0.2
Pu-238	*	1.72	13.68
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A188/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02356
File ID: 1SC00352.s0
Priority: Yes

Description\Location
C-34 Sample #19
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.07
Pb-210	*	0.79	0.81
Ra-226		1.53 ✓	0.92
Ac-227 (D)	*	0	0.4
Th-230	*	0	8.7
Th-232 (D)		0.63 ✓	0.27
Pu-238	*	0	16.12
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A189/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02357
File ID: 1SC00353.s0
Priority: Yes

Description\Location
C-34 Sample #20
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.06
Cs-137	*	0	0.06
Pb-210	*	0.18	0.68
Ra-226		0.88 ✓	0.74
Ac-227 (D)	*	0	0.32
Th-230	*	5.71	6.24
Th-232 (D)		0.58 ✓	0.2
Pu-238	*	0	13.47
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A190/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02358
File ID: 1SC00354.s0
Priority: Yes

Description\Location
C-34 Sample #21
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0	0.07
Pb-210		1.11	0.71
Ra-226		1.27 ✓	0.87
Ac-227 (D)	*	0.16	0.33
Th-230	*	0	7.97
Th-232 (D)		0.57 ✓	0.2
Pu-238	*	10.6	15.36
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A191/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02359
File ID: ISC00355.s0
Priority: Yes

Description\Location
C-34 Sample #22
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.06
Cs-137	*	0	0.06
Pb-210	*	0.53	0.77
Ra-226		1.11 ✓	0.86
Ac-227 (D)	*	0.15	0.33
Th-230	*	4.64	6.92
Th-232 (D)		0.51 ✓	0.2
Pu-238	*	5.85	13.5
Am-241	*	0.01	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A192/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02360
File ID: 1SC00356.s0
Priority: Yes

Description\Location
C-34 Sample #23
Long Count

Collector: 5349
Date Received: 8/19/04
Date Collected: 8/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.05
Cs-137	*	0	0.05
Pb-210	*	0.6	0.7
Ra-226		1.32 ✓	0.75
Ac-227 (D)	*	0	0.34
Th-230	*	0	7.08
Th-232 (D)		0.54 ✓	0.12
Pu-238	*	1.53	13.17
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A193/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02361
File ID: 1SC00357.s0
Priority: Yes

Description\Location
C-34 Samp #24
Long Count

Collector: 5349
Date Received: 08/19/04
Date Collected: 08/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.1
Cs-137	*	0.02	0.06
Pb-210		1.28	1
Ra-226		1.63 ✓	0.96
Ac-227 (D)	*	0	0.47
Th-230	*	6.35	9.5
Th-232 (D)		1.07 ✓	0.22
Pu-238	*	0	19.87
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA MDA used in limits calculation

Comments:

Date: 08/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A194/530

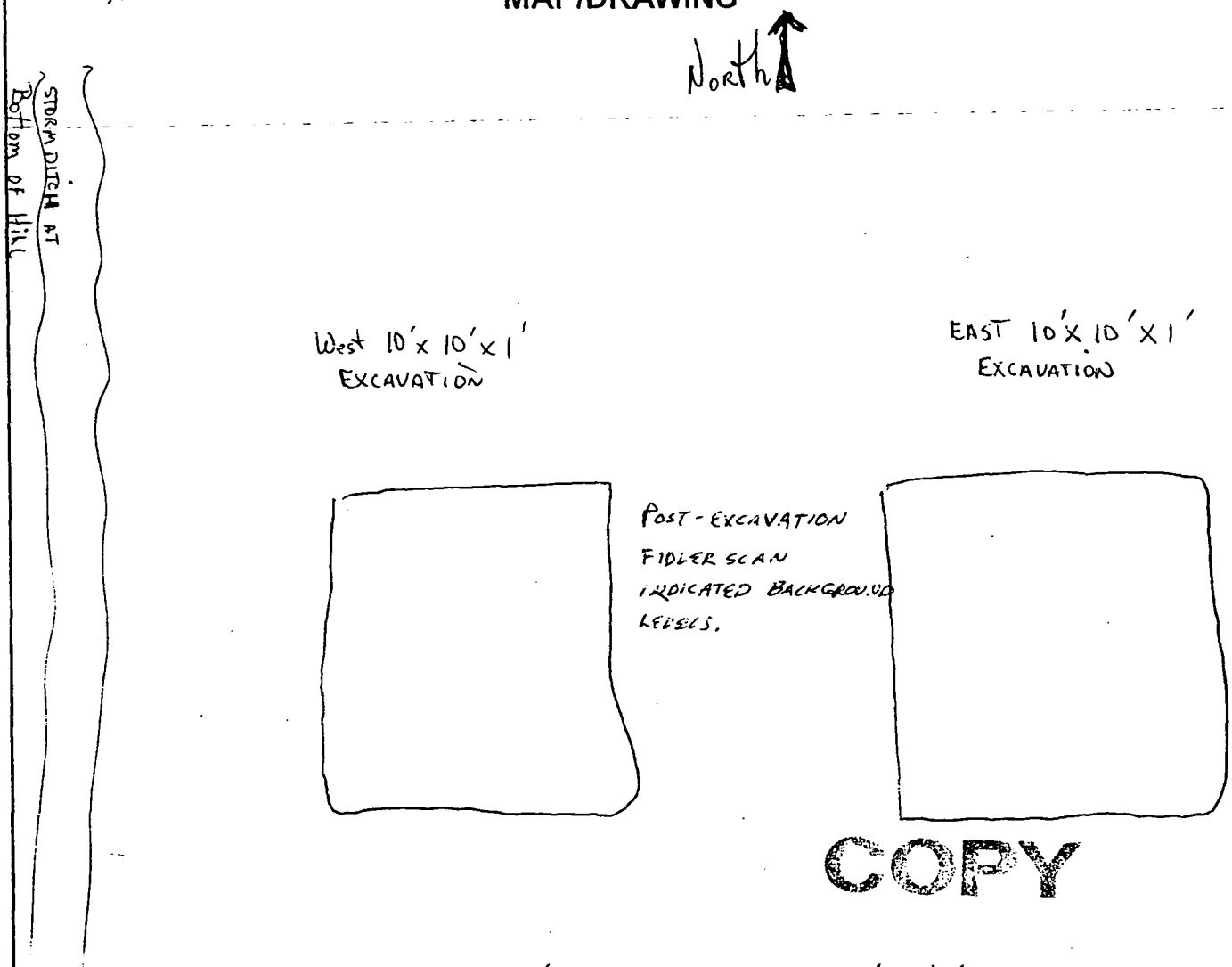
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) PRS 286	SURVEY NO. 04-ER-455
PURPOSE: Job coverage	RWP NO. 1501 RO
	DATE: 8-30-04
	TIME: 0900 hrs

The Bicron FIDLER or Sodium Iodine is used as an indicator only :

N/A = not applicable N/D = Non detectable

MAP/DRAWING



PRS 286- Bottom of old SM Leach Field

LEGEND:
= mrem/hr (γ) whole body
E = mrem/hr (β+n+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(# /α) or /β = direct contamination measurement in dpm/100cm2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
~~2360~~	N/A	
3030	5827	~~11-24-04~~ RLM 8-30-04
Bicron FIDLER/NaI	3855/3967	3-31-05
	N/A	

[redacted]

HP#	Date:
4992 5520	8-31-04
4992 5520	8-30-04
7725	9-22-04

A195/530

ML-9620 (2/98)

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm2)				
Sample#	β/γ	Alpha		Comments
1	< DL	0	PRE-MOVE	BUCKET 0/3
2	< DL	0	JD 690	0/3
3	< DL	0		1/3
4	< DL	4		BUCKET 1/3
5	< DL	0		TRACKS
6	< DL	0		
7	< DL	0		
8	< DL	0	JD 690	TRACKS
9	< DL	0	DEBRIS UNCOVERED	
10	< DL	0	IN W. AREA	
11	< DL	4		
12	< DL	0		
13	< DL	0	DEBRIS	
14	< DL	0	VOLVO #1 TAIL GATE	
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25			N/A	
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				

Removable Contamination				
Swipes (dpm/100cm2)				
Sample#	β/γ	Alpha		Comme
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53			N/A	
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				

COPY

COMMENTS: 3030 # 5827	alpha	Bkg 0.0	Ct 0.5	DL 0.0	MDA 14.3
	Beta	Bkg 35.4	Ct 0.5	DL 48.7	MDA 114.1

NOTES:

1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO count Room analysis for β/γ ,alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached , write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If not needed, mark N/A.

A196/530

ML-9620 (2/98)

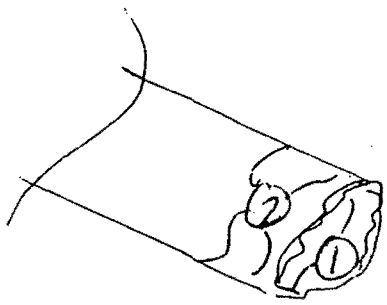
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) 3M / PP	SURVEY NO. 04-ER-470
PURPOSE: pipe 38. FOOTPRINT	RWP NO. N/A
	DATE: 9-1-04
	TIME: 1530

MAP / DRAWING

RE: 38 FOOTPRINT EXIT PACKAGE. BILL LOHNER REQUESTED THAT A PIPE ENTERING THE BACKFILL AREA BE SURVEYED PRIOR TO BACKFILL.

15 Sep 04



PIPE EXPOSED

INTERGRATED COUNT TAKEN IF AUDIBLE DETECTED

NO AUDIBLE DETECTED.

ALL DIRECT READINGS <100DPM/100 CM² ALPHA
<5000 DPM/100CM² BETA

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — = radiological boundary
△# = mrem/hr neutron
= air sample number
(#) = swipe number
(#/α) or (#/β) = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date			
3030	5823	5/25/05	[redacted]	HP# 3136	Date: 9-1-04
2360	5704/5714	10-06-04		HP# 3136	Date: 9-1-04
	N/A			HP# 3248	Date: 9/2/04

ML-9620 (2-98) Computer Generated

A197/530

Survey No. 04-ER-470

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha	N/A	Comments
1	14	2		INSIDE-PIPE
2	11	2		OUTSIDE-PIPE

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha		Comments

COMMENTS: N/A

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

A198/530

ML-9620A (4-98)

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) PRS 273	SURVEY NO. 04-ER-496
PURPOSE: PRS 273 Walk-over & Pre-verification summary	RWP NO. N/A
	DATE: 9-16-04
	TIME: 1300 hrs

The Bicron FIDLER or Sodium Iodine is used as an indicator only :

N/A = not applicable N/D = Non detectable

MAP/DRAWING

PRS 273PV001 - PRS 273PV044

Walk-over

This is a summary report of FIDLER readings taken during and following daily field excavation activities at PRS 273 and represents the as-left surfaces prior to verification sampling for the areas shown on Figure 1 and includes the limits of verification. This report only applies to the areas indicated on the figure.

100% walkover of all surfaces within verification limits and slopeback areas occurred as a matter of course throughout the excavation process. Walkovers entailed surveying in overlapping rows as per the VSAP

FIDLER readings on all surfaces were at background levels for channel out

Walkover surveys are indicators of the presence or absence of gross contamination only. However, certain correlations to specific isotopes and respective COs have been made based on testing described in [Recharacterization of pink soil in PRS 66 Dec 3, 2003,Final.]

COPY

PV samples

PRS 273 pre-verification sample results are attached to this RSDS along with the map of the final limits of verification. All results are < CO.

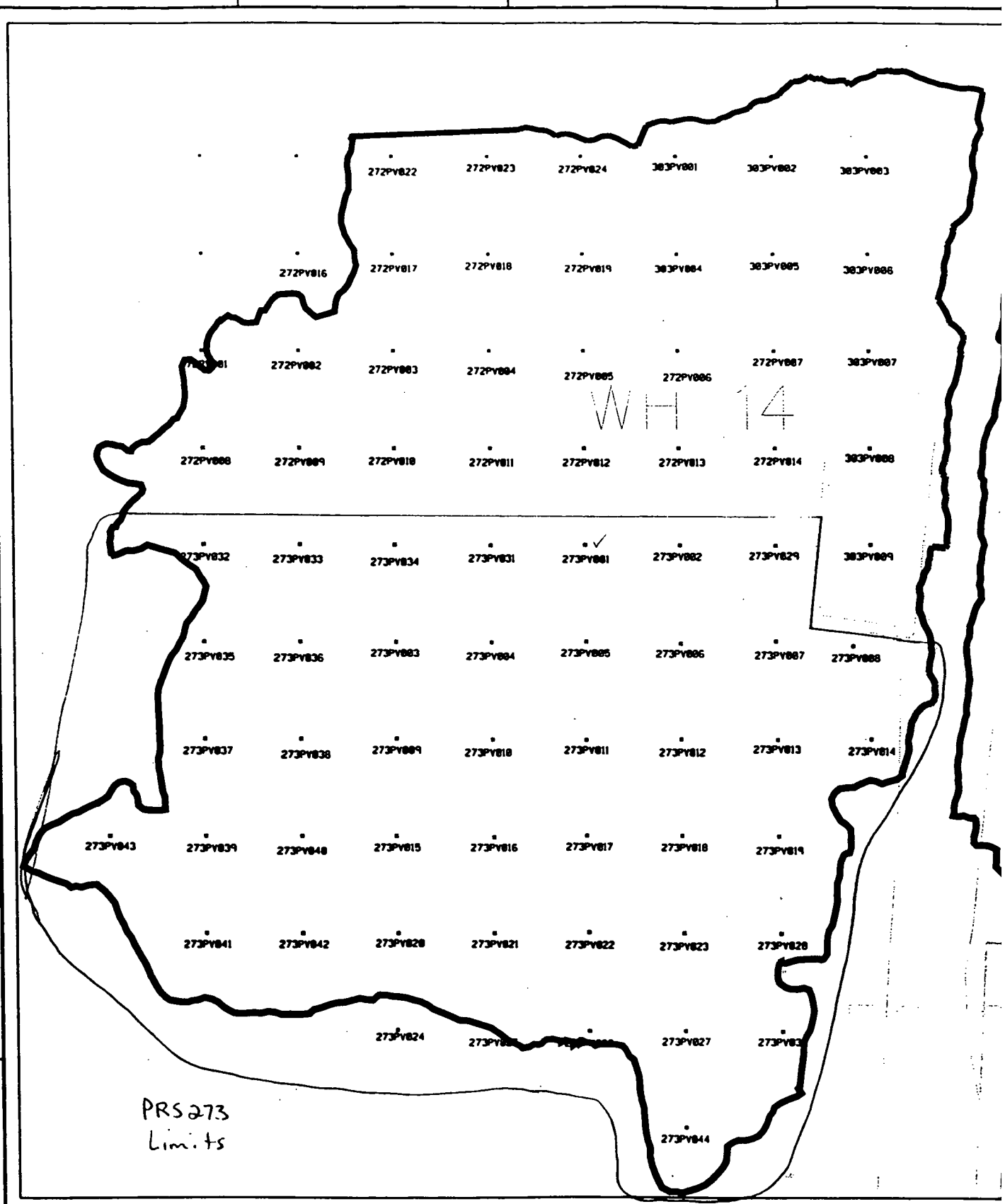
LEGEND:
= mrem/hr (γ) whole body
E = mrem/hr (β+n+γ) extremity on contact
(#) = mrem/hr neutron
[#] = air sample number
(# /α) or /β = direct contamination measurement in dpm/100cm2
(#) = swipe number

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Fidler	3855-3967	3-31-05
Fidler	3815-3968	3-31-05
	N/A	

Completed by: (Signature) [redacted]	HP# 5520 4992	Date: 12.10.04
Counted by: (Signature) N/A [redacted]	HP#	Date:
Counted by: (Print) [redacted]		A199/530
Reviewed/Approved by (Si[redacted]	HP# 7348	Date: 12/13/04
Reviewed/Approved by: (Print) [redacted]		

ML-9620 (2/98)



MOUND

Environmental Restoration Geographic Information System

A200/530

UNCLASSIFIED

STATION

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01891
File ID: 1SC00127.S0
Priority: Yes

Description\Location
273 PV001A
LONG

273PV001A

Collector: 5520
Date Received: 07/15/04
Date Collected: 07/15/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0	0.06
Pb-210		1.05	0.69
Ra-226		1.18	0.88
Ac-227 (D)	*	0.1	0.28
Th-230	*	1.16	7.89
Th-232 (D)		0.62	0.22
Pu-238	*	1.03	14.5
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.05

Σ Respirator <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/15/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A201/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01936
File ID: MG500557.S0
Priority: Yes

Description\Location
PRS 273 PV 002A
Long Count

273PV 002A

Collector: 5520
Date Received: 07/22/04
Date Collected: 07/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137		0.14	0.04
Pb-210	*	0.4	0.88
Ra-226	*	0.8 ✓	0.93
Ac-227 (D)	*	0.17	0.4
Th-230	*	2.2	8.83
Th-232 (D)		0.99 ✓	0.11
Pu-238	*	0 ✓	22.92
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 07/26/04 Counted By: 5288 Analyzed By: 5755 Initia[redacted]

[redacted] 1202/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02824
File ID: 6SC00538.s0
Priority: Yes

Description\Location
273 PV 003
Long Count

273PV003

Collector: 5520
Date Received: 9/22/04
Date Collected: 9/22/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0.02	0.03
Pb-210	*	0.81 ✓	0.85
Ra-226		1.61 ✓	0.87
Ac-227 (D)	*	0	0.42
Th-230	*	4.9	9.05
Th-232 (D)		0.86 ✓	0.12
Pu-238	*	15.03 ✓	23.7
Am-241		0.1	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 9/27/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A203/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01856
File ID: 6SC00579.s0
Priority: Yes

Description\Location
273 PV 004
Long Count

273PV004

Collector: 4992
Date Received: 9/30/04
Date Collected: 7/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0.01	0.04
Pb-210		1.52	0.92
Ra-226	*	0.79 ✓	0.81
Ac-227 (D)	*	0.37	0.44
Th-230	*	1.81	9.95
Th-232 (D)		1.28 ✓	0.11
Pu-238	*	7.42 ✓	26.3
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 10/1/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A204/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01857
File ID: 2SC00306.s0
Priority: Yes

Description\Location 273PV005
273 PV 005
Long Count

Collector: 7786
Date Received: 9/30/04
Date Collected: 7/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0.01	0.05
Pb-210		1.27	0.68
Ra-226		2.23 ✓	0.81
Ac-227 (D)	*	0.1	0.27
Th-230	*	2.6	7.13
Th-232 (D)		1.18 ✓	0.26
Pu-238	*	5.29 ✓	16.86
Am-241	*	0.04	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/2/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A205/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01892
File ID: 1SC00128.S0
Priority: Yes

Description\Location
273 PV006A
LONG

273PV006A

Collector: 5520 JG
Date Received: 07/15/04
Date Collected: 07/15/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.08
Cs-137	*	0	0.07
Pb-210	*	0.67 ✓	0.77
Ra-226	*	0.6	0.93
Ac-227 (D)	*	0	0.4
Th-230	*	0	8.15
Th-232 (D)		0.61 ✓	0.22
Pu-238	*	0 ✓	15.01
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/19/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A206/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01900
File ID: MG500[illegible]S0
Priority: Yes

Description\Location 273PV007A
PRS 273 7A
Long Count

Collector: 7789
Date Received: 7/19/04
Date Collected: 7/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137		0.03	0.03
Pb-210	*	0.61 ✓	0.73
Ra-226		1.16 ✓	0.69
Ac-227 (D)	*	0.3	0.34
Th-230	*	4.55	7.26
Th-232 (D)		0.72 ✓	0.12
Pu-238	*	2.22 ✓	18.47
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
U-238D	1.66	0.46	

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 7/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A207/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01860
File ID: 6SC00582.s0
Priority: Yes

Description\Location 273PV008
273 PV 008
Long Count

Collector: 4992
Date Received: 9/30/04
Date Collected: 7/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.03
Cs-137		0.12	0.03
Pb-210	*	0.16	0.92
Ra-226		2.69 ✓	0.78
Ac-227 (D)	*	0	0.43
Th-230	*	0.97	9.11
Th-232 (D)		0.8 ✓	0.14
Pu-238	*	15.95 ✓	23.65
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A208/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01861
File ID: 6SC00299.S0
Priority: Yes

Description\Location 273PV009
273 PV009
LONG

Collector: 4992 JG
Date Received: 07/14/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.03	0.02
Cs-137	*	0	0.04
Pb-210	*	0.05	0.86
Ra-226		0.94 ✓	0.82
Ac-227 (D)	*	0.1	0.4
Th-230	*	0	8.88
Th-232 (D)		0.79 ✓	0.12
Pu-238	*	0 ✓	25.04
Am-241	*	0.04	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.04 nCi/g $\Sigma_{Respirator}$ 0.08

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/19/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A209/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01862
File ID: 6SC00300.S0
Priority: Yes

Description\Location
273 PV010
LONG

273PV010

Collector: 7786
Date Received: 07/14/04
Date Collected: 07/14/04

J G

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0	0.04
Pb-210		0.94	0.92
Ra-226		1.87 ✓	0.84
Ac-227 (D)	*	0	0.44
Th-230	*	0	9.29
Th-232 (D)		0.93 ✓	0.12
Pu-238	*	0 ✓	24.48
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.04 nCi/g $\Sigma_{Respirator}$ 0.08

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/19/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A210/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01863
File ID: 6SC00583.S0
Priority: Yes

Description\Location
273 PV 011
LONG

273PV 011

Collector: 7786
Date Received: 09/30/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0	0.05
Pb-210	*	0.35	1.16
Ra-226		1.73 ✓	0.96
Ac-227 (D)	*	0	0.56
Th-230	*	2.13	9.88
Th-232 (D)		1.51 ✓	0.21
Pu-238	*	9.15 ✓	30.19
Am-241	*	0.02	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.05 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/01/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A 211/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01864
File ID: 6SC00584.s0
Priority: Yes

Description\Location
273 PV 012
Long Count

273PV012

Collector: 4992
Date Received: 9/30/04
Date Collected: 7/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.04
Cs-137	*	0.01	0.04
Pb-210	*	0.35	1.04
Ra-226		1.73 ✓	0.98
Ac-227 (D)	*	0	0.51
Th-230	*	6.09	9.94
Th-232 (D)		1 ✓	0.14
Pu-238	*	17.93 ✓	26
Am-241	*	0.05	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A212/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01865
File ID: 6SC00303.S0
Priority: Yes

Description\Location
273 PV013
LONG

273PV013

Collector: 7789 ✓ G
Date Received: 7/14/04
Date Collected: 7/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0	0.03
Pb-210	*	0.48 ✓	0.71
Ra-226		1.03	0.71
Ac-227 (D)	*	0	0.39
Th-230	*	4.29	7.25
Th-232 (D)		0.91 ✓	0.11
Pu-238	*	0 ✓	23.31
Am-241	*	0.03	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.07

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 7/19/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A213/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01866
File ID: 6SC00304.S0
Priority: Yes

Description\Location 273PV014
273 PV014
LONG

Collector: 7786 JG
Date Received: 7/14/04
Date Collected: 7/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.02	0.02
Cs-137	*	0.02	0.03
Pb-210	*	0.08 ✓	0.66
Ra-226	*	0.58	0.66
Ac-227 (D)	*	0	0.32
Th-230	*	5.05	6.41
Th-232 (D)		0.22 ✓	0.04
Pu-238	*	0 ✓	18.62
Am-241	*	0.03	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 7/19/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A214/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01867
File ID: 6SC00305.S0
Priority: Yes

Description\Location
273 PV015
Long Count

273PV015

Collector: 4992 ✓G
Date Received: 07/14/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.03
Cs-137	*	0	0.03
Pb-210	*	0.6 ✓	0.84
Ra-226		1.27	0.74
Ac-227 (D)	*	0	0.41
Th-230	*	0	8.64
Th-232 (D)		0.94 ✓	0.11
Pu-238	*	0 ✓	23.42
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Pa-231	1.69	1.38	

Σ_{DOT} 0.04 nCi/g $\Sigma_{Respirator}$ 0.08

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/20/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A215/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01868
File ID: 1SC00113.S0
Priority: Yes

Description\Location 273PV016
273 PV016
Long Count

Collector: 4992
Date Received: 07/14/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.07
Cs-137	*	0.02	0.06
Pb-210	*	0.67	0.86
Ra-226	*	0.89 ✓	1
Ac-227 (D)	*	0.18	0.31
Th-230	*	0	9.67
Th-232 (D)		0.87 ✓	0.27
Pu-238	*	0.96 ✓	16.91
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/15/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A216/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01869
File ID: 6SC00585.s0
Priority: Yes

Description\Location
273 PV 017
Long Count

273PV017

Collector: 4992
Date Received: 9/30/04
Date Collected: 7/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.03
Cs-137	*	0	0.04
Pb-210	*	0.05	0.98
Ra-226		1.91 ✓	0.92
Ac-227 (D)	*	0	0.48
Th-230	*	3.2	9.65
Th-232 (D)		1.17 ✓	0.11
Pu-238	*	0 ✓	27.21
Am-241	*	0.02	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A217/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01901
File ID: MG500553 S0
Priority: Yes

Description\Location
PRS 273 018A
Long Count

273PV018A

Collector: 7789
Date Received: 7/19/04
Date Collected: 7/19/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.04
Cs-137	*	0	0.03
Pb-210		0.75 ✓	0.72
Ra-226	*	0.6	0.8
Ac-227 (D)	*	0.05	0.34
Th-230	*	0	7.75
Th-232 (D)		0.64 ✓	0.13
Pu-238	*	0 ✓	20.81
Am-241	*	0.01	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.07

$\Sigma_{Respirator}$ < 1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 7/21/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A218/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01871
File ID: 6SC00586.s0
Priority: Yes

Description\Location 273 PV019
273 PV 019
Long Count

Collector: 7789
Date Received: 9/30/04
Date Collected: 7/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0	0.04
Pb-210		1.32	0.91
Ra-226		2.11 ✓	0.86
Ac-227 (D)	*	0.22	0.46
Th-230	*	0.28	9.6
Th-232 (D)		1.08 ✓	0.11
Pu-238	*	0 ✓	28.31
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A219/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01872
File ID: 6SC00587.s0
Priority: Yes

Description\Location 273PV020
273 PV 020
Long Count

Collector: 4992
Date Received: 9/30/04
Date Collected: 7/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.03
Cs-137	*	0.02	0.03
Pb-210	*	0.76 ✓	0.87
Ra-226		1.33	0.86
Ac-227 (D)	*	0.28	0.41
Th-230	*	4.46	8.91
Th-232 (D)		0.86 ✓	0.11
Pu-238	*	0 ✓	24.64
Am-241	*	0.02	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A220/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01873
File ID: 1SC00118.S0
Priority: Yes

Description\Location
273 PV021
Long Count

273PV021

Collector: 7786
Date Received: 07/14/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.07
Pb-210	*	0.39	0.85
Ra-226		1.95	0.97
Ac-227 (D)	*	0.07	0.33
Th-230	*	1.1	9.17
Th-232 (D)		0.83	0.25
Pu-238	*	0	16.25
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
U-238d	1.24	0.56	

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/15/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A221/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01874
File ID: 1SC00119.S0
Priority: Yes

Description\Location
273 PV022
Long Count

273 PV022

Collector: 4992
Date Received: 07/14/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.06
Cs-137	*	0	0.06
Pb-210	*	0.35	0.68
Ra-226		1.04 ✓	0.8
Ac-227 (D)	*	0.04	0.27
Th-230	*	1.42	7.08
Th-232 (D)		0.72 ✓	0.14
Pu-238	*	0.73 ✓	12.95
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.02 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/15/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A222/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01887
File ID: 6SC00308.S0
Priority: Yes

Description\Location
273 PV023
Long Count

273PV023

Collector: 4992
Date Received: 07/15/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.03
Cs-137	*	0	0.04
Pb-210	*	0.53 ✓	0.8
Ra-226		1.11	0.79
Ac-227 (D)	*	0	0.39
Th-230	*	7.64	7.95
Th-232 (D)		0.89 ✓	0.09
Pu-238	*	0 ✓	24.74
Am-241	*	0.02	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
U-238d	1.81	0.47	

Σ_{DOT} 0.04 nCi/g $\Sigma_{Respirator}$ 0.08

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/20/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A223/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01875
File ID: 1SC00120.S0
Priority: Yes

Description\Location
273 PV024
Long Count

273PV024

Collector: 4992
Date Received: 07/14/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.07
Cs-137		0.06	0.05
Pb-210		1.15	0.81
Ra-226		1.69	0.98
Ac-227 (D)	*	0.11	0.31
Th-230	*	3.26	8.72
Th-232 (D)		0.74	0.24
Pu-238	*	5.14	15.09
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 07/15/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A224/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01876
File ID: 1SC00121.S0
Priority: Yes

Description\Location
273 PV025
LONG

273PV025

Collector: 4992
Date Received: 07/14/04
Date Collected: 07/14/04

✓ 6

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137		0.1	0.05
Pb-210	*	0.41 ✓	0.78
Ra-226		1.16	0.81
Ac-227 (D)		0.35	0.34
Th-230	*	0	7.74
Th-232 (D)		0.62 ✓	0.2
Pu-238		21.62 ✓	14.8
Am-241		0.31	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.07

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/19/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A225/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01877
File ID: 1SC00122.S0
Priority: Yes

Description\Location
273 PV026
LONG

273PV026

Collector: 7789 JG
Date Received: 07/14/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.04	0.05
Cs-137		0.09	0.06
Pb-210	*	0.07	0.87
Ra-226		2.06 ✓	0.86
Ac-227 (D)	*	0.11	0.29
Th-230	*	0	8.38
Th-232 (D)		0.78 ✓	0.16
Pu-238	*	0 ✓	15.24
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.06

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/19/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A226/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01878
File ID: 1SC00123.S0
Priority: Yes

Description\Location
273 PV027
LONG

273PV027

Collector: 4992. ✓G
Date Received: 07/14/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137		0.05	0.05
Pb-210		1.16	0.61
Ra-226		1.51 ✓	0.84
Ac-227 (D)		0.24	0.24
Th-230	*	0	8
Th-232 (D)		0.61 ✓	0.19
Pu-238	*	2.92 ✓	12.76
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
Pa-231	1.7	1.24	

Σ_{DOT} 0.03 nCi/g $\Sigma_{Respirator}$ 0.05

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/19/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A227/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01879
File ID: 6SC00588.s0
Priority: Yes

Description\Location
273 PV 028
Long Count

273PV028

Collector: 4992
Date Received: 9/30/04
Date Collected: 7/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137		0.04	0.03
Pb-210	*	0.6	0.94
Ra-226		2.05 ✓	0.87
Ac-227 (D)	*	0	0.46
Th-230	*	0	9.72
Th-232 (D)		0.9 ✓	0.13
Pu-238	*	1.94 ✓	26.34
Am-241	*	0.02	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A228/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02825
File ID: 6SC00539.s0
Priority: Yes

Description\Location
273 PV 029
Long Count

273PV029

Collector: 5520
Date Received: 9/22/04
Date Collected: 9/22/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137		0.04	0.04
Pb-210	*	0.66 ✓	1.02
Ra-226		1.92	0.89
Ac-227 (D)	*	0.16	0.48
Th-230	*	0	9.68
Th-232 (D)		1.08 ✓	0.19
Pu-238	*	0 ✓	27.97
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 9/27/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A229/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01880
File ID: 6SC00306.S0
Priority: Yes

Description\Location
273 PV030
Long Count

273PV030

Collector: 7789
Date Received: 07/14/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.04
Cs-137		0.19	0.03
Pb-210		2.92	0.93
Ra-226		1.92	0.86
Ac-227 (D)		0.56	0.4
Th-230	*	6.08	9.6
Th-232 (D)		1.49	0.1
Pu-238	*	6.44	25.9
Am-241	*	0.06	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
U-238d	2.16	0.66	

Σ_{DOT} 0.04 nCi/g $\Sigma_{Respirator}$ 0.09

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/20/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A230/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL01881
File ID: 6SC00307.S0
Priority: Yes

Description\Location
273 PV031
Long Count

273PV031

Collector: 4992
Date Received: 07/14/04
Date Collected: 07/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137		0.11	0.04
Pb-210		1.34	0.79
Ra-226		1.32 ✓	0.85
Ac-227 (D)	*	0	0.41
Th-230	*	5.85	8.58
Th-232 (D)		0.7 ✓	0.11
Pu-238	*	0 ✓	26.28
Am-241	*	0.07	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA	MD-10438 Limit (pCi/g)
U-238d	2.02	0.54	

Σ_{DOT} 0.04 nCi/g $\Sigma_{Respirator}$ 0.08

$\Sigma_{Respirator}$ <1 indicates soil levels below limit.
Values > or = 1 indicate soil levels exceed limit. Limits based on MD-10438 table 4.

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 07/20/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A231/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02163
File ID: 2SC00091.s0
Priority: Yes

Description\Location
273 PV 032
Long Count

273PV032

Collector: 4992
Date Received: 8/13/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.05
Cs-137	*	0.01	0.06
Pb-210		1.05	0.83
Ra-226		1.81 ✓	1.05
Ac-227 (D)	*	0	0.33
Th-230	*	2.52	8.76
Th-232 (D)		1.05 ✓	0.29
Pu-238	*	0 ✓	19.78
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/23/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A232/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02164
File ID: 2SC00092.s0
Priority: Yes

Description\Location
273 PV 033
Long Count

273PV033

Collector: 4992
Date Received: 8/13/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.07
Cs-137	*	0	0.08
Pb-210		0.94 ✓	0.86
Ra-226		1.88	0.93
Ac-227 (D)	*	0.03	0.31
Th-230	*	0	8.48
Th-232 (D)		1 ✓	0.26
Pu-238	*	2.81 ✓	17.97
Am-241	*	0.03	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/23/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A233/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02165
File ID: 2SC00093.s0
Priority: Yes

Description\Location
273 PV 034
Long Count

273 PV 034

Collector: 4992
Date Received: 8/13/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137		0.04	0.04
Pb-210		0.82	0.71
Ra-226		1.99	0.84
Ac-227 (D)	*	0	0.29
Th-230	*	0	7.44
Th-232 (D)		0.74	0.25
Pu-238	*	0	16.79
Am-241	*	0	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 8/23/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A234/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02166
File ID: 2SC00094.s0
Priority: Yes

Description\Location
273 PV 035
Long Count

273PV035

Collector: 4992
Date Received: 8/13/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.1
Cs-137	*	0.05	0.06
Pb-210	*	0.7	0.83
Ra-226		1.47	1.02
Ac-227 (D)	*	0	0.34
Th-230	*	0.23	8.99
Th-232 (D)		1.07	0.26
Pu-238	*	0	19.99
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/23/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A235/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02167
File ID: 2SC00095.s0
Priority: Yes

Description\Location
273 PV 036
Long Count

273PV036

Collector: 4992
Date Received: 08/13/04
Date Collected: 08/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.06
Cs-137	*	0.02	0.06
Pb-210		1.15	0.73
Ra-226		1.95 ✓	0.88
Ac-227 (D)	*	0	0.32
Th-230	*	3.7	8.01
Th-232 (D)		1.03 ✓	0.26
Pu-238	*	0.74 ✓	19.07
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/23/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A236/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02168
File ID: 2SC00096.s0
Priority: Yes

Description\Location
273 PV 037
Long Count

273PV037

Collector: 4992
Date Received: 08/13/04
Date Collected: 08/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.07
Cs-137		0.04	0.04
Pb-210		1.43	0.67
Ra-226		1.88 ✓	0.83
Ac-227 (D)	*	0	0.28
Th-230	*	0	8.03
Th-232 (D)		1.2 ✓	0.14
Pu-238	*	4.16 ✓	17.7
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/23/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A237/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02169
File ID: 2SC00097.s0
Priority: Yes

Description\Location
273 PV 038
Long Count

273PV038

Collector: 4992
Date Received: 08/13/04
Date Collected: 08/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.07
Cs-137	*	0	0.06
Pb-210	*	0.62	0.73
Ra-226		1.62	0.82
Ac-227 (D)	*	0.06	0.3
Th-230	*	0	7.96
Th-232 (D)		1.32	0.16
Pu-238	*	1.31	16.71
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/23/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A238/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02170
File ID: 2SC00098.s0
Priority: Yes

Description\Location
273 PV 039
Long Count

273PV039

Collector: 4992
Date Received: 8/13/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.04	0.05
Cs-137	*	0	0.06
Pb-210		1.01	0.82
Ra-226		1.63	0.96
Ac-227 (D)	*	0.14	0.3
Th-230	*	0.49	8.54
Th-232 (D)		1.13	0.21
Pu-238	*	8.89	18.68
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 8/23/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A239/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI02171
File ID: 2SC00099.s0
Priority: Yes

Description\Location
273 PV 040
Long Count

273PV040

Collector: 4992
Date Received: 8/13/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.07
Cs-137		0.04	0.04
Pb-210		1.72	0.8
Ra-226		2.23 ✓	0.86
Ac-227 (D)	*	0.14	0.26
Th-230	*	4.42	7.3
Th-232 (D)		0.85 ✓	0.28
Pu-238	*	0.07 ✓	16.8
Am-241	*	0.03	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/23/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A240/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02172
File ID: 2SC00125.s0
Priority: Yes

Description\Location
273 PV 041
LONG

273PV041

Collector: 4992
Date Received: 8/13/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137		0.05	0.04
Pb-210		1.46	0.58
Ra-226		2.19	0.7
Ac-227 (D)	*	0	0.23
Th-230	*	2.14	5.06
Th-232 (D)		1.25	0.18
Pu-238	*	0	13.52
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/31/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A241/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02173
File ID: 2SC00101.s0
Priority: Yes

Description\Location
273 PV 042
Long Count

273PV042

Collector: 4992
Date Received: 8/13/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.07
Cs-137	*	0	0.06
Pb-210	*	0.71	0.74
Ra-226		1.76 ✓	0.81
Ac-227 (D)	*	0.03	0.3
Th-230	*	0.81	8.06
Th-232 (D)		1.08 ✓	0.25
Pu-238	*	0 ✓	17.53
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/23/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A242/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02826
File ID: 1SC00547.s0
Priority: Yes

Description\Location
273 PV 043
Long Count

273PV043

Collector: 5520
Date Received: 9/22/04
Date Collected: 9/22/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137		0.07	0.06
Pb-210		1.02	0.82
Ra-226		2.67 ✓	0.85
Ac-227 (D)		0.51	0.36
Th-230	*	3.67	7.91
Th-232 (D)		1.08 ✓	0.24
Pu-238	*	7.01 ✓	15.41
Am-241	*	0.05	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 9/24/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A243/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02827
File ID: 6SC00541.s0
Priority: Yes

Description\Location
273 PV 044
Long Count

273PV044

Collector: 5520
Date Received: 9/22/04
Date Collected: 9/22/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.03
Cs-137	*	0	0.03
Pb-210	*	0.47	0.73
Ra-226	*	0.64	0.74
Ac-227 (D)	*	0	0.34
Th-230	*	3.58	6.91
Th-232 (D)		0.36	0.1
Pu-238	*	0	21.63
Am-241	*	0.05	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 9/27/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A244/530

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) PRS 272	SURVEY NO. 04-ER-497
PURPOSE: PRS 272 Walk-over & Pre-verification summary	RWP NO N/A
	DATE: 9-16-04
	TIME: 1300 hrs

The Bicron FIDLER or Sodium Iodine is used as an indicator only :

N/A = not applicable N/D = Non detectable

MAP/DRAWING

272PV001 - 14
" 16 - 19
" 22 - 24

Walk-over

This is a summary report of FIDLER readings taken during and following daily field excavation activities at PRS 272 and represents the as-left surfaces prior to verification sampling for the areas shown on Figure 1 and includes the limits of verification. This report only applies to the areas indicated on the figure.

