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Investigation Report for Material Disposal Area T, Consolidated Unit 21-016(a)-99, at Technical Area 21

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Responsible project leader:

Printed Name	Signature	Title	Organization	Date
Mark Thacker		Project Team Leader	Environmental Programs	9/13/06

Responsible LANS LLC representative:

Printed Name	Signature	Title	Organization	Date
Andrew Phelps		Associate Director	Environmental Programs	9/15/06

Responsible DOE representative:

Printed Name	Signature	Title	Organization	Date
David Gregory		Federal Project Director	DOE-LASO	9/18/06

EXECUTIVE SUMMARY

This report presents the results of investigation activities at Consolidated Unit 21-016(a)-99 and provides a comprehensive assessment of the current site conditions. Consolidated Unit 21-016(a)-99, also known as Material Disposal Area (MDA) T, includes four absorption beds that received treated radioactive liquid waste, buried shafts used for the disposal of cement-treated radioactive mixtures, and the Retrievable Waste Storage Area that also was used for the storage of cement-treated radioactive mixtures. In addition, the site includes two industrial wastewater treatment plants and associated subsurface piping and structures. Within the study area there are eight areas of concern (AOCs) that are not part of Consolidated Unit 21-016(a)-99, but which are within the footprint of the consolidated unit. The eight AOCs consist of four unintentional releases or one-time spills and four former storage and treatment tanks. The slope north of Consolidated Unit 21-016(a)-99 in DP (Delta Prime) Canyon was investigated as well because it is downslope of the site and could have been affected by past operations at Consolidated Unit 21-016(a)-99.

As a result of its operational history, the study area contains both radioactive and hazardous components. The 2005–2006 investigation was conducted in accordance with the investigation work plan approved by the New Mexico Environment Department (NMED) and in accordance with the specific requirements defined in Section IV.C.2.e ("MDA T Investigation") of the March 1, 2005 Compliance Order on Consent (the Consent Order).

This 2005–2006 investigation was primarily a drilling campaign to collect and analyze soil and rock samples from Consolidated Unit 21-016(a)-99 that included the installation and sampling of 32 boreholes ranging in depth from 20 ft to 380 ft below ground surface. The drilling campaign was augmented by surface radiological and geophysical surveys, downhole geophysical measurements, pore gas sampling, and surface/shallow-subsurface sampling. Data from investigations conducted in 1992–1994 and 1996–1997 were combined with the 2005–2006 investigation data to form a comprehensive understanding of site contamination, risk, and geologic conditions at Consolidated Unit 21-016(a)-99 and the DP Canyon slope. The data set comprises approximately 60,000 chemical and radiological analytical results. The site data were thoroughly reviewed to identify and confirm the chemicals of potential concern (COPCs) present at Consolidated Unit 21-016(a)-99 and the DP Canyon slope. In addition, the concentration and activity ranges and spatial distributions for the site data were evaluated to determine if the nature and extent of contamination for all site COPCs have been characterized.

Inorganic, organic, and radionuclide COPCs were identified in solid media at Consolidated Unit 21-016(a)-99 and the DP Canyon slope. The nature and extent of all COPCs have been defined through this investigation, with the exception of plutonium-239 on the DP Canyon slope. The extent of plutonium-239 contamination beyond the toe of the slope into DP Canyon was previously defined and presented in the investigation report for Los Alamos and Pueblo Canyons (LANL 2004, 87390). Multiple volatile organic compounds and tritium were detected at low parts per trillion concentrations in pore gas samples from Consolidated Unit 21-016(a)-99 and the nature and extent of all pore gas COPCs also have been defined.

The potential risks to human health and the environment were assessed for both the consolidated unit and the DP Canyon slope using several risk assessment scenarios. Concentrations of inorganic and organic carcinogenic COPCs were less than their respective soil screening levels for all receptors in both areas. The total estimated excess lifetime cancer risk and hazard index (HI) for Consolidated Unit 21-016(a)-99 using the industrial-worker decision scenario were 2×10^{-6} and 0.14, respectively. The total estimated excess lifetime cancer risk and HI for the DP Canyon slope using the recreational decision scenario were 5×10^{-6} and 0.25. These potential risks were less than the NMED target levels of 1×10^{-5}

and 1.0, respectively. The results of the risk assessments indicate no potential unacceptable risk to industrial and recreational receptors either within the consolidated unit or on the DP Canyon slope.

For Consolidated Unit 21-016(a)-99, the total estimated dose was approximately 9 mrem/yr for an industrial worker, while for a recreational user on the DP Canyon slope the total estimated dose was 1.5 mrem/yr. Both estimates are less than the DOE target dose limit of 15 mrem/yr.

Based on the ecological screening assessment, chemicals of potential ecological concern (COPECs) were identified and evaluated. COPECs were eliminated based a number of factors, including background concentrations, analysis of potential effects to populations, the relative toxicity of related compounds, and the infrequency of detection. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at either Consolidated Unit 21-016(a)-99 or the DP Canyon slope.

Consolidated Unit 21-016(a)-99 has been thoroughly investigated and the nature and extent of all COPCs have been defined. Contamination in the vicinity of the absorption beds, shafts, and the RWSA had previously been identified, and the 2005–2006 investigation confirms that any release and continued migration of COPCs beyond the source area has been minor. Data collected through this investigation coupled with historical information from previous investigations are sufficient to proceed with the corrective measure evaluation for Consolidated Unit 21-016(a)-99.

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1.0 INTRODUCTION

This investigation report discusses the 2005–2006 environmental investigation of Consolidated Unit 21-016(a)-99, also known as Material Disposal Area (MDA) T, within Technical Area (TA) 21 at Los Alamos National Laboratory (LANL or the Laboratory) and presents a comprehensive assessment of current site conditions based on the results of this and previous investigations.

The Laboratory is a multidisciplinary research facility owned by the U.S. Department of Energy (DOE) and is managed by Los Alamos National Security (LANS), LLC. The Laboratory is located in northcentral New Mexico, approximately 60 mi northeast of Albuquerque and 20 mi northwest of Santa Fe (Figure 1.0-1). The Laboratory site covers 40 mi^2 of the Pajarito Plateau, which consists of a series of fingerlike mesas that are separated by deep canyons containing perennial and intermittent streams running from west to east. Mesa tops range in elevation from approximately 6200 ft to 7800 ft. The eastern portion of the plateau stands 300 ft to 1000 ft above the Rio Grande.

The Environmental Programs (EP) Directorate is leading the Laboratory's participation in a national DOE effort to clean up sites and facilities formerly involved in weapons research and development. The EP Directorate's goal is to ensure that past operations do not threaten human or environmental health and safety in and around Los Alamos County. To achieve this goal, the Laboratory is currently investigating sites potentially contaminated by past operations; the sites under investigation are designated as consolidated units, solid waste management units (SWMUs), or areas of concern (AOCs).

As a result of its operational history, Consolidated Unit 21-016(a)-99 (MDA T) contains both radioactive and hazardous components. The site includes four absorption beds that received treated radioactive liquid waste, 64 buried shafts used for the disposal of cement-treated radioactive mixtures, and the Retrievable Waste Storage Area (RWSA) used for the storage of cement-treated radioactive mixtures. The site also includes two industrial wastewater treatment plants and associated subsurface piping and structures. Information on radioactive materials and radionuclides, including the results of sampling and analysis of radioactive constituents, is voluntarily provided to the New Mexico Environment Department (NMED) in accordance with DOE policy.

Corrective actions at the Laboratory are subject to the March 1, 2005 Compliance Order on Consent (the Consent Order). The Consent Order was issued pursuant to the New Mexico Hazardous Waste Act (HWA), New Mexico Statutes Annotated (NMSA) 1978 §74-4-10, and the New Mexico Solid Waste Act (SWA), NMSA 1978, §74-9-36(D).

The Consolidated Unit 21-016(a)-99 investigation was conducted in accordance with the approved investigation work plan (LANL 2004, 85641641; also see LANL's response to NMED's notice of disapproval [LANL 2004, 88721]) and was performed to satisfy the specific requirements for the investigation contained in the Consent Order's Section IV.C.2.e, "MDA T Investigation."

1.1 Investigation Overview

The purpose of the 2005–2006 investigation was to finalize the characterization of the nature and extent of contamination from Consolidated Unit 21-016(a)-99 (MDA T) and to support the future corrective measures evaluations for the site. The approved MDA T investigation work plan (LANL 2004, 85641) identified the following data needs for the investigation:

- Nature and extent of contamination data for the DP (Delta Prime) Canyon slope north of Consolidated Unit 21-016(a)-99

- Nature and extent of contamination data for the subsurface surrounding the Consolidated Unit21-016(a)-99 absorption beds and shafts and the RWSA
- Nature and extent of contamination data for the subsurface surrounding former Building 21-035
- Nature and extent of contamination data for the subsurface surrounding active Building 21-257
- Fracture characterization and formation hydrogeologic properties data
- Tritium and volatile organic compounds (VOCs) subsurface vapor data beneath Consolidated Unit 21-016(a)-99
- Nature and extent of contamination data of the now-buried former operational surface at Consolidated Unit 21-016(a)-99
- Presence of perched groundwater beneath Consolidated Unit 21-016(a)-99

Specific details of the data needs identified for this investigation are provided in the discussion of previous investigation results presented in section 2.

The Consolidated Unit 21-016(a)-99 investigation was primarily a drilling campaign that included the installation and sampling of 32 boreholes ranging in depth from 20 ft to 380 ft below ground surface. The drilling campaign was augmented with surface radiological and geophysical surveys, downhole geophysical measurements, and a surface/shallow-subsurface sampling campaign.

1.2 Document Organization

This investigation report is presented in seven sections, including this introduction, with multiple supporting appendixes. The outline developed for this. Section 2 presents an overview of the site, its operational history, the results of previous investigations, and details on additional investigation data requirements, while section 3 discusses, in detail, the scope of investigatory activities. Section 4 presents field investigation results, including physical and observational data, as well as survey results and field-screening data, and section 5 summarizes the regulatory criteria governing the interpretation of results and implementation of the Consolidated Unit 21-016(a)-99 investigation. Section 6 summarizes site contamination, including the analytical results; the identification of chemicals of potential concern (COPCs); and the nature and extent of contamination. Section 7 presents conclusions based on applicable historical data as well as the 2005–2006 investigation data and summarizes the risk screening assessments performed. Recommendations for future corrective action at Consolidated Unit 21-016(a)-99 based on applicable data and the risk screening assessments are discussed in section 8.

The majority of appendixes present field documentation and associated information; however, two appendixes present substantial discussion and supporting information critical to the interpretation and assessment of current site conditions. Specifically, Appendix I presents a detailed analysis of the analytical data and discusses the COPC identification process, including the statistical determination of COPCs, and presents a thorough analysis of the nature and extent of contamination at Consolidated Unit 21-016(a)-99. Appendix J details the Consolidated Unit 21-016(a)-99 risk screening assessments and interpretation of the results.

2.0 BACKGROUND

This section describes in detail Consolidated Unit 21-016(a)-99 and its operational history, including a discussion of historical releases. This background section provides a description of Consolidated Unit 21-016(a)-99's physical and operational relationship to other SWMUs, AOCs, and consolidated units. This

section also summarizes the history of investigation activities conducted at the site, including the pre-Resource Conservation and Recovery Act (RCRA) facility investigation (RFI) and activities performed to satisfy the specific requirements for the investigation contained in the Consent Order's Section IV.C.2.e, "MDA T Investigation." In addition, this background section provides a description of Consolidated Unit 21-016(a)-99's physical and operational relationship to other SWMUs. Finally, this section summarizes what is known of the nature and extent of contamination at the site based on previous investigations and, most importantly, summarizes the additional data requirements specified in the approved MDA T investigation work plan (LANL 2004, 85641) needed to complete the characterization of the site and meet Consent Order investigation requirements.

2.1 Site Description and Operational History

2.1.1 Description of Consolidated Unit 21-016(a)-99

Consolidated Unit 21-016(a)-99 (MDA T) is located within TA-21 on DP Mesa, east of Buildings 21-286 and 21-228; west of MDA A; north of Buildings 21-005, 21-150, and 21-361; and south of North Perimeter Road (Figure 2.1-1). The location is less than a quarter-mile from the intersection of North Perimeter and DP Roads. The site is slightly larger than 2 acres and is vegetated with grasses, chamisa bushes, and two young ponderosa pines. The vegetation at Consolidated Unit 21-016(a)-99 was mowed before survey and drilling activities were undertaken, substantially reducing the height of the vegetated cover. The surface slopes slightly downward across the site from south to north, and the entire MDA is fenced.

Consolidated Unit 21-016(a)-99 includes 25 SWMUs and AOCs. The component SWMUs and AOCs include SWMUs 21-007; 21-010(a-h); 21-011(a,c,d,e,f,g,i,j); 21-016(a,b,c); and AOCs 21-001, 21-011(h), 21-028(a), C-21-009, and C-21-012; all of the sites were associated with decommissioned radioactive liquid waste treatment facilities and various storage areas.

SWMU 21-016(a) is comprised of four inactive absorption beds; the beds measured approximately 120 ft long x 20 ft wide x 6 ft deep. Untreated liquid wastes from uranium- and plutonium-processing laboratories and the filter building (Building 21-12) were discharged into the absorption beds. SWMU 21-011(c) is a former acid tank (Structure 21-120) and acid sump (Structure 21-121) located between absorption beds 1 and 2. SWMU 21-011(c) was a distribution box that received liquid waste through subsurface pipelines and discharged the effluent first to bed 1 and then to bed 2.

SWMU 21-016(b) is the RWSA, which was excavated in 1974 between absorption beds 1 and 3. The excavated pit measured 120 ft long, 24 ft wide, and 19 ft deep. SWMU 21-016(c) consists of sixty-four 8-ft-diameter and 4-ft-to-6-ft-diameter asphalt-lined disposal shafts located between absorption beds 2 and 4. The shafts are 15 ft to 69 ft deep.

SWMU 21-007 is a TA-21-wide area affected by the impacts of airborne releases from the mobile incinerators (known as salamanders) that were located on top of Consolidated Unit 21-016(a)-99. AOC 21-028(a) is a former satellite accumulation area (SAA) within the fence at Consolidated Unit 21-016(a)-99. Small quantities of alcohol, acetone, and freon waste were temporarily stored in the SAA while awaiting disposal off-site.

SWMU 21-010(a) is the historical location of former Building 21-035. Building 21-035 was constructed to treat and dispose of contaminated liquid waste from plutonium- and uranium-processing laboratories at DP Site.

SWMUs 21-010(b-h) were components of Building 21-035 as follows:

- SWMU 21-010(b) (Structure 21-093) and SWMU 21-010(h) (Structure 21-271) were acid valve pit manholes on the southwestern corner of the building.
- SWMUs 21-010(c) (Structure 21-145) and SWMU 21-010(d) (Structure 21-147) were adjacent 500-gal. underground steel tanks installed in 1957. The tanks stored process acid.
- SWMU 21-010(e) (Structure 21-185) was a 390-gal. septic tank installed in 1956 at the northeastern corner of Building 21-035. The tank received industrial waste. Overflow from the tank discharged to a drain field located east of the septic tank. The tank was removed, but it is unknown whether the drain field was removed.
- SWMU 21-010(f) (Structure 21-192) was an 8-ft x 3-ft x 7-ft grit chamber located at the northeastern corner of Building 21-035; it was made of reinforced concrete, with an insulated built-up cover. The grit chamber was a settling tank for solids in the influent.
- SWMU 21-010(g) (Structure 21-255) was a 2000-gal. aboveground acid storage tank located at the southwestern corner of Building 21-035.

All of these structures were removed during the decommissioning of Building 21-035 in 1967, a fact confirmed by the TA-21 Operable Unit RFI work plan (LANL 1991, 07528, p. 16-155)

SWMU 21-011(a) is Building 21-257, which replaced the waste process of Building 21-035 and treated waste from plutonium processing operations at DP Site and prepared it for disposal at Consolidated Unit 21-016(a)-99; the facility's process outfall [SWMU 21-011(k)] discharged to DP Canyon. The treatment plant housed a clarifier/flocculator and aboveground storage tanks and pumps in addition to a cement silo. Buildings and other structures are maintained and under the control of the Laboratory, and Building 21-257 is still active.

SWMU 21-011(d) consists of two 13,500-gal. acid waste tanks (Structures 21-110 and 21-111). Structure 21-110 received acid waste from DP East. Structure 21-111 received acid waste from DP West and from the General's Tanks (two 50,000-gal. tanks that stored highly enriched plutonium solutions) buried at MDA A. Both acid waste tanks (Structures 21-110 and 21-111) were previously located at Building 21-035, where they served the same function.

SWMUs 21-011(f) (Structure 21-112) and SWMU 21-011(g) (Structure 21-113) were 12,700-gal. effluent tanks. The tanks were connected to Building 21-035 by underground piping before 1967; after 1967, the underground piping was rerouted to Building 21-257. Before 1982, the treated effluent was held in the tanks for three to five days and discharged to the outfall [SWMU 21-011(k)]. After 1982, the effluent was pumped to TA-50 for disposal. The tanks are plumbed together so that effluent can be transferred between them to prevent overflows.

AOC 21-011(h) was a 2000-gal. acid tank (Structure 21-256) known as the Pug Mill Tank. Operations using the tank lasted from 1968 until 1983; the tank was removed in 1986.

SWMU 21-011(i) was a 1000-gal. sodium hydroxide tank installed in 1967 (Structure 21-288). SWMU 21-011(j) was a 1000-gal. americium raffinate storage tank (Structure 21-289) installed the same year. The surrounding area was not paved, and spills occurring during tanker-truck transfer operations were reported. The date the tank was taken out of operation is unknown.

AOC 21-001, located at the southwestern corner of Building 21-257, was an outdoor storage area for containerized radioactive sludge before the transfer of the sludge to TA-54. This sludge may have contained hazardous constituents.

Table 2.1-1 lists and describes all SWMUs and AOCs the are combined making up Consolidated Unit 21-016(a)-99.

The approved MDA T investigation work plan (LANL 2004, 85641) also included eight AOCs that are not part of Consolidated Unit 21-016(a)-99, but which are within the footprint of the consolidated unit. Because these sites are located within the work plan study area, they are included within the scope of this investigation. These sites consist of four unintentional releases or one-time spills in the vicinity of Buildings 21-035 and 21-257 (AOCs C-21-002, C-21-005, C-21-007, and C-21-033) and four former storage and treatment tanks associated with Building 21-035 (AOCs C-21-034, C-21-035, C-21-036, and C-21-037).

2.1.2 Operational History of Consolidated Unit 21-016(a)-99

The operational history of Consolidated Unit 21-016(a)-99 is complex, beginning with waste disposal in 1945 and continuing through the backfilling and grading of the site in 1986.

2.1.2.1 1945 to 1967

Operational discharges of industrial wastewater from the plutonium processing facility to the absorption beds [SWMU 21-016(a)] began in 1945. When discharge to the beds reached several thousand gallons per day, the beds became congested and were removed from service in 1950. An industrial wastewater treatment plant (Building 21-035) was constructed in 1952 to remove plutonium and other radionuclides from the liquid waste and to improve the absorption characteristics of the wastewater. Treated wastewater was discharged to DP Canyon through the outfall [SWMU 21-011(k)]. Building 21-035 included a citric acid tank, which may have received perchlorates. The industrial liquid waste treatment facility operated from 1952 to 1967, when it was decontaminated and decommissioned. The building and some of the associated tanks and piping were removed and disposed of at TA-54, Area G; Structures 21-110, 21-111, and 21–256 were relocated to Building 21-257. Because it was still possible for the absorption beds to receive wastewater, small amounts of treated wastewater may have been discharged to the beds between 1952 and 1967.

2.1.2.2 1964 to 1967, 1970 to1972

From 1964 to 1967 and again from 1970 to 1972, high-efficiency particulate air filter (HEPA)-equipped mobile incinerators (the salamanders) were in operation. The incinerators burned contaminated tricresyl phosphate (TCP) or tributyl phosphate (TBP) mixed with kerosene waste oil.

2.1.2.3 1967 to 1974

In 1967, the new wastewater treatment plant (Building 21-257) [SWMU 21-011(a)] was completed, replacing Building 21-035. After Building 21-257 became operational, wastewater was no longer discharged to the absorption beds. Building 21-257 received wastewater from the Tritium Systems Test Assembly (TSTA), which was pre-treated before disposal at TA-50. Building 21-257 is scheduled for decontamination and decommissioning (D&D) in June 2007.

The disposal shafts [SWMU 21-016(c)] were installed between 1968 and 1974. The shafts received treated liquid wastes, some contaminated with americium-241, mixed with cement. Five of the shafts have bathyspheres that contain plutonium-239/240 and other mixed fission products. In addition, some shafts received unspecified volumes of wash water. Once the shafts were filled with the waste cement mixture, they were capped.

In 1974, the RWSA was constructed to temporarily store cement-treated transuranic waste in CMPs. Treated wastes from Building 21-257 containing plutonium-239/240 and americium-241 were mixed with cement and pumped into the CMPs. The pipes were stored on end in the RWSA. The RWSA held a total of 227 CMPs, which were transferred to Area G at TA-54 in the mid-1980s. In 1984, 69 pipes were transferred to Pit 26, and in 1986, 158 pipes were transferred to Pit 29.

2.1.2.4 1986

The area of the absorption beds, disposal shafts, and RWSA was backfilled and the site was graded to drain towards the north. No waste disposal activities took place at Consolidated Unit 21-016(a)-99 after 1986.

2.1.3 Historical Releases and Discharges at Consolidated Unit 21-016(a)-99

Approximately 18.3 million gal. of wastewater were discharged to the Consolidated Unit 21-016(a)-99 absorption beds between 1945 and 1967.

The tanks and other liquid-holding facilities at Building 21-035 had no secondary containment, and the floor sumps and drains were unlined concrete. Leaks may have occurred at joints in buried cast iron and stainless-steel pipes. Although the external tanks at Building 21-257 have secondary containment, some of the containment structures include floor drains that extend to the surrounding site grade. Nine SWMUs and five AOC are associated with Building 21-257 and four of the AOCs are associated with spills of cement waste or other surface releases. No data is available to indicate whether the sludge produced by these two treatment facilities was radioactive. Spills of unknown quantity were reported to have occurred during tanker-truck transfer operations in the americium unloading area (Sagez 2003, 76090).

The RWSA also had operational spills and leaks of unknown quantity. Two AOCs (C-21-009 and C-21-012) are spills associated with the RWSA and the CMP filling operation. Spills, leaks, and releases were reportedly cleaned up at the time (LANL 1996, 70348, p. 1). Undetected leaks may also have occurred.

Airborne releases from the mobile incinerators were less than releases from stacks at the DP West plutonium processing facility. Building 21-012 released several curies annually of airborne particulate into the atmosphere, and Consolidated Unit 21-016(a)-99 is within the projected deposition area. By comparison, estimates of releases from mobile incinerators in 1970, 1971, and 1972 total only 6.51 μCi of plutonium-239/240 (LANL 1991, 07528, pp. 13-7–13-8).

2.2 Historical Investigations

2.2.1 Pre–RFIs

Field sampling investigations to characterize the extent and sources of contamination at Consolidated Unit 21-016(a)-99 and other locations around Los Alamos began in 1946. Sampling sites included outfalls, manholes, and wastewater flows. Additional effluent sampling focusing on the DP West plutonium processing facility, including effluent draining from Consolidated Unit 21-016(a)-99, took place in 1947 and 1948. These investigations included field instrument surveys for alpha and gamma emitters; radioassay for uranium, plutonium, and polonium; and analysis for fluorine.

The first characterization effort for the absorption beds was conducted in 1953 by the U.S. Geological Survey. Five test holes, ranging in depth from 13 ft to 20 ft, were drilled to collect soil samples. Samples were analyzed for plutonium and ion-exchange capacity. The results of the study indicated that no

appreciable horizontal migration of contamination had occurred and that plutonium had moved vertically to a depth of 20 ft (Rogers 1977, 05707, p. T-19).

From 1959 to 1961, the U.S. Army Corps of Engineers conducted a more detailed study of contaminant migration at the absorption beds. A test pit (caisson) was excavated adjacent to absorption bed 1, sidewalls were logged, soil and rock samples were obtained, and instrumentation was installed to sample matrix saturation. In addition, six angled boreholes, ranging in depth from 76 ft to 99 ft, were drilled under absorption bed 1. Plastic pipes were installed and gross alpha assays of the cuttings were obtained. Experimental absorption studies were conducted (Rogers 1977, 05707, p. T-19).

In 1967, additional borings were drilled at the absorption beds to collect soil and water samples for radioassay. Water samples were obtained from the caisson installed in 1959 and from two DP Canyon test holes. The moisture contents of the tuff were measured. The study compared moisture migration with that reported in the previous study. Maximum concentrations of moisture had moved from a depth of 12 ft in 1961 to 40 ft in 1967. Most of the plutonium in the tuff was retained in the upper 20 ft (Purtymun 1967, 01009, p. 5).

Before the excavation of the RWSA, additional boreholes were drilled in 1974. These boreholes encountered paleochannel deposits at depths of 15 ft to 25 ft. Radioassay of cores was obtained and the results indicated the presence of tritium, plutonium, americium, and cesium (Rogers 1977, 05707, p. T-28).

In 1978, moisture migration was studied to augment the information from previous investigations. The study included two borings. An inventory of plutonium and americium-241 was obtained during volumetric analysis of core from the boreholes. The distribution of plutonium and moisture was compared with values obtained in 1953 and 1960. Plutonium was detected at a maximum depth of 99.5 ft and americium-241 was detected at 101 ft (Nyhan 1984, 06529, p. 6).

Shallow soils were sampled and analyzed for radionuclides in 1984 and 1986. Samples were collected at three depths to 12 in. The results indicated that low levels of tritium, plutonium-238, plutonium-239, and americium-241 were present across the entire site area and into DP Canyon (Nyhan and Drennon 1993, 23248, p. 3-51).

2.2.2 RFIs

2.2.2.1 1992 to 1994

The first RFI activity at Consolidated Unit 21-016(a)-99 was a field investigation conducted in 1992 (LANL 1994, 52350, p. 2-1). The investigation included near-surface sampling to evaluate contamination caused by site-wide contamination resulting from airborne stack emissions. Surface and shallow-subsurface samples were collected and analyzed for organic chemicals, inorganic chemicals, and radionuclides, including tritium, plutonium-238, plutonium-239, and americium-241. The results indicated widespread presence of radionuclides at low specific activities. The distribution pattern indicated that the contaminant source was probably not exclusively from Consolidated Unit 21-016(a)-99. Organic and inorganic chemicals were not generally detected.

Surface sampling was again performed in 1993 and 1994 at areas requiring additional contaminant characterization, including the small drainage into DP Canyon (LANL 1996, 70348). The results of this campaign were presented in an RFI report (LANL 1996, 70348). Sampling activities included borings to define contamination in the area around former Building 21-035. Samples were collected and analyzed

for radionuclides (including tritium) and organic and inorganic chemicals as described for the 1992 sampling effort (LANL 1995, 52350, p. 1-2).

2.2.2.2 1996 to 1997

An investigation was conducted in 1996–1997 to further define the nature and extent of subsurface contamination resulting from past waste disposal practices at Consolidated Unit 21-016(a)-99. The investigation sought to define both the lateral extent of absorption bed contamination and the physical limit of the paleochannel. A detailed summary of the investigation, including laboratory analytical results of samples obtained during field activities, is presented in the historical investigation report contained in Appendix B of the approved investigation work plan (LANL 2004, 85641, pp. B-25–B-34).

The 1996–1997 borehole samples provide most of the environmental data collected in tuff at this site. The samples were analyzed for target analyte list (TAL) metals and radionuclides. Organic chemical analyses were also performed to detect the presence of VOCs and semivolatile organic compounds (SVOCs) in tuff. Two samples containing VOCs were collected during the drilling around Building 21-035. The results from this investigation do not show Consolidated Unit 21-016(a)-99 to be a source for VOC contamination to the DP Canyon slope (LANL 2004, 85641, p. 12).

Inorganic chemicals were detected above Laboratory background levels (LANL 1998, 59730, p. 44). The lateral extent of inorganic chemicals was not defined by this investigation (LANL 2004, 85641, pp. 6–17). However, the vertical extent was defined, except for copper, chromium, and lead.

Radionuclides including plutonium-238, plutonium-239, americium-241, strontium-90, cesium-137, uranium-234, uranium-235, and uranium-238 were detected in and around the absorption beds (LANL 2004, 85641, p. 12). Elevated levels of plutonium and americium were detected for the absorption beds based on analytical data obtained from samples immediately above and below the absorption cobble layer. However, because of the cobble-sized material, samples of the potentially highest contamination within the absorption beds were not obtained in the 1996–1997 field investigation. Samples of absorption bed materials (from the gravel just above the cobble layer between 9.5 ft and 10.0 ft) exhibited plutonium-239 activity as high as 230,600 pCi/g. This result likely represents values within the cobble layer since both the cobbles and gravel became saturated by process water entering the beds during operations. Volumetrically, the level of contamination in the gravel may exceed that of the cobble bed because of the differences in the particle size between the two materials.

The lateral extent of radiological contamination is defined by the decreasing trend in contamination away from the edge of the absorption beds (LANL 2004, 85641, p. 12). At a distance of approximately 30 ft, the levels of contamination dropped to less than 10 pCi/g. In individual boreholes a vertical decreasing trend was observed with no radionuclide detections above background levels (LANL 1998, 59730, p. 45) in the deepest samples. However, the depth of contamination in the fractures below Consolidated Unit 21-016(a)-99 remains undetermined because fractured intervals showed an increase in radionuclide levels compared with surrounding samples obtained in the tuff rock matrix (LANL 2004, 85641, p. 14).

Samples collected upgradient and downgradient of the disposal beds did not contain elevated levels of radiological COPCs. This result indicates that radionuclides have not migrated a significant lateral distance along the base of the paleochannel. Elevated levels of radiological contamination were also not reported in the bedrock samples collected directly below the paleochannel at these locations.

Shallow soil samples collected on top of and to the north of the absorption beds indicated low-level organic COPC contamination (LANL 2004, 85641, p. 13). In one borehole, located in the RWSA, organic contamination was detected in the backfill placed after the removal of the CMPs. Organic COPC

contamination persisted to a depth of 20 ft in fill material but was not reported in native materials at depths ranging to 50 ft.

A single 50-ft borehole at Location 21-05064 was advanced in the footprint of Building 21-035 during this investigation, but no samples were collected for organic chemical analysis (Appendix I, Section 4.1.2).

2.3 Relationship to Other SWMUs/AOCs

SWMU 21-011(k), north of Consolidated Unit 21-016(a)-99, is the former outfall for Building 21-257 and underwent a voluntary corrective measure in 2003 (LANL 2003, 82260). MDA A and the General's Tanks, located to the west, are material disposal areas for the former TA-21 plutonium processing area and are otherwise unrelated to Consolidated Unit 21-016(a)-99. Other SWMUs near Consolidated Unit 21-016(a)-99, including SWMU 21-020(a), the former baghouse location west of Consolidated Unit 21-016(a)-99, are associated with the former plutonium processing plant. Consolidated Unit 21-022(b)-99 is southwest of Consolidated Unit 21-016(a)-99 and comprises former plutonium processing facility waste lines and sumps. SWMU 21-012(b), located west of Consolidated Unit 21-016(a)-99, is an inactive dry well constructed in 1980 to receive boiler blowdown from the former TA-21 steam plant.

No documentation exists that verifies any releases from surrounding SWMUs that could have impacted Consolidated Unit 21-016(a)-99. It is possible that airborne particulates attributable to SWMU 21-020(a) may have impacted the site. The SWMUs immediately surrounding Consolidated Unit 21-016(a)-99 may have had surface or subsurface releases; however, Consolidated Unit 21-016(a)-99 is not within the flow pathways of these SWMUs and impacts are unlikely.

2.4 Historical Nature and Extent of Contamination and Additional Data Requirements

During the development of the MDA T investigation work plan (LANL 2004, 85641), historical RFI data were reviewed to assess the nature and extent of contamination at Consolidated Unit 21-016(a)-99 (MDA T) and to identify any additional data required to complete site characterization. The work plan divided Consolidated Unit 21-016(a)-99 into four distinct areas for the purposes of evaluating the historical nature and extent of contamination and identifying the additional data needs of the investigation.

- The DP Canyon slope was assessed separately because it is not part of Consolidated Unit 21-016(a)-99 and because contaminants that may be present in this area resulted from secondary transport (i.e., runoff and air deposition) rather than directly from past operations at Consolidated Unit 21-016(a)-99.
- The Consolidated Unit 21-016(a)-99 absorption beds, disposal shafts, and RWSA were evaluated together because of their physical proximity, similar process wastes, and indistinguishable release signatures.
- Buildings 21-035 and 21-257 were considered individually because they were/are discrete facilities with individual operations and histories.

2.4.1 Data Requirements Related to the DP Canyon Slope

Sampling in 1992 and 1993–1994 of the DP Canyon slope showed detected concentrations of SVOCs and inorganic and radiological chemicals at concentrations above background levels. The previous site data did not adequately define the extent of these COPCs. Further, the slope soils may not be stable and previously collected samples may no longer be representative of current site conditions. Therefore, the work plan specified the collection of surface and shallow-subsurface samples for the DP Canyon slope (LANL 2004, 85641, pp. 10–13).

2.4.2 Data Requirements Related to the Consolidated Unit 21-016(a)-99 Absorption Beds, Disposal Shafts, and RWSA

2.4.2.1 Absorption Beds and Disposal Shafts

Analytical results from drilling and sampling conducted in 1996 and 1997 demonstrate that the vertical and lateral extent of all COPCs within the Quarternary Tshirege Member of Bandelier Tuff (Qbt) 3 and Qbt 2 units below and around the absorption beds and disposal shafts is defined. Further, the results indicate that releases from the disposal shafts are minor relative to releases from the absorption beds. However, historical RFI samples were not analyzed for perchlorate or tritium, and total uranium, isotopic uranium, and americium-241 were not analyzed for using alpha spectroscopy. Therefore, the work plan specified the collection of additional subsurface samples around the absorption beds and disposal shafts and required analysis for these analytes by appropriate methods (LANL 2004, 85641, pp. 13–15).

2.4.2.2 Data Requirements Related to Fracture Characterization

Sampling activities in 1996–1997 identified contamination within fractures at depth and laterally away from the absorption beds. Since it is impractical to define the extent of contamination in a fracture, the approved investigation work plan (LANL 2004, 85641) specified the systematic characterization of fracturing in the subsurface beneath Consolidated Unit 21-016(a)-99. To further support fracture characterization, the work plan specified the evaluation of the rock quality designation (RQD) in recovered cores and the geophysical logging of certain boreholes.

2.4.2.3 Data Requirements Related to Hydrogeologic Properties

Previous investigations did not evaluate the hydrogeologic properties of the tuff units above the Cerro Toledo interval beneath Consolidated Unit 21-016(a)-99. Therefore, the approved MDA T investigation work plan (LANL 2004, 85641) specified measurement of porosity, moisture content, hydraulic conductivity, grain-size distribution coefficient (K_d), and matric suction in deep boreholes installed around the Consolidated Unit 21-016(a)-99 absorption beds and disposal shafts. To further support the characterization of the formation hydrogeologic properties, the work plan specified geophysical logging of certain boreholes.

2.4.2.4 Data Requirements Related to Subsurface Tritium and VOC Vapor

Previous investigations at Consolidated Unit 21-016(a)-99 did not include the collection of subsurface tritium and VOC vapor data beneath MDA T. Therefore, the approved investigation work plan (LANL 2004, 85641) specified the collection of vapor samples using SUMMA canisters for VOCs and silica gel absorbents for tritium.

2.4.2.5 Data Requirements Related to the Buried Consolidated Unit 21-016(a)-99 Operational Surface

Regrading of Consolidated Unit 21-016(a)-99 disturbed and buried the original operational surface, which may have been impacted by overflows from the absorption beds or by spills resulting from filling operations at the disposal shafts. Further, the burning of waste oils in the mobile incinerators or waste oil spills may have impacted the original operational surface with dioxins and furans in addition to process waste contaminants. Previous investigations did not specifically target this horizon. Therefore, the approved work plan specified sampling of the buried operational surface (where it could be identified in recovered core) and analyzing samples for dioxins and furans (LANL 2004, 85641, p. 7).

2.4.2.6 Data Requirements Related to Perched Water

No previous investigation boreholes were advanced to sufficient depths to assess whether perched water zones are present above the Qbt 2-Cerro Toledo interval contact. Therefore, the approved response to the NMED notice of deficiency specified the completion of boreholes to this depth and the collection of groundwater samples if groundwater was encountered (LANL 2004, 88721, p. 2).

2.4.3 Data Requirements Associated with Building 21-035

Previous investigation results indicated that organic chemicals are not present immediately near Building 21-035. However, cadmium, calcium, copper, lithium, nickel, uranium, and zinc were detected above background levels in soil and fill (LANL 2004, 85641, pp. 15–16). In addition, americium-241, plutonium-239, and plutonium-238 were observed above fallout values (FVs) near the southwestern and southeastern corners of the former building (LANL 2004, 85641, p. 16). The existing data also indicated elevated levels of radionuclides in soil and fill materials within the building footprint, along the southern side, at the western end, and at the southeastern corner of the building. The existing data did not effectively define the vertical and lateral nature and extent of any of these chemicals. In addition, previous campaigns did not specifically target significant components of the infrastructure associated with Building 21-035 or perchlorate, which may have been released from the citric acid tank.

Therefore, the approved work plan (LANL 2004, 85641) focused sampling at the locations of former tanks and buried pipes associated with the building and at the septic tank and drain field. Further, the work plan specified the collection of deeper subsurface (tuff) samples at locations where the highest chemical concentrations were observed previously. Finally, the work plan specified the collection of perchlorate data (LANL 2004, 85641, p. 16).

2.4.4 Data Requirements Associated with Building 21-257

Subsurface tuff samples were not collected in the area of Building 21-257 during previous investigations. Therefore, the approved work plan specified subsurface sampling near the building and associated aboveground structures and required the full suite of analysis (LANL 2004, 85641, p. 17).

3.0 SCOPE OF ACTIVITIES

This section presents an overview of the physical activities and field methods performed during the implementation of the Consolidated Unit 21-016(a)-99 investigation; the field investigation results and observations obtained during the implementation of the investigation are presented in detail in section 4 and the appendixes. The scope of activities for the 2005–2006 investigation at Consolidated Unit 21-016(a)-99 included geodetic, geophysical, and radiological surveys; surface and shallow-subsurface sampling; borehole drilling, sampling, and abandonment; downhole geophysical logging; health and safety monitoring; and waste management activities.

Portions of Consolidated Unit 21-016(a)-99 have been designated by LANL and DOE as a nuclear environmental site (NES). The specific portions of the site designated as a NES are the absorption beds, shafts, and the RWSA. The NES designation has significant health, safety, and operational implications. Project planning indicated that multiple phases of field implementation might be required to accommodate the coordination necessary to work within a NES. As anticipated, the activities associated with the Consolidated Unit 21-016(a)-99 investigation were implemented in two phases; therefore, the surface and subsurface investigations within and outside of the NES are discussed separately.

3.1 Surface and Subsurface Investigation Outside of the Nuclear Environmental Site

The approved MDA T investigation work plan (LANL 2004, 85641) identified multiple areas within and near Consolidated Unit 21-016(a)-99 requiring further investigation. These areas include

- the slope leading to DP Canyon;
- the area that may have been impacted by releases from the absorption beds, shafts, and RWSA;
- the Building 21-035 area; and
- the Building 21-257 area.

The additional data needs established in the approved work plan for these areas (LANL 2004, 85641) were summarized in section 2. The data required to complete the characterization of these areas were collected primarily from outside the NES.

3.1.1 Surface Surveys

Geodetic, geophysical, and radiological surveys were conducted over most of the area outside of the NES.

A geodetic survey was conducted in December 2005 to identify the boundary of the NES (as indicated on engineering drawings) and to demarcate sampling locations specified in the technical safety requirement (TSR) implementation plan (IP) (LANL 2006, 93688, p. 27). Subsequent surveys were conducted at the completion of surface sampling, and again at completion of drilling activities in June 2006, to establish the spatial coordinates for all sampling locations and boreholes. Geodetic survey data are presented in Appendix D.

A geophysical survey was conducted outside of the NES (in conjunction with a survey within the NES) from November 7 through 9, 2005, to assist in defining the external boundaries of the absorption beds, as well as buried utility lines. Geophysical survey results are presented in Appendix L.

Low-density walk-over gamma surveys were performed outside the NES (again, in conjunction with surveys within the NES), and on the DP Canyon slope from November 1 through 17, 2005. High-energy and low-energy gamma surveys were conducted to identify areas with elevated gamma radioactivity and to guide the field selection of sampling locations. The radiological survey results are presented in Appendix K.

3.1.2 DP Canyon Slope

Surface and shallow-subsurface samples were collected December 8 through 13, 2005, from north of Consolidated Unit 21-016(a)-99 and the canyon slope down to the stream channel of DP Canyon. The data were collected to assess impacts from operational spills and overflows that occurred during the operation of the absorption beds. A total of 25 samples were collected from 14 locations and submitted to analytical laboratories. These locations were selected based on the radiological surveys, drainage features, and the results from previous investigations. Figure 3.1-1 depicts the sampling locations along the slope of DP Canyon and downslope towards the stream channel.

3.1.3 Absorption Bed/Shaft/RWSA Areas

Seven deep vertical boreholes were drilled in the area surrounding the absorption beds, shafts, and the RWSA. The boreholes were drilled to define the vertical and lateral extent of contaminants from the

absorption beds, disposal shafts, and the RWSA; to characterize fractures in Qbt 2 and Qbt 3; to characterize subsurface tritium and VOC pore gas; and to collect geotechnical data. Borehole (BH) 01, drilled to 380 ft, and BH-02 and BH-03, drilled to 354 ft, were completed between December 12, 2005, and April 6, 2006. These boreholes are located south of absorption beds 1 and 2, north of absorption bed 3, and north of absorption bed 4, respectively. BH-04, BH-05, BH-07, and BH-08 were drilled to approximately 280 ft between February 7 and April 14, 2006. These boreholes are located north of absorption bed 4, northeast of absorption bed 4, south of absorption bed 1, and northwest of absorption bed 3, respectively. Figure 3.1-1 presents the borehole locations.

Three shallow-depth boreholes (BH-37, BH-38, and BH-39) were drilled to 40 ft in the surface drainage northwest of the RWSA area to assess the transport of contaminants by water infiltrating along the drainage. These borings were completed March 8 and 9, 2006, and are also shown in Figure 3.1-1.

Nine surface and shallow-subsurface samples were collected from four locations on December 13 and 14, 2005, to assist in defining the nature and extent of contamination across the absorption beds, shafts, and RWSA area. As with the DP Canyon slope samples, sampling locations were selected based on the radiological surveys, drainage features, and results from previous investigations. These sampling locations are shown in Figure 3.1-1.

Two rows of boreholes (BH-26 through BH-28 and BH-30 through BH-33) were drilled between November 30, 2005, and March 1, 2006, to define the location of the paleochannel previously identified at Consolidated Unit 21-016(a)-99 and to assess any potential transport of contaminants along this preferential flow path. All borings were advanced to approximately 30 ft or to a point where bedrock was encountered. The paleochannel is a Quaternary-aged braided-channel deposit and is described in the geomorphic studies chapter on DP Mesa and vicinity in “Earth Science Investigations for Environmental Restoration” (Broxton and Eller 1995, 58207, pp. 68–69). Figure 3.1-1 presents the locations of these boreholes.

Two rounds of pore gas sampling were conducted as part of the Consolidated Unit 21-016(a)-99 investigation. Samples were collected from BH-01, BH-02, and BH-03 between December 5, 2006, and May 24, 2006, and submitted to off-site analytical laboratories for VOC analysis using U.S. Environmental Agency (EPA) Method TO-15 and for tritium analysis using EPA Method 906.0. Pore gas samples were collected from each borehole at total depth (TD) and at the depth correlating to the base of the closest absorption bed or disposal unit. Additional intervals were targeted for sampling based on geologic characterization of the borehole. For the second round of sampling, which necessarily was conducted after the augers were removed, it was necessary to collect pore gas samples beginning at the second interval that was established during the first round of sampling because of 50 ft of slough in the boreholes.

The three deep boreholes (BH-01, BH-02, and BH-03) were sampled for site-specific hydrogeologic properties. A subset of samples, representative of each defined geologic formation observed during drilling, were analyzed for saturated and unsaturated hydraulic conductivity, chloride-ion concentration, porosity, bulk density, matric potential, and moisture content.

Finally, downhole geophysical surveys were completed on BH-01, BH-02, and BH-03 to support evaluations of hydrogeologic parameters, develop moisture profiles, identify lithologic contacts, and augment fracture characterization data. The boreholes were logged using a neutron probe, gamma probe, downhole camera, and caliper tool.

3.1.4 Building 21-035

One intermediate-depth borehole (BH-20) and six shallow boreholes (BH-22 through BH-24 and BH-34 through BH-36) were drilled to define the vertical and lateral extent of contaminants from structures associated with Building 21-035, including the valve box, storage tank, septic tank, leach field location, and citric acid tank. BH-22, BH-23, and BH-24 were drilled to 40 ft from December 6 through 8, 2005. These boreholes were located west and east of the septic tank and leach field. BH-20 was drilled to 100 ft on January 10, 2006, on the southeastern end of the building footprint. BH-34, BH-35, and BH-36 were drilled to 40 ft from December 1 through 7, 2005. These boreholes are located within the footprint of former Building 21-035.

The location of BH-01 was selected to further characterize the nature and extent of contamination associated with Building 21-035. BH-01 is located near acid waste lines, buried storage tank(s), and a valve box associated with fluid lines adjacent to the southwestern corner of Building 21-035.

BH-20 (drilled to 100 ft), located north of Building 21-035 and northwest of Building 21-257, was drilled to evaluate the potential percholorate contamination that may be associated with the citric acid tank (located on the northeastern side of Building 21-035).

All boreholes associated with Building 21-035 are depicted in Figure 3.1-1.

3.1.5 Building 21-257

Seven intermediate-depth boreholes were drilled to define the vertical and lateral extent of possible contamination from structures associated with the industrial wastewater treatment facility, Building 21-257. The seven boreholes (BH-12 through BH-16 and BH-20 and BH-21) were drilled to 100 ft between January 31 and March 7, 2006. The boreholes were located along all sides of Building 21-257 to determine the nature and extent of contamination associated with the loading dock, raw waste tanks, and tanks (Structures 21-110, 21-112, and 21-113). The presence of underground utilities, surface features, topography, and access considerations constrained the location of borings around Building 21-257. Figure 3.1-1 presents the locations of boreholes associated with Building 21-257.

3.2 Surface and Subsurface Investigation for the Nuclear Environmental Site

To complete the characterization of releases from the absorption beds, shafts, and RWSA specified in the approved MDA T investigation work plan (LANL 2004, 85641), the Consolidated Unit 21-016(a)-99 NES area was surveyed and a borehole was installed within the NES.

Before conducting intrusive field activities within the NES, a TSR IP (LANL 2006, 93688) was developed and approved by LANL, DOE, and the National Nuclear Security Administration (NNSA). The document ensured that TSRs were implemented at the NES as required by the documented safety analysis (DSA) document (LANL 2004, 88713.2) and the TSR document (LANL 2004, 88713.64). The TSR IP describes the safety measures implemented to ensure that workers, the public, and the environment were protected from radiological, chemical, and other hazards associated with characterization activities conducted within the Consolidated Unit 21-016(a)-99 NES boundary.

Geodetic, geophysical, and radiological surveys were conducted across the entire NES.

A geodetic survey was conducted in June 2006 after the completion of BH-06 (the single borehole drilled within the NES) to establish spatial coordinates of the borehole. The geodetic survey data are presented in Appendix D.

The approved MDA T investigation work plan (LANL 2004, 85641) did not require that a borehole be installed directly into the absorption beds, shafts, or RWSA, and the site DSA required that no borehole intersect these features (LANL 2004, 88713.2). Therefore, a geophysical survey was conducted within the NES to establish the locations and boundaries of individual absorption beds and to confirm the results of a geophysics survey conducted in 1996, which identified geophysical anomalies correlating to the historical, geodetically surveyed locations of the beds (LANL 1998, 65010, pp. 5–6). This survey identified an optimal location for BH-06 while ensuring that the borehole would not directly intersect the beds, shafts, or RWSA. The survey was conducted from November 7 through 9, 2005, in conjunction with the non-NES geophysical survey.

High-density walk-over gamma surveys were performed within the NES (in conjunction with surveys outside of the NES) from November 1 through 17, 2005. High-energy and low-energy gamma surveys were conducted to identify areas with possible elevated gamma radioactivity. The radiological survey results are presented in Appendix K.

BH-06 was drilled to define the vertical and lateral extent of known contaminants from the absorption beds, disposal shafts, and the RWSA, and to characterize fractures in Qbt 2 and Qbt 3. BH-06 was drilled to 280 ft from June 7 through 12, 2006. The borehole is located between absorption beds 1 and 3 and did not penetrate the beds or disposal shafts (see Figure 3.1-1 for borehole location).

3.3 Field Methods

The following subsections describe the procedures and methods used to conduct surveys, field screening, surface and shallow-subsurface sampling, and borehole drilling and sampling.

3.3.1 Surface Surveys

Geodetic surveys were conducted using a Trimble 5700 differential global positioning system (DGPS). The survey data conform to Laboratory Information Architecture (IA) project standards IA-CB02, “GIS Horizontal Spatial Reference System,” and IA-D802, “Geospatial Positioning Accuracy Standard for A/E/C and Facility Management.” All coordinates are expressed as SPCS 83, NM Central, U.S. ft coordinates.

The 2005 geophysics surface survey used electromagnetic (EM) geophysical methods, and ground-penetrating radar (GPR). The EM survey was conducted using a hand-held, digital, broadband EM sensor, which utilizes the relationship between electric fields, magnetic fields, and electrical current to detect changes in subsurface conductivity. GPR uses the transmission and reflection of radio waves to image objects beneath the ground surface. EM survey data were collected at approximately 2-ft intervals along gridlines spaced 10 ft apart within the fenced boundaries of Consolidated Unit 21-016(a)-99. GPR line locations were selected based on the historical locations of features (absorption beds and shafts). Appendix L presents the full geophysical investigation report.

High-energy gamma-emitting radiation surveys were conducted using Ludlum Model 44-20 3-in. by 3-in. sodium iodide detectors; low-energy gamma-emitting radiation surveys used Alpha Spectra field instrument for detection of low-energy radiation (FIDLER) detectors. Each GPS-radiological survey system consisted of a Ludlum Model 2221 ratemeter/scaler with a detector coupled to a Trimble Pro XRS mapping-grade global positioning system (GPS).

The Ludlum Model 2221 instruments were operated in ratemeter mode, allowing for a gamma count rate tagged with its corresponding coordinates to be collected at 1-s intervals. The units were either carried in backpacks or mounted on a “baby jogger” push cart, with the detectors held approximately 18 in. above the ground surface. The high-density surveys consisted of a detector spacing of 2.5 ft and a survey speed

of 1 ft/s. The lower-density surveys consisted of a detector spacing of 5 ft and survey speed of 2.5 ft/s. At the end of each survey day, the field data were downloaded to a laptop computer and processed on-site using a combination of Trimble Pathfinder Office and ESRI ArcView geographic information system (GIS) computer applications. Appendix K presents the complete radiological survey report.

3.3.2 Field Screening

To maximize the chance of sampling contaminated media, field-screening results, along with the physical characteristics of the core (e.g., fractures, elevated moisture, or staining), were considered when selecting sampling intervals. Field personnel screened all samples for radioactivity with an Eberline E-600 Portable Radiation Monitor and VOCs with a Model PGM-7600 photoionization detector (PID) with an 11.7-eV bulb. In addition, field-screening for VOCs with a Model PGM-7600 PID with an 11.7-eV bulb was conducted during the collection of all pore-gas samples.

Soil and core material was sampled and logged after radiological field-screening measurements established that the material in the core barrel was at or below local background concentrations.

Screening for gross alpha and beta/gamma radiation was performed using an Eberline E-600/SHP380AB Portable Radiation Monitor and was conducted in accordance with LANL Standard Operating Procedure (SOP) 10.07, “Field Monitoring for Surface and Volume Radioactivity Levels.” Core samples were screened by holding the probe less than 1 in. away from the core. The core was screened immediately after it was removed from the ground. Measurements were made by first conducting a quick scan to find the location with the highest initial reading. After logging the core, a 1-minute reading was performed at the location of the highest reading to determine gross alpha and beta/gamma radiation levels. Before removing samples from the site for shipping, the samples were also screened for radioactivity by LANL’s Health Physics Operations (HSR-1) to ensure that U.S. Department of Transportation (DOT) shipping requirements were met.

Organic vapor monitoring was performed using a MiniRae 2000, Model PGM-7600 PID with an 11.7-eV bulb to monitor the core immediately after opening the core barrels. In addition, headspace vapor screening for VOCs was performed on recovered core material in accordance with SOP-06.33, “Headspace Vapor Screening with a Photoionization Detector.” Core material from 5-ft intervals was placed in a glass container with a foil cover. The container was sealed, gently shaken, and allowed to equilibrate for 5 minutes. The sample was then screened by inserting the PID detector probe into the container and measuring and recording any detected vapors. The workers' breathing zone was also monitored using MiniRae 2000.

Field-screening results were recorded on the borehole logs and/or corresponding sample collection logs, in addition to a PID screening log and the radiological control technician (RCT) field logbook. (Appendix D).

3.3.3 Surface and Shallow-Subsurface Sampling

Surface samples were collected from 0–0.5 ft using the spade-and-scoop method in accordance with SOP-06.09, “Spade and Scoop Method for Collection of Soil Samples.” The samples were collected using stainless-steel shovels or spoons and homogenized in stainless-steel bowls.

Shallow-subsurface samples were collected from 1.5–2.0 ft using the hand auger method in accordance with SOP-06.10, “Hand Auger and Thin-Wall Tube Sampler.” At various locations, refusal was met and the samples were collected at depths shallower than 2 ft. The material was placed in stainless-steel bowls and handled in the same manner as surface soil samples.

The surface and shallow-subsurface samples were placed in appropriate sample containers and submitted for laboratory analysis of the following chemical suites: isotopic uranium, isotopic plutonium, americium-241, strontium-90, metal, uranium, nitrates, pH, perchlorate, VOCs, SVOCs, tritium, and gross alpha, beta, and gamma radiation. Standard quality assurance/quality control (QA/QC) samples (field duplicates and rinsate samples) were also collected in accordance with SOP-01.05, "Field Quality Control Samples."

All sample collection activities were coordinated with the Laboratory's Sample Management Office (SMO). Upon collection, samples remained in the controlled custody of the field team at all times until delivered to the SMO. Sample custody was then relinquished to the SMO for delivery to a preapproved off-site analytical laboratory (refer to Appendix F for chains of custody and Appendix H for analytical data on compact disk [CD]).

3.3.4 Borehole Drilling and Sampling

A Construction Mine Equipment (CME) 85 hollow-stem auger (HSA) drill rig was employed for all drilling using 4.25-in.-inner-diameter (I.D.) and nominal 8.25-in.-outer-diameter (O.D.) augers. A hex-rod core retrieval system and 4-in.-O.D. stainless-steel core barrels were used for sampling. A nominal 9-in.-diameter drill bit was used for all borings. In all deep and intermediate boreholes (BH-01 through BH-08, excluding BH-06), once depth to bedrock was encountered, a 12-in.-diameter steel surface casing was installed and cemented in place. Surface casings were emplaced to approximately 10 ft, with minimum stickup to allow for unobstructed drilling operations.

During HSA drilling, continuous core was recovered using stainless-steel core barrels through the center of the 4.25-in. drill string. Core was collected at 2.5-ft intervals. At the surface, cuttings and core were surveyed for radioactivity and VOCs (as described in section 3.3.2) and the core was visually inspected and lithologically logged by a qualified geologist. Characterization of fracturing and other geological properties of the subsurface media were conducted to TD for all borings. This characterization included depths through the Cerro Toledo/Qbt 2 contact for BH-1, BH-2, and BH-3. Refer to Appendix D for screening and logging results.

Samples were collected from each of the boreholes for laboratory analyses. The sampling intervals were selected based on

- the depth of the highest field-screening result, if applicable;
- the depth immediately below any structure of concern (e.g., beds, shafts, tanks, under buildings);
- the depth at fractures or other features of geological significance; and
- the TD of the borehole.

From all boreholes deeper than 100 ft, additional samples were collected based on field-screening results and field observations.

Core material was placed in the appropriate sampling containers, labeled, documented, and preserved (as appropriate) for transport to the Laboratory's SMO. Samples were submitted for laboratory analysis of the following chemical suites: isotopic uranium, isotopic plutonium, americium-241, strontium-90, gamma spectroscopy, metals-GEL, uranium, nitrates, pH, perchlorate, VOCs, SVOCs, tritium, and gross alpha, beta, and gamma radiation. Core material that was indicative of the buried operational surface was also analyzed for dioxins and furans. Field duplicates and rinsate blanks were submitted for the same suite of analyses as the investigation samples for QA/QC in accordance with SOP-01.05, "Field Quality Control Samples." The drilling equipment was decontaminated after each borehole using dry methods.

3.3.5 Pore Gas Sampling and Downhole Geophysics

Subsurface pore gas samples were collected in accordance with SOP-06.31, "Sampling of Subatmospheric Air." This procedure ensures that subsurface gas conditions are stabilized and are representative of formation conditions before the collection of subatmospheric (formation vapor) samples.

The TD sample from each borehole was collected through the augers using a single inflatable packer. This approach ensured access to the TD of the boreholes and allowed the collection of pore gas from within the Cerro Toledo Interval. All subsequent samples were collected after the removal of the augers using a straddle packer system that isolates a 2-ft interval within the borehole. When the augers were removed, approximately 50 ft of slough was left at the bottom of each borehole. Because of this sloughing, the second round of pore gas samples collected were started from the second interval of the previous TD. A purge pump was used to withdraw borehole and formation vapors. Concentrations of purge indicator gases (CO_2 and O_2) were monitored continuously using a CES Lantec air analyzer during this pre-sampling cycle. Once indicator gas concentrations were stable, and proper purge of the sampling system was verified, vapor sampling proceeded. Subsurface pore gas samples were collected in SUMMA canisters for VOC analysis using EPA Method TO-15 and in silica gel samplers for tritium analysis using EPA Method 906.0.

LANL supplied the Mount Sopris downhole geophysical logging equipment. The neutron probe, gamma probe, caliper tool, and downhole camera were operated using a wireline winch. Data were collected and stored on a laptop computer.

The raw neutron data, measured in counts per second (cps), were converted to percent volumetric water content (% vwc) using the standard correlation equation for 9-in.-diameter uncased boreholes in Bandelier Tuff. A detailed explanation of the neutron calibrations used to convert cps data to % vwc is presented in "Subsurface Moisture Measurements Using Neutron Probes" (LANL 1999, 90803). Geophysical logging results are presented in Appendix M.

3.4 Deviations

Minor deviations from the scope of activities defined in the approved investigation work plan occurred during the implementation of the Consolidated Unit 21-016(a)-99 (MDA T) investigation (LANL 2004, 85641). BH-12, BH-13, BH-16, and BH-39 were moved from their proposed locations because of the presence of underground utilities and/or because the terrain was too rugged to permit drilling. BH-12, BH-13, and BH-16 are located on the north and west sides of Building 21-257 and were drilled within 40 ft of the proposed locations. BH-39 is located on the western side of the Consolidated Unit 21-016(a)-99 fenced area and was drilled within 10 ft of its original location.

Only three boreholes (BH-26, BH-27, and BH-28) of the four paleochannel borings planned for the western side of the site were installed. The two outer borings (BH-26 and BH-28) were drilled first and did not produce any evidence of the paleochannel. BH-27 was installed between the outer borings and again did not yield evidence of the paleochannel. BH-29, the fourth proposed paleochannel borehole, was not drilled because the slab foundation of Building 21-228 prohibits access to the proposed location. There was no evidence of the paleochannel in this area and an alternative borehole location could not be identified.

The first geotechnical sample from the soil/fill interval in BH-01 could not be collected because of insufficient sample material. A surrogate sample was collected from the soil/fill interval in nearby BH-07 to replace the lost interval in BH-01.