100% walkover of all surfaces within verification limits and slopeback areas occurred as a matter of course throughout the excavation process. Walkovers entailed surveying in overlapping rows as per the VSAP

FIDLER readings on all surfaces were at background levels for channel out

Walkover surveys are indicators of the presence or absence of gross contamination only. However, certain correlations to specific isotopes and respective COs have been made based on testing described in [Recharacterization of pink soil in PRS 66 Dec 3, 2003,Final.]

PV samples

PRS 272 pre-verification sample results are attached to this RSDS along with the map of the final limits of verification. All results are < CO.

LEGEND:
= mrem/hr (γ) whole body
E = mrem/hr (β+n+γ) extremity on contact
= mrem/hr neutron
= air sample number
= swipe number
/α or /β = direct contamination measurement in dpm/100cm2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
	N/A	

[redacted]	HP# 5520 4992	Date: 10-5-04
Counted by: (Signature) N/A	HP#	Date:
Counted by: (Print) N/A		
Reviewed/Approved [redacted]	HP# 7725	Date: 10-11-04
Reviewed/Approved [redacted]		A 245/530

ML-9620 (2/98)

04-ER-497

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Run

PRS272
Preliminary
walkover

272PV022 272PV023 272PV024 303PV001 303PV002 303PV003

272PV016 272PV017 272PV018 272PV019 303PV004 303PV005 303PV006

272PV001 272PV002 272PV003 272PV004 272PV005 272PV006 272PV007 303PV007

WH 14

272PV008 272PV009 272PV010 272PV011 272PV012 272PV013 272PV014 303PV008

273PV032 273PV033 273PV034 273PV031 273PV001 273PV002 273PV029 303PV009

273PV035 273PV036 273PV003 273PV004 273PV005 273PV006 273PV007 273PV008

273PV037 273PV038 273PV009 273PV010 273PV011 273PV012 273PV013 273PV014

273PV043 273PV039 273PV040 273PV015 273PV016 273PV017 273PV018 273PV019

273PV041 273PV042 273PV020 273PV021 273PV022 273PV023 273PV026

273PV024 273PV027 273PV044

MOUND
Environmental Restoration Geographic Information System

UNCLASSIFIED

A246/530

SYE ER-GIS MD-REL-00/00/00 MSTATION / J

00/00/00

04-ER-497
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SOIL ANALYSIS REPORT

Field Sample ID: RIM
Lab Sample ID: GL02386
File ID: ISC00359.s0
Priority: Yes

Description\Location 272PV001A
PRS 272 PV01A
Long Count

Collector: 5520
Date Received: 08/23/04
Date Collected: 08/23/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0	0.05
Pb-210		1.19	0.72
Ra-226		1.77 ✓	0.77
Ac-227 (D)	*	0	0.3
Th-230	*	4.36	7.51
Th-232 (D)		1.05 ✓	0.2
Pu-238	*	0 ✓	14.63
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

$\sum_{DOT}$ 0.03 nCi/g

Instrument type: High Purity Germanium

$\sum_{DOT}$ 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/26/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID: Rim
Lab Sample ID: GL02179
File ID: 1SC00639.s0
Priority: Yes

Description\Location
272 PV 002
Long Count

272PV002

Collector: 4992
Date Received: 9/30/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0.01	0.06
Pb-210		0.78	0.78
Ra-226		1.76	0.81
Ac-227 (D)	*	0	0.29
Th-230	*	3.08	8.22
Th-232 (D)		1.2	0.24
Pu-238	*	0	14.82
Am-241	*	0.03	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/4/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A248/530

04-ER-497
p 5 of 23
RIM

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02180
File ID: 1SC00620.s0
Priority: Yes

Description\Location
272 PV 003
Long Count

272PV003

Collector: 4992
Date Received: 9/30/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.08
Pb-210	*	0.42	0.86
Ra-226		1.41 ✓	0.94
Ac-227 (D)	*	0.07	0.31
Th-230	*	2.05	8.53
Th-232 (D)		1.2 ✓	0.21
Pu-238	*	2.45 ✓	15.34
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A249/S30

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RIM

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02193
File ID: 1SC00309.s0
Priority: Yes

Description\Location
272 PV 004
Long Count

272PV004

Collector: 4992
Date Received: 08/14/04
Date Collected: 08/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.11
Cs-137	*	0.01	0.08
Pb-210	*	0.66	0.89
Ra-226		1.51 ✓	1.08
Ac-227 (D)	*	0.27	0.34
Th-230	*	2.42	9.34
Th-232 (D)		0.74 ✓	0.29
Pu-238	*	15.18 ✓	16.55
Am-241	*	0.03	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/16/04 Counted By: 5288 Analyzed By: 5755 Initials: [redacted]

A250/530

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RIM

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02194
File ID: 1SC00310.s0
Priority: Yes

Description\Location
272 PV 005
Long Count

272PV005

Collector: 4992
Date Received: 08/14/04
Date Collected: 08/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.1
Cs-137	*	0	0.06
Pb-210	*	0.71	0.72
Ra-226		2	0.84
Ac-227 (D)		0.27	0.27
Th-230	*	2.22	7.74
Th-232 (D)		0.76	0.19
Pu-238	*	0	17.3
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

ΣDOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/16/04 Counted By: 5288 Analyzed By: 5755 Initials: [redacted]

A251/530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02195
File ID: 1SC0031LS0
Priority: Yes

Description\Location
272 PV 006
Long Count

272PV006

Collector: 4992
Date Received: 08/14/04
Date Collected: 08/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.07
Cs-137	*	0.04	0.05
Pb-210	*	0.55	0.84
Ra-226		1.38 ✓	0.92
Ac-227 (D)	*	0.17	0.34
Th-230	*	0	8.67
Th-232 (D)		0.94 ✓	0.23
Pu-238	*	1.03 ✓	15.18
Am-241	*	0.02	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/16/04 Counted By: 5288 Analyzed By: 5755 Initials: [redacted]

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RIM

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02196
File ID: 1SC00326.s0
Priority: Yes

Description\Location
272 PV 007
Long Count

272PV007

Collector: 4992
Date Received: 8/14/04
Date Collected: 8/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0.02	0.06
Pb-210	*	0.22	0.77
Ra-226		1.55 ✓	0.83
Ac-227 (D)	*	0	0.29
Th-230	*	0	7.63
Th-232 (D)		1.06 ✓	0.2
Pu-238	*	3.81 ✓	13.89
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

$\sum_{DOT}$ 0.03 nCi/g

Instrument type: High Purity Germanium

$\sum_{DOT}$ 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/18/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02181
File ID: 1SC00325.s0
Priority: Yes

Description\Location
272 PV 008
Long Count

272PV008

Collector: 4992
Date Received: 8/14/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.07
Cs-137		0.3	0.08
Pb-210		2.4	0.94
Ra-226		2.28	1.04
Ac-227 (D)		0.33	0.32
Th-230	*	6.58	9.54
Th-232 (D)		1.29	0.2
Pu-238	*	0	18.57
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

$\sum_{DOT}$ 0.03 nCi/g

Instrument type: High Purity Germanium

$\sum_{DOT}$ 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA, MDA used in limits calculation

Comments:

Date: 8/18/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02182
File ID: 1SC00621.s0
Priority: Yes

Description\Location
272 PV 009
Long Count

272PV009

Collector: 4992
Date Received: 9/30/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.07
Cs-137		0.06	0.06
Pb-210		1.1	0.89
Ra-226		1.72	0.86
Ac-227 (D)	*	0	0.31
Th-230	*	0	9.13
Th-232 (D)		1.07	0.2
Pu-238	*	0	15.79
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02183
File ID: 1SC00622.s0
Priority: Yes

Description\Location
272 PV 010
Long Count

272PV010

Collector: 4992
Date Received: 9/30/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.07
Cs-137	*	0	0.08
Pb-210		1.49	0.82
Ra-226		2.35	0.86
Ac-227 (D)	*	0	0.42
Th-230	*	0.9	9.25
Th-232 (D)		1.09	0.23
Pu-238	*	0	17.54
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID: RIM
Lab Sample ID: GL02197
File ID: ISC00313.s0
Priority: Yes

Description\Location
272 PV 011
Long Count

272PV011

Collector: 4992
Date Received: 08/14/04
Date Collected: 08/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.07	0.08
Cs-137	*	0.01	0.07
Pb-210		1.5	0.86
Ra-226		1.37 ✓	1.08
Ac-227 (D)	*	0.23	0.36
Th-230	*	0.07	9.59
Th-232 (D)		1.09 ✓	0.24
Pu-238	*	0 ✓	18.42
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

ΣDOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/16/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A257/530

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SOIL ANALYSIS REPORT

Field Sample ID: 8m
Lab Sample ID: GL02198
File ID: 1SC0034L50
Priority: Yes

Description\Location 272PV012
272 PV 012
Long Count

Collector: 4992
Date Received: 08/14/04
Date Collected: 08/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.1
Cs-137	*	0	0.09
Pb-210	*	0.55	0.93
Ra-226		1.97 ✓	0.99
Ac-227 (D)	*	0.24	0.32
Th-230	*	0	9.81
Th-232 (D)		1.12 ✓	0.23
Pu-238	*	0 ✓	18.07
Am-241	*	0.04	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/16/04 Counted By: 5288 Analyzed By: 5755 Initials: [redacted]

A 258/530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02199
File ID: LSC00315.s0
Priority: Yes

Description\Location
272 PV 013
Long Count

272PV013

Collector: 4992
Date Received: 08/14/04
Date Collected: 08/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0	0.07
Pb-210		1.03	0.82
Ra-226	*	0.93 ✓	1.01
Ac-227 (D)	*	0.06	0.32
Th-230	*	4.5	8.25
Th-232 (D)		0.75 ✓	0.25
Pu-238	*	3.36 ✓	15.89
Am-241	*	0.02	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ DOT 2nCi/g limit, total activity

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity > MDA. MDA used in limits calculation

Comments:

Date: 08/16/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A 259/530

04-ER-497
p 16 of 2
RIM

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02200
File ID: 1SC00323.s0
Priority: Yes

Description\Location
272 PV 014
Long Count

272PV014

Collector: 4992
Date Received: 08/14/04
Date Collected: 08/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.06	0.09
Cs-137	*	0.07	0.08
Pb-210	*	0.92	0.95
Ra-226		2.62 ✓	0.94
Ac-227 (D)	*	0.22	0.33
Th-230	*	4.03	9.67
Th-232 (D)		1.13 ✓	0.27
Pu-238	*	0 ✓	18.93
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA MDA used in limits calculation

Comments:

Date: 08/18/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A 260/530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02184
File ID: 2SC00305.s0
Priority: Yes

Description\Location
272 PV 016
Long Count

272PV016

Collector: 4992
Date Received: 9/30/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137		0.32	0.05
Pb-210		2.61	0.76
Ra-226		1.85	0.86
Ac-227 (D)	*	0.05	0.27
Th-230	*	0	7.73
Th-232 (D)		0.94	0.23
Pu-238	*	0	18.34
Am-241	*	0.03	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/2/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02185
File ID: 1SC00624.s0
Priority: Yes

Description\Location
272 PV 017
Long Count

272PV017

Collector: 4992
Date Received: 9/30/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.08
Pb-210	*	0.84	0.91
Ra-226		2.16	0.99
Ac-227 (D)	*	0	0.35
Th-230	*	1.17	9.62
Th-232 (D)		0.99	0.28
Pu-238	*	6.74	16.96
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A-262/530

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Rim

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02201
File ID: 1SC00324.s0
Priority: Yes

Description\Location
272 PV 018
Long Count

272PV018

Collector: 4992
Date Received: 8/14/04
Date Collected: 8/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0.03	0.08
Pb-210		1.43	0.86
Ra-226		1.98 ✓	0.96
Ac-227 (D)	*	0.16	0.31
Th-230	*	0	9.2
Th-232 (D)		1.15 ✓	0.21
Pu-238	*	2.4 ✓	17.36
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/18/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

/530

04-ER-497
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RIM

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02202
File ID: 1SC00318.s0
Priority: Yes

Description\Location
272 PV 019
Long Count

272PV019

Collector: 4992
Date Received: 8/14/04
Date Collected: 8/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.1
Cs-137	*	0.03	0.06
Pb-210	*	0.84	0.96
Ra-226		1.09 ✓	1.09
Ac-227 (D)	*	0.31	0.34
Th-230	*	0	9.54
Th-232 (D)		0.99 ✓	0.28
Pu-238	*	0 ✓	18.3
Am-241	*	0.01	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/17/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A264/530

04-ER-497
p.21 of 23
RIM

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02186
File ID: 1SC00625.s0
Priority: Yes

Description\Location
272 PV 022
Long Count

272PV022

Collector: 4992
Date Received: 9/30/04
Date Collected: 8/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137		0.08	0.06
Pb-210		0.95	0.85
Ra-226		1.68 ✓	0.85
Ac-227 (D)	*	0.15	0.28
Th-230	*	1.84	8.16
Th-232 (D)		0.85 ✓	0.17
Pu-238	*	0 ✓	16.4
Am-241	*	0.02	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A265/530

04-ER-497
p.27 of 23

SOIL ANALYSIS REPORT

Field Sample ID: RIM
Lab Sample ID: GL02203
File ID: LSC00319.s0
Priority: Yes

Description\Location
272 PV 023
Long Count

272PV023

Collector: 4992
Date Received: 8/14/04
Date Collected: 8/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0	0.06
Pb-210		0.78	0.72
Ra-226	*	0.58 ✓	0.89
Ac-227 (D)	*	0.2	0.26
Th-230	*	0.14	7.15
Th-232 (D)		0.41 ✓	0.2
Pu-238	*	5.35 ✓	13.83
Am-241	*	0.04	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/17/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A260/530

04-ER-497
p23 of 23
KM

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02204
File ID: 1SC00320.s0
Priority: Yes

Description\Location
272 PV 024
Long Count

272PV024

Collector: 4992
Date Received: 8/14/04
Date Collected: 8/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.06
Cs-137	*	0.02	0.07
Pb-210		1.38	0.85
Ra-226		1.87 ✓	0.94
Ac-227 (D)	*	0.17	0.29
Th-230	*	3.4	8.29
Th-232 (D)		0.58 ✓	0.28
Pu-238	*	0.3 ✓	16.61
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/17/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A267/530

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG./AREA/ROOM) PRS 303	SURVEY NO. 04-ER-498
PURPOSE: PRS 303 Walk-over & Pre-verification summary	RWP NO. N/A
	DATE: 9-16-04
	TIME: 1300 hrs

The Bicron FIDLER ~~or Sodium Iodine~~ is used as an indicator only :

N/A = not applicable N/D = Non detectable

303PV001 - 303PV009 MAP/DRAWING

Walk-over

This is a summary report of FIDLER readings taken during and following daily field excavation activities at PRS 303 and represents the as-left surfaces prior to verification sampling for the areas shown on Figure 1 and includes the limits of verification. This report only applies to the areas indicated on the figure.

100% walkover of all surfaces within verification limits and slopeback areas occurred as a matter of course throughout the excavation process. Walkovers entailed surveying in overlapping rows as per the VSAP

FIDLER readings on all surfaces were at background levels for channel out

Walkover surveys are indicators of the presence or absence of gross contamination only. However, certain correlations to specific isotopes and respective COs have been made based on testing described in [Recharacterization of pink soil in PRS 66 Dec 3, 2003,Final.]

COPY

PV samples

PRS 303 pre-verification sample results are attached to this RSDS along with the map of the final limits of verification. All results are < CO.

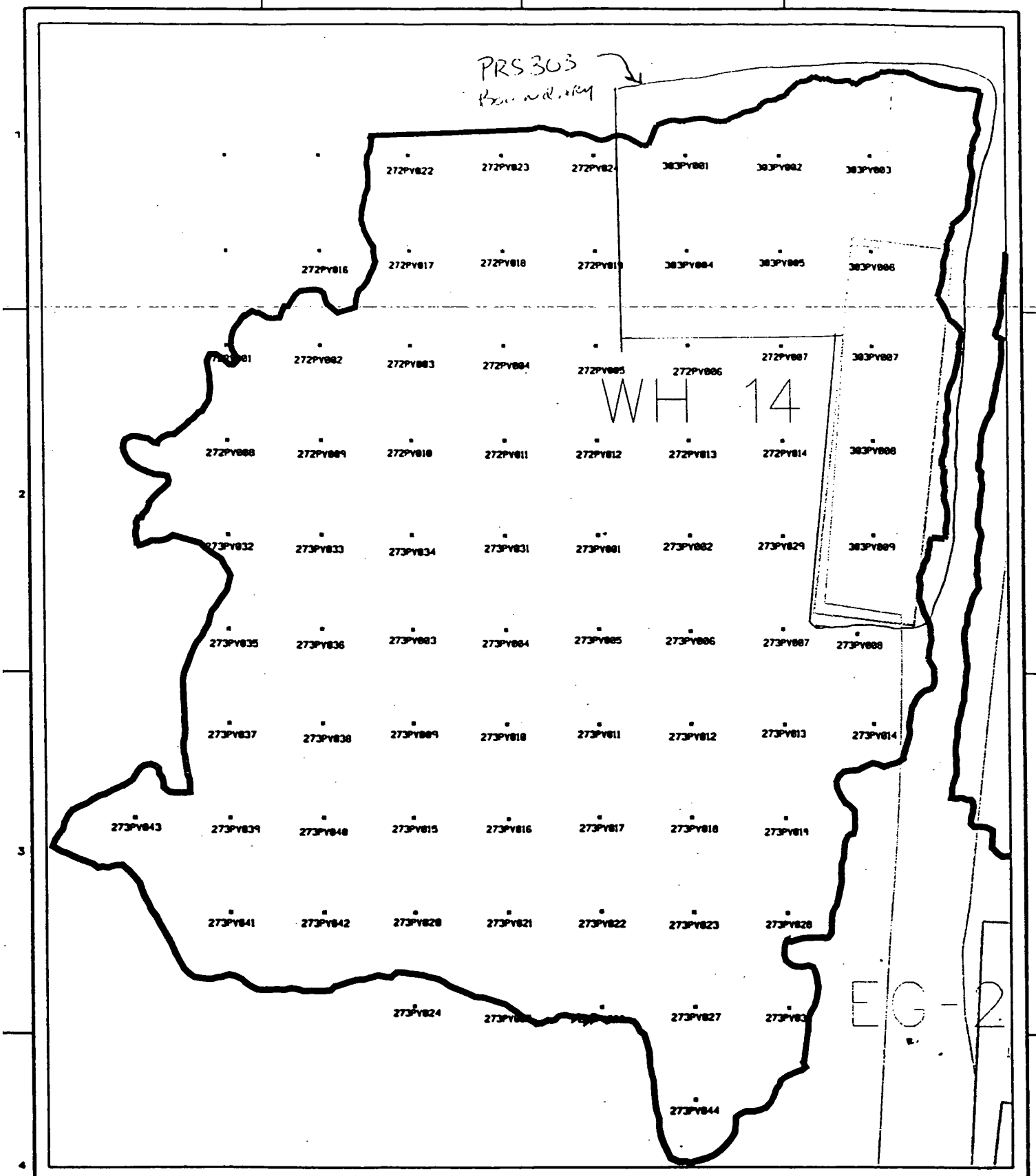
LEGEND:
= mrem/hr (γ) whole body
E = mrem/hr (β+n+γ) extremity on contact
△# = mrem/hr neutron
[#] = air sample number
(#) = swipe number
(# /α) or /β = direct contamination measurement in dpm/100cm2

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
Fidler	3855-3967	3-31-05
Fidler	3815-3968	3-31-05
	N/A	

[redacted]	HP# 5520 4992	Date: 12-10-04
[redacted] N/A	HP#	Date:
Counted by: (Print) N/A [redacted]	A268/530	
Reviewed/Approved by (S [redacted]	HP# 7348	Date: 12/13/04
Reviewed/Approved by: (Print) [redacted]		

ML-9620 (2/98)



MOUND
Environmental Restoration Geographic Information System

UNCLASSIFIED

A269/530

STATION / J

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02391
File ID: 2SC00108.s0
Priority: Yes

Description\Location 303PV001
303 PV 001
Long Count

Collector: 5349
Date Received: 08/24/04
Date Collected: 08/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137	*	0.04	0.05
Pb-210		0.81	0.74
Ra-226		1.28 ✓	0.82
Ac-227 (D)	*	0	0.28
Th-230	*	0 ✓	7.3
Th-232 (D)		0.83 ✓	0.19
Pu-238	*	0 ✓	17.09
Am-241	*	0.03	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/26/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A 270/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02392
File ID: 2SC00109.s0
Priority: Yes

Description\Location 303PV002
303 PV 002
Long Count

Collector: 5349
Date Received: 08/24/04
Date Collected: 08/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.05
Cs-137	*	0.03	0.05
Pb-210	*	0.21	0.75
Ra-226		1.03 ✓	0.82
Ac-227 (D)	*	0.02	0.29
Th-230	*	0.4 ✓	6.98
Th-232 (D)		0.83 ✓	0.22
Pu-238	*	7.63 ✓	16.88
Am-241	*	0.02	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/26/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A271/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02477
File ID: 2SC00144.s0
Priority: Yes

Description\Location
303 PV 003A
LONG

303PV003A

Collector: 5436
Date Received: 08/30/04
Date Collected: 08/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0	0.04
Pb-210	*	0.47	0.53
Ra-226		0.74 ✓	0.71
Ac-227 (D)	*	0	0.24
Th-230	*	0.44 ✓	5.83
Th-232 (D)		0.68 ✓	0.21
Pu-238	*	2.26 ✓	12.66
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 08/31/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A 272/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02214
File ID: 6SC00395.s0
Priority: Yes

Description\Location
303 PV 004
Long Count

303PV004

Collector: 4992
Date Received: 08/14/04
Date Collected: 08/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.03
Cs-137		0.03	0.03
Pb-210	*	0.34	0.83
Ra-226	*	0.68 ✓	0.71
Ac-227 (D)	*	0	0.38
Th-230	*	0	8.45
Th-232 (D)		0.66 ✓	0.12
Pu-238	*	9.65 ✓	22.34
Am-241	*	0.01	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/16/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A273/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02394
File ID: 2SC00111.s0
Priority: Yes

Description\Location
303 PV 005
Long Count

303PV005

Collector: 5349
Date Received: 08/24/04
Date Collected: 08/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.05
Cs-137	*	0.02	0.04
Pb-210	*	0.5	0.68
Ra-226		1.35 ✓	0.8
Ac-227 (D)	*	0	0.27
Th-230	*	1.21 ✓	6.95
Th-232 (D)		0.68 ✓	0.2
Pu-238	*	0 ✓	16.18
Am-241	*	0.02	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/26/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A 274/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02395
File ID: 2SC00112.s0
Priority: Yes

Description\Location
303 PV 006
Long Count

303PV006

Collector: 5349
Date Received: 08/24/04
Date Collected: 08/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.07
Cs-137	*	0.04	0.06
Pb-210	*	0.65	0.74
Ra-226		1.81 ✓	0.88
Ac-227 (D)	*	0	0.32
Th-230	*	0 ✓	8.19
Th-232 (D)		0.93 ✓	0.21
Pu-238	*	0 ✓	17.59
Am-241	*	0.02	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/26/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A275/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02217
File ID: 6SC00398.s0
Priority: Yes

Description\Location
303 PV 007
Long Count

303PV007

Collector: 4992
Date Received: 08/14/04
Date Collected: 08/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.03
Cs-137		0.03	0.03
Pb-210	*	0.39	0.87
Ra-226		1.24 ✓	0.74
Ac-227 (D)	*	0	0.42
Th-230	*	0.75	8.52
Th-232 (D)		0.87 ✓	0.08
Pu-238	*	8.46 ✓	22.78
Am-241	*	0.05	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/16/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A276/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02312
File ID: 1SC00649.s0
Priority: Yes

Description\Location
PRS 303 008 A
Long Count

303PV008A

Collector: 4992
Date Received: 10/07/04
Date Collected:08/17/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.09	0.06
Cs-137	*	0.03	0.06
Pb-210	*	0.64	0.96
Ra-226		2.63 ✓	0.88
Ac-227 (D)	*	0.21	0.33
Th-230	*	1.91	9.68
Th-232 (D)		1.19 ✓	0.21
Pu-238	*	10.36 ✓	15.43
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/07/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A 277/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02219
File ID: 6SC00400.s0
Priority: Yes

Description\Location
303 PV 009
Long Count

303PV009

Collector: 4992
Date Received: 08/14/04
Date Collected: 08/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.03	0.02
Cs-137		0.03	0.03
Pb-210	*	0.66	0.76
Ra-226		1.12 ✓	0.78
Ac-227 (D)	*	0.2	0.36
Th-230	*	1.74	7.9
Th-232 (D)		0.61 ✓	0.12
Pu-238	*	0 ✓	24.08
Am-241	*	0.01	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

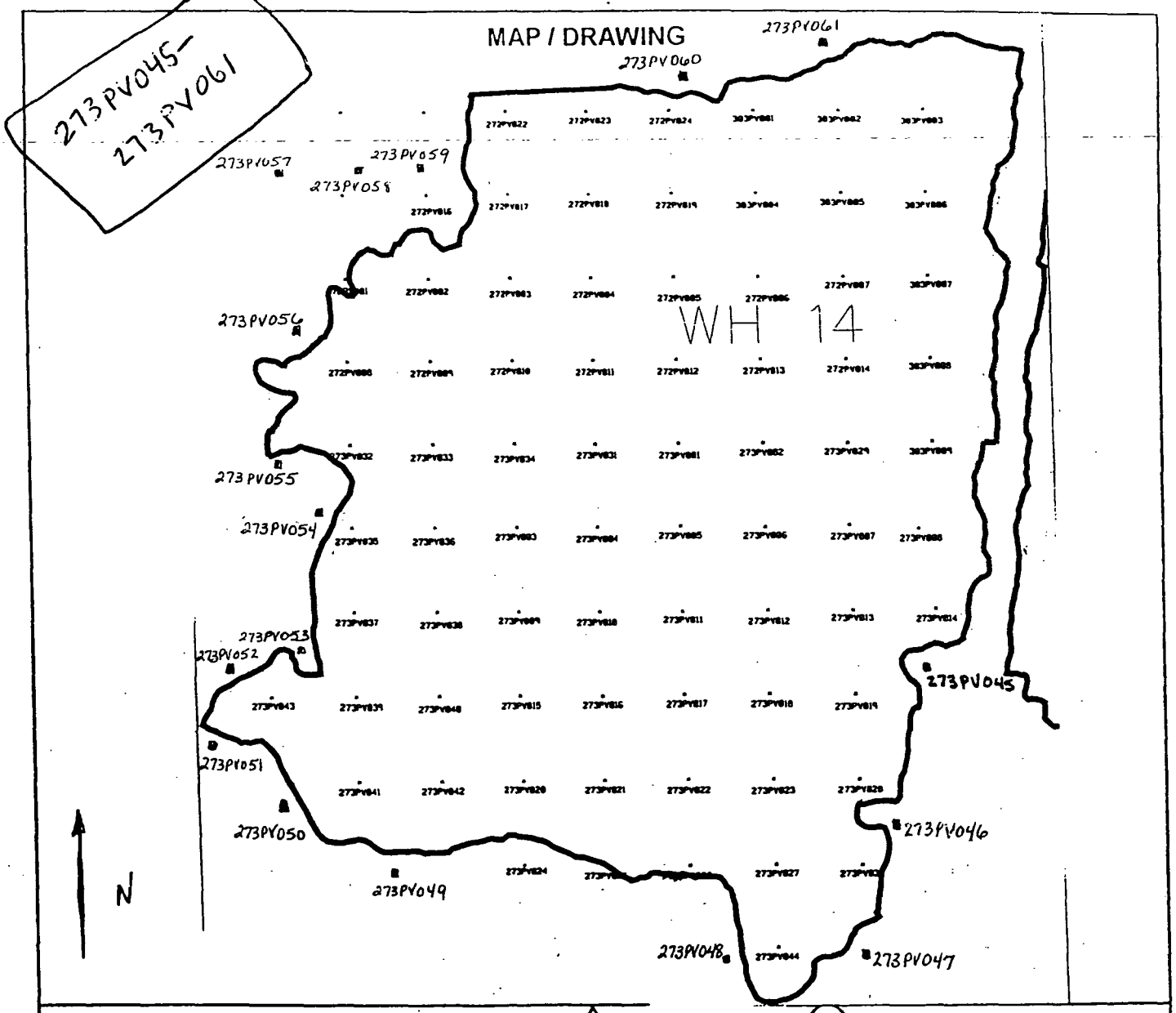
Date: 08/16/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A 278/530

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) PRS - 272, 273 & 303	SURVEY NO. 04-ER-530
PURPOSE: PRE-VERIFICATION SOIL SAMPLES	RWP NO. N/A
	DATE: 10/4/04
	TIME: 1500

MAP / DRAWING



LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · · = radiological boundary

△# = mrem/hr neutron

= air sample number

(#) = swipe number

(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
SEE		
ATTACHED		

Completed [redacted]	HP# 5436	Date: 10/4/04	
Completed [redacted]			
Counted b [redacted]	HP#	Date:	
Counted b [redacted]		A279/530	
Reviewed/Approved by: [redacted]	7348	Date: 10/7/04	
Reviewed/Approved by: [redacted]			

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03030
File ID: 1SC00626.s0
Priority: Yes

Description\Location
PRS 273 PV 045
Long Count

273PV045

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.04
Cs-137		0.04	0.04
Pb-210	*	0.29	0.71
Ra-226		1.24 ✓	0.68
Ac-227 (D)	*	0.06	0.24
Th-230	*	0	7.33
Th-232 (D)		0.92 ✓	0.17
Pu-238	*	0 ✓	14.55
Am-241	*	0.02	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

page 3 of 19
1/2

A280/530
RSDS# 04-ER-530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03024
File ID: 2SC00300.s0
Priority: Yes

Description\Location
PRS 273 PV 046
Long Count

273PV046

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0	0.03
Pb-210	*	0.47	0.48
Ra-226		1.27	0.47
Ac-227 (D)	*	0.12	0.18
Th-230	*	0.89	4.94
Th-232 (D)		0.28	0.14
Pu-238	*	5.57	11.13
Am-241	*	0.03	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A281/530

RSDS# 04-ER-530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03025
File ID: 2SC00301.s0
Priority: Yes

Description\Location
PRS 273 PV 047
Long Count

273PV047

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.06
Cs-137	*	0	0.05
Pb-210		0.76	0.62
Ra-226		1.73 ✓	0.84
Ac-227 (D)	*	0	0.27
Th-230	*	4.44	6.77
Th-232 (D)		0.7 ✓	0.12
Pu-238	*	1.85 ✓	15.75
Am-241	*	0	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 10/4/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03026
File ID: 2SC00308.s0
Priority: Yes

Description\Location
PRS 273 PV 048
Long Count

273PV048

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.04
Cs-137		0.1	0.04
Pb-210		1.72	0.77
Ra-226		1.24 ✓	0.81
Ac-227 (D)	*	0	0.32
Th-230	*	0	8.2
Th-232 (D)		0.8 ✓	0.27
Pu-238	*	6.65 ✓	17.51
Am-241	*	0.03	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/2/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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1/F

A 283/530
RSDS# 04-ER-530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03027
File ID: 2SC00309.s0
Priority: Yes

Description\Location
PRS 273 PV 049
Long Count

273PV049

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.08
Cs-137	*	0.04	0.06
Pb-210		1.05	0.73
Ra-226		1.26 ✓	0.81
Ac-227 (D)	*	0.06	0.29
Th-230	*	0	7.73
Th-232 (D)		0.98 ✓	0.22
Pu-238	*	0 ✓	18.91
Am-241	*	0.07	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 10/2/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03028
File ID: 2SC00310.s0
Priority: Yes

Description\Location
PRS 273 PV 050
Long Count

273PV050

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.06	0.01
Cs-137	*	0	0.06
Pb-210		1.64	0.76
Ra-226		1.4 ✓	0.84
Ac-227 (D)	*	0	0.31
Th-230	*	0	7.6
Th-232 (D)		0.92 ✓	0.18
Pu-238	*	0 ✓	16.87
Am-241	*	0.03	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/2/04 Counted By: 5268 Analyzed By: 5288 Initials: [redacted]

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RSDS# 04-ER-530

A285/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03029
File ID: 2SC00311.s0
Priority: Yes

Description\Location
PRS 273 PV 051
Long Count

273PV051

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.1
Cs-137		0.36	0.06
Pb-210		2.19	1.01
Ra-226		2.45 ✓	1.09
Ac-227 (D)	*	0.14	0.38
Th-230	*	0	9.99
Th-232 (D)		1.66 ✓	0.28
Pu-238	*	2.98 ✓	23.6
Am-241	*	0.05	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments: Ra-226 stripped of U-235 contribution.

Date: 10/2/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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ICF RSDS# 04-ER-530 A286/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03031
File ID: 1SC00627.s0
Priority: Yes

Description\Location 273PV052
PRS 273 PV 052
Long Count

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.09
Cs-137		0.18	0.08
Pb-210		1.5	0.97
Ra-226		2.1 ✓	1.04
Ac-227 (D)	*	0.09	0.32
Th-230	*	0	9.62
Th-232 (D)		1.33 ✓	0.23
Pu-238	*	12.8 ✓	17.96
Am-241	*	0.05	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

ICF

A287/530
RSDS# 04-ER-530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03032
File ID: 1SC00640.s0
Priority: Yes

Description\Location
PRS 273 PV 053

273PV053

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137		0.11	0.07
Pb-210		1.29	0.78
Ra-226		2.25	0.8
Ac-227 (D)	*	0	0.3
Th-230	*	0	8.18
Th-232 (D)		1.1	0.23
Pu-238	*	3.14	15.14
Am-241	*	0.01	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/4/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A288/530

ICF RSDS# 04-ER-530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03033
File ID: 1SC00629.s0
Priority: Yes

Description\Location
PRS 273 PV 054
Long Count

273PV054

Collector: 5436
Date Received: 09/30/04
Date Collected: 09/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.07
Cs-137		0.23	0.08
Pb-210		1.45	1.02
Ra-226		2.35 ✓	0.93
Ac-227 (D)	*	0	0.51
Th-230	*	4.08	9.71
Th-232 (D)		0.95 ✓	0.26
Pu-238	*	4.12 ✓	19.39
Am-241	*	0.02	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/02/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

KF RSDS# 04-ER-530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03034
File ID: 1SC00630.s0
Priority: Yes

Description\Location 273PV055
PRS 273 PV 055
Long Count

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.05	0.07
Cs-137	*	0.04	0.05
Pb-210		1.44	0.75
Ra-226		1.37 ✓	0.87
Ac-227 (D)	*	0.01	0.3
Th-230	*	4.83	8.03
Th-232 (D)		1.22 ✓	0.16
Pu-238	*	3.54 ✓	14.3
Am-241	*	0.01	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/1/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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ICF RSDS # 04-ER-530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03035
File ID: 1SC00632.s0
Priority: Yes

Description\Location
PRS 273 PV 056
Long Count

273PV056

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.06
Cs-137		0.4	0.06
Pb-210		3.27	0.82
Ra-226		2.27 ✓	0.9
Ac-227 (D)	*	0.02	0.31
Th-230	*	3.69	8.35
Th-232 (D)		1.17 ✓	0.21
Pu-238	*	9.39 ✓	15.02
Am-241	*	0.01	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/2/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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RSDS# 04-ER-530
A291/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03036
File ID: 1SC00633.s0
Priority: Yes

Description\Location
PRS 273 PV 057
Long Count

273PV057

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137		0.45	0.07
Pb-210		3.21	0.89
Ra-226		1.92	0.81
Ac-227 (D)	*	0.03	0.31
Th-230	*	0.53	8.94
Th-232 (D)		1.19	0.21
Pu-238	*	0	17.61
Am-241	*	0.05	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/2/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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A292/530

RSDS# 01-ER-530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03037
File ID: 1SC00634.s0
Priority: Yes

Description\Location
PRS 273 PV 058
Long Count

273PV058

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.06	0.05
Cs-137		0.84	0.07
Pb-210		3.49	0.91
Ra-226		2.04	0.77
Ac-227 (D)	*	0.16	0.29
Th-230	*	0	8.7
Th-232 (D)		1.16	0.24
Pu-238	*	4.15	15.46
Am-241	*	0.02	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 10/2/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A293/530
RSDS# 04-ER-530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03038
File ID: 1SC00635.s0
Priority: Yes

Description\Location
PRS 273 PV 059
Long Count

273PV059

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137		0.46	0.07
Pb-210		3.37	0.81
Ra-226		2.11	0.9
Ac-227 (D)	*	0	0.31
Th-230	*	0	8.48
Th-232 (D)		1.11	0.23
Pu-238	*	0	17.05
Am-241	*	0.01	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 10/2/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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RSDS# 04-HR-530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03039
File ID: 1SC00636.s0
Priority: Yes

Description\Location 273PV060
PRS 273 PV 060
Long Count

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137		0.05	0.05
Pb-210		1.56	0.6
Ra-226		1.38 ✓	0.73
Ac-227 (D)	*	0	0.25
Th-230	*	0	6.86
Th-232 (D)		0.62 ✓	0.18
Pu-238	*	7.03 ✓	12.65
Am-241	*	0	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/2/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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A295/530
RSDS# 04-ER-530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03040
File ID: 1SC00637.s0
Priority: Yes

Description\Location 273PV061
PRS 273 PV 061
Long Count

Collector: 5436
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.06
Cs-137		0.14	0.04
Pb-210		1.58	0.65
Ra-226		2.08	0.77
Ac-227 (D)	*	0.17	0.23
Th-230	*	4.54	6.95
Th-232 (D)		0.89	0.13
Pu-238	*	0	12.99
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments: Ra-226 stripped of U-235 contribution.

Date: 10/2/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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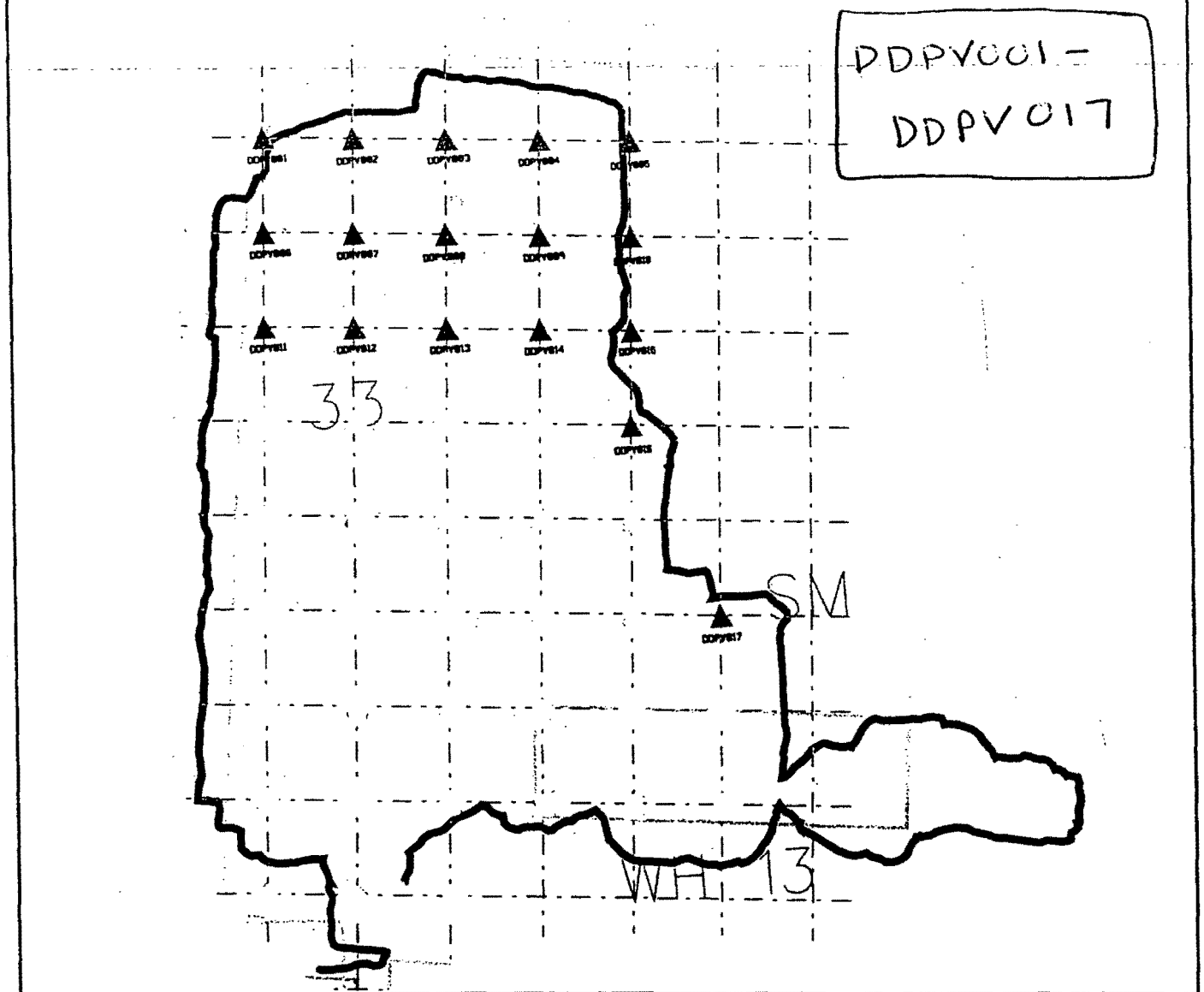
RSDS# 04-ER-530

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) SM - PP	SURVEY NO. 04-ER 541
PURPOSE: PRE-VERIFICATION SOIL SAMPLES TAKEN AT D&D LOCATIONS.	RWP NO. 1501
	DATE: 10-01-04
	TIME: 0800 hrs

MAP / DRAWING



LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · · = radiological boundary

= mrem/hr neutron
= air sample number
= swipe number
#/α or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5762-5719	03-09-05
N/A	N/A	N/A

Completed by (Signature)	HP#	Date:
[redacted]	5349	10-1-04
	5349	10-1-04
		A297/530
	5348	10/7/04

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02409
File ID: 2SC00120.s0
Priority: Yes

Description\Location DDPV001
D & D PV 001
LONG

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137		0.07	0.04
Pb-210		0.77	0.52
Ra-226		0.85 ✓	0.63
Ac-227 (D)	*	0.05	0.2
Th-230	*	0	5.93
Th-232 (D)		0.48 ✓	0.17
Pu-238	*	2.51 ✓	11.26
Am-241	*	0.01	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/31/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02410
File ID: 2SC00121.s0
Priority: Yes

Description\Location
D & D PV 002
LONG

DDPV 002

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0	0.04
Pb-210		0.52	0.5
Ra-226	*	0.58	0.66
Ac-227 (D)	*	0	0.22
Th-230	*	0	5.69
Th-232 (D)	*	0.22	0.23
Pu-238	*	4.82 ✓	10.75
Am-241	*	0	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/31/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

50770

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02454
File ID: 1SC00379.s0
Priority: Yes

Description\Location
D&D PV 003A
LONG

DDPV003A

Collector: 5436
Date Received: 8/26/04
Date Collected: 8/26/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.03
Cs-137		0.05	0.03
Pb-210	*	0.39	0.5
Ra-226		0.85	0.58
Ac-227 (D)	*	0.1	0.23
Th-230	*	4.56	5.14
Th-232 (D)		0.2	0.18
Pu-238	*	4.59	9.55
Am-241		0.07	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/31/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02412
File ID: 2SC00123.s0
Priority: Yes

Description\Location
D & D PV 004
LONG

DDPV004

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0	0.05
Pb-210		0.62	0.59
Ra-226		1.34	0.72
Ac-227 (D)	*	0	0.22
Th-230	*	4.46	5.75
Th-232 (D)		0.73	0.18
Pu-238	*	1.54	13.64
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 8/31/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02413
File ID: 2SC00124.s0
Priority: Yes

Description\Location
D & D PV 005
LONG

DDPV005

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0.02	0.03
Pb-210		0.59	0.43
Ra-226		1.13	0.58
Ac-227 (D)	*	0	0.19
Th-230	*	0.83	4.82
Th-232 (D)		0.3	0.12
Pu-238	*	0	12.22
Am-241	*	0	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/31/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02414
File ID: 1SC00368.s0
Priority: Yes

Description\Location
D & D PV006
Long Count

DDPV006

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0	0.07
Pb-210		1.15	0.67
Ra-226		1.81	0.76
Ac-227 (D)	*	0.05	0.25
Th-230	*	2.78	7.19
Th-232 (D)		0.52	0.24
Pu-238	*	12.31 ✓	12.7
Am-241	*	0.05	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/26/04 Counted By: 5268 Analyzed By: 5755 Initial [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02415
File ID: 1SC00369.s0
Priority: Yes

Description\Location
D & D PV007
Long Count

DDPV007

Collector: 5349
Date Received: 08/24/04
Date Collected: 08/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0	0.09
Pb-210	*	0.42	0.86
Ra-226		1.2	1.04
Ac-227 (D)	*	0.24	0.28
Th-230	*	0	9.15
Th-232 (D)		0.61	0.25
Pu-238	*	0 ✓	17.31
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/26/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02416
File ID: 1SC00370.s0
Priority: Yes

Description\Location
D & D PV008
Long Count

DDPV008

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0.02	0.06
Pb-210	*	0.59	0.73
Ra-226		1.7	0.9
Ac-227 (D)	*	0	0.36
Th-230	*	0	8.36
Th-232 (D)		0.64	0.23
Pu-238	*	0.7 ✓	16.03
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/24/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A305/530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02417
File ID: 1SC00371.s0
Priority: Yes

Description\Location
D & D PV009
Long Count

DDPV009

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.1
Cs-137	*	0	0.06
Pb-210	*	0.07	0.82
Ra-226	*	0.79	0.93
Ac-227 (D)	*	0	0.3
Th-230	*	0	8.23
Th-232 (D)	*	0.26	0.31
Pu-238	*	8.86	15.46
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/25/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A 306/530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02418
File ID: 1SC00372.s0
Priority: Yes

Description\Location
D & D PV 010
Long Count

DDPV 010

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137		0.04	0.04
Pb-210	*	0.3	0.66
Ra-226		1.37	0.74
Ac-227 (D)	*	0.21	0.24
Th-230	*	0	7.05
Th-232 (D)		0.54	0.22
Pu-238	*	0	13.64
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/25/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A307/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02419
File ID: ISC00373.s0
Priority: Yes

Description\Location
D & D PV011
Long Count

DDPV011

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.04
Cs-137	*	0.01	0.05
Pb-210		0.67	0.6
Ra-226		0.88	0.81
Ac-227 (D)	*	0.08	0.22
Th-230	*	0	6.8
Th-232 (D)		0.33	0.17
Pu-238	*	0	12.75
Am-241	*	0.01	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 8/25/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A308/530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02420
File ID: 1SC00374.s0
Priority: Yes

Description\Location
D & D PV012
Long Count

DDPV012

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.1
Cs-137	*	0	0.09
Pb-210	*	0.74	0.97
Ra-226		2.59	1.01
Ac-227 (D)	*	0.09	0.37
Th-230	*	0.54	10.51
Th-232 (D)		1.16	0.26
Pu-238	*	0.56 ✓	20.34
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/25/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A 309/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02421
File ID: 6SC00433.s0
Priority: Yes

Description\Location
D & D PV013
Long Count

DDPV 013

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.03
Cs-137	*	0.02	0.04
Pb-210	*	0.4	0.92
Ra-226		1.51	0.91
Ac-227 (D)	*	0	0.44
Th-230	*	3.33	9.04
Th-232 (D)		0.71	0.13
Pu-238		30.86 ✓	27.7
Am-241	*	0.08	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA
Bi-207	0.03	0.03

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/25/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02422
File ID: 6SC00434.s0
Priority: Yes

Description\Location
D & D PV014
Long Count

DDPV014

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.03	0.03
Cs-137	*	0	0.03
Pb-210		1.28	0.77
Ra-226		0.85	0.8
Ac-227 (D)	*	0.14	0.37
Th-230	*	0.03	8.31
Th-232 (D)		0.63	0.1
Pu-238	*	22.84 ✓	23.94
Am-241		0.09	.0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/25/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A311/530

KSD 04 ER 456

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02495
File ID: 2SC001[illegible]50
Priority: Yes

Description\Location
D & D PV 015B
Long Count

DDPV015B

Collector: 4992
Date Received: 08/31/04
Date Collected: 08/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137		0.03	0.03
Pb-210	*	0.38	0.55
Ra-226	*	0.3	0.75
Ac-227 (D)	*	0.05	0.23
Th-230	*	3.69	5.53
Th-232 (D)		0.53	0.17
Pu-238	*	5.27	13.32
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

COPY

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity <: MDA, MDA used in limits calculation

Comments:

Date: 09/01/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A312/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02424
File ID: 6SC00436.s0
Priority: Yes

Description\Location
D & D PV016
Long Count

DDPV016

Collector: 5349
Date Received: 8/24/04
Date Collected: 8/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.02	0.02
Cs-137	*	0	0.03
Pb-210	*	0.24	0.68
Ra-226	*	0.3	0.67
Ac-227 (D)	*	0	0.33
Th-230	*	0	6.87
Th-232 (D)		0.42	0.08
Pu-238	*	0	20.47
Am-241	*	0.04	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/25/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03157
File ID: 1SC00678.s0
Priority: Yes

Description\Location
D D PV 017
Long Count

DDPV017

Collector: 5349
Date Received: 10/08/04
Date Collected: 10/06/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0	0.06
Pb-210	*	0.34	0.72
Ra-226		1.21	0.77
Ac-227 (D)	*	0	0.27
Th-230	*	6.08	6.81
Th-232 (D)		0.75	0.17
Pu-238	*	1.83	14.1
Am-241	*	0.03	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/11/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A 314/530

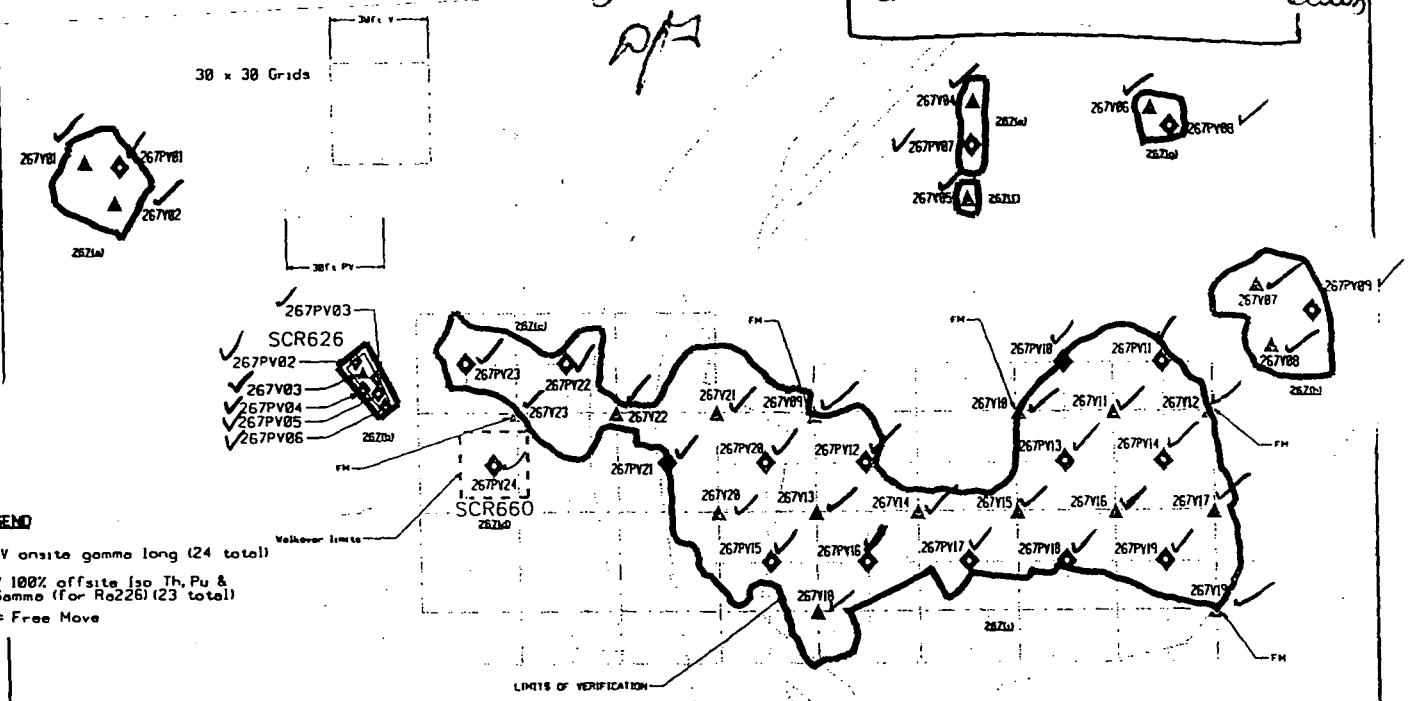
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) SPF PP	SURVEY NO. 04-ER-542
PURPOSE: PRE-VERIFICATION SOIL SAMPLES TAKEN AT FRS-267.	RWP NO. 1501
	DATE: 10-1-04
	TIME: 1300 hrs

MAP / DRAWING

267PV01-267PV24
& 267V01-267V23

OR



COPY

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — = radiological boundary

△# = mrem/hr neutron
□# = air sample number
(#) = swipe number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5762-5719	03-04-04
N/A	N/A	N/A

[redacted]

HP# 5345	Date: 10-1-04
HP# 5345	Date: 10-1-04
[redacted]	A315/530
HP# 3348	Date: 10/7/04

ML-9620 (2-98) Computer Generated

2 of 2 S

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02873
File ID: 1SC00560.s0
Priority: Yes

Description\Location
267 PV 01
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0.04	0.07
Pb-210		1.09	0.86
Ra-226		1.96 ✓	1.05
Ac-227 (D)	*	0	0.44
Th-230	*	0	9.44
Th-232 (D)		1.43 ✓	0.21
Pu-238	*	4.7 ✓	17.21
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

COPY

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 9/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A316/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02874
File ID: 1SC00561.s0
Priority: Yes

Description\Location
267 PV02
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.04	0.04
Cs-137	*	0.04	0.05
Pb-210	*	0.55	0.72
Ra-226		1.85 ✓	0.76
Ac-227 (D)	*	0.08	0.33
Th-230	*	0.75	7.59
Th-232 (D)		0.93 ✓	0.17
Pu-238	*	0 ✓	13.71
Am-241	*	0.02	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 9/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A317/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02875
File ID: ISC00562.s0
Priority: Yes

Description\Location
267 PV03
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.07
Cs-137		0.11	0.07
Pb-210	*	0.81	0.84
Ra-226		1.39	0.83
Ac-227 (D)	*	0.07	0.38
Th-230	*	0	8.65
Th-232 (D)		0.86	0.23
Pu-238	*	0	17.88
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 9/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A318/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02876
File ID: 1SC00563.s0
Priority: Yes

Description\Location
267 PV04
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.1
Cs-137	*	0.05	0.09
Pb-210		1.21	0.76
Ra-226		1.53 ✓	0.99
Ac-227 (D)	*	0.03	0.4
Th-230	*	3.23	8.54
Th-232 (D)		0.81 ✓	0.27
Pu-238	*	2.62 ✓	15.85
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 9/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A319/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02877
File ID: ISC00564.s0
Priority: Yes

Description\Location
267 PV05
Long Count

Collector: 5349
Date Received: 09/24/04
Date Collected: 09/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.04	0.07
Cs-137	*	0	0.08
Pb-210		1.13	0.86
Ra-226		1.71 ✓	0.97
Ac-227 (D)	*	0.09	0.4
Th-230	*	0	8.7
Th-232 (D)		0.92 ✓	0.21
Pu-238	*	3.58 ✓	15.8
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 09/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A320/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02878
File ID: 1SC00565.s0
Priority: Yes

Description\Location
267 PV06
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137		0.1	0.06
Pb-210		1.29	0.77
Ra-226		1.27 ✓	0.76
Ac-227 (D)	*	0.11	0.38
Th-230	*	0	8.34
Th-232 (D)		0.84 ✓	0.27
Pu-238		14.2 ✓	13.61
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 9/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A321/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02879
File ID: 1SC00566.s0
Priority: Yes

Description\Location
267 PV07
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137		0.05	0.04
Pb-210	*	0.34	0.74
Ra-226	*	0.79 ✓	0.85
Ac-227 (D)	*	0.14	0.32
Th-230	*	0.17	7.08
Th-232 (D)		0.9 ✓	0.16
Pu-238	*	0.43 ✓	14.83
Am-241	*	0.02	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 9/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A322/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02952
File ID: 18C00595.s0
Priority: Yes

Description\Location
267 PV 08
Long Count

Collector: 5349
Date Received: 09/28/04
Date Collected: 09/28/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0.02	0.07
Pb-210	*	0.67	0.88
Ra-226		2.65 ✓	0.88
Ac-227 (D)	*	0	0.32
Th-230	*	0	8.73
Th-232 (D)		1.03 ✓	0.25
Pu-238	*	0.09 ✓	15.88
Am-241	*	0.02	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY COPY

Comments:

Date: 09/29/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A323/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02919
File ID: 6SC00568.s0
Priority: Yes

Description\Location
PRS 267 PV09
Long Count

Collector: 5349
Date Received: 9/25/04
Date Collected: 9/25/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137	*	0.01	0.03
Pb-210	*	0.3	0.84
Ra-226		1.11 ✓	0.77
Ac-227 (D)	*	0.01	0.41
Th-230	*	0	8.37
Th-232 (D)		0.37 ✓	0.18
Pu-238	*	0 ✓	25.27
Am-241	*	0.05	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 9/27/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

A324/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02879
File ID: 1SC00566.30
Priority: Yes

Description\Location
267 PV 10
Long Count

Collector: 5349
Date Received: 09/24/04
Date Collected: 09/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137		0.05	0.04
Pb-210	*	0.34	0.74
Ra-226	*	0.79 ✓	0.85
Ac-227 (D)	*	0.14	0.32
Th-230	*	0.17	7.08
Th-232 (D)		0.9 ✓	0.16
Pu-238	*	0.43 ✓	14.83
Am-241	*	0.02	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

COPY

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 09/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A325/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02880
File ID: 1SC00567.s0
Priority: Yes

Description\Location
267 PV011
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0	0.06
Pb-210	*	0.4	0.81
Ra-226		1.07 ✓	0.71
Ac-227 (D)	*	0.02	0.36
Th-230	*	0	8.35
Th-232 (D)		0.77 ✓	0.24
Pu-238	*	6.62 ✓	13.97
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 9/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A 326/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02881
File ID: 1SC00568.s0
Priority: Yes

Description\Location
267 PV 12
Long Count

Collector: 5349
Date Received: 09/24/04
Date Collected: 09/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0.01	0.07
Pb-210		1.23	0.8
Ra-226		1.33 ✓	0.82
Ac-227 (D)	*	0	0.41
Th-230	*	0	8.79
Th-232 (D)		1.17 ✓	0.2
Pu-238	*	2.65 ✓	15.65
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 09/24/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A327/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02882
File ID: 1SC00569.s0
Priority: Yes

Description\Location
267 PV 13
Long Count

Collector: 5349
Date Received: 09/24/04
Date Collected: 09/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.05	0.06
Cs-137	*	0	0.09
Pb-210	*	0.71	1
Ra-226		1.37 ✓	1.23
Ac-227 (D)	*	0	0.5
Th-230	*	0	11.68
Th-232 (D)		3 ✓	0.28
Pu-238	*	0 ✓	19.9
Am-241	*	0	0.12

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

$\sum_{DOT}$ 0.04 nCi/g

Instrument type: High Purity Germanium

$\sum_{DOT}$ 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments: Th-230 MDA not met due to presence of Th-232.

Date: 09/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A328/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: G1.02883
File ID: 1SC00570.s0
Priority: Yes

Description\Location
267 PV 14
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0.02	0.04
Pb-210		1.05	0.6
Ra-226	*	0.66 ✓	0.8
Ac-227 (D)	*	0	0.3
Th-230	*	4.17	6.59
Th-232 (D)		0.81 ✓	0.15
Pu-238	*	0 ✓	12.7
Am-241	*	0.02	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 9/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A329/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02884
File ID: 18C00571.s0
Priority: Yes

Description\Location
267 PV 15
Long Count

Collector: 5349
Date Received: 09/24/04
Date Collected: 09/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.05
Cs-137	*	0.02	0.05
Pb-210		0.83	0.69
Ra-226		1.85	0.83
Ac-227 (D)	*	0	0.29
Th-230	*	0	8.39
Th-232 (D)		0.85	0.18
Pu-238	*	0	15.11
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 09/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A 330/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02885
File ID: 2SC00231.s0
Priority: Yes

Description\Location
267 PV 16
Long Count

Collector: 5349
Date Received: 09/24/04
Date Collected: 09/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.05	0.06
Cs-137		0.05	0.05
Pb-210	*	0.13	0.84
Ra-226	*	0.92 ✓	1.03
Ac-227 (D)	*	0	0.34
Th-230	*	1.41	7.98
Th-232 (D)		1.14 ✓	0.25
Pu-238	*	9.64 ✓	17.78
Am-241		0.08	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

COPY

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 09/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A331/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02886
File ID: 2SC00232.s0
Priority: Yes

Description\Location
267 PV 17
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.07
Cs-137		0.05	0.05
Pb-210	*	0.7	0.75
Ra-226		1.55 ✓	0.93
Ac-227 (D)	*	0	0.34
Th-230	*	0	8.67
Th-232 (D)		1.22 ✓	0.26
Pu-238	*	2.99 ✓	17.53
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

COPY

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 9/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A332/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02887
File ID: 2SC00233.s0
Priority: Yes

Description\Location
267 PV 18
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.07
Pb-210		0.83	0.74
Ra-226		1.82 ✓	0.96
Ac-227 (D)	*	0.03	0.31
Th-230	*	0	8.68
Th-232 (D)		1.37 ✓	0.21
Pu-238	*	0 ✓	18.28
Am-241	*	0.01	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 9/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A 333/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02888
File ID: 2SC00234.s0
Priority: Yes

Description\Location
267 PV 19
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.1
Cs-137		0.05	0.05
Pb-210		0.95	0.66
Ra-226		1.22 ✓	0.86
Ac-227 (D)	*	0	0.27
Th-230	*	2.29	6.67
Th-232 (D)		1.01 ✓	0.21
Pu-238	*	0 ✓	17.33
Am-241	*	0.01	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 9/24/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A334/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02889
File ID: 2SC00235.s0
Priority: Yes

Description\Location
267 PV 20
Long Count

Collector: 5349
Date Received: 09/24/04
Date Collected: 09/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.05	0.06
Cs-137	*	0.01	0.06
Pb-210	*	0.84	0.94
Ra-226		2.7 ✓	1.09
Ac-227 (D)	*	0.2	0.33
Th-230	*	0	9.72
Th-232 (D)		1.18 ✓	0.3
Pu-238	*	0 ✓	22.23
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 09/27/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A335/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02890
File ID: 2SC00236.s0
Priority: Yes

Description\Location
267 PV 21
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0.03	0.05
Pb-210		1.27	0.79
Ra-226		2.15 ✓	0.92
Ac-227 (D)	*	0	0.32
Th-230	*	2.87	8.01
Th-232 (D)		1.2 ✓	0.13
Pu-238	*	0 ✓	18.79
Am-241	*	0.01	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 9/27/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A 336/530

330/25

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02891
File ID: 2SC00237.s0
Priority: Yes

Description\Location
267 PV 22
Long Count

Collector: 5349
Date Received: 09/24/04
Date Collected: 09/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0.03	0.05
Pb-210		1.22	0.79
Ra-226		2.48 ✓	1.02
Ac-227 (D)	*	0.03	0.32
Th-230	*	0.15	8.94
Th-232 (D)		1.12 ✓	0.22
Pu-238	*	0 ✓	20.56
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

COPY

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity > MDA. MDA used in limits calculation

Comments:

Date: 09/27/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A337/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02892
File ID: 2SC00238.s0
Priority: Yes

Description\Location
267 PV 23
Long Count

Collector: 5349
Date Received: 9/24/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.07
Cs-137		0.05	0.05
Pb-210		1.55	0.86
Ra-226		2.35 ✓	0.98
Ac-227 (D)	*	0.19	0.29
Th-230	*	0	9.55
Th-232 (D)		1.18 ✓	0.24
Pu-238	*	4.29 ✓	19.63
Am-241	*	0.02	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments: Ra-226 stripped of U-235 contribution.

Date: 9/27/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A338/530

750029

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02823
File ID: 6SC00537.s0
Priority: Yes

Description\Location
PRS267 PV 024
Long Count

Collector: 5520
Date Received: 09/22/04
Date Collected: 09/22/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.04
Cs-137		0.11	0.04
Pb-210		1.21	1.08
Ra-226		1.7 ✓	0.92
Ac-227 (D)	*	0	0.51
Th-230	*	0	9.88
Th-232 (D)		1.04 ✓	0.13
Pu-238	*	12.77 ✓	29.51
Am-241	*	0.09	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

Date: 09/27/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A339/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03419
File ID: 1SC00772.s0
Priority: Yes

Description\Location
PRS 267 V01 (000169)
Long Count

267V01

Collector:
Date Received: 10/22/04
Date Collected: 10/22/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.04
Cs-137	*	0.03	0.04
Pb-210	*	0.12	0.59
Ra-226		1.17	0.64
Ac-227 (D)	*	0	0.29
Th-230	*	0.78	6.16
Th-232 (D)		0.64	0.18
Pu-238	*	0	11.33
Am-241	*	0.01	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 933g.

Date: 10/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03421
File ID: 1SC00774.s0
Priority: Yes

Description\Location
PRS 267 V02 (000171)
Long Count

267V02

Collector:
Date Received: 10/22/04
Date Collected: 10/22/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0.01	0.05
Pb-210		0.85	0.54
Ra-226		0.73	0.55
Ac-227 (D)	*	0.06	0.21
Th-230	*	0.05	6.16
Th-232 (D)		0.81	0.17
Pu-238	*	0	11.17
Am-241	*	0	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 967g.

Date: 10/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A341/530 ~~37~~ of 42

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03415
File ID: 6SC00655.s0
Priority: Yes

Description\Location
PRS 267 V03 (000166)
Long Count

267V03

Collector:
Date Received: 10/22/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.02
Cs-137		0.04	0.02
Pb-210		0.66	0.64
Ra-226		0.73	0.62
Ac-227 (D)	*	0.12	0.31
Th-230	*	1.52	7.05
Th-232 (D)		0.71	0.08
Pu-238	*	11.76	17.3
Am-241	*	0.03	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity > MDA. MDA used in limits calculation

Comments: Sample weight 926g.

Date: 10/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03418
File ID: 6SC00658.s0
Priority: Yes

Description\Location
PRS 267 V04 (000168)
Long Count

267V04

Collector:
Date Received: 10/22/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.03
Cs-137	*	0	0.03
Pb-210		1.11	0.66
Ra-226		1.7	0.69
Ac-227 (D)	*	0.1	0.32
Th-230	*	0	7.63
Th-232 (D)		0.76	0.08
Pu-238	*	10.8	17.11
Am-241	*	0.01	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample Weight 954g

Date: 10/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A 343/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03417
File ID: 6SC00657.s0
Priority: Yes

Description\Location
PRS 267 V05 (000167)
Long Count

267 V05

Collector:
Date Received: 10/22/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.02
Cs-137	*	0	0.03
Pb-210	*	0.24	0.72
Ra-226		1.6	0.67
Ac-227 (D)	*	0.14	0.34
Th-230	*	3.87	7.27
Th-232 (D)		0.75	0.09
Pu-238	*	0	20.08
Am-241	*	0.01	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: SAMPLE WEIGHT 924g.

Date: 10/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A344/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03424
File ID: 1SC00777.s0
Priority: Yes

Description\Location
PRS 267 V06 (000175)
Long Count

267V06

Collector:
Date Received: 10/22/04
Date Collected: 10/22/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137	*	0.01	0.06
Pb-210		0.79	0.79
Ra-226		1.4	0.92
Ac-227 (D)	*	0	0.38
Th-230	*	4.06	9.05
Th-232 (D)		2.56	0.2
Pu-238	*	0	16.24
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 896g.

Date: 10/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03426
File ID: 2SC00478.s0
Priority: Yes

Description\Location
PRS 267 V07 (000177)
Long Count

267 V07

Collector:
Date Received: 10/22/04
Date Collected: 10/22/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0	0.03
Pb-210		0.6	0.36
Ra-226		0.73	0.47
Ac-227 (D)	*	0	0.15
Th-230	*	0	4.34
Th-232 (D)		0.39	0.13
Pu-238	*	1.32	8.92
Am-241	*	0	0.04

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A346/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03425
File ID: 2SC00477.s0
Priority: Yes

Description\Location
PRS 267 V08 (000176)
Long Count

267V08

Collector:
Date Received: 10/21/04
Date Collected: 10/22/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.03
Cs-137	*	0.01	0.03
Pb-210	*	0.35	0.37
Ra-226		0.72	0.47
Ac-227 (D)	*	0	0.16
Th-230	*	0.32	4.01
Th-232 (D)		0.17	0.12
Pu-238	*	1.65	9.08
Am-241	*	0.02	0.04

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.01 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 916g.

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03396
File ID: 2SC00466.s0
Priority: Yes

Description\Location
PRS 267 V09 (000148)
Long Count

267V09

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0	0.04
Pb-210	*	0.51	0.53
Ra-226		1.53	0.59
Ac-227 (D)	*	0.1	0.19
Th-230	*	1.9	5.67
Th-232 (D)		0.73	0.17
Pu-238	*	0	12.2
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 970g.

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03411
File ID: 6SC00651.s0
Priority: Yes

Description\Location
PRS 267 V10 (000162)
Long Count

267V10

Collector:
Date Received: 10/22/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0	0.03
Pb-210		0.68	0.63
Ra-226		0.72	0.64
Ac-227 (D)	*	0.06	0.31
Th-230	*	0	6.36
Th-232 (D)		0.77	0.13
Pu-238	*	0	18.2
Am-241	*	0.03	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 978g.

Date: 10/22/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A349/530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03410
File ID: 6SC00650.s0
Priority: Yes

Description\Location
PRS 267 V11 (000161)
Long Count

267 V11

Collector:
Date Received: 10/22/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.02
Cs-137	*	0.01	0.02
Pb-210	*	0.43	0.61
Ra-226	*	0.3	0.65
Ac-227 (D)	*	0	0.3
Th-230	*	0	6.74
Th-232 (D)		0.74	0.07
Pu-238	*	10.45	16.02
Am-241	*	0	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 1029g.

Date: 10/22/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A350/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03405
File ID: 2SC00475.s0
Priority: Yes

Description\Location
PRS 267 V12 (000155)
Long Count

267 V12

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0	0.04
Pb-210		0.51	0.49
Ra-226		1.09	0.64
Ac-227 (D)	*	0	0.22
Th-230	*	0	5.48
Th-232 (D)		0.61	0.17
Pu-238	*	8.54	11.17
Am-241	*	0.01	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 935g.

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03406
File ID: 2SC00476.s0
Priority: Yes

Description\Location
PRS 267 V13 (000157)
Long Count

267V13

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0.02	0.03
Pb-210	*	0.46	0.5
Ra-226		1.08	0.61
Ac-227 (D)	*	0	0.22
Th-230	*	0	5.63
Th-232 (D)		0.8	0.17
Pu-238	*	5.76	11.15
Am-241	*	0.03	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 967g.

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03400
File ID: 2SC00470.s0
Priority: Yes

Description\Location
PRS 267 V14 (000151)
Long Count

267V14

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0	0.05
Pb-210	*	0.22	0.59
Ra-226		1.12	0.68
Ac-227 (D)	*	0.1	0.21
Th-230	*	0	5.57
Th-232 (D)		0.67	0.19
Pu-238	*	0	12.63
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments: Sample weight 889g.

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03401
File ID: 2SC00471.s0
Priority: Yes

Description\Location
PRS 267 V15 (000152)
Long Count

267 V15

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0	0.04
Pb-210	*	0.42	0.53
Ra-226		1.59	0.66
Ac-227 (D)	*	0.08	0.2
Th-230	*	0	5.9
Th-232 (D)		0.8	0.17
Pu-238	*	0	12.79
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments: Sample weight 939g.

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A354/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03412
File ID: 6SC00652.s0
Priority: Yes

Description\Location
PRS 267 V16 (000163)
Long Count

267V16

Collector:
Date Received: 10/22/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.02
Cs-137		0.03	0.02
Pb-210	*	0	0.62
Ra-226		1.2	0.59
Ac-227 (D)	*	0	0.3
Th-230	*	0	6.32
Th-232 (D)		0.58	0.09
Pu-238	*	5.92	16.76
Am-241	*	0.03	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 956g.

Date: 10/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A355/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03403
File ID: 2SC00473.s0
Priority: Yes

Description\Location
PRS 267 V17 (000153)
Long Count

267 V17

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0.01	0.03
Pb-210	*	0.05	0.47
Ra-226		0.75	0.5
Ac-227 (D)	*	0	0.18
Th-230	*	3.93	4.61
Th-232 (D)		0.54	0.15
Pu-238	*	0	10.75
Am-241	*	0	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 1037g.

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03399
File ID: 2SC00469.s0
Priority: Yes

Description\Location
PRS 267 V18 (000150)
Long Count

267V18

Collector:
Date Received: 10/21/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0	0.04
Pb-210		0.79	0.46
Ra-226		1.42	0.62
Ac-227 (D)	*	0	0.21
Th-230	*	1.64	5.89
Th-232 (D)		0.87	0.17
Pu-238	*	0	12.47
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 982g.

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A357/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03404
File ID: 2SC00474.s0
Priority: Yes

Description\Location
PRS 267 V19 (000154)
Long Count

267V19

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0.02	0.04
Pb-210	*	0.19	0.52
Ra-226		0.79	0.63
Ac-227 (D)	*	0	0.22
Th-230	*	2.49	5.68
Th-232 (D)		0.92	0.18
Pu-238	*	1.9	12.13
Am-241	*	0.02	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 1006g.

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03398
File ID: 2SC00468.s0
Priority: Yes

Description\Location
PRS 267 V20 (000149)
Long Count

267V20

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.04	0.04
Cs-137	*	0	0.04
Pb-210	*	0.25	0.56
Ra-226		1.57	0.6
Ac-227 (D)	*	0.01	0.22
Th-230	*	0.69	5.83
Th-232 (D)		0.6	0.2
Pu-238	*	5.36	11.97
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 940g.

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A359/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03409
File ID: 6SC00649.s0
Priority: Yes

Description\Location
PRS 267 V21 (000160)
Long Count

267V21

Collector:
Date Received: 10/22/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.02
Cs-137	*	0	0.03
Pb-210		1.02	0.69
Ra-226		0.71	0.63
Ac-227 (D)	*	0.03	0.35
Th-230	*	0	7.71
Th-232 (D)		0.79	0.09
Pu-238	*	0	19.87
Am-241	*	0.01	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 896g.

Date: 10/22/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03407
File ID: 6SC00647.s0
Priority: Yes

Description\Location
PRS 267 V22 (000158)
Long Count

267V22

Collector:
Date Received: 10/22/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.03
Cs-137	*	0.01	0.03
Pb-210		1.38	0.72
Ra-226		1.43	0.78
Ac-227 (D)	*	0.27	0.37
Th-230	*	1.42	8.65
Th-232 (D)		1.73	0.09
Pu-238	*	11.47	21.14
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 894g.

Date: 10/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03395
File ID: 6SC00645.s0
Priority: Yes

Description\Location
PRS 267 ~~V3~~ V23 (000147)
Long Count cgx 10-28-04

267V23

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.07	0.03
Cs-137	*	0.02	0.03
Pb-210		0.74	0.52
Ra-226		1.76	0.69
Ac-227 (D)	*	0	0.22
Th-230	*	3	5.4
Th-232 (D)		0.72	0.17
Pu-238	*	0	12.61
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 927g.