Two geotechnical samples were to be collected from the Cerro Toledo Interval at each deep borehole. This sample collection was accomplished only at BH-01. The Cerro Toledo Interval was much thinner than anticipated at BH-02 and BH-03; only one geotechnical sample could be collected from the Cerro Toledo Interval in each of these boreholes.

Reliable RQD from core barrel samples could not be collected. Because of the welding characteristics of the Bandelier Tuff at Consolidated Unit 21-016(a)-99, the tuff was frequently mechanically fractured or even pulverized and therefore did not permit RQD measurements to be made.

Finally, the originally proposed locations of BH-04 and BH-05, between absorption beds 1 and 2 and the shafts, were selected to be near previously drilled boreholes where moisture content data had been collected. BH-04 and BH-05 were to be neutron logged so moisture data from these boreholes could be compared to historical moisture data. Because of NES safety requirements, and to meet NMED requirements specified in a notice of disapproval (LANL 2004, 88721) to the work plan (LANL 2004, 85641), LANL moved the proposed locations of BH-04 and BH-05. The new locations of the boreholes did not allow for a meaningful comparison of moisture data to historical data; therefore, the boreholes were not neutron logged.

3.5 Health and Safety Measures

The activities, work steps, hazards, and hazard controls associated with the Consolidated Unit 21-016(a)-99 investigation were identified in the integrated work document (IWD) for the consolidated unit characterization (LANL 2004, 85641). The nature of the contamination at Consolidated Unit 21-016(a)-99 and the work involved in the investigation required the use of multiple health and safety measures to protect workers. These measures are detailed in two site-specific health and safety plans (SSHASPs) for Consolidated Unit 21-016(a)-99. Although separate SSHASPs were developed for work conducted outside the NES boundary and inside the NES, the health and safety measures were the same for all field activities. These health and safety measures included multiple training requirements, the use of modified level-D personal protective equipment (PPE), and monitoring for VOCs; gross alpha, beta, and gamma radiation; noise; dust; and heat and cold stress.

3.6 Waste Management

All investigation-derived waste (IDW) generated during the Consolidated Unit 21-016(a)-99 (MDA T) field investigation was managed in accordance with the IDW management plan in the approved MDA T work plan (LANL 2004, 85641) as well as applicable regulations and LANL SOPs. These SOPs incorporate the requirements of all applicable EPA and NMED regulations and Laboratory implementation requirements (LIRs). SOPs applicable to the characterization and management of IDW are SOP-01.06, “Management of Environmental Restoration Project Waste,” and SOP-01.10, “Waste Characterization.” The EP waste minimization awareness plan was implemented during the field investigations at Consolidated Unit 21-016(a)-99 to minimize waste generation.

The waste streams associated with the investigation of Consolidated Unit 21-016(a)-99 were drill cutting and core materials and contact IDW. Drill cuttings and discarded core from boreholes were collected and containerized in roll-off bins. This waste stream was characterized in accordance with the approved waste characterization strategy form (WCSF), which is included in Appendix N. As described in the WCSF, the drill cutting and discarded core waste stream was characterized with analytical results from core samples; the containerized waste was not sampled directly.

Contact IDW included PPE (gloves, ear plugs); plastic bags and sheeting; disposable sampling supplies; decontamination towels; and other solid waste that may have come into contact with possibly contaminated environmental media. As described in the WCSF, the contact IDW was characterized using knowledge of the waste generating process and the levels of radioactive contamination encountered. Environmental media (soils, drill cuttings, and core) were screened continuously in the field for radioactivity. The results of the field screening were used to determine if contact IDW had the potential to be radioactively contaminated. This practice formed the basis for segregating the waste articles for processing through the TA-54 "Green is Clean" (GIC) operations or declaring them to be low-level radioactive waste. The nonradioactive contact wastes were placed in plastic GIC green-striped bags and staged until enough bags had accumulated to warrant shipment. These bags were transported to TA-54 for GIC verification measurements.

A portion of material extracted from BH-35 was radioactively contaminated, and all contact articles and drill cuttings and core were segregated and containerized in 55-gal. drums and stored in a radioactive waste staging area. This low-level radioactive waste was disposed of at TA-54's Area G. Additional details and supporting documentation on the IDW management during the Consolidated Unit 21-016(a)-99 investigation are presented in Appendix N.

4.0 FIELD INVESTIGATION RESULTS

This section summarizes the results of field activities conducted at Consolidated Unit 21-016(a)-99 and the DP Canyon slope during the 2005–2006 investigation. Field activities included radiological and geophysical surveys, surface-soil sampling, and subsurface sampling of tuff and pore gas. This section also discusses and presents current subsurface, groundwater, and surface water conditions to provide the proper context for the field work undertaken and results presented. Field observations that altered the planned work or influenced sampling are also discussed.

4.1 Current Site Conditions

The elevation of Consolidated Unit 21-016(a)-99 at TA-21 ranges from 7130 ft to 7140 ft above sea level, with a slight downward slope across the site from south to north. The consolidated unit consists of a disposal area with absorption beds, buried shafts, the RWSA, an industrial wastewater treatment plant (Building 21-257), the footprint of a removed industrial wastewater treatment plant (Building 21-035), two office trailers, associated buried piping, and surrounding surface features. The DP Canyon slope is north of the consolidated unit and ranges in elevation from 7130 ft to 7040 ft above sea level. The slope terminates at the DP Canyon alluvial bottom.

Current structures at Consolidated Unit 21-016(a)-99 include the industrial liquid waste treatment facility in Building 21-257 (completed in 1967) that replaced the processes of former Building 21-035. The new plant includes a process acid wastewater treatment circuit, an americium raffinate treatment circuit, and a pugmill circuit. The original batch waste treatment tanks and storage tanks of the treatment circuit were replaced with new tanks in 1970. Four aboveground steel tanks (structures 21-110, 21-111, 21-112, and 21-113) with nominal capacities of 500 gal. each are outside Building 21-257, two on the western side and two on the southwestern side. This facility currently operates to partially treat wastewater from the TSTA. The plant wastewater processing circuit includes a clarifier, a flocculator tank, process tanks, filters, pumps and sumps, and chemical holding tanks. Drawings indicate that all externally located tanks have some form of secondary containment (Appendix B in LANL 2004, 85641).

Numerous general utilities cross through the Consolidated Unit 21-016(a)-99, primarily between former Building 21-035, the active Building 21-257, and the TSTA. Acid-waste lines, main water lines, and a

natural gas line are present under or along existing structures at the Consolidated Unit 21-016(a)-99. Aboveground electrical lines are present just north of the Consolidated Unit 21-016(a)-99 fence line, splitting to the south between former Building 21-035 and active Building 21-257 and to the east over tanks 21-112 and 21-113 and along the north side of Building 21-257. Underground electrical lines are also present between the former and active wastewater treatment plants (see Appendix L, 2005 Geophysical Survey Report).

A portion of Consolidated Unit 21-016(a)-99 is classified as an NES. This designation was established by DOE in 2004 (LANL 2004, 85641) with the DSA, and sets limits to activities that can be conducted within a NES boundary. These limits are much more restrictive than previously established; thus, field investigation and characterization activities within the NES boundary are under a more restrictive regime of safety regulations. These safety regulations directly impacted sampling and drilling activities within the NES boundary at Consolidated Unit 21-016(a)-99. For purposes of clarity and presentation, separate sections are not used for work performed within and outside the NES boundary; such work will simply be noted in appropriate places in the text.

4.1.1 Surface Conditions

The surface of Consolidated Unit 21-016(a)-99 is relatively flat, with a gentle slope toward North Perimeter Road. The DP Canyon slope, north of North Perimeter Road, has a relatively steep grade that flattens in a short distance into the DP Canyon alluvial channel. Two diversion ditches, one on the eastern end and one on the western end of Consolidated Unit 21-016(a)-99, channel surface flow away from the site. Stormwater and snowmelt runoff from the site are routed across the site to the north, along with water from the west perimeter ditch, which collects along the ditch between the north side of the site and North Perimeter Road. Runoff passes through culverts under the road and continues down drainages cut into the slope of DP Canyon that terminate in DP Canyon's alluvial bottom. Using an erosion assessment matrix that rates erosion potential from 1 to 100, the Consolidated Unit 21-016(a)-99 evaluation resulted in a score of 30.3, indicating a low erosion potential. The surface water assessment was conducted in June 1998 (presented in LANL 2004, 85641, p. 21). No surface alterations (e.g., regrading, addition of fill) have occurred at Consolidated Unit 21-016(a)-99 since this assessment, and it remains valid. No surface water assessment was conducted for the DP Canyon slope.

Historically, the DP Mesa surface was part of a braided drainage system on the western end of the Pajarito Plateau, originating in the Sierra de los Valles. At present, possible signatures of this geomorphic setting include shallow paleochannel deposits beneath Consolidated Unit 21-016(a)-99. The associated tributary stream systems and their canyons (including DP Canyon) developed before the incision of Los Alamos Canyon and minimal cliff retreat has occurred in these canyons. The exposure of most of the MDAs on DP Mesa through cliff retreat is improbable over periods exceeding 10,000 years (Broxton et al. 1995, 58207, pp. 68–69).

In general, soils are thin and poorly developed on the DP Mesa surface, as is typical of soils derived from Bandelier Tuff and formed under semiarid climate conditions. These soils tend to be sandy near the surface and more clay-like beneath the surface. More highly developed soil profiles exist on canyon north-facing slopes, and are composed of more organic matter than soil profiles on south-facing slopes. The present-day surface of Consolidated Unit 21-016(a)-99 is predominantly fill (crushed tuff) and imported fill material. Surface vegetation is limited to native grasses, small plants and bushes, and a few trees, mainly near the perimeter fence. Portions of the area are graveled and/or paved.

Final surface alterations took place in 1986 and consisted of placing fill material (approximately 5–6 ft thick) over the original surface of the Consolidated Unit 21-016(a)-99 absorption beds, shafts, and the

RWSA and regrading of the disposal area. This action facilitated drainage across the site. There are no active surface water bodies or natural channels within the site.

4.1.2 Subsurface Conditions

DP Mesa consists of Bandelier Tuff overlain by a thin layer of soil and fill (previously discussed) and alluvium. Alluvium, which is generally thickest near the center of the mesa and thin to absent at the mesa edge, consists of poorly sorted, clay-rich sand and gravel. Much of the alluvium contains angular to subrounded lithic clasts of Tschicoma volcanic rocks and crystals of feldspar, quartz, and biotite and other ferromagnesian minerals derived from the Tschicoma Formation (Broxton and Eller 1995, 58207, pp. 67–69).

A shallow paleochannel deposit is evident in the subsurface at Consolidated Unit 21-016(a)-99 and has been defined by previous drilling studies and excavation activities (LANL 2004, 85641). The graded fluvial sediments of the shallow-subsurface paleochannel under the disposal complex area consist of fine to coarse-grained sands with varying amounts of pebbles and gravels. These paleochannel sediments exhibited crossbedding along an excavation wall exposed during the construction of the RWSA. A basal layer of dacite to rhyolite boulders was found in most of the boreholes drilled through the paleochannel during the 1996–1997 field investigation (Appendix B in LANL 2004, 85641). No 2005–2006 boreholes encountered paleochannel deposits.

Bandelier Tuff is subdivided into two members, the Otowi (or Lower) Member, and the Tshirege (or Upper) Member. The Tshirege Member, which is divided into four distinct cooling units and is approximately 340 ft thick in the vicinity, directly underlies Consolidated Unit 21-016(a)-99. The four cooling units comprising the Tshirege Member are, in descending sequence, Qbt 3, Qbt 2, Qbt 1v, and Qbt 1g (Broxton et al. 1995, 58207, pp. 45–51). Bedrock directly underlying the site is cooling unit Qbt 3 of the Upper Tshirege, a cliff-forming and nonwelded to partially welded tuff. Below DP Mesa, the Otowi and Tshirege Members are separated, at about 340 ft, by the Cerro Toledo Interval, an approximately 10-ft- to 40-ft-thick sequence of volcaniclastic sediments deposited in braided stream systems. The basal Guaje Pumice Bed occurs under DP Mesa at approximately 535 ft. This feature separates Bandelier Tuff from the underlying clastic fanglomerate sediments of the Puye Formation. The surface of DP Mesa is overlain by 0–20 ft of alluvium and soil and/or by fill material.

The result of the deeper borehole data from the 1996–1997 and 2005–2006 investigations indicate that the fractures in core are not continuous from cooling Qbt 3 into Qbt 2. In Qbt 1v, Qbt 1g, the Cerro Toledo Interval, and the Otowi Member, fractures were extremely rare to not present.

4.2 Surface Surveys and Sampling

The following subsections describe the results of the radiological and geophysical surveys and surface and shallow-subsurface sampling. Discussions include survey and sampling results, field-screening activities, and any conditions that affected the investigation.

4.2.1 Radiological Survey Results

Radiological surveys at Consolidated Unit 21-016(a)-99 and the DP Canyon slope were conducted. The surveys used 3-in. by 3-in. sodium iodide detectors to scan for higher energy gamma emitters (principally americium-241 and cesium-137) and FIDLER detectors to scan for low-energy gamma-emitting radiation (uranium and plutonium isotopes). The DP Canyon slope survey is contiguous to the western boundary of SWMU 21-011(k). Surveys were performed using a GPS coupled to radiological instrumentation.

Results of the radiation surveys identified three localized areas of elevated radioactivity measurements within the fenced area of Consolidated Unit 21-016(a)-99. These locations are labeled Locations A, B, and C in the radiological report (Appendix K), and all are west of Building 21-257 (one near North Perimeter Road). Location A and B count rates are approximately 1.5 to 2 times the background for the Consolidated Unit 21-016(a)-99 fenced area, and each covers an area of approximately 3 ft in diameter (30 ft^2). Location C count rates are approximately five times the background for the fenced area and cover an area approximately 25 ft by 20 ft (500 ft^2). The three localized areas of elevated radioactivity were used to guide the location of three surface samples (locations 21-25402, 21-25403, and 21-25404). The elevated radioactivity found near North Perimeter Road is likely the result of leaking pipe(s) (LANL1991, 07528, p. 16-175) associated with either nearby tanks 21-112 and 21-113 or Building 21-257, or with accidental spill(s) or overflow(s) that may have occurred from activities associated with Building 21-257 or the tanks.

Two areas of elevated radioactivity readings were observed in the DP Canyon slope survey, one near the middle of the survey area and one along the eastern boundary contiguous to SWMU 21-011(k) (Appendix K, 2005 GPS Radiological Survey Report). The elevated readings near the middle of the DP Canyon slope are between 1.5 and 2 times background for the slope. These results were used to guide the placement of surface sampling location 21-25272. The elevated readings found along the extreme eastern boundary are up to four times background for the slope and are probably because of the close proximity of SWMU 21-011(k), a known source of cesium-137.

In summary, the fenced area of Consolidated Unit 21-016(a)-99 and the DP Canyon slope contiguous to SWMU 21-011(k) have a few areas of elevated radioactivity. Because the data collected within the Consolidated Unit 21-016(a)-99 fenced area showed a greater number of elevated areas using the FIDLER than using the Ludlum Model 44-20, the radionuclide is likely a low-energy gamma-emitting radionuclide. Soil samples confirmed that isotopic plutonium and americium-241, both low-energy gamma-emitting radionuclides, are present. The DP Canyon slope radiological survey data indicate that the radionuclide was a high-energy radionuclide. Because of the proximity of SWMU 21-011(k), the radionuclide likely is cesium-137, the most extensively documented contaminant at SWMU 21-011(k). Soil samples confirmed that cesium-137 is present on the DP Canyon slope. The full radiological survey report is provided in Appendix K.

4.2.2 Geophysical Survey Results

Two walkover geophysical surveys were conducted within the Consolidated Unit 21-016(a)-99 fenced area using electromagnetic (EM) and ground-penetrating radar (GPR). Geophysical data were collected using EM 31, EM 61, and GPR units coupled to GPS instrumentation. A radio detection instrument (RD-4000) was also used to locate underground utilities near Building 21-257.

The EM data collected during the survey investigation showed the locations of metal objects. In particular, a large rectangular anomaly is identified north of absorption beds 1 and 2 (see Appendix L, 2005 Geophysical Survey Report). This anomaly is attributed to a buried metal tank. The interpreted dimensions of the tank are 10 ft by 40 ft. Additional linear metal objects were also inferred that are attributed to metal pipes. The most obvious inferred metal pipe is a linear feature trending in an east-west direction that is probably a pipeline from former Building 21-035 to active Building 21-257, and a small inferred pipe trending in a northwest-southeast direction near the assumed edge of absorption bed 2 (see Appendix L). A large conductivity anomaly indicates the general location of the shaft field, although the data do not precisely indicate the locations of individual shafts.

No EM or GPR anomalies were identified that could be confidently used to delineate the lateral extent of the absorption beds, indicating that the electrical properties of the materials in the absorption beds are similar to the surrounding materials or that the absorption beds are thin compared with the volume of materials measured by the geophysical instruments. The GPR data indicates that most of the area was disturbed in the past or that cover materials were placed over the entire area. This leads to an inability to delineate the absorption beds from surrounding material. However, the presence of the metal tank and pipes located between absorption beds 1 and 2 can be used to approximate the locations of these two absorption beds. Historical drawings show the pipes that converge at a junction box between absorption beds 1 and 2 (LANL 1991, 07528, p. 16-181). The location of converging pipes identified by the geophysical data is consistent with historical drawings, indicating that the historical locations of the absorption beds are reasonably accurate with regard to the positions of absorption beds 1 and 2.

Utility locating performed around Building 21-257 using the RD-4000 successfully mapped numerous underground utilities (Appendix L, 2005 Geophysical Survey Report). This mapping proved useful in placing borings to avoid the underground utilities identified in the Building 21-257 area.

The full geophysical survey report is presented as Appendix L.

4.2.3 Surface Soil and Fill Field-Screening Results

All samples and material were field screened for radioactivity and organic vapors. Sample material was screened immediately after removal from the ground. Screening for gross alpha and beta/gamma radiation was performed using an Eberline E-600/SHP380AB portable radiation monitor. Organic vapor monitoring was performed using a MiniRae 2000, Model PGM-7600 photoionization detector (PID) employing an 11.7-eV bulb. Field screening for organic vapors was done directly on sample material and by headspace method. Field-screening results were recorded on the borehole logs and/or corresponding sample collection logs in addition to a PID screening log and in the RCT field logbook (Appendix D, Field Documentation).

No organic vapors were detected in any field-screening measurements. All measurements in monitoring for organic vapors showed background or “nondetect” results (0 to 3.0 ppm). Background results for the PID instrument range from 0 ppm to 3.0 ppm because of the inherent sensitivity of the 11.7-eV bulb to moisture and can depend on a number of factors, including humidity, soil moisture of the sample, and ambient air temperature.

Field screening for radioactivity produced no elevated readings for any surface (0–2 ft) media sampled.

4.2.4 Surface and Shallow-Subsurface Sampling

Surface and shallow-subsurface activities included sampling soil to shallow depths (maximum 2 ft) using spade-and-scoop or hand-auger methods. Surface and shallow-subsurface samples were collected from 14 DP Canyon slope locations and from four locations within the Consolidated Unit 21-016(a)-99 fenced area. A summary of the surface and shallow-subsurface samples collected as part of the 2005–2006 investigation is presented in Table 4.2-1. Figure 3.1-1 shows the sampling locations. Surface sampling locations targeted drainage features on the DP Canyon slope and were also dictated by the results of the radiological survey and by sampling locations from previous sampling investigations.

4.2.5 Summary of Consolidated Unit 21-016(a)-99 Surface Conditions

The surface conditions at Consolidated Unit 21-016(a)-99 are stable with erosion control measures in place, including the two diversion drainages and the placement of fill on the former operational surface to prevent ponding of surface water and to channel drainage off-site in a controlled manner. The vegetation is limited to grasses, small plants, and a few small trees in the fenced area; some paved and graveled areas are also present. The DP Canyon slope is subject to normal erosion processes for the semiarid environment of the Pajarito Plateau.

The radiological survey identified small areas of elevated radioactivity on the DP Canyon slope and inside the Consolidated Unit 21-016(a)-99 fenced area. The geophysical survey did not dispute existing engineering diagrams or existing site knowledge.

4.3 Exploratory Characterization Drilling and Sampling

This section (and other sections below) provide results for all drilling and sampling and related field screening, geotechnical sampling, pore gas sampling, and downhole geophysical logging activities performed at Consolidated Unit 21-016(a)-99.

For the 2005–2006 drilling investigation, 32 boreholes were drilled to depths ranging from 27 ft to 380 ft. A total of 24 boreholes, including one within the NES boundary, were drilled to characterize subsurface contamination associated with releases from absorption beds, disposal shafts, the RWSA, Building 21-257, and former Building 21-035. Of the 32 boreholes, seven were drilled to better define the location of a paleochannel beneath Consolidated Unit 21-016(a)-99. Table 4.3-1 lists the 2005–2006 borehole location IDs and TD drilled for each. Figure 3.1-1 shows the locations of the 32 boreholes drilled.

Eight deep boreholes were drilled to at least 279 ft to characterize the vertical extent of possible contamination from the absorption beds, disposal shafts, and RWSA, and also to assess fractures in Qbt 2 and Qbt 3. All eight deep borings are perimeter borings around the absorption beds, disposal shafts, and the RWSA (except location 21-25374, which is located between absorption beds 1 and 3). Groundwater was not encountered in any of these deep borings, confirming that perched groundwater or perched horizons are not present beneath Consolidated Unit 21-016(a)-99.

Of the eight deep boreholes, three boreholes at locations 21-25262 (drilled to 380 ft), 21-25263 (drilled to 354 ft), and 21-25264 (drilled to 354 ft), penetrated through the Cerro Toledo Interval and reached target depths in the Otowi Member of Bandelier Tuff. To construct a moisture profile, soil moisture samples were collected from these borings at regular intervals, with a greater sample density toward the top of the borehole. Geotechnical samples were also collected from these borings at roughly 75-ft intervals and were analyzed for chloride, bulk density, saturated hydraulic conductivity, gravimetric moisture content, and calculated total porosity.

The other five deep boreholes were drilled to the target depth of 279 ft and penetrated the Qbt 1g unit of the Tshirege Member of Bandelier Tuff. Samples were collected at appropriate target intervals, and three geotechnical samples were also collected, two at location 21-25376 and one in fill (at location 21-25375) as a surrogate for location 21-25262, where a geotechnical sample could not be collected because of radioactive contamination.

Seven borings, locations 21-25355 through 21-25360 (drilled to 40 ft) and location 21-25390 (drilled to 100 ft), were completed near and within the footprint of former Building 21-035 to further refine the extent of contamination associated with this building from pervious investigations. In addition, the boring located near the northwestern corner of former Building 21-035 (location 21-25262, drilled to 380 ft) served

multiple investigative purposes for the drilling campaign and was placed to also address the contamination extent at Building 21-035. Samples were collected at appropriate target intervals.

Seven borings, five at locations 21-25380 through 21-25384 (all drilled to 100 ft), one at location 21-25388 (drilled to 100 ft), and one at location 21-25390 (drilled to 103 ft), were installed around Building 21-257 for initial characterization purposes because previous investigations had not targeted this area for characterization. Access issues because of topography and the presence of underground and overhead utilities required that initial boring locations be moved slightly. Samples were collected at appropriate target intervals.

Seven borings, three at the eastern end of Consolidated Unit 21-016(a)-99 and four at the western end of Consolidated Unit 21-016(a)-99, were drilled to better define the suspected location of the paleochannel identified during previous investigations. Two borings at the western end locations 21-25364 and 21-25365 were drilled to 30 ft, and the boring at the third location, 21-25366, was drilled to 27 ft. The four borings at the eastern end were drilled to 29 ft at locations 21-25368 and 21-25369 and to 30 ft at locations 21-25370 and 21-25371. No boring produced evidence of a paleochannel and all were drilled to the target depth within Bandelier Tuff (Qbt 3). Samples were collected at appropriate target intervals, except at location 21-25364, where a TD sample at 30 ft was not collected because there was no evidence of paleochannel deposits.

Three borings, locations 21-25361 (drilled to 39 ft), 21-25362 (drilled to 39 ft), and 21-25363 (drilled to 40 ft), were drilled and sampled to characterize the diversion ditch near the northwestern end of the fenced portion of Consolidated Unit 21-016(a)-99. Samples were collected at appropriate target intervals.

None of the six optional boreholes were drilled because the extent of all field-screening detections (radioactivity and organic vapors) in the required boreholes was either defined or below background. This was in accordance with the approved investigation work plan (LANL 2004, 85641).

4.3.1 Soil, Fill, and Rock Sampling

Table 4.2-1 presents samples collected in the 2005–2006 investigation from all boreholes and requested chemical analyses. Soil moisture samples were also collected and analyzed on-site at LANL's Hydrology, Geochemistry, and Geology (EES-6) laboratory facility.

A total of 18 samples of formation fractures were collected from 17 boreholes drilled during the 2005–2006 investigation. Table 4.3-2 presents details of the fracture samples taken, including depth interval and unit within the Bandelier Tuff sampled. The majority of the fracture samples were collected within the Qbt 3 unit, emphasizing the lack of fractures encountered in the Qbt 2 unit. This confirms past assessments of the general fracture regime beneath Consolidated Unit 21-016(a)-99 from the 1996–1997 investigation (see section 4.1.2).

A total of 17 samples were collected from 17 different locations throughout Consolidated Unit 21-016(a)-99 and analyzed for dioxins and furans from intervals where the old operational surface was identified in retrieved core (Table 4.2-1).

Appendix H presents 2005–2006 analytical data as well as data from 1992–1994 and 1996–1997 investigations. A discussion of the specific chemical analytical results from the 2005–2006 sampling event and all historical data results are presented in section 6 and in Appendix I, Analytical Data Review and Assessment. This section is limited in scope to a discussion of gravimetric soil moisture and pH results.

Samples for gravimetric moisture content were collected at regular intervals from locations 21-25262, 21-25263, and 21-25264. The results are presented in Table 4.3-3; graphs for gravimetric soil moisture are presented in Figure 4.4-1. Clear trends are evident in the graphs, and there is obvious consistency between boreholes. The general increase in moisture content through Qbt 1v, with a spike near the contact with Qbt 1g, is very pronounced. The moisture content spike evident in these graphs fits well with the neutron probe data presented in section 4.3.5.

The pH was measured in a number of samples from various depths at Consolidated Unit 21-016(a)-99 (Appendix F, Sample Collection Logs and Chain-of-Custody Forms). The approved investigation work plan (LANL 2004, 85641, p.24) specifically called for pH to be assessed at location 21-25374, drilled between absorption beds 1 and 3 near the location of a former cement paste spill. The pH data are presented in Table 4.3-4. For location 21-25374, the pH results for the upper two samples showed alkaline results (pH of 9.26 at 27–29 ft and 9.10 at 109–111 ft). Below 111 ft, all pH values were 7.68 or lower. At location 21-25262, the top two samples also showed alkaline results (pH of 9.03 at 22.0–23.5 ft and 9.20 at 75.0–77.0 ft). At locations 21-25263 and 21-25372, almost all pH values were less than 8.0, with the majority of results less than 7.5, closer to a neutral value.

4.3.2 Soil and Rock Field Screening

All samples and material were field screened for radioactivity and organic vapors. Sample material, core, and drill cuttings were screened immediately after removal from the ground. Screening for gross alpha and beta/gamma radiation was performed using an Eberline E-600/SHP380AB portable radiation monitor. Organic vapor monitoring was performed using a MiniRae 2000, Model PGM-7600 PID employing an 11.7-eV bulb. Field-screening results were recorded on the borehole logs and/or corresponding sample collection logs in addition to a PID screening log and the RCT field logbook. (Appendix D).

Field screening during drilling at Consolidated Unit 21-016(a)-99 for gross alpha and beta/gamma radiation detected elevated radioactivity in only two boreholes, at locations 21-25374 and 21-25359. At location 21-25374, drilled into the former RWSA between absorption beds 1 and 3, beta/gamma activity was measured at 4100 decays per minute (dpm) on retrieved core at the 20–22-ft interval, in fill material just above the contact with Qbt 3 (at 25 ft). At location 21- 25359, near the southwestern corner of former Building 21-035, beta/gamma activity was measured at 88,000 dpm on retrieved core at the 5.0–7.5-ft interval, in fill material just above the contact with Qbt 3 (at 10 ft). General field investigation samples were collected from both intervals.

Radiological measurements immediately above and below these intervals were at or below local background activities. Previous drilling investigations in these same areas also detected elevated measurements of radioactivity in core and drill cuttings at approximately the same depth intervals (LANL 2004, 85641).

4.3.3 Geotechnical Sampling

A total of 19 samples were collected for geotechnical analysis. The locations, sample IDs, and results of analyses performed (included averages for each parameter) are listed in Table 4.3-5. Samples were analyzed for chloride, bulk density, saturated hydraulic conductivity, moisture content, and calculated total porosity.

The minimum chloride concentration of 0.953 mg/kg was measured at location 21-24263, at a depth of 336–337 ft in the Cerro Toledo Interval. The maximum chloride concentration was 43 mg/kg at location

21-25263, collected from a depth of 241–242 ft in Qtb 1v. The average chloride concentration in all geologic units was 9.30 mg/kg.

The minimum bulk density value of 1.03 g/cm^3 was measured at location 21-24262 at a depth of 335–336 ft in the Cerro Toledo Formation. The maximum bulk density was 1.77 g/cm^3 at location 21-25262 at a depth of 124.6–125.0 ft in Qbt 2. The average bulk density for all geologic units (including fill) was 1.36 g/cm^3. From the values presented in Table 4.3-5, Qbt 2 is the most dense unit in tuff and Qbt 1v is the least dense unit.

The minimum saturated hydraulic conductivity value of 0.00004 cm/s was measured at location 21-24262 at a depth of 238.0–238.9 ft (the bottom portion of Qbt 1v, near the contact with Qbt 1g). The maximum saturated hydraulic conductivity value of 0.065 cm/s was at location 21-25262 at a depth of 172.0–172.8 ft (also in Qbt 1v, near the top portion of this unit). The average saturated hydraulic conductivity value for all geologic units (including fill) was 0.00841 cm/s.

The maximum moisture content value of 33.1% was in two samples taken from different units in Bandelier Tuff: location 21-25262 at a depth of 238.0–238.9 ft in Qbt 1v and location 21-25263 at a depth of 336–337 ft in the Cerro Toledo Interval. The lowest moisture content value of 7.7% was at location 21-25263 at a depth of 50–51 ft in Qbt 3. The average moisture content for all geologic units (including fill) was 16.4%. Moisture content results varied substantially from each geologic unit and clear trends were not evident, although Qbt 2 had the most consistent values for moisture content of all units sampled.

Porosity values were the lowest at location 21-25262, with a reported value of 33.3% at a depth of 124.6–125.0 ft in Qbt 2. The maximum percent porosity calculated was 61.2% at location 21-25262 at a depth of 335–336 ft in the Cerro Toledo Interval. The average total porosity for all geologic units measured (including fill) was 48.8%. Units Qbt 1v and Qbt 1g have the most consistent and highest reported porosity values, ranging from 53% to 59%.

4.3.4 Pore Gas Sampling

Two rounds of pore gas sampling were completed on three separate boreholes at locations 21-25262, 21-25263, and 21-25234. Table 4.3-6 lists the 2005–2006 pore gas samples collected. Six different intervals were sampled at location 21-25262 during the first round, and five intervals were sampled at locations 21-25263 and 21-25264. Samples were collected from the same intervals during the second round, except for the TD sample. The initial TD sample from each borehole was collected through the augers using a single inflatable packer. This approach ensured access to the TD of the boreholes and allowed collection of pore gas from within the Cerro Toledo Interval. When the augers were removed, the TD sample could not be replicated because of partial sloughing of the borehole (approximately 30 ft). Sloughing happens when drill cuttings on the auger flights fall to the bottom of the borehole during the auger removal. All subsequent samples were collected after the removal of the augers using a straddle packer system that isolates a 2-ft interval within the borehole. For the second round of sampling, samples were collected beginning at the second deepest interval from the initial sampling round. Subsurface pore gas samples were collected in SUMMA canisters for analysis of VOCs and in silica gel samplers for tritium analysis.

4.3.5 Exploratory Downhole Geophysical Logging

Mount Sopris downhole geophysical logging equipment was used to run four different logging tools at locations 21-25262, 21-25263, and 21-25264. The neutron probe, gamma probe, caliper tool, and downhole camera were operated using a wireline winch, and data were collected and stored on a laptop

computer. Figures 4.3-1, 4.3-2, and 4.3-3 show the moisture, gamma, and caliper profiles for borehole locations 21-25262, 21-25263, and 21-25264, respectively. Figure 4.3-4 shows camera images of borehole locations 21-25262, 21-25263, and 21-25264. Complete geophysical logging results are presented in Appendix M.

The neutron probe data show a spike in the volumetric water content for two boreholes (locations 21-25262 and 21-25263) near the bottom of unit Qbt 1v near the contact with Qbt 1g. The borehole at location 21-25262 also shows a significant spike in volumetric water content at the fill/Qbt 3 contact at 11 ft, and a small spike near the beginning of unit Qbt 2 at approximately 100 ft. Water content in the borehole at location 21-25264 remains fairly constant to 180 ft, where a sharp increase and spike in volumetric water content occurs in the middle of unit Qbt 1v at approximately 225 ft. The raw neutron data, measured in counts per second (cps), were converted to percent volumetric water content using the standard correlation equation for 9-in.-diameter uncased boreholes in Bandelier Tuff. This correlation equation needed adjusting since the reported range was only 0–2% moisture by volume. Gravimetric results show identical trends, but ranged from 2% to 28% moisture by volume.

All three boreholes show a slight increase in gamma cps toward the bottom of the hole. At shallow depths, gamma counts begin around 150 cps and increase to between 200 cps and 300 cps at the bottom of the hole. This trend is attributed to a gradual change in mineralogy of the bedrock to a higher percentage of more naturally occurring gamma emitters (e.g., potassium-40). Caliper data from all three holes were between 8.5 in. and 9.0 in., showing the general consistency and uniform diameter of each borehole. Borehole stratigraphy cannot be seen in the camera data as a result of the poor resolution caused by formation dust in the boreholes. Crude striations are evident, as seen in the sample figure from the borehole data collected at location 21-25262 (Figure 4.3-4). These striations are from centralizers on the camera apparatus that are necessary to center the mechanism in the borehole.

4.3.6 Exploratory Borehole Abandonment

A total of 24 boreholes have been plugged and abandoned; all boreholes were abandoned by emplacement of a bentonite and cement mixture (grout) from the bottom of the boring to within 3 ft of the surface using the tremie pipe method. The top 3 ft were plugged with Type I, II, III cement. The remaining boreholes will be abandoned upon completion of all pore gas sampling, if undertaken, and when all results have been determined to satisfy the investigation objectives.

4.3.7 Summary of Subsurface Conditions at Consolidated Unit 21-016(a)-99

In general, the 2005–2006 investigation drilling confirmed previous assessments of the subsurface at Consolidated Unit 21-016(a)-99. Soil, fill, and/or alluvial material are between 1 ft and 15 ft thick, and the Tshirege Member of Bandelier Tuff is approximately 320 ft thick. In addition, the stratigraphy encountered is consistent with predicted depths, with the Qbt 3/Qbt 2 contact at approximately 100–110 ft and the Cerro Toledo Interval at 325–333 ft in the three deep borings that penetrated to that depth. The thickness of the Cerro Toledo Interval varied from 20 ft to 45 ft. The fracture density was most abundant in Qbt 3. The general stratigraphy beneath Consolidated Unit 21-016(a)-99 is presented as a three-dimensional crosssection (Figure 4.3-5)

Soil moisture profiles and neutron probe geophysical logging confirmed that the upper tuff units (to about 150 ft) have a consistently low moisture content (10% or less), with an increasing trend to near the Qbt 1v/Qbt 1g contact (at a depth of 225–245 ft). Tshirege Member units Qbt 1v and Qbt 1g have the most consistent and highest reported porosity values and, as expected, the lowest bulk density compared with

other tuff units. The Qbt 2 unit has the highest reported bulk density (average of 1.61 g/cm^3 for three samples) in combination with the expected lowest total porosity values.

No groundwater was encountered beneath Consolidated Unit 21-016(a)-99. The deepest boring was drilled to 380 ft, just penetrating into the top portion of the Otowi Member of Bandelier Tuff.

4.4 Groundwater Conditions

Groundwater beneath the Laboratory occurs in the regional aquifer at depths ranging from 600 ft to 1300 ft and as perched intermediate or shallow alluvial aquifers in larger drainages. No perched groundwater has been detected beneath Consolidated Unit 21-016(a)-99, and the 2005–2006 drilling investigation did not encounter any groundwater, perched or otherwise. This section summarizes information on the vadose zone and shallow groundwater in the vicinity of Consolidated Unit 21-016(a)-99, the regional aquifer, and groundwater and saturated conditions observed during the 2005–2006 investigation.

4.4.1 Vadose Zone

Surface and near-surface conditions (topography, precipitation, and surface runoff) control the absorption of water into the subsurface and the transport of contaminants in the shallow subsurface to depth. These conditions are affected by climate, site activity, and the natural properties of the bedrock. The Pajarito Plateau mesas are generally dry, both on the surface and within the bedrock that forms the mesa. Canyons range from wet to relatively dry, such as DP Canyon, which has ephemeral streamflow. Mesa-top recharge can be locally significant under disturbed surface conditions. Such local conditions occur when vegetation is removed, soil and near-surface bedrock are disturbed, or surface water runoff is artificially concentrated to the local hydrologic system by features such as large paved areas, humanmade drainage alterations, lagoons, or effluent disposal. Fractures within bedrock do not enhance the movement of dissolved contaminants unless saturated conditions develop. Contaminants in the vapor phase generally migrate in a diffusive manner through mesas (Stauffer et al. 2002, 69794; LANL 1997, 63131).

The region beneath the ground surface and above the regional aquifer is called the vadose (unsaturated) zone. The natural source of moisture in the vadose zone is precipitation, most of which is removed as runoff, evaporation, and transpiration (LANL 1997, 63131). The subsurface movement of the remaining moisture (often referred to as recharge) is predominantly vertical in direction and is influenced by properties and conditions of the vadose zone.

The geologic property in Bandelier Tuff that most influences fluid flow in the unsaturated zone is the degree of welding (i.e., compaction). Compaction occurs in the tuff after emplacement, when glassy pyroclasts (pumices and shards) deform as a result of the combined effects of overburden weight from the tuff column and the presence of residual gases and high temperatures. The compaction and cooling history of the tuff units varied vertically and laterally across the plateau as different units were emplaced at different temperatures, and as distance from source and paleotopography controlled the thickness of deposition. In addition, the Tshirege Member is characterized by a number of vertical welding breaks that represent brief periods of cooling between deposition of the units and subunits. Welded tuffs tend to have less matrix porosity and more fractures than nonwelded tuffs. Fractures in welded tuffs may include relatively close-spaced cooling joints, as well as tectonic fractures. Although nonwelded tuffs also have fractures, they are generally less abundant than in welded tuff.

Several competing effects determine the moisture content and fluid flux in welded, devitrified tuff. While water moves slowly through the unsaturated tuff matrix, water can move relatively rapidly through fractures if nearly saturated conditions exist (LANL 1997, 63131). A gravimetric water content of 38% is the value for saturation in Bandelier Tuff. From previous investigations, the overall saturation levels measured from boreholes through and beneath the absorption beds at Consolidated Unit 21-016(a)-99 are relatively low (LANL 2004, 85641). From 0 ft to 35 ft, the gravimetric water content was measured at values between 4% and 13%. At depths from 35 ft to 100 ft, the values averaged around 10%. At these moisture values, most of the fractures beneath the site are expected to be completely dry, and the water will exist in the tuff matrix only. Only in situations when substantial absorption occurs from the ground surface (as was the case under the absorption beds when in operation) will fractures become wet and conduct water or fluids.

Gravimetric soil moisture results collected during the 2005–2006 investigation confirm previous studies and augment the conclusions presented above (LANL 2004, 85641). From Table 4.3-3 and Figure 4.4-1, it is clear that gravimetric soil moisture in the top 150 ft of Bandelier Tuff is fairly constant and ubiquitously less than 10%, then gradually increases with depth to approximately 28% near the Qbt 1v/Qbt 1g contact and decreases quickly with depth thereafter. Saturated conditions are not present anywhere within Bandelier Tuff beneath Consolidated Unit 21-016(a)-99. Within the Cerro Toledo Interval, gravimetric soil moisture results ranged from 6 % to 16%, indicating unsaturated conditions throughout the area beneath Consolidated Unit 21-016(a)-99.

4.4.2 Perched Intermediate Waters

No perched water was found beneath Consolidated Unit 21-016(a)-99 during previous investigations or the 2005–2006 investigation. The top of the Otowi Member was the deepest interval encountered, and no perched saturated conditions were met.

4.4.3 Regional Aquifer

The regional aquifer beneath the Pajarito Plateau rises westward from the Rio Grande within the Santa Fe Group into the Puye Formation beneath the central and western portion of the Pajarito Plateau. Depth of the aquifer decreases from about 1300 ft along the western margin of the plateau to about 600 ft along the eastern margin. The regional aquifer is separated from the alluvium and perched water in the volcanics by 350 ft to 620 ft of tuff and volcanic sediments. The regional aquifer beneath Consolidated Unit 21-016(a)-99 is approximately 1300 ft based on water level information from regional well R-6 (LANL 2005, 91693).

4.4.4 Groundwater Investigation Results

No groundwater was encountered beneath Consolidated Unit 21-016(a)-99 during previous investigations or during the 2005–2006 investigation. The deepest boring beneath Consolidated Unit 21-016(a)-99 was drilled to 380 ft into the Otowi Member of Bandelier Tuff.

4.5 Surface Water Conditions

There is no surface water in the Consolidated Unit 21-016(a)-99 or on the DP Canyon slope.

5.0 REGULATORY CRITERIA

This section describes the criteria used for screening COPCs and for evaluating potential risk to ecological and human receptors. Regulatory criteria identified by medium in the Consent Order include cleanup standards, risk-based screening levels, and risk-based cleanup goals.

The objective of the current investigation is the characterization of the nature and extent of contamination from Consolidated Unit 21-016(a)-99. The regulatory criteria and the data gathered during the investigation are used to identify COPCs (Appendix I), their distribution in the environment (section 6.2, section 6.5, and Appendix I), and the resulting potential human and ecological risks (section 7.2 and Appendix J). The screening-level risk assessments evaluate whether additional corrective actions are required at the site.

In accordance with the approved MDA T investigation work plan (LANL 2004, 85641), all qualified data collected historically and under the approved work plan at Consolidated Unit 21-016(a)-99 were evaluated to determine COPCs, and all qualified and relevant data were then evaluated in risk screening assessments (Appendix J). All data validated to current standards for data usability are regarded as "qualified data," and are used in the characterization of the nature and extent and the risk screening. All samples collected between the surface and 10 ft are "relevant data" and are used in the risk screening determination.

Each soil screening level (SSL) or cleanup level is based on either a human health target cancer risk level of 10^{-5} or a noncancer hazard quotient of 1 for each chemical COPC. Each soil screening action level (SAL) for radionuclides is set to a dose limit of 15 mrem/yr (LANL 2005, 88493). The specific screening levels used in the risk assessment and corrective action decision process at a site depend on the current and reasonably foreseeable future land use.

The choice of the current and reasonably foreseeable future land use for a site determines the receptors and exposure scenarios that are used to select screening and cleanup levels. Historically, Consolidated Unit 21-016(a)-99 was used for industrial purposes. Current land use for Consolidated Unit 21-016(a)-99 is industrial; the consolidated unit area is fenced and access control is maintained by the Laboratory. Consolidated Unit 21-016(a)-99 is located on DP Mesa, near the commercial district of Los Alamos, and it is separated from the DP Canyon slope by the paved North Perimeter Road. It is expected that the land use will remain industrial for the reasonably foreseeable future. However, the site's location is favorable for other types of development, including commercial use. Residential use is included in this assessment for comparison purposes only. The future industrial use of the site includes the D&D of Building 21-257 and associated structures and infrastructure. This potential construction activity will be assessed only for the consolidated units, SWMUs, and AOCs in the area that is affected.

The DP Canyon slope, included in this report, is currently undeveloped and covered with natural vegetation. It is expected that the canyon area will remain undeveloped. Current access is restricted and controlled by the Laboratory. Potential future land use includes recreational use, such as hiking or access by children (extended backyard scenario) because of the desirable natural habitat in the canyon.

5.1 Screening Levels

The human health screening assessment, presented in Appendix J, was performed according to NMED and EPA Region 6 guidance (NMED 2006, 92513; EPA 2005, 91002). NMED SSLs (NMED 2005, 92513) are used to evaluate the COPCs in soil, sediment, and tuff for industrial worker, construction worker, and residential scenarios (residential is provided for comparison purposes only). Recreational SSLs have been developed by the Laboratory (LANL 2005, 87800). If a NMED SSL is not available for a chemical,

the EPA Region 6 human health media-specific screening level is used (adjusted to a risk level of 10^{-5} for carcinogens) (EPA 2005, 91002). SSLs used for noncarcinogenic and carcinogenic human health screening assessment are presented in Tables 5.1-1 and 5.1-2, respectively.

SALs for radionuclides have been developed by the Laboratory for the industrial/occupational, construction worker, recreational, and residential exposure scenarios (LANL 2005, 88493). The radionuclide SALs used in this assessment were calculated using the radioactive residual materials (RESRAD) model and are presented in Table 5.1-3. If it is determined that cleanup activities will take place, the appropriate SSLs or SALs [based on the current and reasonably foreseeable future land use(s)] will be used as soil cleanup levels.

The Consent Order does not contain screening levels for VOCs in pore gas. VOC data were screened to determine whether VOCs in the subsurface pore gas were a potential source of groundwater contamination through a migration of the pore gas to the groundwater. This screening process, which is presented in Appendix J, accounts for equilibrium partitioning between VOCs in the gas and liquid phases and compares measured concentrations of VOCs in pore gas to concentrations that would be required to cause groundwater cleanup standards to be exceeded.

LANL's ecological screening guidance (LANL 2004, 87630) and ecological screening levels (ESLs) from the ECORISK Database, Version 2.2 (LANL 2005, 90032) were used for evaluating ecological receptors. ESLs used in this report are presented in Appendix J's Table J-5.1-2.

5.2 Cleanup Goals

The cleanup goals specified in Section VIII of the Consent Order are a target risk of 10^{-5} for carcinogens or a hazard index of 1 for noncarcinogens. DOE has established a cleanup goal of 15 mrem/yr incremental exposure for radioactively contaminated sites. The screening levels described in section 5.1 are based on these cleanup goals. As specified in Section VIII.B.1 of the Consent Order, the screening levels will be used as cleanup levels unless determined to be impracticable or unless SSLs do not exist for current and reasonably foreseeable future land use. The cleanup levels to be used at Consolidated Unit 21-016(a)-99 will be determined during the corrective measures evaluation.

6.0 SITE CONTAMINATION

All applicable site data representative of current conditions were thoroughly reviewed to identify and confirm the COPCs for Consolidated Unit 21-016(a)-99 and the DP Canyon slope and to establish the concentration and activity ranges and spatial distributions for all site COPCs. In addition, the site data set was evaluated to determine if the nature and extent of contamination were fully characterized.

The data included in this review were derived from multiple investigations, including surface, shallow-subsurface, and limited drilling investigations conducted between 1992 and 1994; a surface, shallow-subsurface, and extensive drilling investigation conducted in 1996 and 1997; the surface, shallow-subsurface, and deep subsurface investigation of 2005–2006 prescribed in the approved investigation work plan (LANL 2004, 85641).

Only data of sufficient quality from off-site analytical laboratories, and accompanied by all supporting documentation, were subjected to the review and used for decision purposes in this document. A comprehensive discussion of the chemical and radiological analyses performed, the quality of the analytical results, and the data meeting the requirements for inclusion in the data review are presented in Appendix G, Analytical Program and QA/QC Review.

Screening data (including historical data generated using on-site analytical laboratory instrumentation) were not included in this review but were used to guide sample collection decisions and other elements of the investigations (section 4).

The COPC identification differs whether an analyte is an inorganic chemical, an organic chemical, or a radionuclide. In general, inorganic chemicals are identified as COPCs if they are present at concentrations above media-specific background values in any of the site samples; organic chemicals are identified as COPCs if they are detected in any of the site samples. Radionuclides are divided into two groups: fallout and naturally occurring radionuclides. Fallout values (FVs) have been established for the fallout radionuclides and are applicable to the top 0–6 in. of media. If a fallout radionuclide is present at activities above the FV in surface-soil samples, or if it is detected in samples collected from deeper intervals, it is identified as a COPC. If a naturally occurring radionuclide is present in site samples at activities above the media-specific BV, it is also identified as a COPC. Additional criteria are selectively applied to finalize the identification of site COPCs. A thorough discussion of the COPC identification methodology, including additional criteria, and a result-by-result application of the methodology to the site data set is presented in Appendix I, Analytical Data Review and Assessment.

Only the inorganic chemicals, organic chemicals, and radionuclides identified as COPCs were evaluated further to establish the nature and extent distribution within Consolidated Unit 21-016(a)-99 and on the DP Canyon slope. A detailed analysis of the nature and extent and site releases for all site COPCs is presented in Appendix I.

The following sections summarize the inorganic, organic, and radionuclide COPCs identified at Consolidated Unit 21-016(a)-99 and on the DP Canyon slope, and provide an overview of the nature and extent of contamination in solid media and pore gas across the site. The discussions presented in these sections are based on the analysis presented in Appendix I.

6.1 Soil, Rock, and Quaternary Alluvium Analytical Results

The comprehensive data set reviewed for Consolidated Unit 21-016(a)-99 includes 78 soil and tuff samples from the 1992–1994 investigations; 213 soil, tuff, and Quaternary alluvium (Qal) samples from the 1996–1997 investigation; and 126 soil and tuff samples from the 2005–2006 investigation. Samples were typically analyzed for volatile and semivolatile organic chemicals, inorganic chemicals (cyanide, TAL metals, and uranium), americium-241, isotopic uranium, isotopic plutonium, strontium-90, tritium, and other fallout radionuclides by gamma spectroscopy. In the 2005–2006 investigation, samples were also analyzed for perchlorate and nitrate, and certain samples were analyzed for dioxins and furans. The data set comprises approximately 60,000 chemical and radiological analytical results. Table 4.2-1 presents a summary of the soil, fill, Qal, and tuff samples collected and the associated analyses for Consolidated Unit 21-016(a)-99.

A total of 140 quality control (QC) samples were collected in association with the data included in the data review. QC samples included 67 field duplicates, 13 field blanks, 34 rinsate samples, and 26 trip blanks. For the 2005–2006 investigation, QC samples were collected at the frequency specified in the Consent Order and in accordance with the approved investigation work plan (LANL 2004, 85641). The QC data are not included in the data set reviewed for COPC identification; QC data are discussed in Appendix G, Analytical Program and QA/QC Review.

The 2005–2006 data were not subjected to a more intensive focused validation effort or comparative analysis with the QC data. This approach is conservative in that all results passing an initial evaluation of the data quality are included in the COPC identification process.

There were no unusual weather events, physical occurrences, or other anomalies in the field that impacted the sample analytical results.

A total of 24 inorganic, 51 organic, and 11 radionuclide COPCs were identified for the Consolidated Unit 21-016(a)-99 and the DP Canyon slope. The solid media COPCs are summarized in Table 6.1-1.

6.1.1 Inorganic Chemicals

The inorganic COPCs identified in soil, rock, or Qal for the Consolidated Unit 21-016(a)-99 and the DP Canyon slope include aluminum, arsenic, antimony, barium, beryllium, cadmium, chromium, cobalt, copper, fluoride, lead, lithium, magnesium, manganese, mercury, nickel, nitrate, perchlorate, selenium, silver, strontium, thallium, vanadium, and zinc.

6.1.2 Organic Chemicals

The organic COPCs identified in soil, rock, or Qal for the Consolidated Unit 21-016(a)-99 and the DP Canyon slope include acenaphthene, acenaphthylene, acetone, anthracene, benzene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, benzoic acid, bis(2-ethylhexyl)phthalate, bromophenyl-phenylether[4-], butanone[2-], butylbenzylphthalate, carbon disulfide, chloroform, chloronaphthalene[2-], chrysene, dibromo3-chloropropane[1,2-]; dichlorobenzene[1,2-]; dichlorobenzene[1,3-]; di-n-butylphthalate, fluoranthene, fluorene, heptachlorodibenzodioxin[1,2,3,4,6,7,8-]; heptachlorodibenzofuran[1,2,3,4,6,7,8-]; hexachlorodibenzodioxin[1,2,3,4,7,8-]; hexachlorodibenzodioxin[1,2,3,6,7,8-]; hexachlorodibenzodioxin[1,2,3,7,8,9-]; hexachlorodibenzofuran[1,2,3,4,7,8-]; hexachlorodibenzofuran[1,2,3,6,7,8-]; hexachlorodibenzofuran[2,3,4,6,7,8-]; hexanone[2-], isopropyltoluene[4-], indeno(1,2,3-cd)pyrene; methyl-2-pentanone[4-], methylene chloride, methylnaphthalene[2-], naphthalene, octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]; octachlorodibenzofuran[1,2,3,4,6,7,8,9-]; pentachlorodibenzofuran[2,3,4,7,8-]; pentachlorodibenzofuran[1,2,3,7,8-]; phenanthrene, pyrene, tetrachloroethene, toluene, trichloroethene, trichlorofluoromethane, and xylene[1,3-]+xylene[1,4-].

6.1.3 Radionuclides

The radionuclide COPCs identified in soil, rock, or Qal at Consolidated Unit 21-016(a)-99 include americium-241, cesium-137, cobalt-60, europium-152, plutonium-238, plutonium-239, strontium-90, tritium, uranium-234, uranium-235, and uranium-238.

6.2 Nature and Extent of Contamination in Solid Media

To simplify the analysis of the nature and extent of contamination, the investigation area was divided into two distinct geographic regions: Consolidated Unit 21-016(a)-99 and the DP Canyon slope immediately north of Consolidated Unit 21-016(a)-99. The DP Canyon slope is not technically part of the consolidated unit, but it could have been impacted by site operations. It should be noted that the investigation of DP Canyon downgradient of Consolidated Unit 21-016(a)-99 has been reported in the Los Alamos and Pueblo Canyons investigation report (LANL 2004, 87390). The extent of contamination beyond the toe of the DP Canyon slope below Consolidated Unit 21-016(a)-99 has been addressed by the investigation results reported in the investigation report for Los Alamos and Pueblo Canyons (LANL 2004, 87390).

To further clarify the analysis and discussion, data for the consolidated unit is divided into the following three sampling areas: (1) the absorption beds, disposal shafts, and RWSA, (2) the Building 21-035

sampling area, and (3) the Building 21-257 sampling area. It is important to recognize, however, that the objective of characterization activities at Consolidated Unit 21-016(a)-99 is to establish the nature and extent of contamination for the consolidated unit in its entirety, and not specifically for these individual sampling areas. An overview of the nature and extent of contamination for the entire consolidated unit based on the analyses of the individual sampling areas is presented following the sampling area discussions. A detailed analysis of the nature and extent for each COPC is presented in Appendix I.

This section also presents a summary of the nature and extent of subsurface pore gas for the consolidated unit as a whole.

6.2.1 Absorption Beds, Disposal Shafts, and the RWSA

A total of 23 inorganic COPCs were identified within the absorption beds, disposal shafts, and the RWSA sampling area. The distribution of inorganic COPCs in the sampling area is depicted in Plate I-4.1-1; the corresponding analytical results are presented in Table 6.2-1. In addition, three-dimensional realizations of perchlorate and nitrate distributions are depicted in Figures 6.2-1a, b and 6.2-2a, b.

Previous investigations and the 2005–2006 investigation data indicate that there is no evidence of a release for several of the inorganic COPCs identified in the absorption beds, disposal shafts, and the RWSA sampling area, including aluminum, antimony, beryllium, cobalt, lithium, manganese, strontium, and thallium. The previous investigation data also indicate (and the 2005–2006 investigation data confirm) that the nature and extent of contamination for all other inorganic COPCs have been fully defined.

A total of 46 organic COPCs are detected within the absorption beds, disposal shafts, and the RWSA sampling area; bromophenyl-phenylether[4-]; carbon disulfide; hexachlorodibenzodioxin[1,2,3,4,7,8-]; hexachlorodibenzodioxin [1,2,3,6,7,8-]; and xylene[1,3-]+xylene[1,4-] are the only organic COPCs that are not detected. The distribution of detected organic chemicals in the sampling area is depicted in Plate I-4.1-2. The analytical results are presented in Table 6.2-2.

There is no evidence of a release of multiple organic COPCs identified in the absorption beds, disposal shafts, and the RWSA sampling area. The following chemicals were detected in only one or two samples at trace concentrations: acenaphthene; acenaphthylene; butanone[2-]; chloronaphthalene[2]; dibromo-3-chloropropane[1,2]; dichlorobenzene[1,2]; dichlorobenzene[1,3]; fluorene; indeno(1,2,3-cd) pyrene; isopropyltoluene; trichlorofluoromethane; benzoic acid; butylbenzylphthalate; methyl-2-pentanone[4-]; methylene chloride; methylnaphthalene[2], anthracene, and chloroform.

Further, there is no evidence of a release of dioxins and furans from the buried operational surface, based on individual congener results and congener-category total results.

Multiple PAHs tend to be co-located and are essentially confined to fill material in the southwestern part of the sampling area, although some PAHs were detected in tuff samples. All sampling results are very low, and most are estimated, indicating that these chemicals are present at trace concentrations. Further, some of the fill material was imported to the site and has been reworked repeatedly through the operational history of the consolidated unit. The PAHs are not likely to have been released as a result of site operations and likely were derived from asphalt or imported with the fill. The nature and extent of these chemicals have been fully defined.

Some of the remaining organic COPCs were only identified in samples collected during the 2005–2006 investigation, and the nature and extent of all the remaining COPCs (acetone, benzene, bis[2-ethyhexyl]phthalate, di-n-butylphthalate, tetrachloroethene, and toluene) have been defined.

A total of 10 radionuclide COPCs were identified within the absorption beds, disposal shafts, and the RWSA sampling area; cobalt-60 is the only radionuclide COPC that is not detected. The distribution of radionuclide COPCs in the sampling area is depicted in Plate I-4.1-3; analytical results are presented in Table 6.2-3. Three-dimensional realizations of the americium-241, cesium-137, plutonium-239, and tritium distributions are depicted in Figures 6.2-3a, b, 6.2-4a, b, 6.2-5a, b, and 6.2-6, respectively.

Previous investigation data indicated that the release of americium-241, cesium-137, plutonium-238, plutonium-239, strontium-90, uranium-234, uranium-235, and uranium 238 was essentially confined to the absorption beds. The maximum detected activities for these radionuclides all occurred in samples collected from the beds or in a sample from an angled borehole that directly intersected one of the disposal shafts. The data showed that activities decreased both laterally and vertically from the locations of highest activity, indicating that the nature and extent of these radionuclides were fully defined. The maximum detected activities for each of these radionuclides were substantially lower in the 2005–2006 data; the 2005–2006 data confirm that the nature and extent of these radionuclides have been defined.

The 2005–2006 data indicate that tritium is present in the subsurface in the absorption beds, disposal shafts, and the RWSA sampling area. Tritium activity in the near surface (0 ft to ~150 ft) showed decreasing activity trends in the sample data collected to the east, west, and south of the maximum detected activities. Tritium activity steadily increased from ~180 ft reaching a maximum at a depth of 279 ft. Deeper than 279 ft, tritium activities were detected to depths of 340 ft but decreased. The nature and extent of tritium have been defined.

6.2.2 Building 21-035

A total of 22 inorganic COPCs were identified within the Building 21-035 sampling area. Thallium and cobalt were the only inorganic COPCs not found in the area. The distribution of inorganic chemicals in the sampling area is depicted in Plate I-4.1-4; analytical results are presented in Table 6.2-4.