Date: 10/23/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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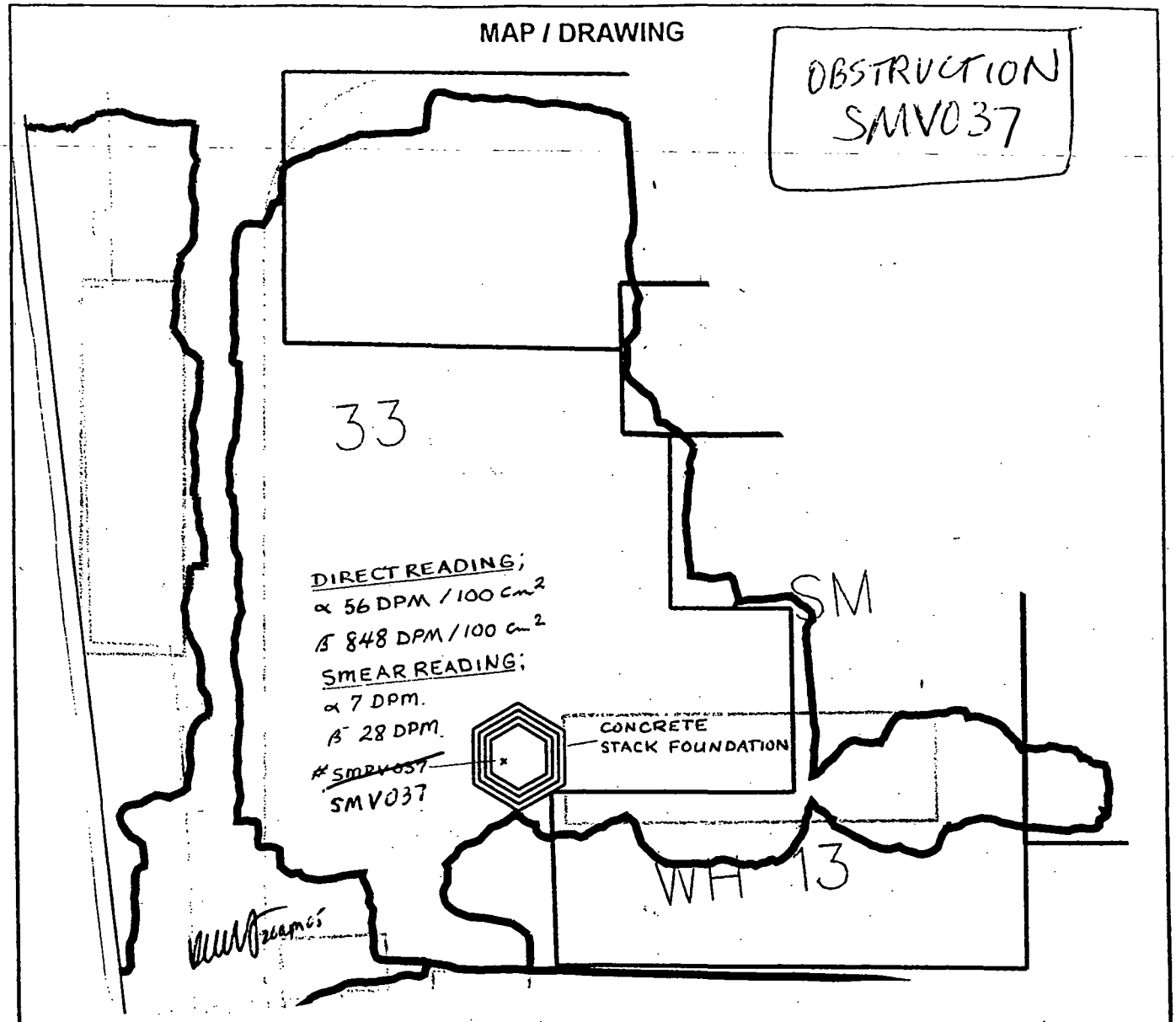
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) SM-PP	SURVEY NO. 04-ER-557
PURPOSE: DIRECT READING AND SMEAR SURVEY TAKEN AT, SMPV037 SAMPLE VERIFICATION LOCATION.	RWP NO. NA
	DATE: 10-13-04
	TIME: 1500 hrs

MAP / DRAWING



LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — = radiological boundary
= mrem/hr neutron
= air sample number
= swipe number
#/α or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
3030	5823	5-25-05
2360	5691-5811	8-4-05
N/A	N/A	N/A

Completed by (Signature)	HP#	Date:
[redacted]	5349	10-13-04
	5349	10-13-04
	3348	10/20/04

ML-9620 (2-98) Computer Generated

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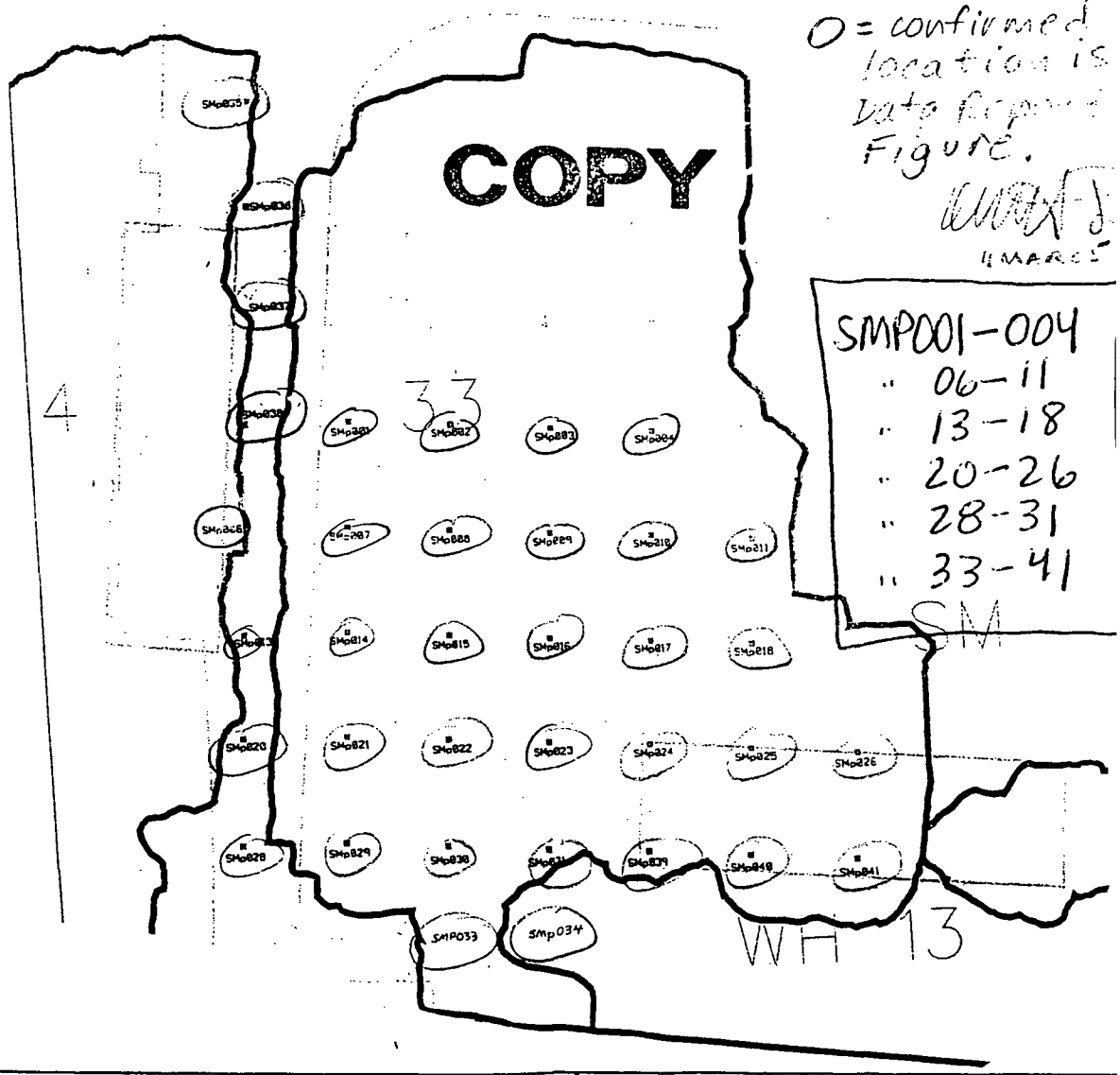
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) SM-PP	SURVEY NO. 04-ER-552
PURPOSE: PRE-VERIFICATION SOIL SAMPLES TAKEN AT SMP LOCATIONS.	RWP NO. 1501
	DATE: 10-5-04
	TIME: 1600 hrs

MAP / DRAWING



LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · · = radiological boundary
(#) = mrem/hr neutron
(#) = swipe number
[#] = air sample number
(#/α) or /β = direct contamination measurement in dpm/100 c

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5691-5811	8-04-05

[redacted]

HP# 5340	Date: 10-
HP# 5340	Date: 10-
HP# 7248	Date:

ML-9620 (2-88) Computer Generated

H 504/530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03254
File ID: 2SC00406.s0
Priority: Yes

Description\Location
Pre Verification SMP 001
Long Count

SMP001 *

Collector: 5349
Date Received: 10/13/04
Date Collected: 10/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0.03	0.04
Pb-210		0.9	0.55
Ra-226		1.86	0.72
Ac-227 (D)	*	0	0.25
Th-230	*	2.32	6.06
Th-232 (D)		0.76	0.16
Pu-238	*	1.61	13.6
Am-241	*	0.03	0.06

COPY

* Sample ID on Data Report graphic added for reference.
UMARS

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT}- 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/14/04 **Counted By:** 5268 **Analyzed By:** 5288 **Initials** [redacted]

A365/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03255
File ID: 2SC00407.s0
Priority: Yes

Description\Location
Pre Verification SMP 002
Long Count

SMp 002

Collector: 5349
Date Received: 10/13/04
Date Collected: 10/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137		0.12	0.05
Pb-210	*	0.56	0.57
Ra-226		1.62	0.7
Ac-227 (D)	*	0.05	0.22
Th-230	*	0	6.5
Th-232 (D)		0.86	0.17
Pu-238	*	2.41	13.26
Am-241	*	0.01	0.06

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/14/04 **Counted By:** 5268 **Analyzed By:** 5288 **Initials** [redacted]

4847

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02078
File ID: 1SC00205.S0
Priority: Yes

Description\Location
SM Pre-Verification #3
LONG

SMp 003

Collector: 5349
Date Received: 8/4/04
Date Collected: 8/4/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.12
Cs-137	*	0.02	0.05
Pb-210	*	0.42	0.8
Ra-226		1.44	0.81
Ac-227 (D)	*	0	0.34
Th-230	*	3.8	8.37
Th-232 (D)		0.48 ✓	0.24
Pu-238	*	10.02 ✓	15.81
Am-241	*	0.01	0.1

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/5/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

1530

5247

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02079
File ID: 1SC00212.S0
Priority: Yes

Description\Location
SM Pre-Verification #4
LONG

SMp004

Collector: 5349
Date Received: 8/4/04
Date Collected: 8/4/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.08
Cs-137	*	0	0.1
Pb-210	*	0.36	0.81
Ra-226	*	0.59	0.98
Ac-227 (D)	*	0.04	0.37
Th-230	*	2.3	8.8
Th-232 (D)		0.4 ✓	0.36
Pu-238	*	5.07 ✓	15.95
Am-241	*	0	0.1

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/5/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03481
File ID: 2SC00508.s0
Priority: Yes

Description\Location
SMp 006
Long Count

SMp006A

Collector: 5436
Date Received: 10/27/04
Date Collected: 10/27/04

Final FV Sample @ base

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0	0.04
Pb-210	*	0.27	0.41
Ra-226		0.76	0.49
Ac-227 (D)	*	0.03	0.16
Th-230	*	0	4.54
Th-232 (D)	*	0.11	0.16
Pu-238	*	0	10.37
Am-241	*	0.01	0.04

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/28/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A 501/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03256
File ID: 2SC00408.s0
Priority: Yes

Description\Location
Pre Verification SMP 007
Long Count

SMp 007

Collector: 5349
Date Received: 10/13/04
Date Collected: 10/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0	0.04
Pb-210	*	0.37	0.5
Ra-226		1.24	0.61
Ac-227 (D)	*	0	0.2
Th-230	*	2.74	5.29
Th-232 (D)		0.5	0.16
Pu-238		14.6	12.58
Am-241	*	0.04	0.05

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/14/04 **Counted By:** 5268 **Analyzed By:** 5288 **Initials** [redacted]

[redacted] 370/530

8047

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02080
File ID: 1SC00213.S0
Priority: Yes

Description\Location
SM Pre-Verification #8
LONG

SMp008

Collector: 5349
Date Received: 8/4/04
Date Collected: 8/4/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.15
Cs-137	*	0	0.1
Pb-210	*	0.21	1.36
Ra-226		1.76	1.42
Ac-227 (D)	*	0.11	0.43
Th-230	*	0	13.47
Th-232 (D)		1.48	0.22
Pu-238	*	0	24.61
Am-241	*	0	0.15

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/5/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02081
File ID: 1SC00214.S0
Priority: Yes

Description\Location
SM Pre-Verification #9
LONG

SMp 009

Collector: 5349
Date Received: 8/4/04
Date Collected: 8/4/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.15
Cs-137	*	0.02	0.06
Pb-210	*	0.41	1.01
Ra-226	*	0.8	1.23
Ac-227 (D)	*	0.28	0.32
Th-230	*	0.24	9.15
Th-232 (D)		0.7 ✓	0.33
Pu-238	*	5.07 ✓	17.35
Am-241	*	0.05	0.1

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/5/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

8/5/04 530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02082
File ID: 1SC00215.S0
Priority: Yes

Description\Location
SM Pre-Verification #10
LONG

SMp010

Collector: 5349
Date Received: 8/4/04
Date Collected: 8/4/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.08
Cs-137	*	0	0.07
Pb-210	*	0.29	0.82
Ra-226	*	0.55	0.97
Ac-227 (D)	*	0.03	0.32
Th-230	*	0	9.59
Th-232 (D)		0.52	0.27
Pu-238	*	0	17.82
Am-241	*	0	0.1

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/5/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

1530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02083
File ID: 1SC00216.S0
Priority: Yes

Description\Location
SM Pre-Verification #11
LONG

SMp011

Collector: 5349
Date Received: 8/4/04
Date Collected: 8/4/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.11
Cs-137	*	0	0.07
Pb-210	*	0.49	0.8
Ra-226		0.94	0.93
Ac-227 (D)	*	0	0.33
Th-230	*	0	8.8
Th-232 (D)		0.51	0.28
Pu-238	*	0	16.44
Am-241	*	0	0.1

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/5/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03482
File ID: 2SC00509.s0
Priority: Yes

Description\Location
SMp 013
Long Count

SMp 013 A

Collector: 5436
Date Received: 10/27/04
Date Collected: 10/27/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0	0.03
Pb-210	*	0.37	0.44
Ra-226		0.64	0.5
Ac-227 (D)	*	0	0.18
Th-230	*	0	4.6
Th-232 (D)		0.28	0.11
Pu-238	*	0	10.18
Am-241	*	0	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/28/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A375/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03257
File ID: 2SC00409.s0
Priority: Yes

Description\Location SMP 014
Pre Verification SMP 014
Long Count

Collector: 5349
Date Received: 10/13/04
Date Collected: 10/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.04
Cs-137	*	0	0.04
Pb-210	*	0	0.47
Ra-226		0.72	0.58
Ac-227 (D)	*	0	0.2
Th-230	*	3.01	4.54
Th-232 (D)		0.43	0.17
Pu-238	*	3.43	10.67
Am-241	*	0.04	0.05

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/14/04 **Counted By:** 5268 **Analyzed By:** 5288 **Initials** [redacted]

A 396/530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02084
File ID: 6SC00365.S0
Priority: Yes

Description\Location
SM Pre-Verification #15
Long Count

SMp 015

Collector: 5349
Date Received: 8/4/04
Date Collected: 8/4/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.04
Cs-137	*	0	0.04
Pb-210		1.39	0.9
Ra-226		1.78	0.9
Ac-227 (D)	*	0.06	0.45
Th-230	*	0	9.99
Th-232 (D)		0.76 ✓	0.13
Pu-238	*	11.88 ✓	27.21
Am-241	*	0.02	0.11

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/5/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

A 8/5/04 530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02085
File ID: 6SC00366.S0
Priority: Yes

Description\Location SMp 016
SM Pre-Verification #16
Long Count

Collector: 5349
Date Received: 8/4/04
Date Collected: 8/4/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0	0.04
Pb-210		1.49	0.83
Ra-226		1.83	0.9
Ac-227 (D)	*	0.06	0.44
Th-230		9.76	8.98
Th-232 (D)		0.79 ✓	0.12
Pu-238	*	4.49 ✓	28.53
Am-241	*	0.04	0.1

rerun (see SMp 016 rerte. for lower MDA)

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/5/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials:** [redacted]

A318/530

17d48

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02085
File ID: 6SC00375.S0
Priority: Yes

Description\Location SMp 016

SM Pre-Verification #16 Retest
Long

Collector: 5349
Date Received: 08/04/04
Date Collected: 08/04/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.02
Cs-137	*	0	0.02
Pb-210		0.72	0.41
Ra-226		1.44	0.41
Ac-227 (D)	*	0.03	0.18
Th-230	*	1.22	3.92 ✓
Th-232 (D)		0.91 ✓	0.05
Pu-238		20.01 ✓	11.43
Am-241		0.04	0.04

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/10/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02086
File ID: 6SC00367.S0
Priority: Yes

Description\Location
SM Pre-Verification #17
Long Count

SMp017

Collector: 5349
Date Received: 8/4/04
Date Collected: 8/4/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.04
Cs-137	*	0	0.04
Pb-210		1.69	0.82
Ra-226		1.28	0.92
Ac-227 (D)	*	0.32	0.41
Th-230	*	3.12	9.62
Th-232 (D)		0.46	0.1
Pu-238		31.05	26.28
Am-241	*	0.08	0.1

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 8/5/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

[redacted] 530/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02087
File ID: 6SC00368.S0
Priority: Yes

Description\Location
SM Pre-Verification #18
Long Count

SMp018

Collector: 5349
Date Received: 8/4/04
Date Collected: 8/4/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.04
Cs-137	*	0	0.03
Pb-210	*	0.04	0.83
Ra-226		1.05	0.76
Ac-227 (D)	*	0	0.38
Th-230	*	0.22	7.88
Th-232 (D)		0.67 ✓	0.1
Pu-238	*	9.52 ✓	21.88
Am-241	*	0	0.09

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 8/5/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03483
File ID: 2SC00510.s0
Priority: Yes

Description\Location
SMp 020
Long Count

SMp 020 D

Collector: 5436
Date Received: 10/27/04
Date Collected: 10/27/04

Final sample of base following RI remediation

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137	*	0	0.04
Pb-210		0.52	0.49
Ra-226		0.61	0.58
Ac-227 (D)	*	0.01	0.2
Th-230	*	0	5.26
Th-232 (D)		0.57	0.12
Pu-238	*	2.22	11.89
Am-241	*	0	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/28/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A382/530

23847

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03258
File ID: 2SC00410.s0
Priority: Yes

Description\Location
Pre Verification SMP 021
Long Count

SMp 021

Collector: 5349
Date Received: 10/13/04
Date Collected: 10/13/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137	*	0	0.04
Pb-210		0.72	0.46
Ra-226		1.17	0.59
Ac-227 (D)	*	0	0.2
Th-230	*	0.64	5.29
Th-232 (D)		0.71 ✓	0.15
Pu-238	*	12.4 ✓	12.51
Am-241		0.05	0.05

COPY

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/14/04 **Counted By:** 5268 **Analyzed By:** 5288 **Initials** [redacted]

A383/530

2584

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02149
File ID: 1SC00265.S0
Priority: Yes

Description\Location
SMP-022 Pre-Verification-A
Long Count

SMP022A

Collector: 5349
Date Received: 08/12/04
Date Collected: 08/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0	0.06
Pb-210	*	0.2	0.78
Ra-226		0.98	0.93
Ac-227 (D)	*	0.09	0.3
Th-230	*	0	8.92
Th-232 (D)		0.5 ✓	0.19
Pu-238	*	4.19 ✓	15.6
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/13/04 **Counted By:** 5288 **Analyzed By:** 5288 **Initials** [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02089
File ID: 6SC00370.S0
Priority: Yes

Description\Location
SM Pre-Verification #23
LONG

SMp023

Collector: 5349
Date Received: 8/4/04
Date Collected: 8/4/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.03
Cs-137	*	0	0.02
Pb-210		0.71	0.56
Ra-226		0.81	0.6
Ac-227 (D)	*	0.14	0.27
Th-230	*	0	6.36
Th-232 (D)		0.41 ✓	0.09
Pu-238	*	6.01 ✓	16.88
Am-241	*	0	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.03 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 8/5/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

/530

27f

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02150
File ID: 1SC00266.S0
Priority: Yes

Description\Location
SMP-024 Pre-Verification GB 08-13-04 SMp024
Long Count

Collector: 5349
Date Received: 08/12/04
Date Collected: 08/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0.02	0.05
Pb-210	*	0.6	0.68
Ra-226	*	0.66	0.86
Ac-227 (D)	*	0	0.35
Th-230	*	0	8.01
Th-232 (D)		0.73 ✓	0.16
Pu-238	*	5.28 ✓	13.44
Am-241	*	0.07	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/13/04 **Counted By:** 5288 **Analyzed By:** 5288 **Initials** [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02151
File ID: 6SC00379.S0
Priority: Yes

Description\Location
SMP-025 Pre-Verification-A
Long Count

SMp025A

Collector: 5349
Date Received: 08/12/04
Date Collected: 08/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.03	0.02
Cs-137		0.03	0.02
Pb-210	*	0.58	0.65
Ra-226		0.71	0.71
Ac-227 (D)	*	0.1	0.33
Th-230	*	1.51	7.01
Th-232 (D)		0.49	0.08
Pu-238		26.95	21.43
Am-241		0.15	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/13/04 **Counted By:** 5288 **Analyzed By:** 5288 **Initials** [redacted]

A387/530

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02091
File ID: 6SC00372.S0
Priority: Yes

Description\Location
SM Pre-Verification #26
LONG

SMp026

Collector: 5349
Date Received: 08/04/04
Date Collected: 08/04/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.02
Cs-137	*	0.01	0.02
Pb-210	*	0.06	0.57
Ra-226	*	0	0.63
Ac-227 (D)	*	0	0.26
Th-230	*	0	5.61
Th-232 (D)	*	0.05 ✓	0.07
Pu-238	*	7.3 ✓	18.57
Am-241	*	0.04	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/05/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

A388/

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03484
File ID: 2SC00511.s0
Priority: Yes

Description\Location
SMp 028
Long Count

SMp 028A

Collector: 5436
Date Received: 10/27/04
Date Collected: 10/27/04

Final sample @ base after road removal. [illegible]

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.07
Cs-137	*	0	0.04
Pb-210	*	0.46	0.62
Ra-226		1.35	0.71
Ac-227 (D)	*	0.12	0.23
Th-230	*	1.06	6.74
Th-232 (D)		0.67 ✓	0.2
Pu-238	*	0.19 ✓	13.54
Am-241	*	0.01	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/28/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A389/530

32d

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02143
File ID: 1SC00262.S0
Priority: Yes

Description\Location
SMP#029 Pre Verific.
Long Count

SMp029

Collector: 5349
Date Received: 08/11/04
Date Collected: 08/11/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.05	0.06
Cs-137	*	0.06	0.07
Pb-210	*	0.45	0.87
Ra-226	*	0.48	1.1
Ac-227 (D)	*	0.1	0.32
Th-230	*	0	9.67
Th-232 (D)		0.61 ✓	0.24
Pu-238	*	0.74 ✓	19.1
Am-241	*	0.04	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

COPY

Comments: Sample is inhomogeneous.

Date: 08/12/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initial** [redacted]

A396/5

33847

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02092
File ID: 1SC00217.S0
Priority: Yes

Description\Location
SM Pre-Verification #30
LONG

SMp030

Collector: 5349
Date Received: 08/04/04
Date Collected: 08/04/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.08
Pb-210		0.96	0.81
Ra-226	*	0.6	1.13
Ac-227 (D)	*	0.19	0.31
Th-230	*	5.36	9.13
Th-232 (D)		0.52 ✓	0.24
Pu-238	*	3.65 ✓	19.86
Am-241	*	0.06	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/05/04 **Counted By:** 5288 **Analyzed By:** 5288 **Initials** [redacted]

A391/530

3Ad

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02093
File ID: 1SC00218.S0
Priority: Yes

Description\Location
SM Pre-Verification #31
LONG

SMp031

Collector: 5349
Date Received: 08/04/04
Date Collected: 08/04/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137	*	0	0.06
Pb-210	*	0.29	0.7
Ra-226		0.82	0.71
Ac-227 (D)	*	0.02	0.27
Th-230	*	3.45	6.05
Th-232 (D)	*	0.13 ✓	0.22
Pu-238		46.24 ✓	16.43
Am-241		0.19	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.05 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/05/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A392/530

35 of 47

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 02094
File ID: 1SC00219.S0
Priority: Yes

Description\Location
SM Pre-Verification #33
LONG

SMp033 *

Collector: 5349
Date Received: 08 04 04
Date Collected: 08 04 04

* Same location as FRS7702
WUAC
HMAAS

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137		0.09	0.06
Pb-210	*	0	0.93
Ra-226		1.63	1
Ac-227 (D)	*	0.04	0.31
Th-230	*	0	9.98
Th-232 (D)	*	0.18 ✓	0.33
Pu-238	*	0 ✓	17.16
Am-241	*	0.03	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA, MDA used in limits calculation

Comments:

Date: 08/05/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A393/530

3 of 1

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02095
File ID: 1SC00220.S0
Priority: Yes

Description\Location
SM Pre-Verification #34
LONG

SMp034

Collector: 5349
Date Received: 08/04/04
Date Collected: 08/04/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.07
Cs-137		0.21	0.08
Pb-210	*	0.75	1.15
Ra-226		2.16	1.16
Ac-227 (D)	*	0.21	0.52
Th-230	*	0	11.98
Th-232 (D)		0.68 ✓	0.32
Pu-238	*	0.88 ✓	22.22
Am-241	*		0.13

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 08/05/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A394/580

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02913
File ID: 2SC00217.s0
Priority: Yes

Description\Location
SMP 035
Long Count

SMp035

Collector: 5349
Date Received: 09/25/04
Date Collected: 09/25/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.06
Pb-210		1.28	0.84
Ra-226		1.99	1.03
Ac-227 (D)	*	0.21	0.28
Th-230	*	0	9.55
Th-232 (D)		1.1 ✓	0.25
Pu-238	*	9.29 ✓	19.91
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA
Bi-210m	0	0.07

COPY

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Ra-226 stripped of U-235 contribution.

Date: 09/27/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A395/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03485
File ID: 2SC00512.s0
Priority: Yes

Description\Location
SMp 036
Long Count

SMp036A

Collector: 5436
Date Received: 10/27/04
Date Collected: 10/27/04

Final sample @ base after road removed.

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0	0.05
Pb-210	*	0.68	0.71
Ra-226		2.11	0.81
Ac-227 (D)	*	0	0.29
Th-230	*	1.26	7.58
Th-232 (D)		0.68	0.25
Pu-238	*	2.84	15.37
Am-241	*	0.04	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/28/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A 396/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03486
File ID: 2SC00513.s0
Priority: Yes

Description\Location
SMp 037
Long Count

SMp 037A

Collector: 5436
Date Received: 10/27/04
Date Collected: 10/27/04

*Final sample @ base after Road removed.

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137		0.04	0.04
Pb-210		1.11	0.74
Ra-226		1.7	0.8
Ac-227 (D)	*	0.11	0.25
Th-230	*	3.39	6.66
Th-232 (D)		0.87 ✓	0.25
Pu-238	*	0 ✓	16.77
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/28/04 Counted By: 5268 Analyzed By: 5755 Initials [redacted]

A397/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03487
File ID: 2SC00514s0
Priority: Yes

Description\Location
SMp 038
Long Count

SMp 038A

Collector: 5436
Date Received: 10/27/04
Date Collected: 10/27/04

Final sample @ base after road removal

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.04
Cs-137	*	0.01	0.04
Pb-210		0.66	0.49
Ra-226	*	0.57	0.65
Ac-227 (D)	*	0.01	0.21
Th-230	*	2.71	5.23
Th-232 (D)		0.45	0.16
Pu-238	*	0	13.35
Am-241	*	0.01	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/28/04 Counted By: 5268 Analyzed By: 5755 Initi[redacted]

A398/530

4164

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02900
File ID: 1SC00578.s0
Priority: Yes

Description\Location
SMP 039
Long Count

SMp 039

Collector: 5349
Date Received: 9/25/04
Date Collected: 9/24/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0	0.05
Pb-210		0.59	0.57
Ra-226		1.01	0.64
Ac-227 (D)	*	0.09	0.2
Th-230	*	0	6.03
Th-232 (D)		0.53 ✓	0.13
Pu-238		14.39 ✓	10.8
Am-241		0.33	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 9/27/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A399/530

44

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03058
File ID: 1SC00643.s0
Priority: Yes

Description\Location
SMP 040-B
Long Count

SMp 040B

Collector: 5349
Date Received: 10/5/04
Date Collected: 10/5/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137		0.03	0.03
Pb-210	*	0.44	0.53
Ra-226		0.69	0.63
Ac-227 (D)	*	0	0.27
Th-230	*	0	5.48
Th-232 (D)		0.5 ✓	0.16
Pu-238		24.87 ✓	11.36
Am-241		0.07	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/6/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A 400/530

400/47

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03023
File ID: 2SC00299.s0
Priority: Yes

Description\Location
SMP 041-A
Long Count

SMp041A

Collector: 5349
Date Received: 9/30/04
Date Collected: 9/30/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.04
Cs-137	*	0	0.04
Pb-210		0.68	0.58
Ra-226		1.1	0.67
Ac-227 (D)	*	0.08	0.23
Th-230	*	0	6.32
Th-232 (D)		0.55 ✓	0.24
Pu-238	*	0 ✓	14.76
Am-241	*	0.04	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/4/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A401/530

479

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03059
File ID: 1SC00644.s0
Priority: Yes

Description\Location
SMP 041-B
Long Count

SMp 041B

Collector: 5349
Date Received: 10/5/04
Date Collected: 10/5/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0.01	0.04
Pb-210	*	0.17	0.49
Ra-226		0.86	0.57
Ac-227 (D)	*	0	0.19
Th-230	*	1.23	4.79
Th-232 (D)		0.31 ✓	0.15
Pu-238		26.37 ✓	10.09
Am-241		0.11	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/6/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A402/530

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) BLDG-30 FOOTPRINT	SURVEY NO. 04-ER-597
PURPOSE: SOIL SAMPLES	RWP NO. N/A
	DATE: 10-27-04
	TIME: 1300

MAP / DRAWING

SEE ATTACHED
MAP FOR SOIL
SAMPLE LOCATIONS

COPY

LEGEND:
= mrem/hr (γ) whole body
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · · = radiological boundary
△# = mrem/hr neutron
(#) = swipe number
[#] = air sample number
(#/α) or /β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
2360	5691/5811	8/4/05
	N/A	

Completed	[redacted]	HP# 5436	Date: 10-27-04
Completed	[redacted]		
Counted by	[redacted]	HP#	Date:
Counted by	[redacted]		
Reviewed/	[redacted]	HP# 7348	Date: 11/3/04
Reviewed/	[redacted]		

ML-9620 (2-98) Computer Generated

A403/530

Survey No. 04-ER-597

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha		Comments
N/A				

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha		Comments
N/A				

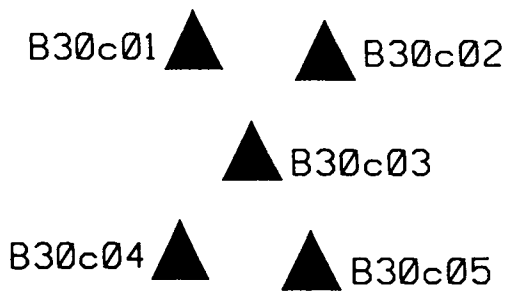
COPY

COMMENTS: N/A

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

A404/5

ML-9620A (4-98)



COPY

RSDS# 04-ER-597
page 3 of 8
YF
10/27/04

A405/530

0 5 10 15 20
Scale (ft)

A	10/25/04	ISSUE FOR SAMPLE PLAN	KR					
REV	DATE	REVISION	BY	CHKD	DES	LAYOUT	APVD	

MOUND
Environmental Restoration Geographic Information System

SHEET 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27	
SHEET 1 2 3 4 5 6	BLDG 30 SAMPLE PLAN
ISSUE A	
PART CLASSIFICATION	
OVERALL CLASSIFICATION UNCLASSIFIED	FILE bldg30_samp_plan.dgn
DWG TYPE SYE	PROJ ER-GIS
STATUS MD-REL-10/25/04	DRAWN MSTATION / J

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03441
File ID: 2SC00491.s0
Priority: Yes

Description\Location
B30C 01
Long Count

Collector: 5436
Date Received: 10/25/04
Date Collected: 10/25/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.06
Cs-137	*	0.11	0.4
Pb-210		0.69	0.55
Ra-226	*	0.56	0.74
Ac-227 (D)		0.19	0.19
Th-230	*	2.19	6.06
Th-232 (D)		0.87	0.18
Pu-238	*	0	14.24
Am-241	*	0.01	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/26/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

RSDS#

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03442
File ID: 2SC00492.s0
Priority: Yes

Description\Location
B30C 02
Long Count

Collector: 5436
Date Received: 10/25/04
Date Collected: 10/25/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0.01	0.04
Pb-210		0.47	0.45
Ra-226		1.07	0.59
Ac-227 (D)	*	0.02	0.19
Th-230	*	1.94	4.51
Th-232 (D)		0.34	0.12
Pu-238	*	0.03	11.89
Am-241	*	0.01	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/26/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

RSDS#

page ~~5 of 8~~ A407/530
KF

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03443
File ID: 2SC00493.s0
Priority: Yes

Description\Location
B30C 03
Long Count

Collector: 5436
Date Received: 10/25/04
Date Collected: 10/25/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.03	0.03
Cs-137		0.04	0.04
Pb-210		0.7	0.54
Ra-226		1.96	0.67
Ac-227 (D)	*	0.01	0.23
Th-230	*	0	6.28
Th-232 (D)		0.69	0.15
Pu-238	*	0	14.2
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/26/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

RSDS#
04-GR-597

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03444
File ID: 2SC00494.s0
Priority: Yes

Description\Location
B30C 04
Long Count

Collector: 5436
Date Received: 10/25/04
Date Collected: 10/25/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137		0.05	0.03
Pb-210	*	0.22	0.5
Ra-226		1.48	0.52
Ac-227 (D)	*	0.01	0.19
Th-230	*	0.37	5.24
Th-232 (D)		0.46	0.14
Pu-238	*	0	11.57
Am-241	*	0	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/26/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

RSDS#
CA-ED-697

page 4 of 8
KF A409/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03445
File ID: 2SC00495.s0
Priority: Yes

Description\Location
B30C 05
Long Count

Collector: 5436
Date Received: 10/25/04
Date Collected: 10/25/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0.03	0.04
Pb-210		0.65	0.59
Ra-226		1.25	0.75
Ac-227 (D)	*	0	0.23
Th-230	*	0	6.37
Th-232 (D)		0.32	0.24
Pu-238	*	3.35	14.2
Am-241	*	0.04	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

COPY

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/26/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

RSDS# 1 M-597

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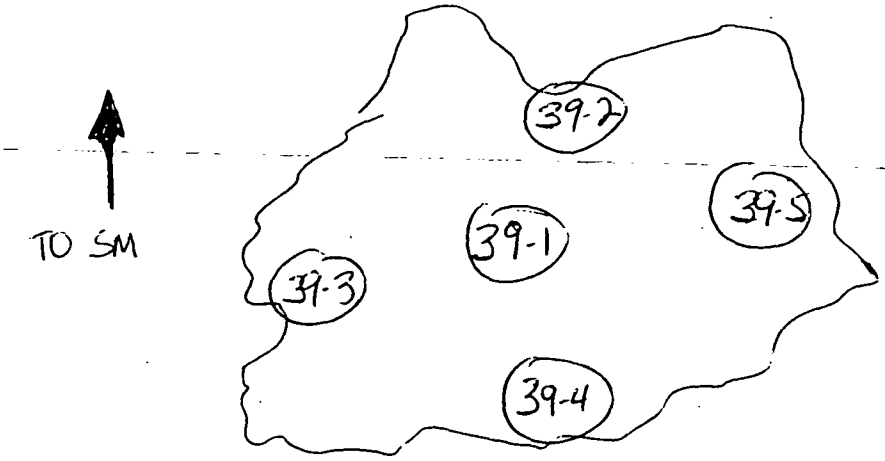
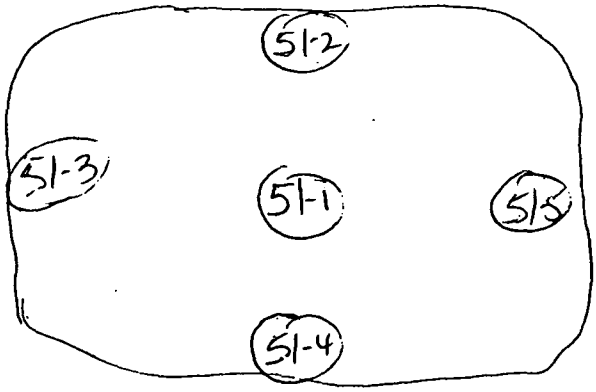
RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG. / ROOM / AREA) PRS-286	SURVEY NO. 04-ER-738
PURPOSE: SOIL SAMPLES (AREAS 39 & 51.)	RWP NO. N/A
	DATE: 12-18-04
	TIME: 0930

MAP / DRAWING





COPY

The Bicron Fidler is used as an indicator only: levels at < BKGRD.

Fidler # 3529/~~3430~~ 3430 5/6/05

LEGEND:
= mrem/hr (γ) whole ~~body~~
#E = mrem/hr (β+η+γ) extremity on contact
K = factor of 1000
— · — · — = radiological boundary
△# = mrem/hr neutron
= air sample number
(#) = swipe number
#/β = direct contamination measurement in dpm/100 cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
SEE		
ATTACHED		

Completed by: [redacted]	HP# 5436	Date: 12-18-04	
Completed by: [redacted]			
Counted by: (S[redacted]	HP#	Date:	
Counted by: ([redacted]			
Reviewed/App[redacted]	HP# 3348	Date: 12/18/04	
Reviewed/App[redacted]			

ML-9620 (2-88) Computer Generated

A 411/530

Survey No. 04-ER-738

RADIOLOGICAL SURVEY DATA SHEET (cont.)

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha		Comments

N/A

Removable Contamination				
Swipes (dpm/100cm²)				
Sample #	β/γ	Alpha		Comments

N/A

COPY

COMMENTS: N/A

NOTES:
1. See MD-80036 10002 for calculations of WB, extremity and skin dose rates.
2. To request RO Count Room analysis for β/γ, alpha or tritium, leave column blank. Mark column N/A if not needed. If count room printout of results are attached, write "see attached" in column.
3. Annotate special sample type (e.g., soil, water), special identifiers or otherwise in Comments. If needed, mark N/A.

A412/530

ML-9620A (4-98)

DER INFORMATION in PS100322.S0 Collected 12/17/04 by 5436 GRS

ntification
ser : 5288
CArd : 1
etector : F1
eometry : F1
ample :
hannels : 2048

Acquisition
Started : Dec/17/2004 1:33:47PM
Stopped : Dec/17/2004 1:48:47PM
True Time : 900.120 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 12349 counts
LTC : 1
Gross Rate : 13.7211 cps

ple
ampled from Dec/17/2004 1:33:47PM to Dec/17/2004 1:48:47PM
ample Quantity 860 ± 172 g

Energy Calibration Dec/13/2004 6:02:36AM QE100131.S0
olution Calibration Sep/24/2003 12:36:50PM F1CALALL.S0
iciency Calibration Jan/5/2004 10:04:47AM F1CALALL.S0
otope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

TIVITY INFORMATION with MDA's for PS100322.S0 Collected 12/17/04 by 5436

me	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
-238	16.00	*	15.45	± 10.02	15.26	± 3.051
and Total			15.45	± 10.02		

tivity (pCi) at Dec/17/2004 1:33:47PM
Divided by Sample Quantity 860 ± 172 g
rors Quoted at 2 Sigma
A's Quoted at 1.645 Sigma

ags	Meaning
*	Forced MDA from identification

COPY

RSDS#
04-ER-738
A413/530
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12-18-04 KF

GB

HEADER INFORMATION in PS200278.S0 Collected 12/17/04 by 5436

Identification
User : 5288
MCArd : 2
Detector : F2
Geometry : F2
Sample :
Channels : 2048

Acquisition
Started : Dec/17/2004 1:34:56PM
Stopped : Dec/17/2004 1:49:56PM
True Time : 900.107 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 10807 counts
LTC : 1.0000011
Gross Rate : 12.0078 cps

Sample
Sampled from Dec/17/2004 1:34:56PM to Dec/17/2004 1:49:56PM
Sample Quantity 601 ± 120.2 g

Energy Calibration Dec/13/2004 6:03:17AM QE200127.S0
Resolution Calibration Sep/26/2003 11:21:43AM F2ENEMG1.S0
Efficiency Calibration Jan/5/2004 10:07:42AM F2CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS200278.S0 Collected 12/17/04 by 5436

Name	Energy keV	Activity Flag	Activity pCi/g	Error pCi/g	MDA pCi/g	Erro pCi/
Pu-238	16.00	*?	13.12	± 13.2	21.14	± 4.
Grand Total			13.12	± 13.2		

Activity (pCi) at Dec/17/2004 1:34:56PM
Divided by Sample Quantity 601 ± 120.2 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification
?	Activity shown is less than MDA value

COPY

RSDS#
04-ER-738
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12-18-04 KF

.DER INFORMATION in PS300264.S0 Collected 12/17/04 by 5436 GB

:ntification
Iser : 5288
ICArd : 3
)etector : F3
;eometry : F3
;ample :
:hannels : 2048

Acquisition
Started : Dec/17/2004 1:35:32PM
Stopped : Dec/17/2004 1:50:32PM
True Time : 900.109 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 11438 counts
LTC : 1.0000011
Gross Rate : 12.7089 cps

nple
;ampled from Dec/17/2004 1:35:32PM to Dec/17/2004 1:50:32PM
;ample Quantity 777 ± 155.4 g

Energy Calibration Dec/13/2004 6:03:56AM QE300125.S0
solution Calibration Sep/26/2003 2:52:35PM FID3MULT.S0
Eiciency Calibration Jan/5/2004 10:11:02AM F3CALALL.S0
otope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

TIVITY INFORMATION with MDA's for PS300264.S0 Collected 12/17/04 by 5436

me	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
-238	16.00	*?	1.976	± 11.64	19.49	± 3.898
and Total			1.976	± 11.64		

tivity (pCi) at Dec/17/2004 1:35:32PM
Divided by Sample Quantity 777 ± 155.4 g
rors Quoted at 2 Sigma
A's Quoted at 1.645 Sigma

ags	Meaning
*	Forced MDA from identification
?	Activity shown is less than MDA value

COPY

RSDS#
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GB

HEADER INFORMATION in PS100323.S0 Collected 12/17/04 by 5436

Identification
User : 5288
MCArd : 1
Detector : F1
Geometry : F1
Sample :
Channels : 2048

Acquisition
Started : Dec/17/2004 1:52:21PM
Stopped : Dec/17/2004 2:07:21PM
True Time : 900.089 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 8750 counts
LTC : 1
Gross Rate : 9.72222 cps

Sample
Sampled from Dec/17/2004 1:52:21PM to Dec/17/2004 2:07:21PM
Sample Quantity 758 ± 151.6 g

Energy Calibration Dec/13/2004 6:02:36AM QE100131.S0
Resolution Calibration Sep/24/2003 12:36:50PM F1CALALL.S0
Efficiency Calibration Jan/5/2004 10:04:47AM F1CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS100323.S0 Collected 12/17/04 by 5436

Name	Energy keV	Activity Flag	Activity pCi/g	Error pCi/g	MDA pCi/g	Erro pCi/
Pu-238	16.00	*?	14.62	± 11.07	17.23	± 3.
Grand Total			14.62	± 11.07		

Activity (pCi) at Dec/17/2004 1:52:21PM
Divided by Sample Quantity 758 ± 151.6 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification
?	Activity shown is less than MDA value

COPY

RSDS#
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FS01657 PRS286 39-5
Dec/17/2004 2:08:05PM

(7B

.DER INFORMATION in PS200279.S0 Collected 12/17/04 by 5436

ntification		Acquisition	
lser	: 5288	Started	: Dec/17/2004 1:53:01PM
lCArd	: 2	Stopped	: Dec/17/2004 2:08:01PM
)etector	: F2	True Time	: 900.088 sec
;eometry	: F2	Live Time	: 900.000 sec
;ample	:	Dead Time	: 0.01 %
:hannels	: 2048	Gross Count	: 8566 counts
		LTC	: 1
		Gross Rate	: 9.51778 cps

nple
;ampled from Dec/17/2004 1:53:01PM to Dec/17/2004 2:08:01PM
;ample Quantity 728 ± 145.6 g

Energy Calibration Dec/13/2004 6:03:17AM QE200127.S0
solution Calibration Sep/26/2003 11:21:43AM F2ENEMG1.S0
ficiency Calibration Jan/5/2004 10:07:42AM F2CALALL.S0
otope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

TIVITY INFORMATION with MDA's for PS200279.S0 Collected 12/17/04 by 5436

me	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
-238	16.00	*?	13.42	± 10.34	16.11	± 3.222
and Total			13.42	± 10.34		

:tivity (pCi) at Dec/17/2004 1:53:01PM
Divided by Sample Quantity 728 ± 145.6 g
:rors Quoted at 2 Sigma
)A's Quoted at 1.645 Sigma

.ags	Meaning
*	Forced MDA from identification
?	Activity shown is less than MDA value

COPY

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RSDS# 04-ER-738
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12-18-04 KF

FS01658 PRS286 51-1
Dec/17/2004 2:14:03PM

GOS

HEADER INFORMATION in PS300265.S0 Collected 12/17/04 by 5436

Identification
User : 5288
MCArd : 3
Detector : F3
Geometry : F3
Sample :
Channels : 2048

Acquisition
Started : Dec/17/2004 1:53:34PM
Stopped : Dec/17/2004 2:08:34PM
True Time : 900.077 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 7733 counts
LTC : 1.0000011
Gross Rate : 8.59223 cps

Sample
Sampled from Dec/17/2004 1:53:34PM to Dec/17/2004 2:08:34PM
Sample Quantity 494 ± 98.8 g

Energy Calibration Dec/13/2004 6:03:56AM QE300125.S0
Resolution Calibration Sep/26/2003 2:52:35PM FID3MULT.S0
Efficiency Calibration Jan/5/2004 10:11:02AM F3CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS300265.S0 Collected 12/17/04 by 5436

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00	*	57.05	± 20.54	25.85	± 5.1
Grand Total			57.05	± 20.54		

Activity (pCi) at Dec/17/2004 1:53:34PM
Divided by Sample Quantity 494 ± 98.8 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification

COPY

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RSDS# 04-02-738
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12-18-04 ICF

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03986
File ID: 1SC00986.s0
Priority: Yes

Description\Location
PRS286 51-1
Long Count

Collector: 5436
Date Received: 12/17/04
Date Collected: 12/17/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.08
Cs-137	*	0	0.07
Pb-210		1.58	0.86
Ra-226		2.46	0.96
Ac-227 (D)	*	0	0.34
Th-230	*	2.14	8.95
Th-232 (D)		0.78	0.2
Pu-238	*	12.63	27.06
Am-241		0.1	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

$^{\Sigma}$DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

COPY

Comments:

A419/530

Date: 12/17/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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HEADER INFORMATION in PS100324.S0 Collected 12/17/04 by 5436

Identification
User : 5288
MCArd : 1
Detector : F1
Geometry : F1
Sample :
Channels : 2048

Acquisition
Started : Dec/17/2004 2:10:37PM
Stopped : Dec/17/2004 2:25:37PM
True Time : 900.070 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 6768 counts
LTC : 1
Gross Rate : 7.52 cps

Sample
Sampled from Dec/17/2004 2:10:37PM to Dec/17/2004 2:25:37PM
Sample Quantity 608 ± 121.6 g

Energy Calibration Dec/13/2004 6:02:36AM QE100131.S0
Resolution Calibration Sep/24/2003 12:36:50PM F1CALALL.S0
Efficiency Calibration Jan/5/2004 10:04:47AM F1CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS100324.S0 Collected 12/17/04 by 5436

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
Pu-238	16.00		68.15	± 19.95	20.90	± 4.[illegible]
Grand Total			68.15	± 19.95		

Activity (pCi) at Dec/17/2004 2:10:37PM
Divided by Sample Quantity 608 ± 121.6 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

COPY

A 420/53
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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03987
File ID: 1SC00987.s0
Priority: Yes

Description\Location
PRS286 51-2
Long Count

Collector: 5436
Date Received: 12/17/04
Date Collected: 12/17/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0.04	0.05
Pb-210		0.9	0.68
Ra-226		1.57	0.83
Ac-227 (D)	*	0.13	0.24
Th-230	*	1.54	7.15
Th-232 (D)		0.29	0.26
Pu-238	*	9.34	13.11
Am-241	*	0.05	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

COPY

Comments:

A421/530

Date: 12/17/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

RSD S#
C4-BR-738

12-18-04 KF

OB

HEADER INFORMATION in PS200280.S0 Collected 12/17/04 by 5436

Identification
User : 5288
MCArd : 2
Detector : F2
Geometry : F2
Sample :
Channels : 2048

Acquisition
Started : Dec/17/2004 2:11:10PM
Stopped : Dec/17/2004 2:26:10PM
True Time : 900.073 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 6849 counts
LTC : 1.0000011
Gross Rate : 7.61001 cps

Sample
Sampled from Dec/17/2004 2:11:10PM to Dec/17/2004 2:26:10PM
Sample Quantity 560 ± 112 g

Energy Calibration Dec/13/2004 6:03:17AM QE200127.S0
Resolution Calibration Sep/26/2003 11:21:43AM F2ENEMG1.S0
Efficiency Calibration Jan/5/2004 10:07:42AM F2CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS200280.S0 Collected 12/17/04 by 5436

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Errc pCi/
Pu-238	16.00	*	40.76	± 15.9	20.74	± 4.
Grand Total			40.76	± 15.9		

Activity (pCi) at Dec/17/2004 2:11:10PM
Divided by Sample Quantity 560 ± 112 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

Flags	Meaning
*	Forced MDA from identification

COPY

RSD S#
04-ER-738
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FS01661 PRS286 51-4
Dec/17/2004 2:26:43PM

(93

ADER INFORMATION in PS300266.S0 Collected 12/17/04 by 5436

entification
User : 5288
MCArd : 3
Detector : F3
Geometry : F3
Sample :
Channels : 2048

Acquisition
Started : Dec/17/2004 2:11:40PM
Stopped : Dec/17/2004 2:26:40PM
True Time : 900.078 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 7839 counts
LTC : 1.0000011
Gross Rate : 8.71001 cps

mple
Sampled from Dec/17/2004 2:11:40PM to Dec/17/2004 2:26:40PM
Sample Quantity 513 ± 102.6 g

Energy Calibration Dec/13/2004 6:03:56AM QE300125.S0
solution Calibration Sep/26/2003 2:52:35PM FID3MULT.S0
ficiency Calibration Jan/5/2004 10:11:02AM F3CALALL.S0
otope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

TIVITY INFORMATION with MDA's for PS300266.S0 Collected 12/17/04 by 5436

me	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Error pCi/g
-238	16.00	*	39.41	± 18.75	26.68	± 5.335
and Total			39.41	± 18.75		

tivity (pCi) at Dec/17/2004 2:11:40PM
Divided by Sample Quantity 513 ± 102.6 g
rors Quoted at 2 Sigma
DA's Quoted at 1.645 Sigma

lags	Meaning
*	Forced MDA from identification

COPY

RSDS#
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HEADER INFORMATION in PS100325.S0 Collected 12/17/04 by 5436

Identification
User : 5288
MCArd : 1
Detector : F1
Geometry : F1
Sample :
Channels : 2048

Acquisition
Started : Dec/17/2004 2:32:35PM
Stopped : Dec/17/2004 2:47:35PM
True Time : 900.081 sec
Live Time : 900.000 sec
Dead Time : 0.01 %
Gross Count : 7843 counts
LTC : 1.0000011
Gross Rate : 8.71445 cps

Sample
Sampled from Dec/17/2004 2:32:35PM to Dec/17/2004 2:47:35PM
Sample Quantity 475 ± 95 g

Energy Calibration Dec/13/2004 6:02:36AM QE100131.S0
Resolution Calibration Sep/24/2003 12:36:50PM F1CALALL.S0
Efficiency Calibration Jan/5/2004 10:04:47AM F1CALALL.S0
Isotope Library FIDLERPU.LIB Aug/28/2003 11:40:08AM

ACTIVITY INFORMATION with MDA's for PS100325.S0 Collected 12/17/04 by 5436

Name	Energy keV	Activity Flag	pCi/g	Error pCi/g	MDA pCi/g	Erro pCi/
Pu-238	16.00		113.0	± 30.85	29.95	± 5.
Grand Total			113.0	± 30.85		

Activity (pCi) at Dec/17/2004 2:32:35PM
Divided by Sample Quantity 475 ± 95 g
Errors Quoted at 2 Sigma
MDA's Quoted at 1.645 Sigma

COPY

RSDS# 04-02-738
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12/18/04 KF

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03988
File ID: 1SC00988.s0
Priority: Yes

Description\Location
PRS286 51-5
Long Count

Collector: 5436
Date Received: 12/17/04
Date Collected: 12/17/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.09
Cs-137	*	0	0.1
Pb-210	*	0.57	1.13
Ra-226		2.06	1.04
Ac-227 (D)	*	0	0.38
Th-230	*	0.94	9.75
Th-232 (D)		0.91	0.23
Pu-238	*	21.69	22.27
Am-241		0.12	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

COPY

Comments:

A425/530

Date: 12/17/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

RSDS#
04-ER-738

12/18/04 11F

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03214
File ID: 1SC00703.0
Priority: Yes

Description\Location
SMHV 001 (000061)
Long Count

SMHV001

Collector:
Date Received: 10/13/04
Date Collected: 10/11/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0.02	0.05
Pb-210	*	0.48	0.71
Ra-226		1.65	0.75
Ac-227 (D)	*	0.14	0.72
Th-230	*	0.96	6.91
Th-232 (D)		0.96	0.18
Pu-238	*	2.28	13.22
Am-241	*	0	0.08

✓ 2/2

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 699 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03215
File ID: 1SC00701.s0
Priority: Yes

Description\Location
SMHV 002 (000062)
Long Count

SMHW002

Collector:
Date Received: 10 13 04
Date Collected: 10 11 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0	0.03
Pb-210	*	0.14	0.33
Ra-226	*	0.28	0.42
Ac-227 (D)	*	0.05	0.13
Th-230	*	0	3.65
Th-232 (D)		0.11	0.08
Pu-238	*	0	7.22
Am-241	*	0	0.03

✓ DR

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.01 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 856 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 03216
File ID: 1SC 00 05 30
Priority: Yes

Description\Location
SMHV 003 (000077)
Long Count

SMHV003

Collector:
Date Received: 10 13 04
Date Collected: 10 12 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137		0.07	0.06
Pb-210		1.52	0.84
Ra-226		1.82	0.96
Ac-227 (D)	*	0	0.89
Th-230	*	1.46	8.96
Th-232 (D)		0.97	0.24
Pu-238	*	0	17.1
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 580 g.

Date: 10/14/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: G1 05 [illegible]
File ID: 1SC 00206 .0
Priority: Yes

Description\Location
SMHV 004 (000079)
Long Count

SMH004

Collector:
Date Received: 10 1 04
Date Collected: 10 12 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.07
Cs-137	*	0.03	0.07
Pb-210		1.61	0.78
Ra-226		0.94	0.91
Ac-227 (D)	*	0.08	0.28
Th-230	*	3.23	7.87
Th-232 (D)		1.12	0.14
Pu-238	*	0	14.88
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 544 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03219
File ID: 1SC00708.s0
Priority: Yes

Description\Location
SMHV 005 (000080)
Long Count

SMHV005

Collector:
Date Received: 10/13/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0.04	0.07
Pb-210		1.67	0.82
Ra-226	*	0.71	0.94
Ac-227 (D)		0.46	0.25
Th-230	*	0	8.55
Th-232 (D)		0.69	0.23
Pu-238	*	3.1	14.08
Am-241	*	0.02	0.09

✓ AJD

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 496 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 03220
File ID: 1SC00709.0
Priority: Yes

Description\Location
SMHV 006 (000081)
Long Count

SMHV006

Collector:
Date Received: 10 13 04
Date Collected: 10 12 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0.02	0.05
Pb-210	*	0.21	0.72
Ra-226		1.17	0.65
Ac-227 (D)	*	0	0.78
Th-230	*	2.01	6.92
Th-232 (D)		0.68	0.23
Pu-238	*	0.87	12.67
Am-241	*	0.01	0.08

✓ DPK

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 694 g.

Date: 10/14/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03221
File ID: 1SC00710.s0
Priority: Yes

Description\Location
SMHV 007 (000064)
Long Count

SMH007

Collector:
Date Received: 10 [illegible]
Date Collected: 10 12 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.06
Cs-137	*	0.01	0.05
Pb-210	*	0.38	0.71
Ra-226		1.15	0.77
Ac-227 (D)	*	0	0.73
Th-230	*	0.56	7.15
Th-232 (D)		0.66	0.21
Pu-238	*	0	12.61
Am-241	*	0	0.08

✓ n/a

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 714 g.

Date: 10/14/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

A432/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 03222
File ID: 1SC00711.0
Priority: Yes

Description\Location
SMHV 008 (000065)
Long Count

SMHV008

Collector:
Date Received: 10/13/04
Date Collected: ~~[illegible]~~

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.07
Cs-137	*	0.03	0.05
Pb-210	*	0.72	0.73
Ra-226		1.8	0.82
Ac-227 (D)	*	0.01	0.28
Th-230	*	1.15	7.58
Th-232 (D)		0.43	0.27
Pu-238	*	3.46	13.42
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 670 g.

Date: 10/14/04 **Counted By:** 5288 **Analyzed By:** 5755 **Initials** [redacted]

A433/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: Gl 03224
File ID: 1SC00713 .0
Priority: Yes

Description\Location
SMHV 009 (000066)
Long Count

SMHV009

Collector:
Date Received: 10 13 04
Date Collected: 10 11 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.06
Cs-137	*	0.01	0.05
Pb-210	*	0.59	0.62
Ra-226		1.81	0.68
Ac-227 (D)	*	0.16	0.22
Th-230	*	0.21	6.58
Th-232 (D)		0.47	0.22
Pu-238	*	7.21	12.66
Am-241	*	0.01	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 716 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5755 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 03225
File ID: 1SC00[illegible]130
Priority: Yes

Description\Location
SMHV 010 (000082)
Long Count

SMHV010

Collector:
Date Received: 10/13/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.08
Cs-137	*	0.03	0.06
Pb-210	*	0.47	0.78
Ra-226		1.25	0.86
Ac-227 (D)	*	0.19	0.27
Th-230	*	0	8.33
Th-232 (D)		1	0.23
Pu-238	*	10.29	14.23
Am-241	*	0	0.1

✓ D/A

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 637 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5755 Initial [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: G1 03 26
File ID: 6SC 00611.0
Priority: Yes

Description\Location
SMHV 011 (000083)
Long Count

SMHV011

Collector:
Date Received: 10 13 04
Date Collected: 10 12 04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.03	0.03
Cs-137		0.03	0.03
Pb-210	*	0.41	0.94
Ra-226		1.1	0.91
Ac-227 (D)	*	0	0.44
Th-230	*	0.92	9.65
Th-232 (D)		0.93	0.13
Pu-238	*	3.6	27.26
Am-241	*	0	0.1

D/D

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 633 g.

Date: 10/14/04 **Counted By:** 5288 **Analyzed By:** 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 03227
File ID: MG500703.50
Priority: Yes

Description\Location
SMHV 012 (000084)
Long Count

SMHV012

Collector:
Date Received: 10/13/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0.01	0.05
Pb-210	*	0.33	1.04
Ra-226		1.91	0.96
Ac-227 (D)	*	0.13	0.47
Th-230	*	1.28	9.8
Th-232 (D)		1.06	0.15
Pu-238	*	0	27.28
Am-241	*	0	0.11

✓ DPA

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 626 g.

Date: 10/15/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A437/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03228
File ID: 6SC00613.0
Priority: Yes

Description\Location
SMHV 013 (000085)
Long Count

SMH013

Collector:
Date Received: 10 13 04
Date Collected: 10 12 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.03
Cs-137		0.07	0.03
Pb-210	*	0.8	0.82
Ra-226		0.92	0.77
Ac-227 (D)	*	0.35	0.39
Th-230	*	0.19	9.13
Th-232 (D)		0.81	0.13
Pu-238	*	0	27.63
Am-241	*	0.02	0.1

✓ RA

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 642 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 03229
File ID: 6SC0061150
Priority: Yes

Description\Location
SMHV 014 (000067)
Long Count

SMHV014

Collector:
Date Received: 10 13 04
Date Collected: 10 11 04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.03	0.03
Cs-137		0.04	0.03
Pb-210	*	0.69	0.72
Ra-226		1.91	0.83
Ac-227 (D)	*	0.23	0.39
Th-230	*	0.75	8.68
Th-232 (D)		0.94	0.11
Pu-238	*	0	24.67
Am-241	*	0	0.1

✓ N/A

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 683 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 03230
File ID: 6SC00615.0
Priority: Yes

Description\Location
SMHV 015 (000068)
Long Count

SMHV015

Collector:
Date Received: 10 13 04
Date Collected: 10 11 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.04
Cs-137	*	0	0.04
Pb-210	*	0.6	0.86
Ra-226	*	0.63	0.81
Ac-227 (D)	*	0.08	0.41
Th-230	*	0	8.47
Th-232 (D)		0.82	0.2
Pu-238	*	0	24.43
Am-241	*	0	0.09

✓ D/K

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 689 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A440/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03231
File ID: 6SC00616.s0
Priority: Yes

Description\Location
SMHV 016 (000069)
Long Count

SMHV016

Collector:
Date Received: 10 13 04
Date Collected: 10 11 04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.03	0.03
Cs-137	*	0	0.03
Pb-210	*	0.65	0.84
Ra-226		1.6	0.81
Ac-227 (D)	*	0.21	0.39
Th-230	*	0.5	8.74
Th-232 (D)		0.75	0.11
Pu-238	*	0	24.47
Am-241	*	0.04	0.09

✓ A/D

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

*Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 701 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A441/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: Gl 03232
File ID: 6S0 00617 .0
Priority: Yes

Description\Location
SMHV 017 (000086)
Long Count

SMHV017

Collector:
Date Received: 10 13 04
Date Collected: 10 12 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0	0.04
Pb-210	*	0.55	1.02
Ra-226		1.33	0.93
Ac-227 (D)	*	0.01	0.49
Th-230	*	0.79	9.62
Th-232 (D)		1.08	0.13
Pu-238	*	0	29.11
Am-241	*	0	0.11

✓ N/A

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 614 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A442/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GF 03233
File ID: 6SC 00618.30
Priority: Yes

Description\Location
SMHV 018 (000087)
Long Count

SMHV018

Collector:
Date Received: 10/13/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0	0.04
Pb-210	*	0.65	0.91
Ra-226		1.66	0.9
Ac-227 (D)	*	0	0.44
Th-230	*	0	9.57
Th-232 (D)		0.94	0.12
Pu-238	*	0	26.28
Am-241	*	0.04	0.1

✓ DJK

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 660 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A443/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03234
File ID: 6SC00619.s0
Priority: Yes

Description\Location
SMHV 019 (000088)
Long Count

SMHV019

Collector:
Date Received: 10/13/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.05	0.02
Cs-137		0.03	0.03
Pb-210	*	0.74	0.9
Ra-226		1.67	0.83
Ac-227 (D)	*	0.07	0.42
Th-230	*	2.93	8.85
Th-232 (D)		0.89	0.13
Pu-238	*	0	25.85
Am-241	*	0	0.1

✓ A/G

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 673 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL 03233
File ID: 6SC00620.s0
Priority: Yes

Description\Location
SMHV 020 (000089)
Long Count

SMHV020

Collector:
Date Received: 10 13 04
Date Collected: 10 12 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.03
Cs-137		0.03	0.03
Pb-210	*	0.68	0.77
Ra-226		1.4	0.82
Ac-227 (D)	*	0	0.4
Th-230	*	0	8.72
Th-232 (D)		0.78	0.09
Pu-238	*	12.77	22.92
Am-241	*	0.01	0.09

N/A

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 676 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03236
File ID: 6SC00621.S0
Priority: Yes

Description\Location
SMHV 021 (000091)
Long Count

SMH021

Collector:
Date Received: 10/13/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.03
Cs-137	*	0.01	0.04
Pb-210	*	0.74	0.83
Ra-226		1.52	0.81
Ac-227 (D)	*	0	0.41
Th-230	*	2.72	8.57
Th-232 (D)		0.8	0.09
Pu-238	*	4.3	26.62
Am-241	*	0.03	0.09

✓ DP

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 683 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03237
File ID: 6SC00622.s0
Priority: Yes

Description\Location
SMHV 022 (000070)
Long Count

SMHV022

Collector:
Date Received: 10/13/04
Date Collected: 10/11/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.02
Cs-137		0.02	0.02
Pb-210		0.89	0.59
Ra-226	*	0.52	0.65
Ac-227 (D)	*	0.13	0.28
Th-230	*	1.53	6.17
Th-232 (D)		0.31	0.05
Pu-238	*	0	19.75
Am-241	*	0.06	0.07

✓ 10/22

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 798 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A447/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 03238
File ID: 1SC00715.s0
Priority: Yes

Description\Location
SMHV 023 (000071)
Long Count

SMHV023

Collector:
Date Received: 10/11/04
Date Collected: 10/11/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.06
Pb-210	*	0.42	0.83
Ra-226		1.52	0.79
Ac-227 (D)	*	0	0.39
Th-230	*	0	8.53
Th-232 (D)		0.86	0.24
Pu-238	*	0	16
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 661 g.

Date: 10/14/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A448/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03239
File ID: 1SC00216.s0
Priority: Yes

Description\Location
SMHV 024 (000072)
Long Count

SMHV024

Collector:
Date Received: 10 13 04
Date Collected: 10 11 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0	0.04
Pb-210	*	0	0.49
Ra-226	*	0.34	0.57
Ac-227 (D)	*	0.03	0.21
Th-230	*	2.02	4.55
Th-232 (D)		0.51	0.09
Pu-238	*	4.24	8.88
Am-241	*	0	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 1020 g.

Date: 10/14/04 **Counted By:** 5268 **Analyzed By:** 5288 **Initials** [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 03240
File ID: 1SC 00 [illegible] .0
Priority: Yes

Description\Location
SMHV 0.25 (000092)
Long Count

SMHV025

Collector:
Date Received: 10 [illegible]
Date Collected: 10 [illegible]

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.03	0.07
Cs-137	*	0	0.08
Pb-210	*	0.46	0.9
Ra-226		2.69	0.98
Ac-227 (D)	*	0.03	0.32
Th-230	*	3.45	9.31
Th-232 (D)		1.06	0.27
Pu-238	*	1.7	19.69
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 597 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A450/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03241
File ID: 1SC00[illegible].0
Priority: Yes

Description\Location
SMHV 026 (000093)
Long Count

SMHV026

Collector:
Date Received: 10[illegible]
Date Collected: 10[illegible]

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.07
Cs-137	*	0.03	0.06
Pb-210		1.1	0.84
Ra-226		2.13	0.94
Ac-227 (D)	*	0.1	0.31
Th-230	*	4.32	8.39
Th-232 (D)		1.09	0.21
Pu-238	*	0	16.75
Am-241	*	0.01	0.09

✓ D/A

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 626 g.

Date: 10/14/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 03271
File ID: 6SC 006[illegible] .0
Priority: Yes

Description\Location
SMHW 027 (000094)
Long Count

SMHW027

Collector:
Date Received: 10 1 1 04
Date Collected: 10 1 [illegible] 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.07
Cs-137	*	0.01	0.04
Pb-210		1.17	1
Ra-226		1.15	0.91
Ac-227 (D)	*	0.16	0.47
Th-230	*	0.29	9.6
Th-232 (D)		1.24	0.21
Pu-238	*	0	27.07
Am-241	*	0.01	0.1

✓ W/A

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 641 g.

Date: 10/15/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: [illegible]
File ID: [illegible]
Priority: Yes

Description\Location
SMHV 028 ([illegible])
Long Count

SMHV028

Collector:
Date Received: 10/[illegible]/04
Date Collected: 10/[illegible]/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.03
Cs-137	*	0.02	0.03
Pb-210	*	0.17	0.89
Ra-226		1.35	0.84
Ac-227 (D)	*	0	0.43
Th-230	*	0	8.66
Th-232 (D)		0.9	0.1
Pu-238	*	0.96	24.48
Am-241	*	0.01	0.1

N/A

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 680 g.

Date: 10/15/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A453/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: G1 03273
File ID: 6SC006.39 .0
Priority: Yes

Description\Location
SMHV 029 (000096)
Long Count

SMHV029

Collector:
Date Received: 10 14 04
Date Collected: 10 12 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.03
Cs-137	*	0	0.04
Pb-210		1.03	0.89
Ra-226		1.97	0.93
Ac-227 (D)	*	0.06	0.44
Th-230	*	2.57	9.21
Th-232 (D)		0.83	0.14
Pu-238	*	0	27.12
Am-241	*	0	0.1

✓ DA

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 663 g.

Date: 10/15/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03273
File ID: 6SC00630.s0
Priority: Yes

Description\Location
SMHV 030 (000097)
Long Count

SMHV030

Collector:
Date Received: 10/14/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.03
Cs-137	*	0.02	0.03
Pb-210	*	0.85	0.86
Ra-226		1.38	0.84
Ac-227 (D)	*	0	0.42
Th-230	*	0	9.06
Th-232 (D)		0.87	0.13
Pu-238	*	13.63	24.12
Am-241	*	0	0.1

✓ DPZ

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium

* Indicates activity > MDA. MDA used in limits calculation

Comments: Sample weight 685 g.

Date: 10/15/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: 04 03275
File ID: 6SC00631.s0
Priority: Yes

Description\Location
SMHV 031 (000098)
Long Count

SMHV031

Collector:
Date Received: 10 14 04
Date Collected: 10 12 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.02
Cs-137	*	0.01	0.02
Pb-210		0.77	0.59
Ra-226		1.17	0.61
Ac-227 (D)	*	0.1	0.29
Th-230	*	0	6.54
Th-232 (D)		0.3	0.08
Pu-238	*	7.59	18.19
Am-241	*	0.05	0.07

✓ D/E

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 838 g.

Date: 10/15/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GI 03242
File ID: 1SC 00719 .30
Priority: Yes

SMHV032

Description\Location
SMHV 032 ~~HPA~~ (000074) ~~split~~ cgc 10.20.04
Long Count

Collector:
Date Received: 10.13.04
Date Collected: 10.11.04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0.01	0.06
Pb-210	*	0.57	0.7
Ra-226		1.41	0.86
Ac-227 (D)	*	0.12	0.26
Th-230	*	0	7.65
Th-232 (D)		0.97	0.17
Pu-238	*	0	14.33
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity > MDA. MDA used in limits calculation

Comments: Sample weight 704 g.

Date: 10/14/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03297
File ID: 2SC00419.s0
Priority: Yes

Description\Location
SMHV 033 (000112)
Long Count

SMHV033

Collector:
Date Received: 10/18/04
Date Collected: 10/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137	*	0	0.04
Pb-210	*	0.26	0.53
Ra-226		0.72	0.65
Ac-227 (D)	*	0.07	0.21
Th-230	*	3.67	5.31
Th-232 (D)		0.72	0.18
Pu-238	*	9.58	11.55
Am-241	*	0	0.06

✓ DPM

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03284
File ID: 6SC00632.s0
Priority: Yes

Description\Location
SMHV 034 (000100) SMHV034
Long Count

Collector:
Date Received: 10/14/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.03
Cs-137	*	0.02	0.04
Pb-210	*	0.62	0.92
Ra-226		1.55	0.93
Ac-227 (D)	*	0.16	0.42
Th-230	*	0	9.94
Th-232 (D)		0.96	0.13
Pu-238	*	0	27.56
Am-241	*	0.06	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 631g.

Date: 10/16/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03285
File ID: 6SC00633.s0
Priority: Yes

Description\Location
SMHV 035 (000101) SMHV035
Long Count

Collector:
Date Received: 10/14/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.04
Cs-137	*	0.01	0.04
Pb-210	*	0.38	0.94
Ra-226		1.62	0.91
Ac-227 (D)	*	0.02	0.43
Th-230	*	2.26	9.48
Th-232 (D)		0.97	0.13
Pu-238	*	0	26.48
Am-241	*	0.05	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments: Sample weight 676g.

Date: 10/16/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03287
File ID: MG500705.s0
Priority: Yes

Description\Location
SMHV 036 (000103) SMHV036
Long Count

Collector:
Date Received: 10/14/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0.02	0.04
Pb-210	*	0	1.01
Ra-226		1.26	0.94
Ac-227 (D)	*	0.39	0.41
Th-230	*	2.05	9.71
Th-232 (D)		0.98	0.15
Pu-238	*	3.58	23.28
Am-241	*	0	0.11

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 629g.

Date: 10/16/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A461/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03288
File ID: 1SC00733.s0
Priority: Yes

Description\Location
SMHV 037 (000104) SMHV037
Long Count

Collector:
Date Received: 10/14/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.08
Cs-137	*	0	0.05
Pb-210	*	0.33	0.69
Ra-226		1.23	0.66
Ac-227 (D)	*	0.09	0.32
Th-230	*	0.95	7.14
Th-232 (D)		0.62	0.21
Pu-238	*	3.78	12.07
Am-241	*	0	0.08

✓ RPD

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 697g.

Date: 10/16/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03289
File ID: 1SC00734.s0
Priority: Yes

Description\Location SMHV038
SMHV 038 (000105)
Long Count

Collector:
Date Received: 10/14/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.06
Pb-210		1.19	0.75
Ra-226		1.94	0.88
Ac-227 (D)	*	0	0.38
Th-230	*	3.15	8.27
Th-232 (D)		1.37	0.23
Pu-238	*	4.62	14.8
Am-241	*	0.03	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 707g.

Date: 10/16/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: Gl 03298
File ID: 2SC00170.s0
Priority: Yes

Description\Location
SMHV 039 (000113)
Long Count

SMHV039

Collector:
Date Received: 10 18 04
Date Collected: 10 14 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.06
Cs-137	*	0	0.05
Pb-210		1.35	0.69
Ra-226		2.26	0.93
Ac-227 (D)	*	0.04	0.28
Th-230	*	0	7.66
Th-232 (D)		0.88	0.23
Pu-238	*	0	18.44
Am-241	*	0.01	0.08

✓
D/A

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA, MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03243
File ID: 1SC00720.s0
Priority: Yes

Description\Location
SMHV 040 (000075)
Long Count

SMHV040

Collector:
Date Received: 10/13/04
Date Collected: 10/11/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.03	0.04
Cs-137		0.12	0.06
Pb-210	*	0.53	0.66
Ra-226		1.26	0.78
Ac-227 (D)	*	0.04	0.27
Th-230	*	3.13	6.73
Th-232 (D)		0.68	0.19
Pu-238	*	0	13.97
Am-241	*	0.04	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 680 g.

Date: 10/14/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03290
File ID: 1SC00735.s0
Priority: Yes

Description\Location
SMHV 041 (000106)
Long Count

SMHV041

Collector:
Date Received: 10/14/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.07	0.05
Cs-137	*	0.01	0.06
Pb-210		1.2	0.71
Ra-226		1.77	0.8
Ac-227 (D)	*	0.01	0.29
Th-230	*	0.06	8.59
Th-232 (D)		1.09	0.24
Pu-238	*	1.98	15.37
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 654g.

Date: 10/16/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03291
File ID: 1SC00736.s0
Priority: Yes

Description\Location
SMHV 042 (000107) SMHW042
Long Count

Collector:
Date Received: 10/14/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.06
Cs-137	*	0.02	0.05
Pb-210		0.71	0.69
Ra-226		2.01	0.76
Ac-227 (D)	*	0.02	0.27
Th-230	*	0.78	7.8
Th-232 (D)		0.95	0.21
Pu-238	*	4.1	13.48
Am-241	*	0	0.09

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 833g.