Nitrate was detected in multiple samples collected during the 2005–2006 investigation; the highest nitrate concentration [22.1 mg/kg] was detected at 373 ft. The next deepest sample at this location, collected from a depth of 378–380 ft, decreased to 8.34 mg/kg. The results showed a decreasing trend in nitrate concentrations for locations to the south and east, indicating that the nature and extent of nitrate have been defined. The perchlorate distribution is similar; however, all perchlorate concentrations detected were extremely low (the maximum detected concentration was 0.0211 mg/kg). The maximum perchlorate concentration occurred in a sample collected from a shallower interval (333–335 ft) in borehole 21-25262, indicating that the vertical extent of perchlorate has been defined. Samples collected south and east of this location did not detect perchlorate, indicating that the nature and extent of perchlorate have been defined. Refer to Figures 6.2-1a, b and 6.2-2a, b to review the three-dimensional realizations of the nitrate and perchlorate distribution at Consolidated Unit 21-016(a)-99.

There is no evidence of a release of the following inorganic COPCs in the Building 21-035 sampling area: aluminum, arsenic, barium, calcium, copper, fluoride, lead, manganese, magnesium, and vanadium. The comprehensive set of previous and 2005–2006 investigation data indicate that the nature and extent of contamination for all other inorganic COPCs have been fully defined.

A total of 14 organic COPCs were identified within the Building 21-035 sampling area. The distribution of organic COPCs in the sampling area is depicted in Plate I-4.1-5. The results are presented in Table 6.2-5. Only toluene and tetrachloroethene were detected at concentrations above estimated quantitation limits. The nature and extent of all organic COPCs in the Building 21-035 sampling area have been defined.

A total of 10 radionuclide COPCs were identified within the Building 21-035 sampling area. The distribution of radionuclide COPCs in the sampling area is depicted in Plate I-4.1-6. The results are presented in Table 6.2-6. Refer to Figures 6.2-3a, b; 6.2-4a, b; 6.2-5a, b; and 6.2-6 to review the three-dimensional realizations of the americium-241, cesium-137, plutonium-239, and tritium distributions at Consolidated Unit 21-016(a)-99.

The previous data and the 2005–2006 investigation data indicate that there is no evidence of a release of cobalt-60 or any of the uranium isotopes in the Building 21-035 sampling area.

Tritium was detected at activities above the FV or the analytical detection limit in multiple samples collected during the 2005–2006 investigation. Tritium activities were low (typically less than 0.3 pCi/g), and the maximum activity observed was only 11.15 pCi/g. This result occurred in a sample collected from the 373–375-ft interval in borehole 21-25262; however, the tritium activity is lower in the deepest sampled interval (378–380 ft) collected from the borehole, indicating a decreasing trend with depth.

The extent of several of the remaining fallout radionuclides was not defined by previous investigations; however, the 2005–2006 investigation data effectively augment the previous data, and the nature and extent of all the remaining fallout radionuclides have been fully defined in the Building 21-035 sampling area.

6.2.3 Building 21-257

A total of eight inorganic COPCs were identified within the Building 21-257 sampling area, including aluminum, arsenic, barium, cadmium, nitrate, perchlorate, selenium, and zinc. The distribution of inorganic COPCs in the sampling area is depicted in Plate I-4.1-7. The results are presented in Table 6.2-7. Refer to Figures 6.2-2a, b to review the three-dimensional realization of the perchlorate distribution at Consolidated Unit 21-016(a)-99.

The 2005–2006 investigation data indicate no release of aluminum, barium, cadmium, and zinc to the Building 21-257 sampling area.

Nitrate was detected in multiple samples collected during the 2005–2006 investigation. Samples collected north, south, and west of Building 21-257 had low nitrate concentrations ranging from 2.55 mg/kg to 0.863 mg/kg. The highest nitrate concentration, 32.1 mg/kg, was detected in a fill sample (6.6–8.0 ft) at location 21-25382, on the eastern side of Building 21-257. Concentrations decreased with depth and to the east of this location, indicating that the nature and extent of nitrate have been fully defined.

The 2005–2006 investigation data demonstrate that the nature and extent of all other inorganic COPCs identified in the sampling area also have been defined.

A total of 27 organic COPCs are present in the Building 21-257 sampling area, including acenaphthene; acetone; anthracene; benzo(a)anthracene; benzo(a)pyrene; benzo(b)fluoranthene; benzo(g,h,i)perylene, benzoic acid; bis(2-ethylhexyl)phthalate; chrysene; fluoranthene; fluorene; heptachlorodibenzodioxin [1,2,3,4,6,7,8-]; heptachlorodibenzofuran [1,2,3,4,6,7,8-]; hexachlorodibenzodioxin [1,2,3,4,7,8-]; hexachlorodibenzodioxin [1,2,3,6,7,8-]; hexachlorodibenzodioxin[1,2,3,7,8,9-]; hexachlorodibenzofuran [2,3,4,6,7,8-]; indeno(1,2,3-cd)pyrene; methylene chloride; methylnaphthalene [2-]; naphthalene; octachlorodibenzodioxin [1,2,3,4,6,7,8,9-]; octachlorodibenzofuran [1,2,3,4,6,7,8,9-]; pentchlorodibenzofuran[2,3,4,7,8-]; phenanthrene; and pyrene. The distribution of organic COPCs in the sampling area is depicted in Plate I-4.1-8.

Multiple PAHs are co-located, and an isolated release of PAHs may have occurred in the Building 21-257 sampling area; however, the locations containing multiple PAHs are essentially restricted to two shallow soil sampling locations on the eastern side of Building 21-257 and one sampling interval at location 21-25382. There were no detected PAHs at any sampling locations deeper than 25 ft in the sampling area. PAH concentrations decreased laterally and with depth from these locations, and the data demonstrated that the nature and extent of PAHs have been fully characterized.

The 2005–2006 investigation data indicate no release of benzoic acid or any of the dioxin and furan congeners; the distribution of all other organic COPCs in the Building 21-257 sampling area has been fully characterized.

A total of seven radionuclide COPCs are present in the Building 21-257 sampling area, including americium-241, cesium-137, plutonium-238, plutonium-239, strontium-90, tritium, and uranium-235. The distribution of radionuclides present at activities above BV, FV, or detection limits in the sampling area is depicted in Plate I-4.1-9; the results are presented in Table 6.2-9. Refer to Figures 6.2-3a, b; 6.2-4a, b; 6.2-5a, b; and 6.2-6 to review the three-dimensional realizations of the americium-241, cesium-137, plutonium-239, and tritium distributions at Consolidated Unit 21-016(a)-99.

The 2005–2006 investigation data indicate that tritium is present in multiple locations across the sampling area; however, the measured tritium activities were very low (the maximum observed activity was 1.1 pCi/g), and the data effectively define the nature and extent of tritium with depth and to the east and south. The data also indicate that the remaining fallout radionuclides are restricted to the soil horizon. The nature and extent of these COPCs are fully defined in the Building 21-257 sampling area.

6.2.4 DP Canyon Slope

A total of 12 inorganic COPCs are present in the DP Canyon slope. The distribution of inorganic chemicals present at concentrations above BV in the sampling area is depicted in Plate I-4.1-10; the corresponding data are presented in Table 6.2-10.

The previous investigations and 2005–2006 investigation data indicate that the nature and extent of perchlorate, cadmium, lead, and zinc have been defined for the DP Canyon slope sampling area. The data also indicate that a release of antimony, arsenic, nickel, selenium, thallium, silver, lithium, or strontium has not occurred in the sampling area.

The following 18 organic COPCs were identified in the DP Canyon slope sampling area: acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, benzoic acid, bis(2-ethylhexyl)phthalate, chrysene, di-n-butylphthalate, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, and pyrene. The distribution of organic chemicals present at concentrations above detection limits in the sampling area is depicted in Plate I-4.1-11; the corresponding results are presented in Table 6.2-11.

A majority of the PAHs are co-located, and the maximum concentrations for most PAHs occurred in a single surface-soil sample collected at location 21-02568. The locations containing multiple PAHs were essentially restricted to the upper eastern part of the site and the central drainage section of the lower hill slope. Most of the PAH results were extremely low, typically at trace concentrations, and indicated decreasing trends with depth and laterally from location 21-05068. The likely sources of the PAHs are North Perimeter Road and paved parking areas upgradient of the DP Canyon slope. The PAHs are likely to have been transported by surface water and appeared to be confined by topography in the lower drainage channel.

There is no evidence of a release of the organic COPCs bis(2-ethylhexyl)phthalate, di-n-butylphthalate, and benzoic acid.

The following nine radionuclide COPCs were identified in the DP Canyon slope sampling area: americium-241, cesium-137, plutonium-238, plutonium-239, strontium-90, tritium, uranium-234, uranium-235, and uranium-238. The distribution of radionuclides present at activities above BV, FV, or detection limits in the sampling area is depicted in Plate I-4.1-12; the results are presented in Table 6.2-12.

Historical and 2005–2006 sampling results show that americium-241, plutonium-238, and plutonium-239 are present throughout the DP Canyon slope sampling area. In general, these radionuclides are present at higher activities on the lower half of the hill slope, particularly in the lower drainage channel; however, elevated activities were also observed at isolated locations on the upper slope. The investigation of DP Canyon downgradient of Consolidated Unit 21-016(a)-99, as well as of Los Alamos Canyon to the Rio Grande, has been reported in the Los Alamos and Pueblo Canyons investigation report (LANL 2004, 87390). The extent of contamination beyond the toe of the DP Canyon slope below Consolidated Unit 21-016(a)-99 has been addressed by the investigation results reported in the investigation report for Los Alamos and Pueblo Canyons (LANL 2004, 87390).

The highest plutonium-239 activity (28.51 pCi/g) was detected in a surface soil sample at location 21-01642. Plutonium-239 activity down-drainage steadily decreased to 5.87 pCi/g in the surface at the farthest down-drainage sampling location (21-25265). Plutonium-239 activities tended to be lower on the southern and southeastern sides of the drainage. However, plutonium-239 activities at the lower slope locations (21-02568, 21-02569, 21-01860, 21-01861, 21-01862, 21-25266) increased with depth. No samples were collected deeper than 2 ft. The vertical extent of plutonium-239 is not defined. The extent of contamination beyond the toe of the slope into DP Canyon has been defined and presented in the Los Alamos and Pueblo Canyons investigation report (LANL 2004, 87390). A three-dimensional realization of the surface plutonium-239 distribution is depicted in Figure I-4.1-8.

The data indicate that the nature and extent of americium-241 and plutonium-238 have been fully defined. Cesium-137 and strontium-90 were present at activities above the FV or analytical detection limits in only a few isolated locations in the DP Canyon slope, and there is no evidence of a release of cesium-137, strontium-90, the uranium isotopes, or tritium in the DP Canyon slope sampling area.

6.3 Groundwater Analytical Results

Groundwater was not intersected during any of the previous investigations or the 2005–2006 investigation at Consolidated Unit 21-016(a)-99. No groundwater data are directly associated with investigations at this site.

6.4 Subsurface Vapor Analytical Results

The pore gas data set for Consolidated Unit 21-016(a)-99 includes 41 samples collected from the three deep boreholes (21-25262, 21-25263, and 21-25264) in January/February 2006 (round 1) and April 2006 (round 2). All pore gas samples were analyzed for VOCs and tritium. The data set comprises approximately 1700 VOC and tritium analytical results. A summary of the pore gas samples collected and the associated analyses for Consolidated Unit 21-016(a)-99 is presented in Table 4.3-6.

A total of 12 QC samples were collected in association with the data included in the data review. QC samples include six pore gas field duplicates and six field blanks. QC samples were collected at the frequency specified in the Consent Order and in accordance with the approved investigation work plan

(LANL 2004, 85641). The QC data are not included in the data set reviewed for COPC identification; QC data are discussed in Appendix G.

The pore gas data were not subjected to a more intense, focused validation effort or to a comparative analysis with the QC data. This approach is conservative in that all results that pass an initial evaluation of the data quality are included in the COPC identification process.

There were no unusual weather events, physical occurrences, or other anomalies in the field that impacted the sample analytical results.

A total of 35 VOCs and tritium were identified as COPCs in pore gas at Consolidated Unit 21-016(a)-99. The pore gas COPCs are summarized in Table 6.1-1.

6.5 Nature and Extent of Subsurface Vapor COPCs at Consolidated Unit 21-016(a)-99

The general trend of VOCs in subsurface vapor is a decrease in concentration at the TD of the boreholes; however, there are no clear trends of consistently decreasing concentrations from a horizon of maximum concentration to the bottom of the borehole. In addition, most chemicals show inconsistent temporal trends between the round 1 and round 2 analyses. The distribution of VOCs present at concentrations above detection limits within Consolidated Unit 21-016(a)-99 is depicted in Plate I-4.1-13; the analytical results are presented in Table 6.5-1. Figures 6.5-1 through 6.5-3 present the VOC concentrations versus depth for boreholes 21-25262, 21-25263, and 21-25264 for the two rounds of pore gas sampling. Appendix J includes an analysis of pore gas as a potential source of groundwater contamination.

The VOC data demonstrate that concentrations are very low and that the nature and vertical extent of organic pore gas COPCs have been defined. The VOC concentrations detected at Consolidated Unit 21-016(a)-99 are significantly lower than those observed at other MDAs within the Laboratory (LANL 2005, 87624; LANL 2005, 90513). The highest vapor concentration of any chemical was 2200 $\mu g/m^3$ for methylene chloride (methylene chloride was not observed in the tuff sample collected at the same depth in the same borehole), and most vapor concentrations were less than 500 $\mu g/m^3$.

As with the VOCs, the general trend of tritium in subsurface vapor is a decrease in activity at the TD of the boreholes; again, there are no clear trends of consistently decreasing activity from the top of the borehole, or from a horizon of highest activity, to the bottom of the boreholes. In addition, tritium shows inconsistent temporal trends between round 1 and round 2 analyses. Figure 6.5-4 presents the tritium vapor activity versus depth for boreholes 21-25262, 21-25263, and 21-25264 for round 1 and round 2 of pore gas sampling. The distribution of tritium present at activities above detection limits within Consolidated Unit 21-016(a)-99 is depicted in Plate I-4.1-14. A three-dimensional realization of tritium in pore gas at Consolidated Unit 21-016(a)-99 is depicted in Figure 6.5-5. Table 6.5-2 presents sampling information, including vapor activity, depth, and collection date.

Tritium in pore gas was detected in all three boreholes during both rounds of pore gas sampling. The peak activity of 73,400 pCi/L was detected at a depth of 150 ft and decreased to 2310 pCi/L at 350 ft. The nature and extent of tritium in pore gas have been defined. Appendix I's Figure I-4.2-4 presents the tritium specific activity versus depth for the three sampled boreholes.

7.0 CONCLUSIONS

7.1 Summary of Investigations

Consolidated Unit 21-016(a)-99 was divided into the following three sampling areas for the purposes of evaluating the nature and extent of contamination: (1) the absorption beds, disposal shafts, and RWSA, (2) the Building 21-035 sampling area, and (3) the Building 21-257 sampling area. In addition, the DP Canyon slope was sampled. Both solid media and pore gas samples were collected during the 2005–2006 investigation to finalize the site's characterization. Solid media sampled included soil, fill, Qal, and Bandelier Tuff. Data meeting Consent Order quality requirements from investigations conducted in 1992–1994 and 1996–1997 were combined with the 2005–2006 investigation data collected in accordance with the approved investigation work plan for Consolidated Unit 21-016(a)-99 (LANL 2004, 85641) to provide a comprehensive understanding of site contamination, risk, and geologic conditions at Consolidated Unit 21-016(a)-99. A total of 24 inorganic, 51 organic, and 11 radionuclide COPCs were identified in solid media, and 35 organic and one radionuclide COPC were identified in pore gas at Consolidated Unit 21-016(a)-99.

7.1.1 Solid Media

7.1.1.1 Absorption Beds, Disposal Shafts, and the RWSA

The absorption beds, disposal shafts, and the RWSA sampling area was characterized by drilling and collecting subsurface samples of solid media and pore gas. A total of 55 locations were sampled and 23 inorganic, 46 organic, and 10 radionuclide COPCs were found to be present within the absorption beds, disposal shafts, and the RWSA sampling area. The nature and extent of all COPCs have been defined for this area.

7.1.1.2 Building 21-035

A total of 27 locations were sampled in the Building 21-035 sampling area and 22 inorganic, 14 organic, and 10 radionuclide COPCs were found to be present within the Building 21-035 area. The nature and extent of all COPCs have been defined for this area.

7.1.1.3 Building 21-257

A total of 14 locations were sampled in the area immediately surrounding Building 21-257 and eight inorganic, 27 organic, and seven radionuclide COPCs were found to be present within the Building 21-257 area. The nature and extent of all COPCs have been defined for this area.

7.1.1.4 DP Canyon Slope

The southern slope of DP Canyon immediately north of Consolidated Unit 21-016(a)-99 was characterized by collecting surface and shallow-subsurface samples from 40 locations. A total of 12 inorganic, 18 organic, and nine radionuclide COPCs are present in the DP Canyon slope. The nature and extent of all COPCs have been defined for this area, with the exception of plutonium-239. However, the extent of contamination beyond the toe of the slope into DP Canyon has been defined and presented in the Los Alamos and Pueblo Canyons investigation report (LANL 2004, 87390). Radiological walkover surveys did not show widespread elevated radiological contamination in surface soils in the DP Canyon

slope. Additional surface and shallow-subsurface data may be necessary to augment existing data and to verify the radiological walkover survey results.

7.1.2 Pore Gas

Pore gas was sampled at three borehole locations and a total of 35 VOCs and tritium were identified as COPCs in pore gas. The VOC pore gas data demonstrate that concentrations are very low and that the nature and vertical extent of VOCs and tritium have been defined.

7.1.3 Geotechnical and Field Screening

Geotechnical samples and field screening samples were collected to assess subsurface flow properties. Subsurface moisture profiles and porosity results indicate that there were no saturated zones beneath Consolidated Unit 21-016(a)-99; groundwater was not observed during any of the investigations at Consolidated Unit 21-016(a)-99.

7.2 Risk Assessment Summary

Screening-level human health and ecological risk assessments for all COPCs and chemicals of potential ecological concern (COPECs) identified for Consolidated Unit 21-016(a)-99 and the DP Canyon slope were performed using several scenarios to support site decisions. The potential risks associated with COPCs were assessed under construction-worker and industrial scenarios for the consolidated unit; the site was also assessed under a residential scenario for informational purposes only. The potential risks associated with site COPCs on the DP Canyon slope were assessed under a recreational and a residential scenario for informational purposes only. Details of the risk assessment methodology, scenario parameters, supporting data, and risk calculations are presented in Appendix J.

7.2.1 Human Health Risk Screening Assessments

A human health screening assessment was conducted to determine if COPCs in soil and tuff at Consolidated Unit 21-016(a)-99 and the DP Canyon slope pose a potential unacceptable risk to human receptors. Based on the foreseeable land use, the industrial scenario was designated as the decision scenario for the consolidated unit and the recreational scenario was designated as the decision scenario for the DP Canyon slope.

The exposure point concentrations (EPCs) for carcinogenic chemicals were divided by the appropriate SSL and multiplied by 1×10^{-5} to estimate the excess lifetime cancer risk. The sum of the carcinogenic risks was compared to the NMED target risk level of 1×10^{-5} (NMED 2006, 92513). A hazard quotient (HQ) was generated for each noncarcinogenic COPC by dividing the EPC by the appropriate SSL. The HQs were summed to generate a hazard index (HI). The HI was compared with the NMED target HI of 1.0 (NMED 2006, 92513). The EPCs for radionuclides were divided by the appropriate SAL and multiplied by 15 mrem/yr to estimate the dose. The total dose was compared with the DOE target dose limit of 15 mrem/yr (DOE 2000, 67483).

None of the individual EPCs for carcinogenic COPCs at the consolidated unit exceeded their respective industrial SSLs. The estimated total excess lifetime cancer risk for the industrial receptor at the consolidated unit is approximately 2×10^{-6}. Individual EPCs for the noncarcinogenic COPCs also do not exceed their respective industrial SSLs. The industrial HI for the consolidated unit is 0.14.

The estimated total excess lifetime carcinogenic risk under the construction-worker exposure scenario for the consolidated unit is approximately 4×10^{-6}, below the NMED target risk of 1×10^{-5}. The construction-worker HI for the consolidated unit is approximately 3.5. Manganese and iron contributed approximately 70% of the construction-worker HI; however, only the EPC for manganese is above the construction-worker SSL and the EPCs for both chemicals are similar to background. Eliminating manganese and iron as COPCs for the construction worker reduces the HI to 1.2, which does not indicate a potential unacceptable risk to the construction worker.

The total dose from radionuclide COPCs in the consolidated unit for the industrial worker is approximately 9 mrem/yr, which is below the DOE target dose limit of 15 mrem/yr. The total dose for a construction worker is 397 mrem/yr, which is above the DOE target dose level as a result of cesium-137 activity in a single sample.

The recreational EPCs for carcinogenic COPCs on the DP Canyon slope did not exceed their respective SSLs. The total estimated excess life-time cancer risk for a recreational user of the DP Canyon slope is approximately 5×10^{-6}. The EPCs for the noncarcinogenic COPCs also did not exceed their respective SSLs. The HI for a recreational exposure is approximately 0.25. These results for the recreational scenario are both below NMED's target levels of an HI of 1.0 and cancer risk of 1×10^{-5} (NMED 2006, 92513).

The total dose from radionuclide COPCs for the DP Canyon slope for the recreational receptor is approximately 1.5 mrem/yr, below the DOE target dose.

In addition to the dose comparisons, radionuclide EPCs were used to estimate the potential cancer risk using EPA radionuclide preliminary remediation goals (PRGs) for an outdoor worker (www.epa-prgs.ornl.gov/radionuclides/) for the industrial and construction-worker scenarios. The total cancer risk from radionuclides under the industrial scenario is approximately 9×10^{-5} and the total cancer risk from radionuclides under the construction-worker scenario (using industrial PRGs because EPA does not have PRGs for construction workers) is approximately 4×10^{-3}. In addition, the total cancer risk for a recreational user on the DP Canyon slope is approximately 4×10^{-6} based on a conversion using RESRAD 6.21.

Based on the risk screening assessments, there is no potential for unacceptable dose or risk to human health for the decision scenarios. However, the dose for the construction worker indicates that the potential for exposure must be assessed, and that precautions must be taken, during D&D activities in the vicinity of Building 21-257 to protect workers from elevated cesium-137 levels.

7.2.2 Ecological Risk Screening Assessment

An ecological screening assessment was conducted to determine whether COPECs at Consolidated Unit 21-016(a)-99 and the DP Canyon slope result in a potential unacceptable risk to ecological receptors. The HIs for the terrestrial receptors ranged from 1.1 for the red fox to 715 for the plant (Table J-5.2-4). The uncertainties associated with the evaluation of ecological risks to residual concentrations of COPECs in the soil and tuff at Consolidated Unit 21-016(a)-99 and the DP Canyon slope overestimate the potential risk to ecological receptors.

All of the COPECs were eliminated in the uncertainty analysis by analyzing the following factors: background concentrations, the analysis for potential effects to populations as well as to individuals for T&E species, the area of contamination, the relative toxicity of related compounds, and the infrequency of detection. The results of the ecological risk screening assessment indicate no potential risk to ecological receptors at the site, and further investigation or corrective action is not warranted based on ecological risk.

7.3 Consolidated Unit 21-016(a)-99 and DP Canyon Slope Conditions

The nature and extent have been characterized for all COPCs for the consolidated unit. The majority of the site COPCs were found within the upper 15 ft of the soil surface. These COPCs are the principal contributors to any potential human health and ecological risks. The distribution of site COPCs indicates that there is very little subsurface transport of these chemicals. The majority of subsurface transport likely occurred when the absorption beds were active. Current moisture profiles show the upper 150 ft to be dry (<10% moisture), indicating that the potential for infiltration and continued contaminant migration from the beds, shafts, and RWSA is low. Some of the more mobile chemicals (i.e., nitrate, perchlorate, and tritium) are found at very low concentrations or activities at the TD of some of the investigation boreholes. These COPCs appear to be correlated with the higher moisture intervals at depths greater than 150 ft. The contact between Bandelier Tuff cooling units Qbt 1v and Qbt 1g showed elevated moisture (~28% moisture), as did the Cerro Toledo Interval (~24% moisture). The average total porosity of the Cerro Toledo is approximately 48%, based on geotechnical samples indicating that this interval is unsaturated. Average saturated hydraulic conductivity of the Cerro Toledo Interval is 5×10^{-3} cm/s. Under unsaturated conditions, the hydraulic conductivity is significantly lower, limiting the potential for migration of the COPCs.

The nature and extent of all COPCs have been defined for the DP Canyon slope, with the exception of plutonium-239. However, the extent of contamination beyond the toe of the slope into DP Canyon has been defined and presented in the Los Alamos and Pueblo Canyons investigation report (LANL 2004, 87390).

8.0 RECOMMENDATIONS

Consolidated Unit 21-016(a)-99 has been thoroughly investigated and fully characterized; the nature and extent of 85 out of 86 COPCs have been defined. Contamination in the vicinity of the absorption beds, shafts, and the RWSA was previously identified, and the 2005–2006 investigation confirms that any release and continued migration of COPCs beyond the source area has been minor. Control of the known sources and the potential for continued migration of the more mobile contaminants in the deep subsurface will be evaluated in a corrective measure evaluation for Consolidated Unit 21-016(a)-99.

9.0 REFERENCES

The following list includes all documents cited in this report and Appendix C. Parenthetical information following each reference provides the author(s), publication date, and ER ID number. This information is also included in text citations. ER ID numbers are assigned by the EP Records Processing Facility (RPF) and are used to locate the document at the RPF and, where applicable, in the EP master reference set.

Copies of the master reference set are maintained at the New Mexico Environment Department's Hazardous Waste Bureau; the U.S. Department of Energy-Los Alamos Site Office; the Environmental Protection Agency, Region 6; and EP. The set was developed to ensure that the administrative authority has all material needed to review this document, and it is updated with every document submitted to the administrative authority. Documents previously submitted to the administrative authority are not included.

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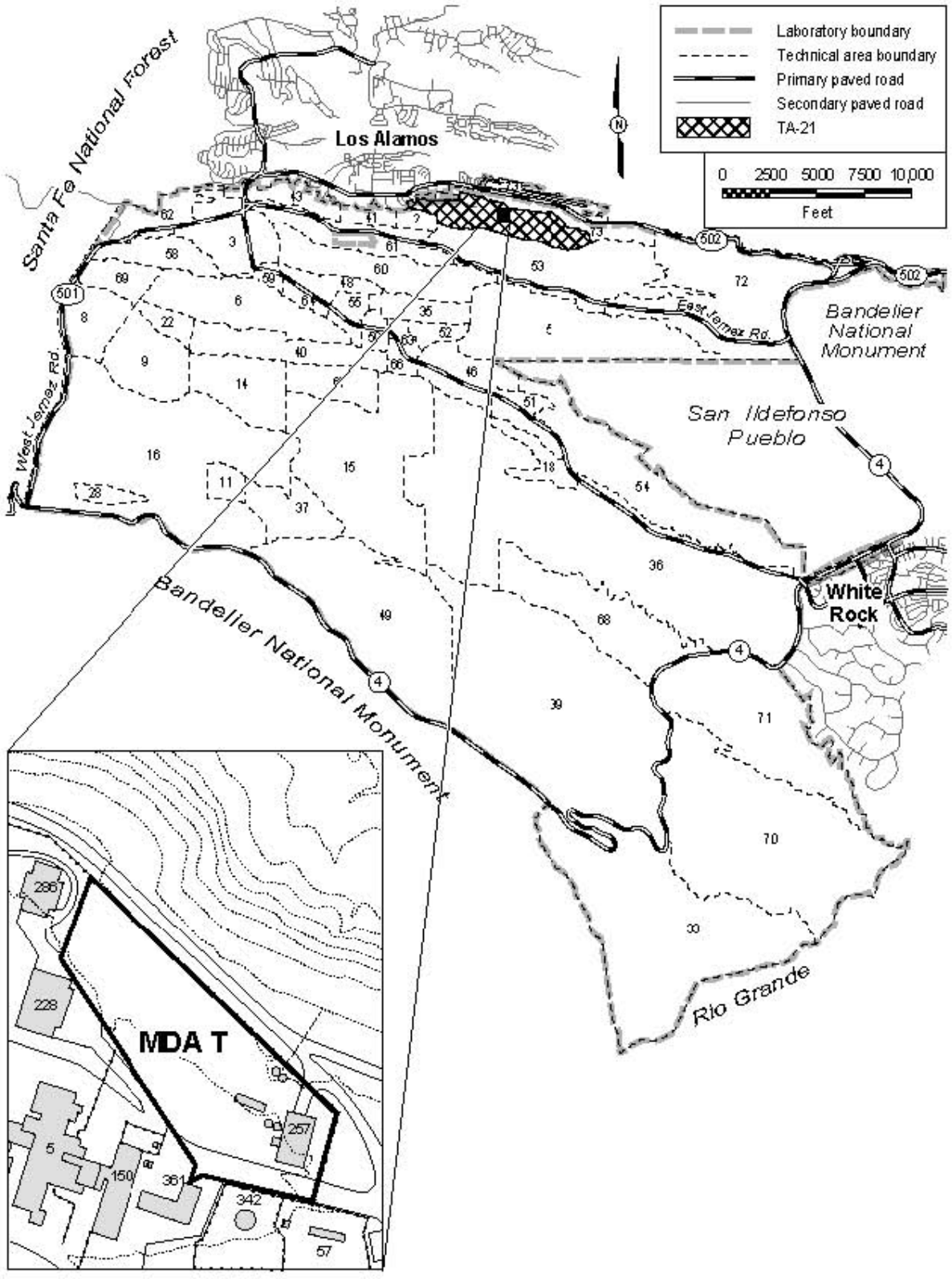

Figure 1.0-1. Location of TA-21 with respect to Laboratory TAs and surrounding land holdings

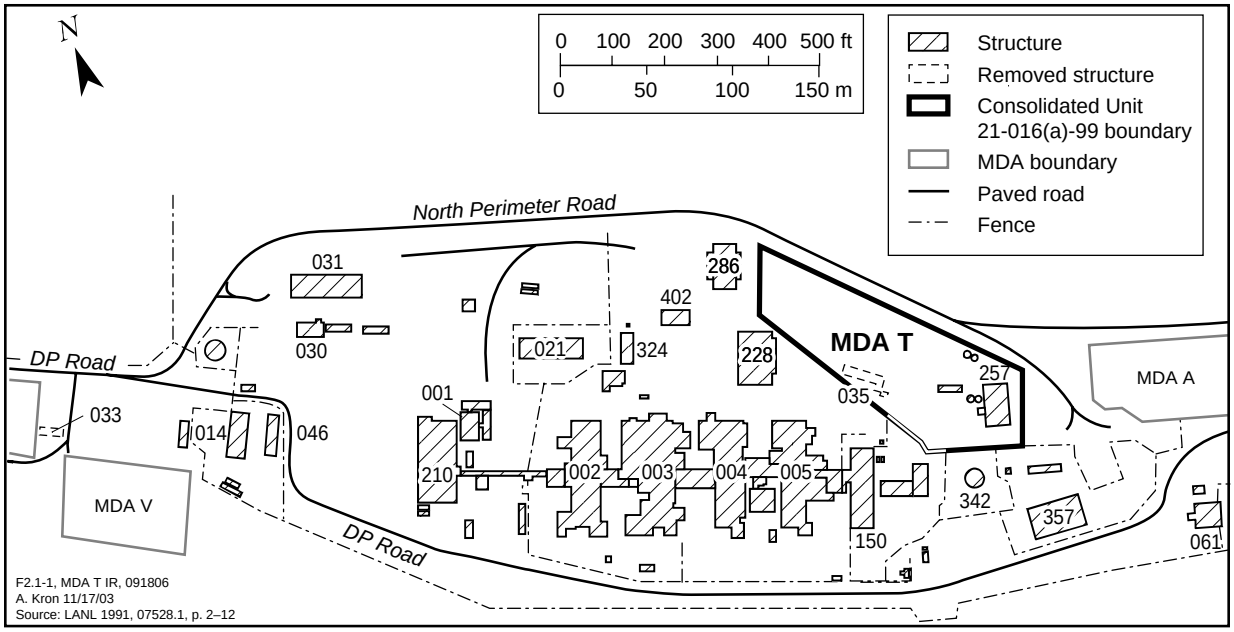

Figure 2.1-1. Location of Consolidated Unit 21-016(a)-99

Replace with 11x17 figure

Figure I-1.1-1. Consolidated Unit 21-016(a)-99 and DP Canyon slope boreholes and sampling locations

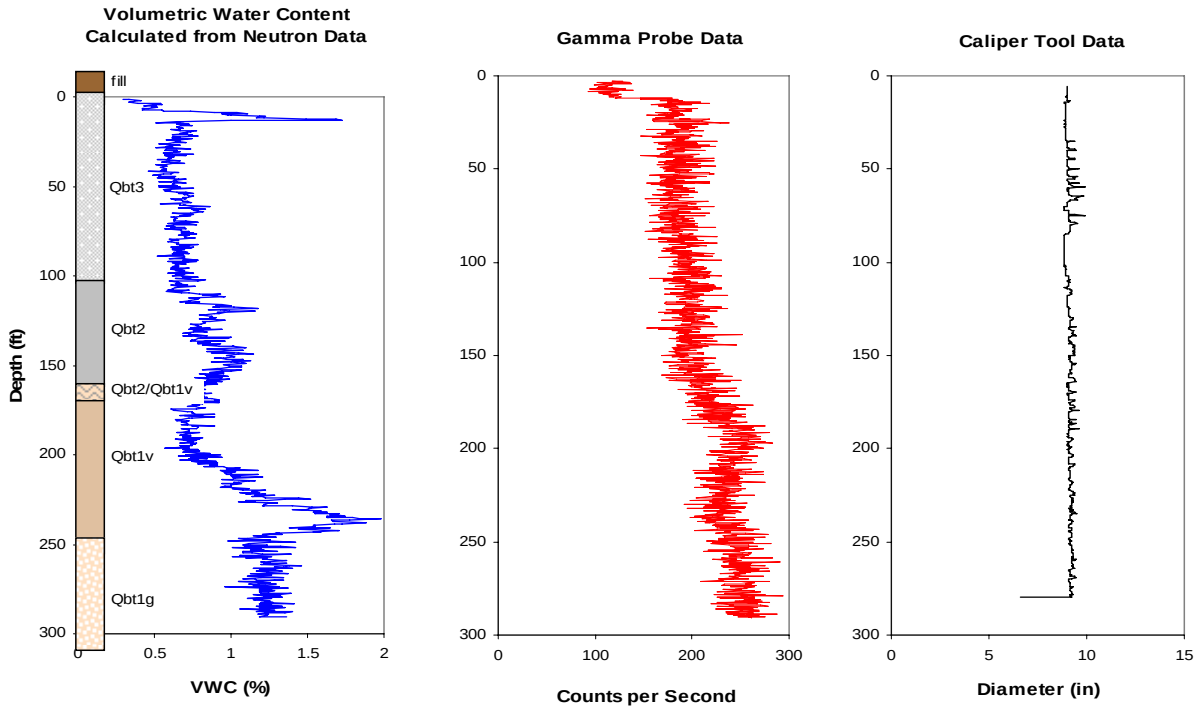

Figure 4.3-1. Borehole 21-25262 neutron probe, gamma probe, and caliper profiles

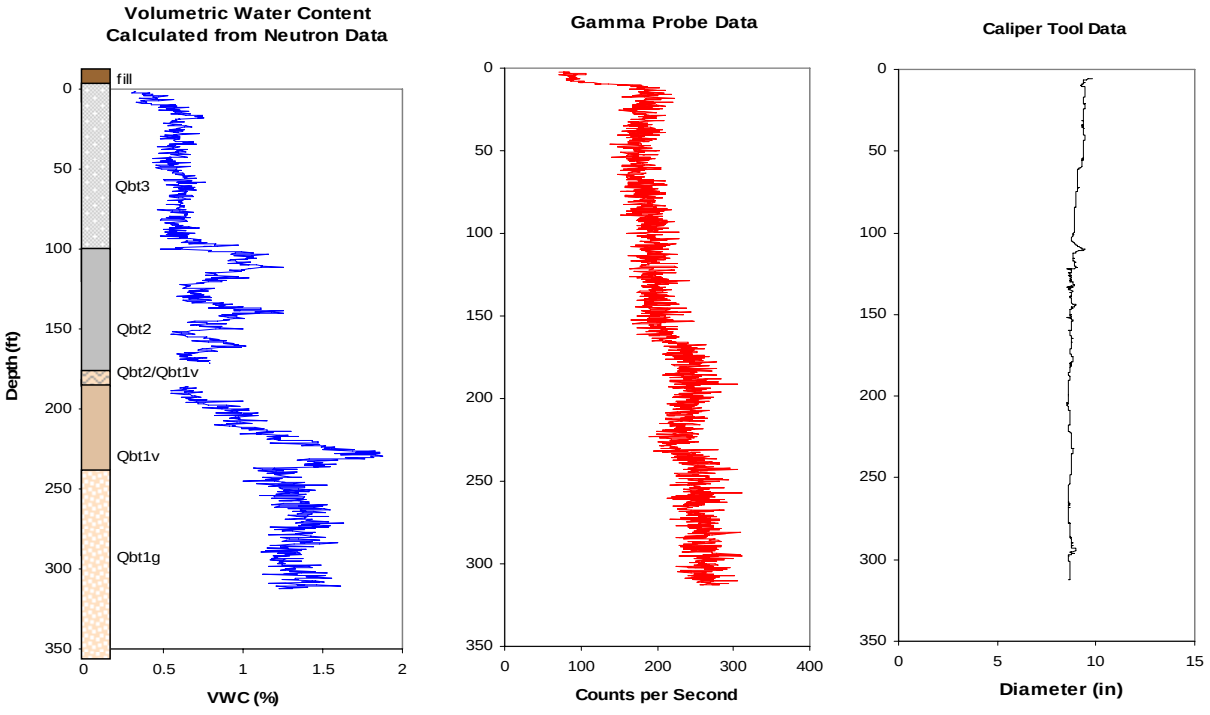

Figure 4.3-2. Borehole 21-25263 neutron probe, gamma probe and caliper profiles.

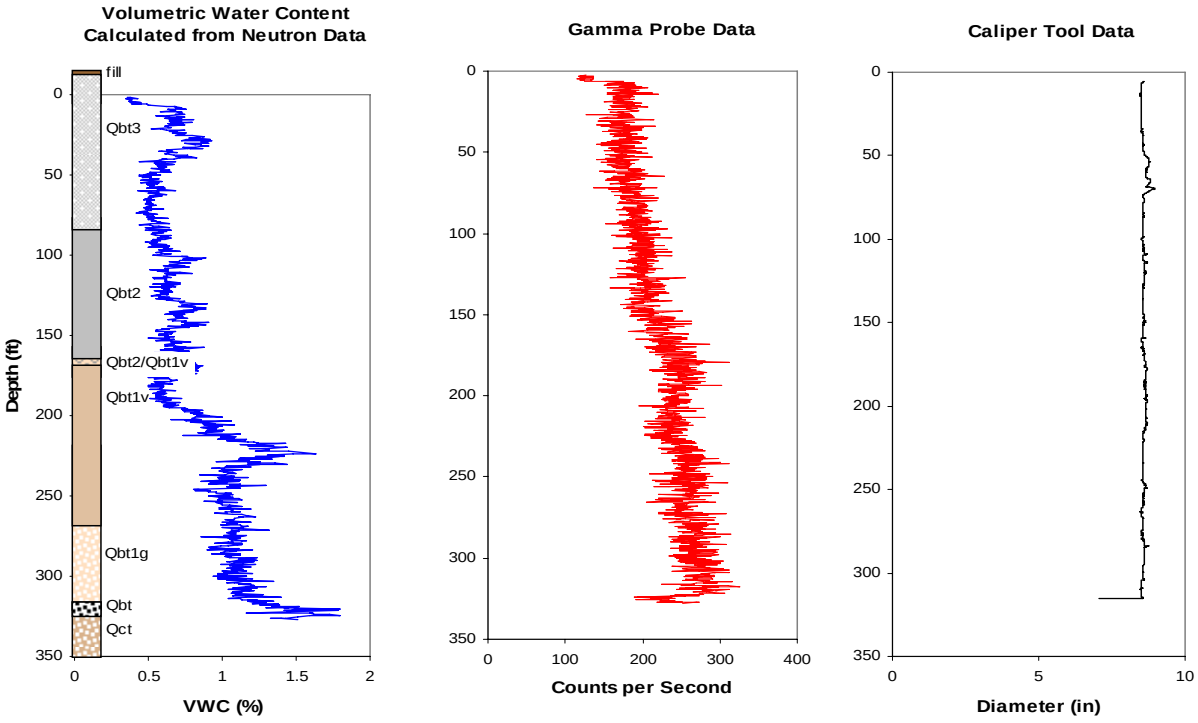

Figure 4.3-3. Borehole 21-25264 neutron probe, gamma probe and caliper profiles.

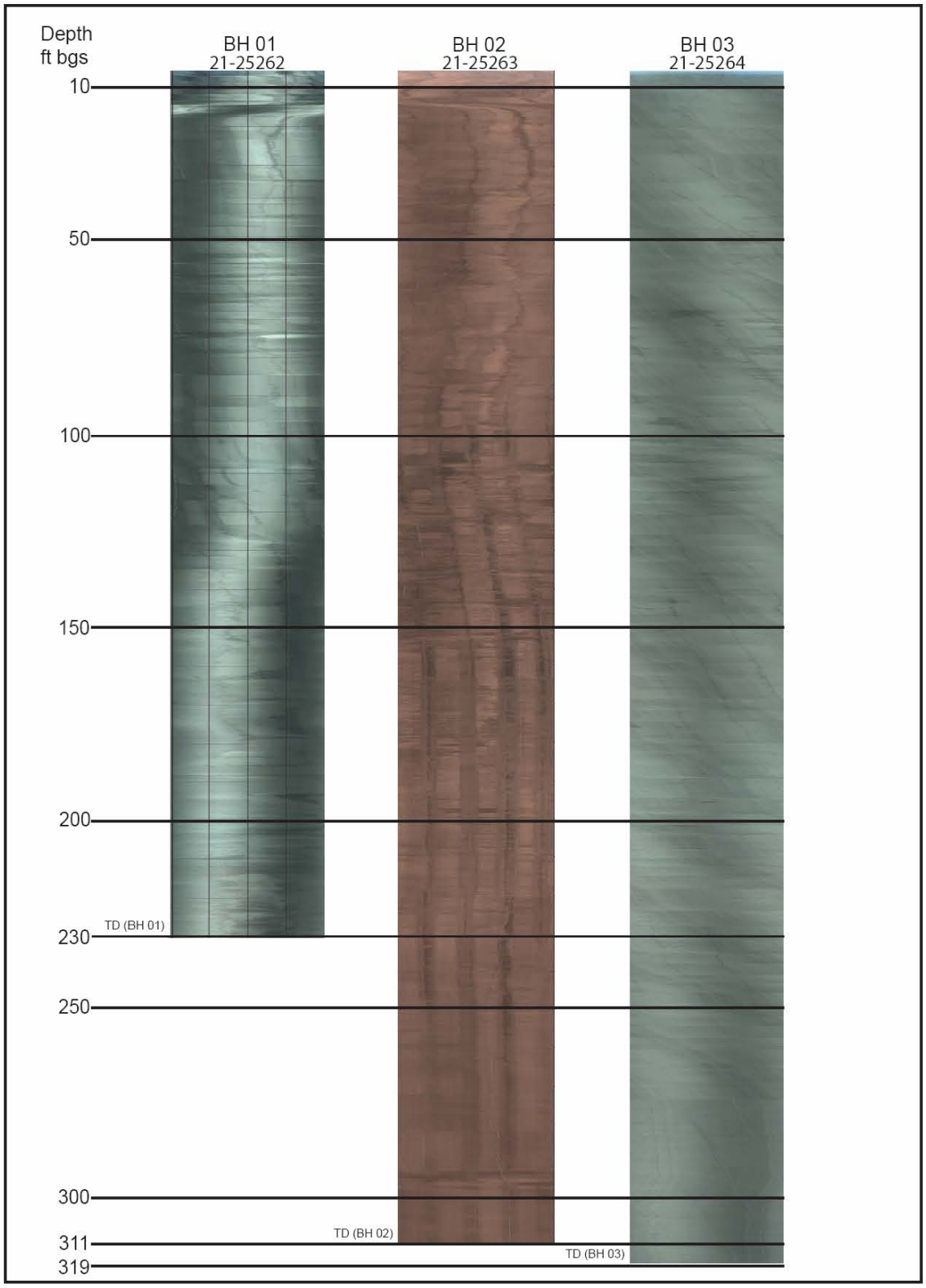

Figure 4.3-4. Downhole camera images of boreholes 21-25262, 21-25263, and 21-25264

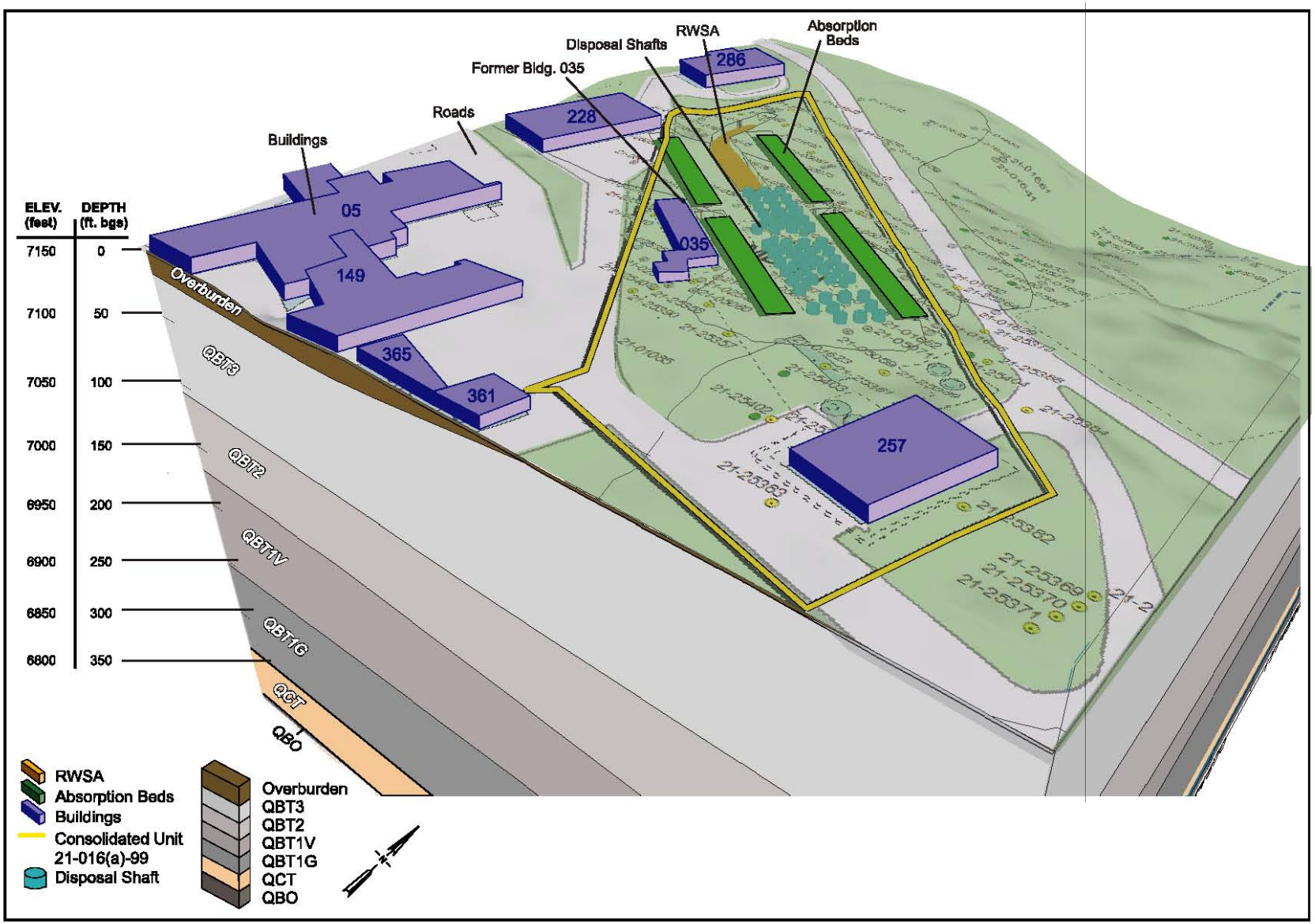

Figure 4.3-5. A three-dimensional realization of the infrastructure and subsurface geology at Consolidated Unit 21-016(a)-99

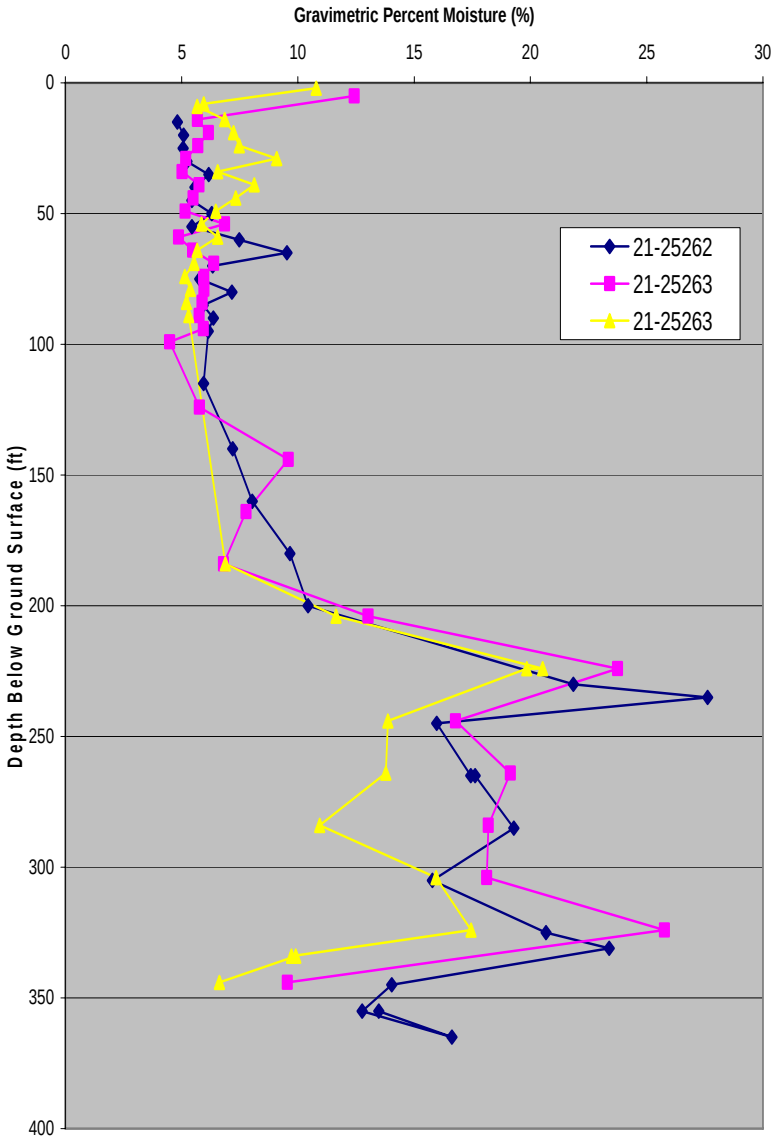

Figure 4.4-1. Gravimetric soil moisture profiles for locations 21-25262, 21-25263, and 21-25264.