Date: 10/16/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03293
File ID: 1SC00738.s0
Priority: Yes

Description\Location
SMHV 043 (000108) SMHV043
Long Count

Collector:
Date Received: 10/14/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.07
Cs-137	*	0	0.06
Pb-210	*	0.3	0.78
Ra-226		1.8	0.76
Ac-227 (D)	*	0.05	0.27
Th-230	*	0.94	7.82
Th-232 (D)		0.9	0.23
Pu-238	*	0	14.34
Am-241	*	0.01	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 699g.

Date: 10/16/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03294
File ID: 1SC00739.s0
Priority: Yes

Description\Location
SMHV 044 (000109)
Long Count

SMHV044

Collector:
Date Received: 10/14/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.06
Cs-137	*	0	0.07
Pb-210		1.05	0.66
Ra-226		1.21	0.72
Ac-227 (D)	*	0	0.35
Th-230	*	0	7.88
Th-232 (D)		0.75	0.2
Pu-238	*	0	14.66
Am-241	*	0	0.08

✓ D/R

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 704g.

Date: 10/16/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03295
File ID: 1SC00740.s0
Priority: Yes

Description\Location SMHV045
SMHV045 (000110)
Long Count

Collector:
Date Received: 10/14/04
Date Collected: 10/12/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.07
Cs-137	*	0	0.05
Pb-210	*	0.47	0.68
Ra-226		1.64	0.74
Ac-227 (D)	*	0	0.27
Th-230	*	0	7.44
Th-232 (D)		0.99	0.14
Pu-238	*	0.85	13.36
Am-241	*	0.06	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 691g.

Date: 10/16/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A470/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03300
File ID: 2SC00122.0
Priority: Yes

Description\Location
SMHV 046 (000115)
Long Count

SMHV046

Collector:
Date Received: 10/18/04
Date Collected: 10/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.05	0.05
Cs-137	*	0	0.04
Pb-210	*	0.34	0.58
Ra-226		1.62	0.65
Ac-227 (D)	*	0	0.22
Th-230	*	0	6.21
Th-232 (D)		0.95	0.16
Pu-238	*	1.8	12.88
Am-241	*	0	0.06

✓ DPS

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: [illegible]
File ID: [illegible]
Priority: Yes

Description\Location
SMHV 047 (000076)
Long Count

SMHV047

Collector:
Date Received: 10/[illegible]/04
Date Collected: 10/11/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137		0.05	0.04
Pb-210		0.59	0.54
Ra-226		1.25	0.63
Ac-227 (D)	*	0	0.19
Th-230	*	0	5.45
Th-232 (D)		0.22	0.14
Pu-238	*	3.15	10.15
Am-241	*	0	0.06

10/R

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 776 g.

Date: 10/14/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A472/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03414
File ID: 6SC00654.s0
Priority: Yes

SMHV048

Description\Location
SMH ~~HRS 267~~ V48 (000165) cgm 10-25-04
Long Count

Collector:
Date Received: 10/22/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.02
Cs-137		0.03	0.01
Pb-210	*	0.39	0.47
Ra-226		0.89	0.44
Ac-227 (D)	*	0.04	0.23
Th-230	*	0	5.28
Th-232 (D)		0.31	0.06
Pu-238	*	0	14.8
Am-241	*	0	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 1074g.

Date: 10/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03302
File ID: 2SC00123.0
Priority: Yes

Description\Location
SMHV 049 (000117)
Long Count

SMHV049

Collector:
Date Received: 10/18/04
Date Collected: 10/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0.01	0.04
Pb-210	*	0.38	0.54
Ra-226		1.56	0.71
Ac-227 (D)	*	0.1	0.21
Th-230	*	4.02	5.65
Th-232 (D)		0.76	0.17
Pu-238	*	0	13.31
Am-241	*	0.01	0.06

✓ 10/20

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

$\sum_{DOT}$ 0.02 nCi/g

Instrument type: High Purity Germanium

Σ DOT 2nCi/g limit, total activity

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03303
File ID: 2SC00125.s0
Priority: Yes

Description\Location
SMHV 050 (000118)
Long Count

SMHV050

Collector:
Date Received: 10 18 04
Date Collected: 10 14 04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0	0.05
Pb-210	*	0.01	0.57
Ra-226		0.91	0.65
Ac-227 (D)	*	0.04	0.21
Th-230	*	1.1	5.71
Th-232 (D)		0.71	0.17
Pu-238	*	0	13.31
Am-241	*	0	0.06

✓ DPW

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA, MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A475/530 ~~10~~ 9/17

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03304
File ID: 2SC00426.s0
Priority: Yes

Description\Location
SMHV 051 (000119)
Long Count

SMHV051

Collector:
Date Received: 10/18/04
Date Collected: 10/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.05
Cs-137	*	0	0.04
Pb-210	*	0.44	0.54
Ra-226		1.37	0.61
Ac-227 (D)	*	0.08	0.2
Th-230	*	2.68	5.59
Th-232 (D)		0.7	0.15
Pu-238	*	0	12.56
Am-241	*	0	0.06

DKO

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A476/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03305
File ID: 2SC00427.s0
Priority: Yes

Description\Location
SMHV 052 (000120)
Long Count

SMHV052

Collector:
Date Received: 10/18/04
Date Collected: 10/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.04
Cs-137	*	0.02	0.04
Pb-210		0.58	0.47
Ra-226		1.03	0.6
Ac-227 (D)	*	0	0.21
Th-230	*	2.77	5.07
Th-232 (D)		0.63	0.15
Pu-238	*	5.57	10.66
Am-241	*	0.01	0.05

✓ 2/2

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

$\sum_{DOT}$ 0.02 nCi/g

Instrument type: High Purity Germanium

* DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA, MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03413
File ID: 6SC00653.s0
Priority: Yes

Description\Location
SMH ~~HRS 267~~ V53 (000164)
Long Count

SMHV053

Collector:
Date Received: 10/22/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.03
Cs-137	*	0.01	0.03
Pb-210		0.82	0.69
Ra-226		1.88	0.69
Ac-227 (D)	*	0.16	0.33
Th-230	*	5.75	7.34
Th-232 (D)		0.73	0.09
Pu-238	*	0	20.54
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA, MDA used in limits calculation

Comments: Sample weight 854g.

Date: 10/23/04. Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A478/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03301
File ID: 2SC00423.s0
Priority: Yes

Description\Location
SMHV 054 (000116)
Long Count

SMHV054

Collector:
Date Received: 10/18/04
Date Collected: 10/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.07
Cs-137	*	0.01	0.05
Pb-210		0.92	0.59
Ra-226		1.71	0.78
Ac-227 (D)	*	0.09	0.24
Th-230	*	2.37	6.53
Th-232 (D)		0.98	0.16
Pu-238	*	1.39	14.71
Am-241	*	0	0.07

✓ DM

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03378
File ID: 6SC00639.s0
Priority: Yes

Description\Location
SMHV 055 (000131)
Long Count

SMHV055

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.03	0.03
Cs-137	*	0	0.03
Pb-210	*	0	0.68
Ra-226		0.7	0.61
Ac-227 (D)	*	0	0.34
Th-230	*	1.14	6.12
Th-232 (D)		0.72	0.09
Pu-238	*	0	17.71
Am-241	*	0.01	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 916 g.

Date: 10/22/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03307
File ID: 2SC00129.s0
Priority: Yes

Description\Location
SMHV 056 (000122)
Long Count

SMHV056

Collector:
Date Received: 10/18/04
Date Collected: 10/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.05	0.04
Cs-137	*	0.02	0.04
Pb-210	*	0.33	0.56
Ra-226		0.91	0.66
Ac-227 (D)	*	0	0.23
Th-230	*	0.03	6.21
Th-232 (D)		0.78	0.22
Pu-238	*	0	13.89
Am-241	*	0.01	0.06

✓ W/K

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

$\sum_{DOT}$ 0.02 nCi/g

Instrument type: High Purity Germanium

$\sum_{DOT}$ 2nCi/g limit, total activity

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA, MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03308
File ID: 2SC00430.s0
Priority: Yes

Description\Location
SMHV 057 (000123)
Long Count

SMHV057

Collector:
Date Received: 10/18/04
Date Collected: 10/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0.03	0.04
Pb-210		0.82	0.52
Ra-226		1.54	0.7
Ac-227 (D)	*	0	0.23
Th-230	*	1.88	6.11
Th-232 (D)		0.81	0.22
Pu-238	*	5.14	13.12
Am-241	*	0.02	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA, MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03310
File ID: 1SC00713.0
Priority: Yes

Description\Location
SMHV 058 (000125)
Long Count

SMHV058

Collector:
Date Received: 10/18/04
Date Collected: 10/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137		0.05	0.03
Pb-210	*	0.39	0.56
Ra-226		0.8	0.58
Ac-227 (D)	*	0	0.23
Th-230	*	0	5.93
Th-232 (D)		0.8	0.14
Pu-238	*	0.1	10.72
Am-241	*	0	0.07

✓ DPA

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium

Indicates activity MDA MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03374
File ID: 6SC00635.s0
Priority: Yes

Description\Location
SMHV 059 (000128)
Long Count

SMHV059

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.03
Cs-137	*	0	0.03
Pb-210	*	0.33	0.68
Ra-226		0.9	0.64
Ac-227 (D)	*	0	0.32
Th-230	*	0	6.76
Th-232 (D)		0.73	0.09
Pu-238	*	5.24	17.74
Am-241	*	0.06	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 989 g.

Date: 10/22/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03311
File ID: 1SC00744.s0
Priority: Yes

Description\Location
SMHV 060 (000126)
Long Count

SMH060

Collector:
Date Received: 10/18/04
Date Collected: 10/14/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.05
Cs-137	*	0	0.05
Pb-210		0.62	0.55
Ra-226		1.42	0.63
Ac-227 (D)	*	0.12	0.2
Th-230	*	0.41	6.05
Th-232 (D)		0.64	0.15
Pu-238	*	0	10.89
Am-241	*	0	0.06

✓ A/2

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

$\sum_{DOT}$ 0.02 nCi/g

Instrument type: High Purity Germanium

$\sum_{DOT}$ 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions
Sample is Assumed to be in secular equilibrium

* Indicates activity < MDA MDA used in limits calculation

Comments:

Date: 10/19/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A485/530 ~~12~~ 8 TT

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03375
File ID: 6SC00636.s0
Priority: Yes

Description\Location
SMHV 061 (000129)
Long Count

SMHV061

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.02
Cs-137	*	0	0.02
Pb-210	*	0.23	0.62
Ra-226		1.12	0.59
Ac-227 (D)	*	0	0.29
Th-230	*	0	6.39
Th-232 (D)		0.5	0.08
Pu-238	*	0	17.94
Am-241	*	0	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 940 g.

Date: 10/22/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03376
File ID: 6SC00637.s0
Priority: Yes

Description\Location
SMHV 062 (000130)
Long Count

SMHV062

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60		0.03	0.02
Cs-137	*	0.01	0.03
Pb-210		1.27	0.63
Ra-226		1.57	0.64
Ac-227 (D)	*	0.19	0.32
Th-230	*	2.28	7.09
Th-232 (D)		0.8	0.09
Pu-238	*	0	19.17
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 923 g.

Date: 10/22/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03388
File ID: 2SC00459.s0
Priority: Yes

Description\Location
SMHV 063 (000141)
Long Count

SMHV063

Collector:
Date Received: 10/21/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0.01	0.02
Pb-210	*	0.38	0.4
Ra-226		1.01	0.48
Ac-227 (D)	*	0	0.17
Th-230	*	2.64	4.13
Th-232 (D)		0.29	0.1
Pu-238	*	0	9.98
Am-241	*	0.02	0.04

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 945 g.

Date: 10/22/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03380
File ID: 6SC00641.s0
Priority: Yes

Description\Location
SMHV 064 (000133)
Long Count

SMHV064

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.03
Cs-137	*	0.01	0.03
Pb-210		0.95	0.88
Ra-226		1.74	0.88
Ac-227 (D)	*	0.31	0.4
Th-230	*	0	9.29
Th-232 (D)		0.86	0.13
Pu-238	*	0	25.86
Am-241	*	0	0.1

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.04 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 674 g.

Date: 10/22/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03381
File ID: 6SC00642.s0
Priority: Yes

Description\Location
SMHV 065 (000134)
Long Count

SMHV065

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.02	0.03
Cs-137	*	0.01	0.03
Pb-210	*	0.55	0.71
Ra-226		1.08	0.73
Ac-227 (D)	*	0.08	0.34
Th-230	*	0.32	7.64
Th-232 (D)		0.94	0.08
Pu-238	*	0	20.14
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 913 g.

Date: 10/22/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03382
File ID: 6SC00643.s0
Priority: Yes

Description\Location
SMHV 066 (000135)
Long Count

SMHV066

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.03
Cs-137	*	0	0.02
Pb-210	*	0.58	0.6
Ra-226		1	0.59
Ac-227 (D)	*	0.12	0.28
Th-230	*	0.46	6.66
Th-232 (D)		0.67	0.07
Pu-238	*	0	18.19
Am-241	*	0	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 975 g.

Date: 10/22/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03383
File ID: 6SC00644.s0
Priority: Yes

Description\Location
SMHV 067 (000136)
Long Count

SMHV067

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.04
Cs-137	*	0.01	0.02
Pb-210	*	0.6	0.68
Ra-226		0.97	0.69
Ac-227 (D)	*	0.03	0.3
Th-230	*	2.25	6.95
Th-232 (D)		0.7	0.09
Pu-238	*	0	18.32
Am-241	*	0	0.08

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 952g.

Date: 10/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

A492/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03384
File ID: 6SC00645.s0
Priority: Yes

Description\Location
SMHV 068 (000137)
Long Count

SMHV068

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.02
Cs-137	*	0	0.02
Pb-210	*	0.37	0.62
Ra-226		1.08	0.6
Ac-227 (D)	*	0.14	0.28
Th-230	*	0	6.55
Th-232 (D)		0.56	0.08
Pu-238	*	0	19.03
Am-241	*	0.02	0.07

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.03 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 982g.

Date: 10/23/04 **Counted By:** 5288 **Analyzed By:** 5288 **Initials** [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03385
File ID: 6SC00646.s0
Priority: Yes

Description\Location
SMHV 069 (000138)
Long Count

SMHV069

Collector:
Date Received: 10/21/04
Date Collected: 10/20/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.03
Cs-137	*	0	0.03
Pb-210		0.65	0.55
Ra-226	*	0.42	0.52
Ac-227 (D)	*	0.07	0.27
Th-230	*	5.14	5.57
Th-232 (D)		0.32	0.06
Pu-238	*	0	17.41
Am-241	*	0.02	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions. Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 860g.

Date: 10/23/04 Counted By: 5288 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03386
File ID: 2SC00457.s0
Priority: Yes

Description\Location
SMHV 070 (000139)
Long Count

SMHV070

Collector:
Date Received: 10/21/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.05
Cs-137	*	0.03	0.04
Pb-210		0.65	0.48
Ra-226		0.89	0.61
Ac-227 (D)	*	0	0.21
Th-230	*	0.91	5.27
Th-232 (D)		0.87	0.13
Pu-238	*	0.37	11.33
Am-241	*	0	0.06

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 1026 g.

Date: 10/22/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03387
File ID: 2SC00458.s0
Priority: Yes

Description\Location
SMHV 071 (000140)
Long Count

SMHV071

Collector:
Date Received: 10/21/04
Date Collected: 10/21/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0.01	0.04
Cs-137		0.06	0.03
Pb-210		0.71	0.44
Ra-226		1.27	0.59
Ac-227 (D)	*	0.08	0.19
Th-230	*	0.1	5.33
Th-232 (D)		0.48	0.16
Pu-238	*	0	12.27
Am-241	*	0.01	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments: Sample weight 909 g.

Date: 10/22/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

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SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03542
File ID: 2SC00553.s0
Priority: Yes

Description\Location
SMHV072 (000198)
LONG COUNT

SMHV072

Collector:
Date Received: 10/28/04
Date Collected: 10/28/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.09
Cs-137	*	0	0.07
Pb-210	*	0	0.75
Ra-226		1.39	0.71
Ac-227 (D)	*	0	0.24
Th-230	*	2	6.37
Th-232 (D)		0.86	0.19
Pu-238	*	2.34	14.76
Am-241	*	0	0.07

✓ P/K

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Instrument type: High Purity Germanium

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 10/30/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A497/530

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL03543
File ID: 2SC00554.s0
Priority: Yes

Description\Location
SMHV073 (000199)
LONG COUNT

SMHV073

Collector:
Date Received: 10/28/04
Date Collected: 10/28/04

Radionuclide		Activity (pCi/g)	MDA
Co-60	*	0	0.06
Cs-137	*	0.02	0.03
Pb-210		0.6	0.45
Ra-226		1.07	0.53
Ac-227 (D)	*	0	0.19
Th-230	*	0	5.06
Th-232 (D)		0.43	0.09
Pu-238	*	0	11.33
Am-241	*	0	0.05

Other Nuclides

Radionuclide	Activity (pCi/g)	MDA

Σ_{DOT} 0.02 nCi/g

Σ_{DOT} 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

• Indicates activity < MDA. MDA used in limits calculation

Instrument type: High Purity Germanium

Comments:

Date: 10/30/04 Counted By: 5268 Analyzed By: 5288 Initials [redacted]

A498/530

APPENDIX D

UCL & SIGN TEST RESULTS

A499/530

95% UCI Calculations for Process Area - Pu-238

		Variable:	0.23
Raw Statistics		Normal Distribution Test	
Number of Valid Samples	280	Lilliefors Test Statisitic	0.308584
Number of Unique Samples	221	Lilliefors 5% Critical Value	0.052949
Minimum	0.0049	Data not normal at 5% significance level	
Maximum	254		
Mean	13.68127	95% UCL (Assuming Normal Distribution)	
Median	6	Student's-t UCL	16.37967
Standard Deviation	27.35992		
Variance	748.5652	Gamma Distribution Test	
Coefficient of Variation	1.999809	A-D Test Statistic	3.147956
Skewness	4.778267	A-D 5% Critical Value	0.834162
		K-S Test Statistic	0.108722
Gamma Statistics		K-S 5% Critical Value	0.057938
k hat	0.448272	Data do not follow gamma distribution	
k star (bias corrected)	0.44585	at 5% significance level	
Theta hat	30.51998		
Theta star	30.68578	95% UCLs (Assuming Gamma Distribution)	
nu hat	251.0326	Approximate Gamma UCL	15.95579
nu star	249.6763	Adjusted Gamma UCL	15.96838
Approx.Chi Square Value (.05)	214.0845		
Adjusted Level of Significance	0.049143	Lognormal Distribution Test	
Adjusted Chi Square Value	213.9157	Lilliefors Test Statisitic	0.133972
		Lilliefors 5% Critical Value	0.052949
Log-transformed Statistics		Data not lognormal at 5% significance level	
Minimum of log data	-5.31852		
Maximum of log data	5.537334	95% UCLs (Assuming Lognormal Distribution)	
Mean of log data	1.174588	95% H-UCL	44.17975
Standard Deviation of log data	2.102165	95% Chebyshev (MVUE) UCL	55.86547
Variance of log data	4.419099	97.5% Chebyshev (MVUE) UCL	67.58957
		99% Chebyshev (MVUE) UCL	90.61928
RECOMMENDATION		95% Non-parametric UCLs	
Data are Non-parametric (0.05)		CLT UCL	16.37071
		Adj-CLT UCL (Adjusted for skewness)	16.86961
Use 99% Chebyshev (Mean, Sd) UCL		Mod-t UCL (Adjusted for skewness)	16.45749
		Jackknife UCL	16.37967
Therefore, the 95% UCL of 29.94999 pCi/g		Standard Bootstrap UCL	16.48037
		Bootstrap-t UCL	16.82641
PASSES		Hall's Bootstrap UCL	17.07184
		Percentile Bootstrap UCL	16.43737
when compared to the cleanup objective		BCA Bootstrap UCL	16.98756
of 55 pCi/g		95% Chebyshev (Mean, Sd) UCL	20.80836
		97.5% Chebyshev (Mean, Sd) UCL	23.89226
		99% Chebyshev (Mean, Sd) UCL	29.94999

Note: maximum results are above current CO; however, this data is compared to prior D&D CO of 300 pCi/g for Pu-238 and 5 pCi/g Th-232. The comparison was made to current CO to show that including the D&D criteria does not impact the UCL when compared to current COs.

The SM Area and C26 exceedances to CO are accounted for in this 95% UCL calculation for the Process Area

A500/530

95% UCL Calculations for Process Area - Th-232

		Variable:	0.64
Raw Statistics		Normal Distribution Test	
Number of Valid Samples	260	Lilliefors Test Statisitic	0.139182
Number of Unique Samples	107	Lilliefors 5% Critical Value	0.054947
Minimum	0.01	Data not normal at 5% significance level	
Maximum	4.4		
Mean	0.741335	95% UCL (Assuming Normal Distribution)	
Median	0.685	Student's-t UCL	0.793451
Standard Deviation	0.509072		
Variance	0.259154	Gamma Distribution Test	
Coefficient of Variation	0.686696	A-D Test Statistic	1.944468
Skewness	3.091596	A-D 5% Critical Value	0.76071
		K-S Test Statistic	0.072165
Gamma Statistics		K-S 5% Critical Value	0.05714
k hat	2.854336	Data do not follow gamma distribution	
k star (bias corrected)	2.823965	at 5% significance level	
Theta hat	0.259722		
Theta star	0.262515	95% UCLs (Assuming Gamma Distribution)	
nu hat	1484.255	Approximate Gamma UCL	0.788597
nu star	1468.462	Adjusted Gamma UCL	0.788865
Approx.Chi Square Value (.05)	1380.455		
Adjusted Level of Significance	0.049077	Lognormal Distribution Test	
Adjusted Chi Square Value	1379.986	Lilliefors Test Statisitic	0.095174
		Lilliefors 5% Critical Value	0.054947
Log-transformed Statistics		Data not lognormal at 5% significance level	
Minimum of log data	-4.60517		
Maximum of log data	1.481605	95% UCLs (Assuming Lognormal Distribution)	
Mean of log data	-0.484585	95% H-UCL	0.814038
Standard Deviation of log data	0.639521	95% Chebyshev (MVUE) UCL	0.897785
Variance of log data	0.408987	97.5% Chebyshev (MVUE) UCL	0.959568
		99% Chebyshev (MVUE) UCL	1.080929
RECOMMENDATION			
Data are Non-parametric (0.05)		95% Non-parametric UCLs	
		CLT UCL	0.793265
Use 95% Chebyshev (Mean, Sd) UCL		Adj-CLT UCL (Adjusted for skewness)	0.799733
		Mod-t UCL (Adjusted for skewness)	0.79446
Therefore, the 95% UCL of 0.878951 pCi/g		Jackknife UCL	0.793451
		Standard Bootstrap UCL	0.792722
PASSES		Bootstrap-t UCL	0.799662
		Hall's Bootstrap UCL	0.80226
when compared to the cleanup objective		Percentile Bootstrap UCL	0.796762
of 2.1 pCi/g		BCA Bootstrap UCL	0.800446
		95% Chebyshev (Mean, Sd) UCL	**0.878951**
		97.5% Chebyshev (Mean, Sd) UCL	0.938497
		99% Chebyshev (Mean, Sd) UCL	1.055465

Note: maximum results are above current CO; however, this data is compared to prior D&D CO of 300 pCi/g for Pu-238 and 5 pCi/g Th-232. The comparison was made to current CO to show that including the D&D criteria does not impact the UCL when compared to current COs.

A501/530

95% UCL Calculations for PRS 286 SU1 COC: Pu-238

		Variable:	PRS 286 - SU1
Raw Statistics		Normal Distribution Test	
Number of Valid Samples	44	Shapiro-Wilk Test Statisitic	0.394497
Number of Unique Samples	43	Shapiro-Wilk 5% Critical Value	0.944
Minimum	0.134	Data not normal at 5% significance level	
Maximum	206		
Mean	13.45886	95% UCL (Assuming Normal Distribution)	
Median	5.115	Student's-t UCL	21.43066
Standard Deviation	31.45549		
Variance	989.4478	Gamma Distribution Test	
Coefficient of Variation	2.337158	A-D Test Statistic	1.010337
Skewness	5.594106	A-D 5% Critical Value	0.806732
		K-S Test Statistic	0.132094
Gamma Statistics		K-S 5% Critical Value	0.140306
k hat	0.569685	Data follow approximate gamma distibution	
k star (bias corrected)	0.545994	at 5% significance level	
Theta hat	23.62511		
Theta star	24.6502	95% UCLs (Assuming Gamma Distribution)	
nu hat	50.13225	**Approximate Gamma UCL**	**19.51613**
nu star	48.04747	Adjusted Gamma UCL	19.76711
Approx.Chi Square Value (.05)	33.13487		
Adjusted Level of Significance	0.044545	Lognormal Distribution Test	
Adjusted Chi Square Value	32.71415	Shapiro-Wilk Test Statisitic	0.986881
		Shapiro-Wilk 5% Critical Value	0.944
Log-transformed Statistics		Data are lognormal at 5% significance level	
Minimum of log data	-2.009915		
Maximum of log data	5.327876	95% UCLs (Assuming Lognormal Distribution)	
Mean of log data	1.506648	95% H-UCL	29.14864
Standard Deviation of log data	1.529126	95% Chebyshev (MVUE) UCL	32.02626
Variance of log data	2.338225	97.5% Chebyshev (MVUE) UCL	39.92922
		99% Chebyshev (MVUE) UCL	55.45305
RECOMMENDATION			
Assuming gamma distribution (0.05)		95% Non-parametric UCLs	
		CLT UCL	21.25891
Use Approximate Gamma UCL		Adj-CLT UCL (Adjusted for skewness)	25.53213
		Mod-t UCL (Adjusted for skewness)	22.09719
Therefore, the 95% UCL of 19.51613 pCi/g		Jackknife UCL	21.43066
		Standard Bootstrap UCL	21.12394
PASSES		Bootstrap-t UCL	36.44056
		Hall's Bootstrap UCL	49.7158
when compared to the cleanup objective		Percentile Bootstrap UCL	22.14405
of 55 pCi/g		BCA Bootstrap UCL	28.82543
		95% Chebyshev (Mean, Sd) UCL	34.12917
		97.5% Chebyshev (Mean, Sd) UCL	43.07323
		99% Chebyshev (Mean, Sd) UCL	60.6421

Note: maximum results are above current CO; however, this data is compared to prior D&D CO of 300 pCi/g for Pu-238 and 5 pCi/g Th-232. The comparison was made to current CO to show that including the D&D criteria does not impact the UCL when compared to current COs.

A502/530

95% UCL Calculations for PRS 286 SU2 COC: Pu-238

Data File	K:\SHARED\ER\PRS 286\286-SU2-ProUCL.x	Variable:	PRS 286 - SU2
Raw Statistics		Normal Distribution Test	
Number of Valid Samples	84	Lilliefors Test Statisitic	0.288067
Number of Unique Samples	83	Lilliefors 5% Critical Value	0.096671
Minimum	0.013	Data not normal at 5% significance level	
Maximum	104		
Mean	9.162536	95% UCL (Assuming Normal Distribution)	
Median	3.165	Student's-t UCL	12.13296
Standard Deviation	16.36652		
Variance	267.8629	Gamma Distribution Test	
Coefficient of Variation	1.786243	A-D Test Statistic	1.039551
Skewness	3.532146	A-D 5% Critical Value	0.818156
		K-S Test Statistic	0.109851
Gamma Statistics		K-S 5% Critical Value	0.103096
k hat	0.505736	Data do not follow gamma distribution	
k star (bias corrected)	0.49561	at 5% significance level	
Theta hat	18.11724		
Theta star	18.48738	95% UCLs (Assuming Gamma Distribution)	
nu hat	84.96361	Approximate Gamma UCL	12.0656
nu star	83.26253	Adjusted Gamma UCL	12.12384
Approx.Chi Square Value (.05)	63.22902		
Adjusted Level of Significance	0.047143	Lognormal Distribution Test	
Adjusted Chi Square Value	62.92527	Lilliefors Test Statisitic	0.108368
		Lilliefors 5% Critical Value	0.096671
Log-transformed Statistics		Data not lognormal at 5% significance level	
Minimum of log data	-4.342806		
Maximum of log data	4.644391	95% UCLs (Assuming Lognormal Distribution)	
Mean of log data	0.961385	95% H-UCL	32.50804
Standard Deviation of log data	1.916819	95% Chebyshev (MVUE) UCL	36.99293
Variance of log data	3.674197	97.5% Chebyshev (MVUE) UCL	46.29956
		99% Chebyshev (MVUE) UCL	64.58063
RECOMMENDATION			
Data are Non-parametric (0.05)			
			12.09981
Use 97.5% Chebyshev (Mean, Sd) UCL			12.83516
		Mod-t UCL (Adjusted for skewness)	12.24766
		Jackknife UCL	12.13296
Therefore, the 95% UCL of 20.31444 pCi/g		Standard Bootstrap UCL	12.1099
		Bootstrap-t UCL	13.42321
PASSES		Hall's Bootstrap UCL	13.53246
		Percentile Bootstrap UCL	12.35615
when compared to the cleanup objective		BCA Bootstrap UCL	13.03955
of 55 pCi/g		95% Chebyshev (Mean, Sd) UCL	16.94637
		97.5% Chebyshev (Mean, Sd) UCL	**20.31444**
		99% Chebyshev (Mean, Sd) UCL	26.93036

Note: maximum results are above current CO; however, this data is compared to prior D&D CO of 300 pCi/g for Pu-238 and 5 pCi/g Th-232. The comparison was made to current CO to show that including the D&D criteria does not impact the UCL when compared to current COs.

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A 503/530

95% UCL Calculations for PRS 267 Thorium-232

		Variable:	1.01
Raw Statistics		Normal Distribution Test	
Number of Valid Samples	23	Shapiro-Wilk Test Statisitic	0.83134
Number of Unique Samples	21	Shapiro-Wilk 5% Critical Value	0.914
Minimum	0.229	Data not normal at 5% significance level	
Maximum	2.66		
Mean	1.01187	95% UCL (Assuming Normal Distribution)	
Median	0.96	Student's-t UCL	1.18861
Standard Deviation	0.493621		
Variance	0.243661	Gamma Distribution Test	
Coefficient of Variation	0.48783	A-D Test Statistic	1.503342
Skewness	1.475065	A-D 5% Critical Value	0.748819
		K-S Test Statistic	0.255783
Gamma Statistics		K-S 5% Critical Value	0.182369
k hat	4.097892	Data do not follow gamma distribution	
k star (bias corrected)	3.59237	at 5% significance level	
Theta hat	0.246924		
Theta star	0.281672	95% UCLs (Assuming Gamma Distribution)	
nu hat	188.503	Approximate Gamma UCL	1.224806
nu star	165.249	Adjusted Gamma UCL	1.242009
Approx.Chi Square Value (.05)	136.5199		
Adjusted Level of Significance	0.0389	Lognormal Distribution Test	
Adjusted Chi Square Value	134.629	Shapiro-Wilk Test Statisitic	0.819203
		Shapiro-Wilk 5% Critical Value	0.914
Log-transformed Statistics		Data not lognormal at 5% significance level	
Minimum of log data	-1.474033		
Maximum of log data	0.978326	95% UCLs (Assuming Lognormal Distribution)	
Mean of log data	-0.115148	95% H-UCL	1.33074
Standard Deviation of log data	0.561408	95% Chebyshev (MVUE) UCL	1.589349
Variance of log data	0.315179	97.5% Chebyshev (MVUE) UCL	1.829102
		99% Chebyshev (MVUE) UCL	2.30005
RECOMMENDATION		95% Non-parametric UCLs	
Data are Non-parametric (0.05)		CLT UCL	1.181169
		Adj-CLT UCL (Adjusted for skewness)	1.214996
Use 95% Chebyshev (Mean, Sd) UCL		Mod-t UCL (Adjusted for skewness)	1.193886
		Jackknife UCL	1.18861
Therefore, the 95% UCL of 1.460518 pCi/g		Standard Bootstrap UCL	1.173046
		Bootstrap-t UCL	1.23073
PASSES		Hall's Bootstrap UCL	1.375369
		Percentile Bootstrap UCL	1.185652
when compared to the cleanup objective		BCA Bootstrap UCL	1.210652
of 2.1 pCi/g		**95% Chebyshev (Mean, Sd) UCL**	**1.460518**
		97.5% Chebyshev (Mean, Sd) UCL	1.654648
		99% Chebyshev (Mean, Sd) UCL	2.03598

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38 Footprint Sample ID	Sample Depth (ft)	Offsite analysis (pCi/g) PU-238 result	PU-238 MDA	Sign Test
F38-01	surface	**78.100**	**0.118**	-
F38-02	surface	**72.100**	**0.054**	-
F38-03	surface	47.600	0.113	+
F38-05	surface	0.734	0.051	+
F38-06	surface	26.600	0.056	+
F38-07A	surface	1.960	0.190	+
F38-09	surface	0.626	0.051	+
F38-10	surface	1.170	0.048	+
F38-11	surface	0.347	0.041	+
F38-12	surface	5.890	0.056	+
F38-13A	surface	4.430	0.136	+
F38-15	surface	8.730	0.046	+
F38-16	surface	0.051	0.051	+
F38-17	surface	0.503	0.034	+
F38-18	surface	11.200	0.071	+
F38-20	surface	35.900	0.052	+
F38-21	surface	7.610	0.057	+
F38-22	surface	9.570	0.077	+
F38-23	surface	54.400	0.050	+
F38-24	surface	3.510	0.061	+
F38-25	surface	9.970	0.067	+
F38-27	surface	0.094	0.075	+
F38-28	surface	0.038	0.038	+
F38-29	surface	0.518	0.054	+
F38-30	surface	0.299	0.083	+

CO	55	Sum:	23
Hot Spot	165	Adj. N	25
Max Obs	78	k Crit	17
Mean	15.278	(from Table I.3 MARSSIM)	
Standard Deviation	23.459	P/F	**PASS**
Number of Samples	25		

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SIGN TEST FOR PRS 286 Survey Unit 1 COC: Pu-238

PRS 286	Survey Unit	Sample Depth	Max probe depth	Offsite analysis (pCi/g)		Sign Test
Sample ID		(ft)	(ft) bgs	PU-238 result	PU-238 MDA	
286-001	SU 1	14.2	16	5.110	0.020	+
286-002	SU 1	excavated surface		13.700	0.040	+
286-003	SU 1	5.9	8	0.610	0.038	+
286-004	SU 1	4.3	8	0.660	0.030	+
286-005	SU 1	6.6	12	2.300	0.040	+
286-006	SU 1	surface		32.300	0.200	+
286-007	SU 1	surface		31.700	0.100	+
286-008	SU 1	surface		16.600	0.010	+
286-009	SU 1	surface		17.700	0.040	+
286-010	SU 1	surface		2.100	0.030	+
286-011	SU 1	surface		2.780	0.030	+
286-012	SU 1	surface		8.700	0.040	+
286-013	SU 1	surface		14.100	0.020	+
286-014	SU 1	surface		2.660	0.030	+
286-015	SU 1	surface		2.100	0.050	+
286-016	SU 1	surface		0.920	0.040	+
286-017	SU 1	surface		6.820	0.030	+
286-018	SU 1	surface		0.630	0.030	+
286-019	SU 1	surface		5.690	0.030	+
286-020	SU 1	surface		6.630	0.040	+
286-021	SU 1	surface		6.940	0.040	+
286-022	SU 1	surface		5.120	0.030	+
286-023	SU 1	surface		4.760	0.020	+
286-024	SU 1	surface		3.660	0.020	+
286-025	SU 1	surface		12.900	0.030	+
286-026	SU 1	surface		23.100	0.200	+
286-027	SU 1	surface		41.600	0.080	+
286-028	SU 1	surface		206.000	0.100	-
286-029	SU 1	surface		26.200	0.030	+
286-030	SU 1	surface		33.300	0.030	+
286-031	SU 1	surface		2.900	0.020	+
286-032	SU 1	surface		10.000	0.020	+
286-033	SU 1	surface		6.130	0.030	+
286-034	SU 1	surface		4.590	0.020	+
286-035	SU 1	surface		1.000	0.030	+
286-036	SU 1	surface		9.000	0.030	+
286-037	SU 1	surface		3.340	0.030	+
286-038	SU 1	surface		14.200	0.020	+
286-039	SU 1	surface		0.990	0.020	+
286-040	SU 1	surface		0.134	0.041	+
286-041	SU 1	surface		0.405	0.044	+
286-042	SU 1	surface		0.590	0.070	+
286-043	SU 1	surface		0.281	0.062	+
286-044	SU 1	surface		1.240	0.040	+

CO	100	**Sum:**	**43**
Hot Spot	300	**k Crit**	27
Max Obs	206	(from Table I.3 MARSSIM)	
Mean	13.45886		
Standard Deviation	31.45549	P/F	**PASS**
Number of Samples	44		

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SIGN TEST FOR PRS 286 Survey Unit 2

COC: Pu-238

PRS 286	Survey Unit	Sample Depth	Max probe depth	Offsite analysis (pCi/g)		Sign Test
Sample ID		(ft)	(ft) bgs	PU-238 result	PU-238 MDA	
Sample ID		(ft)	(ft) bgs	PU-238 result	PU-238 MDA	
286-045	SU 2	7	9.87	7.350	0.030	+
286-046	SU 2	1.9	4	4.870	0.040	+
286-047	SU 2	8	12	17.800	0.060	+
286-048	SU 2	2.5	8	0.098	0.036	+
286-049	SU 2	surface		8.370	0.020	+
286-050	SU 2	12.9	20	0.439	0.039	+
286-051	SU 2	4.2	12	0.470	0.050	+
286-052	SU 2	surface		4.770	0.060	+
286-053	SU 2	12.8	16	2.940	0.008	+
286-054	SU 2	excavated surface		22.800	0.020	+
286-055	SU 2	surface		17.200	0.040	+
286-056	SU 2	surface		51.800	0.100	+
286-057	SU 2	surface		11.700	0.040	+
286-058	SU 2	3	8	5.430	0.010	+
286-059	SU 2	8	8	0.064	0.038	+
286-060	SU 2	6.2	8	0.028	0.038	+
286-061	SU 2	2.6	8	2.030	0.004	+
286-062	SU 2	5	8	1.090	0.010	+
286-063	SU 2	0.7	4	2.630	0.030	+
286-064	SU 2	0.8	4	0.194	0.042	+
286-065	SU 2	4.8	8	0.009	0.013	+
286-066	SU 2	2.4	4	0.015	0.020	+
286-067	SU 2	surface		1.500	0.050	+
286-068	SU 2	2.8	8	0.035	0.018	+
286-069	SU 2	2.2	4	0.018	0.009	+
286-070	SU 2	surface		1.070	0.040	+
286-071	SU 2	surface		1.470	0.030	+
286-072	SU 2	surface		11.000	0.050	+
286-073	SU 2	surface		1.560	0.040	+
286-074	SU 2	surface		3.010	0.030	+
286-075	SU 2	surface		1.230	0.020	+
286-076	SU 2	surface		6.940	0.030	+
286-077	SU 2	surface		3.930	0.030	+
286-078	SU 2	surface		5.530	0.030	+
286-079	SU 2	surface		33.000	0.030	+
286-080	SU 2	surface		7.070	0.040	+
286-081	SU 2	surface		0.890	0.020	+
286-082	SU 2	surface		1.150	0.030	+
286-083	SU 2	surface		2.640	0.030	+
286-084	SU 2	surface		2.460	0.030	+
286-085	SU 2	surface		0.700	0.030	+
286-086	SU 2	surface		3.050	0.050	+
286-087	SU 2	surface		1.260	0.070	+
286-088	SU 2	surface		3.510	0.060	+
286-089	SU 2	surface		2.130	0.040	+
286-090	SU 2	surface		3.570	0.040	+
286-091	SU 2	surface		28.200	0.040	+
286-092	SU 2	surface		33.100	0.100	+
286-093	SU 2	surface		49.900	0.060	+