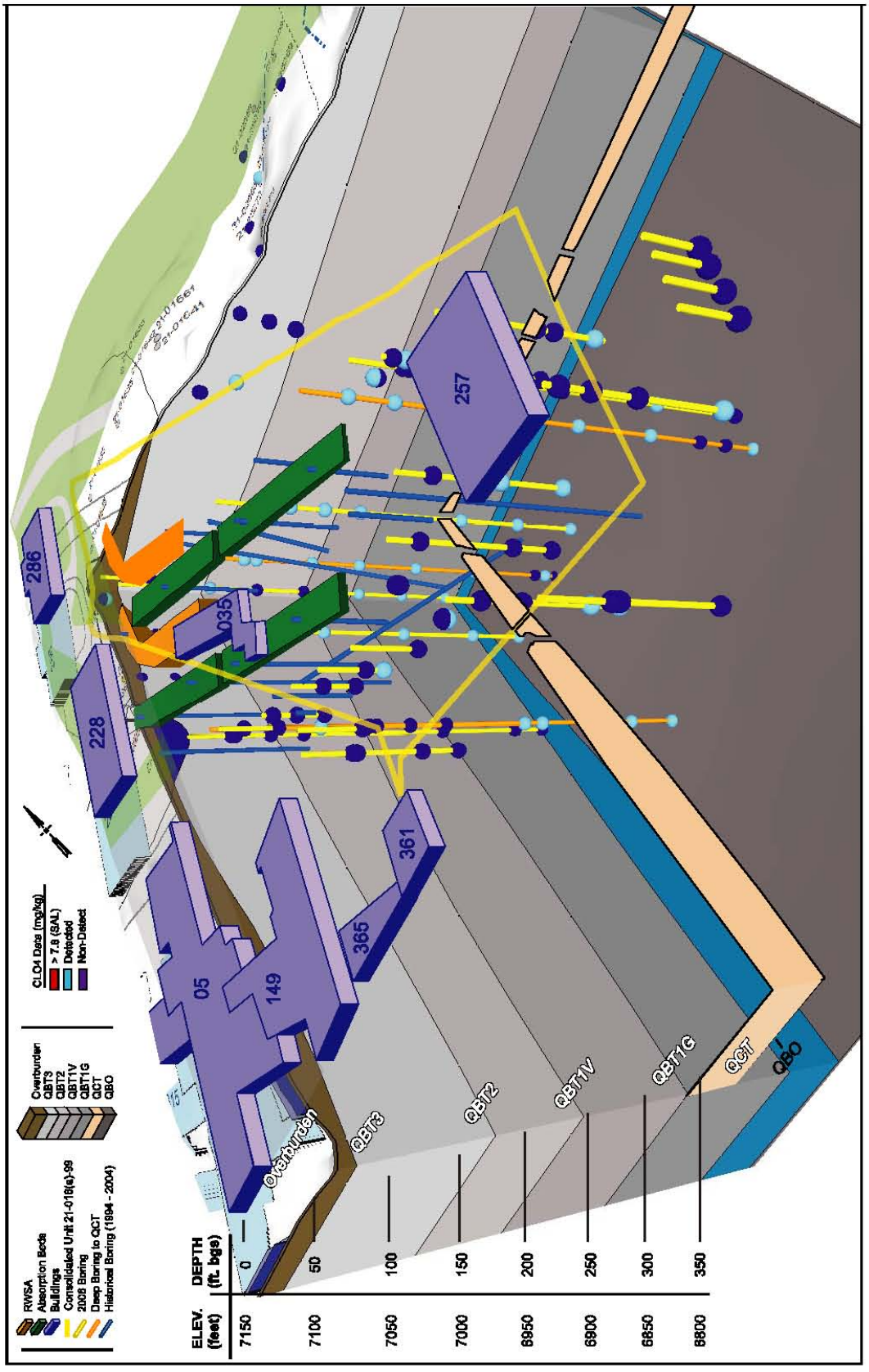

Figure 6.2-1a. A three-dimensional realization of the perchlorate distribution at swmu 21-016(a)-99

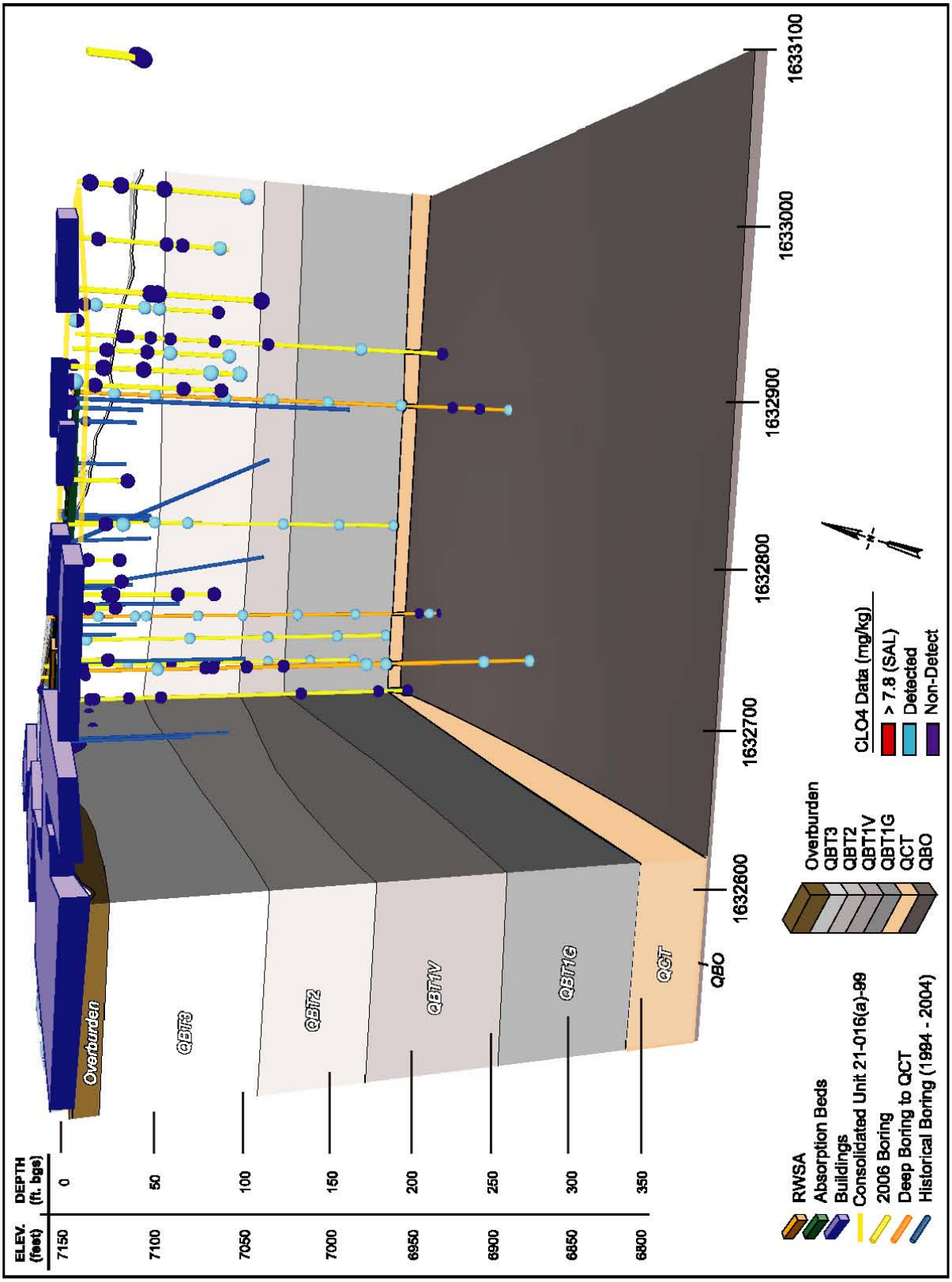

Figure 6.2-1b. A profile realization of the perchlorate distribution at Consolidated Unit 21-016(a)-99

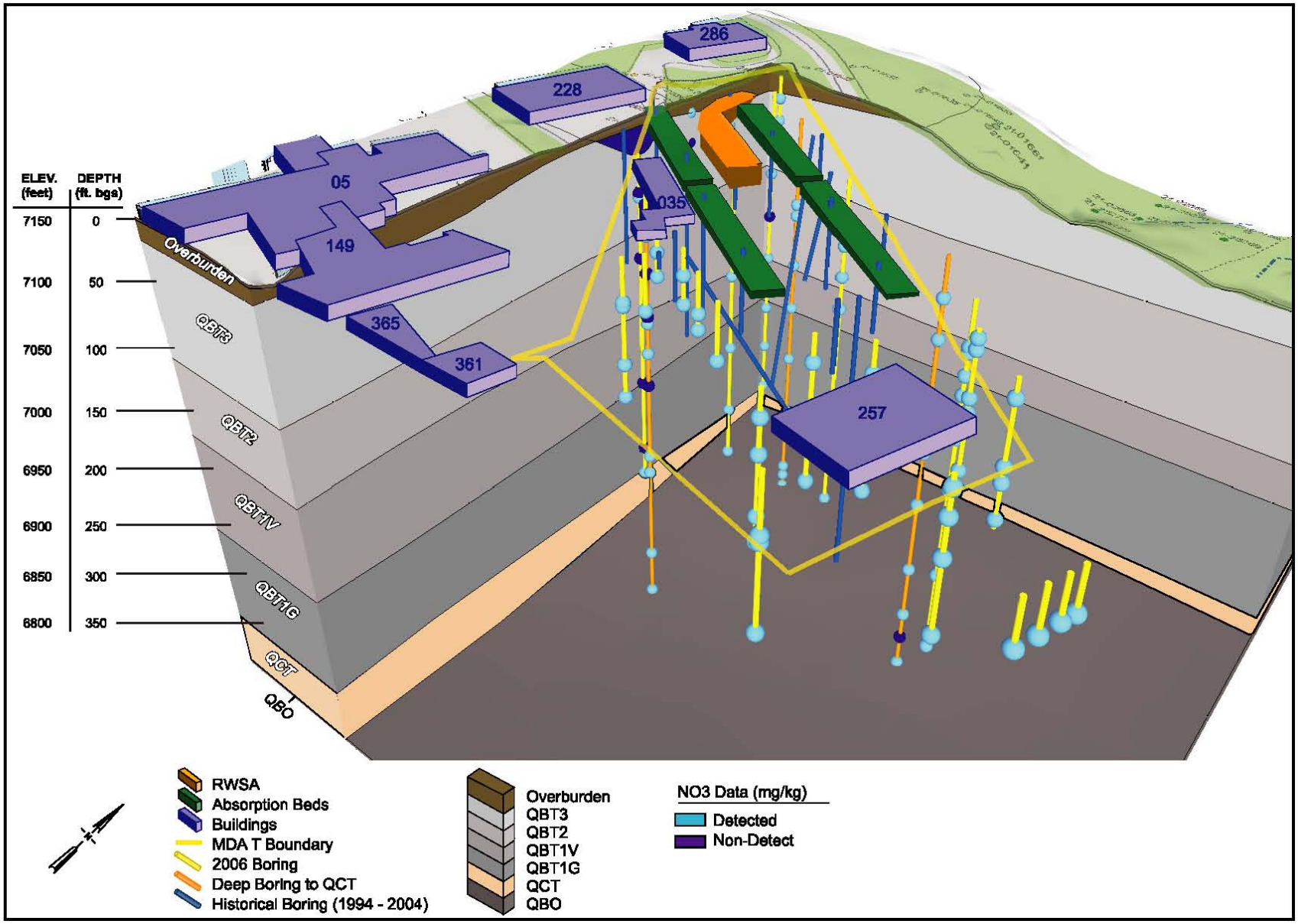

Figure 6.2-2a. A three-dimensional realization of the nitrate distribution at Consolidated Unit 21-016(a)-99

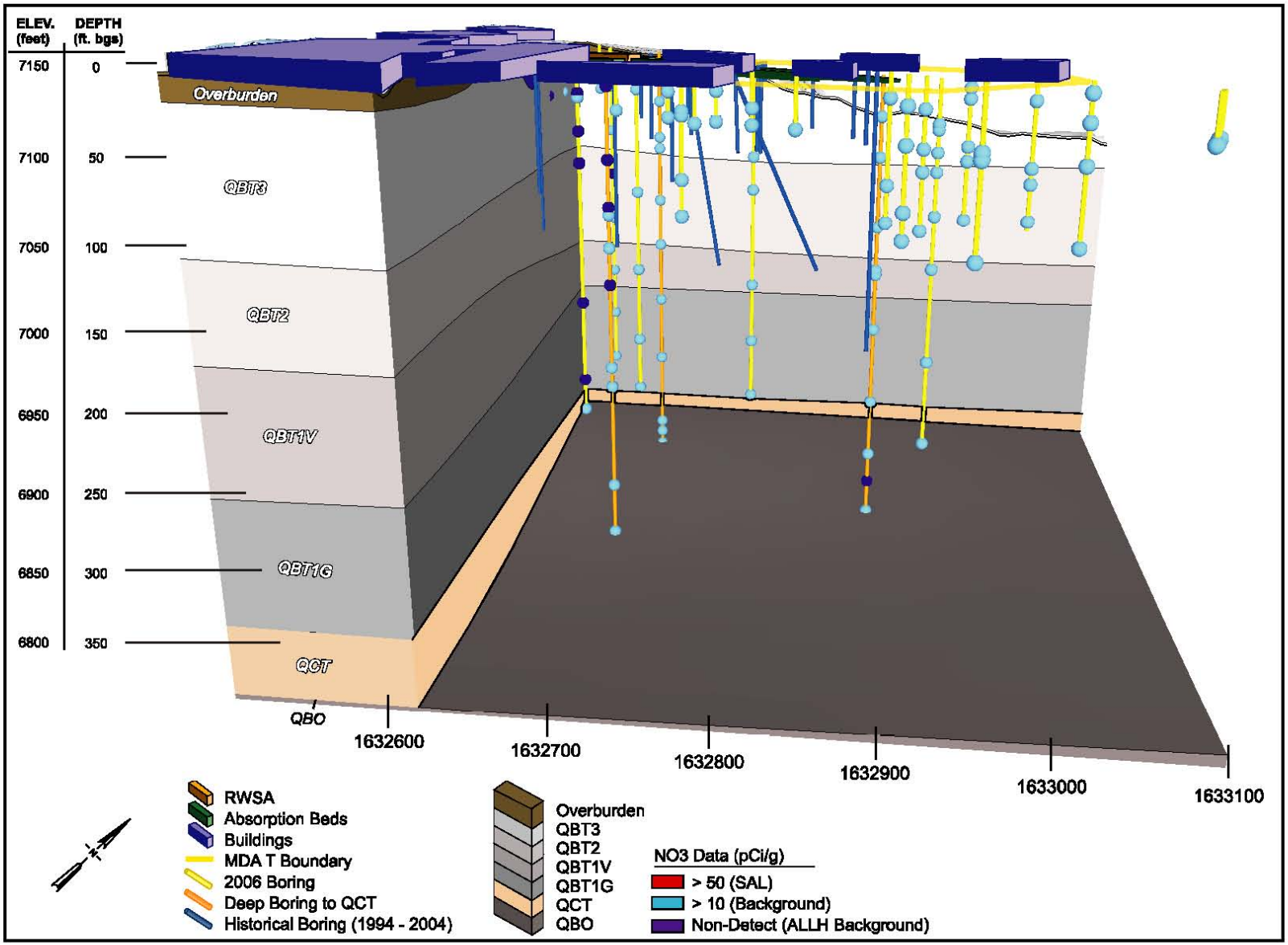

Figure 6.2-2b. A profile realization of the nitrate distribution at Consolidated Unit 21-016(a)-99

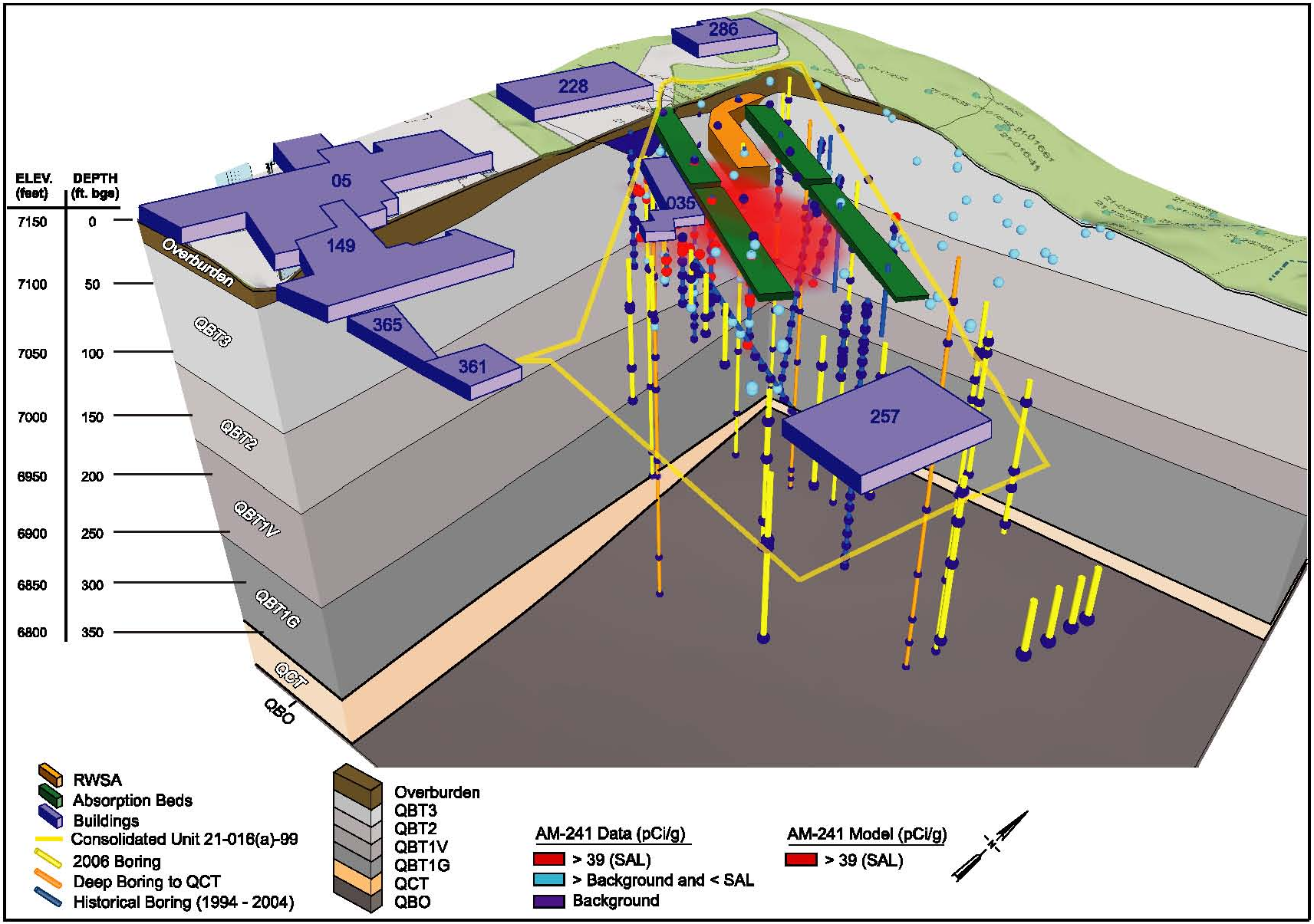

Figure 6.2-3a. A three-dimensional realization of the americium-241 distribution at Consolidated Unit 21-016(a)-99

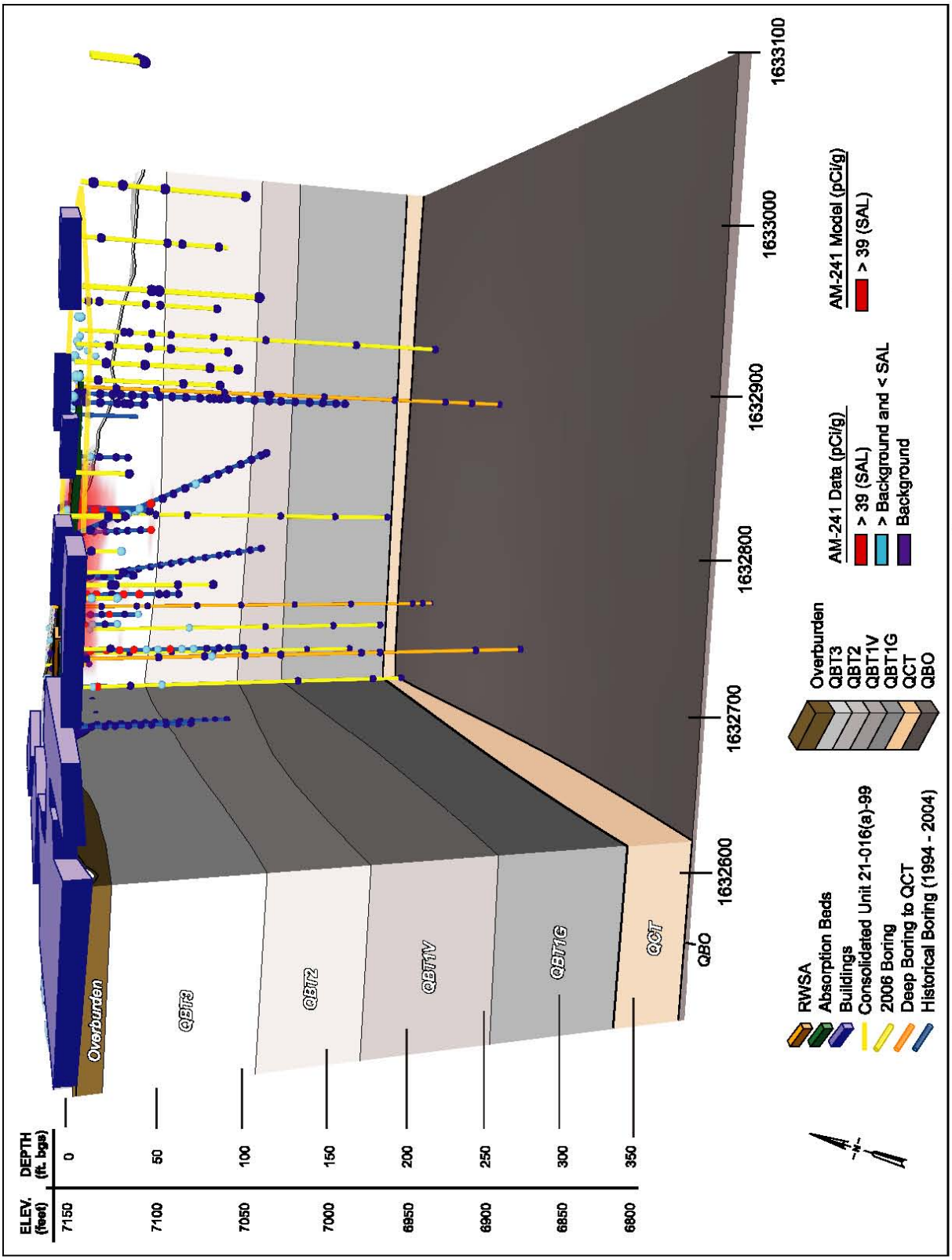

Figure 6.2-3b. A profile realization of the americium-241 distribution at Consolidated Unit 21-016(a)-99

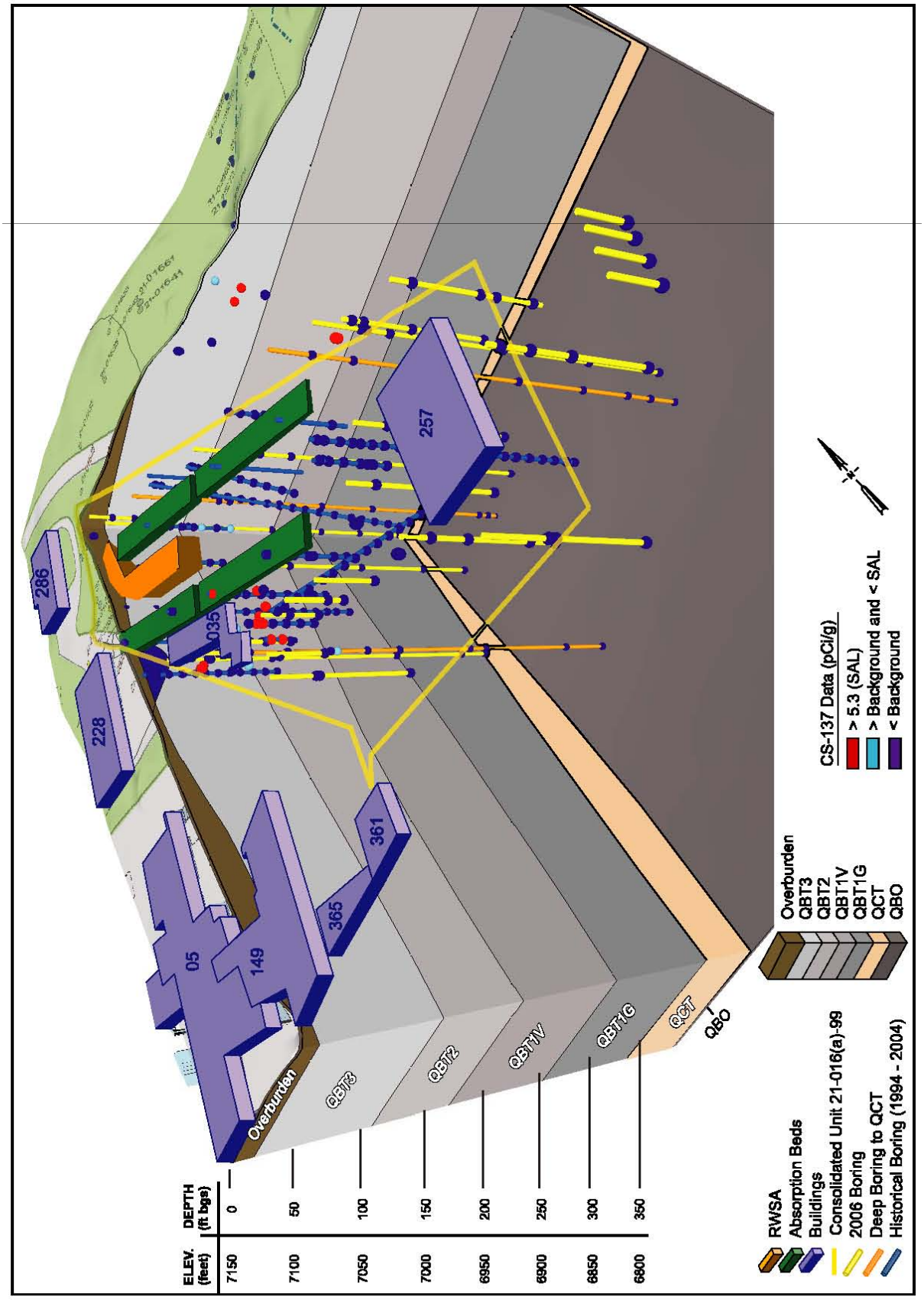

Figure 6.2-4a. A three-dimensional realization of the cesium-137 distribution at Consolidated Unit 21-016(a)-99

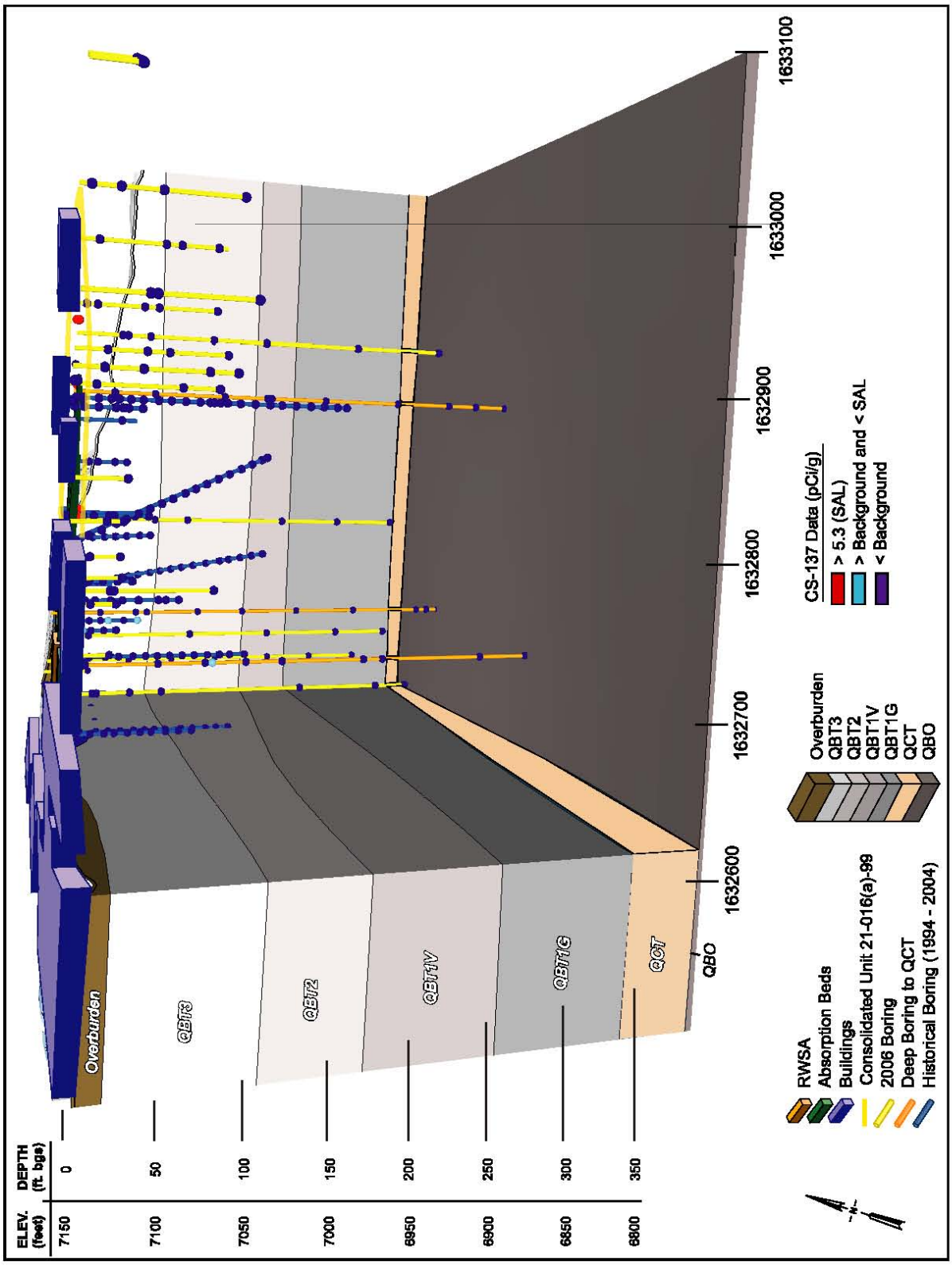

Figure 6.2-4b. A profile realization of the ceslum-137 distributions at Consolidated Unit 21-016(a)-99

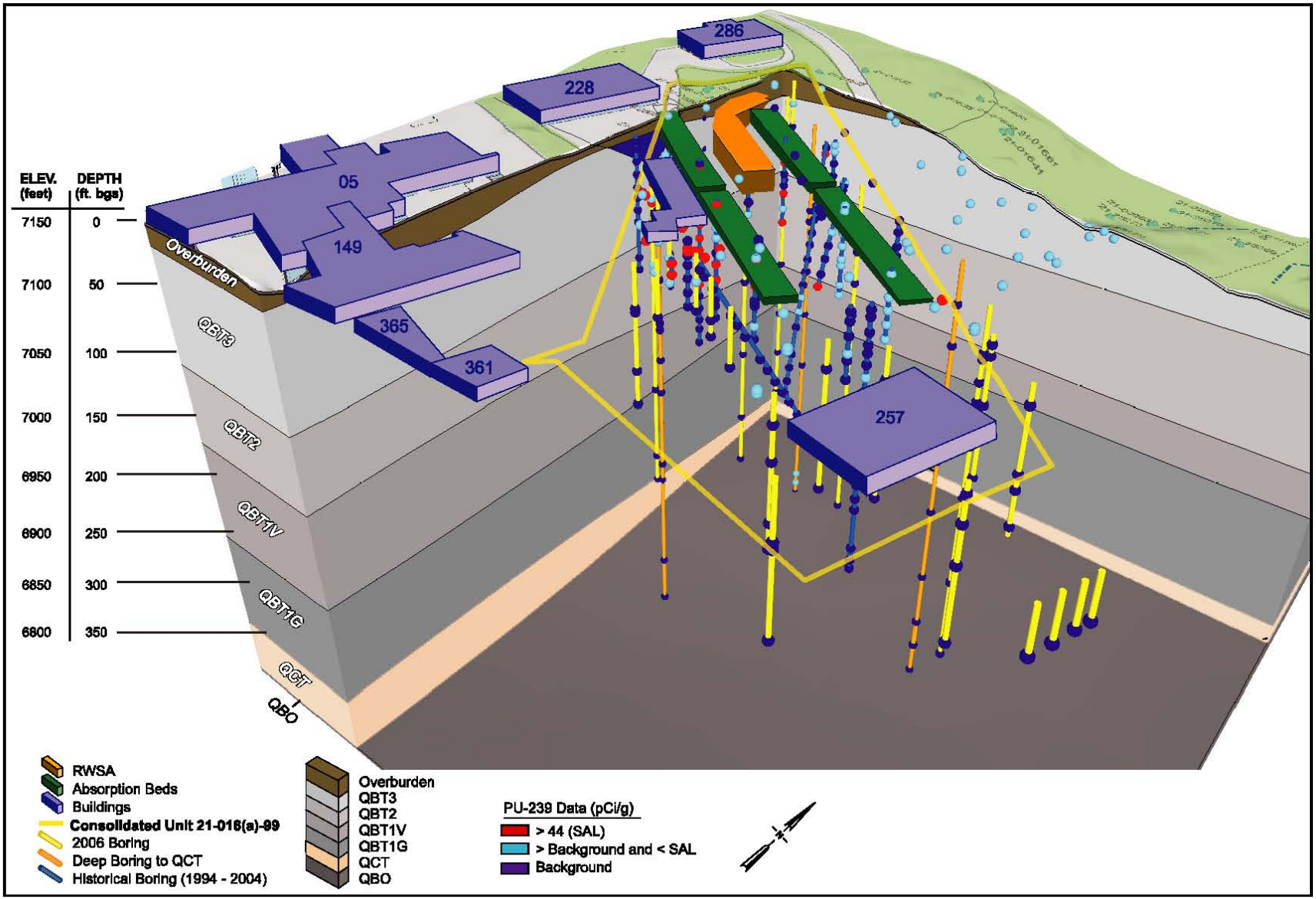

Figure 6.2-5a. A three-dimensional realization of the plutonium-239 distribution at Consolidated Unit 21-016(a)-99

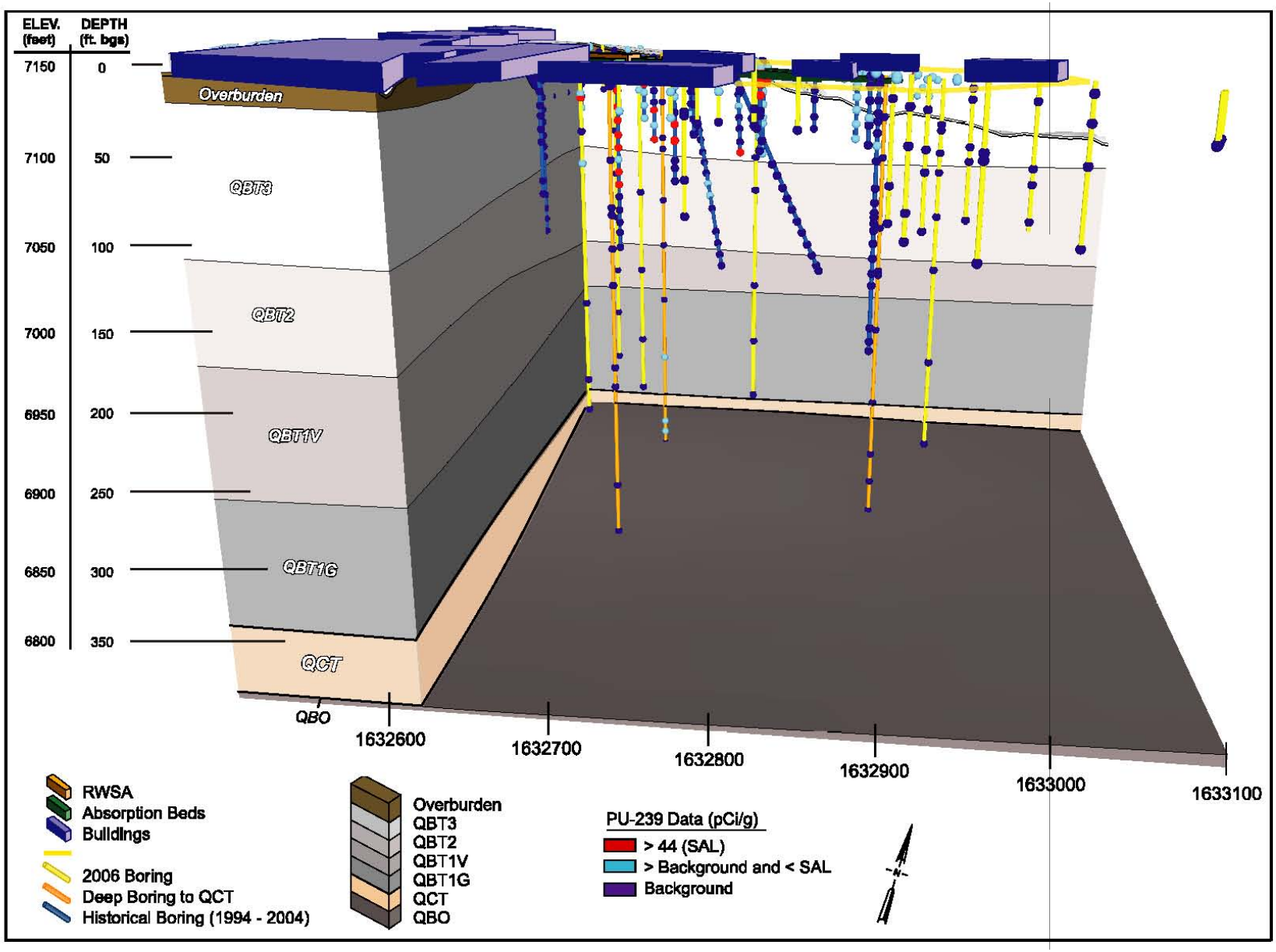

Figure 6.2-5b. A profile realization of the plutonium-239 distribution at Consolidated Unit 21-016(a)-99

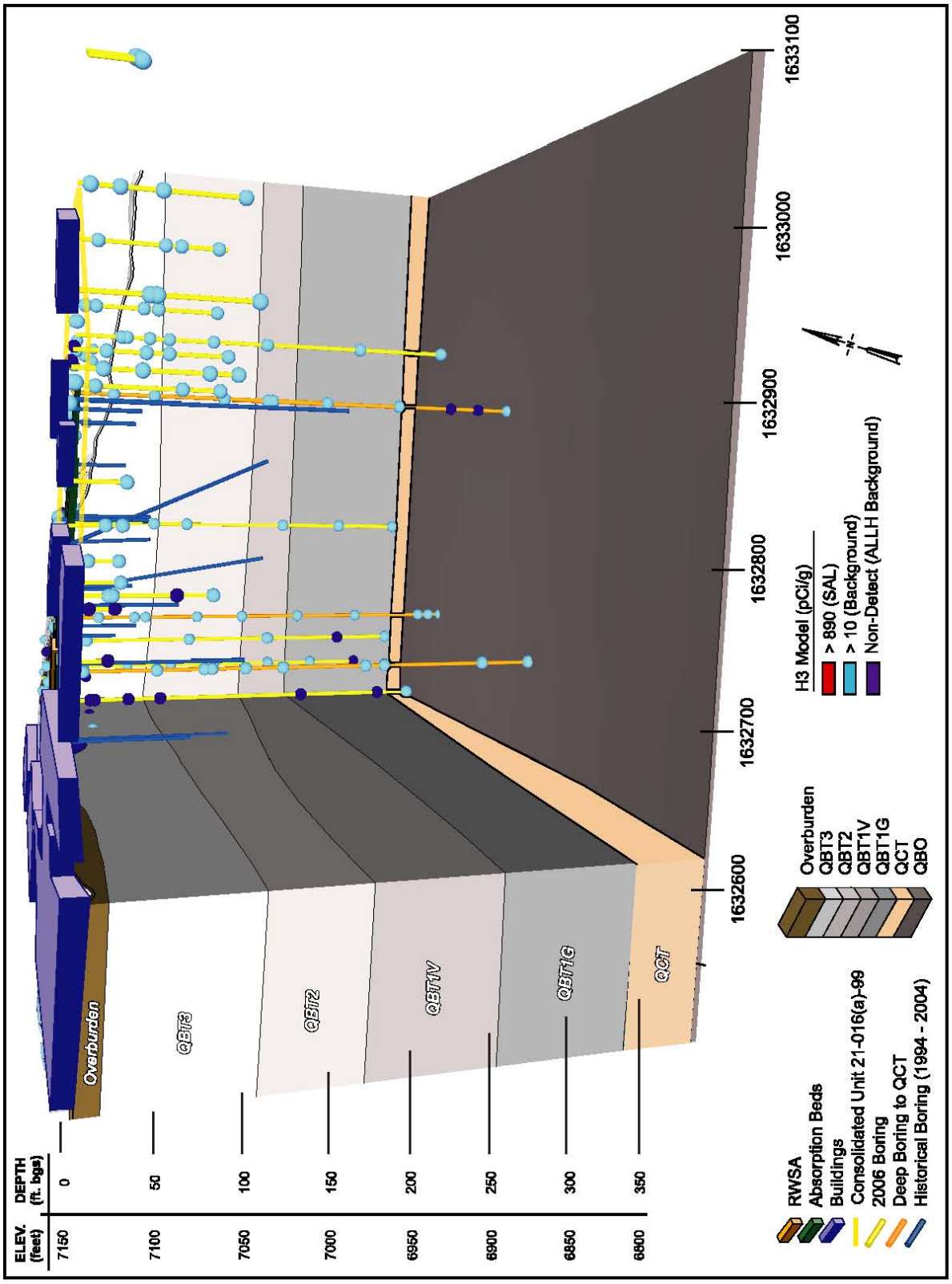

Figure 6.2-6. A profile realization of the tritium distribution at Consolidated Unit 21-016(a)-99

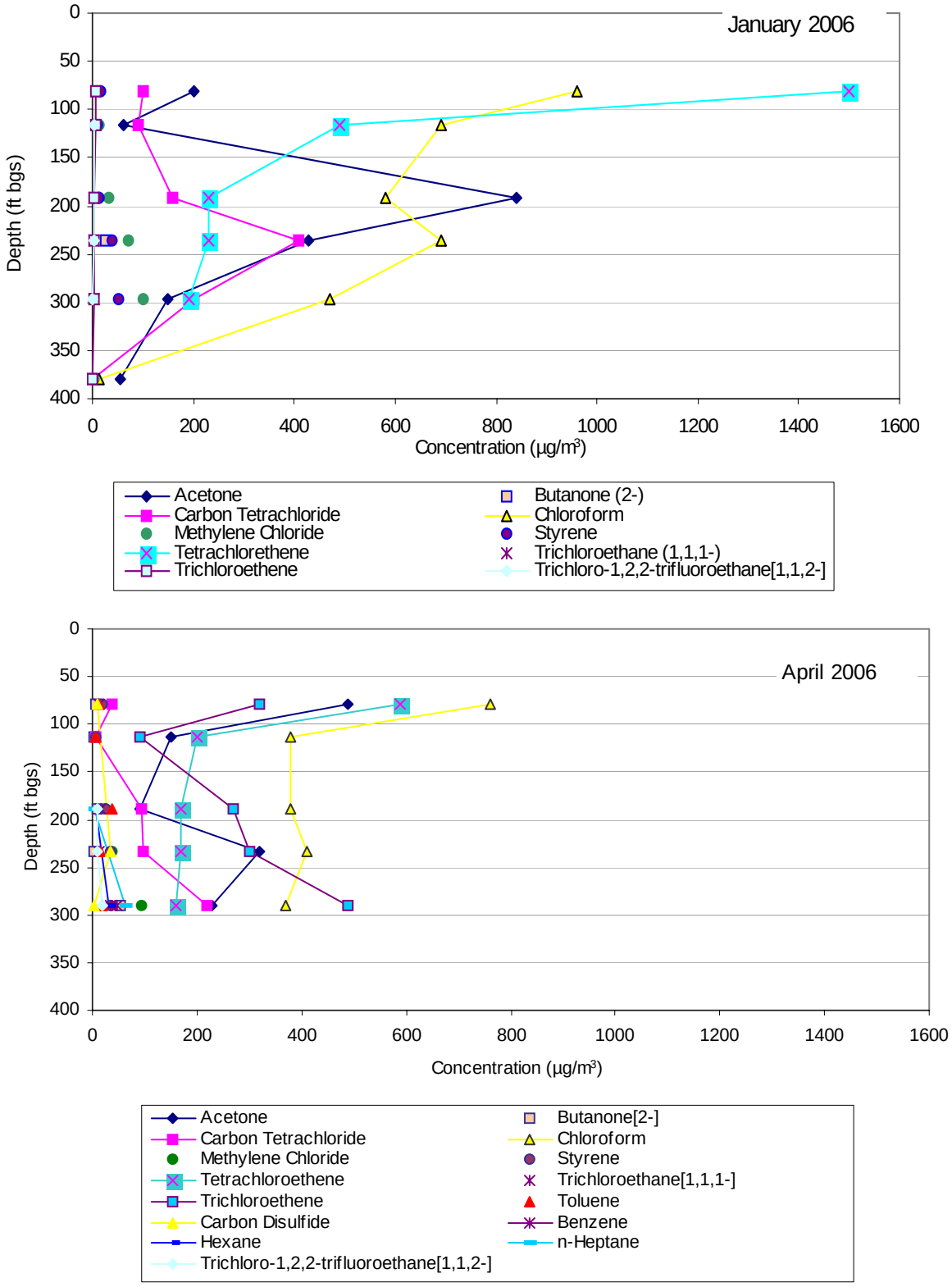

Figure 6.5-1. Detected organic chemicals in pore gas at location 21-25262

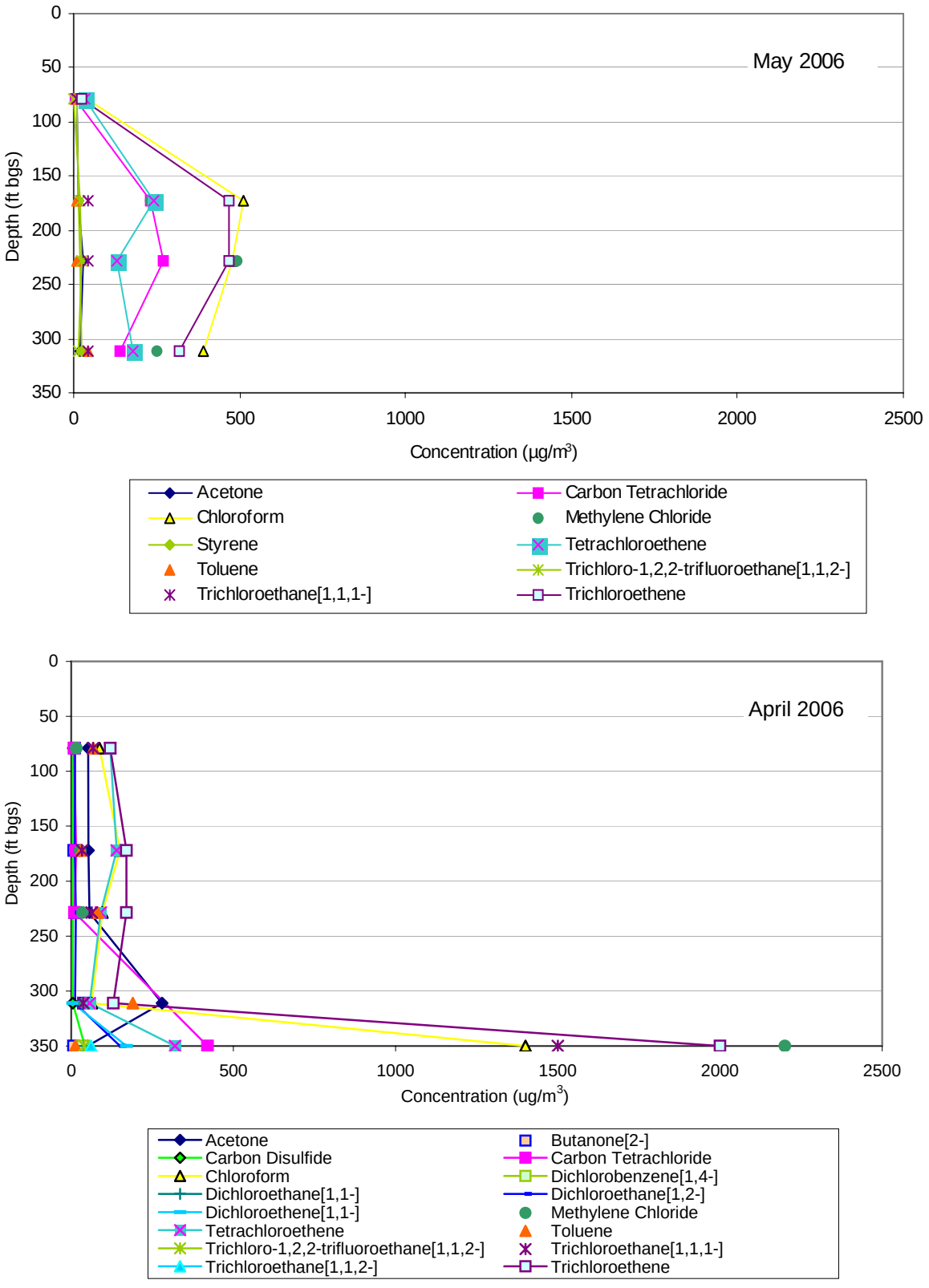

Figure 6.5-2. Detected organic chemicals in pore gas at location 21-25263

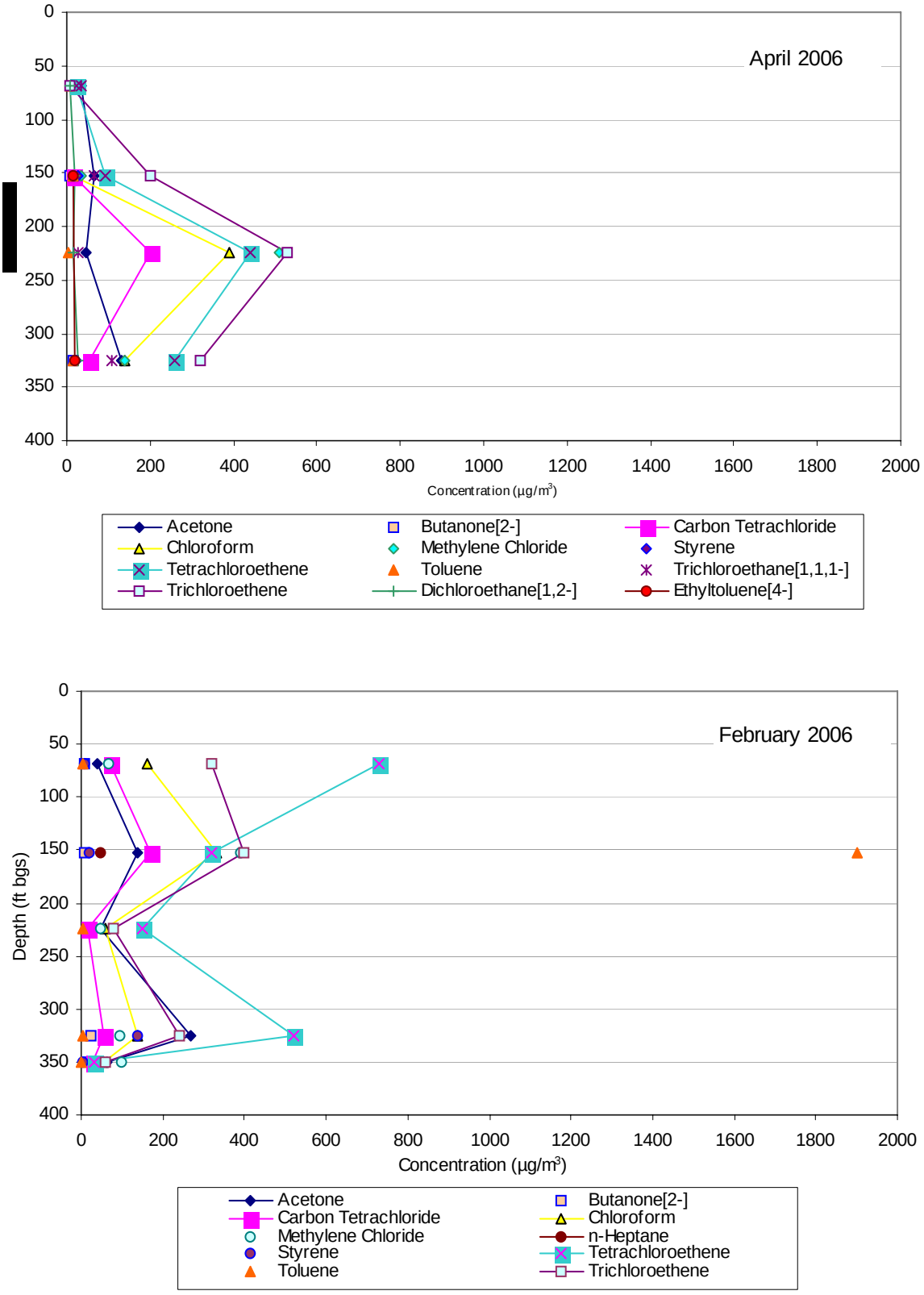

Figure 6.5-3. Detected organic chemicals in pore gas at location 21-25264

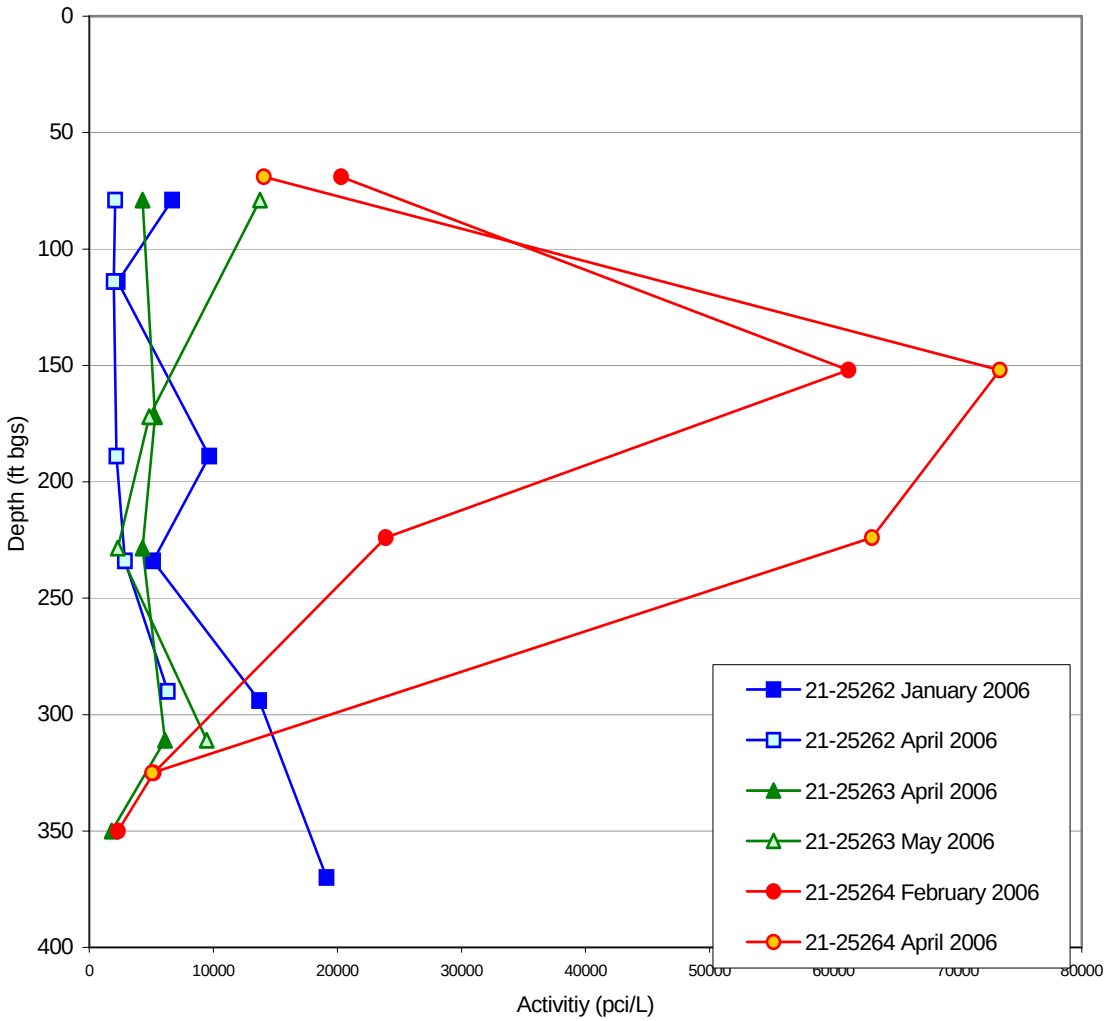

Figure 6.5-4. Detected tritium activities in pore gas at locations 21-25262, 21-25263, 21-25264

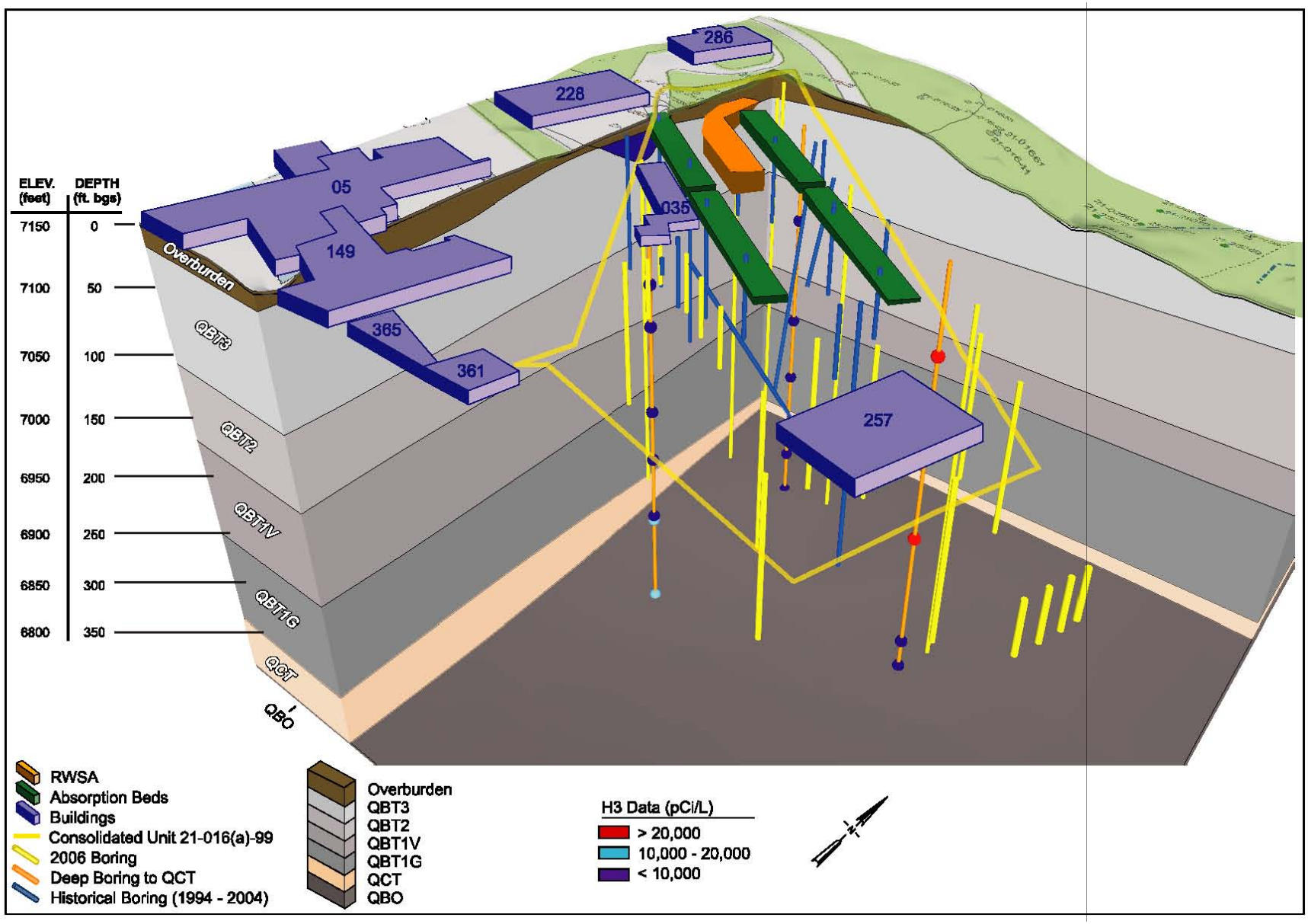

Figure 6.5-5. A three-dimensional realization of the tritium in pore gas distribution at Consolidated Unit 21-016(a)-99

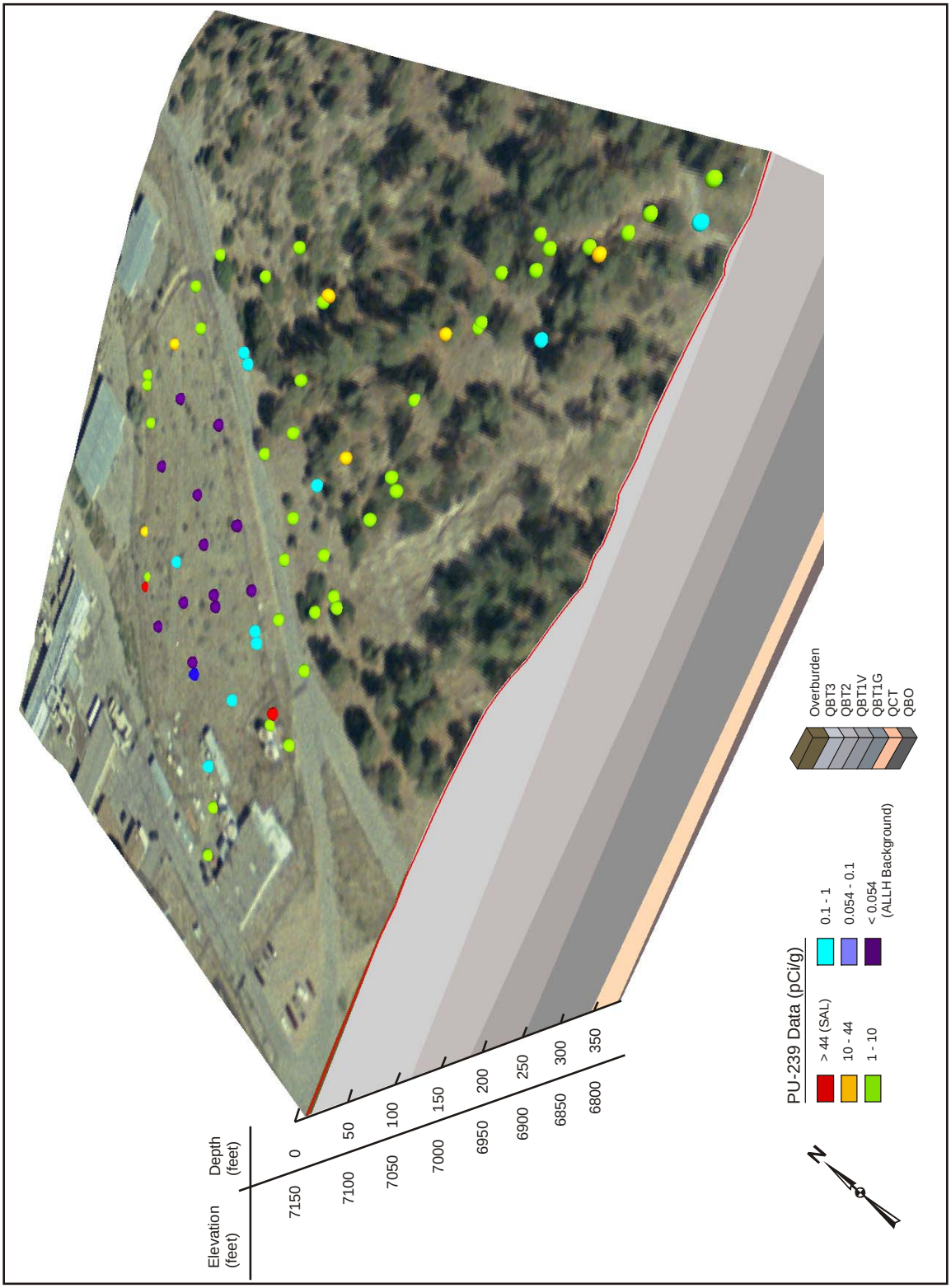

Figure 6.5-6. A three-dimensional estimation of the surface plutonium-239 distribution at Consolidated Unit 21-016(a)-99 and DP Canyon slope

Table 2.1-1
Summary of SWMUs and AOCs within Consolidated Unit 21-016(a)-99

General Type	SWMU/AOC	Description
"Salamander" Releases	SWMU 21-007	Airborne releases from incinerators
Building 21-035, former Liquid Waste Treatment Facility	SWMU 21-010(a)	Building 21-035, an industrial liquid waste treatment facility used for treating and disposing of contaminated liquid waste from plutonium- and uranium-processing laboratories at DP Site, beginning in 1952
	SWMU 21-010(b)	Structure 93, initially a water manhole that was changed to an acid valve pit manhole. It was located on the southwestern corner of Building 21-035.
	SWMU 21-010(c)	Structure 145, a steel 500-gal. underground process tank located near the southwest corner of Building 21-035 and subsequently removed in 1959
	SWMU 21-010(d)	Structure 147, a steel 500-gal. underground process tank located near the southwestern corner of Building 21-035 and subsequently removed in 1959
	SWMU 21-010(e)	Structure 185, a 390-gal. sanitary waste septic tank and leach field located on the northeastern corner of Building 21-035
	SWMU 21-010(f)	Structure 192, a grit chamber (8 ft long x 3 ft wide x 7 ft deep) constructed of reinforced concrete, with an insulated built-up cover. It was located at the northeastern corner of Building 21-035. (No drawings exist for this structure.)
	SWMU 21-010(g)	Structure 255, a 2000-gal. aboveground process tank located at the southwestern corner of Building 21-035
	SWMU 21-010(h)	Structure 271, a process manhole located at the southwestern corner of Building 21-035
	SWMU 21-011(c)	This SWMU consists of two structures: Structure 120, a 4000-gal. holding tank located approximately 35 ft north of Building 21-035, and Structure 121, a sump located between absorption beds 1 and 2 that acted as a distribution box for effluent.
	AOC C-21-002	A leak of radionuclides from a waste storage tank to the surrounding soil
	AOC C-21-028(a)	An inactive satellite storage area used for the storage of acetone and freon. Location of site is unknown. Rogers 1977 (05707 T-17) indicates that TA-21-121 is the location of the distribution box between absorption beds 1 and 2.
	AOC C-21-034	A 1000-gal. raffinate holding tank, located at the southwestern corner of Building 21-035
	AOC C-21-035	Former location of an aboveground process water holding tank (Structure 110) on the southern side of Building 21-035
	AOC C-21-036	Former location of an aboveground process water holding tank (Structure 111) on the southern side of Building 21-035
	AOC C-21-037	Former location of a 2000-gal. aboveground process tank (Structure 256) at the southwestern corner of Building 21-035
Building 21-257, Current Liquid Waste Treatment Facility	SWMU 21-011(a)	Structure 257, the new industrial liquid waste treatment facility, constructed to treat liquid waste from plutonium-processing operations associated with DP Site.
	SWMU 21-011(d and e)	Structures 110 and 111, two 13,500-gal. aboveground process water holding tank located on the western side of Building 21-257.
	SWMU 21-011(f and g)	Structures 112 and 113, two 12,700-gal. final effluent holding tanks located on the northwestern side of Building 21-257.
	AOC 21-011(h)	Former location of a 2000-gal. aboveground process tank at the southwestern corner of Building 21-257.
	SWMU 21-011(i)	Structure 288, a 1000-gal. tank storing 50% sodium hydroxide, was located on the western side of Building 21-257.
	SWMU 21-011(j)	Structure 289, a 1600-gal. americium raffinate storage tank located on the western side of Building 21-257
	AOC C-21-001	A containerized radioactive sludge storage area at southwestern corner of Building 21-257
	AOC C-21-005	A release of americium-241 and plutonium-239 on the western side of Building 21-257.