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SIGN TEST FOR PRS 286 Survey Unit 2 COC: Pu-238

PRS 286	Survey Unit	Sample Depth	Max probe depth	Offsite analysis (pCi/g)		Sign Test
Sample ID		(ft)	(ft) bgs	PU-238 result	PU-238 MDA	
286-094	SU 2	surface		15.800	0.070	+
286-095	SU 2	surface		67.300	0.060	+
286-096	SU 2	surface		1.930	0.030	+
286-097	SU 2	surface		6.840	0.030	+
286-098	SU 2	surface		3.500	0.040	+
286-099	SU 2	surface		1.720	0.040	+
286-100	SU 2	surface		5.930	0.040	+
286-101	SU 2	surface		14.800	0.040	+
286-102	SU 2	surface		9.900	0.030	+
286-103	SU 2	surface		4.540	0.030	+
286-104	SU 2	surface		1.120	0.050	+
286-105	SU 2	surface		0.930	0.030	+
286-106	SU 2	surface		1.100	0.030	+
286-107	SU 2	surface		10.000	0.040	+
286-108	SU 2	surface		21.000	0.070	+
286-109	SU 2	surface		6.200	0.020	+
286-110	SU 2	surface		15.300	0.020	+
286-111	SU 2	surface		44.200	0.060	+
286-112	SU 2	surface		104.000	0.090	-
286-113	SU 2	surface		10.800	0.010	+
286-114	SU 2	surface		3.330	0.030	+
286-115	SU 2	surface		2.520	0.050	+
286-116	SU 2	surface		7.060	0.060	+
286-117	SU 2	surface		4.980	0.070	+
286-118	SU 2	surface		5.790	0.060	+
286-119	SU 2	surface		15.100	0.040	+
286-120	SU 2	surface		2.780	0.030	+
286-121	SU 2	surface		2.270	0.040	+
286-122	SU 2	surface		0.570	0.030	+
286-123	SU 2	surface		0.680	0.030	+
286-124	SU 2	surface		1.160	0.040	+
286-125	SU 2	surface		0.061	0.058	+
286-126	SU 2	surface		0.233	0.032	+
286-127	SU 2	surface		0.890	0.050	+
286-128	SU 2	surface		3.280	0.030	+

CO	100	**Sum:**	**83**
Hot Spot	300	**k Crit**	50
Max Obs	104	(from Table I.3 MARSSIM)	
Mean	9.162536		
Standard Deviation	16.36652	P/F	**PASS**
Number of Samples	84		

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Sign Test for PRS 267

COC: Th-232

PRS 267	Sample Depth	Offsite analysis (pCi/g)		Sign Test
Sample ID	(ft)	Th-232 result	Th-232 MDA	
267V01	surface	1.010	0.02	+
267V02	surface	1.210	0.03	+
267V03	surface	0.880	0.03	+
267V04	surface	0.800	0.04	+
267V05	surface	1.670	0.12	+
267V06	surface	1.490	0.01	+
267V07	surface	0.289	0.015	+
267V08	surface	0.255	0.015	+
267V09	surface	1.060	0.02	+
267V10	surface	0.820	0.02	+
267V11	surface	1.130	0.06	+
267V12	surface	0.950	0.03	+
267V13	surface	1.040	0.05	+
267V14	surface	0.950	0.03	+
267V15	surface	0.880	0.05	+
267V16	surface	0.810	0.06	+
267V17	surface	1.030	0.01	+
267V18	surface	1.070	0.03	+
267V19	surface	1.190	0.02	+
267V20	surface	0.229	0.043	+
267V21	surface	0.960	0.04	+
267V22	surface	2.660	0.03	-
267V23	surface	0.890	0.02	+

CO	2.1	Sum:	22
Hot Spot	3.5	Adj. N	23
Max Obs	2.66	k Crit	15
Mean	1.01187	(from Table I.3 MARSSIM)	
Standard Deviation	0.493621	P/F	**PASS**
Number of Samples	23		

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Sign Test for SMV data set

COC: Pu-238

SMV Sample ID	Sample Depth (ft)	Offsite analysis (pCi/g) Pu-238 result	Pu-238 MDA	Sign Test
SMV001	surface	0.471	0.009	+
SMV002	surface	0.269	0.009	+
SMV003	surface	0.185	0.012	+
SMV004	surface	0.249	0.024	+
SMV005	surface	0.252	0.010	+
SMV006	surface	2.980	0.02	+
SMV007	surface	9.500	0.007	+
SMV008	surface	15.300	0.02	+
SMV009	surface	0.172	0.015	+
SMV010	surface	14.100	0.03	+
SMV011	surface	1.010	0.009	+
SMV012	surface	3.500	0.008	+
SMV013	surface	4.120	0.01	+
SMV014	surface	1.580	0.03	+
SMV015	surface	8.140	0.02	+
SMV016	surface	**161.000**	**0.02**	-
SMV017	surface	7.700	0.02	+
SMV018	surface	0.364	0.015	+
SMV019	surface	0.390	0.012	+
SMV020	surface	2.990	0.02	+
SMV021	surface	1.010	0.013	+
SMV022	surface	3.560	0.02	+
SMV023	surface	4.170	0.02	+
SMV024	surface	25.500	0.01	+
SMV025	surface	3.330	0.01	+
SMV026	surface	3.410	0.02	+
SMV027	surface	25.400	0.02	+
SMV028	surface	0.993	0.023	+
SMV029	surface	0.198	0.015	+
SMV030	surface	9.000	0.01	+
SMV031	surface	1.940	0.02	+
SMV032	surface	**76.500**	**0.007**	-
SMV033	surface	4.950	0.02	+
SMV034	surface	**71.700**	**0.01**	-
SMV035	surface	47.300	0.02	+
SMV036	surface	**56.100**	**0.02**	-
SMV038	surface	1.840	0.02	+
SMV039	surface	3.430	0.01	+
SMV040	surface	7.210	0.02	+
SMV041	surface	5.790	0.02	+
SMV042	surface	1.320	0.02	+
SMV043	surface	**68.600**	**0.02**	-
SMV044	surface	0.160	0.025	+

CO	55	Sum:	38
Hot Spot	165	Adj. N	43
Max Obs	161	k Crit	27
Mean	15	(from Table I.3 MARSSIM)	
Standard Deviation	31	P/F	**PASS**
Number of Samples	43		

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APPENDIX E

DATA REVIEW & VALIDATION

3 Reports included in this Appendix

1. Building 38 Footprint
2. Piece C Drilling
3. Group 5: PRSs 267 & 286, SM & SM Hillside, C34

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1.0 Introduction

Analytical data assessment can be performed on at least two quality control levels. Data Review involves an assessment of the quality controls used by the laboratory during the performance of the analysis. These include such things as laboratory blanks, system monitoring compound (surrogate) recoveries, matrix spikes, etc. Which controls are assessed and what criteria are applied depend on the analysis performed. The results of field quality control measures such as field duplicates and trip blanks may also be evaluated. Data Review is normally performed on 100% of the analytical data.

Data Validation is a much more detailed review of the entire laboratory data package. It includes all the elements of the Data Review plus verification of such things as proper instrument calibration, proper use of standards and correct performance of data calculations. Data Validation is used to identify systemic problems with the way the laboratory performs and reports analyses.

2.0 Description of the Data Set

After removal of Building 38, its foundation, and footers a verification sampling was performed per the Building 38 Area VSAP. Surface soil samples were collected from locations laid out on a grid. Samples from the initial sampling event at several locations exceeded cleanup objectives. Those locations were further remediated. Remediation and sampling of grid locations were performed iteratively until all verification samples were below "Hot Spot" criteria.

Since no equipment was field decontaminated, no equipment rinsates samples were collected.

Offsite sample analysis was performed at GEL of Ohio. There were no problems associated with the documentation, shipment, or chain of custody of the samples. There were no problems in achieving the analyte detection goals.

Table 1 Sampling Events

Sample Date	LSDG	Number of Samples	Mound Sample IDs
7-Apr-04	110532	26	F38-01, 02, 03, 03FD, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 16FD, 17, 18, 20, 21, 22, 24, 25, 26, & 27
9-21Jun-04	115499	14	F38-01, 02, 03, 06, 07, 12, 13, 18, 20, 21, 22, 23, 24, & 25
24-Jun-04	115591	4	F38-27, 28, 29, & 30
9-Jun-04	116625	4	F38-01, 03, 07, & 13
12-Jul-04	116681	2	F38-07 & F38-13

Note: LSDG 116625 was a reanalysis of the same samples as LSDG 115499

3.0 Data Review

The quality control data submitted with the analytical data packages were reviewed and assessed. The results of the assessment are presented in this section. The following

qualification flags are used to indicate data quality problems identified during the data review process.

Table 2 Data Review Qualifications

Flag	Description
J	Estimated sample result
U	Non-detect sample result
UJ	Estimated non-detected sample result
R	Rejected (unusable) sample result

3.1 Tracer Recovery

The laboratory spikes every Pu alpha spectrometry sample with Pu-242. The percent recovery of Pu-242 is then used to scale the detected presence of the other Pu isotopes. To fully meet QC criteria the Pu-242 isotope recovery must be between 30 – 110 % and have an accumulated count of at least 200 counts.

Tracer recovery for all final verification samples met QC criteria.

3.2 Blanks

The laboratory analyzes one blank for every 20 samples or LSDG. Laboratory blanks are analyzed to determine if laboratory processes are contributing to the detected sample activities. To meet the QC criteria the method blank must be ≤ 2 times the MDA.

The method blanks associated with all final verification samples met QC criteria.

3.3 Laboratory Duplicate

A laboratory duplicate analysis is performed to assess the precision and accuracy of the laboratory analysis. One duplicate is performed for every 20 samples or LSDG. To meet QC criteria the Relative Error Ratio of duplicate samples must be < 3.0.

$$RER = \frac{[\text{Sample Result} - \text{Duplicate Result}]}{[TPU^2_{sample} + TPU^2_{dup}]^{1/2}}$$

It is known that for Mound soils plutonium contamination is usually distributed non-homogeneously even in dried and ground samples. The divergent results obtained from reanalysis of the same sample are a prefect demonstration of this fact and not of the laboratory capability for precision.

Duplicates for Pu-238 failed in three out of 5 of the LSDGs. The Relative Error Ratio of the duplicate analyses for all other LSDG's and Pu isotopes were within QC criteria. Because of the known non-homogeneity this shortcoming was not used to qualify the reported data.

3.4 Matrix Spike

A matrix spike (MS) analysis is performed to assess the precision and accuracy of the laboratory analysis. One matrix spike is performed for every 20 samples or LSDG. It also may indicate analysis bias due to sample matrix effects. For plutonium by alpha spectrometry the sample is spiked with Pu-239/240.

The matrix spike recoveries ranged from 93 to 107% well within QC criteria.

3.5 Laboratory Control Sample

The Laboratory Control Sample (LCS) is a standard sample with a known quantity of the analyte of concern. The LCS recovery is an indication of whether the analytical process was in control during the analysis. For plutonium by alpha spectrometry the LCS is spiked with Pu-239/240.

The LCS recoveries ranged from 90 – 113% well within QC requirements.

3.6 Equipment Rinsates

Equipment rinsates are used to ensure efficacy of equipment field decontamination procedures, and that the sample collection process is not causing cross contamination. Only isotopes at background levels were found in the four equipment rinsates.

No equipment rinsates were collected. Separate, clean sample equipment was used for each sample. No field decontamination of sampling equipment was employed.

3.7 Field Duplicates

Field Duplicates give an indication of the degree of homogeneity within the sample material. As with Laboratory duplicates they are reported as RPD.

Agreement between field duplicates was within acceptable range.

4.0 Data Validation

The results of LSDG 115499 were fully data validated. In addition to the items discussed above, the following items were evaluated:

1. Instrument calibration
2. Daily Source checks
3. Background and efficiency measurement
4. Proper frequency and use of blanks
5. All calculations

No additional qualification resulted from this assessment. There was no indication of a systemic deficiency.

5.0 Certification

Based upon this review the plutonium analysis data maybe used as presented with no further qualifications.

Table 3 Building 38 Sub-Foundation Pu Results (pCi/g)

Sample ID	Sample Date	LSDG	Pu-238	Qualification
F38-01	9-Jun-04	116625	78.1	
F38-02	9-Jun-04	115499	72.1	
F38-03	9-Jun-04	116625	47.6	
F38-04				
F38-05	7-Apr-04	110532	0.732	
F38-06	9-Jun-04	115499	26.6	
F38-07	12-Jul-04	116681	1.96	
F38-08				
F38-09	7-Apr-04	110532	0.626	
F38-10	7-Apr-04	110532	1.17	
F38-11	7-Apr-04	110532	0.347	
F38-12	9-Jun-04	115499	5.89	
F38-13	12-Jul-04	116681	4.43	
F38-14				
F38-15	7-Apr-04	110532	8.73	
F38-16	7-Apr-04	110532	< 0.051	U
F38-16 FD	7-Apr-04	110532	0.326	
F38-17	7-Apr-04	110532	0.503	
F38-18	9-Jun-04	115499	11.2	
F38-19				
F38-20	9-Jun-04	115499	35.9	
F38-21	9-Jun-04	115499	7.61	
F38-22	9-Jun-04	115499	9.57	
F38-23	9-Jun-04	115499	54.4	
F38-24	21-Jun-04	115499	3.51	
F38-25	21-Jun-04	115499	9.97	
F38-26				
F38-27	23-Jun-04	115591	0.094	
F38-28	23-Jun-04	115591	< 0.038	U
F38-29	23-Jun-04	115591	0.518	
F38-30	23-Jun-04	115591	0.299	

Values listed as "<" are below the Minimum Detectable Activity (MDA)
Blank row grids had insufficient non-bedrock material for an analytical sample. They were verified by swipe and direct readings.
"U" qualifier indicates non-detection at or above the MDA.

1.0 Introduction and Summary

1.1 Introduction

This data assessment report has been prepared to describe the data quality for Special Metallurgical/Plutonium Processing (SM/PP) Boring Decontamination and Decommissioning (D&D) Verification data. Data assessment encompasses two types of quality control reviews on the data: data review and data validation. Data review involves a review of the basic quality control data included in the laboratory data package, e.g., laboratory blanks, surrogate recoveries, matrix spike recoveries, and field duplicates. Data validation is a detailed review of the laboratory data packages that includes all of the data review elements plus verification of such things as proper instrument calibration, instrument calibration validity during sample analysis, identification of target analytes, and proper treatment and quantification of the data. Data validation was performed on 10% of the samples. The results of the data validation are assessed to identify whether any systemic problems are apparent.

2.0 Radiological Data Review

The quality control data submitted with the analytical data packages were reviewed and assessed. The results of the assessment are presented in this section. The following qualifications were used to indicate data quality problems identified during the data review process. The qualifications are essentially the same as those used for data validation.

Table 1 — Data Review Qualifications

Qualification	Description
J	The associated positive sample result is estimated.
J/UJ	The associated positive and not-detected sample results are qualified estimated.
R	The associated sample result is rejected and unusable.
U	The associated sample result is qualified not detected.
UJ	The associated not-detected sample result is qualified estimated.

The field team submitted samples for radiological analysis including isotopic plutonium, isotopic thorium, strontium-90 and gamma spectroscopy. The following table shows the number of samples submitted for each type of analysis.

Table 2 — Radiological Sample Quantities

Analysis	Number of Samples
Isotopic Plutonium	39
Isotopic Thorium	39
Strontium-90	1
Gamma Spectroscopy	1

Data review elements including yields, laboratory blanks, laboratory duplicates, field duplicates, field rinsates, and matrix spikes are evaluated in the following subsections.

2.1 Yields

Yields were determined for both isotopic plutonium and isotopic thorium analyses by alpha spectrometry. Three yields for the plutonium analysis in samples 000011, 000015, and 000027 were below acceptance limits and were re-prepared and analyzed by the laboratory. The yields for re-analyzed samples 000011, 000015, and 000027 were 66, 70, and 28.4%, respectively. The plutonium results from the re-analyses were reported by the laboratory. The plutonium yields for all other samples ranged from 21 to 75% with an average of 43%. The yields for thorium analysis ranged from 46 to 102% with an average of 94%. Clearly, the thorium yields were much better than the plutonium yields. While the yields for plutonium were somewhat lower than normal for samples from the site, the data were assessed as usable.

2.2 Laboratory Blanks

Laboratory blanks are used to verify that laboratory handling and analytical procedures are not contaminating samples with target parameters. Plutonium-238 was detected in all four soil blanks and indicates a systemic low-level contamination issue. The following table lists the blank identities, the detected activity, the minimum detectable activity (MDA), and the site action limit. While the detected activity in blank GETR1AB

exceeded the project reporting limits, the project action limit is several magnitudes greater than the blank contamination and the trace contamination does not impact the usability of the data.

Table 3 — Plutonium-238 Blank Contamination

Sample Id	Pu-238 Activity (pCi/g)	MDA (pCi/g)	Reporting Limit (pCi/g)	Pu-238 Action Level (pCi/g)
GET601AB	0.00779	0.00141	0.01	100
GET7E1AB	0.00889	0.00161	0.01	100
GET7R1AB	0.0165	0.00404	0.01	100
GGFWM1AB	0.00532	0.00096	0.01	100

2.3 Laboratory Duplicates

Laboratory duplicates are used to assess the sample analysis precision. The following table lists the analysis, the number of samples submitted and the number of laboratory duplicates analyses.

Table 4 — Laboratory Duplicate Quantities

Analysis	Number of Samples	Number of Lab Duplicates
Isotopic Plutonium	39	5
Isotopic Thorium	39	4
Strontium-90	1	1
Gamma Spectroscopy	1	1

The laboratory duplicate samples were evaluated by calculating the relative percent differences (RPDs). The RPDs were not calculated for duplicate pairs where both results were not detected or less than 2x the MDA. If one result was greater than 2x the MDA and the other result was not detected, a 200% relative percent difference was used. If one result was greater than 2x the MDA and the other result was detected at less than 2x the MDA, the RPD was calculated. After calculating the RPDs, an average of RPDs for each analyte was calculated. The following table lists the results where a valid RPD could be calculated.

Table 5 — Laboratory Duplicate RPDs for Radioisotopes

Analyte	All Detections	
	Frequency of Detection	Average RPD (%)
Plutonium-238	4	16
Plutonium-239	1	14
Thorium-228	3	3.2
Thorium-230	3	3.8
Thorium-232	3	11
Strontium-90	0	–
Cesium-137	1	200

Cesium was detected in the laboratory duplicate of sample 000021, but not in the original analysis. The detected activity was nearly 10 times below the project reporting limit and at 2.7x the MDA. While the duplicate data suggest a possible precision problem, the detected activity was far below the project reporting limit and the increased imprecision does not impact the usability of the data. The individual duplicate precision for plutonium-238 in duplicate pair 000017 was somewhat high at 43%. Because both this RPD and the average RPD were within acceptance limit, the data were judged usable. The duplicate precision in sample 000027 for plutonium-238 was high at 122%. The plutonium-238 result for sample 000027 should be treated as estimated (J). Because the reported concentration was more than 100 times less than the action limit, the plutonium-238 result was judged usable.

2.4 Field Duplicates

Field duplicates are used to assess the sample collection and sample analysis precision. The following table lists the analysis, the number of samples submitted and the number of field duplicates submitted. In accordance with the Sampling Plan, no field duplicates were collected for gamma spectrometry or strontium-90.

Table 6 — Field Duplicate Quantities

Analysis	Number of Samples	Number of Field Duplicates
Isotopic Plutonium	39	4
Isotopic Thorium	39	4
Strontium-90	1	0
Gamma Spectroscopy	1	0

The field duplicate samples were evaluated by calculating the RPDs. The RPDs were not calculated for duplicate pairs where both results were not detected or less than 2x the MDA. If one result was greater than 2x the MDA and the other result was not detected, a 200% relative percent difference was used. If one result was greater than 2x the MDA and the other result was detected at less than 2x the MDA, the RPD was calculated. After calculating the RPDs, an average of RPDs for each analyte was calculated. The following table lists the results where a valid RPD could be calculated.

Table 7 — Laboratory Duplicate RPDs for Radioisotopes

Analyte	All Detections	
	Frequency of Detection	Average RPD (%)
Plutonium-238	4	36
Plutonium-239/240	2	72
Thorium-228	4	25
Thorium-230	4	7
Thorium-232	4	27

The average RPDs were within acceptance limits. One relative percent difference for plutonium-239/240 in field duplicate pair 000029/000040 exceeded the individual acceptance limit with a calculated RPD of 130%. There are insufficient duplicate results to assess whether there is a precision problem associated with plutonium-239/240. Because the highest reported plutonium-239/240 activity, 1.09 pCi/g in sample 000026, was approximately six times less than the site screening limit (6.28 pCi/g), the potential imprecision does not impact the usability of the data.

2.5 Field Rinsates

Field blanks are introduced to determine whether field decontamination procedures and field handling procedures could be contaminating sample results with target parameters. The field team submitted two rinsates for plutonium and thorium analysis. The sampling plan did not require field rinsates for cesium-137 or strontium-90 analysis. Thorium-230 was detected below the reporting limit in field rinsate 000045 at 0.304 pCi/g with an MDA of 0.248 pCi/g. No samples were reported with thorium-230 results greater than the site action limit. Because no sample results exceeded the background activity for thorium-230, the low-level blank contamination had no impact on the usability of the data.

2.6 Matrix Spike

Matrix spikes are prepared to verify the sample matrix is not interfering with the accurate and precise determination of target parameters. Matrix spike samples were specified by the field team for samples 000012 and 000026. The thorium spike recoveries ranged from 103 to 115% with an average of 107%. The thorium matrix spike recoveries were acceptable. The plutonium-238 spike recoveries in sample 000012 were 89 and 116%. The plutonium-238 spike recoveries could not be determined in sample 000026. The laboratory spiking level (about 1 pCi/g) was far below the sample activity (106 pCi/g) and consequently, the spike activity was lost in both matrix spike analyses on this sample. In response to the deficient recovery, the laboratory analyzed sample 000027 as a plutonium matrix spike pair. The results from these matrix analyses were 102 and 105%. No qualifications were applied to these data on the basis of matrix spike performance.

3.0 Radiological Data Validation

Data validation was subcontracted to TechLaw, Inc. The results of the data validation are presented in the following subsection by analysis. Each group of validation results is evaluated to determine whether there are indications of systemic deficiencies that might require consideration before using the data.

The field team submitted samples for radiological analyses including isotopic plutonium, isotopic thorium, isotopic uranium and gamma spectroscopy. Table 8 lists the number of samples submitted for each type of analysis and the number of samples validated for the analysis.

Table 8 — Radiological Sample Quantities

Analysis	Number of Samples	Number Validated
Isotopic Plutonium	39	4
Isotopic Thorium	39	4
Strontium-90	1	1
Gamma Spectroscopy	1	1

The validated samples are listed in the following table.

Table 9 — Validated Radiological Analysis Samples

Isotopic Plutonium	Isotopic Thorium	Strontium-90	Gamma Spectroscopy
000012	000012		
000021	000021	000021	000021
000031	000031		
000041	000041		

The Techlaw, Inc., validators applied qualifications to the data for the following two reasons:

- Plutonium-238 contamination in the preparation blank

- Poor duplicate precision for Cesium-137

Each of these deficiencies is discussed in separate subsections and is consistent with issues identified during data review. The data validation qualifications applied to the samples are listed in Table 10.

3.1.1 Blank Contamination

Laboratory blanks are used to verify that laboratory handling and procedures are not contaminating samples with target parameters. During data validation, plutonium-238 contamination in the blanks was noted in association with all of the samples. The validation service qualified the plutonium-238 results in sample 000021 estimated (J) due to the associated blank contamination. The data validation service also assessed that all data were usable due to the relatively high action limit compared to the reported sample results. The contamination is systemic and all results should be treated as estimated (J). The qualification does not impact the usability of the data.

3.1.2 Laboratory Duplicate

Laboratory duplicates are used to assess the sample analysis precision. The data validation service qualified cesium-137 in sample 000021 estimated (J) due to poor precision. As noted in the data review section, cesium was detected in the laboratory duplicate of sample 000021, but not in the original analysis. The detected activity was nearly 10 times below the project reporting limit and at 2.7x the MDA. While the duplicate data suggest a possible precision problem, the detected activity was far below the project reporting limit and the increased imprecision does not impact the usability of the data.

3.1.3 Table of Qualifications

The following table lists all the qualifications assigned during the validation of the radiological samples.

Table 10 — Radiological Analysis Qualifications

Laboratory Batch	Analysis	Sample ID	Parameter	Deficiency	Qual.
J4D220352	RAD	000021	Plutonium-238	MB (0.0089 pCi/g)	J
J4D220352	RAD	000021	Cesium-137	LDRPD	J

MB – Method Blank
LDRPD – Laboratory Duplicate Relative Percent Difference
J – Estimated

4.0 References

DOE (U.S. Department of Energy). 22 January 2002. *Methods Compendium.* Mound Plant, Miamisburg OH. Technical Manual MD-80045, Issue 2.

1.0 Introduction

Analytical data assessment can be performed on at least two quality control levels. Data Review involves an assessment of the quality controls used by the laboratory during the performance of the analysis. These include such things as laboratory blanks, system monitoring compound (surrogate) recoveries, matrix spikes, etc. Which controls are assessed and what criteria are applied depend on the analysis performed. The results of field quality control measures such as field duplicates and trip blanks may also be evaluated. Data Review is normally performed on 100% of the analytical data.

Data Validation is a much more detailed review of the entire laboratory data package. It includes all the elements of the Data Review plus verification of such things as proper instrument calibration, proper use of standards and correct performance of data calculations. Data Validation is used to identify systemic problems with the way the laboratory performs and reports analyses.

2.0 Description of the Data Set

Offsite sample analysis was performed at Severn-Trent Laboratories of Earth City (St. Louis), MO. There were no problems associated with the documentation, shipment, or chain of custody of the samples. Analyte detection goals were achieved, except in the infrequent situation where high levels of one analyte required sample dilution, raising detection limits for other analytes as well.

Table 1 - Sampling Events

Sample Date	LSDGs	Number of Samples	Mound Sample IDs
PRS Group 5*: 6 Oct 2004 through 28 Oct 2004	F4J140349, F4J140354 F4J140357, F4J180155 F4J180182, F4J220375 F4J270187, F4K010152 F4K030191	176 solids 8 rinsates	000001 through 000050 000055 through 000059 000061 through 000110 000112 through 000120 000122 through 000142 000147 through 000171 000174 through 000177 000180 through 000199
PRS 286: 10 Jan 2005 through 25 Jan 2005	F5A270196, F5A270234 F5A270239, F5A270260 F5A270267, F5A270276 F5A270282, F5B020176 F5B020183	143 solids 7 rinsates	000001 000003 through 000053 000055 through 000131 000205 through 000225

* includes PRSs 267, 272-273, 285, 288-293, 296, 303

LSDG: lab sample data group

A525/530

3.0 Data Review

The quality control data submitted with the analytical data packages were reviewed and assessed. The results of the assessment are presented in this section. The following qualification flags are used to indicate data quality problems identified during the data review process.

Table 2 - Data Review Qualifications

Flag	Description
J	Estimated sample result
U	Non-detect sample result
UJ	Non-detected sample result at an estimated reporting limit
R	Rejected (unusable) sample result – (NOT required for these data)

3.1 Tracer Recovery

The laboratory spikes every alpha spectrometry sample with Pu-242 (and Th-229 / U-232 where appropriate). The percent recovery of these isotopes is then used to scale the detected presence of the target isotopes. To fully meet QC criteria the isotope recovery must be between 30 – 110 % and have an accumulated count of at least 200 counts. Tracer recovery for all samples from both the PRS Group 5 and PRS 286 sites met QC criteria.

3.2 Blanks

The laboratory analyzes one blank for every 20 samples or LSDG. Laboratory blanks are analyzed to determine if laboratory processes are contributing to the detected sample activities. Laboratory blanks were analyzed at an appropriate frequency.

The laboratory method blanks associated with the verification samples were typically either free of contamination or were contaminated at such low levels relative to the concentrations in the associated field samples that data qualification was not needed. However, in PRS Group 5, blanks contamination led to qualification of soil sample data as nondetect as noted in the table below. Also as indicated in the table, for PRS 286, blank contamination led to qualification of Pu-238 data as nondetect in eight soil and two rinsate samples.

A526/520

Table 3 – Blank Qualification of Sample Data

Location	Analyte	Samples qualified as nondetect
PRS Group 5	Pu-238	000130
	Th-228	000062
	Th-230	000062, 000099, 000138, 000141, 000149, 000150, 000154 000155, 000162, 000165, 000166, 000176, 000177
	U-234	000062, 000063
PRS 286	Pu-238	000003, 000040, 000043, 000048, 000059, 000125, 000126, 000217 000221, 000223

3.3 Laboratory Duplicate

A laboratory duplicate analysis is performed to assess the precision and accuracy of the laboratory analysis. One duplicate is performed for every 20 samples or LSDG. In some cases, the laboratory counted a MS (matrix spike) duplicate or LCS (lab control sample) duplicate as the laboratory duplicate in order to achieve this frequency; no data were qualified for these occurrences.

To meet QC criteria the relative error ratio (RER) of duplicate samples must be < 3.0, or if one or both results are nondetect.

$$RER = \frac{[\text{Sample Result} - \text{Duplicate Result}]}{[TPU^2_{sample} + TPU^2_{dup}]^{1/2}}$$

It is known that for Mound soils contamination is usually distributed non-homogeneously even in dried and ground samples. The divergent results obtained from analysis of second portions from the same sample are a demonstration of this fact and not of the laboratory capability for precision. The relative error ratio for the laboratory duplicate analyses was within QC criteria in all cases.

3.4 Matrix Spike

A matrix spike (MS) analysis is performed to assess the precision and accuracy of the laboratory analysis. One matrix spike is to be performed for every 20 samples or LSDG. This frequency was not quite met, but no data were qualified for this occurrence: For Group 5 samples, eight MS samples were analyzed for 176 field samples collected; for PRS 286 samples, five MS samples were analyzed for 143 field samples collected.

For all spiked analytes/samples except one Pu-238 spike from PRS Group 5, the matrix spike recoveries were within QC criteria for the target analytes and no data qualification was required. In the one instance noted, recovery was slightly below the control limit and the associated samples were qualified as estimated for Pu-238.

A527/530

3.5 Laboratory Control Sample

The Laboratory Control Sample (LCS) is a standard sample with a known quantity of the analyte of concern. The LCS recovery is an indication of whether the analytical process was in control during the analysis. The LCS recoveries were consistently within QC requirements, demonstrating good analytical accuracy.

3.6 Equipment Rinsates

Equipment rinsates are used to ensure efficacy of equipment field decontamination procedures, and that the sample collection process is not causing cross contamination. Approximately half of the rinsates were free of measurable contamination; in the others, isotopes at background levels were found in the equipment rinsates.

For Group 5 samples, eight rinse samples were collected and 176 field samples were collected. For PRS 286 samples, seven rinse samples were collected and 143 field samples were collected. These frequencies are slightly below a strict 1/20 frequency, but data were not qualified for this occurrence.

3.7 Field Duplicates

Field duplicates give an indication of the degree of homogeneity within the sample material. As with laboratory duplicates, they are reported as RER. Agreement between field duplicates was acceptable for 82 of 84 analyte pairs for Group 5, and 26 of 28 analyte pairs for PRS 286. Fifteen field duplicate samples were reported for Group 5 (176 samples total) and 14 field duplicate samples were reported for PRS 286 (143 samples total).

As noted under laboratory duplicates, it is known that for Mound soils contamination is usually distributed non-homogeneously even in dried and ground samples. The divergent results obtained from analysis of field duplicate pairs from the same sampling location are a demonstration of this fact.

3.8 Other Issues

Consistent with standard laboratory practice, detected results that were found below the required reporting limit were qualified as estimated by the laboratory. These results have inherently poor precision, as they are close to the analytical detection limit. The qualifiers were retained during data validation, and pose no significant limitation to data usability.

In a limited number of cases, positive results with uncertainties greater than the result were qualified as estimated, as this implies a less than 95% confidence in the detection. Similarly, negative results where the uncertainty was greater than the absolute value of the result were qualified as estimated or nondetect at an estimated reporting limit, as

the sample count may be less than the background reading in such cases. These instances did not result in data rejection; the results may be used as estimated values.

4.0 Data Validation

The results of 10% of samples in each LSDG were fully data validated. In addition to the items discussed above, the following items were evaluated:

1. Instrument calibration
2. Daily Source checks
3. Background and efficiency measurement
4. Proper frequency and use of blanks
5. All calculations

No additional qualification resulted from this assessment. There was no indication of a systemic deficiency.

5.0 Certification

Based upon this review the analytical data maybe used as presented with no further qualifications.

APPENDIX F

PRS 299 STATE FIRE MARSHAL APPROVAL DOCUMENTATION

A529a/530

Ohio Department of Commerce

Division of State Fire Marshal
Bureau of Underground Storage Tank Regulations
8895 E Main St. • P.O. Box 687
Reynoldsburg, OH 43068-9009
(614) 752-7938 FAX (614) 752-7942
www.com.state.oh.us

Bob Taft
Governor

Doug White
Director

October 04, 2005

WILLIAM TAYLOR
DIRECTOR-MCP
US DEPT OF ENERGY
175 TRI COUNTY PARKWAY
SPRINGDALE, OH 45246

SITE: U.S. DEPT OF ENERGY
WELL HOUSE #3 EMERGENCY
GENERATOR UST 1
1 MOUND AVE
MIAMISBURG OH
MONTGOMERY COUNTY
RELEASE #57000630-N00005

RE: NO FURTHER ACTION STATUS REGARDING CLOSURE REQUIREMENTS

Dear Director Taylor:

The Bureau of Underground Storage Tank Regulations (BUSTR) has reviewed all information submitted for this UST closure assessment. Based on this information, BUSTR requires no further action (NFA) involving closure requirements under Ohio Administrative Code (OAC) 1301:7-9-12, effective March 2005.

Thank you for your cooperation. The submitted information for this UST closure assessment is available from BUSTR as a public record. If you have any questions, please contact our office at (614) 752-7938.

Sincerely,

Kelly J. Gill
Corrective Action Supervisor

XC: Site File
John Lehew, CH2M HILL
Mark Case, Montgomery County Health Department
Robert L Bobbitt, Miamisburg Fire Dept

ATTACHMENT B

GENERAL MEDIA INFORMATION

The Ohio EPA Fact Sheet was generated in response to a concern by Mound neighbors about demolition activities and radiological contaminants in the air.

OhioEPA

State of Ohio
Environmental Protection Agency

Fact Sheet

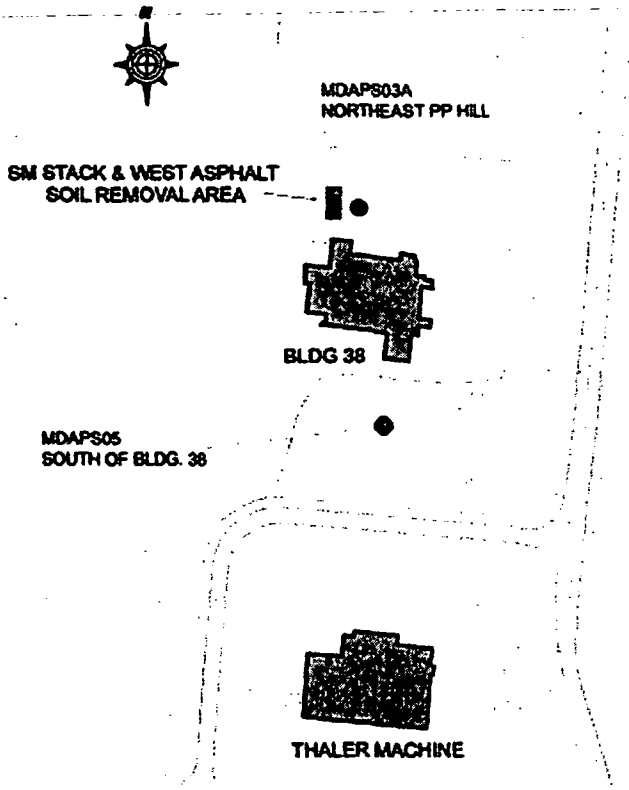
Air Monitoring for the U.S. Department of Energy Mound Site Building 38 Demolition and Soil Removal

September 2003

The U.S. Department of Energy (DOE), Miamisburg Closure Project began demolition of Building 38 and the Special Metallurgical (SM) Stack at its Mound Site in May 2003. Building 38 was a processing facility for plutonium-238. On August 20, 2003, MCP began soil removal activities known as SM West Asphalt/Soil Removal Project. Contaminated building and stack debris, and soil are being removed and shipped off-site. The soil removal area is located just west of Building 38 and the SM Stack footprint and is approximately 100 ft. by 50 ft. Additional soil removal and verification will occur in 2004.

The DOE Mound Plant was built in late 1946 as a facility to support atomic weapons research and energy programs. It is located in the City of Miamisburg, in southwest Ohio. Ohio EPA's Office of Federal Facilities Oversight (OFFO) has been conducting oversight of the MCP air monitoring program since 1996. Due to the close proximity of these projects to the community, Ohio EPA added an additional air sampler south of Building 38 in May 2003. This air sampler complements existing Ohio EPA air samplers located at and around the site.

The air monitoring results through July 2003, demonstrate that air emissions from these projects have been maintained well below regulatory limits. The DOE is required to maintain radionuclide air emissions less than 10 millirem (see Figure 1). There has been an increase in emissions which can be readily measured since demolition activities began (see Figure 2). Small increases are expected while conducting these remedial activities. Ohio EPA will continue to measure air concentrations and review site data, as well as oversee control measures to ensure that emissions are maintained as low as possible.