Table 2.1-1 (continued)

General Type	SWMU or AOC	Description
Building 21-257, Current Liquid Waste Treatment Facility (continued)	AOC C-21-007	A 1982 spill from a tank vent that released americium-241, plutonium-239, and uranium-233 to the surrounding area
	AOC C-21-033	A 1976 cement paste spill that occurred when radioactive cement was being pumped from Building 21-257 to shafts located between absorption beds 1 and 3
Waste Disposal at MDA T	SWMU 21-016(a)	The location of four inactive absorption beds
	SWMU 21-016(b)	The RWSA
	SWMU 21-016(c)	The shaft disposal area
	AOC C-21-009	A 1978 spill of americium-241 cement paste that occurred during the filling of the shafts
	AOC C-21-012	A 1976 spill of cement paste contaminated with americium-241 and plutonium occurred during the filling of CMPs

Table 4.2-1
Solid Media Samples Collected at Consolidated Unit 21-016(a)-99

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
AAA0421	21-01135	6/16/1992	0–0.5	Soil	—	—	13030	—	—	—	13031	—	13032	—	—	13032	—	13032
AAA0420	21-01135	6/16/1992	0–0.08	Soil	—	—	13030	—	—	—	—	—	—	—	—	13032	—	13032
AAA0564	21-01085	7/7/1992	0–0.08	Soil	—	—	13125	—	—	—	—	—	13127	—	—	13127	—	13127
AAA3950	21-01615	7/21/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3951	21-01616	7/21/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3952	21-01617	7/21/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3953	21-01618	7/21/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3954	21-01619	7/21/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3957	21-01620	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3958	21-01621	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3959	21-01622	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3965	21-01627	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3964	21-01626	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3963	21-01625	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3962	21-01624	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3961	21-01623	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3966	21-01628	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3998	21-01657	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3996	21-01655	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3997	21-01656	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA4001	21-01658	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3987	21-01646	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA4006	21-01662	7/22/1993	0–0.5	Soil	—	—	15241	—	—	—	15200	—	15269	15269	15269	15269	15269	—
AAA3990	21-01649	7/22/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3988	21-01647	7/22/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3986	21-01645	7/22/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3985	21-01644	7/22/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
AAA3989	21-01648	7/22/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3971	21-01633	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3970	21-01632	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3969	21-01631	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3968	21-01630	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3967	21-01629	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA4003	21-01659	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3973	21-01635	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3974	21-01636	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3975	21-01637	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3976	21-01638	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	15271
AAA4004	21-01660	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	15271
AAA3994	21-01653	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3983	21-01642	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA4005	21-01661	7/23/1993	0–0.5	Soil	—	—	15245	—	—	—	15218	—	15271	15271	15271	15271	15271	—
AAA3981	21-01641	7/26/1993	0–0.5	Soil	—	—	15246	—	—	—	15231	—	15273	15273	15273	15273	15273	—
AAA3995	21-01654	7/26/1993	0–0.5	Soil	—	—	15246	—	—	—	15231	—	15273	15273	15273	15273	15273	15273
AAA4008	21-01664	7/26/1993	0–0.5	Soil	—	—	15246	—	—	—	15231	—	15273	15273	15273	15273	15273	15273
AAA3980	21-01640	7/26/1993	0–0.5	Soil	—	—	15246	—	—	—	15231	—	15273	15273	15273	15273	15273	—
AAA3993	21-01652	7/26/1993	0–0.5	Soil	—	—	15246	—	—	—	15231	—	15273	15273	15273	15273	15273	—
AAB7275	21-02568	8/17/1994	0–0.25	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAB7276	21-02568	8/17/1994	0.25–0.5	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAB7277	21-02568	8/17/1994	0.5–1	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAB7278	21-02569	8/17/1994	0–0.25	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAB7279	21-02569	8/17/1994	0.25–0.5	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAB7280	21-02569	8/17/1994	0.5–1	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAA7510	21-01860	8/17/1994	0–0.25	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	19490	—
AAA7511	21-01860	8/17/1994	0.25–0.5	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAA7512	21-01860	8/17/1994	0.5–1	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
AAA7513	21-01861	8/17/1994	0–0.25	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAA7514	21-01861	8/17/1994	0.25–0.5	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAA7515	21-01861	8/17/1994	0.5–1	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	19490	—
AAA7516	21-01862	8/17/1994	0–0.25	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAA7517	21-01862	8/17/1994	0.25–0.5	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAA7518	21-01862	8/17/1994	0.5–1	Soil	—	—	19223	—	19490	—	18603	—	—	19490	19490	19490	—	—
AAB7343	21-02545	8/18/1994	0–5	Soil	—	—	19338	—	19856	—	18883	18883	—	19856	19856	19856	—	—
AAB7347	21-02546	8/19/1994	0–5	Soil	—	—	19338	—	19856	—	18883	18883	—	19856	19856	19856	—	—
AAB7352	21-02547	8/19/1994	5–10	Soil	—	—	19007	—	—	—	19009	—	19008	19008	19008	19008	19008	—
AAB9110	21-02609	8/25/1994	5–7.5	Soil	—	—	19336	—	19857	—	18814	—	—	19857	19857	19857	—	—
AAB9111	21-02610	8/25/1994	5–7.5	Soil	—	—	19336	—	19857	—	18814	—	—	19857	19857	19857	—	—
AAB7323	21-02538	8/26/1994	5–7.5	Fill	—	—	19338	—	19856	—	18883	18883	—	19856	19856	19856	—	—
AAB7328	21-02539	8/26/1994	7.5–10	Soil	—	—	19336	—	19857	—	18814	—	—	19857	19857	19857	—	—
AAB7314	21-02535	8/29/1994	2.5–5	Fill	—	—	19338	—	19856	—	18883	18883	—	19856	19856	19856	—	—
AAB7316	21-02536	8/29/1994	5–7.5	Soil	—	—	19338	—	19856	—	18883	18883	—	19856	19856	19856	—	—
AAB7334	21-02541	8/29/1994	2.5–5	Soil	—	—	19336	—	19857	—	18814	—	—	19857	19857	19857	—	—
AAB7340	21-02543	8/30/1994	2.5–5	Soil	—	—	19338	—	19856	—	18883	18883	—	19856	19856	19856	—	—
AAB7342	21-02544	8/30/1994	5–7.5	Soil	—	—	19336	—	19857	—	18814	—	—	19857	19857	19857	—	—
AAB7355	21-02548	8/30/1994	2.5–5	Soil	—	—	19338	—	19856	—	18883	18883	—	19856	19856	19856	—	—
0121-96-0303	21-04933	6/19/1996	0–0.5	Soil	—	—	—	—	—	—	—	—	—	2347	—	—	—	—
0121-96-0491	21-05058	12/10/1996	4.5–5	Fill	—	—	2827	—	—	—	2827	2827	—	2828	—	2828	2828	2828
0121-96-0492	21-05058	12/10/1996	7.7–8.2	Fill	—	—	2827	—	—	—	2827	2827	—	2828	—	2828	2828	2828
0121-96-0494	21-05058	12/11/1996	17.5–18.2	Fill	—	—	2827	—	—	—	2827	2827	—	2828	—	2828	2828	2828
0121-96-0481	21-05057	12/18/1996	4.3–5	Fill	—	—	2848	—	—	—	2848	2848	—	2854	—	2854	2854	2854
0121-96-0482	21-05057	12/18/1996	9.5–10	Fill	—	—	2848	—	—	—	2848	2848	—	2854	—	2854	2854	2854
0121-96-0483	21-05057	12/18/1996	19.5–20	Fill	—	—	2848	—	—	—	2848	2848	—	2854	—	2854	2854	2854
0121-97-0081	21-05055	1/7/1997	3.5–4	Fill	—	2865	2865	—	—	—	2865	2865	—	2864	—	2864	2864	2864
0121-97-0082	21-05055	1/7/1997	8.5–9	Fill	—	2865	2865	—	—	—	2865	2865	—	2864	—	2864	2864	2864
0121-97-0083	21-05055	1/7/1997	14.5–15	Fill	—	2863	2863	—	—	—	2863	2863	—	2862	—	2862	2862	2862

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
0121-97-0326	21-05073	1/8/1997	2.5–3	Soil	—	2865	2865	—	—	—	2865	2865	—	2864	—	2864	2864	2864
0121-97-0096	21-05056	1/13/1997	4.5–5	Fill	—	—	2867	—	—	—	2867	2867	—	2866	—	2866	2866	2866
0121-97-0066	21-05054	1/17/1997	3–3.5	Fill	—	—	2882	—	—	—	2882	2882	—	2881	—	2881	2881	2881
0121-97-0067	21-05054	1/17/1997	6–6.5	Fill	—	—	2877	—	—	—	2877	2877	—	2876	—	2876	2876	2876
0121-97-0068	21-05054	1/17/1997	7.5–8.2	Fill	—	—	2877	—	—	—	2877	2877	—	2876	—	2876	2876	2876
0121-97-0069	21-05054	1/17/1997	10.5–11	Fill	—	2877	2877	—	—	—	2877	2877	—	2876	—	2876	2876	2876
0121-97-0051	21-05053	1/21/1997	4.2–4.6	Fill	—	—	2877	—	—	—	2877	2877	—	2876	—	2876	2876	2876
0121-97-0052	21-05053	1/21/1997	6.5–7	Fill	—	2877	2877	—	—	—	2877	2877	—	2876	—	2876	2876	2876
0121-97-0053	21-05053	1/21/1997	9.5–10	Fill	—	2877	2877	—	—	—	2877	2877	—	2876	—	2876	2876	2876
0121-97-0001	21-05051	1/27/1997	3.5–4	Fill	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0002	21-05051	1/27/1997	6–6.5	Fill	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0003	21-05051	1/27/1997	8.5–9	Fill	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0004	21-05051	1/27/1997	11.5–12	Fill	—	—	2897	—	—	—	2897	2897	—	2896	—	2896	2896	2896
0121-97-0111	21-05059	2/3/1997	4–4.5	Soil	—	2900	2900	—	—	—	2900	2900	—	2899	—	2899	2899	2899
0121-97-1001	21-05074	2/12/1997	0.8–1.3	Soil	—	—	—	—	—	—	—	—	—	2909	—	2909	2909	2909
0121-97-0136	21-05060	2/18/1997	4.5–5	Soil	—	—	2925	—	—	—	2925	2925	—	2926	—	2926	2926	2926
0121-97-0166	21-05061	2/26/1997	5.5–6	Soil	—	—	2933	—	—	—	2933	2933	—	2934	—	2934	2934	2934
0121-97-0026	21-05052	3/24/1997	2.5–3	Fill	—	—	3004R	—	—	—	3004R	3004R	—	3006R	—	3006R	—	—
MD21-03-51517	21-22206	5/6/2003	0–0.5	Soil	—	—	—	—	—	—	—	—	1757S	1757S	—	1757S	—	1757S
MD21-06-65802	21-25359	12/2/2005	5–7.5	Fill	4156S	—	4156S	4155S	4156S	—	4155S	4155S	4156S	4156S	4156S	4156S	4156S	4156S
MD21-06-65798	21-25358	12/7/2005	6.8–7	Fill	—	—	—	—	—	4171S	—	—	—	—	—	—	—	—
MD21-06-65781	21-25356	12/7/2005	6–6.5	Fill	—	—	—	—	—	4171S	—	—	—	—	—	—	—	—
MD21-06-65789	21-25357	12/8/2005	6.4–6.8	Fill	—	—	—	—	—	4177S	—	—	—	—	—	—	—	—
MD21-06-64167	21-25265	12/8/2005	0–0.5	Soil	—	—	4175S	4174S	4175S	—	4174S	—	4176S	4176S	4176S	4176S	4176S	4176S
MD21-06-64169	21-25266	12/8/2005	0–0.5	Soil	—	—	4175S	4174S	4175S	—	4174S	—	4176S	4176S	4176S	4176S	4176S	4176S
MD21-06-64171	21-25267	12/8/2005	0–0.5	Soil	—	—	4175S	4174S	4175S	—	4174S	—	4176S	4176S	4176S	4176S	4176S	4176S
MD21-06-64173	21-25268	12/8/2005	0–0.5	Soil	—	—	4175S	4174S	4175S	—	4174S	—	4176S	4176S	4176S	4176S	4176S	4176S
MD21-06-64168	21-25265	12/8/2005	1.5–2	Soil	—	—	4175S	4174S	4175S	—	4174S	—	4176S	4176S	4176S	4176S	4176S	4176S
MD21-06-64170	21-25266	12/8/2005	1.5–2	Soil	—	—	4175S	4174S	4175S	—	4174S	—	4176S	4176S	4176S	4176S	4176S	4176S

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
MD21-06-64172	21-25267	12/8/2005	1.5–2	Soil	—	—	4175S	4174S	4175S	—	4174S	—	4176S	4176S	4176S	4176S	4176S	4176S
MD21-06-64174	21-25268	12/8/2005	1.5–2	Soil	—	—	4175S	4174S	4175S	—	4174S	—	4176S	4176S	4176S	4176S	4176S	4176S
MD21-06-64182	21-25272	12/9/2005	0.5–1	Soil	—	—	4195S	4194S	4195S	—	4194S	—	4196S	4196S	4196S	4196S	4196S	4196S
MD21-06-64175	21-25269	12/9/2005	0–0.5	Soil	—	—	4195S	4194S	4195S	—	4194S	—	4196S	4196S	4196S	4196S	4196S	4196S
MD21-06-64177	21-25270	12/9/2005	0–0.5	Soil	—	—	4195S	4194S	4195S	—	4194S	—	4196S	4196S	4196S	4196S	4196S	4196S
MD21-06-64179	21-25271	12/9/2005	0–0.5	Soil	—	—	4195S	4194S	4195S	—	4194S	—	4196S	4196S	4196S	4196S	4196S	4196S
MD21-06-64181	21-25272	12/9/2005	0–0.5	Soil	—	—	4195S	4194S	4195S	—	4194S	—	4196S	4196S	4196S	4196S	4196S	4196S
MD21-06-64183	21-25273	12/9/2005	0–0.5	Soil	—	—	4195S	4194S	4195S	—	4194S	—	4196S	4196S	4196S	4196S	4196S	4196S
MD21-06-64185	21-25274	12/9/2005	0–0.5	Soil	—	—	4195S	4194S	4195S	—	4194S	—	4196S	4196S	4196S	4196S	4196S	4196S
MD21-06-64176	21-25269	12/9/2005	1.5–2	Soil	—	—	4195S	4194S	4195S	—	4194S	—	4196S	4196S	4196S	4196S	4196S	4196S
MD21-06-64184	21-25273	12/9/2005	1.5–2	Soil	—	—	4195S	4194S	4195S	—	4194S	—	4196S	4196S	4196S	4196S	4196S	4196S
MD21-06-64187	21-25275	12/12/2005	0–0.5	Soil	—	—	4189S	4188S	4189S	—	4188S	—	4190S	4190S	4190S	4190S	4190S	4190S
MD21-06-64189	21-25276	12/12/2005	0–0.5	Soil	—	—	4189S	4188S	4189S	—	4188S	—	4190S	4190S	4190S	4190S	4190S	4190S
MD21-06-64191	21-25277	12/12/2005	0–0.5	Soil	—	—	4189S	4188S	4189S	—	4188S	—	4190S	4190S	4190S	4190S	4190S	4190S
MD21-06-66235	21-25401	12/12/2005	0–0.5	Soil	—	—	4192S	4191S	4192S	—	4191S	—	4193S	4193S	4193S	4193S	4193S	4193S
MD21-06-64190	21-25276	12/12/2005	1.5–2	Soil	—	—	4189S	4188S	4189S	—	4188S	—	4190S	4190S	4190S	4190S	4190S	4190S
MD21-06-66237	21-25402	12/13/2005	0–0.5	Soil	—	—	4201S	4200S	4201S	—	4200S	—	4202S	4202S	4202S	4202S	4202S	4202S
MD21-06-66239	21-25403	12/14/2005	0–0.5	Soil	—	—	4207S	4206S	4207S	—	4206S	—	4208S	4208S	4208S	4208S	4208S	4208S
MD21-06-66241	21-25404	12/14/2005	0–0.5	Soil	—	—	4207S	4206S	4207S	—	4206S	—	4208S	4208S	4208S	4208S	4208S	4208S
MD21-06-66243	21-25405	12/14/2005	0–0.5	Soil	—	—	4207S	4206S	4207S	—	4206S	—	4208S	4208S	4208S	4208S	4208S	4208S
MD21-06-66238	21-25402	12/14/2005	1.5–2	Soil	—	—	4207S	4206S	4207S	—	4206S	—	4208S	4208S	4208S	4208S	4208S	4208S
MD21-06-66240	21-25403	12/14/2005	1.5–2	Soil	—	—	4207S	4206S	4207S	—	4206S	—	4208S	4208S	4208S	4208S	4208S	4208S
MD21-06-66242	21-25404	12/14/2005	1.5–2	Soil	—	—	4210S	4209S	4210S	—	4209S	—	4211S	4211S	4211S	4211S	4211S	4211S
MD21-06-66244	21-25405	12/14/2005	1.5–2	Soil	—	—	4207S	4206S	4207S	—	4206S	—	4208S	4208S	4208S	4208S	4208S	4208S
MD21-06-65994	21-25375	1/9/2006	6–7	Fill	—	—	—	—	—	4294S	—	—	—	—	—	—	—	—
MD21-06-66192	21-25390	1/10/2006	10.2–10.5	Fill	—	—	—	—	—	4323S	—	—	—	—	—	—	—	—
MD21-06-66135	21-25384	1/26/2006	12–14	Soil	4470S	—	4470S	4469S	4470S	—	4469S	4469S	4471S	4471S	4471S	4471S	4471S	4471S
MD21-06-66139	21-25384	1/26/2006	12–14	Soil	—	—	—	—	—	4458S	—	—	—	—	—	—	—	—
MD21-06-66118	21-25382	2/23/2006	6.6–8	Fill	4653S	—	4653S	4652S	4653S	—	4652S	4652S	4654S	4654S	4654S	4654S	4654S	4654S

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
MD21-06-65855	21-25363	3/8/2006	7–8	Fill	—	—	—	—	—	4727S	—	—	—	—	—	—	—	—
MD21-06-65972	21-25374	6/7/2006	20–22	Fill	—	—	—	5404S	—	—	5404S	5404S	—	—	—	—	—	—
0121-96-0484	21-05057	12/19/1996	22.5–23.9	QAL	—	—	2841	—	—	—	2841	2841	—	2842	—	2842	2842	2842
0121-97-0112	21-05059	2/3/1997	10.2–10.7	QAL	—	2900	2900	—	—	—	2900	2900	—	2899	—	2899	2899	2899
0121-97-0113	21-05059	2/3/1997	20–20.5	QAL	—	2900	2900	—	—	—	2900	2900	—	2899	—	2899	2899	2899
0121-97-0114	21-05059	2/3/1997	31.5–32	QAL	—	2900	2900	—	—	—	2900	2900	—	2899	—	2899	2899	2899
0121-97-1161	21-05071	3/12/1997	5–5.5	QAL	—	—	—	—	—	—	—	—	—	2963	—	2963	—	—
0121-97-1162	21-05071	3/12/1997	9.5–10	QAL	—	—	—	—	—	—	—	—	—	2963	—	2963	—	—
0121-97-1163	21-05071	3/12/1997	20–20.5	QAL	—	—	—	—	—	—	—	—	—	2963	—	2963	—	—
0121-97-1164	21-05071	3/12/1997	28.5–29	QAL	—	—	—	—	—	—	—	—	—	2963	—	2963	—	—
0121-97-1165	21-05071	3/12/1997	34–34.5	QAL	—	—	—	—	—	—	—	—	—	2963	—	2963	—	—
0121-97-0027	21-05052	3/24/1997	9–9.5	QAL	—	—	3004R	—	—	—	3004R	3004R	—	3006R	—	3006R	—	—
0121-97-0028	21-05052	3/24/1997	20–20.5	QAL	—	—	3004R	—	—	—	3004R	3004R	—	3006R	—	3006R	—	—
0121-97-0029	21-05052	3/24/1997	26–27	QAL	—	—	3004R	—	—	—	3004R	3004R	—	3006R	—	3006R	—	—
AAB7320	21-02537	8/26/1994	7.5–10	Qbt 3	—	—	19338	—	19856	—	18883	18883	—	19856	19856	19856	—	—
AAB9109	21-02541	8/29/1994	10–12.5	Qbt 3	—	—	19336	—	19857	—	18814	—	—	19857	19857	19857	—	—
AAB7332	21-02540	8/29/1994	7.5–10	Qbt 3	—	—	19338	—	19856	—	18883	18883	—	19856	19856	19856	—	—
0121-96-0495	21-05058	12/11/1996	29.5–30	Qbt 3	—	—	2827	—	—	—	2827	2827	—	2828	—	2828	2828	2828
0121-96-0496	21-05058	12/11/1996	39.5–40	Qbt 3	—	—	2827	—	—	—	2827	2827	—	2828	—	2828	2828	2828
0121-96-0497	21-05058	12/11/1996	49.5–50	Qbt 3	—	—	2827	—	—	—	2827	2827	—	2828	—	2828	2828	2828
0121-96-0621	21-05065	12/13/1996	4.5–5	Qbt 3	—	—	2834	—	—	—	2834	2834	—	2835	—	2835	2835	2835
0121-96-0622	21-05065	12/13/1996	10–10.5	Qbt 3	—	—	2834	—	—	—	2834	2834	—	2835	—	2835	2835	2835
0121-96-0623	21-05065	12/16/1996	19.5–20	Qbt 3	—	—	2834	—	—	—	2834	2834	—	2835	—	2835	2835	2835
0121-96-0624	21-05065	12/16/1996	29.5–30	Qbt 3	—	—	2834	—	—	—	2834	2834	—	2835	—	2835	2835	2835
0121-96-0625	21-05065	12/16/1996	39.5–40	Qbt 3	—	—	2834	—	—	—	2834	2834	—	2835	—	2835	2835	2835
0121-96-0626	21-05065	12/16/1996	48.2–48.7	Qbt 3	—	—	2834	—	—	—	2834	2834	—	2835	—	2835	2835	2835
0121-96-0485	21-05057	12/19/1996	29.5–30	Qbt 3	—	—	2848	—	—	—	2848	2848	—	2854	—	2854	2854	2854
0121-96-0486	21-05057	12/19/1996	39.5–40	Qbt 3	—	—	2848	—	—	—	2848	2848	—	2854	—	2854	2854	2854
0121-96-0487	21-05057	12/19/1996	49.5–50	Qbt 3	—	—	2848	—	—	—	2848	2848	—	2854	—	2854	2854	2854

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
0121-97-0327	21-05073	1/8/1997	8.5–9	Qbt 3	—	2863	2863	—	—	—	2863	2863	—	2862	—	2862	2862	2862
0121-97-0328	21-05073	1/8/1997	11.7–12.2	Qbt 3	—	2865	2865	—	—	—	2865	2865	—	2864	—	2864	2864	2864
0121-97-0329	21-05073	1/9/1997	22–23	Qbt 3	—	2865	2865	—	—	—	2865	2865	—	2864	—	2864	2864	2864
0121-97-0330	21-05073	1/9/1997	32–32.5	Qbt 3	—	2865	2865	—	—	—	2865	2865	—	2864	—	2864	2864	2864
0121-97-0331	21-05073	1/9/1997	42–42.5	Qbt 3	—	2865	2865	—	—	—	2865	2865	—	2864	—	2864	2864	2864
0121-97-0332	21-05073	1/9/1997	46.5–47	Qbt 3	—	2865	2865	—	—	—	2865	2865	—	2864	—	2864	2864	2864
0121-97-0333	21-05073	1/9/1997	62–62.5	Qbt 3	—	2865	2865	—	—	—	2865	2865	—	2864	—	2864	2864	2864
0121-97-0334	21-05073	1/9/1997	69.5–70	Qbt 3	—	2865	2865	—	—	—	2865	2865	—	2864	—	2864	2864	2864
0121-97-0097	21-05056	1/15/1997	11.8–12.2	Qbt 3	—	2867	2867	—	—	—	2867	2867	—	2866	—	2866	2866	2866
0121-97-0098	21-05056	1/15/1997	20–20.5	Qbt 3	—	—	2867	—	—	—	2867	2867	—	2866	—	2866	2866	2866
0121-97-0099	21-05056	1/15/1997	29–29.5	Qbt 3	—	—	2867	—	—	—	2867	2867	—	2866	—	2866	2866	2866
0121-97-0100	21-05056	1/15/1997	39–39.5	Qbt 3	—	—	2867	—	—	—	2867	2867	—	2866	—	2866	2866	2866
0121-97-0101	21-05056	1/15/1997	49.5–50	Qbt 3	—	2867	2867	—	—	—	2867	2867	—	2866	—	2866	2866	2866
0121-97-0070	21-05054	1/17/1997	14.2–15	Qbt 3	—	—	2882	—	—	—	2882	2882	—	2881	—	2881	2881	2881
0121-97-0071	21-05054	1/17/1997	21.8–22.1	Qbt 3	—	2884	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0072	21-05054	1/17/1997	32–32.5	Qbt 3	—	—	2882	—	—	—	2882	2882	—	2881	—	2881	2881	2881
0121-97-0073	21-05054	1/20/1997	35.5–36	Qbt 3	—	—	2882	—	—	—	2882	2882	—	2881	—	2881	2881	2881
0121-97-0074	21-05054	1/20/1997	50–50.5	Qbt 3	—	—	2882	—	—	—	2882	2882	—	2881	—	2881	2881	2881
0121-97-0075	21-05054	1/20/1997	59.5–60	Qbt 3	—	—	2882	—	—	—	2882	2882	—	2881	—	2881	2881	2881
0121-97-0054	21-05053	1/21/1997	12.5–13	Qbt 3	—	—	2882	—	—	—	2882	2882	—	2881	—	2881	2881	2881
0121-97-0055	21-05053	1/21/1997	17–17.3	Qbt 3	—	—	2882	—	—	—	2882	2882	—	2881	—	2881	2881	2881
0121-97-0056	21-05053	1/21/1997	20.5–21.5	Qbt 3	—	—	2882	—	—	—	2882	2882	—	2881	—	2881	2881	2881
0121-97-0057	21-05053	1/21/1997	28–29	Qbt 3	—	—	2882	—	—	—	2882	2882	—	2881	—	2881	2881	2881
0121-97-0058	21-05053	1/22/1997	39.5–40	Qbt 3	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0059	21-05053	1/22/1997	48–48.5	Qbt 3	—	—	2870	—	—	—	2870	2870	—	2871	—	2871	2871	2871
0121-97-0060	21-05053	1/22/1997	59.5–60	Qbt 3	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0061	21-05053	1/22/1997	60–60.7	Qbt 3	—	2884	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0062	21-05053	1/23/1997	74.5–75	Qbt 3	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0063	21-05053	1/23/1997	80–80.5	Qbt 3	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
0121-97-0445	21-05053	1/23/1997	89.5–90	Qbt 3	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0005	21-05051	1/27/1997	13.8–14.5	Qbt 3	—	2892	2892	—	—	—	2892	2892	—	2893	—	2893	2893	2893
0121-97-0006	21-05051	1/27/1997	20–21	Qbt 3	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0007	21-05051	1/27/1997	27.5–28	Qbt 3	—	—	2897	—	—	—	2897	2897	—	2896	—	2896	2896	2896
0121-97-0008	21-05051	1/28/1997	40–40.5	Qbt 3	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0009	21-05051	1/28/1997	50–50.5	Qbt 3	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0010	21-05051	1/28/1997	61–61.5	Qbt 3	—	—	2884	—	—	—	2884	2884	—	2883	—	2883	2883	2883
0121-97-0011	21-05051	1/28/1997	71–71.5	Qbt 3	—	—	2897	—	—	—	2897	2897	—	2896	—	2896	2896	2896
0121-97-0012	21-05051	1/29/1997	80–80.5	Qbt 3	—	—	2897	—	—	—	2897	2897	—	2896	—	2896	2896	2896
0121-97-0013	21-05051	1/29/1997	89.5–90	Qbt 3	—	—	2897	—	—	—	2897	2897	—	2896	—	2896	2896	2896
0121-97-0014	21-05051	1/29/1997	99.5–100	Qbt 3	—	—	2897	—	—	—	2897	2897	—	2896	—	2896	2896	2896
0121-97-0015	21-05051	1/29/1997	109–109.5	Qbt 2	—	—	2897	—	—	—	2897	2897	—	2896	—	2896	2896	2896
0121-97-0016	21-05051	1/30/1997	119.5–120	Qbt 2	—	—	2897	—	—	—	2897	2897	—	2896	—	2896	2896	2896
0121-97-0017	21-05051	1/30/1997	129.5–130	Qbt 2	—	—	2897	—	—	—	2897	2897	—	2896	—	2896	2896	2896
0121-97-0018	21-05051	1/30/1997	137.5–138	Qbt 2	—	—	2897	—	—	—	2897	2897	—	2896	—	2896	2896	2896
0121-97-0019	21-05051	1/30/1997	149.5–150	Qbt 2	—	—	2897	—	—	—	2897	2897	—	2896	—	2896	2896	2896
0121-97-0115	21-05059	2/4/1997	36.4–36.8	Qbt 3	—	2900	2900	—	—	—	2900	2900	—	2899	—	2899	2899	2899
0121-97-0116	21-05059	2/4/1997	40–40.5	Qbt 3	—	2900	2900	—	—	—	2900	2900	—	2899	—	2899	2899	2899
0121-97-0117	21-05059	2/4/1997	49.5–50	Qbt 3	—	2900	2900	—	—	—	2900	2900	—	2899	—	2899	2899	2899
0121-97-0191	21-05062	2/6/1997	5–5.5	Qbt 3	—	2904	2904	—	—	—	2904	2904	—	2903	—	2903	2903	2903
0121-97-0192	21-05062	2/6/1997	6–6.5	Qbt 3	—	2904	2904	—	—	—	2904	2904	—	2903	—	2903	2903	2903
0121-97-0193	21-05062	2/6/1997	10–10.5	Qbt 3	—	2904	2904	—	—	—	2904	2904	—	2903	—	2903	2903	2903
0121-97-0194	21-05062	2/6/1997	20–20.5	Qbt 3	—	2904	2904	—	—	—	2904	2904	—	2903	—	2903	2903	2903
0121-97-0195	21-05062	2/6/1997	30–30.5	Qbt 3	—	2904	2904	—	—	—	2904	2904	—	2903	—	2903	2903	2903
0121-97-0196	21-05062	2/6/1997	40–40.5	Qbt 3	—	2904	2904	—	—	—	2904	2904	—	2903	—	2903	2903	2903
0121-97-0197	21-05062	2/7/1997	49.5–50	Qbt 3	—	2904	2904	—	—	—	2904	2904	—	2903	—	2903	2903	2903
0121-97-0198	21-05062	2/7/1997	58.8–59.5	Qbt 3	—	2904	2904	—	—	—	2904	2904	—	2903	—	2903	2903	2903
0121-97-0199	21-05062	2/7/1997	70–70.5	Qbt 3	—	2911	2911	—	—	—	2911	2911	—	2910	—	2910	2910	2910
0121-97-0200	21-05062	2/7/1997	78.4–79.5	Qbt 3	—	2907	2907	—	—	—	2907	2907	—	2908	—	2908	2908	2908

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
0121-97-1002	21-05074	2/12/1997	9–9.5	Qbt 3	—	—	—	—	—	—	—	—	—	2909	—	2909	2909	2909
0121-97-1003	21-05074	2/12/1997	19.5–20	Qbt 3	—	—	—	—	—	—	—	—	—	2909	—	2909	2909	2909
0121-97-1004	21-05074	2/12/1997	26.5–26.9	Qbt 3	—	—	—	—	—	—	—	—	—	2909	—	2909	2909	2909
0121-97-1005	21-05074	2/12/1997	39.5–40	Qbt 3	—	—	—	—	—	—	—	—	—	2909	—	2909	2909	2909
0121-97-1006	21-05074	2/12/1997	48.5–49	Qbt 3	—	—	—	—	—	—	—	—	—	2909	—	2909	2909	2909
0121-97-0236	21-05064	2/14/1997	3.5–4	Qbt 3	—	—	—	—	—	—	—	—	—	2916	—	2916	2916	2916
0121-97-0237	21-05064	2/14/1997	8.5–9	Qbt 3	—	—	—	—	—	—	—	—	—	2916	—	2916	2916	2916
0121-97-0238	21-05064	2/14/1997	11.5–12	Qbt 3	—	—	—	—	—	—	—	—	—	2915	—	2915	2915	2915
0121-97-0239	21-05064	2/14/1997	13.5–13.9	Qbt 3	—	—	—	—	—	—	—	—	—	2916	—	2916	2916	2916
0121-97-0240	21-05064	2/14/1997	20–20.5	Qbt 3	—	—	—	—	—	—	—	—	—	2916	—	2916	2916	2916
0121-97-0241	21-05064	2/14/1997	29.5–30	Qbt 3	—	—	—	—	—	—	—	—	—	2916	—	2916	2916	2916
0121-97-0242	21-05064	2/14/1997	39.5–40	Qbt 3	—	—	—	—	—	—	—	—	—	2916	—	2916	2916	2916
0121-97-0243	21-05064	2/14/1997	49.5–50	Qbt 3	—	—	—	—	—	—	—	—	—	2916	—	2916	2916	2916
0121-97-0137	21-05060	2/18/1997	10–10.5	Qbt 3	—	—	2925	—	—	—	2925	2925	—	2926	—	2926	2926	2926
0121-97-0138	21-05060	2/18/1997	20–20.5	Qbt 3	—	—	2925	—	—	—	2925	2925	—	2926	—	2926	2926	2926
0121-97-0139	21-05060	2/18/1997	30–30.5	Qbt 3	—	—	2925	—	—	—	2925	2925	—	2926	—	2926	2926	2926
0121-97-0140	21-05060	2/18/1997	42–42.5	Qbt 3	—	—	2925	—	—	—	2925	2925	—	2926	—	2926	2926	2926
0121-97-0141	21-05060	2/18/1997	50–50.5	Qbt 3	—	—	2925	—	—	—	2925	2925	—	2926	—	2926	2926	2926
0121-97-0142	21-05060	2/19/1997	60–60.5	Qbt 3	—	—	2925	—	—	—	2925	2925	—	2926	—	2926	2926	2926
0121-97-0143	21-05060	2/19/1997	69.5–70	Qbt 3	—	—	2925	—	—	—	2925	2925	—	2926	—	2926	2926	2926
0121-97-0144	21-05060	2/19/1997	79.5–80	Qbt 3	—	—	2925	—	—	—	2925	2925	—	2926	—	2926	2926	2926
0121-97-0145	21-05060	2/19/1997	89–89.5	Qbt 3	—	2925	2925	—	—	—	2925	2925	—	2926	—	2926	2926	2926
0121-97-0146	21-05060	2/19/1997	99.5–100	Qbt 3	—	2925	2925	—	—	—	2925	2925	—	2926	—	2926	2926	2926
0121-97-0147	21-05060	2/20/1997	109–109.2	Qbt 2	—	2927	2927	—	—	—	2927	2927	—	2929	—	2929	2929	2929
0121-97-0148	21-05060	2/20/1997	118.5–119	Qbt 2	—	2927	2927	—	—	—	2927	2927	—	2929	—	2929	2929	2929
0121-97-0149	21-05060	2/20/1997	129–129.5	Qbt 2	—	2927	2927	—	—	—	2927	2927	—	2929	—	2929	2929	2929
0121-97-0150	21-05060	2/20/1997	139–139.5	Qbt 2	—	2927	2927	—	—	—	2927	2927	—	2929	—	2929	2929	2929
0121-97-0151	21-05060	2/21/1997	150–150.5	Qbt 2	—	2927	2927	—	—	—	2927	2927	—	2929	—	2929	2929	2929
0121-97-0152	21-05060	2/21/1997	160–160.5	Qbt 2	—	2927	2927	—	—	—	2927	2927	—	2929	—	2929	2929	2929

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
0121-97-0153	21-05060	2/21/1997	169.5–170	Qbt 2	—	2927	2927	—	—	—	2927	2927	—	2929	—	2929	2929	2929
0121-97-0154	21-05060	2/21/1997	174.5–175	Qbt 2	—	2927	2927	—	—	—	2927	2927	—	2929	—	2929	2929	2929
0121-97-0167	21-05061	2/26/1997	10–10.5	Qbt 3	—	—	2933	—	—	—	2933	2933	—	2934	—	2934	2934	2934
0121-97-0168	21-05061	2/26/1997	22–22.5	Qbt 3	—	—	2933	—	—	—	2933	2933	—	2934	—	2934	2934	2934
0121-97-0169	21-05061	2/27/1997	30–30.5	Qbt 3	—	—	2938	—	—	—	2938	2938	—	2940	—	2940	2940	2940
0121-97-0170	21-05061	2/27/1997	40–40.5	Qbt 3	—	—	2938	—	—	—	2938	2938	—	2940	—	2940	2940	2940
0121-97-0171	21-05061	2/27/1997	49–49.5	Qbt 3	—	—	2938	—	—	—	2938	2938	—	2940	—	2940	2940	2940
0121-97-0172	21-05061	2/27/1997	59.5–60	Qbt 3	—	—	2947	—	—	—	2947	2947	—	2948	—	2948	2948	2948
0121-97-0173	21-05061	2/27/1997	69.5–70	Qbt 3	—	—	2947	—	—	—	2947	2947	—	2948	—	2948	2948	2948
0121-97-0174	21-05061	3/3/1997	78.5–78.8	Qbt 3	—	—	2947	—	—	—	2947	2947	—	2948	—	2948	2948	2948
0121-97-0175	21-05061	3/3/1997	89.5–90	Qbt 3	—	—	2947	—	—	—	2947	2947	—	2948	—	2948	2948	2948
0121-97-0176	21-05061	3/3/1997	98.7–99.2	Qbt 2	—	—	2947	—	—	—	2947	2947	—	2948	—	2948	2948	2948
0121-97-0177	21-05061	3/4/1997	108.5–109	Qbt 2	—	2953	2953	—	—	—	2953	2953	—	2954	—	2954	2954	2954
0121-97-0178	21-05061	3/4/1997	118–118.5	Qbt 2	—	2953	2953	—	—	—	2953	2953	—	2954	—	2954	2954	2954
0121-97-0179	21-05061	3/4/1997	128.5–129	Qbt 2	—	2953	2953	—	—	—	2953	2953	—	2954	—	2954	2954	2954
0121-97-0180	21-05061	3/5/1997	140–140.5	Qbt 2	—	2953	2953	—	—	—	2953	2953	—	2954	—	2954	2954	2954
0121-97-0181	21-05061	3/5/1997	152.5–153	Qbt 2	—	2951	2951	—	—	—	2951	2951	—	2952	—	2952	2952	2952
0121-97-0182	21-05061	3/5/1997	160–160.5	Qbt 2	—	2951	2951	—	—	—	2951	2951	—	2952	—	2952	2952	2952
0121-97-0183	21-05061	3/5/1997	170–170.5	Qbt 1v	—	2951	2951	—	—	—	2951	2951	—	2952	—	2952	2952	2952
0121-97-0184	21-05061	3/6/1997	180–180.5	Qbt 1v	—	2951	2951	—	—	—	2951	2951	—	2952	—	2952	2952	2952
0121-97-0185	21-05061	3/6/1997	189.5–190	Qbt 1v	—	2951	2951	—	—	—	2951	2951	—	2952	—	2952	2952	2952
0121-97-1131	21-05075	3/10/1997	6.7–7.2	Qbt 3	—	—	2956	—	—	—	2956	2956	—	2957	—	2957	2957	2957
0121-97-1132	21-05075	3/10/1997	8.8–9.3	Qbt 3	—	—	2956	—	—	—	2956	2956	—	2957	—	2957	2957	2957
0121-97-1133	21-05075	3/10/1997	15.5–16	Qbt 3	—	—	2956	—	—	—	2956	2956	—	2957	—	2957	2957	2957
0121-97-1134	21-05075	3/10/1997	20–21	Qbt 3	—	—	2956	—	—	—	2956	2956	—	2957	—	2957	2957	2957
0121-97-1135	21-05075	3/10/1997	29.5–30	Qbt 3	—	—	2956	—	—	—	2956	2956	—	2957	—	2957	2957	2957
0121-97-1136	21-05075	3/11/1997	38.8–39.3	Qbt 3	—	—	2962	—	—	—	2962	2962	—	2963	—	2963	2963	2963
0121-97-1137	21-05075	3/11/1997	45–46	Qbt 3	—	—	2962	—	—	—	2962	2962	—	2963	—	2963	2963	2963
0121-97-1138	21-05075	3/11/1997	58–58.5	Qbt 3	—	—	2962	—	—	—	2962	2962	—	2963	—	2963	2963	2963

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
0121-97-1139	21-05075	3/11/1997	69.5–70	Qbt 3	—	—	2962	—	—	—	2962	2962	—	2963	—	2963	2963	2963
0121-97-1166	21-05071	3/13/1997	42–42.5	Qbt 3	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1167	21-05071	3/13/1997	50.5–51	Qbt 3	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1168	21-05071	3/13/1997	61–61.5	Qbt 3	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1169	21-05071	3/13/1997	70–70.5	Qbt 3	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1170	21-05071	3/13/1997	80–80.5	Qbt 3	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1171	21-05071	3/13/1997	90–90.5	Qbt 3	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1172	21-05071	3/13/1997	97–97.5	Qbt 3	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1173	21-05071	3/13/1997	100–100.5	Qbt 3	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1174	21-05071	3/13/1997	104.2–105	Qbt 2	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1175	21-05071	3/13/1997	109.5–110	Qbt 2	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1176	21-05071	3/17/1997	118.5–119.5	Qbt 2	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1177	21-05071	3/17/1997	129.5–130	Qbt 2	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1178	21-05071	3/17/1997	140–141	Qbt 2	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1179	21-05071	3/17/1997	149–149.5	Qbt 2	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1180	21-05071	3/17/1997	159.5–160	Qbt 2	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1181	21-05071	3/18/1997	170–171	Qbt 2	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1182	21-05071	3/18/1997	180–181	Qbt 1v	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1183	21-05071	3/18/1997	190–191	Qbt 1v	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-1184	21-05071	3/18/1997	197–198	Qbt 1v	—	—	—	—	—	—	—	—	—	2967	—	2967	—	—
0121-97-0030	21-05052	3/24/1997	39.5–40	Qbt 3	—	—	3004R	—	—	—	3004R	3004R	—	3006R	—	3006R	—	—
0121-97-0031	21-05052	3/25/1997	49.5–50	Qbt 3	—	—	3004R	—	—	—	3004R	3004R	—	3006R	—	3006R	—	—
0121-97-0221	21-05063	3/25/1997	4.5–5	Qbt 3	—	—	3013R	—	—	—	3013R	3013R	—	3014R	—	3014R	—	—
0121-97-0222	21-05063	3/25/1997	7.5–8.3	Qbt 3	—	—	3013R	—	—	—	3013R	3013R	—	3014R	—	3014R	—	—
0121-97-0223	21-05063	3/25/1997	10–11.6	Qbt 3	—	—	3013R	—	—	—	3013R	3013R	—	3014R	—	3014R	—	—
0121-97-0224	21-05063	3/25/1997	20–20.5	Qbt 3	—	—	3013R	—	—	—	3013R	3013R	—	3014R	—	3014R	—	—
0121-97-0225	21-05063	3/25/1997	30.5–31.3	Qbt 3	—	—	3013R	—	—	—	3013R	3013R	—	3014R	—	3014R	—	—
0121-97-0226	21-05063	3/25/1997	41–42	Qbt 3	—	—	3013R	—	—	—	3013R	3013R	—	3014R	—	3014R	—	—
0121-97-0227	21-05063	3/25/1997	49–50	Qbt 3	—	—	3013R	—	—	—	3013R	3013R	—	3014R	—	3014R	—	—

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
0121-97-0228	21-05063	3/25/1997	59.5–60	Qbt 3	—	—	—	—	—	—	—	—	—	3014R	—	3014R	—	—
0121-97-0229	21-05063	3/27/1997	69.5–70	Qbt 3	—	—	—	—	—	—	—	—	—	3014R	—	3014R	—	—
0121-97-0230	21-05063	3/27/1997	78–78.5	Qbt 3	—	—	—	—	—	—	—	—	—	3014R	—	3014R	—	—
0121-97-0231	21-05063	3/27/1997	89.5–90	Qbt 3	—	—	—	—	—	—	—	—	—	3014R	—	3014R	—	—
0121-97-0232	21-05063	3/27/1997	99.5–100	Qbt 3	—	—	—	—	—	—	—	—	—	3014R	—	3014R	—	—
0121-97-0233	21-05063	3/27/1997	110–110.5	Qbt 2	—	—	—	—	—	—	—	—	—	3014R	—	3014R	—	—
0121-97-0032	21-05052	3/31/1997	59.5–60	Qbt 3	—	—	3026R	—	—	—	3026R	3026R	—	3028R	—	3028R	—	—
0121-97-0033	21-05052	3/31/1997	70–71	Qbt 3	—	—	3026R	—	—	—	3026R	3026R	—	3028R	—	3028R	—	—
0121-97-0034	21-05052	3/31/1997	79.5–80	Qbt 3	—	—	3026R	—	—	—	3026R	3026R	—	3028R	—	3028R	—	—
0121-97-0035	21-05052	3/31/1997	87–88	Qbt 3	—	—	3026R	—	—	—	3026R	3026R	—	3028R	—	3028R	—	—
0121-97-0036	21-05052	3/31/1997	96–96.5	Qbt 3	—	—	3026R	—	—	—	3026R	3026R	—	3028R	—	3028R	—	—
0121-97-0037	21-05052	3/31/1997	109–110	Qbt 2	—	—	3026R	—	—	—	3026R	3026R	—	3028R	—	3028R	—	—
0121-97-0038	21-05052	3/31/1997	119–120	Qbt 2	—	—	3026R	—	—	—	3026R	3026R	—	3028R	—	3028R	—	—
0121-97-0039	21-05052	4/1/1997	130–131	Qbt 2	—	—	3026R	—	—	—	3026R	3026R	—	3028R	—	3028R	—	—
0121-97-0040	21-05052	4/1/1997	139–140	Qbt 2	—	—	3026R	—	—	—	3026R	3026R	—	3028R	—	3028R	—	—
0121-97-0041	21-05052	4/1/1997	149–150	Qbt 2	—	—	3026R	—	—	—	3026R	3026R	—	3028R	—	3028R	—	—
MD21-06-65890	21-25366	11/30/2005	25–27.9	Qbt 3	4148S	—	4148S	4148S	4148S	—	4148S	4148S	4148S	4148S	4148S	4148S	4148S	4148S
MD21-06-65883	21-25365	11/30/2005	27–30	Qbt 3	4148S	—	4148S	4148S	4148S	—	4148S	4148S	4148S	4148S	4148S	4148S	4148S	4148S
MD21-06-65818	21-25360	12/1/2005	11–11.5	Qbt 3	—	—	—	—	—	4153S	—	—	—	—	—	—	—	—
MD21-06-65810	21-25360	12/1/2005	38–40	Qbt 3	4152S	—	4152S	4151S	4152S	—	4151S	4151S	4154S	4154S	4154S	4154S	4154S	4154S
MD21-06-65803	21-25359	12/5/2005	21–22	Qbt 3	4158S	—	4158S	4157S	4158S	—	4157S	4157S	4159S	4159S	4159S	4159S	4159S	4159S
MD21-06-65804	21-25359	12/5/2005	38–40	Qbt 3	4158S	—	4158S	4157S	4158S	—	4157S	4157S	4159S	4159S	4159S	4159S	4159S	4159S
MD21-06-65769	21-25355	12/6/2005	17.5–20	Qbt 3	4162S	—	4162S	4160S	4162S	—	4160S	4160S	4163S	4163S	4163S	4163S	4163S	4163S
MD21-06-65770	21-25355	12/6/2005	38–40	Qbt 3	4162S	—	4162S	4160S	4162S	—	4160S	4160S	4163S	4163S	4163S	4163S	4163S	4163S
MD21-06-65773	21-25355	12/6/2005	5.8–6	Qbt 3	—	—	—	—	—	4161S	—	—	—	—	—	—	—	—
MD21-06-65777	21-25356	12/7/2005	27.5–28.5	Qbt 3	4172S	—	4172S	4170S	4172S	—	4170S	4170S	4173S	4173S	4173S	4173S	4173S	4173S
MD21-06-65778	21-25356	12/7/2005	38–40	Qbt 3	4172S	—	4172S	4170S	4172S	—	4170S	4170S	4173S	4173S	4173S	4173S	4173S	4173S
MD21-06-65794	21-25358	12/7/2005	38–40	Qbt 3	4172S	—	4172S	4170S	4172S	—	4170S	4170S	4173S	4173S	4173S	4173S	4173S	4173S
MD21-06-65785	21-25357	12/8/2005	38–40	Qbt 3	4179S	—	4179S	4178S	4179S	—	4178S	4178S	4180S	4180S	4180S	4180S	4180S	4180S

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
MD21-06-63897	21-25262	12/12/2005	22–23.5	Qbt 3	4198S	—	4198S	4197S	4198S	—	4197S	4197S	4199S	4199S	4199S	4199S	4199S	4199S
MD21-06-63898	21-25262	12/12/2005	75–77	Qbt 3	4198S	—	4198S	4197S	4198S	—	4197S	4197S	4199S	4199S	4199S	4199S	4199S	4199S
MD21-06-63899	21-25262	12/13/2005	110–113	Qbt 2	4198S	—	4198S	4197S	4198S	—	4197S	4197S	4199S	4199S	4199S	4199S	4199S	4199S
MD21-06-63900	21-25262	12/14/2005	116–118	Qbt 2	4217S	—	4217S	4216S	4217S	—	4216S	4216S	4218S	4218S	4218S	4218S	4218S	4218S
MD21-06-63901	21-25262	12/15/2005	141.9–143.4	Qbt 2	4217S	—	4217S	4216S	4217S	—	4216S	4216S	4218S	4218S	4218S	4218S	4218S	4218S
MD21-06-63902	21-25262	12/16/2005	170–172	Qbt 1v	4223S	—	4223S	4222S	4223S	—	4222S	4222S	4224S	4224S	4224S	4224S	4224S	4224S
MD21-06-63903	21-25262	12/19/2005	235–238	Qbt 1v	4231S	—	4231S	4230S	4231S	—	4230S	4230S	4232S	4232S	4232S	4232S	4232S	4232S
MD21-06-63904	21-25262	12/20/2005	251–253	Qbt 1g	4246S	—	4246S	4245S	4246S	—	4245S	4245S	4247S	4247S	4247S	4247S	4247S	4247S
MD21-06-63905	21-25262	1/3/2006	333–335	Qct	4264S	—	4264S	4263S	4264S	—	4263S	4263S	4265S	4265S	4265S	4265S	4265S	4265S
MD21-06-63906	21-25262	1/4/2006	373–375	Qct	4276S	—	4276S	4275S	4276S	—	4275S	4275S	4277S	4277S	4277S	4277S	4277S	4277S
MD21-06-63907	21-25262	1/5/2006	378–380	Qbo	4276S	—	4276S	4275S	4276S	—	4275S	4275S	4277S	4277S	4277S	4277S	4277S	4277S
MD21-06-66187	21-25390	1/10/2006	30–31	Qbt 3	4325S	—	4325S	4326S	4325S	—	4326S	4326S	4324S	4324S	4324S	4324S	4324S	4324S
MD21-06-66188	21-25390	1/10/2006	32.5–33.5	Qbt 3	4325S	—	4325S	4326S	4325S	—	4326S	4326S	4324S	4324S	4324S	4324S	4324S	4324S
MD21-06-66189	21-25390	1/10/2006	74–75	Qbt 3	4325S	—	4325S	4326S	4325S	—	4326S	4326S	4324S	4324S	4324S	4324S	4324S	4324S
MD21-06-66190	21-25390	1/10/2006	97–100	Qbt 3	4325S	—	4325S	4326S	4325S	—	4326S	4326S	4324S	4324S	4324S	4324S	4324S	4324S
MD21-06-65985	21-25375	1/11/2006	29–30	Qbt 3	4327S	—	4327S	4328S	4327S	—	4328S	4328S	4327S	4327S	4327S	4327S	4327S	4327S
MD21-06-65986	21-25375	1/11/2006	32–33	Qbt 3	4327S	—	4327S	4328S	4327S	—	4328S	4328S	4327S	4327S	4327S	4327S	4327S	4327S
MD21-06-65987	21-25375	1/11/2006	57–58	Qbt 3	4327S	—	4327S	4328S	4327S	—	4328S	4328S	4327S	4327S	4327S	4327S	4327S	4327S
MD21-06-65988	21-25375	1/12/2006	80–83	Qbt 3	4376S	—	4376S	4375S	4376S	—	4375S	4375S	4377S	4377S	4377S	4377S	4377S	4377S
MD21-06-65989	21-25375	1/17/2006	190–192	Qbt 1v	4399S	—	4399S	4398S	4399S	—	4398S	4398S	4400S	4400S	4400S	4400S	4400S	4400S
MD21-06-65990	21-25375	1/18/2006	253–255	Qbt 1g	4399S	—	4399S	4398S	4399S	—	4398S	4398S	4400S	4400S	4400S	4400S	4400S	4400S
MD21-06-65991	21-25375	1/19/2006	277–280	Qbt 1g	4399S	—	4399S	4398S	4399S	—	4398S	4398S	4400S	4400S	4400S	4400S	4400S	4400S
MD21-06-63973	21-25264	1/24/2006	30–31.5	Qbt 3	4443S	—	4443S	4442S	4443S	—	4442S	4442S	4444S	4444S	4444S	4444S	4444S	4444S
MD21-06-63974	21-25264	1/24/2006	60–63	Qbt 3	4443S	—	4443S	4442S	4443S	—	4442S	4442S	4444S	4444S	4444S	4444S	4444S	4444S
MD21-06-63975	21-25264	1/26/2006	114–117	Qbt 2	4473S	—	4473S	4472S	4473S	—	4472S	4472S	4474S	4474S	4474S	4474S	4474S	4474S
MD21-06-63976	21-25264	1/27/2006	149–150.5	Qbt 2	4473S	—	4473S	4472S	4473S	—	4472S	4472S	4474S	4474S	4474S	4474S	4474S	4474S
MD21-06-63977	21-25264	1/27/2006	152.5–154	Qbt 2	4473S	—	4473S	4472S	4473S	—	4472S	4472S	4474S	4474S	4474S	4474S	4474S	4474S
MD21-06-66136	21-25384	1/27/2006	56.5–58.5	Qbt 3	4470S	—	4470S	4469S	4470S	—	4469S	4469S	4471S	4471S	4471S	4471S	4471S	4471S
MD21-06-66137	21-25384	1/27/2006	67–69.3	Qbt 3	4470S	—	4470S	4469S	4470S	—	4469S	4469S	4471S	4471S	4471S	4471S	4471S	4471S

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
MD21-06-66138	21-25384	1/27/2006	92–95	Qbt 3	4470S	—	4470S	4469S	4470S	—	4469S	4469S	4471S	4471S	4471S	4471S	4471S	4471S
MD21-06-63978	21-25264	1/30/2006	196–199	Qbt 1v	4490S	—	4490S	4489S	4490S	—	4489S	4489S	4491S	4491S	4491S	4491S	4491S	4491S
MD21-06-66169	21-25388	1/30/2006	12.5–15	Qbt 3	4487S	—	4487S	4486S	4487S	—	4486S	4486S	4488S	4488S	4488S	4488S	4488S	4488S
MD21-06-66170	21-25388	1/30/2006	45–47.8	Qbt 3	4487S	—	4487S	4486S	4487S	—	4486S	4486S	4488S	4488S	4488S	4488S	4488S	4488S
MD21-06-66171	21-25388	1/30/2006	55–58	Qbt 3	4487S	—	4487S	4486S	4487S	—	4486S	4486S	4488S	4488S	4488S	4488S	4488S	4488S
MD21-06-66168	21-25388	1/30/2006	5–7.5	Qbt 3	4487S	—	4487S	4486S	4487S	—	4486S	4486S	4488S	4488S	4488S	4488S	4488S	4488S
MD21-06-66172	21-25388	1/30/2006	96–100	Qbt 3	4487S	—	4487S	4486S	4487S	—	4486S	4486S	4488S	4488S	4488S	4488S	4488S	4488S
MD21-06-63979	21-25264	1/31/2006	257–259	Qbt 1g	4508S	—	4508S	4509S	4508S	—	4509S	4509S	4508S	4508S	4508S	4508S	4508S	4508S
MD21-06-66178	21-25389	1/31/2006	20–22.5	Qbt 3	4505S	—	4505S	4506S	4505S	—	4506S	4506S	4505S	4505S	4505S	4505S	4505S	4505S
MD21-06-66183	21-25389	1/31/2006	20–22.5	Qbt 3	—	—	—	—	—	4507S	—	—	—	—	—	—	—	—
MD21-06-66179	21-25389	1/31/2006	46–48	Qbt 3	4505S	—	4505S	4506S	4505S	—	4506S	4506S	4505S	4505S	4505S	4505S	4505S	4505S
MD21-06-66180	21-25389	1/31/2006	61–63	Qbt 3	4505S	—	4505S	4506S	4505S	—	4506S	4506S	4505S	4505S	4505S	4505S	4505S	4505S
MD21-06-63980	21-25264	2/1/2006	301–304	Qbt 1g	4508S	—	4508S	4509S	4508S	—	4509S	4509S	4508S	4508S	4508S	4508S	4508S	4508S
MD21-06-66181	21-25389	2/2/2006	100–103	Qbt 3	4536S	—	4536S	4535S	4536S	—	4535S	4535S	4536S	4536S	4536S	4536S	4536S	4536S
MD21-06-63981	21-25264	2/2/2006	325.8–327	Qct	4534S	—	4534S	4533S	4534S	—	4533S	4533S	4534S	4534S	4534S	4534S	4534S	4534S
MD21-06-63982	21-25264	2/2/2006	351–354	Qct	4534S	—	4534S	4533S	4534S	—	4533S	4533S	4534S	4534S	4534S	4534S	4534S	4534S
MD21-06-65956	21-25373	2/7/2006	32–34	Qbt 3	4558S	—	4558S	4557S	4558S	—	4557S	4557S	4559S	4559S	4559S	4559S	4559S	4559S
MD21-06-65957	21-25373	2/7/2006	36–38	Qbt 3	4558S	—	4558S	4557S	4558S	—	4557S	4557S	4559S	4559S	4559S	4559S	4559S	4559S
MD21-06-65958	21-25373	2/7/2006	52.5–54	Qbt 3	4558S	—	4558S	4557S	4558S	—	4557S	4557S	4559S	4559S	4559S	4559S	4559S	4559S
MD21-06-65959	21-25373	2/7/2006	66–69	Qbt 3	4558S	—	4558S	4557S	4558S	—	4557S	4557S	4559S	4559S	4559S	4559S	4559S	4559S
MD21-06-65960	21-25373	2/8/2006	99–101	Qbt 2	4558S	—	4558S	4557S	4558S	—	4557S	4557S	4559S	4559S	4559S	4559S	4559S	4559S
MD21-06-65961	21-25373	2/13/2006	139–141	Qbt 2	4600S	—	4600S	4599S	4600S	—	4599S	4599S	4601S	4601S	4601S	4601S	4601S	4601S
MD21-06-65962	21-25373	2/14/2006	211–213	Qbt 1v	4600S	—	4600S	4599S	4600S	—	4599S	4599S	4601S	4601S	4601S	4601S	4601S	4601S
MD21-06-65963	21-25373	2/17/2006	276–279	Qbt 1g	4620S	—	4620S	4619S	4620S	—	4619S	4619S	4621S	4621S	4621S	4621S	4621S	4621S
MD21-06-66127	21-25383	2/21/2006	36–38	Qbt 3	4617S	—	4617S	4616S	4617S	—	4616S	4616S	4618S	4618S	4618S	4618S	4618S	4618S
MD21-06-66128	21-25383	2/21/2006	40–42	Qbt 3	4617S	—	4617S	4616S	4617S	—	4616S	4616S	4618S	4618S	4618S	4618S	4618S	4618S
MD21-06-66129	21-25383	2/21/2006	97–100	Qbt 3	4617S	—	4617S	4616S	4617S	—	4616S	4616S	4618S	4618S	4618S	4618S	4618S	4618S
MD21-06-66122	21-25382	2/23/2006	11.5–12	Qbt 3	—	—	—	—	—	4651S	—	—	—	—	—	—	—	—
MD21-06-66119	21-25382	2/23/2006	23.6–25	Qbt 3	4653S	—	4653S	4652S	4653S	—	4652S	4652S	4654S	4654S	4654S	4654S	4654S	4654S

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
MD21-06-66120	21-25382	2/23/2006	48.5–50	Qbt 3	4653S	—	4653S	4652S	4653S	—	4652S	4652S	4654S	4654S	4654S	4654S	4654S	4654S
MD21-06-66121	21-25382	2/23/2006	97–100	Qbt 3	4653S	—	4653S	4652S	4653S	—	4652S	4652S	4654S	4654S	4654S	4654S	4654S	4654S
MD21-06-65920	21-25369	2/28/2006	25–27.9	Qbt 3	4689S	—	4689S	4690S	4689S	—	4690S	4690S	4688S	4688S	4688S	4688S	4688S	4688S
MD21-06-65913	21-25368	2/28/2006	26–29	Qbt 3	4689S	—	4689S	4690S	4689S	—	4690S	4690S	4688S	4688S	4688S	4688S	4688S	4688S
MD21-06-65927	21-25370	2/28/2006	27–30	Qbt 3	4689S	—	4689S	4690S	4689S	—	4690S	4690S	4688S	4688S	4688S	4688S	4688S	4688S
MD21-06-65934	21-25371	3/1/2006	27–30	Qbt 3	4689S	—	4689S	4690S	4689S	—	4690S	4690S	4688S	4688S	4688S	4688S	4688S	4688S
MD21-06-66106	21-25380	3/3/2006	10–11	Qbt 3	—	—	—	—	—	4716S	—	—	—	—	—	—	—	—
MD21-06-66102	21-25380	3/3/2006	17–19	Qbt 3	4718S	—	4718S	4717S	4718S	—	4717S	4717S	4719S	4719S	4719S	4719S	4719S	4719S
MD21-06-66103	21-25380	3/3/2006	40–42	Qbt 3	4718S	—	4718S	4717S	4718S	—	4717S	4717S	4719S	4719S	4719S	4719S	4719S	4719S
MD21-06-66104	21-25380	3/6/2006	80–82	Qbt 3	4718S	—	4718S	4717S	4718S	—	4717S	4717S	4719S	4719S	4719S	4719S	4719S	4719S
MD21-06-66105	21-25380	3/6/2006	97–100	Qbt 3	4718S	—	4718S	4717S	4718S	—	4717S	4717S	4719S	4719S	4719S	4719S	4719S	4719S
MD21-06-66114	21-25381	3/7/2006	10–11	Qbt 3	—	—	—	—	—	4731S	—	—	—	—	—	—	—	—
MD21-06-66110	21-25381	3/7/2006	17.5–19.5	Qbt 3	4721S	—	4721S	4720S	4721S	—	4720S	4720S	4722S	4722S	4722S	4722S	4722S	4722S
MD21-06-66111	21-25381	3/7/2006	73–75	Qbt 3	4721S	—	4721S	4720S	4721S	—	4720S	4720S	4722S	4722S	4722S	4722S	4722S	4722S
MD21-06-66112	21-25381	3/7/2006	97–100	Qbt 3	4721S	—	4721S	4720S	4721S	—	4720S	4720S	4722S	4722S	4722S	4722S	4722S	4722S
MD21-06-65851	21-25363	3/8/2006	18–20	Qbt 3	4733S	—	4733S	4732S	4733S	—	4732S	4732S	4734S	4734S	4734S	4734S	4734S	4734S
MD21-06-65823	21-25361	3/9/2006	5–6	Qbt 3	—	—	—	—	—	4727S	—	—	—	—	—	—	—	—
MD21-06-65847	21-25362	3/9/2006	8–9	Qbt 3	—	—	—	—	—	4727S	—	—	—	—	—	—	—	—
MD21-06-65821	21-25361	3/9/2006	11.5–13	Qbt 3	4733S	—	4733S	4732S	4733S	—	4732S	4732S	4734S	4734S	4734S	4734S	4734S	4734S
MD21-06-65843	21-25362	3/9/2006	22.5–24	Qbt 3	4733S	—	4733S	4732S	4733S	—	4732S	4732S	4734S	4734S	4734S	4734S	4734S	4734S
MD21-06-65822	21-25361	3/9/2006	36–39	Qbt 3	4733S	—	4733S	4732S	4733S	—	4732S	4732S	4734S	4734S	4734S	4734S	4734S	4734S
MD21-06-65844	21-25362	3/9/2006	37–39	Qbt 3	4733S	—	4733S	4732S	4733S	—	4732S	4732S	4734S	4734S	4734S	4734S	4734S	4734S
MD21-06-65852	21-25363	3/9/2006	37–40	Qbt 3	4733S	—	4733S	4732S	4733S	—	4732S	4732S	4734S	4734S	4734S	4734S	4734S	4734S
MD21-06-65951	21-25372	3/14/2006	6–7	Qbt 3	—	—	—	—	—	4755S	—	—	—	—	—	—	—	—
MD21-06-66009	21-25376	3/14/2006	8.6–9.6	Qbt 3	—	—	—	—	—	4756S	—	—	—	—	—	—	—	—
MD21-06-63935	21-25263	3/15/2006	40–42	Qbt 3	4796S	—	4796S	4795S	4796S	—	4795S	4795S	4797S	4797S	4797S	4797S	4797S	4797S
MD21-06-63936	21-25263	3/16/2006	70–73	Qbt 3	4796S	—	4796S	4795S	4796S	—	4795S	4795S	4797S	4797S	4797S	4797S	4797S	4797S
MD21-06-63937	21-25263	3/16/2006	80–82	Qbt 3	4796S	—	4796S	4795S	4796S	—	4795S	4795S	4797S	4797S	4797S	4797S	4797S	4797S
MD21-06-63938	21-25263	3/21/2006	125–127	Qbt 2	4865S	—	4865S	4864S	4865S	—	4864S	4864S	4866S	4866S	4866S	4866S	4866S	4866S

Table 4.2-1 (continued)

Sample ID	Location ID	Collection Date	Depth (ft)	Media	Anions	Cyanide	Metals	Perchlorate	Uranium	Dioxin Furan	SVOCs	VOCs	Americium-241	Gamma Spectroscopy	Tritium	Isotopic Plutonium	Isotopic Uranium	Strontium-90
MD21-06-63939	21-25263	3/23/2006	165–167	Qbt 2	4865S	—	4865S	4864S	4865S	—	4864S	4864S	4866S	4866S	4866S	4866S	4866S	4866S
MD21-06-63940	21-25263	3/24/2006	215–217	Qbt 1v	4876S	—	4876S	4875S	4876S	—	4875S	4875S	4877S	4877S	4877S	4877S	4877S	4877S
MD21-06-63941	21-25263	4/4/2006	269–271	Qbt 1g	4979S	—	4979S	4978S	4979S	—	4978S	4978S	4980S	4980S	4980S	4980S	4980S	4980S
MD21-06-63944	21-25263	4/6/2006	351–354	Qbo	4979S	—	4979S	4978S	4979S	—	4978S	4978S	4980S	4980S	4980S	4980S	4980S	4980S
MD21-06-63942	21-25263	4/6/2006	330–332	QBTT	4979S	—	4979S	4978S	4979S	—	4978S	4978S	4980S	4980S	4980S	4980S	4980S	4980S
MD21-06-63943	21-25263	4/6/2006	340–342	Qct	4979S	—	4979S	4978S	4979S	—	4978S	4978S	4980S	4980S	4980S	4980S	4980S	4980S
MD21-06-66000	21-25376	4/11/2006	28–29.5	Qbt 3	5020S	—	5020S	5019S	5020S	—	5019S	5019S	5021S	5021S	5021S	5021S	5021S	5021S
MD21-06-66001	21-25376	4/11/2006	31.5–33	Qbt 3	5020S	—	5020S	5019S	5020S	—	5019S	5019S	5021S	5021S	5021S	5021S	5021S	5021S
MD21-06-66002	21-25376	4/11/2006	70–72	Qbt 3	5020S	—	5020S	5019S	5020S	—	5019S	5019S	5021S	5021S	5021S	5021S	5021S	5021S
MD21-06-66003	21-25376	4/12/2006	108.5–110.9	Qbt 2	5020S	—	5020S	5019S	5020S	—	5019S	5019S	5021S	5021S	5021S	5021S	5021S	5021S
MD21-06-66004	21-25376	4/12/2006	148–151	Qbt 2	5030S	—	5030S	5029S	5030S	—	5029S	5029S	5031S	5031S	5031S	5031S	5031S	5031S
MD21-06-66006	21-25376	4/13/2006	238–240	Qbt 1g	5030S	—	5030S	5029S	5030S	—	5029S	5029S	5031S	5031S	5031S	5031S	5031S	5031S
MD21-06-66005	21-25376	4/13/2006	198–200	Qbt 1v	5030S	—	5030S	5029S	5030S	—	5029S	5029S	5031S	5031S	5031S	5031S	5031S	5031S
MD21-06-66007	21-25376	4/14/2006	280–283	Qbt 1g	5033S	—	5033S	5032S	5033S	—	5032S	5032S	5034S	5034S	5034S	5034S	5034S	5034S
MD21-06-65944	21-25372	4/18/2006	101.5–103.5	Qbt 2	5049S	—	5049S	5050S	5049S	—	5050S	5050S	5049S	5049S	5049S	5049S	5049S	5049S
MD21-06-65942	21-25372	4/18/2006	50–52	Qbt 3	5049S	—	5049S	5050S	5049S	—	5050S	5050S	5049S	5049S	5049S	5049S	5049S	5049S
MD21-06-65943	21-25372	4/18/2006	75–77	Qbt 3	5049S	—	5049S	5050S	5049S	—	5050S	5050S	5049S	5049S	5049S	5049S	5049S	5049S
MD21-06-65945	21-25372	4/19/2006	181–183	Qbt 1v	5049S	—	5049S	5050S	5049S	—	5050S	5050S	5049S	5049S	5049S	5049S	5049S	5049S
MD21-06-65946	21-25372	4/20/2006	229–231	Qbt 1g	5060S	—	5060S	5059S	5060S	—	5059S	5059S	5061S	5061S	5061S	5061S	5061S	5061S
MD21-06-65947	21-25372	4/20/2006	276–279	Qbt 1g	5060S	—	5060S	5059S	5060S	—	5059S	5059S	5061S	5061S	5061S	5061S	5061S	5061S
MD21-06-65974	21-25374	6/7/2006	109–111	Qbt 2	5402S	—	5402S	5401S	—	—	5401S	5401S	5403S	5403S	—	5403S	5403S	5403S
MD21-06-65973	21-25374	6/7/2006	27–29	Qbt 3	5402S	—	5402S	5401S	—	—	5401S	5401S	5403S	5403S	—	5403S	5403S	5403S
MD21-06-65975	21-25374	6/8/2006	174–176	Qbt 1v	5413S	—	5413S	5412S	—	—	5412S	5412S	5414S	5414S	—	5414S	5414S	5414S
MD21-06-65976	21-25374	6/9/2006	234–236	Qbt 1g	5413S	—	5413S	5412S	—	—	5412S	5412S	5414S	5414S	—	5414S	5414S	5414S
MD21-06-65977	21-25374	6/12/2006	276–279	Qbt 1g	5438S	—	5438S	5437S	—	—	5437S	5437S	5439S	5439S	—	5439S	5439S	5439S

Table 4.3-1
Borehole Location IDs and Depths for 2005–2006 Investigation

Borehole Location ID	Total Depth (ft bgs)
21-25262	380
21-25263	354
21-25264	354
21-25372	279
21-25373	279
21-25374	279
21-25375	280
21-25376	283
21-25380	100
21-25381	100
21-25382	100
21-25383	100
21-25384	100
21-25388	100
21-25389	103
21-25355	40
21-25356	40
21-25357	40
21-25390	100
21-25364	30
21-25365	30
21-25366	27
21-25368	29
21-25369	29
21-25370	30
21-25371	30
21-25358	40
21-25359	40
21-25360	40
21-25361	39
21-25362	39
21-25363	40

Table 4.3-2
Summary of 2005–2006 Fracture Samples Collected

Sample ID	Borehole Location ID	Depth of Sample Collection (ft bgs)	Formation at Sample Collection
MD21-06-63897	21-25262	22.0–23.5	Qbt 3
MD21-06-63901	21-25262	141.9–143.4	Qbt 2
MD21-06-64120	21-25264	144.0–145.0	Qbt 2
MD21-06-65769	21-25355	17.5–20.0	Qbt 3
MD21-06-65777	21-25356	27.5–28.5	Qbt 3
MD21-06-65803	21-25359	21.0–22.0	Qbt 3
MD21-06-65956	21-25373	32.0–34.0	Qbt 3
MD21-06-65957	21-25373	36.0–38.0	Qbt 3
MD21-06-65958	21-25373	52.5–54.0	Qbt 3
MD21-06-65961	21-25373	139.0–141.0	Qbt 2
MD21-06-65962	21-25373	211.0–213.0	Qbt 1V
MD21-06-65985	21-25375	29.0–30.0	Qbt 3
MD21-06-65986	21-25375	32.0–33.0	Qbt 3
MD21-06-66000	21-25376	28.0–29.5	Qbt 3
MD21-06-66001	21-25376	31.5–33.0	Qbt 3
MD21-06-66110	21-25381	17.5–19.5	Qbt 3
MD21-06-66119	21-25382	23.6–25.0	Qbt 3
MD21-06-66120	21-25382	48.5–50.0	Qbt 3
MD21-06-66127	21-25383	36.0–38.0	Qbt 3
MD21-06-66128	21-25383	40.0–42.0	Qbt 3
MD21-06-66137	21-25384	67.0–69.3	Qbt 3
MD21-06-66168	21-25388	5.0–7.5	Qbt 3
MD21-06-66169	21-25388	12.5–15.0	Qbt 3
MD21-06-66170	21-25388	45.0–47.8	Qbt 3
MD21-06-66171	21-25388	55.0–58.0	Qbt 3
MD21-06-66187	21-25390	30.0–31.0	Qbt 3
MD21-06-66188	21-25390	32.5–33.5	Qbt 3
MD21-06-66168	21-25388	5.0–7.5	Qbt 3

Table 4.3-3
Gravimetric Moisture Content[a] at Locations 21-25262, 21-25263, and 21-25264

Sample ID	Location ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Water Content (%)	Geologic Unit
MD21-06-64011	21-25262	15	16	4.82	Qbt 3
MD21-06-64012	21-25262	20	21	5.08	Qbt 3
MD21-06-64013	21-25262	25	26	5.06	Qbt 3
MD21-06-64014	21-25262	30	31	5.23	Qbt 3
MD21-06-64015	21-25262	35	36	6.17	Qbt 3
MD21-06-64016	21-25262	40	41	5.57	Qbt 3
MD21-06-64017	21-25262	45	46	5.44	Qbt 3
MD21-06-64018	21-25262	50	51	6.30	Qbt 3
MD21-06-64019	21-25262	55	56	5.44	Qbt 3
MD21-06-64020	21-25262	60	61	7.48	Qbt 3
MD21-06-64021	21-25262	65	66	9.53	Qbt 3
MD21-06-64022	21-25262	70	71	6.33	Qbt 3
MD21-06-64023	21-25262	75	76	5.78	Qbt 3
MD21-06-64024	21-25262	80	81	7.17	Qbt 3
MD21-06-64025	21-25262	85	86	5.92	Qbt 3
MD21-06-64026	21-25262	90	91	6.36	Qbt 3
MD21-06-64027	21-25262	95	96	6.15	Qbt 3
MD21-06-64028	21-25262	115	116	5.94	Qbt 2
MD21-06-64029	21-25262	140	141	7.19	Qbt 2
MD21-06-64030	21-25262	160	161	8.04	Qbt 2
MD21-06-64031	21-25262	180	181	9.66	Qbt 1v
MD21-06-64032	21-25262	200	201	10.44	Qbt 1v
MD21-06-64033	21-25262	230	231	21.85	Qbt 1v
MD21-06-64034	21-25262	235	236	27.62	Qbt 1v
MD21-06-64035	21-25262	245	246	15.97	Qbt 1g
MD21-06-64036	21-25262	265	266	17.44	Qbt 1g
MD21-06-64051	21-25262	265	266	17.62	Qbt 1g
MD21-06-64037	21-25262	285	286	19.29	Qbt 1g
MD21-06-64038	21-25262	305	306	15.79	Qbt 1g
MD21-06-64039	21-25262	325	326	20.67	Qbt 1g

Table 4.3-3 (continued)

Sample ID	Location ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Water Content (%)	Geologic Unit
MD21-06-64040	21-25262	331	332	23.39	Qbtt
MD21-06-64041	21-25262	345	346	14.04	Qct
MD21-06-64042	21-25262	355	356	12.77	Qct
MD21-06-64052	21-25262	355	356	13.48	Qct
MD21-06-64043	21-25262	365	366	16.63	Qct
MD21-06-64055	21-25263	5	6	12.42	Fill
MD21-06-64056	21-25263	14	15	5.68	Qbt 3
MD21-06-64057	21-25263	19	20	6.16	Qbt 3
MD21-06-64058	21-25263	24	25	5.70	Qbt 3
MD21-06-64059	21-25263	29	30	5.18	Qbt 3
MD21-06-64060	21-25263	34	35	5.02	Qbt 3
MD21-06-64061	21-25263	39	40	5.75	Qbt 3
MD21-06-64062	21-25263	44	45	5.49	Qbt 3
MD21-06-64063	21-25263	49	50	5.15	Qbt 3
MD21-06-64064	21-25263	54	55	6.85	Qbt 3
MD21-06-64065	21-25263	59	60	4.87	Qbt 3
MD21-06-64066	21-25263	64	65	5.47	Qbt 3
MD21-06-64067	21-25263	69	70	6.38	Qbt 3
MD21-06-64068	21-25263	74	75	5.95	Qbt 3
MD21-06-64069	21-25263	79	80	5.96	Qbt 3
MD21-06-64070	21-25263	84	85	5.88	Qbt 3
MD21-06-64071	21-25263	89	90	5.76	Qbt 3
MD21-06-64072	21-25263	94	95	5.93	Qbt 3
MD21-06-64073	21-25263	99	100	4.49	Qbt 3
MD21-06-64074	21-25263	124	125	5.77	Qbt 2
MD21-06-64075	21-25263	144	149	9.59	Qbt 2
MD21-06-64076	21-25263	164	165	7.77	Qbt 2
MD21-06-64077	21-25263	184	185	6.80	Qbt 1v
MD21-06-64078	21-25263	204	205	13.02	Qbt 1v
MD21-06-64079	21-25263	224	225	23.75	Qbt 1v
MD21-06-64080	21-25263	244	245	16.78	Qbt 1g
MD21-06-64081	21-25263	264	265	19.14	Qbt 1g

Table 4.3-3 (continued)

Sample ID	Location ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Water Content (%)	Geologic Unit
MD21-06-64082	21-25263	284	285	18.19	Qbt 1g
MD21-06-64083	21-25263	304	305	18.12	Qbt 1g
MD21-06-64084	21-25263	324	325	25.77	Qbt 1g
MD21-06-64085	21-25263	344	345	9.55	Qct
MD21-06-64099	21-25264	2	3	10.79	Qbt 3
MD21-06-64100	21-25264	8	9	5.95	Qbt 3
MD21-06-64101	21-25264	9	10	5.67	Qbt 3
MD21-06-64102	21-25264	14	15	6.85	Qbt 3
MD21-06-64103	21-25264	19	20	7.23	Qbt 3
MD21-06-64104	21-25264	24	25	7.48	Qbt 3
MD21-06-64105	21-25264	29	30	9.09	Qbt 3
MD21-06-64106	21-25264	34	35	6.55	Qbt 3
MD21-06-64107	21-25264	39	40	8.12	Qbt 3
MD21-06-64108	21-25264	44	45	7.33	Qbt 3
MD21-06-64109	21-25264	49	50	6.47	Qbt 3
MD21-06-64110	21-25264	54	55	5.86	Qbt 3
MD21-06-64111	21-25264	59	60	6.55	Qbt 3
MD21-06-64112	21-25264	64	65	5.67	Qbt 3
MD21-06-64113	21-25264	69	70	5.53	Qbt 3
MD21-06-64114	21-25264	74	75	5.14	Qbt 3
MD21-06-64115	21-25264	79	80	5.38	Qbt 3
MD21-06-64116	21-25264	84	85	5.21	Qbt 3
MD21-06-64117	21-25264	89	90	5.31	Qbt 3
MD21-06-64118	21-25264	104	105	na[b]	Qbt 2
MD21-06-64119	21-25264	124	125	na	Qbt 2
MD21-06-64120	21-25264	144	145	na	Qbt 2
MD21-06-64121	21-25264	164	165	na	Qbt 2
MD21-06-64122	21-25264	184	185	6.88	Qbt 1v
MD21-06-64123	21-25264	204	205	11.64	Qbt 1v
MD21-06-64124	21-25264	224	225	20.53	Qbt 1v
MD21-06-64139	21-25264	224	225	19.84	Qbt 1v
MD21-06-64125	21-25264	244	245	13.87	Qbt 1g

Table 4.3-3 (continued)

Sample ID	Location ID	Top Depth (ft bgs)	Bottom Depth (ft bgs)	Water Content (%)	Geologic Unit
MD21-06-64126	21-25264	264	265	13.78	Qbt 1g
MD21-06-64127	21-25264	284	285	10.94	Qbt 1g
MD21-06-64128	21-25264	304	305	15.94	Qbt 1g
MD21-06-64129	21-25264	324	325	17.45	Qbt 1g
MD21-06-64130	21-25264	334	335	9.73	Qct
MD21-06-64140	21-25264	334	335	9.91	Qct
MD21-06-64131	21-25264	344	345	6.63	Qct

[a] Water content measured in accordance with ASTM D2216-90.

[b] na = Not available.

Table 4.3-4
pH Results for Locations 21-25262, 21-25263, 21-25372, and 21-25374

Sample ID	Location ID	Depth (ft)	pH Value	Geologic Unit
MD21-06-63897	21-25262	22–23.5	9.03	Qbt 3
MD21-06-63898	21-25262	75–77	9.20	Qbt 3
MD21-06-63899	21-25262	110–113	7.79*	Qbt 2
MD21-06-63900	21-25262	116–118	7.93	Qbt 2
MD21-06-63901	21-25262	141.9–143.4	8.12	Qbt 2
MD21-06-63902	21-25262	170–172	7.40	Qbt 1v
MD21-06-63916	21-25262	235–238	6.70*	Qbt 1v
MD21-06-63917	21-25262	251–253	6.78*	Qbt 1g
MD21-06-63905	21-25262	333–335	7.45	Qct
MD21-06-63906	21-25262	373–375	7.11	Qct
MD21-06-63907	21-25262	378–380	7.15	Qbo
MD21-06-63918	21-25262	373–375	7.53	Qct
MD21-06-63935	21-25263	40–42	8.08	Qbt 3
MD21-06-63936	21-25263	70–73	7.89	Qbt 3
MD21-06-63937	21-25263	80–82	7.59	Qbt 3
MD21-06-63953	21-25263	70–73	7.00	Qbt 3
MD21-06-63938	21-25263	125–127	8.09	Qbt 2
MD21-06-63939	21-25263	165–167	7.31	Qbt 2
MD21-06-63940	21-25263	215–217	7.25	Qbt 1v
MD21-06-63941	21-25263	269–271	7.69	Qbt 1g
MD21-06-63942	21-25263	330–332	7.39	Qbt t
MD21-06-63943	21-25263	340–342	7.40	Qct
MD21-06-63944	21-25263	351–354	6.87*	Qbo
MD21-06-65942	21-25372	50–52	7.08	Qbt 3
MD21-06-65943	21-25372	75–77	6.66	Qbt 3
MD21-06-65944	21-25372	101.5–103.5	7.41	Qbt 2
MD21-06-65945	21-25372	181–183	6.89	Qbt 1v
MD21-06-65946	21-25372	229–231	7.40	Qbt 1g
MD21-06-65947	21-25372	276–279	7.54	Qbt 1g
MD21-06-65973	21-25374	27–29	9.26	Qbt 3
MD21-06-65974	21-25374	109–111	9.10	Qbt 2
MD21-06-65975	21-25374	174–176	7.68	Qbt 1v
MD21-06-65976	21-25374	234–236	7.53	Qbt 1g
MD21-06-65977	21-25374	276–279	7.35	Qbt 1g

Analytical method used for measurement of pH: EPA SW-846:9045C.
* Average of two results.

Table 4.3-5
Geotechnical Results for Consolidated Unit 21-016(a)-99

Sample ID	Location ID	Sample Depth (ft)	Geologic Unit	Chloride (mg/kg)	Density (g/cm^3)	Saturated Hydraulic Conductivity (cm/sec)	Moisture Content (%)	Calculated Total Porosity (%)
MD21-06-64143	21-25262	26–27	Qbt 3	NA	1.48	0.00034	—*	44.20
MD21-06-64144	21-25262	124.6–125	Qbt 2	8.22	1.77	0.00035	10.70	33.30
MD21-06-64145	21-25262	172–172.8	Qbt 1v	4.66	1.1	0.06500	7.80	58.60
MD21-06-64146	21-25262	238–238.9	Qbt 1v	6.51	1.18	0.000039	33.10	55.30
MD21-06-64147	21-25262	335–336	Qct	16.2	1.03	0.01800	25.00	61.20
MD21-06-64148	21-25262	352–353	Qct	15	1.42	0.00075	26.20	46.50
MD21-06-64151	21-25263	0.3–0.9	Fill	3.64	1.47	0.00024	20.0	44.50
MD21-06-64152	21-25263	50–51	Qbt 3	3.78	1.23	0.00620	7.70	53.70
MD21-06-64153	21-25263	186–187	Qbt 1v	7.41	1.08	0.00310	9.30	59.14
MD21-06-64154	21-25263	251.5–252.5	Qbt 1g	3.67	1.11	0.00160	20.0	58.10
MD21-06-64155	21-25263	336–337	Qct	0.953	1.53	0.00007	33.10	42.30
MD21-06-64159	21-25264	0–1	Fill	8.55	1.37	0.00071	14.2	48.20
MD21-06-64160	21-25264	75.5–76.5	Qbt 3	11.1	1.49	0.00110	9.0	43.80
MD21-06-64161	21-25264	159–160	Qbt 2	16.3	1.46	0.00090	9.60	44.80
MD21-06-64162	21-25264	241–242	Qbt 1g	43	1.24	0.00046	15.90	53.20
MD21-06-64163	21-25264	329–330	Qct	2.64	1.48	0.00150	15.60	44.10
MD21-06-64149	21-25375	0.4–1.1	Fill	6.44	1.41	—	—	46.80
MD21-06-64156	21-25376	33.2–34	Qbt 3	6.33	1.35	0.03700	12.70	48.90
MD21-06-64157	21-25376	126.3–127	Qbt 2	3.04	1.59	0.01400	8.40	40.00
			Average	**9.30**	**1.36**	**0.00841**	**16.4**	**48.8**

* — = Not applicable.

Table 4.3-6
Pore Gas Samples Collected at Consolidated Unit 21-016(a)-99

Sample ID	Location ID	Collection Date	Depth (ft)	VOCs	Tritium
MD21-06-64201	21-25262	1/5/2006	370–380	4286S	4287S
MD21-06-64202	21-25262	1/10/2006	189–191	4322S	4321S
MD21-06-64204	21-25262	1/11/2006	79–81	4322S	4321S
MD21-06-64203	21-25262	1/11/2006	294–296	4322S	4321S
MD21-06-64205	21-25262	1/20/2006	234–236	4434S	4446S
MD21-06-64206	21-25262	1/23/2006	114–116	4434S	4446S
MD21-06-64221	21-25264	2/3/2006	350–354	4516S	4521S
MD21-06-64222	21-25264	2/7/2006	325–327	4561S	4584S
MD21-06-64224	21-25264	2/8/2006	69–71	4562S	4584S
MD21-06-64223	21-25264	2/8/2006	224–226	4562S	4584S
MD21-06-64225	21-25264	2/10/2006	152–154	4562S	4584S
MD21-06-64211	21-25263	4/7/2006	350–354	4983S	4991S
MD21-06-64213	21-25263	4/12/2006	228.5–230.5	5015S	5017S
MD21-06-64212	21-25263	4/12/2006	311–313	5015S	5017S
MD21-06-64216	21-25263	4/13/2006	79–81	5015S	5017S
MD21-06-64214	21-25263	4/13/2006	172–174	5015S	5017S
MD21-06-67521	21-25262	4/17/2006	290–292	5045S	5046S
MD21-06-67523	21-25262	4/18/2006	189–191	5045S	5046S
MD21-06-67522	21-25262	4/18/2006	234–236	5045S	5046S
MD21-06-67524	21-25262	4/19/2006	114–116	5047S	5048S
MD21-06-67525	21-25262	4/20/2006	79–81	5047S	5048S
MD21-06-67537	21-25264	4/27/2006	325–327	5099S	5106S
MD21-06-67538	21-25264	4/28/2006	224–226	5099S	5106S
MD21-06-67540	21-25264	5/2/2006	69–71	5129S	5144S
MD21-06-67539	21-25264	5/2/2006	152–154	5129S	5144S

Table 5.1-1
SSLs for Noncarcinogenic Screening Evaluation

COPC	Industrial SS[a] (mg/kg)	Construction Worker SSL[a] (mg/kg	Recreation SSL[b] (mg/kg)	Residential SSL[a] (mg/kg)
Aluminum	1.00E-05 [c]	1.44E+04	n/a [d]	7.78E+04
Antimony	4.54E+02	n/a [d]	3.17E+02	3.13E+01
Arsenic	2.8E+02	8.52E+01	1.83E+02	2.2E+01 [e]
Barium	1.00E+05 [c]	6.02E+04	5.54E+04	1.56E+04
Berylium	2.25E+03	5.62E+01	1.58E+03	1.56E+02
Cadmium	5.64E+02	1.54E+02	6.62E+02	3.90E+01
Chromium	3.40E+03	na [f]	1.43E+04	2.34E+02
Cobalt	2.05E+04	6.10E+01	1.57E+04	1.52E+03
Copper	4.54E+04	1.24E+04	3.17E+04	3.13E+03
Iron	1.00E-05 [c]	2.35E+04	1.00E-05 [c]	9.29E+04
Lead	8.00E+02	8.00E+02	5.60E+02	4.00E+02
Lithium	2.30E+04 [e]	na [f]	1.58E+04 [g]	1.6E+03 [e]
Manganese	4.84E+04	1.50E+02	n/a [d]	3.59E+03
Mercury	3.40E+02 [h]	9.37E+02 [i]	2.38E+02	2.3E+01 [h]
Nickel	2.27E+04	6.19E+03	1.58E+04	1.56E+03
Nitrate	1.00E-05 [c]	1.00E-05 [c]	n/a [d]	1.00E-05 [c]
Perchlorate	7.90E+02 [e]	7.9E+02 [e]	7.92E+01	5.5E+01 [e]
Selenium	5.68E+03	n/a [d]	3.96E+03	3.91E+02
Silver	5.68E+03	1.55E+03	n/a [d]	3.91E+02
Strontium	1.00E+05 [d]	n/a [d]	1.00E+05 [g]	4.69E+04
Thallium	7.49E+01	2.04E+01	5.23E+01	5.16E+00
Vanadium	1.14E+03	3.10E+02	n/a [d]	7.82E+01
Zinc	1.00E-05 [c]	9.29E+04	1.00E-05 [c]	2.35E+04
Acenaphehene	3.35E+04	1.41E+04	4.40E+04	3.73E+03
Acenaphthylene	na [f]	9.01E+03 [i]	n/a [d]	na [f]
Anthracene	1.00E-05 [c]	8.6E+04	1.00E-05 [c]	2.20E+04
Benzo(g,h,i)perylene [j]	na [f]	9.01+03 [j]	2.38E+04 [j]	2.29E+03 [j]
Benzoic acid	1.00E-05 [c]	1.00E-05 [c]	1.00E-05 [c]	1.00E-05 [c]
Bis(2-ethylhexyl)phthalate	na [f]	4.66e+03	n/a [d]	na [f]
Butanone(2-)	4.87E+04	4.78E+04	n/a [d]	3.18E+04

Table 5.1-1 (continued)

COPC	Industrial SS[a] (mg/kg)	Construction Worker SSL[a] (mg/kg	Recreation SSL[b] (mg/kg)	Residential SSL[a] (mg/kg)
Dibromo-3-chloropropane(1,2-)	9.68E+00	6.48E+00	n/a [d]	1.84E+00
Di-n-butylphthalate	6.84E+04	2.33E+04	3.99E+04	6.11E+03
Fluoranthene	2.44E+04	8.73E+03	1.39E+04	2.29E+03
Fluorene	n/a [d]	n/a [d]	3.03E+04	2.66E+03
Methylnaphthalene(2-)	n/a [d]	n/a [d]	3.17E+03	7.95E+01 [k]
Naphthalene	n/a [d]	n/a [d]	1.97E+03 [j]	7.95E+01
Phenanthrene	2.05E+04	6.99E+03	1.20E+04	1.83E+03
Pyrene	3.09E+04	9.01E+03	2.38E+04	2.29E+03
Acetone	1.00E-05 [c]	9.85E+04	n/a [d]	2.81E+04
Hexanone[2-] [i]	na [f]	na [f]	n/a [d]	3.18E+04 [l]
Isoproyltoluene[4-] [m]	na [f]	na [f]	n/a [d]	2.71E+02 [m]
Toluene [n]	2.52E+02 [n]	2.52E+02 [n]	n/a [d]	Sat SSL [l]
Trichlorofluoromethane	9.83E+02	9.83E+02	n/a [d]	5.88E+02
Xylene[1,3-]+xylene[1,4-] [k]	8.02E+01	8.02E+01	n/a [d]	Sat SSL [o]

[a] SSLs from NMED (2006, 92513), unless otherwise noted.
[b] Recreational SSLs from LANL (2005, 88494).
[c] Maximum allowable concentration per NMED 2006, 92513 and EPA, 91002.
[d] n/a = Not applicable; analyte was not a COPC for this scenario.
[e] SSL from EPA Region 6 (EPA 2005, 91002).
[f] na = Not available. No noncarcinogenic SSL available.
[g] Recreational SSL calculated using RfD from EPA Region 6 (2005, 91002).
[h] SSL from EPA Region 6, mercury plus compounds (EPA 2005, 91002).
[i] No SSL for inorganic mercury is available for construction worker; NMED SSL for elemental mercury used (NMED 2006, 92513).
[j] SSL for Pyrene is used as surrogate based on structural similarity.
[k] SSL for naphthalene used as surrogate, based on structural similarity.
[l] Butanone[2-] used as a surrogate.
[m] Isobenzene used as a surrogate.
[n] Isobenzene used as a surrogate.
[o] NMED SSL based on soil saturation concentration. Forward risk calculations were performed.

Table 5.1-2
SSLs for Carcinogenic Screening Evaluation

COPC	Industrial SS[a] (mg/kg)	Construction Worker SSL[a] (mg/kg	Recreation SSL[b] (mg/kg)	Residential SSL[a] (mg/kg)
Arsenic	1.77E+01	na[c]	2.77E+01	3.9E+00
Chromium	5E+03[d]	2.61E+02[e]	3.8E+01[f]	2.1E+03[d]
Benzo(a)anthracene	2.34E+01	2.12E+02	3.01E+01	6.21E+00
Benzo(a)pyrene	2.34E+00	2.12E+01	3.01E+00	6.21E-01
Benzo(b)fluoranthene	2.34E+01	2.12E+02	3.01E+01	6.21E+00
Benzo(k)fluoranthene	2.3E+02	2.12+03	3.01E+02	6.2+01
Bis(2-ethylhexyl)phthalate	1.37E+03	na[c]	1.83E+03	3.47E+02
Chrysene	2.31E+03	2.12E+04	3.01E+03	6.15E+02
Dioxin (2,3,7,8-TCDD)[g]	1.80E-04	n/a[h]	n/a[h]	3.9E-05[i]
Indeno(1,2,3-cd)pyrene	2.34E+01	2.12E+02	3.01E+01	6.21E+00
Methylene Chloride	4.90E+02	2.63E+03	n/a[h]	1.82E+02
Tetrachloroethene	3.16E+01	1.34E+02	n/a[h]	1.25E+01
Trichloroethene	1.56E+00	3.36E+01	n/a[h]	6.38E-01

[a] SSLs from NMED (2006, 92513), unless otherwise noted.
[b] Recreational SSLs from LANL (2005, 88494).
[c] na = Not available. Construction worker SSL is based on a noncarcinogenic effect, no carcinogenic SSL is available in either NMED (2006, 92513) or EPA (2005. 91002).
[d] SSL from EPA Region 6, 1/6 ratio of CrIV/CrIII, adjusted to 10^{-5} target risk (EPA 2005, 91002).
[e] SSL from NMED, construction worker, CrIV, (NMED 2006, 92513).
[f] Calculated SSL using EPA Region 9 SF_i for CrIV/CRIII 1/6 ratio (EPA 2005, 91002).
[g] TCDD Used as surrogate for assorted dioxin and furan congeners.
[h] n/a = Not applicable; analyte was not a COPC for this exposure scenario.
[i] SSLs from EPA Region 6, for 2,3,7,8-TCDD (EPA 2005, 91002).

Table 5.1-3
Industrial, Construction Worker, Recreational, and Residential SALs

Radionuclides	Industrial SAL[a] (pCi/g)	Construction Worker SAL[a] (pCi/g)	Recreational SAL[a] (pCi/g)	Residential SAL[a] (pCi/g)
Americium-241	180	34	280	30
Cesium-137	23	18	210	5.6
Plutonium-238	240	40	330	37
Plutonium-239	210	36	300	33
Strontium-90	1900	800	5600	5.7
Tritium	n/a	320000	n/a	750
Uranium-234	1500	220	3200	170
Uranium-235	87	43	520	17
Uranium-238	430	160	2100	86

[a] Value from LANL Derivation and use of Radionuclide Screening Action Levels, Revision 1, 88493.

Table 5.1-4
Ecological Screening Levels for Terrestrial Receptors

COPC	American kestrel (intermediate carnivore)	American kestrel (top carnivore)	American robin (herbivore)	American robin (insectivore)	American robin (omnivore)	Deer mouse (omnivore)	Desert cottontail (herbivore)	Earthworm (invertebrate)	Plant	Montane shrew (insectivore)	Red fox (top carnivore)
Inorganic Chemicals (mg/kg)											
Antimony	na[a]	na	na	na	na	0.48	2.9	78	0.05	0.26	45
Arsenic	160	1100	42	18	26	32	160	6.8	18	15	810
Barium	11000	37000	820	1000	930	1800	3300	330	110	1300	41000
Beryllium	na	na	na	na	na	56	170	40	2.5	18	420
Cadmium	2	580	4.4	0.29	0.54	0.51	9.9	140	32	0.27	510
Chromium	2200	5400	280	190	220	530	1900	0.34	0.35	170	4400
Cobalt	930	3500	170	96	120	400	1800	na	13	160	5400
Copper	88	1200	28	11	16	59	250	13	10	34	3500
Iron	na	na	na	na	na	na	na	na	na	na	na
Lead	120	810	21	14	16	120	370	1700	120	72	3700
Lithium	na	na	na	na	na	na	na	na	na	na	na
Manganese	110000	290000	4600	10000	6400	1200	1700	na	50	1300	35000
Mercury	0.082	0.28	0.07	0.013	0.022	3	22	0.05	34	1.7	46
Nickel	530	9500	530	70	120	530	12000	100	20	250	31000
Perchlorate	na	na	na	na	na	na	na	na	na	na	na
Selenium	8.5	140	1.5	1.1	1.3	1.1	3	7.7	0.1	0.92	110
Silver	52	2200	30	7.2	11	77	490	na	0.05	44	13000
Strontium	na	na	na	na	na	96	110	na	na	660	19000
Thallium	6.6	75	9.2	0.9	1.6	0.068	2.8	na	0.1	0.032	2.8
Vanadium	84	170	8.9	6.7	7.6	480	1500	na	0.025	140	3300
Zinc	180	1400	200	27	48	290	3000	190	10	160	10000

Table 5.1-4 (continued)

COPC	American kestrel (Intermediate carnivore)	American kestrel (top carnivore)	American robin (herbivore)	American robin (insectivore)	American robin (omnivore)	Deer mouse (omnivore)	Desert cottontail (herbivore)	Earthworm (invertebrate)	Plant	Montane shrew (insectivore)	Red fox (top carnivore)
Semivolatile Organic Compounds (mg/kg)											
Acenaphthene	na	na	na	na	na	160	490	na	0.25	120	6200
Anthracene	na	na	na	na	na	310	1100	na	na	210	5800
Benzo(a)anthracene	na	na	na	na	na	3.4	6.2	na	18	3	45
Benzo(a)pyrene	na	na	na	na	na	15	50	na	na	9.6	68
Benzo(b)fluoranthene	na	na	na	na	na	52	130	na	18	38	250
Benzo(g,h,i)perylene	na	na	na	na	na	47	540	na	na	24	94
Benzo(k)fluoranthene	na	na	na	na	na	100	350	na	na	62	400
Benzoic acid	na	na	na	na	na	1.3	4.2	na	na	1	350
Bis(2-ethylhexyl)phthalate	0.045	0.033	20	0.02	0.04	1.1	2700	na	na	0.59	1.2
Chrysene	na	na	na	na	na	3.1	6.5	na	na	2.4	46
Dibromo-3-chloropropane[1,2-]	na	na	na	na	na	na	na	na	na	na	na
Di-n-butylphthalate	0.068	0.24	0.39	0.011	0.021	370	16000	na	160	180	5000
Fluoranthene	na	na	na	na	na	38	260	38	na	22	360
Fluorene	na	na	na	na	na	340	1100	4.1	na	250	9300
Hexanone[2-]	na	na	na	na	na	na	na	na	na	na	na
Indeno(1,2,3-cd)pyrene	na	na	na	na	na	110	590	na	na	62	270
Methylnaphthalene[2-]	na	na	na	na	na	3.8	16	na	na	2.5	130
Naphthalene	1100	6300	37	170	61	0.34	0.45	na	1	0.96	42
Phenanthrene	na	na	na	na	na	15	59	34	na	10	290
Pyrene	na	na	na	na	na	32	110	18	na	22	360
Volatile Organic Compounds (mg/kg)											
Tetrachloroethene	na	na	na	na	na	0.36	8.8	na	10	0.18	31
Toluene	na	na	na	na	na	25	61	na	200	23	3100
Trichloroethene	na	na	na	na	na	55	170	na	na	42	6400

Table 5.1-4 (continued)

COPC	American kestrel (Intermediate carnivore)	American kestrel (top carnivore)	American robin (herbivore)	American robin (insectivore)	American robin (omnivore)	Deer mouse (omnivore)	Desert cottontail (herbivore)	Earthworm (invertebrate)	Plant	Montane shrew (insectivore)	Red fox (top carnivore)
Radionuclides (pCi/g)											
Americium-241	35000	62000	13000	4000	4000	32000	32000	44	21000	31000	26000
Cesium -137	3700	2900	4200	3800	3700	2400	2300	1700	2300	2400	680
Plutonium-238	32000	130000	8300	2000	2100	110000	120000	44	110000	92000	30000
Plutonium-239	34000	160000	8600	2100	2100	150000	170000	47	160000	110000	33000
Strontium-90	2400	1900	600	1500	930	1700	1300	1200	1300	1700	560
Tritium	630000	580000	300000	600000	440000	330000	230000	48000	36000	340000	190000
Uranium-234	120000	190000	48000	14000	14000	91000	96000	51	14000	94000	45000
Uranium-235	10000	10000	9000	6400	6400	5100	5100	55	4000	5100	4800
Uranium-238	4100	4200	3900	3400	3400	2100	2100	55	1800	2100	2000

ESLs from ECORISK Database Version 2.2 (LANL 2005, 90032).

[a] na = Not available.

Table 6.1-1
Consolidated Unit 21-016(a)-99 and DP Canyon Slope COPC List

Class	Soil/Fill	Quaternary Alluvium	Tuff	Pore Gas
Inorganic Chemicals	Antimony	Arsenic	Aluminum	n/a*
	Arsenic	Cadmium	Arsenic	
	Barium	Chromium	Antimony	
	Beryllium	Cobalt	Barium	
	Cadmium	Mercury	Beryllium	
	Chromium	Nickel	Cadmium	
	Copper	Selenium	Chromium	
	Lead	Silver	Cobalt	
	Lithium	Zinc	Copper	
	Mercury		Fluoride	
	Nickel		Iron	
	Nitrate		Lead	
	Perchlorate		Manganese	
	Silver		Mercury	
	Selenium		Nickel	
	Strontium		Nitrate	
	Thallium		Perchlorate	
	Zinc		Selenium	
			Silver	
			Thallium	
			Vanadium	
			Zinc	
Radionuclides	Americium-241	Americium-241	Americium-241	Tritium
	Cesium-137	Cesium-137	Cesium-137	
	Cobalt-60	Plutonium-238	Europium-152	
	Plutonium-238	Plutonium-239	Plutonium-238	
	Plutonium-239	Uranium-234	Plutonium-239	
	Strontium-90	Uranium-238	Strontium-90	
	Uranium-234		Tritium	
	Uranium-235		Uranium-234	
	Uranium-238		Uranium-235	
			Uranium-238	

Table 6.1-1 (continued)

Class	Soil/Fill	Quaternary Alluvium	Tuff	Pore Gas
Organic Chemicals	Acenaphthene	Bis(2-ethylhexyl)phthalate	Acenaphthene	Acetone
	Acetone	Toluene	Acenaphthylene	Benzene
	Anthracene	Trichlorofluoromethane	Acetone	Bromodichloromethane
	Benzo(a)anthracene		Anthracene	Butanol[1-]
	Benzo(a)pyrene		Benzene	Butanone[2-]
	Benzo(b)fluoranthene		Benzo(a)anthracene	Carbon disulfide
	Benzo(g,h,i)perylene		Benzo(a)pyrene	Carbon tetrachloride
	Benzo(k)fluoranthene		Benzo(b)fluoranthene	Chloroethane
	Benzoic acid		Benzo(g,h,i)perylene	Chloroform
	Bis(2-ethylhexyl)phthalate		Benzo(k)fluoranthene	Chloromethane
	Butanone[2-]		Benzoic acid	Cyclohexane
	Chrysene		Bis(2-ethylhexyl)phthalate	Dichlorobenzene[1,4-]
	Di-n-butylphthalate		Bromophenyl-phenylether[4-]	Dichlorodifluoromethane
	Fluoranthene		Butanone[2-]	Dichloroethane[1,1-]
	Fluorene		Butylbenzylphthalate	Dichloroethane[1,2-]
	Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]		Carbon disulfide	Dichloroethene[1,1-]
	Heptachlorodibenzodioxins (total)		Chloroform	Dichloroethene[cis-1,2-]
	Heptachlorodibenzofuran[1,2,3,4,6,7,8-]		Chloronaphthalene[2-]	Dichloropropane[1,2-]
	Heptachlorodibenzofurans (total)		Chrysene	Ethyltoluene[4-]
	Hexachlorodibenzodioxin[1,2,3,7,8,9-]		Dibromo-3-chloropropane[1,2-]	Hexane
	Hexachlorodibenzodioxins (total)		Dichlorobenzene[1,2-]	Methyl-2-pentanone[4-]
	Hexachlorodibenzofuran[1,2,3,4,7,8-]		Dichlorobenzene[1,3-]	Methylene chloride
	Hexachlorodibenzofuran[1,2,3,6,7,8-]		Di-n-butylphthalate	n-Heptane
	Hexachlorodibenzofuran[2,3,4,6,7,8-]		Fluoranthene	Propylene
	Hexachlorodibenzofurans (total)		Fluorene	Styrene
	Hexanone[2-]		Heptachlorodibenzodioxin[1,2,3,4,6,7,8-]	Tetrachloroethene
	Indeno(1,2,3-cd)pyrene		Heptachlorodibenzodioxins (total)	Toluene
	Isopropyltoluene[4-]		Heptachlorodibenzofuran[1,2,3,4,6,7,8-]	Trichloro-1,2,2-trifluoroethane[1,1,2-]
	Methylene chloride		Heptachlorodibenzofurans (total)	Trichloroethane[1,1,1-]
	Methylnaphthalene[2-]		Hexachlorodibenzodioxin[1,2,3,4,7,8-]	Trichloroethane[1,1,2-]
	Naphthalene		Hexachlorodibenzodioxin[1,2,3,6,7,8-]	Trichloroethene
	Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]		Hexachlorodibenzodioxin[1,2,3,7,8,9-]	Trimethylbenzene[1,2,4-]
	Octachlorodibenzofuran[1,2,3,4,6,7,8,9-]		Hexachlorodibenzodioxins (total)	Vinyl chloride
	Pentachlorodibenzofuran[1,2,3,7,8-]		Hexachlorodibenzofuran[1,2,3,4,7,8-]	Xylene (total)
	Pentachlorodibenzofuran[2,3,4,7,8-]		Hexachlorodibenzofuran[2,3,4,6,7,8-]	Xylene[1,2-]
	Pentachlorodibenzofurans (totals)		Hexachlorodibenzofurans (total)	Xylene[1,3-]+Xylene[1,4-]
	Phenanthrene		Indeno(1,2,3-cd)pyrene	
	Pyrene		Methyl-2-pentanone[4-]	
	Tetrachloroethene		Methylene chloride	
	Toluene		Methylnaphthalene[2-]	
	Trichloroethene		Naphthalene	

Table 6.1-1 (continued)

Class	Soil/Fill	Quaternary Alluvium	Tuff	Pore Gas
Organic Chemicals (cont.)	Xylene[1,3-]+Xylene[1,4-]		Octachlorodibenzodioxin[1,2,3,4,6,7,8,9-]	
			Pentachlorodibenzofuran[2,3,4,7,8-]	
			Pentachlorodibenzofurans (totals)	
			Phenanthrene	
			Pyrene	
			Tetrachloroethene	
			Toluene	
			Trichlorofluoromethane	

n/a* = Not applicable.

Table 6.2-1
Inorganic COPCs for the Shafts, Beds, and RWSA

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Sediment Background Value				15,400	0.83	3.98	127	1.31	0.4	10.5
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
AAA3950	21-01615	0.00–0.50	Soil	—	—	—	—	124 (J)	1.6 (U)	—
AAA3951	21-01616	0.00–0.50	Soil	—	—	—	—	—	1.1 (U)	—
AAA3952	21-01617	0.00–0.50	Soil	—	—	—	—	—	2 (U)	—
AAA3953	21-01618	0.00–0.50	Soil	—	—	—	—	—	1.5 (U)	—
AAA3954	21-01619	0.00–0.50	Soil	—	—	—	—	—	1.4 (U)	—
AAA3957	21-01620	0.00–0.50	Soil	—	—	—	—	—	1.3 (U)	—
AAA3958	21-01621	0.00–0.50	Soil	—	—	—	—	—	0.92 (U)	—
AAA3959	21-01622	0.00–0.50	Soil	—	—	—	—	—	2.2 (U)	—
AAA3961	21-01623	0.00–0.50	Soil	—	—	—	—	—	1 (U)	—
AAA3962	21-01624	0.00–0.50	Soil	—	—	—	—	—	1.4 (U)	—
AAA3963	21-01625	0.00–0.50	Soil	—	—	—	—	—	1.3 (U)	—
AAA3964	21-01626	0.00–0.50	Soil	—	—	—	—	—	1.7 (U)	—
AAA3965	21-01627	0.00–0.50	Soil	—	—	—	—	—	1 (U)	—
AAA3985	21-01644	0.00–0.50	Soil	—	—	—	—	—	1.1	—
AAA3986	21-01645	0.00–0.50	Soil	—	—	—	—	—	0.81 (J)	—
AAA3987	21-01646	0.00–0.50	Soil	—	—	—	—	—	1.2 (U)	—
AAA3988	21-01647	0.00–0.50	Soil	—	—	—	—	—	0.95 (J)	—
AAA3989	21-01648	0.00–0.50	Soil	—	—	—	—	—	0.94 (J)	—
AAA3990	21-01649	0.00–0.50	Soil	—	—	—	—	—	0.7 (J)	—
AAA3993	21-01652	0.00–0.50	Soil	—	—	—	—	—	0.63 (U)	—
AAA3996	21-01655	0.00–0.50	Soil	—	—	—	—	—	0.67 (U)	—
AAA3997	21-01656	0.00–0.50	Soil	—	—	—	—	—	1.4 (U)	—
AAA3998	21-01657	0.00–0.50	Soil	—	—	—	—	—	1.3 (U)	—
AAA4001	21-01658	0.00–0.50	Soil	—	—	—	—	—	1.1 (U)	—
AAA4006	21-01662	0.00–0.50	Soil	—	—	—	—	—	0.69 (U)	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Sediment Background Value				15,400	0.83	3.98	127	1.31	0.4	10.5
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
0121-97-0015	21-05051	109.00–109.50	Qbt 2	—	5.3 (U)	—	—	—	—	—
0121-97-0004	21-05051	11.50–12.00	Fill	—	5.5 (U)	—	—	—	3	35.6
0121-97-0016	21-05051	119.50–120.00	Qbt 2	—	5.3 (U)	—	—	—	—	—
0121-97-0017	21-05051	129.50–130.00	Qbt 2	—	5.3 (U)	—	—	—	—	—
0121-97-0005	21-05051	13.80–14.50	Qbt 3	17,700	30.6 (U)	3.2	188 (J)	—	49	45.2
0121-97-0018	21-05051	137.50–138.00	Qbt 2	—	5.3 (U)	—	—	—	—	8.4
0121-97-0019	21-05051	149.50–150.00	Qbt 2	—	5.4 (U)	—	—	—	—	—
0121-97-0006	21-05051	20.00–21.00	Qbt 3	17,300 (J)	11.2 (UJ)	4.5 (J-)	239	—	33.5	23.6
0121-97-0007	21-05051	27.50–28.00	Qbt 3	—	5.7 (U)	—	—	—	—	—
0121-97-0001	21-05051	3.50–4.00	Fill	—	8.4 (UJ)	—	—	—	0.47 (U)	—
0121-97-0008	21-05051	40.00–40.50	Qbt 3	—	8.6 (UJ)	—	—	—	—	119
0121-97-0009	21-05051	50.00–50.50	Qbt 3	—	8.6 (UJ)	—	—	—	—	—
0121-97-0002	21-05051	6.00–6.50	Fill	—	8.8 (UJ)	—	—	—	0.49 (U)	—
0121-97-0010	21-05051	61.00–61.50	Qbt 3	—	8.5 (UJ)	—	—	—	—	—
0121-97-0011	21-05051	71.00–71.50	Qbt 3	—	5.4 (U)	—	—	—	—	—
0121-97-0003	21-05051	8.50–9.00	Fill	—	8.5 (UJ)	—	—	—	0.55 (J)	60
0121-97-0012	21-05051	80.00–80.50	Qbt 3	—	5.4 (U)	—	—	—	—	—
0121-97-0013	21-05051	89.50–90.00	Qbt 3	—	5.3 (U)	—	—	—	—	—
0121-97-0014	21-05051	99.50–100.00	Qbt 3	—	5.3 (U)	—	—	—	—	—
0121-97-0037	21-05052	109.00–110.00	Qbt 2	—	5.6 (U)	—	—	—	—	—
0121-97-0038	21-05052	119.00–120.00	Qbt 2	—	5.8 (U)	—	—	—	—	—
0121-97-0039	21-05052	130.00–131.00	Qbt 2	—	5.8 (U)	—	—	—	—	—
0121-97-0040	21-05052	139.00–140.00	Qbt 2	—	5.8 (U)	—	—	—	—	—
0121-97-0041	21-05052	149.00–150.00	Qbt 2	—	5.6 (U)	—	—	—	—	—
0121-97-0026	21-05052	2.50–3.00	Fill	—	9.2 (U)	—	—	—	0.93 (U)	—
0121-97-0028	21-05052	20.00–20.50	Qal	—	8.9 (U)	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Sediment Background Value				15,400	0.83	3.98	127	1.31	0.4	10.5
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
0121-97-0029	21-05052	26.00–27.00	Qal	—	8.6 (U)	—	—	—	—	—
0121-97-0030	21-05052	39.50–40.00	Qbt 3	—	8.6 (U)	—	—	—	—	—
0121-97-0031	21-05052	49.50–50.00	Qbt 3	—	8.5 (U)	—	—	—	—	—
0121-97-0032	21-05052	59.50–60.00	Qbt 3	—	6.1 (U)	—	—	—	—	—
0121-97-0033	21-05052	70.00–71.00	Qbt 3	—	6.1 (U)	—	—	—	—	—
0121-97-0034	21-05052	79.50–80.00	Qbt 3	—	5.8 (U)	—	—	—	—	—
0121-97-0035	21-05052	87.00–88.00	Qbt 3	—	6.2 (U)	—	—	—	—	—
0121-97-0027	21-05052	9.00–9.50	Qal	—	8.1 (U)	—	—	—	—	—
0121-97-0036	21-05052	96.00–96.50	Qbt 3	—	5.7 (U)	—	—	—	—	—
0121-97-0054	21-05053	12.50–13.00	Qbt 3	—	—	—	—	—	—	—
0121-97-0055	21-05053	17.00–17.30	Qbt 3	21,200 (J)	—	4.2	217 (J)	—	—	17.5 (J-)
0121-97-0056	21-05053	20.50–21.50	Qbt 3	—	—	—	—	—	—	—
0121-97-0057	21-05053	28.00–29.00	Qbt 3	—	0.54 (U)	—	—	—	—	—
0121-97-0058	21-05053	39.50–40.00	Qbt 3	—	8 (UJ)	—	—	—	—	—
0121-97-0051	21-05053	4.20–4.60	Fill	na	—	—	—	—	1.6	—
0121-97-0059	21-05053	48.00–48.50	Qbt 3	27,200	10.4 (U)	3.8 (J-)	241	2.3	—	22.9
0121-97-0060	21-05053	59.50–60.00	Qbt 3	—	8.6 (UJ)	—	—	—	—	—
0121-97-0052	21-05053	6.50–7.00	Fill	na	—	—	—	—	15.3	—
0121-97-0061	21-05053	60.00–60.70	Qbt 3	—	8.6 (UJ)	—	—	—	—	—
0121-97-0062	21-05053	74.50–75.00	Qbt 3	—	8.5 (UJ)	—	47.9	—	—	—
0121-97-0063	21-05053	80.00–80.50	Qbt 3	—	8.6 (UJ)	—	—	—	—	—
0121-97-0445	21-05053	89.50–90.00	Qbt 3	—	8.3 (UJ)	—	—	—	—	—
0121-97-0053	21-05053	9.50–10.00	Fill	—	—	—	—	—	1.5	28.3
0121-97-0069	21-05054	10.50–11.00	Fill	—	—	—	—	—	3.2	133
0121-97-0070	21-05054	14.20–15.00	Qbt 3	32,300 (J)	0.62 (U)	5.8	99.9 (J)	1.4	—	18.4 (J-)
0121-97-0071	21-05054	21.80–22.10	Qbt 3	—	22.3 (UJ)	24.9 (J-)	106 (J)	—	1.9 (J)	21.6