Blue dots indicate Ohio EPA air sampling locations used to monitor plutonium-238 from the Building 38 area.

For more information about OhioEPA's work at the Miamisburg Closure Project, please contact:
Brian Nickel, Ohio EPA
1-937-285-6468
brian.nickel@epa.state.oh.us
http://offo2.epa.state.oh.us/Mound/Mound.htm

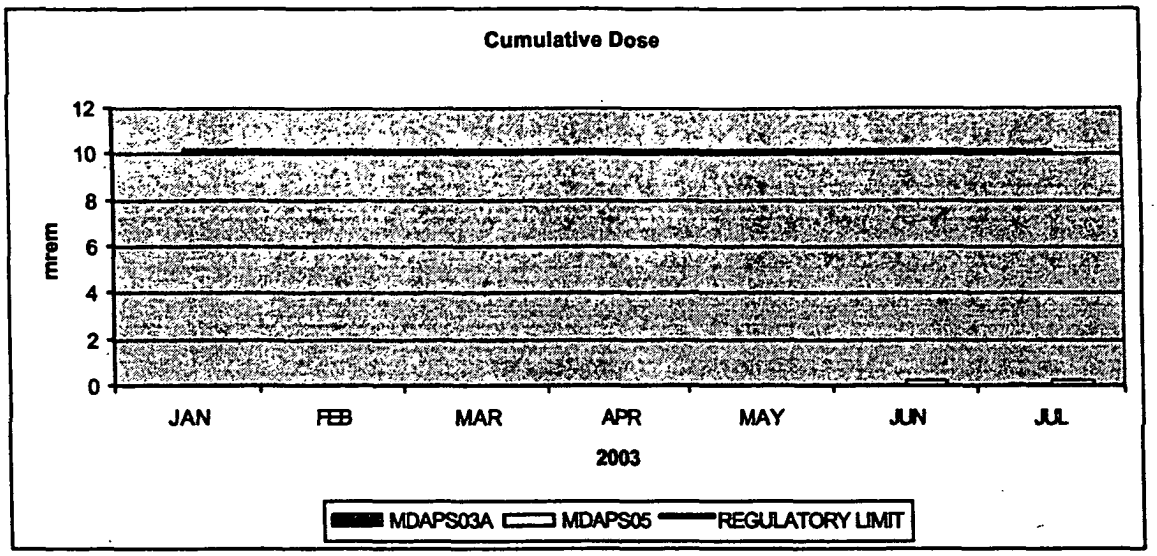


Figure 1 - Annual cumulative dose from plutonium-238 at Ohio EPA air monitoring stations. MDAPS03A is located northeast of the Building 38 area. MDAPS05 is located south of the Building 38 area. Millirem (mrem) is a measurement for radioactive dose.

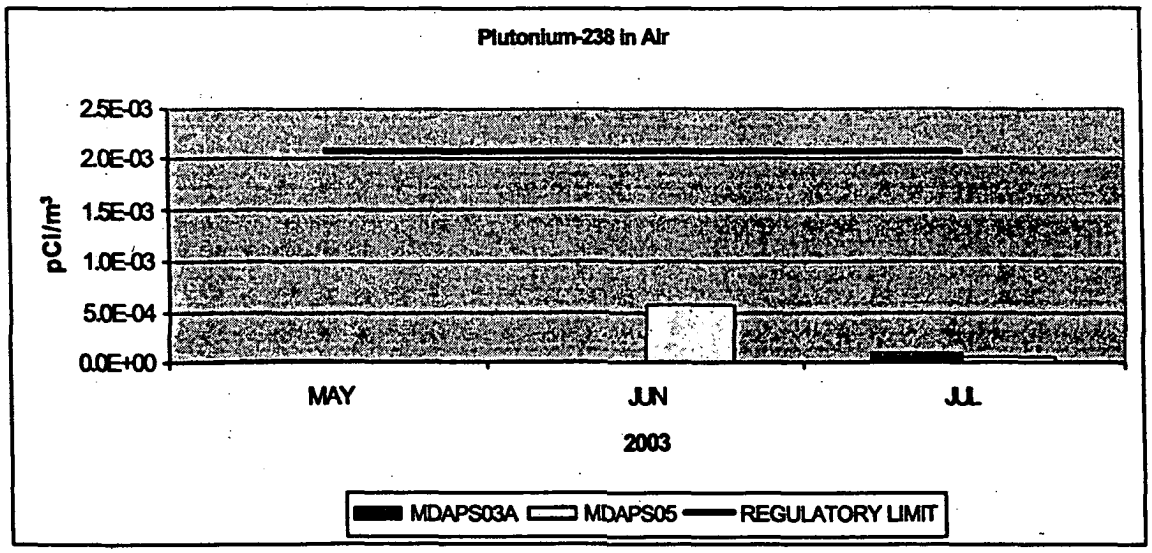


Figure 2 - Plutonium-238 concentrations in air since Building 38 project began in May 2003. MDAPS03A is located northeast of the Building 38 area. MDAPS05 is located south of the Building 38 area. Picocurie per cubic meter (pCi/m^3) is a measurement of the concentration of radioactivity in air.

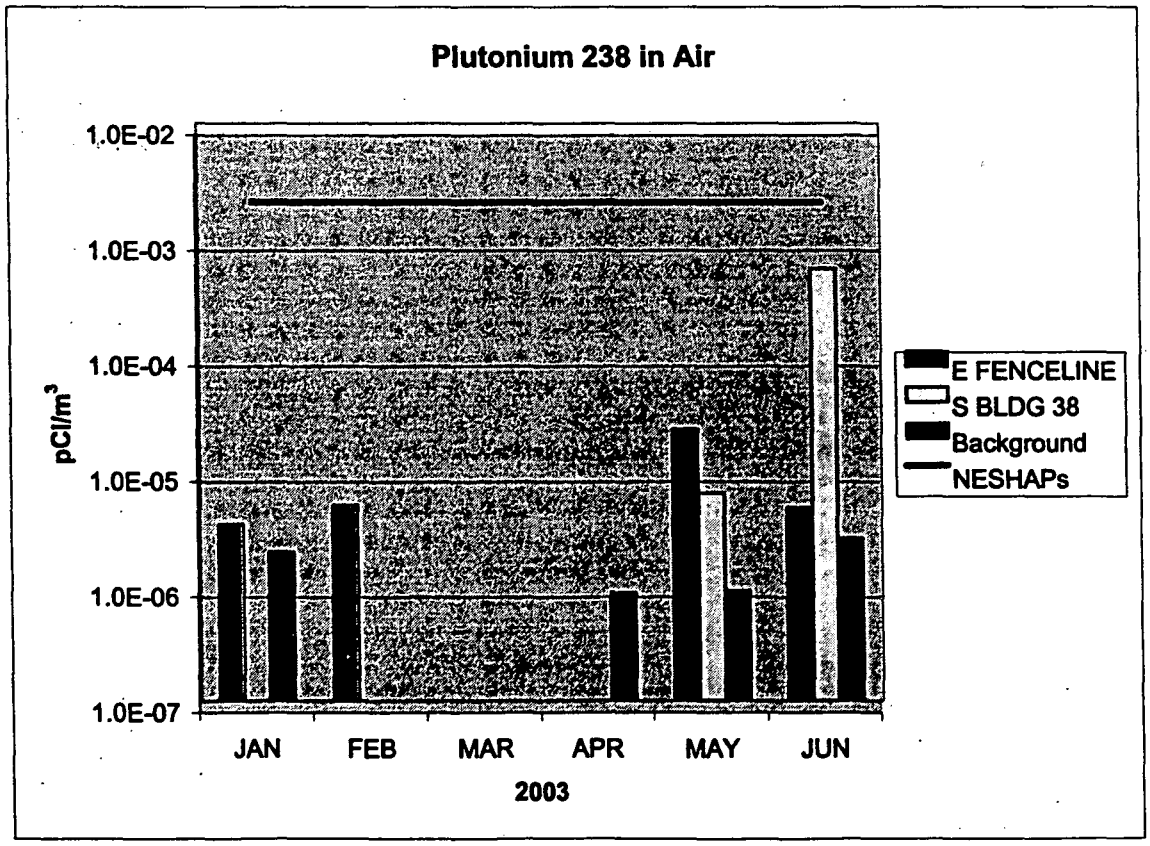
An increase in plutonium-238 emissions was measured during June 2003, due to demolition activities. The increase was well below any regulatory threshold, and is expected to return to historical levels after completion of the project.

OhioEPA
Office of Federal Facilities Oversight

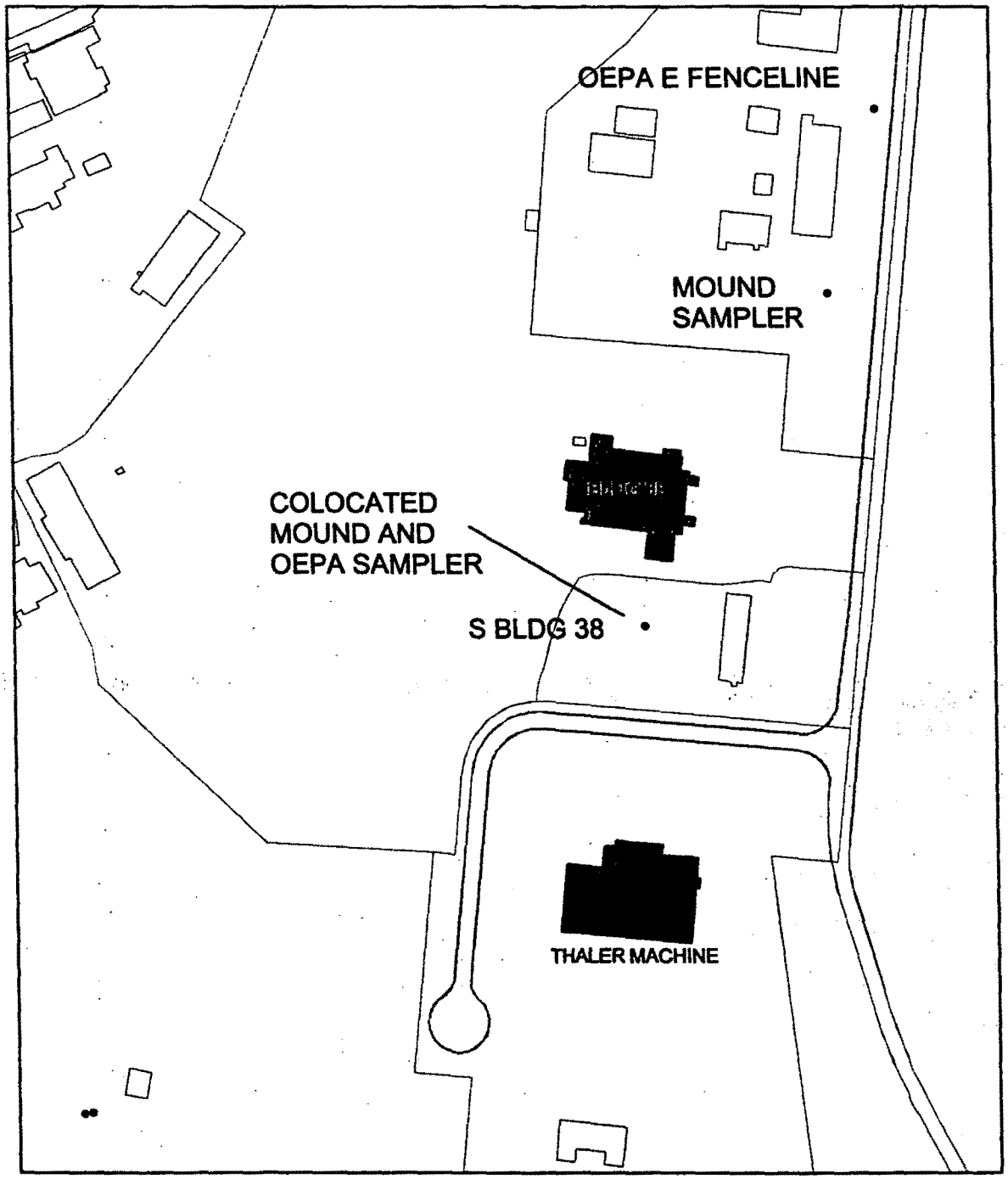
PU-238 IN AIR

2003	MDAPS01 NE FENCELINE (pCi/m³)	MDAPS02 S FENCELINE (pCi/m³)	MDAPS03A E FENCELINE (pCi/m³)	MDAPS04/4A TEST FIRE VAL (pCi/m³)	MDAPS05 S BLDG 38 (pCi/m³)	Background CROSBY TWP (pCi/m³)	NESHAPs 10 mrem (pCi/m³)
JAN	< 9.24E-06	< 2.50E-06	3.36E-06	2.68E-05	(1)	< 1.94E-06	2.1E-03
FEB	< 1.69E-05	1.08E-05	4.92E-06	< 4.93E-06	(1)	ND	2.1E-03
MAR	< 3.68E-06	< 1.69E-06	(2)	< 1.99E-05	(1)	ND	2.1E-03
APR	7.16E-06	2.82E-04	(2)	5.54E-06	(1)	< 8.52E-07	2.1E-03
MAY	< 1.95E-06	< 1.82E-11	2.24E-05	(3)	6.20E-06	< 8.85E-07	2.1E-03
JUN	3.90E-05	(4)	4.66E-06	(3)	5.45E-04	2.53E-06	2.1E-03
JUL							2.1E-03
AUG							2.1E-03
SEP							2.1E-03
OCT							2.1E-03
NOV							2.1E-03
DEC							2.1E-03

(1) High volume partivcualte monitoring did not begin at MDAPS05 until May 15, 2003.
(2) Power inadvertenly disconnected during D & D of Building 50. Monitoring resumed on May1, 2003.
(3) Power cutoff during D & D activities in Test Fire Valley.
(4) Location out of service. Moved to south of Bldg. 38 (MDAPS05) on May 15, 2003.
ND Indicates sparse or no data collected for this time period from equipment failure or due to extreme weather conditions.
DP Data pending.



B 3/11



0 100 200 300 400 500 ft

OhioEPA

B4/11

A publication of the Department of Energy Miamisburg Closure Project

Status of Project Activities

July 1, 2004 **Issue 8**

In response to your questions concerning activities being performed at the MCP Site, communications will be provided on a regular basis to include:

- planned activities for the upcoming weeks/month,
- air sampling data for monitoring stations located within close proximity to the tenant property, and
- point of contact for questions/concerns

Week of June 28
Planned SM-PP Hill Site Activities:

- Activities continue around the former Building 38 soils, and former Building 50 site, and
- Soils and debris from the Building 38 project continue to be loaded into trucks for transport to the rail staging area

Planned Rail Spur Site Activities:

- Activities near and around the rail spur site continue while crews haul and unload debris into the temporary staging area
- Increased truck traffic is expected throughout the next month
- No rail car loading or shipping activities are anticipated until September

Air Monitoring Readings
The readings were well below EPA's allowable annual limit of 10mrem .

	Proximity to Thaller Machine Company			Proximity to PerkinElmer
Weeks of:	**Station 213 (mrem)**	**Station 216 (mrem)**	**Station 218 (mrem)**	**Station 217 (mrem)**
June 7	0.007	0.001	0.007	0.003
June 14	0.003	0.004	0.003	0.004

Questions? Or Need additional information?
Contacts:

B5/11

CH2M HILL
John Lehew, 608-8237
Alternate: Jeff Bradford, 608-8217

OR

DOE Miamisburg Closure Project
Margaret Marks, 847-8350, ext. 309, Margaret.marks@ohio.doe.gov
Dewain Eckman, 847-8350, ext. 307, Dewain.eckman@ohio.doe.gov

B6/11

A publication of the Department of Energy Miamisburg Closure Project

Status of Project Activities

June 17, 2004 Issue 7

In response to your questions concerning activities being performed at the MCP Site, communications will be provided on a regular basis to include:

- planned activities for the upcoming weeks/month,
- air sampling data for monitoring stations located within close proximity to the tenant property, and
- point of contact for questions/concerns

Week of June 21

Planned SM-PP Hill Site Activities:

- Activities continue around the former Building 38 soils, and former Building 50 site, and
- Soils and debris from the Building 38 project continues to be loaded into trucks for transport to the rail staging area

Planned Rail Spur Site Activities:

- Activities near and around the rail spur site continue while crews haul and unload debris into the temporary staging area
- Increased truck traffic is expected throughout the next month
- No rail car loading or shipping activities are anticipated until September

Air Monitoring Readings

The readings were well below EPA's allowable annual limit of 10mrem .

	Proximity to Thaller Machine Company			Proximity to PerkinElmer
Weeks of:	**Station 213 (mrem)**	**Station 216 (mrem)**	**Station 218 (mrem)**	**Station 217 (mrem)**
May 24	0.007	0.002	0.002	0.02
May 31	0.007	0.003	0.002	0.01

Questions? Or Need additional information?
Contacts:

B7/11

CH2M HILL
John Lehew, 608-8237
Alternate: Jeff Bradford, 608-8217

OR

DOE Miamisburg Closure Project
Margaret Marks, 847-8350, ext. 309, Margaret.marks@ohio.doe.gov
Dewain Eckman, 847-8350, ext. 307, Dewain.eckman@ohio.doe.gov

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A publication of the Department of Energy Miamisburg Closure Project

Status of Project Activities

April 29, 2004
Issue 4

Planned SM-PP Hill Site Activities for week of May 3:

- Activities continue around the former Building 38 soils, and former Building 50 site
- Work crews will continue to reduce concrete into smaller rubble for ease in loading and removal
- Soils and debris from the Building 38 project will be loaded into boxes for disposal

Wind Velocity and Directional Averages

CH2M HILL will discontinue concrete demolition activities when sustained wind velocity exceeds an average of 10 mph on a compass heading of 160 to 190 degrees (the direction of Thaler). Otherwise, the project wind restrictions of sustained winds above 20 mph with gusts above 30 mph will apply.

The most prevalent wind direction on site is to the northeast (away from Thaler). Over the past 6 months, we have experienced winds in all directions, but have adhered to the requirements of the work plan and curtailed work activities in high wind conditions.

Air Monitoring Readings

The readings were well below EPA's allowable annual limit of 10mrem *A site map showing the locations of the stations is attached.

Week of:	Station 213	Station 216	Station 218
April 5-12	0.016	0.011	0.015
April 12-19	0.0018	0.0018	0.0022

For further information, contact:
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Margaret Marks, 847-8350, ext. 309, Margaret.marks@ohio.doe.gov
Dewain Eckman, 847-8350, ext. 307, Dewain.eckman@ohio.doe.gov

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A publication of the Department of Energy Miamisburg Closure Project

Status of Project Activities

April 22, 2004
Issue 3

Planned SM-PP Hill Site Activities for week of April 22:

- Activities continue around the former Building 38 soils, and former Building 50 site
- Crews can be seen operating heavy equipment in an effort to demolish remaining structures
- Work crews will continue to reduce concrete into smaller rubble for ease in loading and removal
- Soils and debris from the Building 38 project will be loaded into trucks and transported to the rail spur for disposal

Wind Velocity and Directional Averages

CH2M HILL will discontinue concrete demolition activities when sustained wind velocity exceeds an average of 10 mph on a compass heading of 160 to 190 degrees (the direction of Thaler). Otherwise, the project wind restrictions of sustained winds above 20 mph with gusts above 30 mph will apply.

The most prevalent wind direction on site is to the northeast (away from Thaler). Over the past 6 months, we have experienced winds in all directions, but have adhered to the requirements of the work plan and curtailed work activities in high wind conditions.

Air Monitoring Readings

The readings were well below EPA's allowable annual limit of 10mrem *A site map showing the locations of the stations is attached.

Week of:	Station 213	Station 216	Station 218
April 5	Data pending. No abnormalities noted in the raw data.		
March 12	Data pending. No abnormalities noted in the raw data.		

For further information, contact:
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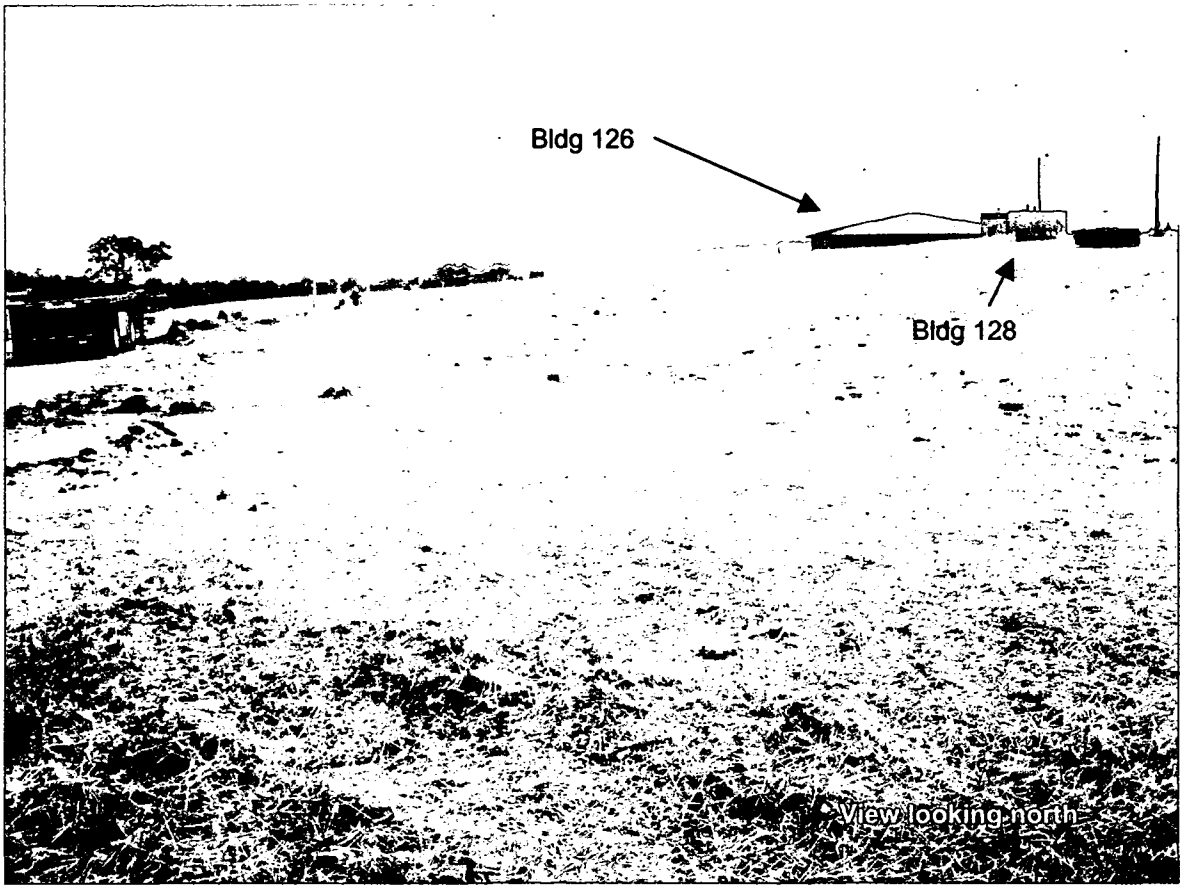
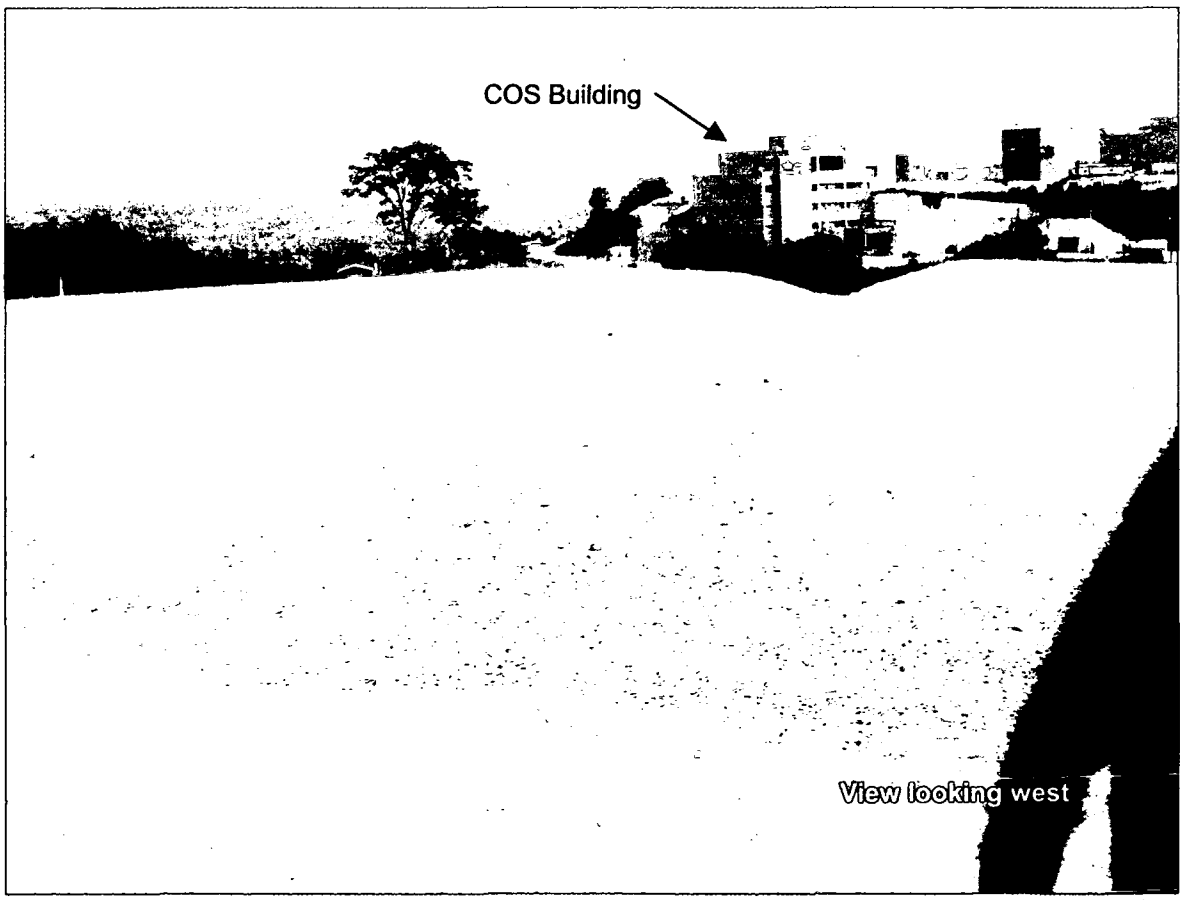
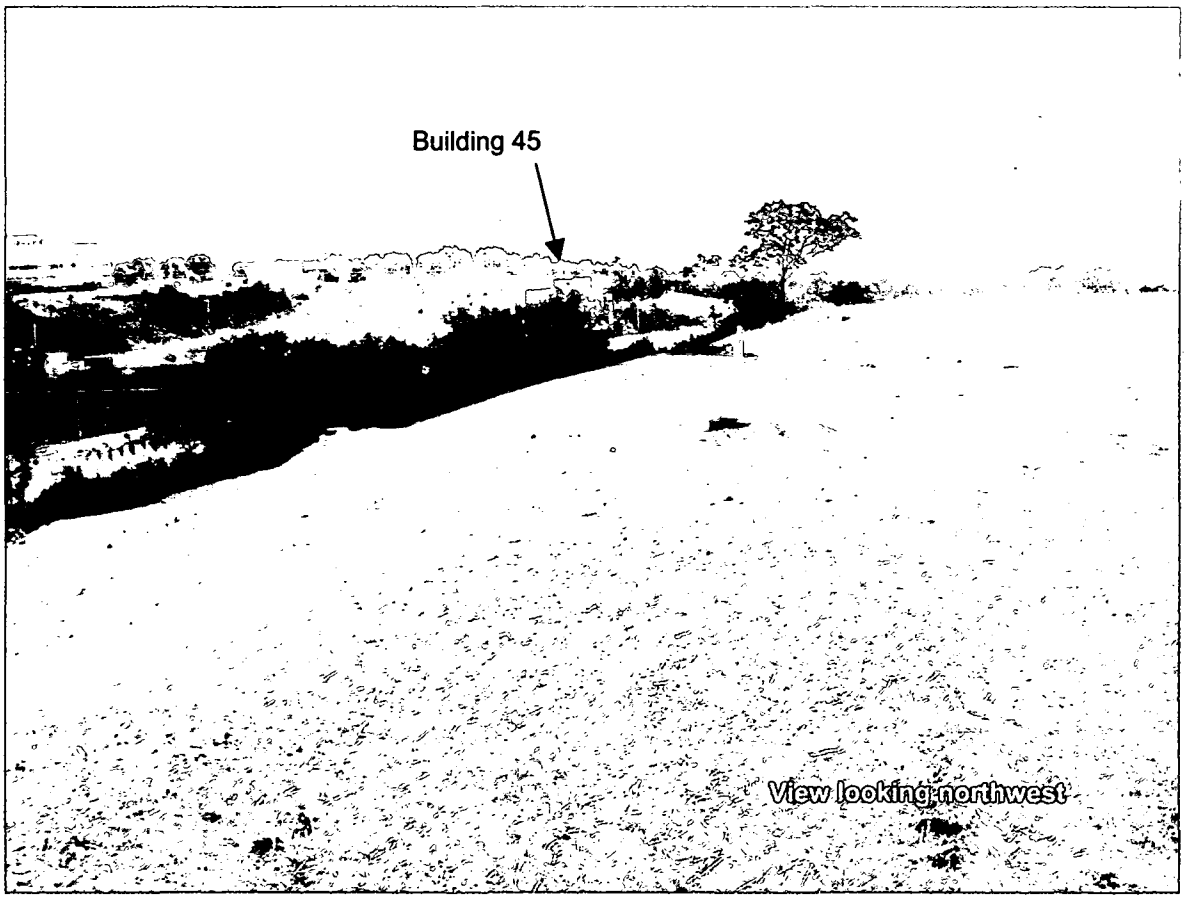
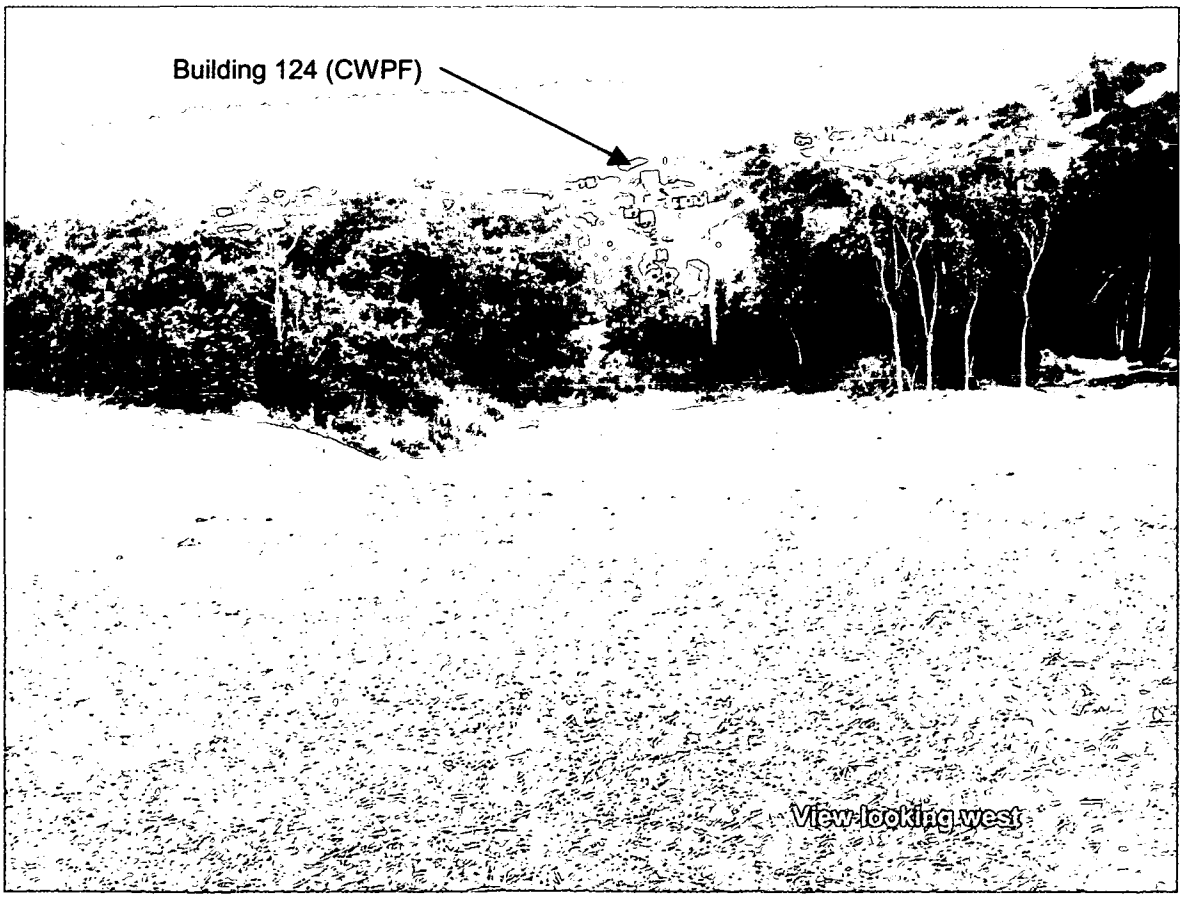
ATTACHMENT C

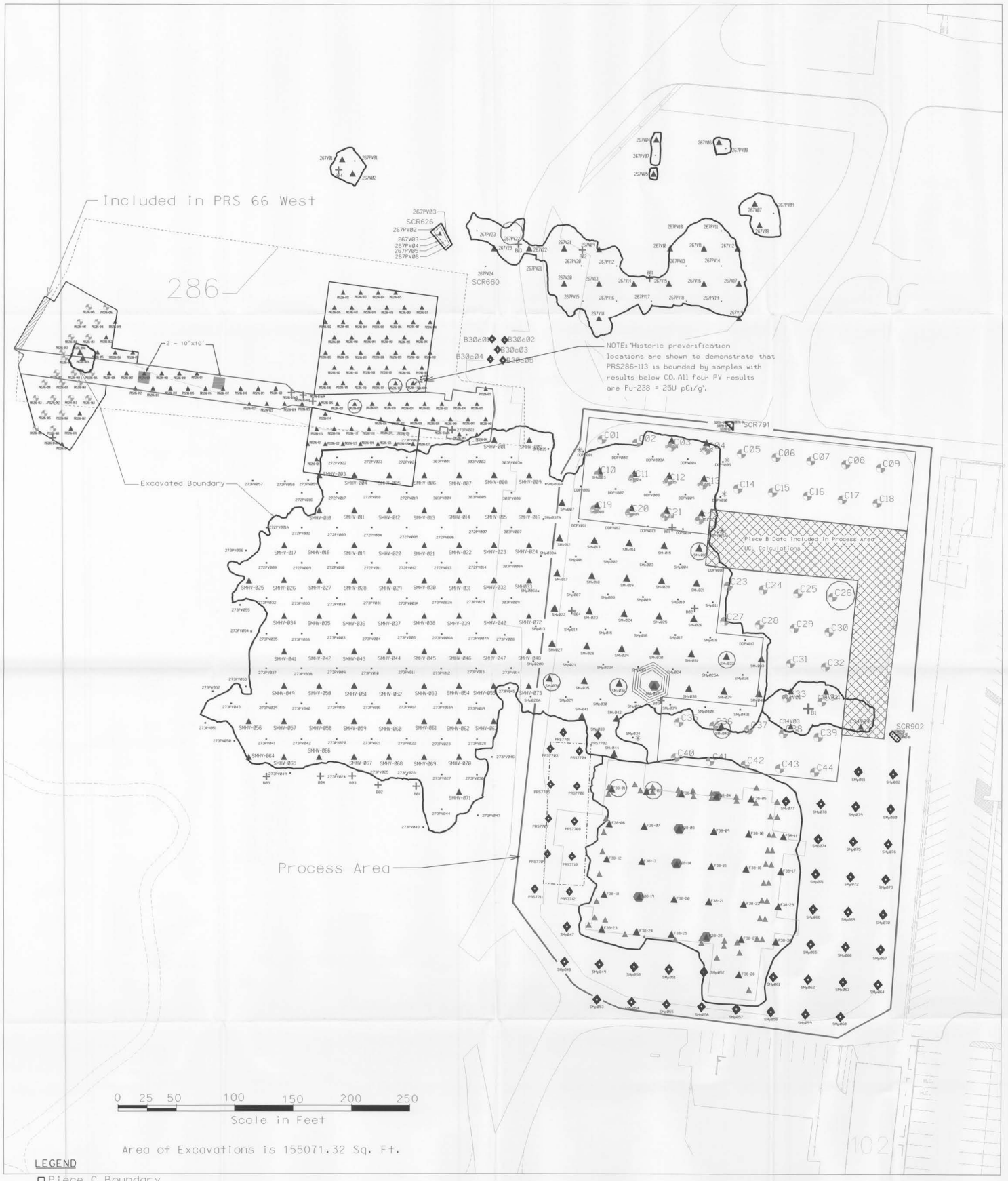
PHOTOGRAPH DOCUMENTATION


Bldg 126
Bldg 128
View looking north


COS Building
View looking west


Building 45
View looking northwest


Building 124 (CWPF)
View looking west



Area of Excavations is 155071.32 Sq. Ft.

LEGEND

- □ Piece C Boundary
- ▲ Verification Sample Point
- · Preverification Sample Point
- + OEPA Bias
- ◆ Confirmation Sample Point
- ▲ Preverification for Bldg.38 Foundation
- Boreholes at depth verification sample
- ● Obstruction Sample Location
- ✳ Samples on Slopeback

○ Location above current cleanup objectives

ISS	DATE	REVISION	BY	CHKR	ENG	LP&EC	APVD	M
B	04/25/05	General update	KRW	✳			✳	

MOUND

Environmental Restoration Geographic Information System

SHEET	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
ISSUE																					

SHEET	1	2	3	4	5	6
ISSUE	B					

PART CLASSIFICATION

FIGURE 2
GROUP 5
SAMPLE LOCATIONS

DRAWING CLASSIFICATION **UNCLASSIFIED**

SIZE

DRAWING NUMBER grp_5_samp_loc.dgn

JOB NUMBER ✳

DWG TYPE STE | PRMG ER-GIS | CAGEC | SCALE GRAPHIC | SHEET 1 OF 1

STATUS MD-REL-12/06/04 | ORIGIN MSTATION / J