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Sediment Background Value				15,400	0.83	3.98	127	1.31	0.4	10.5
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
0121-97-0066	21-05054	3.00–3.50	Fill	na	—	—	—	—	—	—
0121-97-0072	21-05054	32.00–32.50	Qbt 3	—	—	—	—	—	—	—
0121-97-0073	21-05054	35.50–36.00	Qbt 3	—	—	—	—	—	—	—
0121-97-0074	21-05054	50.00–50.50	Qbt 3	—	—	—	—	—	—	12.6 (J-)
0121-97-0075	21-05054	59.50–60.00	Qbt 3	—	—	—	—	—	—	—
0121-97-0067	21-05054	6.00–6.50	Fill	—	—	—	—	—	—	—
0121-97-0068	21-05054	7.50–8.20	Fill	—	—	—	497	—	—	—
0121-97-0083	21-05055	14.50–15.00	Fill	—	8.7 (U)	—	—	—	0.49 (U)	—
0121-97-0081	21-05055	3.50–4.00	Fill	—	5.5 (U)	—	—	—	0.89 (U)	—
0121-97-0082	21-05055	8.50–9.00	Fill	—	5.2 (U)	—	—	—	0.84 (U)	—
0121-97-0097	21-05056	11.80–12.20	Qbt 3	10,300	10.2 (U)	—	103	1.6	—	—
0121-97-0098	21-05056	20.00–20.50	Qbt 3	—	8.4 (U)	—	—	—	—	—
0121-97-0099	21-05056	29.00–29.50	Qbt 3	—	8.9 (U)	—	—	—	—	—
0121-97-0100	21-05056	39.00–39.50	Qbt 3	12,500	9.8 (U)	—	73.9	1.8	—	—
0121-97-0096	21-05056	4.50–5.00	Fill	na	8.9 (U)	—	—	—	0.5 (U)	—
0121-97-0101	21-05056	49.50–50.00	Qbt 3	—	19.1 (U)	—	—	—	—	—
0121-96-0483	21-05057	19.50–20.00	Fill	—	11 (UJ)	—	—	—	0.56 (U)	—
0121-96-0484	21-05057	22.50–23.90	Qal	—	—	—	—	—	—	—
0121-96-0485	21-05057	29.50–30.00	Qbt 3	—	11 (UJ)	—	—	—	—	9.7
0121-96-0486	21-05057	39.50–40.00	Qbt 3	—	11 (UJ)	—	—	—	—	—
0121-96-0481	21-05057	4.30–5.00	Fill	—	11 (UJ)	—	—	—	0.54 (U)	—
0121-96-0487	21-05057	49.50–50.00	Qbt 3	—	11 (UJ)	—	—	—	—	—
0121-96-0482	21-05057	9.50–10.00	Fill	—	11 (UJ)	—	—	—	0.57 (U)	—
0121-96-0495	21-05058	29.50–30.00	Qbt 3	—	—	—	—	—	—	—
0121-96-0496	21-05058	39.50–40.00	Qbt 3	—	—	—	—	—	—	—
0121-96-0497	21-05058	49.50–50.00	Qbt 3	—	—	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Sediment Background Value				15,400	0.83	3.98	127	1.31	0.4	10.5
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
0121-96-0492	21-05058	7.70–8.20	Fill	—	—	—	—	—	—	—
0121-97-0112	21-05059	10.20–10.70	Qal	—	5.7 (UJ)	—	—	—	0.96 (J)	
0121-97-0113	21-05059	20.00–20.50	Qal	—	5.9 (UJ)	—	—	—	—	
0121-97-0114	21-05059	31.50–32.00	Qal	—	5.9 (UJ)	4.5 (J-)	—	—	—	
0121-97-0115	21-05059	36.40–36.80	Qbt 3	—	5.4 (UJ)	—	—	—	—	—
0121-97-0111	21-05059	4.00–4.50	Soil	—	5.8 (UJ)	—	—	—	0.93 (U)	—
0121-97-0116	21-05059	40.00–40.50	Qbt 3	—	5.3 (UJ)	—	—	—	—	—
0121-97-0117	21-05059	49.50–50.00	Qbt 3	—	5.5 (UJ)	—	—	—	—	—
0121-97-0167	21-05061	10.00–10.50	Qbt 3	29,800	8.8 (U)	3.4	166	2	—	17.2
0121-97-0177	21-05061	108.50–109.00	Qbt 2	—	5.2 (U)	—	—	—	—	—
0121-97-0178	21-05061	118.00–118.50	Qbt 2	—	5.2 (U)	—	—	—	—	—
0121-97-0179	21-05061	128.50–129.00	Qbt 2	—	5.2 (U)	—	—	—	—	—
0121-97-0180	21-05061	140.00–140.50	Qbt 2	—	5.2 (U)	—	—	—	—	67.2
0121-97-0181	21-05061	152.50–153.00	Qbt 2	—	5.1 (U)	—	—	—	—	—
0121-97-0182	21-05061	160.00–160.50	Qbt 2	—	5.2 (U)	—	—	—	—	—
0121-97-0183	21-05061	170.00–170.50	Qbt 1v	—	5.1 (U)	—	—	—	0.83 (U)	3.8 (J-)
0121-97-0184	21-05061	180.00–180.50	Qbt 1v	—	5.2 (U)	—	—	—	0.83 (U)	3.6 (J-)
0121-97-0185	21-05061	189.50–190.00	Qbt 1v	—	5.2 (U)	—	—	—	0.85 (U)	2.4 (J-)
0121-97-0168	21-05061	22.00–22.50	Qbt 3	13,800	9.2 (U)	—	55.4	1.6	—	8.7
0121-97-0169	21-05061	30.00–30.50	Qbt 3	—	8.4 (U)	—	—	—	—	—
0121-97-0170	21-05061	40.00–40.50	Qbt 3	—	8.4 (U)	—	—	—	—	—
0121-97-0171	21-05061	49.00–49.50	Qbt 3	—	8.8 (U)	—	217	—	—	—
0121-97-0166	21-05061	5.50–6.00	Soil		8.5 (U)	—	—	—	0.59 (U)	—
0121-97-0172	21-05061	59.50–60.00	Qbt 3	—	5.3 (U)	—	—	—	—	—
0121-97-0173	21-05061	69.50–70.00	Qbt 3	—	5.2 (U)	—	—	—	—	—
0121-97-0174	21-05061	78.50–78.80	Qbt 3	—	5.3 (U)	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Sediment Background Value				15,400	0.83	3.98	127	1.31	0.4	10.5
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
0121-97-0175	21-05061	89.50–90.00	Qbt 3	—	5.2 (U)	—	—	—	—	—
0121-97-0176	21-05061	98.70–99.20	Qbt 2	—	5.2 (U)	—	—	—	—	—
0121-97-0193	21-05062	10.00–10.50	Qbt 3	—	—	—	—	—	—	—
0121-97-0194	21-05062	20.00–20.50	Qbt 3	—	0.51 (U)	—	—	—	—	9.8
0121-97-0195	21-05062	30.00–30.50	Qbt 3	—	—	—	—	—	—	—
0121-97-0196	21-05062	40.00–40.50	Qbt 3	7660	0.54 (U)	7.8	—	—	—	—
0121-97-0197	21-05062	49.50–50.00	Qbt 3	—	1.1 (U)	—	—	—	—	—
0121-97-0191	21-05062	5.00–5.50	Qbt 3	—	0.54 (U)	4.2	83.7	—	—	52.2
0121-97-0198	21-05062	58.80–59.50	Qbt 3	—	3.3 (U)	4.1 (U)	—	—	—	—
0121-97-0192	21-05062	6.00–6.50	Qbt 3	—	0.51 (U)	—	—	—	—	—
0121-97-0199	21-05062	70.00–70.50	Qbt 3	—	5.2 (U)	—	—	—	—	—
0121-97-0200	21-05062	78.40–79.50	Qbt 3	7940	12 (J-)	—	111	—	5.4 (J+)	17.9
0121-97-0223	21-05063	10.00–11.60	Qbt 3	10,300	7.1 (UJ)	—	161	2.8	—	—
0121-97-0224	21-05063	20.00–20.50	Qbt 3	—	6 (UJ)	—	—	—	—	11.7
0121-97-0225	21-05063	30.50–31.30	Qbt 3	—	5.8 (UJ)	—	—	—	—	—
0121-97-0221	21-05063	4.50–5.00	Qbt 3	—	6.1 (UJ)	—	154	—	—	7.2
0121-97-0226	21-05063	41.00–42.00	Qbt 3	—	5.5 (UJ)	—	—	—	—	—
0121-97-0227	21-05063	49.00–50.00	Qbt 3	—	5.8 (UJ)	—	—	—	—	—
0121-97-0222	21-05063	7.50–8.30	Qbt 3	—	5.5 (UJ)	—	—	—	—	—
0121-96-0622	21-05065	10.00–10.50	Qbt 3	—	—	—	—	—	—	—
0121-96-0623	21-05065	19.50–20.00	Qbt 3	—	—	—	—	—	—	—
0121-96-0624	21-05065	29.50–30.00	Qbt 3	—	—	—	—	—	—	—
0121-96-0625	21-05065	39.50–40.00	Qbt 3	—	—	—	—	—	—	—
0121-96-0621	21-05065	4.50–5.00	Qbt 3	—	—	—	53.3	—	—	—
0121-96-0626	21-05065	48.20–48.70	Qbt 3	—	—	—	—	—	—	—
0121-97-0328	21-05073	11.70–12.20	Qbt 3	—	5.2 (U)	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Sediment Background Value				15,400	0.83	3.98	127	1.31	0.4	10.5
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
0121-97-0326	21-05073	2.50–3.00	Soil	—	5.3 (U)	—	—	—	0.86 (U)	—
0121-97-0329	21-05073	22.00–23.00	Qbt 3	—	5.3 (U)	—	—	—	—	—
0121-97-0330	21-05073	32.00–32.50	Qbt 3	—	5.4 (U)	—	—	—	—	—
0121-97-0331	21-05073	42.00–42.50	Qbt 3	—	5.3 (U)	—	—	—	—	—
0121-97-0332	21-05073	46.50–47.00	Qbt 3	—	5.3 (U)	—	—	—	—	—
0121-97-0333	21-05073	62.00–62.50	Qbt 3	—	6.4 (J)	—	—	—	—	—
0121-97-0334	21-05073	69.50–70.00	Qbt 3	—	5.3 (U)	—	—	—	—	—
0121-97-0327	21-05073	8.50–9.00	Qbt 3	—	8.5 (U)	—	98.1	—	—	7.7 (J)
0121-97-1133	21-05075	15.50–16.00	Qbt 3	—	5.2 (UJ)	—	—	—	—	—
0121-97-1134	21-05075	20.00–21.00	Qbt 3	—	5.2 (U)	—	—	—	—	—
0121-97-1135	21-05075	29.50–30.00	Qbt 3	—	5.3 (UJ)	—	—	—	—	—
0121-97-1136	21-05075	38.80–39.30	Qbt 3	—	8.6 (U)	—	—	—	—	—
0121-97-1137	21-05075	45.00–46.00	Qbt 3	—	8.9 (U)	—	—	—	—	—
0121-97-1138	21-05075	58.00–58.50	Qbt 3	—	8.7 (U)	—	—	—	—	—
0121-97-1131	21-05075	6.70–7.20	Qbt 3	7,920	5.8 (UJ)	—	119	—	—	—
0121-97-1139	21-05075	69.50–70.00	Qbt 3	—	8.1 (U)	—	—	—	—	—
0121-97-1132	21-05075	8.80–9.30	Qbt 3	—	5.4 (UJ)	—	—	—	—	—
MD21-06-63938	21-25263	125.00–127.00	Qbt 2	—	—	—	—	—	—	—
MD21-06-63939	21-25263	165.00–167.00	Qbt 2	—	—	—	—	—	—	—
MD21-06-63940	21-25263	215.00–217.00	Qbt 1v	—	—	2.16	—	—	0.581 (U)	—
MD21-06-63941	21-25263	269.00–271.00	Qbt 1g	—	—	1.65 (U)	—	—	0.551 (U)	—
MD21-06-63942	21-25263	330.00–332.00	Qbt t	—	—	—	—	—	—	—
MD21-06-63943	21-25263	340.00–342.00	Qct	—	—	0.705 (J)	—	—	0.579 (U)	—
MD21-06-63944	21-25263	351.00–354.00	Qbo	—	—	1.69 (U)	—	—	0.564 (U)	—
MD21-06-63935	21-25263	40.00–42.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-63936	21-25263	70.00–73.00	Qbt 3	—	—	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Sediment Background Value				15,400	0.83	3.98	127	1.31	0.4	10.5
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
MD21-06-63937	21-25263	80.00–82.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-63975	21-25264	114.00–117.00	Qbt 2	—	—	—	—	—	—	—
MD21-06-63976	21-25264	149.00–150.50	Qbt 2	—	—	—	—	—	—	—
MD21-06-63977	21-25264	152.50–154.00	Qbt 2	—	—	—	—	—	—	—
MD21-06-63978	21-25264	196.00–199.00	Qbt 1v	—	—	1.89	—	—	0.54 (U)	—
MD21-06-63979	21-25264	257.00–259.00	Qbt 1g	—	—	1.63 (U)	26	—	0.544 (U)	—
MD21-06-63973	21-25264	30.00–31.50	Qbt 3	—	—	—	—	—	—	—
MD21-06-63980	21-25264	301.00–304.00	Qbt 1g	—	—	1.66 (U)	—	—	0.552 (U)	—
MD21-06-63981	21-25264	325.80–327.00	Qct	4420	—	0.895 (J)	—	—	0.576 (U)	—
MD21-06-63982	21-25264	351.00–354.00	Qct	4870	—	0.743 (J)	—	—	0.557 (U)	3.02 (J)
MD21-06-63974	21-25264	60.00–63.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65821	21-25361	11.50–13.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65822	21-25361	36.00–39.00	Qbt 3	—	—	3.44	—	—	—	—
MD21-06-65843	21-25362	22.50–24.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65844	21-25362	37.00–39.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65851	21-25363	18.00–20.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65852	21-25363	37.00–40.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65883	21-25365	27.00–30.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65890	21-25366	25.00–27.90	Qbt 3	—	—	—	—	—	—	—
MD21-06-65944	21-25372	101.50–103.50	Qbt 2	—	—	15 (U)	—	—	5 (U)	—
MD21-06-65945	21-25372	181.00–183.00	Qbt 1v	—	—	15.7 (U)	—	—	5.24 (U)	—
MD21-06-65946	21-25372	229.00–231.00	Qbt 1g	4930 (J+)	—	4.75	54.3	2.9	—	—
MD21-06-65947	21-25372	276.00–279.00	Qbt 1g	—	—	0.785 (J)	—	—	0.574 (U)	—
MD21-06-65942	21-25372	50.00–52.00	Qbt 3	—	—	7.77 (U)	—	—	2.59 (U)	—
MD21-06-65943	21-25372	75.00–77.00	Qbt 3	—	—	7.63 (U)	—	—	2.54 (U)	—
MD21-06-65961	21-25373	139.00–141.00	Qbt 2	—	—	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Sediment Background Value				15,400	0.83	3.98	127	1.31	0.4	10.5
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
MD21-06-65962	21-25373	211.00–213.00	Qbt 1v	—	—	2.02	—	—	0.552 (U)	—
MD21-06-65963	21-25373	276.00–279.00	Qbt 1g	—	—	1.63 (U)	—	—	0.543 (U)	—
MD21-06-65956	21-25373	32.00–34.00	Qbt 3	—	—	4.55	—	—	—	—
MD21-06-65957	21-25373	36.00–38.00	Qbt 3	—	—	3.27	—	—	—	—
MD21-06-65958	21-25373	52.50–54.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65959	21-25373	66.00–69.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65960	21-25373	99.00–101.00	Qbt 2	—	—	—	—	—	—	22
MD21-06-65974	21-25374	109.00–111.00	Qbt 2	—	—	—	—	—	—	—
MD21-06-65975	21-25374	174.00–176.00	Qbt 1v	—	—	—	—	—	0.52 (U)	—
MD21-06-65972	21-25374	20.00–22.00	Fill	—	—	—	—	—	—	—
MD21-06-65976	21-25374	234.00–236.00	Qbt 1g	6560	—	2.83	116 (J-)	2.68	—	—
MD21-06-65973	21-25374	27.00–29.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65977	21-25374	276.00–279.00	Qbt 1g	—	—	1.72 (U)	—	—	0.573 (U)	—
MD21-06-65989	21-25375	190.00–192.00	Qbt 1v	—	—	—	—	—	0.54 (U)	—
MD21-06-65990	21-25375	253.00–255.00	Qbt 1g	—	—	1.71 (U)	50.4	—	0.569 (U)	—
MD21-06-65991	21-25375	277.00–280.00	Qbt 1g	—	—	1.78 (U)	—	—	0.593 (U)	—
MD21-06-65985	21-25375	29.00–30.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65986	21-25375	32.00–33.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65987	21-25375	57.00–58.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65988	21-25375	80.00–83.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-66003	21-25376	108.50–110.90	Qbt 2	—	—	—	—	—	—	—
MD21-06-66004	21-25376	148.00–151.00	Qbt 2	—	—	—	—	—	—	—
MD21-06-66005	21-25376	198.00–200.00	Qbt 1v	—	—	2.32	—	—	0.545 (U)	—
MD21-06-66006	21-25376	238.00–240.00	Qbt 1g	—	—	1.03 (J)	—	—	0.56 (U)	—
MD21-06-66000	21-25376	28.00–29.50	Qbt 3	—	—	—	—	—	—	—
MD21-06-66007	21-25376	280.00–283.00	Qbt 1g	—	—	0.84 (J)	—	—	0.558 (U)	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Sediment Background Value				15,400	0.83	3.98	127	1.31	0.4	10.5
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
MD21-06-66001	21-25376	31.50–33.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-66002	21-25376	70.00–72.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-66243	21-25405	0.00–0.50	Soil	—	—	—	—	—	0.527 (U)	—
MD21-06-66244	21-25405	1.50–2.00	Soil	—	—	—	—	—	0.569 (U)	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Nickel	Nitrate
Soil Background Value				8.64	14.7	21,500	22.3	na	671	0.1	15.4	na
Sediment Background Value				4.73	11.2	13,800	19.7	na	543	0.1	9.38	na
Qbt 2,3,4 Background Value				3.14	4.66	14,500	11.2	na	482	0.1	6.58	na
Qbt 1v Background Value				1.78	3.26	9900	18.4	na	408	0.1	2	na
Qbt 1g, Qct, Qbo Background Value				8.89	3.96	3700	13.5	na	189	0.1	2	na
AAA3950	21-01615	0.00–0.50	Soil	—	—	—	—	7.8 (J)	—	—	—	—
AAA3951	21-01616	0.00–0.50	Soil	—	—	—	—	5.4 (J)	—	—	—	—
AAA3952	21-01617	0.00–0.50	Soil	—	—	—	—	8.4 (J)	—	—	—	—
AAA3953	21-01618	0.00–0.50	Soil	—	—	—	—	14.8	—	—	—	—
AAA3954	21-01619	0.00–0.50	Soil	—	—	—	—	2.7 (J)	—	—	—	—
AAA3957	21-01620	0.00–0.50	Soil	—	—	—	—	7.9 (J)	—	—	—	—
AAA3958	21-01621	0.00–0.50	Soil	—	—	—	—	8.7 (J)	—	—	—	—
AAA3959	21-01622	0.00–0.50	Soil	—	—	—	—	14.3	—	—	—	—
AAA3961	21-01623	0.00–0.50	Soil	—	—	—	—	5.4 (J)	—	—	—	—
AAA3962	21-01624	0.00–0.50	Soil	—	—	—	—	6.7 (J)	—	—	—	—
AAA3963	21-01625	0.00–0.50	Soil	—	—	—	—	7.8 (J)	—	—	—	—
AAA3964	21-01626	0.00–0.50	Soil	—	—	—	—	9.9 (J)	—	—	—	—
AAA3965	21-01627	0.00–0.50	Soil	—	—	—	—	5.3 (J)	—	—	—	—
AAA3985	21-01644	0.00–0.50	Soil	—	—	—	—	4.6 (J)	—	—	—	—
AAA3986	21-01645	0.00–0.50	Soil	—	—	—	—	3 (J)	—	—	—	—
AAA3987	21-01646	0.00–0.50	Soil	—	—	—	—	4.6 (J)	—	—	—	—
AAA3988	21-01647	0.00–0.50	Soil	—	—	—	—	6.4 (J)	—	—	—	—
AAA3989	21-01648	0.00–0.50	Soil	—	—	—	—	7.7 (J)	—	—	—	—
AAA3990	21-01649	0.00–0.50	Soil	—	—	—	—	5.2 (J)	—	—	—	—
AAA3993	21-01652	0.00–0.50	Soil	—	—	—	—	6.4 (J)	—	—	—	—
AAA3996	21-01655	0.00–0.50	Soil	—	—	—	—	4.9 (J)	—	—	—	—
AAA3997	21-01656	0.00–0.50	Soil	—	—	—	—	9.6 (J)	—	—	—	—
AAA3998	21-01657	0.00–0.50	Soil	—	—	—	—	7 (J)	—	—	—	—
AAA4001	21-01658	0.00–0.50	Soil	—	—	—	—	5.3 (J)	—	—	—	—
AAA4006	21-01662	0.00–0.50	Soil	—	—	—	—	4.6 (J)	—	—	—	—
0121-97-0001	21-05051	3.50–4.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0002	21-05051	6.00–6.50	Fill	—	—	—	—	—	—	0.25	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Nickel	Nitrate
Soil Background Value				8.64	14.7	21,500	22.3	na	671	0.1	15.4	na
Sediment Background Value				4.73	11.2	13,800	19.7	na	543	0.1	9.38	na
Qbt 2,3,4 Background Value				3.14	4.66	14,500	11.2	na	482	0.1	6.58	na
Qbt 1v Background Value				1.78	3.26	9900	18.4	na	408	0.1	2	na
Qbt 1g, Qct, Qbo Background Value				8.89	3.96	3700	13.5	na	189	0.1	2	na
0121-97-0003	21-05051	8.50–9.00	Fill	—	17.5	—	—	—	—	1.3	23	—
0121-97-0004	21-05051	11.50–12.00	Fill	—	—	—	—	—	—	0.99	—	—
0121-97-0005	21-05051	13.80–14.50	Qbt 3	—	51.9	16,000	23.1	—	—	2.6	24.5 (J)	—
0121-97-0006	21-05051	20.00–21.00	Qbt 3	3.6 (J)	48	17,400	36.6	—	—	2.9	15.3	—
0121-97-0007	21-05051	27.50–28.00	Qbt 3	—	—	—	—	—	—	0.71	—	—
0121-97-0008	21-05051	40.00–40.50	Qbt 3	—	—	—	—	—	—	—	57.7	—
0121-97-0009	21-05051	50.00–50.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0010	21-05051	61.00–61.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0011	21-05051	71.00–71.50	Qbt 3	—	—	—	13.9	—	—	—	—	—
0121-97-0012	21-05051	80.00–80.50	Qbt 3	—	—	—	11.5	—	—	—	—	—
0121-97-0013	21-05051	89.50–90.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0014	21-05051	99.50–100.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0015	21-05051	109.00–109.50	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0016	21-05051	119.50–120.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0017	21-05051	129.50–130.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0018	21-05051	137.50–138.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0019	21-05051	149.50–150.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0026	21-05052	2.50–3.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0027	21-05052	9.00–9.50	Qal	6.5 (J)	—	—	—	—	—	—	—	—
0121-97-0028	21-05052	20.00–20.50	Qal	—	—	—	—	—	—	—	—	—
0121-97-0029	21-05052	26.00–27.00	Qal	—	—	—	—	—	—	—	—	—
0121-97-0030	21-05052	39.50–40.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0031	21-05052	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0032	21-05052	59.50–60.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0033	21-05052	70.00–71.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0034	21-05052	79.50–80.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0035	21-05052	87.00–88.00	Qbt 3	—	—	—	—	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Nickel	Nitrate
Soil Background Value				8.64	14.7	21,500	22.3	na	671	0.1	15.4	na
Sediment Background Value				4.73	11.2	13,800	19.7	na	543	0.1	9.38	na
Qbt 2,3,4 Background Value				3.14	4.66	14,500	11.2	na	482	0.1	6.58	na
Qbt 1v Background Value				1.78	3.26	9900	18.4	na	408	0.1	2	na
Qbt 1g, Qct, Qbo Background Value				8.89	3.96	3700	13.5	na	189	0.1	2	na
0121-97-0036	21-05052	96.00–96.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0037	21-05052	109.00–110.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0038	21-05052	119.00–120.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0039	21-05052	130.00–131.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0040	21-05052	139.00–140.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0041	21-05052	149.00–150.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0051	21-05053	4.20–4.60	Fill	—	—	—	—	—	—	0.49	15.7	—
0121-97-0052	21-05053	6.50–7.00	Fill	—	49.1	—	—	—	—	0.76	140	—
0121-97-0053	21-05053	9.50–10.00	Fill	—	29.8	—	25.9	—	—	9.1	23.8	—
0121-97-0054	21-05053	12.50–13.00	Qbt 3	—	—	—	—	—	—	0.36 (J-)	—	—
0121-97-0055	21-05053	17.00–17.30	Qbt 3	8 (J)	131 (J-)	16,000 (J)	—	—	1290 (J)	—	23.2	—
0121-97-0056	21-05053	20.50–21.50	Qbt 3	—	7.2 (J-)	—	—	—	—	—	—	—
0121-97-0057	21-05053	28.00–29.00	Qbt 3	—	25.8 (J-)	—	13.4	—	—	0.18 (J-)	—	—
0121-97-0058	21-05053	39.50–40.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0059	21-05053	48.00–48.50	Qbt 3	5 (J)	78.9	18,100	40.8	—	547	0.31	31.2	—
0121-97-0060	21-05053	59.50–60.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0061	21-05053	60.00–60.70	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0062	21-05053	74.50–75.00	Qbt 3	—	9	—	—	—	—	—	—	—
0121-97-0063	21-05053	80.00–80.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0445	21-05053	89.50–90.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0066	21-05054	3.00–3.50	Fill	—	—	—	—	—	—	—	—	—
0121-97-0067	21-05054	6.00–6.50	Fill	—	19	—	24	—	—	2.5	15.8	—
0121-97-0068	21-05054	7.50–8.20	Fill	—	23.8	—	26.1	—	—	5.7	—	—
0121-97-0069	21-05054	10.50–11.00	Fill	—	41	—	36.8	—	—	18.6	—	—
0121-97-0070	21-05054	14.20–15.00	Qbt 3	3.5 (J)	100 (J-)	19,600 (J)	23	—	—	1.1 (J-)	24.2	—
0121-97-0071	21-05054	21.80–22.10	Qbt 3	—	54.8	15,900	—	—	—	1.4	—	—
0121-97-0072	21-05054	32.00–32.50	Qbt 3	—	—	—	—	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Nickel	Nitrate
Soil Background Value				8.64	14.7	21,500	22.3	na	671	0.1	15.4	na
Sediment Background Value				4.73	11.2	13,800	19.7	na	543	0.1	9.38	na
Qbt 2,3,4 Background Value				3.14	4.66	14,500	11.2	na	482	0.1	6.58	na
Qbt 1v Background Value				1.78	3.26	9900	18.4	na	408	0.1	2	na
Qbt 1g, Qct, Qbo Background Value				8.89	3.96	3700	13.5	na	189	0.1	2	na
0121-97-0073	21-05054	35.50–36.00	Qbt 3	—	27.6 (J-)	—	—	—	—	—	7 (J)	—
0121-97-0074	21-05054	50.00–50.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0075	21-05054	59.50–60.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0081	21-05055	3.50–4.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0082	21-05055	8.50–9.00	Fill	—	14.8	—	—	—	—	0.11	16.6	—
0121-97-0083	21-05055	14.50–15.00	Fill	—	31.1 (J)	—	52	—	—	1.6	17.8	—
0121-97-0096	21-05056	4.50–5.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0097	21-05056	11.80–12.20	Qbt 3	—	8.7	—	—	—	—	—	8.5 (J)	—
0121-97-0098	21-05056	20.00–20.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0099	21-05056	29.00–29.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0100	21-05056	39.00–39.50	Qbt 3	—	10.3	—	21.5	—	—	—	9.9	—
0121-97-0101	21-05056	49.50–50.00	Qbt 3	—	11.4 (J)	—	—	—	—	—	—	—
0121-96-0481	21-05057	4.30–5.00	Fill	—	—	—	—	—	—	0.11 (U)	—	—
0121-96-0482	21-05057	9.50–10.00	Fill	—	—	—	—	—	—	0.11 (U)	—	—
0121-96-0483	21-05057	19.50–20.00	Fill	—	—	—	—	—	—	0.11 (UJ)	—	—
0121-96-0484	21-05057	22.50–23.90	Qal	—	—	—	—	—	—	1.1	11.4	—
0121-96-0485	21-05057	29.50–30.00	Qbt 3	—	—	—	—	—	—	0.11 (U)	—	—
0121-96-0486	21-05057	39.50–40.00	Qbt 3	—	—	—	—	—	—	0.11 (UJ)	—	—
0121-96-0487	21-05057	49.50–50.00	Qbt 3	—	—	—	—	—	—	0.11 (UJ)	—	—
0121-96-0492	21-05058	7.70–8.20	Fill	—	—	—	—	—	—	—	—	—
0121-96-0495	21-05058	29.50–30.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0496	21-05058	39.50–40.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0497	21-05058	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0111	21-05059	4.00–4.50	Soil	—	—	—	—	—	—	—	—	—
0121-97-0112	21-05059	10.20–10.70	Qal	—	—	—	—	—	—	—	—	—
0121-97-0113	21-05059	20.00–20.50	Qal	—	—	—	—	—	—	—	—	—
0121-97-0114	21-05059	31.50–32.00	Qal	—	—	—	—	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Nickel	Nitrate
Soil Background Value				8.64	14.7	21,500	22.3	na	671	0.1	15.4	na
Sediment Background Value				4.73	11.2	13,800	19.7	na	543	0.1	9.38	na
Qbt 2,3,4 Background Value				3.14	4.66	14,500	11.2	na	482	0.1	6.58	na
Qbt 1v Background Value				1.78	3.26	9900	18.4	na	408	0.1	2	na
Qbt 1g, Qct, Qbo Background Value				8.89	3.96	3700	13.5	na	189	0.1	2	na
0121-97-0115	21-05059	36.40–36.80	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0116	21-05059	40.00–40.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0117	21-05059	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0166	21-05061	5.50–6.00	Soil	—	—	—	—	—	—	—	—	—
0121-97-0167	21-05061	10.00–10.50	Qbt 3	4.9 (J)	16.8	22,300	15.5 (J-)	—	—	0.26	15.2	—
0121-97-0168	21-05061	22.00–22.50	Qbt 3	—	9.2	—	—	—	—	—	8.7 (J)	—
0121-97-0169	21-05061	30.00–30.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0170	21-05061	40.00–40.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0171	21-05061	49.00–49.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0172	21-05061	59.50–60.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0173	21-05061	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0174	21-05061	78.50–78.80	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0175	21-05061	89.50–90.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0176	21-05061	98.70–99.20	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0177	21-05061	108.50–109.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0178	21-05061	118.00–118.50	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0179	21-05061	128.50–129.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0180	21-05061	140.00–140.50	Qbt 2	—	—	—	—	—	—	—	32.7	—
0121-97-0181	21-05061	152.50–153.00	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0182	21-05061	160.00–160.50	Qbt 2	—	—	—	—	—	—	—	—	—
0121-97-0183	21-05061	170.00–170.50	Qbt 1v	—	—	—	—	—	—	—	—	—
0121-97-0184	21-05061	180.00–180.50	Qbt 1v	—	—	—	—	—	—	—	2.1 (U)	—
0121-97-0185	21-05061	189.50–190.00	Qbt 1v	—	—	—	—	—	—	—	2.1 (U)	—
0121-97-0191	21-05062	5.00–5.50	Qbt 3	4.6 (J)	9.7	—	11.7 (J-)	—	—	—	8.5 (J)	—
0121-97-0192	21-05062	6.00–6.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0193	21-05062	10.00–10.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0194	21-05062	20.00–20.50	Qbt 3	—	—	—	—	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Nickel	Nitrate
Soil Background Value				8.64	14.7	21,500	22.3	na	671	0.1	15.4	na
Sediment Background Value				4.73	11.2	13,800	19.7	na	543	0.1	9.38	na
Qbt 2,3,4 Background Value				3.14	4.66	14,500	11.2	na	482	0.1	6.58	na
Qbt 1v Background Value				1.78	3.26	9900	18.4	na	408	0.1	2	na
Qbt 1g, Qct, Qbo Background Value				8.89	3.96	3700	13.5	na	189	0.1	2	na
0121-97-0195	21-05062	30.00–30.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0196	21-05062	40.00–40.50	Qbt 3	—	5.7 (J)	—	11.7 (J-)	—	—	—	—	—
0121-97-0197	21-05062	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0198	21-05062	58.80–59.50	Qbt 3	—	5.6 (J)	—	—	—	—	—	—	—
0121-97-0199	21-05062	70.00–70.50	Qbt 3	—	—	—	21.5	—	—	—	—	—
0121-97-0200	21-05062	78.40–79.50	Qbt 3	5.1 (J-)	21 (J)	—	19.9 (J)	—	—	0.28	75.8 (J+)	—
0121-97-0221	21-05063	4.50–5.00	Qbt 3	8.3 (J)	8.2	—	—	—	488	—	7.1 (J)	—
0121-97-0222	21-05063	7.50–8.30	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0223	21-05063	10.00–11.60	Qbt 3	—	7.5	—	—	—	—	—	16.1	—
0121-97-0224	21-05063	20.00–20.50	Qbt 3	—	—	—	—	—	—	—	6.7 (J)	—
0121-97-0225	21-05063	30.50–31.30	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0226	21-05063	41.00–42.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0227	21-05063	49.00–50.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0621	21-05065	4.50–5.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0622	21-05065	10.00–10.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0623	21-05065	19.50–20.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0624	21-05065	29.50–30.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0625	21-05065	39.50–40.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0626	21-05065	48.20–48.70	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0326	21-05073	2.50–3.00	Soil	—	—	—	—	—	—	—	—	—
0121-97-0327	21-05073	8.50–9.00	Qbt 3	4.4 (J)	23.4 (J)	—	17.8	—	—	0.23	26.4	—
0121-97-0328	21-05073	11.70–12.20	Qbt 3	—	—	—	13.1 (J-)	—	—	—	—	—
0121-97-0329	21-05073	22.00–23.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0330	21-05073	32.00–32.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0331	21-05073	42.00–42.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0332	21-05073	46.50–47.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0333	21-05073	62.00–62.50	Qbt 3	—	—	—	—	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Nickel	Nitrate
Soil Background Value				8.64	14.7	21,500	22.3	na	671	0.1	15.4	na
Sediment Background Value				4.73	11.2	13,800	19.7	na	543	0.1	9.38	na
Qbt 2,3,4 Background Value				3.14	4.66	14,500	11.2	na	482	0.1	6.58	na
Qbt 1v Background Value				1.78	3.26	9900	18.4	na	408	0.1	2	na
Qbt 1g, Qct, Qbo Background Value				8.89	3.96	3700	13.5	na	189	0.1	2	na
0121-97-0334	21-05073	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1131	21-05075	6.70–7.20	Qbt 3	5.2	6.3	—	—	—	—	—	—	—
0121-97-1132	21-05075	8.80–9.30	Qbt 3	—	6.2	—	12.1 (J)	—	—	0.45	—	—
0121-97-1133	21-05075	15.50–16.00	Qbt 3	—	—	—	14	—	—	0.12	—	—
0121-97-1134	21-05075	20.00–21.00	Qbt 3	—	4.9 (U)	—	—	—	—	0.5	—	—
0121-97-1135	21-05075	29.50–30.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1136	21-05075	38.80–39.30	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1137	21-05075	45.00–46.00	Qbt 3	—	9.6	—	13 (J-)	—	—	0.11 (J)	—	—
0121-97-1138	21-05075	58.00–58.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1139	21-05075	69.50–70.00	Qbt 3	—	8.9	—	—	—	—	—	—	—
MD21-06-63935	21-25263	40.00–42.00	Qbt 3	—	—	—	—	—	—	—	—	4.63
MD21-06-63936	21-25263	70.00–73.00	Qbt 3	—	—	—	—	—	—	—	—	2.84
MD21-06-63937	21-25263	80.00–82.00	Qbt 3	—	—	—	—	—	—	—	—	1.59
MD21-06-63938	21-25263	125.00–127.00	Qbt 2	—	—	—	—	—	—	—	—	0.78 (J)
MD21-06-63939	21-25263	165.00–167.00	Qbt 2	—	—	—	—	—	—	—	—	0.87 (J)
MD21-06-63940	21-25263	215.00–217.00	Qbt 1v	—	—	—	—	—	454	—	—	1.15
MD21-06-63941	21-25263	269.00–271.00	Qbt 1g	—	—	3920	—	—	—	—	—	12.4
MD21-06-63942	21-25263	330.00–332.00	Qbt t	—	—	—	—	—	—	—	—	1.13 (J)
MD21-06-63943	21-25263	340.00–342.00	Qct	—	—	—	—	—	—	—	—	1.96
MD21-06-63944	21-25263	351.00–354.00	Qbo	—	—	—	—	—	—	—	—	0.861 (J)
MD21-06-63973	21-25264	30.00–31.50	Qbt 3	—	—	—	39.9	—	—	—	—	1.17
MD21-06-63974	21-25264	60.00–63.00	Qbt 3	—	—	—	—	—	—	—	—	1.64
MD21-06-63975	21-25264	114.00–117.00	Qbt 2	—	—	—	—	—	—	—	—	2.22
MD21-06-63976	21-25264	149.00–150.50	Qbt 2	—	—	—	—	—	—	—	—	7.56
MD21-06-63977	21-25264	152.50–154.00	Qbt 2	—	—	—	—	—	—	—	—	8.38
MD21-06-63978	21-25264	196.00–199.00	Qbt 1v	—	—	—	—	—	—	—	—	9.3 (J-)
MD21-06-63979	21-25264	257.00–259.00	Qbt 1g	—	—	—	—	—	—	—	—	5.08

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Nickel	Nitrate
Soil Background Value				8.64	14.7	21,500	22.3	na	671	0.1	15.4	na
Sediment Background Value				4.73	11.2	13,800	19.7	na	543	0.1	9.38	na
Qbt 2,3,4 Background Value				3.14	4.66	14,500	11.2	na	482	0.1	6.58	na
Qbt 1v Background Value				1.78	3.26	9900	18.4	na	408	0.1	2	na
Qbt 1g, Qct, Qbo Background Value				8.89	3.96	3700	13.5	na	189	0.1	2	na
MD21-06-63980	21-25264	301.00–304.00	Qbt 1g	—	—	—	—	—	—	—	—	1.02 (J)
MD21-06-63981	21-25264	325.80–327.00	Qct	—	—	3750	—	—	239	—	—	—
MD21-06-63982	21-25264	351.00–354.00	Qct	—	—	7670	—	—	247	—	2.42	1.14
MD21-06-65821	21-25361	11.50–13.00	Qbt 3	—	—	—	—	—	—	—	—	1.07 (J)
MD21-06-65822	21-25361	36.00–39.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65843	21-25362	22.50–24.00	Qbt 3	—	—	—	—	—	—	—	—	0.995 (J)
MD21-06-65844	21-25362	37.00–39.00	Qbt 3	—	—	—	—	—	—	—	—	0.992 (J)
MD21-06-65851	21-25363	18.00–20.00	Qbt 3	—	—	—	—	—	—	—	—	1.12
MD21-06-65852	21-25363	37.00–40.00	Qbt 3	—	—	—	—	—	—	—	—	1.26
MD21-06-65883	21-25365	27.00–30.00	Qbt 3	—	—	—	—	—	—	—	—	0.519 (J)
MD21-06-65890	21-25366	25.00–27.90	Qbt 3	—	—	—	—	—	—	—	—	0.628 (J)
MD21-06-65942	21-25372	50.00–52.00	Qbt 3	—	—	—	—	—	—	—	—	3.06
MD21-06-65943	21-25372	75.00–77.00	Qbt 3	—	5.09 (U)	—	—	—	—	—	—	10.1
MD21-06-65944	21-25372	101.50–103.50	Qbt 2	—	—	—	—	—	—	—	—	5.46
MD21-06-65945	21-25372	181.00–183.00	Qbt 1v	—	10.5 (U)	—	—	—	—	—	—	5.79
MD21-06-65946	21-25372	229.00–231.00	Qbt 1g	—	—	4420	—	—	234	—	—	68.5 (J-)
MD21-06-65947	21-25372	276.00–279.00	Qbt 1g	—	—	—	—	—	—	—	—	17.7 (J-)
MD21-06-65956	21-25373	32.00–34.00	Qbt 3	—	—	—	33	—	—	—	—	0.637 (J)
MD21-06-65957	21-25373	36.00–38.00	Qbt 3	—	—	—	42.9	—	—	—	—	0.623 (J)
MD21-06-65958	21-25373	52.50–54.00	Qbt 3	—	—	—	20.6	—	—	—	—	0.586 (J)
MD21-06-65959	21-25373	66.00–69.00	Qbt 3	—	—	—	13.1	—	—	—	—	0.759 (J)
MD21-06-65960	21-25373	99.00–101.00	Qbt 2	—	—	—	—	—	—	—	—	0.668 (J)
MD21-06-65961	21-25373	139.00–141.00	Qbt 2	—	—	—	13.4	—	—	—	—	1.01
MD21-06-65962	21-25373	211.00–213.00	Qbt 1v	—	—	—	21.6	—	547	—	—	12.4
MD21-06-65963	21-25373	276.00–279.00	Qbt 1g	—	—	—	—	—	—	—	—	0.427 (J)
MD21-06-65972	21-25374	20.00–22.00	Fill	—	—	—	—	—	—	—	—	—
MD21-06-65973	21-25374	27.00–29.00	Qbt 3	—	—	—	—	—	—	—	—	9.62

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Cobalt	Copper	Iron	Lead	Lithium	Manganese	Mercury	Nickel	Nitrate
Soil Background Value				8.64	14.7	21,500	22.3	na	671	0.1	15.4	na
Sediment Background Value				4.73	11.2	13,800	19.7	na	543	0.1	9.38	na
Qbt 2,3,4 Background Value				3.14	4.66	14,500	11.2	na	482	0.1	6.58	na
Qbt 1v Background Value				1.78	3.26	9900	18.4	na	408	0.1	2	na
Qbt 1g, Qct, Qbo Background Value				8.89	3.96	3700	13.5	na	189	0.1	2	na
MD21-06-65974	21-25374	109.00–111.00	Qbt 2	—	—	—	—	—	—	—	—	3.42
MD21-06-65975	21-25374	174.00–176.00	Qbt 1v	—	—	—	—	—	—	—	—	22.9
MD21-06-65976	21-25374	234.00–236.00	Qbt 1g	—	—	7180	—	—	277	—	—	2.02
MD21-06-65977	21-25374	276.00–279.00	Qbt 1g	—	—	—	—	—	—	—	—	2.01
MD21-06-65985	21-25375	29.00–30.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65986	21-25375	32.00–33.00	Qbt 3	—	—	—	—	—	—	—	—	1.05 (J)
MD21-06-65987	21-25375	57.00–58.00	Qbt 3	—	—	—	11.3	—	—	—	—	—
MD21-06-65988	21-25375	80.00–83.00	Qbt 3	—	—	—	15.8	—	—	—	—	—
MD21-06-65989	21-25375	190.00–192.00	Qbt 1v	—	—	—	—	—	—	—	—	—
MD21-06-65990	21-25375	253.00–255.00	Qbt 1g	—	—	6050 (J+)	—	—	249	—	—	—
MD21-06-65991	21-25375	277.00–280.00	Qbt 1g	—	—	—	—	—	—	—	—	3.21 (J-)
MD21-06-66000	21-25376	28.00–29.50	Qbt 3	—	—	—	—	—	—	—	—	7.29
MD21-06-66001	21-25376	31.50–33.00	Qbt 3	—	—	—	—	—	—	—	—	6.18
MD21-06-66002	21-25376	70.00–72.00	Qbt 3	—	—	—	—	—	—	—	—	1.32
MD21-06-66003	21-25376	108.50–110.90	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-66004	21-25376	148.00–151.00	Qbt 2	—	—	—	—	—	—	—	—	0.723 (J)
MD21-06-66005	21-25376	198.00–200.00	Qbt 1v	—	—	—	—	—	—	—	—	0.816 (J)
MD21-06-66006	21-25376	238.00–240.00	Qbt 1g	—	—	4780	—	—	265 (J+)	—	—	5.45 (J-)
MD21-06-66007	21-25376	280.00–283.00	Qbt 1g	—	—	—	—	—	—	—	—	0.834 (J-)
MD21-06-66243	21-25405	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
MD21-06-66244	21-25405	1.50–2.00	Soil	—	—	—	—	—	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Perchlorate	Selenium	Silver	Thallium	Vanadium	Zinc
Soil Background Value				na	1.52	1	0.73	39.6	48.8
Sediment Background Value				na	0.3	1	0.73	19.7	60.2
Qbt 2,3,4 Background Value				na	0.3	1	1.1	17	63.5
Qbt 1v Background Value				na	0.3	1	1.22	4.48	40
Qbt 1g, Qct, Qbo Background Value				na	0.3	1	1.24	4.59	84.6
0121-96-0481	21-05057	4.30–5.00	Fill	—	—	2.2 (U)	—	—	—
0121-96-0482	21-05057	9.50–10.00	Fill	—	—	2.3 (U)	—	—	—
0121-96-0483	21-05057	19.50–20.00	Fill	—	—	2.2 (U)	—	—	—
0121-96-0484	21-05057	22.50–23.90	Qal		0.37 (U)	—	0.76(U)	—	699
0121-96-0485	21-05057	29.50–30.00	Qbt 3	—	—	2.2 (U)	—	—	—
0121-96-0486	21-05057	39.50–40.00	Qbt 3	—	—	2.2 (U)	—	—	—
0121-96-0487	21-05057	49.50–50.00	Qbt 3	—	—	2.2 (U)	—	—	—
0121-96-0492	21-05058	7.70–8.20	Fill	—	—	—	—	—	—
0121-96-0495	21-05058	29.50–30.00	Qbt 3	—	0.66 (U)	—	—	—	—
0121-96-0496	21-05058	39.50–40.00	Qbt 3	—	0.64 (U)	—	—	—	—
0121-96-0497	21-05058	49.50–50.00	Qbt 3	—	0.65 (U)	—	—	—	—
0121-96-0621	21-05065	4.50–5.00	Qbt 3	—	0.61 (U)	—	—	—	—
0121-96-0622	21-05065	10.00–10.50	Qbt 3	—	0.62 (U)	—	—	—	—
0121-96-0623	21-05065	19.50–20.00	Qbt 3	—	0.64 (U)	—	—	—	—
0121-96-0624	21-05065	29.50–30.00	Qbt 3	—	0.65 (U)	—	—	—	—
0121-96-0625	21-05065	39.50–40.00	Qbt 3	—	0.65 (U)	—	—	—	—
0121-96-0626	21-05065	48.20–48.70	Qbt 3	—	0.56 (U)	—	—	—	—
0121-97-0001	21-05051	3.50–4.00	Fill	—	3.4 (U)	1.9 (U)	—	—	—
0121-97-0002	21-05051	6.00–6.50	Fill	—	3.6 (U)	2 (U)	—	—	—
0121-97-0003	21-05051	8.50–9.00	Fill	—	3.5 (U)	3.1	—	—	—
0121-97-0004	21-05051	11.50–12.00	Fill	—	—	3.6	—	—	—
0121-97-0005	21-05051	13.80–14.50	Qbt 3	—	0.42 (U)	11 (U)	—	26.7 (J)	—
0121-97-0006	21-05051	20.00–21.00	Qbt 3	—	4.5 (U)	4.1	—	34.3	75.5
0121-97-0007	21-05051	27.50–28.00	Qbt 3	—	0.37 (U)	2 (U)	—	—	—
0121-97-0008	21-05051	40.00–40.50	Qbt 3	—	0.35 (U)	1.9 (U)	—	—	—
0121-97-0009	21-05051	50.00–50.50	Qbt 3	—	0.35 (U)	1.9 (U)	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Perchlorate	Selenium	Silver	Thallium	Vanadium	Zinc
Soil Background Value				na	1.52	1	0.73	39.6	48.8
Sediment Background Value				na	0.3	1	0.73	19.7	60.2
Qbt 2,3,4 Background Value				na	0.3	1	1.1	17	63.5
Qbt 1v Background Value				na	0.3	1	1.22	4.48	40
Qbt 1g, Qct, Qbo Background Value				na	0.3	1	1.24	4.59	84.6
0121-97-0010	21-05051	61.00–61.50	Qbt 3	—	0.35 (U)	1.9 (U)	—	—	—
0121-97-0011	21-05051	71.00–71.50	Qbt 3	—	0.35 (U)	1.9 (U)	—	—	—
0121-97-0012	21-05051	80.00–80.50	Qbt 3	—	0.35	1.9 (U)	—	—	—
0121-97-0013	21-05051	89.50–90.00	Qbt 3	—	0.34 (U)	1.9 (U)	—	—	—
0121-97-0014	21-05051	99.50–100.00	Qbt 3	—	0.34 (U)	1.9 (U)	—	—	—
0121-97-0015	21-05051	109.00–109.50	Qbt 2	—	0.34 (U)	1.9 (U)	—	—	—
0121-97-0016	21-05051	119.50–120.00	Qbt 2	—	0.34 (U)	1.9 (U)	—	—	—
0121-97-0017	21-05051	129.50–130.00	Qbt 2	—	0.34 (U)	1.9 (U)	—	—	—
0121-97-0018	21-05051	137.50–138.00	Qbt 2	—	0.34 (U)	1.9 (U)	—	—	—
0121-97-0019	21-05051	149.50–150.00	Qbt 2	—	0.35 (U)	1.9 (U)	—	—	—
0121-97-0026	21-05052	2.50–3.00	Fill	—	—	—	—	—	—
0121-97-0027	21-05052	9.00–9.50	Qal	—	0.36 (U)	—	—	—	—
0121-97-0028	21-05052	20.00–20.50	Qal	—	0.42 (U)	—	—	—	—
0121-97-0029	21-05052	26.00–27.00	Qal	—	0.37 (U)	—	—	—	—
0121-97-0030	21-05052	39.50–40.00	Qbt 3	—	0.39 (UJ)	—	—	—	—
0121-97-0031	21-05052	49.50–50.00	Qbt 3	—	0.38 (UJ)	—	—	—	—
0121-97-0032	21-05052	59.50–60.00	Qbt 3	—	0.32 (U)	1.5 (U)	—	—	—
0121-97-0033	21-05052	70.00–71.00	Qbt 3	—	0.32 (U)	1.5 (U)	—	—	—
0121-97-0034	21-05052	79.50–80.00	Qbt 3	—	—	1.5 (U)	—	—	—
0121-97-0035	21-05052	87.00–88.00	Qbt 3	—	0.37 (J)	1.6 (U)	—	—	—
0121-97-0036	21-05052	96.00–96.50	Qbt 3	—	—	1.5 (U)	—	—	—
0121-97-0037	21-05052	109.00–110.00	Qbt 2	—	—	1.4 (U)	—	—	—
0121-97-0038	21-05052	119.00–120.00	Qbt 2	—	—	1.5 (U)	—	—	—
0121-97-0039	21-05052	130.00–131.00	Qbt 2	—	—	1.5 (U)	—	—	—
0121-97-0040	21-05052	139.00–140.00	Qbt 2	—	—	1.5 (U)	—	—	—
0121-97-0041	21-05052	149.00–150.00	Qbt 2	—	0.31 (U)	1.4 (U)	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Perchlorate	Selenium	Silver	Thallium	Vanadium	Zinc
Soil Background Value				na	1.52	1	0.73	39.6	48.8
Sediment Background Value				na	0.3	1	0.73	19.7	60.2
Qbt 2,3,4 Background Value				na	0.3	1	1.1	17	63.5
Qbt 1v Background Value				na	0.3	1	1.22	4.48	40
Qbt 1g, Qct, Qbo Background Value				na	0.3	1	1.24	4.59	84.6
0121-97-0051	21-05053	4.20–4.60	Fill	—	—	—	—	—	—
0121-97-0052	21-05053	6.50–7.00	Fill	—	—	—	—	—	53.5
0121-97-0053	21-05053	9.50–10.00	Fill	—	—	1.3 (J)	—	—	—
0121-97-0054	21-05053	12.50–13.00	Qbt 3	—	0.64 (U)	—	1.2 (J)	—	—
0121-97-0055	21-05053	17.00–17.30	Qbt 3	—	1 (J)	—	1.3 (J)	25.8 (J)	173 (J-)
0121-97-0056	21-05053	20.50–21.50	Qbt 3	—	0.68 (U)	—	—	—	—
0121-97-0057	21-05053	28.00–29.00	Qbt 3	—	0.75 (U)	—	—	—	—
0121-97-0058	21-05053	39.50–40.00	Qbt 3	—	0.32 (U)	1.8 (U)	—	—	—
0121-97-0059	21-05053	48.00–48.50	Qbt 3	—	—	19.8 (J-)	—	27.2	226
0121-97-0060	21-05053	59.50–60.00	Qbt 3	—	0.35 (U)	1.9 (U)	—	—	—
0121-97-0061	21-05053	60.00–60.70	Qbt 3	—	0.35 (U)	1.9 (U)	—	—	—
0121-97-0062	21-05053	74.50–75.00	Qbt 3	—	3.6 (U)	1.9 (U)	—	—	—
0121-97-0063	21-05053	80.00–80.50	Qbt 3	—	3.5 (U)	1.9 (U)	—	—	—
0121-97-0066	21-05054	3.00–3.50	Fill	—	—	—	—	—	52.2 (J-)
0121-97-0067	21-05054	6.00–6.50	Fill	—	—	—	—	—	81
0121-97-0068	21-05054	7.50–8.20	Fill	—	—	1.4 (J)	—	—	51.7
0121-97-0069	21-05054	10.50–11.00	Fill	—	—	8.3	—	—	—
0121-97-0070	21-05054	14.20–15.00	Qbt 3	—	0.86 (U)	—	1.3 (J)	23.9 (J)	133 (J-)
0121-97-0071	21-05054	21.80–22.10	Qbt 3	—	0.69 (U)	5 (U)	—	—	73.1
0121-97-0072	21-05054	32.00–32.50	Qbt 3	—	0.69 (U)	—	—	—	—
0121-97-0073	21-05054	35.50–36.00	Qbt 3	—	0.63 (U)	—	—	—	—
0121-97-0074	21-05054	50.00–50.50	Qbt 3	—	0.57 (U)	—	—	—	—
0121-97-0075	21-05054	59.50–60.00	Qbt 3	—	0.64 (U)	—	—	—	—
0121-97-0081	21-05055	3.50–4.00	Fill	—	3.5 (UJ)	2 (U)	—	—	—
0121-97-0082	21-05055	8.50–9.00	Fill	—	3.4 (UJ)	3.9	—	—	—
0121-97-0083	21-05055	14.50–15.00	Fill	—	—	10.7	—	—	61.6 (J)

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Perchlorate	Selenium	Silver	Thallium	Vanadium	Zinc
Soil Background Value				na	1.52	1	0.73	39.6	48.8
Sediment Background Value				na	0.3	1	0.73	19.7	60.2
Qbt 2,3,4 Background Value				na	0.3	1	1.1	17	63.5
Qbt 1v Background Value				na	0.3	1	1.22	4.48	40
Qbt 1g, Qct, Qbo Background Value				na	0.3	1	1.24	4.59	84.6
0121-97-0096	21-05056	4.50–5.00	Fill	—	—	—	—	—	—
0121-97-0097	21-05056	11.80–12.20	Qbt 3	—	0.8 (J-)	—	—	—	—
0121-97-0098	21-05056	20.00–20.50	Qbt 3	—	0.36 (UJ)	—	—	—	—
0121-97-0099	21-05056	29.00–29.50	Qbt 3	—	0.38 (UJ)	—	—	—	—
0121-97-0100	21-05056	39.00–39.50	Qbt 3	—	4.2 (UJ)	—	—	—	—
0121-97-0101	21-05056	49.50–50.00	Qbt 3	—	0.39 (UJ)	1.9 (U)	—	—	—
0121-97-0111	21-05059	4.00–4.50	Soil	—	1.7 (J)	2.1 (U)	—	—	—
0121-97-0112	21-05059	10.20–10.70	Qal	—	0.38 (U)	2 (U)	—	—	—
0121-97-0113	21-05059	20.00–20.50	Qal	—	0.39 (U)	2.1 (U)	—	—	—
0121-97-0114	21-05059	31.50–32.00	Qal	—	0.79 (U)	2.1 (U)	—	—	—
0121-97-0115	21-05059	36.40–36.80	Qbt 3	—	0.35 (U)	2.4	—	—	—
0121-97-0116	21-05059	40.00–40.50	Qbt 3	—	0.34 (U)	1.9 (U)	—	—	—
0121-97-0117	21-05059	49.50–50.00	Qbt 3	—	0.35 (U)	2 (U)	—	—	—
0121-97-0166	21-05061	5.50–6.00	Soil	—	—	—	—	—	—
0121-97-0167	21-05061	10.00–10.50	Qbt 3	—	3.6 (UJ)	1.8 (J)	—	33.7	—
0121-97-0168	21-05061	22.00–22.50	Qbt 3	—	0.37 (UJ)	—	—	—	—
0121-97-0169	21-05061	30.00–30.50	Qbt 3	—	0.91	1.2	—	—	—
0121-97-0170	21-05061	40.00–40.50	Qbt 3	—	0.34 (U)	—	—	—	—
0121-97-0171	21-05061	49.00–49.50	Qbt 3	—	0.89 (U)	—	—	—	—
0121-97-0172	21-05061	59.50–60.00	Qbt 3	—	0.39 (U)	1.9 (U)	—	—	—
0121-97-0173	21-05061	69.50–70.00	Qbt 3	—	0.37 (U)	1.9 (U)	—	—	—
0121-97-0174	21-05061	78.50–78.80	Qbt 3	—	0.38 (U)	1.9 (U)	—	—	—
0121-97-0175	21-05061	89.50–90.00	Qbt 3	—	0.38 (U)	1.9 (U)	—	—	—
0121-97-0176	21-05061	98.70–99.20	Qbt 2	—	0.38 (U)	1.9 (U)	—	—	—
0121-97-0177	21-05061	108.50–109.00	Qbt 2	—	0.38 (U)	1.9 (U)	—	—	—
0121-97-0178	21-05061	118.00–118.50	Qbt 2	—	0.38 (U)	1.9 (U)	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Perchlorate	Selenium	Silver	Thallium	Vanadium	Zinc
Soil Background Value				na	1.52	1	0.73	39.6	48.8
Sediment Background Value				na	0.3	1	0.73	19.7	60.2
Qbt 2,3,4 Background Value				na	0.3	1	1.1	17	63.5
Qbt 1v Background Value				na	0.3	1	1.22	4.48	40
Qbt 1g, Qct, Qbo Background Value				na	0.3	1	1.24	4.59	84.6
0121-97-0179	21-05061	128.50–129.00	Qbt 2	—	0.37 (U)	1.9 (U)	—	—	—
0121-97-0180	21-05061	140.00–140.50	Qbt 2	—	0.38 (U)	1.9 (U)	—	—	—
0121-97-0181	21-05061	152.50–153.00	Qbt 2	—	0.37 (U)	1.8 (U)	—	—	—
0121-97-0182	21-05061	160.00–160.50	Qbt 2	—	0.38 (U)	1.9 (U)	—	—	—
0121-97-0183	21-05061	170.00–170.50	Qbt 1v	—	0.38 (U)	1.8 (U)	—	—	—
0121-97-0184	21-05061	180.00–180.50	Qbt 1v	—	0.38 (U)	1.9 (U)	—	—	—
0121-97-0185	21-05061	189.50–190.00	Qbt 1v	—	0.38 (U)	1.9 (U)	—	—	—
0121-97-0191	21-05062	5.00–5.50	Qbt 3	—	0.8 (J)	—	—	—	—
0121-97-0192	21-05062	6.00–6.50	Qbt 3	—	0.84 (J)	—	—	—	—
0121-97-0193	21-05062	10.00–10.50	Qbt 3	—	0.75 (J)	—	—	—	—
0121-97-0194	21-05062	20.00–20.50	Qbt 3	—	0.71 (U)	—	—	—	—
0121-97-0195	21-05062	30.00–30.50	Qbt 3	—	0.68 (U)	—	—	—	—
0121-97-0196	21-05062	40.00–40.50	Qbt 3	—	0.75 (U)	—	—	—	—
0121-97-0197	21-05062	49.50–50.00	Qbt 3	—	1.5 (U)	—	1.7 (U)	—	—
0121-97-0198	21-05062	58.80–59.50	Qbt 3	—	4.5 (U)	1.3 (U)	5 (U)	—	—
0121-97-0199	21-05062	70.00–70.50	Qbt 3	—	0.34 (U)	1.9 (U)	—	—	—
0121-97-0200	21-05062	78.40–79.50	Qbt 3	—	14.2 (U)	1.1 (U)	—	29.6 (J-)	—
0121-97-0221	21-05063	4.50–5.00	Qbt 3	—	0.33 (UJ)	1.5 (U)	—	22.3	—
0121-97-0222	21-05063	7.50–8.30	Qbt 3	—	0.31 (UJ)	1.4 (U)	—	—	—
0121-97-0223	21-05063	10.00–11.60	Qbt 3	—	0.37 (UJ)	1.8 (U)	—	18	—
0121-97-0224	21-05063	20.00–20.50	Qbt 3	—	0.31 (UJ)	1.5 (U)	—	—	—
0121-97-0225	21-05063	30.50–31.30	Qbt 3	—	—	1.5 (U)	—	—	—
0121-97-0226	21-05063	41.00–42.00	Qbt 3	—	—	1.4 (U)	—	—	—
0121-97-0227	21-05063	49.00–50.00	Qbt 3	—	0.31 (UJ)	1.5 (U)	—	—	—
0121-97-0326	21-05073	2.50–3.00	Soil	—	3.6 (UJ)	1.9 (U)	—	—	—
0121-97-0327	21-05073	8.50–9.00	Qbt 3	—	0.36 (U)	5	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Perchlorate	Selenium	Silver	Thallium	Vanadium	Zinc
Soil Background Value				na	1.52	1	0.73	39.6	48.8
Sediment Background Value				na	0.3	1	0.73	19.7	60.2
Qbt 2,3,4 Background Value				na	0.3	1	1.1	17	63.5
Qbt 1v Background Value				na	0.3	1	1.22	4.48	40
Qbt 1g, Qct, Qbo Background Value				na	0.3	1	1.24	4.59	84.6
0121-97-0328	21-05073	11.70–12.20	Qbt 3	—	0.33 (UJ)	1.9 (U)	—	—	—
0121-97-0329	21-05073	22.00–23.00	Qbt 3	—	3.4 (UJ)	1.9 (U)	—	—	—
0121-97-0330	21-05073	32.00–32.50	Qbt 3	—	3.4 (UJ)	1.9 (U)	—	—	—
0121-97-0331	21-05073	42.00–42.50	Qbt 3	—	3.4 (UJ)	1.9 (U)	—	—	—
0121-97-0332	21-05073	46.50–47.00	Qbt 3	—	0.33 (UJ)	1.9 (U)	—	—	—
0121-97-0333	21-05073	62.00–62.50	Qbt 3	—	3.4 (UJ)	1.9 (U)	—	—	—
0121-97-0334	21-05073	69.50–70.00	Qbt 3	—	0.34 (UJ)	1.9 (U)	—	—	—
0121-97-0445	21-05053	89.50–90.00	Qbt 3	—	0.34 (U)	1.9 (U)	—	—	—
0121-97-1131	21-05075	6.70–7.20	Qbt 3	—	0.42 (UJ)	2.1 (U)	—	—	—
0121-97-1132	21-05075	8.80–9.30	Qbt 3	—	0.39 (UJ)	1.9 (U)	—	—	—
0121-97-1133	21-05075	15.50–16.00	Qbt 3	—	0.38 (UJ)	1.9 (U)	—	—	—
0121-97-1134	21-05075	20.00–21.00	Qbt 3	—	0.38 (UJ)	1.9 (U)	—	—	—
0121-97-1135	21-05075	29.50–30.00	Qbt 3	—	0.38 (UJ)	1.9 (U)	—	—	—
0121-97-1136	21-05075	38.80–39.30	Qbt 3	—	0.39 (U)	—	—	—	—
0121-97-1137	21-05075	45.00–46.00	Qbt 3	—	0.4 (U)	—	—	—	—
0121-97-1138	21-05075	58.00–58.50	Qbt 3	—	0.39 (U)	—	—	—	—
0121-97-1139	21-05075	69.50–70.00	Qbt 3	—	0.39 (U)	—	—	—	—
AAA3950	21-01615	0.00–0.50	Soil	—	—	1.1 (U)	23.7	—	—
AAA3951	21-01616	0.00–0.50	Soil	—	—	1.1 (U)	19.4 (J)	—	—
AAA3952	21-01617	0.00–0.50	Soil	—	—	1.1 (U)	30.8	—	—
AAA3953	21-01618	0.00–0.50	Soil	—	—	1.1 (U)	30.7	—	—
AAA3954	21-01619	0.00–0.50	Soil	—	—	1.2 (U)	10.7 (J)	—	—
AAA3957	21-01620	0.00–0.50	Soil	—	—	1.1 (U)	23.6	—	—
AAA3958	21-01621	0.00–0.50	Soil	—	—	1.1 (U)	19.1 (J)	—	—
AAA3959	21-01622	0.00–0.50	Soil	—	—	1.1 (U)	32.6	—	—
AAA3961	21-01623	0.00–0.50	Soil	—	—	1.2 (U)	13.2 (J)	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Perchlorate	Selenium	Silver	Thallium	Vanadium	Zinc
Soil Background Value				na	1.52	1	0.73	39.6	48.8
Sediment Background Value				na	0.3	1	0.73	19.7	60.2
Qbt 2,3,4 Background Value				na	0.3	1	1.1	17	63.5
Qbt 1v Background Value				na	0.3	1	1.22	4.48	40
Qbt 1g, Qct, Qbo Background Value				na	0.3	1	1.24	4.59	84.6
AAA3962	21-01624	0.00–0.50	Soil	—	—	1.1 (U)	22.8 (J)	—	—
AAA3963	21-01625	0.00–0.50	Soil	—	—	1.1 (U)	23.4	—	—
AAA3964	21-01626	0.00–0.50	Soil	—	—	1.1 (U)	26.5	—	—
AAA3965	21-01627	0.00–0.50	Soil	—	—	1.1 (U)	12.9	—	—
AAA3985	21-01644	0.00–0.50	Soil	—	—	1.1 (U)	12.2 (J)	—	65.2
AAA3986	21-01645	0.00–0.50	Soil	—	—	1.1 (U)	11.5 (J)	—	132
AAA3987	21-01646	0.00–0.50	Soil	—	—	1.1 (U)	14.4 (J)	—	—
AAA3988	21-01647	0.00–0.50	Soil	—	—	1.1 (U)	22.3 (J)	—	—
AAA3989	21-01648	0.00–0.50	Soil	—	—	1.3 (J)	24.6	—	—
AAA3990	21-01649	0.00–0.50	Soil	—	—	1.1 (U)	23.7	—	—
AAA3993	21-01652	0.00–0.50	Soil	—	—	1.1 (U)	18.1 (J)	—	—
AAA3996	21-01655	0.00–0.50	Soil	—	—	1.1 (U)	21.6 (J)	—	—
AAA3997	21-01656	0.00–0.50	Soil	—	—	1.1 (U)	21.6 (J)	—	—
AAA3998	21-01657	0.00–0.50	Soil	—	—	1.2 (U)	22.1 (J)	—	—
AAA4001	21-01658	0.00–0.50	Soil	—	—	1.1 (U)	14.3 (J)	—	75.8
AAA4006	21-01662	0.00–0.50	Soil	—	—	1.2 (U)	15.9 (J)	—	—
MD21-06-63935	21-25263	40.00–42.00	Qbt 3	0.00266	1.48 (U)	—	—	—	—
MD21-06-63936	21-25263	70.00–73.00	Qbt 3	0.00126 (J)	1.54 (U)	—	—	—	—
MD21-06-63937	21-25263	80.00–82.00	Qbt 3	0.00112 (J)	1.53 (U)	—	—	—	—
MD21-06-63938	21-25263	125.00–127.00	Qbt 2	0.0015 (J)	1.55 (U)	—	—	—	—
MD21-06-63939	21-25263	165.00–167.00	Qbt 2	0.00121 (J)	1.52 (U)	—	—	—	—
MD21-06-63940	21-25263	215.00–217.00	Qbt 1v	0.003	1.74 (U)	—	—	—	—
MD21-06-63941	21-25263	269.00–271.00	Qbt 1g	0.007	1.65 (U)	—	—	—	—
MD21-06-63942	21-25263	330.00–332.00	Qbt t	—	—	—	—	—	—
MD21-06-63943	21-25263	340.00–342.00	Qct	0.000755 (J)	1.74 (U)	—	—	—	—
MD21-06-63944	21-25263	351.00–354.00	Qbo	—	1.69 (U)	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Perchlorate	Selenium	Silver	Thallium	Vanadium	Zinc
Soil Background Value				na	1.52	1	0.73	39.6	48.8
Sediment Background Value				na	0.3	1	0.73	19.7	60.2
Qbt 2,3,4 Background Value				na	0.3	1	1.1	17	63.5
Qbt 1v Background Value				na	0.3	1	1.22	4.48	40
Qbt 1g, Qct, Qbo Background Value				na	0.3	1	1.24	4.59	84.6
MD21-06-63973	21-25264	30.00–31.50	Qbt 3	0.00203 (J)	1.63 (U)	—	—	—	—
MD21-06-63974	21-25264	60.00–63.00	Qbt 3	0.00104 (J)	1.56 (U)	—	—	—	—
MD21-06-63975	21-25264	114.00–117.00	Qbt 2	0.00236	1.54 (U)	—	—	—	—
MD21-06-63976	21-25264	149.00–150.50	Qbt 2	0.00634	1.53 (U)	—	—	—	—
MD21-06-63977	21-25264	152.50–154.00	Qbt 2	0.00672	1.58 (U)	—	—	—	—
MD21-06-63978	21-25264	196.00–199.00	Qbt 1v	0.006	1.62 (U)	—	—	—	—
MD21-06-63979	21-25264	257.00–259.00	Qbt 1g	0.004	1.63 (U)	—	—	—	—
MD21-06-63980	21-25264	301.00–304.00	Qbt 1g	—	1.66 (U)	—	—	—	—
MD21-06-63981	21-25264	325.80–327.00	Qct	—	1.73 (U)	—	—	—	—
MD21-06-63982	21-25264	351.00–354.00	Qct	0.000656 (J)	2.16	—	—	5.99	—
MD21-06-65821	21-25361	11.50–13.00	Qbt 3	—	1.62 (U)	—	—	—	—
MD21-06-65822	21-25361	36.00–39.00	Qbt 3	—	1.54 (U)	—	—	—	—
MD21-06-65843	21-25362	22.50–24.00	Qbt 3	—	1.55 (U)	—	—	—	—
MD21-06-65844	21-25362	37.00–39.00	Qbt 3	—	1.55 (U)	—	—	—	—
MD21-06-65851	21-25363	18.00–20.00	Qbt 3	—	1.57 (U)	—	—	—	—
MD21-06-65852	21-25363	37.00–40.00	Qbt 3	—	1.62 (U)	—	—	—	—
MD21-06-65883	21-25365	27.00–30.00	Qbt 3	—	1.62 (U)	—	—	—	—
MD21-06-65890	21-25366	25.00–27.90	Qbt 3	—	1.59 (U)	—	—	—	—
MD21-06-65942	21-25372	50.00–52.00	Qbt 3	0.00421	7.77 (U)	—	—	—	—
MD21-06-65943	21-25372	75.00–77.00	Qbt 3	0.0149	7.63 (U)	—	—	—	—
MD21-06-65944	21-25372	101.50–103.50	Qbt 2	0.0137	15 (U)	—	—	—	—
MD21-06-65945	21-25372	181.00–183.00	Qbt 1v	0.01	15.7 (U)	—	—	—	—
MD21-06-65946	21-25372	229.00–231.00	Qbt 1g	0.068	1.84 (U)	—	—	—	52.5
MD21-06-65947	21-25372	276.00–279.00	Qbt 1g	0.022	1.72 (U)	—	—	—	—
MD21-06-65956	21-25373	32.00–34.00	Qbt 3	—	1.52 (U)	—	—	—	—
MD21-06-65957	21-25373	36.00–38.00	Qbt 3	—	1.54 (U)	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Perchlorate	Selenium	Silver	Thallium	Vanadium	Zinc
Soil Background Value				na	1.52	1	0.73	39.6	48.8
Sediment Background Value				na	0.3	1	0.73	19.7	60.2
Qbt 2,3,4 Background Value				na	0.3	1	1.1	17	63.5
Qbt 1v Background Value				na	0.3	1	1.22	4.48	40
Qbt 1g, Qct, Qbo Background Value				na	0.3	1	1.24	4.59	84.6
MD21-06-65958	21-25373	52.50–54.00	Qbt 3	—	1.5 (U)	—	—	—	—
MD21-06-65959	21-25373	66.00–69.00	Qbt 3	—	1.52 (U)	—	—	—	—
MD21-06-65960	21-25373	99.00–101.00	Qbt 2	—	1.55 (U)	—	—	—	—
MD21-06-65961	21-25373	139.00–141.00	Qbt 2	—	6.92	—	—	—	—
MD21-06-65962	21-25373	211.00–213.00	Qbt 1v	0.014	6.59	—	—	—	—
MD21-06-65963	21-25373	276.00–279.00	Qbt 1g	—	2.58	—	—	—	—
MD21-06-65972	21-25374	20.00–22.00	Fill	0.00136 (J)	—	—	—	—	—
MD21-06-65973	21-25374	27.00–29.00	Qbt 3	0.00266	1.53 (U)	—	—	—	—
MD21-06-65974	21-25374	109.00–111.00	Qbt 2	0.00277	1.56 (U)	—	—	—	—
MD21-06-65975	21-25374	174.00–176.00	Qbt 1v	0.102	1.56 (U)	—	—	—	—
MD21-06-65976	21-25374	234.00–236.00	Qbt 1g	0.003	1.87 (U)	—	—	—	64.5
MD21-06-65977	21-25374	276.00–279.00	Qbt 1g	0.003	1.72 (U)	—	—	—	—
MD21-06-65985	21-25375	29.00–30.00	Qbt 3	—	1.62 (U)	—	—	—	—
MD21-06-65986	21-25375	32.00–33.00	Qbt 3	—	1.66 (U)	—	—	—	—
MD21-06-65987	21-25375	57.00–58.00	Qbt 3	—	1.61 (U)	—	—	—	—
MD21-06-65988	21-25375	80.00–83.00	Qbt 3	—	1.55 (U)	—	—	—	—
MD21-06-65989	21-25375	190.00–192.00	Qbt 1v	—	1.62 (U)	—	—	—	—
MD21-06-65990	21-25375	253.00–255.00	Qbt 1g	—	1.71 (U)	—	—	—	—
MD21-06-65991	21-25375	277.00–280.00	Qbt 1g	—	1.78 (U)	—	—	—	—
MD21-06-66000	21-25376	28.00–29.50	Qbt 3	0.000582 (J)	1.54 (U)	—	—	—	—
MD21-06-66001	21-25376	31.50–33.00	Qbt 3	—	1.54 (U)	—	—	—	—
MD21-06-66002	21-25376	70.00–72.00	Qbt 3	0.00211 (J)	1.59 (U)	—	—	—	—
MD21-06-66003	21-25376	108.50–110.90	Qbt 2	—	1.52 (U)	—	—	—	—
MD21-06-66004	21-25376	148.00–151.00	Qbt 2	—	1.54 (U)	—	—	—	—
MD21-06-66005	21-25376	198.00–200.00	Qbt 1v	0.002 (J)	1.64 (U)	—	—	—	—
MD21-06-66006	21-25376	238.00–240.00	Qbt 1g	0.004	1.68 (U)	—	—	—	—

Table 6.2-1 (continued)

Sample ID	Location ID	Depth (ft)	Media	Perchlorate	Selenium	Silver	Thallium	Vanadium	Zinc
Soil Background Value				na	1.52	1	0.73	39.6	48.8
Sediment Background Value				na	0.3	1	0.73	19.7	60.2
Qbt 2,3,4 Background Value				na	0.3	1	1.1	17	63.5
Qbt 1v Background Value				na	0.3	1	1.22	4.48	40
Qbt 1g, Qct, Qbo Background Value				na	0.3	1	1.24	4.59	84.6
MD21-06-66007	21-25376	280.00–283.00	Qbt 1g	0.002 (J)	1.68 (U)	—	—	—	—
MD21-06-66243	21-25405	0.00–0.50	Soil	—	1.58 (U)	—	—	—	—
MD21-06-66244	21-25405	1.50–2.00	Soil	0.000662 (J)	1.71 (U)	—	—	—	—

See Appendix A for qualifier definitions.

Units are mg/kg.

Background values are from LANL 1998, 59730.

— = Not above background value.

na = Not available.

Table 6.2-2
Organic COPCs for the Shafts, Beds, and RWSA

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Acenaphthylene	Acetone	Anthracene	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene
AAA3950	21-01615	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3951	21-01616	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3952	21-01617	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3953	21-01618	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3954	21-01619	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3957	21-01620	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3958	21-01621	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3959	21-01622	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3961	21-01623	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3962	21-01624	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3963	21-01625	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3964	21-01626	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3965	21-01627	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3985	21-01644	0.00–0.50	Soil	—	—	—	—	—	0.11 (J-)	—	—	—
AAA3987	21-01646	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3993	21-01652	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3996	21-01655	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3997	21-01656	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3998	21-01657	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA4001	21-01658	0.00–0.50	Soil	—	—	—	—	—	0.091 (J)	0.12 (J)	0.1 (J)	—
AAA4006	21-01662	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
0121-97-0001	21-05051	3.50–4.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0002	21-05051	6.00–6.50	Fill	—	—	—	—	—	—	—	—	—
0121-97-0003	21-05051	8.50–9.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0004	21-05051	11.50–12.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0005	21-05051	13.80–14.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0006	21-05051	20.00–21.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0007	21-05051	27.50–28.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0008	21-05051	40.00–40.50	Qbt 3	—	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Acenaphthylene	Acetone	Anthracene	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene
0121-97-0009	21-05051	50.00–50.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0010	21-05051	61.00–61.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0026	21-05052	2.50–3.00	Fill	—	—	—	0.048 (J)	—	0.073 (J)	0.071 (J)	0.05 (J)	0.051 (J)
0121-97-0031	21-05052	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0051	21-05053	4.20–4.60	Fill	—	—	—	—	—	0.047 (J)	0.041 (J)	0.051 (J)	—
0121-97-0052	21-05053	6.50–7.00	Fill	—	—	—	—	—	0.091 (J)	0.07 (J)	0.089 (J)	—
0121-97-0053	21-05053	9.50–10.00	Fill	—	—	—	—	—	0.037 (J)	—	—	0.047 (J)
0121-97-0059	21-05053	48.00–48.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0066	21-05054	3.00–3.50	Fill	—	—	—	—	—	0.027 (J)	—	—	—
0121-97-0067	21-05054	6.00–6.50	Fill	—	—	—	—	—	—	—	—	—
0121-97-0068	21-05054	7.50–8.20	Fill	—	—	—	—	—	—	—	—	—
0121-97-0069	21-05054	10.50–11.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0071	21-05054	21.80–22.10	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0096	21-05056	4.50–5.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0098	21-05056	20.00–20.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0481	21-05057	4.30–5.00	Fill	—	—	—	—	—	0.46	0.41	0.41	—
0121-96-0482	21-05057	9.50–10.00	Fill	—	—	—	—	—	—	—	—	—
0121-96-0483	21-05057	19.50–20.00	Fill	—	—	—	—	—	—	—	—	—
0121-96-0497	21-05058	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0115	21-05059	36.40–36.80	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0166	21-05061	5.50–6.00	Soil	—	—	—	—	—	—	—	—	—
0121-97-0167	21-05061	10.00–10.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0173	21-05061	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0185	21-05061	189.50–190.00	Qbt 1v	—	—	—	—	—	—	—	—	—
0121-97-0191	21-05062	5.00–5.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0223	21-05063	10.00–11.60	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0621	21-05065	4.50–5.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0326	21-05073	2.50–3.00	Soil	—	—	—	—	—	—	—	—	—
0121-97-0327	21-05073	8.50–9.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0331	21-05073	42.00–42.50	Qbt 3	—	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Acenaphthylene	Acetone	Anthracene	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene
0121-97-1133	21-05075	15.50–16.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1137	21-05075	45.00–46.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1138	21-05075	58.00–58.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1139	21-05075	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-63935	21-25263	40.00–42.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-63938	21-25263	125.00–127.00	Qbt 2	—	—	0.00609	—	—	—	—	—	—
MD21-06-63939	21-25263	165.00–167.00	Qbt 2	—	—	0.00546	—	—	—	—	—	—
MD21-06-63940	21-25263	215.00–217.00	Qbt 1v	—	—	0.00536 (J)	—	—	—	—	—	—
MD21-06-63941	21-25263	269.00–271.00	Qbt 1g	—	—	0.0137 (J-)	—	—	—	—	—	—
MD21-06-63942	21-25263	330.00–332.00	Qbt t	—	—	0.0104	—	—	—	—	—	—
MD21-06-63943	21-25263	340.00–342.00	Qct	—	—	0.00785	—	—	—	—	—	—
MD21-06-63944	21-25263	351.00–354.00	Qbo	—	—	0.0112	—	—	—	—	—	—
MD21-06-63973	21-25264	30.00–31.50	Qbt 3	—	—	0.0142	—	—	—	—	—	—
MD21-06-63974	21-25264	60.00–63.00	Qbt 3	—	—	0.0121	—	—	—	—	—	—
MD21-06-63981	21-25264	325.80–327.00	Qct	—	—	0.0261 (J)	—	—	—	—	—	—
MD21-06-63982	21-25264	351.00–354.00	Qct	—	—	—	—	—	—	—	—	—
MD21-06-65821	21-25361	11.50–13.00	Qbt 3	—	—	0.159	—	—	—	—	—	—
MD21-06-65823	21-25361	5.00–6.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65843	21-25362	22.50–24.00	Qbt 3	—	—	0.129	—	—	—	—	—	—
MD21-06-65844	21-25362	37.00–39.00	Qbt 3	—	—	0.00352 (J)	—	—	—	—	—	—
MD21-06-65847	21-25362	8.00–9.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65851	21-25363	18.00–20.00	Qbt 3	—	—	0.11	—	—	—	—	—	—
MD21-06-65852	21-25363	37.00–40.00	Qbt 3	—	—	0.091	—	—	—	—	—	—
MD21-06-65855	21-25363	7.00–8.00	Fill	—	—	—	—	—	—	—	—	—
MD21-06-65883	21-25365	27.00–30.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65890	21-25366	25.00–27.90	Qbt 3	0.0172 (J)	0.0162 (J)	—	0.0149 (J)	—	—	—	—	—
MD21-06-65942	21-25372	50.00–52.00	Qbt 3	—	—	—	—	0.00221	—	—	—	—
MD21-06-65943	21-25372	75.00–77.00	Qbt 3	—	—	—	—	0.00176	—	—	—	—
MD21-06-65944	21-25372	101.50–103.50	Qbt 2	—	—	—	—	0.00164	—	—	—	—
MD21-06-65945	21-25372	181.00–183.00	Qbt 1v	—	—	—	—	0.00153	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Acenaphthylene	Acetone	Anthracene	Benzene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene
MD21-06-65951	21-25372	6.00–7.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65956	21-25373	32.00–34.00	Qbt 3	—	—	—	0.00929 (J)	—	—	0.0382	—	0.126
MD21-06-65959	21-25373	66.00–69.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65960	21-25373	99.00–101.00	Qbt 2	—	—	0.00288 (J)	—	—	—	—	—	—
MD21-06-65961	21-25373	139.00–141.00	Qbt 2	—	—	0.0145	—	—	—	—	—	—
MD21-06-65962	21-25373	211.00–213.00	Qbt 1v	—	—	0.0104	—	—	—	—	—	—
MD21-06-65963	21-25373	276.00–279.00	Qbt 1g	—	—	0.00345 (J)	—	—	—	—	—	—
MD21-06-65973	21-25374	27.00–29.00	Qbt 3	—	—	0.0044 (J)	—	—	—	—	—	—
MD21-06-65974	21-25374	109.00–111.00	Qbt 2	—	—	0.0105	—	—	—	—	—	—
MD21-06-65975	21-25374	174.00–176.00	Qbt 1v	—	—	0.0028 (J)	—	—	—	—	—	—
MD21-06-65985	21-25375	29.00–30.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65986	21-25375	32.00–33.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65988	21-25375	80.00–83.00	Qbt 3	—	—	0.0124	—	—	—	—	—	—
MD21-06-65989	21-25375	190.00–192.00	Qbt 1v	—	—	0.008 (J-)	—	—	—	—	—	—
MD21-06-65990	21-25375	253.00–255.00	Qbt 1g	—	—	0.0067	—	—	—	—	—	—
MD21-06-65991	21-25375	277.00–280.00	Qbt 1g	—	—	0.00644	—	—	—	—	—	—
MD21-06-65994	21-25375	6.00–7.00	Fill	—	—	—	—	—	—	—	—	—
MD21-06-66000	21-25376	28.00–29.50	Qbt 3	—	—	0.00655	—	—	—	—	—	—
MD21-06-66001	21-25376	31.50–33.00	Qbt 3	—	—	0.00426 (J)	—	—	—	—	—	—
MD21-06-66002	21-25376	70.00–72.00	Qbt 3	—	—	0.00523 (J)	—	—	—	—	—	—
MD21-06-66003	21-25376	108.50–110.90	Qbt 2	—	—	0.00428 (J)	—	—	—	—	—	—
MD21-06-66004	21-25376	148.00–151.00	Qbt 2	—	—	0.00521 (J)	—	—	—	—	—	—
MD21-06-66005	21-25376	198.00–200.00	Qbt 1v	—	—	0.006	—	—	—	—	—	—
MD21-06-66006	21-25376	238.00–240.00	Qbt 1g	—	—	0.00615	—	—	—	—	—	—
MD21-06-66007	21-25376	280.00–283.00	Qbt 1g	—	—	0.0143	—	0.00753	—	—	—	—
MD21-06-66243	21-25405	0.00–0.50	Soil	—	—	—	—	—	—	0.0302 (J)	0.0154 (J)	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate	Butanone[2-]	Butylbenzylphthalate	Chloroform	Chloronaphthalene[2-]	Chrysene
AAA3950	21-01615	0.00–0.50	Soil	—	—	0.049 (J)	—	—	—	—	—
AAA3951	21-01616	0.00–0.50	Soil	—	—	0.044 (J)	—	—	—	—	—
AAA3952	21-01617	0.00–0.50	Soil	—	—	0.052 (J)	—	—	—	—	—
AAA3953	21-01618	0.00–0.50	Soil	—	—	0.072 (J)	—	—	—	—	—
AAA3954	21-01619	0.00–0.50	Soil	—	—	0.12 (J)	—	—	—	—	—
AAA3957	21-01620	0.00–0.50	Soil	—	—	0.12 (J)	—	—	—	—	—
AAA3958	21-01621	0.00–0.50	Soil	—	—	0.046 (J)	—	—	—	—	—
AAA3959	21-01622	0.00–0.50	Soil	—	—	0.045 (J)	—	—	—	—	—
AAA3961	21-01623	0.00–0.50	Soil	—	—	0.057 (J)	—	—	—	—	—
AAA3962	21-01624	0.00–0.50	Soil	—	—	0.087 (J)	—	—	—	—	—
AAA3963	21-01625	0.00–0.50	Soil	—	—	0.1 (J)	—	—	—	—	—
AAA3964	21-01626	0.00–0.50	Soil	—	—	0.067 (J)	—	—	—	—	—
AAA3965	21-01627	0.00–0.50	Soil	—	—	0.11 (J)	—	—	—	—	0.06 (J)
AAA3985	21-01644	0.00–0.50	Soil	—	—	0.092 (J-)	—	—	—	—	0.15 (J-)
AAA3987	21-01646	0.00–0.50	Soil	—	—	0.064 (J)	—	—	—	—	—
AAA3993	21-01652	0.00–0.50	Soil	—	—	0.05 (J)	—	—	—	—	—
AAA3996	21-01655	0.00–0.50	Soil	—	—	0.092 (J)	—	—	—	—	—
AAA3997	21-01656	0.00–0.50	Soil	—	—	0.058 (J)	—	—	—	—	—
AAA3998	21-01657	0.00–0.50	Soil	—	—	0.1 (J)	—	—	—	—	—
AAA4001	21-01658	0.00–0.50	Soil	0.087 (J)	—	0.13 (J)	—	—	—	—	0.11 (J)
AAA4006	21-01662	0.00–0.50	Soil	—	—	0.12 (J)	—	—	—	—	—
0121-97-0001	21-05051	3.50–4.00	Fill	—	—	—	—	—	—	—	—
0121-97-0002	21-05051	6.00–6.50	Fill	—	—	—	—	—	—	—	—
0121-97-0003	21-05051	8.50–9.00	Fill	—	—	—	—	—	—	—	—
0121-97-0004	21-05051	11.50–12.00	Fill	—	—	—	—	—	—	—	—
0121-97-0005	21-05051	13.80–14.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0006	21-05051	20.00–21.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0007	21-05051	27.50–28.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0008	21-05051	40.00–40.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0009	21-05051	50.00–50.50	Qbt 3	—	—	0.074 (J)	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate	Butanone[2-]	Butylbenzylphthalate	Chloroform	Chloronaphthalene[2-]	Chrysene
0121-97-0010	21-05051	61.00–61.50	Qbt 3	—	—	0.12 (J)	—	—	—	—	—
0121-97-0026	21-05052	2.50–3.00	Fill	0.061 (J)	—	—	—	—	—	—	0.079 (J)
0121-97-0031	21-05052	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0051	21-05053	4.20–4.60	Fill	0.039 (J)	—	0.046 (J)	—	—	—	—	0.051 (J)
0121-97-0052	21-05053	6.50–7.00	Fill	0.081 (J)	—	0.058 (J)	—	—	—	—	0.1 (J)
0121-97-0053	21-05053	9.50–10.00	Fill	—	—	0.12 (J)	—	—	—	—	0.059 (J)
0121-97-0059	21-05053	48.00–48.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0066	21-05054	3.00–3.50	Fill	—	—	—	—	—	—	—	0.038 (J)
0121-97-0067	21-05054	6.00–6.50	Fill	—	—	—	—	—	—	—	—
0121-97-0068	21-05054	7.50–8.20	Fill	—	—	0.067 (J)	—	—	—	—	—
0121-97-0069	21-05054	10.50–11.00	Fill	—	—	—	—	—	—	—	—
0121-97-0071	21-05054	21.80–22.10	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0096	21-05056	4.50–5.00	Fill	—	—	—	—	—	—	—	—
0121-97-0098	21-05056	20.00–20.50	Qbt 3	—	—	—	—	—	—	—	—
0121-96-0481	21-05057	4.30–5.00	Fill	—	—	—	—	—	—	—	0.48
0121-96-0482	21-05057	9.50–10.00	Fill	—	—	—	—	—	—	—	—
0121-96-0483	21-05057	19.50–20.00	Fill	—	—	—	—	—	—	—	—
0121-96-0497	21-05058	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0115	21-05059	36.40–36.80	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0166	21-05061	5.50–6.00	Soil	—	—	—	—	—	—	—	—
0121-97-0167	21-05061	10.00–10.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0173	21-05061	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0185	21-05061	189.50–190.00	Qbt 1v	—	—	—	0.003 (J)	—	—	—	—
0121-97-0191	21-05062	5.00–5.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0223	21-05063	10.00–11.60	Qbt 3	—	—	—	—	—	—	—	—
0121-96-0621	21-05065	4.50–5.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0326	21-05073	2.50–3.00	Soil	—	—	—	—	—	—	—	—
0121-97-0327	21-05073	8.50–9.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0331	21-05073	42.00–42.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-1133	21-05075	15.50–16.00	Qbt 3	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate	Butanone[2-]	Butylbenzylphthalate	Chloroform	Chloronaphthalene[2-]	Chrysene
0121-97-1137	21-05075	45.00–46.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-1138	21-05075	58.00–58.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-1139	21-05075	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-63935	21-25263	40.00–42.00	Qbt 3	—	—	0.0949 (J)	—	—	—	—	—
MD21-06-63938	21-25263	125.00–127.00	Qbt 2	—	—	—	—	0.0725 (J)	—	—	—
MD21-06-63939	21-25263	165.00–167.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-63940	21-25263	215.00–217.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-63941	21-25263	269.00–271.00	Qbt 1g	—	—	—	0.00366 (J-)	—	—	—	—
MD21-06-63942	21-25263	330.00–332.00	Qbt t	—	—	—	—	—	0.000299 (J)	—	—
MD21-06-63943	21-25263	340.00–342.00	Qct	—	—	—	—	—	0.000293 (J)	—	—
MD21-06-63944	21-25263	351.00–354.00	Qbo	—	—	—	—	—	0.000234 (J)	—	—
MD21-06-63973	21-25264	30.00–31.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-63974	21-25264	60.00–63.00	Qbt 3	—	—	0.124 (J)	—	—	—	—	—
MD21-06-63981	21-25264	325.80–327.00	Qct	—	—	—	—	—	—	—	—
MD21-06-63982	21-25264	351.00–354.00	Qct	—	—	—	—	—	—	—	—
MD21-06-65821	21-25361	11.50–13.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65823	21-25361	5.00–6.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65843	21-25362	22.50–24.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65844	21-25362	37.00–39.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65847	21-25362	8.00–9.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65851	21-25363	18.00–20.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65852	21-25363	37.00–40.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65855	21-25363	7.00–8.00	Fill	—	—	—	—	—	—	—	—
MD21-06-65883	21-25365	27.00–30.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65890	21-25366	25.00–27.90	Qbt 3	0.0147 (J)	—	—	—	—	—	0.0162 (J)	—
MD21-06-65942	21-25372	50.00–52.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65943	21-25372	75.00–77.00	Qbt 3	—	0.553 (J)	—	—	—	—	—	—
MD21-06-65944	21-25372	101.50–103.50	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65945	21-25372	181.00–183.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65951	21-25372	6.00–7.00	Qbt 3	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate	Butanone[2-]	Butylbenzylphthalate	Chloroform	Chloronaphthalene[2-]	Chrysene
MD21-06-65956	21-25373	32.00–34.00	Qbt 3	0.0106 (J)	—	—	—	—	—	—	0.0113 (J)
MD21-06-65959	21-25373	66.00–69.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65960	21-25373	99.00–101.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65961	21-25373	139.00–141.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65962	21-25373	211.00–213.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65963	21-25373	276.00–279.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-65973	21-25374	27.00–29.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65974	21-25374	109.00–111.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65975	21-25374	174.00–176.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65985	21-25375	29.00–30.00	Qbt 3	—	—	0.207	—	—	—	—	—
MD21-06-65986	21-25375	32.00–33.00	Qbt 3	—	—	—	—	—	0.00023 (J)	—	—
MD21-06-65988	21-25375	80.00–83.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65989	21-25375	190.00–192.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65990	21-25375	253.00–255.00	Qbt 1g	—	—	0.0747 (J)	—	—	—	—	—
MD21-06-65991	21-25375	277.00–280.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-65994	21-25375	6.00–7.00	Fill	—	—	—	—	—	—	—	—
MD21-06-66000	21-25376	28.00–29.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66001	21-25376	31.50–33.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66002	21-25376	70.00–72.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66003	21-25376	108.50–110.90	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-66004	21-25376	148.00–151.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-66005	21-25376	198.00–200.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-66006	21-25376	238.00–240.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-66007	21-25376	280.00–283.00	Qbt 1g	—	—	—	—	—	0.000489 (J)	—	—
MD21-06-66243	21-25405	0.00–0.50	Soil	—	—	—	—	—	—	—	0.0114 (J)

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Dibromo-3-chloropropane[1,2-]	Dichlorobenzene[1,2-]	Dichlorobenzene[1,3-]	Di-n-butylphthalate	Fluoranthene	Fluorene	Heptachlorodibenzodioxin [1,2,3,4,6,7,8-]	Heptachlorodibenzodioxins (total)
AAA3950	21-01615	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3951	21-01616	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3952	21-01617	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3953	21-01618	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3954	21-01619	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3957	21-01620	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3958	21-01621	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3959	21-01622	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3961	21-01623	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3962	21-01624	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3963	21-01625	0.00–0.50	Soil	—	—	—	0.19 (J)	—	—	—	—
AAA3964	21-01626	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3965	21-01627	0.00–0.50	Soil	—	—	—	—	0.1 (J)	—	—	—
AAA3985	21-01644	0.00–0.50	Soil	—	—	—	—	0.33 (J-)	—	—	—
AAA3987	21-01646	0.00–0.50	Soil	—	—	—	—	0.039 (J)	—	—	—
AAA3993	21-01652	0.00–0.50	Soil	—	—	—	—	0.04 (J)	—	—	—
AAA3996	21-01655	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3997	21-01656	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3998	21-01657	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA4001	21-01658	0.00–0.50	Soil	—	—	—	—	0.22 (J)	—	—	—
AAA4006	21-01662	0.00–0.50	Soil	—	—	—	—	—	—	—	—
0121-97-0001	21-05051	3.50–4.00	Fill	—	—	—	—	—	—	—	—
0121-97-0002	21-05051	6.00–6.50	Fill	—	—	—	0.053 (J)	—	—	—	—
0121-97-0003	21-05051	8.50–9.00	Fill	—	—	—	0.046 (J)	—	—	—	—
0121-97-0004	21-05051	11.50–12.00	Fill	—	—	—	0.063 (J)	—	—	—	—
0121-97-0005	21-05051	13.80–14.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0006	21-05051	20.00–21.00	Qbt 3	—	—	—	0.077 (J)	—	—	—	—
0121-97-0007	21-05051	27.50–28.00	Qbt 3	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Dibromo-3-chloropropane[1,2-]	Dichlorobenzene[1,2-]	Dichlorobenzene[1,3-]	Di-n-butylphthalate	Fluoranthene	Fluorene	Heptachlorodibenzodioxin [1,2,3,4,6,7,8-]	Heptachlorodibenzodioxins (total)
0121-97-0008	21-05051	40.00–40.50	Qbt 3	—	—	—	0.043 (J)	—	—	—	—
0121-97-0009	21-05051	50.00–50.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0010	21-05051	61.00–61.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0026	21-05052	2.50–3.00	Fill	—	—	—	—	0.15 (J)	—	—	—
0121-97-0031	21-05052	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0051	21-05053	4.20–4.60	Fill	—	—	—	—	0.062 (J)	—	—	—
0121-97-0052	21-05053	6.50–7.00	Fill	—	—	—	—	0.12 (J)	—	—	—
0121-97-0053	21-05053	9.50–10.00	Fill	—	—	—	—	0.046 (J)	—	—	—
0121-97-0059	21-05053	48.00–48.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0066	21-05054	3.00–3.50	Fill	—	—	—	—	0.085 (J)	—	—	—
0121-97-0067	21-05054	6.00–6.50	Fill	—	—	—	—	—	—	—	—
0121-97-0068	21-05054	7.50–8.20	Fill	—	—	—	—	—	—	—	—
0121-97-0069	21-05054	10.50–11.00	Fill	—	—	—	—	—	—	—	—
0121-97-0071	21-05054	21.80–22.10	Qbt 3	—	—	—	0.09 (J)	—	—	—	—
0121-97-0096	21-05056	4.50–5.00	Fill	—	—	—	0.039 (J)	—	—	—	—
0121-97-0098	21-05056	20.00–20.50	Qbt 3	—	—	—	0.052 (J)	—	—	—	—
0121-96-0481	21-05057	4.30–5.00	Fill	—	—	—	—	1.4	—	—	—
0121-96-0482	21-05057	9.50–10.00	Fill	—	—	—	—	—	—	—	—
0121-96-0483	21-05057	19.50–20.00	Fill	—	—	—	—	—	—	—	—
0121-96-0497	21-05058	49.50–50.00	Qbt 3	—	—	—	0.057 (J)	—	—	—	—
0121-97-0115	21-05059	36.40–36.80	Qbt 3	—	—	—	0.037 (J)	—	—	—	—
0121-97-0166	21-05061	5.50–6.00	Soil	—	—	—	—	—	—	—	—
0121-97-0167	21-05061	10.00–10.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0173	21-05061	69.50–70.00	Qbt 3	—	—	—	0.13 (J)	—	—	—	—
0121-97-0185	21-05061	189.50–190.00	Qbt 1v	—	—	—	—	—	—	—	—
0121-97-0191	21-05062	5.00–5.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0223	21-05063	10.00–11.60	Qbt 3	—	—	—	—	—	—	—	—
0121-96-0621	21-05065	4.50–5.00	Qbt 3	0.001 (J)	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Dibromo-3-chloropropane[1,2-]	Dichlorobenzene[1,2-]	Dichlorobenzene[1,3-]	Di-n-butylphthalate	Fluoranthene	Fluorene	Heptachlorodibenzodioxin [1,2,3,4,6,7,8-]	Heptachlorodibenzodioxins (total)
0121-97-0326	21-05073	2.50–3.00	Soil	—	—	—	—	—	—	—	—
0121-97-0327	21-05073	8.50–9.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0331	21-05073	42.00–42.50	Qbt 3	0.002 (J)	—	—	—	—	—	—	—
0121-97-1133	21-05075	15.50–16.00	Qbt 3	—	—	—	0.071 (J)	—	—	—	—
0121-97-1137	21-05075	45.00–46.00	Qbt 3	—	—	—	0.1 (J)	—	—	—	—
0121-97-1138	21-05075	58.00–58.50	Qbt 3	—	—	—	0.094 (J)	—	—	—	—
0121-97-1139	21-05075	69.50–70.00	Qbt 3	—	—	—	0.099 (J)	—	—	—	—
MD21-06-63935	21-25263	40.00–42.00	Qbt 3	—	—	—	—	0.0105 (J)	—	—	—
MD21-06-63938	21-25263	125.00–127.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-63939	21-25263	165.00–167.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-63940	21-25263	215.00–217.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-63941	21-25263	269.00–271.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-63942	21-25263	330.00–332.00	Qbt t	—	—	—	—	—	—	—	—
MD21-06-63943	21-25263	340.00–342.00	Qct	—	—	—	—	—	—	—	—
MD21-06-63944	21-25263	351.00–354.00	Qbo	—	—	—	—	—	—	—	—
MD21-06-63973	21-25264	30.00–31.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-63974	21-25264	60.00–63.00	Qbt 3	—	—	—	—	0.0151 (J)	—	—	—
MD21-06-63981	21-25264	325.80–327.00	Qct	—	—	0.000235 (J)	—	—	—	—	—
MD21-06-63982	21-25264	351.00–354.00	Qct	—	0.000271 (J)	—	—	—	—	—	—
MD21-06-65821	21-25361	11.50–13.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65823	21-25361	5.00–6.00	Qbt 3	—	—	—	—	—	—	1.99E-07 (J)	3.63E-07
MD21-06-65843	21-25362	22.50–24.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65844	21-25362	37.00–39.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65847	21-25362	8.00–9.00	Qbt 3	—	—	—	—	—	—	3.63E-07 (J)	3.63E-07
MD21-06-65851	21-25363	18.00–20.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65852	21-25363	37.00–40.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65855	21-25363	7.00–8.00	Fill	—	—	—	—	—	—	1.22E-06 (J)	1.64E-06
MD21-06-65883	21-25365	27.00–30.00	Qbt 3	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Dibromo-3-chloropropane[1,2-]	Dichlorobenzene[1,2-]	Dichlorobenzene[1,3-]	Di-n-butylphthalate	Fluoranthene	Fluorene	Heptachlorodibenzodioxin [1,2,3,4,6,7,8-]	Heptachlorodibenzodioxins (total)
MD21-06-65890	21-25366	25.00–27.90	Qbt 3	—	—	—	—	0.015 (J)	0.0161 (J)	—	—
MD21-06-65942	21-25372	50.00–52.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65943	21-25372	75.00–77.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65944	21-25372	101.50–103.50	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65945	21-25372	181.00–183.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65951	21-25372	6.00–7.00	Qbt 3	—	—	—	—	—	—	1.76E-07 (J)	1.76E-07
MD21-06-65956	21-25373	32.00–34.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65959	21-25373	66.00–69.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65960	21-25373	99.00–101.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65961	21-25373	139.00–141.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65962	21-25373	211.00–213.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65963	21-25373	276.00–279.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-65973	21-25374	27.00–29.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65974	21-25374	109.00–111.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65975	21-25374	174.00–176.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65985	21-25375	29.00–30.00	Qbt 3	—	—	—	0.0405 (J)	0.0175 (J)	—	—	—
MD21-06-65986	21-25375	32.00–33.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65988	21-25375	80.00–83.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65989	21-25375	190.00–192.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65990	21-25375	253.00–255.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-65991	21-25375	277.00–280.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-65994	21-25375	6.00–7.00	Fill	—	—	—	—	—	—	2.33E-07 (J)	2.33E-07
MD21-06-66000	21-25376	28.00–29.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66001	21-25376	31.50–33.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66002	21-25376	70.00–72.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66003	21-25376	108.50–110.90	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-66004	21-25376	148.00–151.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-66005	21-25376	198.00–200.00	Qbt 1v	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Dibromo-3-chloropropane[1,2-]	Dichlorobenzene[1,2-]	Dichlorobenzene[1,3-]	Di-n-butylphthalate	Fluoranthene	Fluorene	Heptachlorodibenzodioxin [1,2,3,4,6,7,8-]	Heptachlorodibenzodioxins (total)
MD21-06-66006	21-25376	238.00–240.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-66007	21-25376	280.00–283.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-66243	21-25405	0.00–0.50	Soil	—	—	—	—	0.023 (J)	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Heptachlorodibenzofuran [1,2,3,4,6,7,8-]	Heptachlorodibenzofurans (total)	Hexachlorodibenzodioxin [1,2,3,7,8,9-]	Hexachlorodibenzodioxins (total)	Hexachlorodibenzofuran [1,2,3,4,7,8-]	Hexachlorodibenzofuran [1,2,3,6,7,8-]	Hexachlorodibenzofuran [2,3,4,6,7,8-]	Hexachlorodibenzofurans (total)
AAA3950	21-01615	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3951	21-01616	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3952	21-01617	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3953	21-01618	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3954	21-01619	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3957	21-01620	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3958	21-01621	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3959	21-01622	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3961	21-01623	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3962	21-01624	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3963	21-01625	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3964	21-01626	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3965	21-01627	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3985	21-01644	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3987	21-01646	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3993	21-01652	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3996	21-01655	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3997	21-01656	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA3998	21-01657	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA4001	21-01658	0.00–0.50	Soil	—	—	—	—	—	—	—	—
AAA4006	21-01662	0.00–0.50	Soil	—	—	—	—	—	—	—	—
0121-97-0001	21-05051	3.50–4.00	Fill	—	—	—	—	—	—	—	—
0121-97-0002	21-05051	6.00–6.50	Fill	—	—	—	—	—	—	—	—
0121-97-0003	21-05051	8.50–9.00	Fill	—	—	—	—	—	—	—	—
0121-97-0004	21-05051	11.50–12.00	Fill	—	—	—	—	—	—	—	—
0121-97-0005	21-05051	13.80–14.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0006	21-05051	20.00–21.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0007	21-05051	27.50–28.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0008	21-05051	40.00–40.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0009	21-05051	50.00–50.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0010	21-05051	61.00–61.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0026	21-05052	2.50–3.00	Fill	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Heptachlorodibenzofuran [1,2,3,4,6,7,8-]	Heptachlorodibenzofurans (total)	Hexachlorodibenzodioxin [1,2,3,7,8,9-]	Hexachlorodibenzodioxins (total)	Hexachlorodibenzofuran [1,2,3,4,7,8-]	Hexachlorodibenzofuran [1,2,3,6,7,8-]	Hexachlorodibenzofuran [2,3,4,6,7,8-]	Hexachlorodibenzofurans (total)
0121-97-0031	21-05052	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0051	21-05053	4.20–4.60	Fill	—	—	—	—	—	—	—	—
0121-97-0052	21-05053	6.50–7.00	Fill	—	—	—	—	—	—	—	—
0121-97-0053	21-05053	9.50–10.00	Fill	—	—	—	—	—	—	—	—
0121-97-0059	21-05053	48.00–48.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0066	21-05054	3.00–3.50	Fill	—	—	—	—	—	—	—	—
0121-97-0067	21-05054	6.00–6.50	Fill	—	—	—	—	—	—	—	—
0121-97-0068	21-05054	7.50–8.20	Fill	—	—	—	—	—	—	—	—
0121-97-0069	21-05054	10.50–11.00	Fill	—	—	—	—	—	—	—	—
0121-97-0071	21-05054	21.80–22.10	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0096	21-05056	4.50–5.00	Fill	—	—	—	—	—	—	—	—
0121-97-0098	21-05056	20.00–20.50	Qbt 3	—	—	—	—	—	—	—	—
0121-96-0481	21-05057	4.30–5.00	Fill	—	—	—	—	—	—	—	—
0121-96-0482	21-05057	9.50–10.00	Fill	—	—	—	—	—	—	—	—
0121-96-0483	21-05057	19.50–20.00	Fill	—	—	—	—	—	—	—	—
0121-96-0497	21-05058	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0115	21-05059	36.40–36.80	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0166	21-05061	5.50–6.00	Soil	—	—	—	—	—	—	—	—
0121-97-0167	21-05061	10.00–10.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0173	21-05061	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0185	21-05061	189.50–190.00	Qbt 1v	—	—	—	—	—	—	—	—
0121-97-0191	21-05062	5.00–5.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0223	21-05063	10.00–11.60	Qbt 3	—	—	—	—	—	—	—	—
0121-96-0621	21-05065	4.50–5.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0326	21-05073	2.50–3.00	Soil	—	—	—	—	—	—	—	—
0121-97-0327	21-05073	8.50–9.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0331	21-05073	42.00–42.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-1133	21-05075	15.50–16.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-1137	21-05075	45.00–46.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-1138	21-05075	58.00–58.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-1139	21-05075	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-63935	21-25263	40.00–42.00	Qbt 3	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Heptachlorodibenzofuran [1,2,3,4,6,7,8-]	Heptachlorodibenzofurans (total)	Hexachlorodibenzodioxin [1,2,3,7,8,9-]	Hexachlorodibenzodioxins (total)	Hexachlorodibenzofuran [1,2,3,4,7,8-]	Hexachlorodibenzofuran [1,2,3,6,7,8-]	Hexachlorodibenzofuran [2,3,4,6,7,8-]	Hexachlorodibenzofurans (total)
MD21-06-63938	21-25263	125.00–127.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-63939	21-25263	165.00–167.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-63940	21-25263	215.00–217.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-63941	21-25263	269.00–271.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-63942	21-25263	330.00–332.00	Qbt t	—	—	—	—	—	—	—	—
MD21-06-63943	21-25263	340.00–342.00	Qct	—	—	—	—	—	—	—	—
MD21-06-63944	21-25263	351.00–354.00	Qbo	—	—	—	—	—	—	—	—
MD21-06-63973	21-25264	30.00–31.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-63974	21-25264	60.00–63.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-63981	21-25264	325.80–327.00	Qct	—	—	—	—	—	—	—	—
MD21-06-63982	21-25264	351.00–354.00	Qct	—	—	—	—	—	—	—	—
MD21-06-65821	21-25361	11.50–13.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65823	21-25361	5.00–6.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65843	21-25362	22.50–24.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65844	21-25362	37.00–39.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65847	21-25362	8.00–9.00	Qbt 3	—	—	—	—	3.87E-07 (J)	—	—	—
MD21-06-65851	21-25363	18.00–20.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65852	21-25363	37.00–40.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65855	21-25363	7.00–8.00	Fill	8.32E-06 (J)	9.09E-06 (J)	2.22E-07 (J)	2.22E-07	3.84E-06	1.04E-06 (J)	3.36E-07 (J)	7.51E-06 (J)
MD21-06-65883	21-25365	27.00–30.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65890	21-25366	25.00–27.90	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65942	21-25372	50.00–52.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65943	21-25372	75.00–77.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65944	21-25372	101.50–103.50	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65945	21-25372	181.00–183.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65951	21-25372	6.00–7.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65956	21-25373	32.00–34.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65959	21-25373	66.00–69.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65960	21-25373	99.00–101.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65961	21-25373	139.00–141.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65962	21-25373	211.00–213.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65963	21-25373	276.00–279.00	Qbt 1g	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Heptachlorodibenzofuran [1,2,3,4,6,7,8-]	Heptachlorodibenzofurans (total)	Hexachlorodibenzodioxin [1,2,3,7,8,9-]	Hexachlorodibenzodioxins (total)	Hexachlorodibenzofuran [1,2,3,4,7,8-]	Hexachlorodibenzofuran [1,2,3,6,7,8-]	Hexachlorodibenzofuran [2,3,4,6,7,8-]	Hexachlorodibenzofurans (total)
MD21-06-65973	21-25374	27.00–29.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65974	21-25374	109.00–111.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-65975	21-25374	174.00–176.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65985	21-25375	29.00–30.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65986	21-25375	32.00–33.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65988	21-25375	80.00–83.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65989	21-25375	190.00–192.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-65990	21-25375	253.00–255.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-65991	21-25375	277.00–280.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-65994	21-25375	6.00–7.00	Fill	—	—	—	—	—	—	—	—
MD21-06-66000	21-25376	28.00–29.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66001	21-25376	31.50–33.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66002	21-25376	70.00–72.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66003	21-25376	108.50–110.90	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-66004	21-25376	148.00–151.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-66005	21-25376	198.00–200.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-66006	21-25376	238.00–240.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-66007	21-25376	280.00–283.00	Qbt 1g	—	—	—	—	—	—	—	—
MD21-06-66243	21-25405	0.00–0.50	Soil	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Hexanone[2-]	Indeno(1,2,3-cd)pyrene	Isopropyltoluene[4-]	Methyl-2-pentanone[4-]	Methylene chloride	Methylnaphthalene[2-]	Naphthalene	Octachlorodibenzodioxin [1,2,3,4,6,7,8,9-]	Octachlorodibenzofuran [1,2,3,4,6,7,8,9-]
AAA3950	21-01615	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3951	21-01616	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3952	21-01617	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3953	21-01618	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3954	21-01619	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3957	21-01620	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3958	21-01621	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3959	21-01622	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3961	21-01623	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3962	21-01624	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3963	21-01625	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3964	21-01626	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3965	21-01627	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3985	21-01644	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3987	21-01646	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3993	21-01652	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3996	21-01655	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3997	21-01656	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3998	21-01657	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA4001	21-01658	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA4006	21-01662	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
0121-97-0001	21-05051	3.50–4.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0002	21-05051	6.00–6.50	Fill	—	—	—	—	—	—	—	—	—
0121-97-0003	21-05051	8.50–9.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0004	21-05051	11.50–12.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0005	21-05051	13.80–14.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0006	21-05051	20.00–21.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0007	21-05051	27.50–28.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0008	21-05051	40.00–40.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0009	21-05051	50.00–50.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0010	21-05051	61.00–61.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0026	21-05052	2.50–3.00	Fill	—	0.048 (J)	—	—	—	—	—	—	—
0121-97-0031	21-05052	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Hexanone[2-]	Indeno(1,2,3-cd)pyrene	Isopropyltoluene[4-]	Methyl-2-pentanone[4-]	Methylene chloride	Methylnaphthalene[2-]	Naphthalene	Octachlorodibenzodioxin [1,2,3,4,6,7,8,9-]	Octachlorodibenzofuran [1,2,3,4,6,7,8,9-]
0121-97-0051	21-05053	4.20–4.60	Fill	—	—	—	—	—	—	—	—	—
0121-97-0052	21-05053	6.50–7.00	Fill	—	—	0.012	—	—	—	—	—	—
0121-97-0053	21-05053	9.50–10.00	Fill	—	0.043 (J)	0.006	—	—	—	—	—	—
0121-97-0059	21-05053	48.00–48.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0066	21-05054	3.00–3.50	Fill	—	—	—	—	—	—	—	—	—
0121-97-0067	21-05054	6.00–6.50	Fill	—	—	—	—	—	—	—	—	—
0121-97-0068	21-05054	7.50–8.20	Fill	—	—	—	—	—	—	—	—	—
0121-97-0069	21-05054	10.50–11.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0071	21-05054	21.80–22.10	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0096	21-05056	4.50–5.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0098	21-05056	20.00–20.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0481	21-05057	4.30–5.00	Fill	—	—	—	—	—	—	—	—	—
0121-96-0482	21-05057	9.50–10.00	Fill	—	—	—	—	—	—	—	—	—
0121-96-0483	21-05057	19.50–20.00	Fill	—	—	—	—	—	—	—	—	—
0121-96-0497	21-05058	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0115	21-05059	36.40–36.80	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0166	21-05061	5.50–6.00	Soil	—	—	—	—	—	—	—	—	—
0121-97-0167	21-05061	10.00–10.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0173	21-05061	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0185	21-05061	189.50–190.00	Qbt 1v	—	—	—	—	—	—	—	—	—
0121-97-0191	21-05062	5.00–5.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0223	21-05063	10.00–11.60	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0621	21-05065	4.50–5.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0326	21-05073	2.50–3.00	Soil	0.043	—	—	—	—	—	—	—	—
0121-97-0327	21-05073	8.50–9.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0331	21-05073	42.00–42.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1133	21-05075	15.50–16.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1137	21-05075	45.00–46.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1138	21-05075	58.00–58.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1139	21-05075	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-63935	21-25263	40.00–42.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-63938	21-25263	125.00–127.00	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-63939	21-25263	165.00–167.00	Qbt 2	—	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Hexanone[2-]	Indeno(1,2,3-cd)pyrene	Isopropyltoluene[4-]	Methyl-2-pentanone[4-]	Methylene chloride	Methylnaphthalene[2-]	Naphthalene	Octachlorodibenzodioxin [1,2,3,4,6,7,8,9-]	Octachlorodibenzofuran [1,2,3,4,6,7,8,9-]
MD21-06-63940	21-25263	215.00–217.00	Qbt 1v	—	—	—	—	0.00255 (J)	—	—	—	—
MD21-06-63941	21-25263	269.00–271.00	Qbt 1g	—	—	—	—	—	—	—	—	—
MD21-06-63942	21-25263	330.00–332.00	Qbt t	—	—	—	0.00179 (J)	0.0027 (J)	—	—	—	—
MD21-06-63943	21-25263	340.00–342.00	Qct	—	—	—	—	0.00246 (J)	—	—	—	—
MD21-06-63944	21-25263	351.00–354.00	Qbo	—	—	—	—	—	—	—	—	—
MD21-06-63973	21-25264	30.00–31.50	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-63974	21-25264	60.00–63.00	Qbt 3	—	—	—	—	—	0.00901 (J)	0.0399	—	—
MD21-06-63981	21-25264	325.80–327.00	Qct	—	—	—	—	0.00276 (J)	—	—	—	—
MD21-06-63982	21-25264	351.00–354.00	Qct	—	—	—	—	0.0037 (J)	—	—	—	—
MD21-06-65821	21-25361	11.50–13.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65823	21-25361	5.00–6.00	Qbt 3	—	—	—	—	—	—	—	2.23E-06 (J)	—
MD21-06-65843	21-25362	22.50–24.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65844	21-25362	37.00–39.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65847	21-25362	8.00–9.00	Qbt 3	—	—	—	—	—	—	—	1.73E-06 (J)	—
MD21-06-65851	21-25363	18.00–20.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65852	21-25363	37.00–40.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65855	21-25363	7.00–8.00	Fill	—	—	—	—	—	—	—	5.44E-06	3.25E-06 (J)
MD21-06-65883	21-25365	27.00–30.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65890	21-25366	25.00–27.90	Qbt 3	—	—	—	—	—	0.0174 (J)	0.0174 (J)	—	—
MD21-06-65942	21-25372	50.00–52.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65943	21-25372	75.00–77.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65944	21-25372	101.50–103.50	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-65945	21-25372	181.00–183.00	Qbt 1v	—	—	—	—	—	—	—	—	—
MD21-06-65951	21-25372	6.00–7.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65956	21-25373	32.00–34.00	Qbt 3	—	—	—	—	—	0.012 (J)	0.0123 (J)	—	—
MD21-06-65959	21-25373	66.00–69.00	Qbt 3	—	—	—	—	0.00696	—	—	—	—
MD21-06-65960	21-25373	99.00–101.00	Qbt 2	—	—	—	—	0.00846	—	—	—	—
MD21-06-65961	21-25373	139.00–141.00	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-65962	21-25373	211.00–213.00	Qbt 1v	—	—	—	—	—	—	—	—	—
MD21-06-65963	21-25373	276.00–279.00	Qbt 1g	—	—	—	—	—	—	—	—	—
MD21-06-65973	21-25374	27.00–29.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65974	21-25374	109.00–111.00	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-65975	21-25374	174.00–176.00	Qbt 1v	—	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Hexanone[2-]	Indeno(1,2,3-cd)pyrene	Isopropyltoluene[4-]	Methyl-2-pentanone[4-]	Methylene chloride	Methylnaphthalene[2-]	Naphthalene	Octachlorodibenzodioxin [1,2,3,4,6,7,8,9-]	Octachlorodibenzofuran [1,2,3,4,6,7,8,9-]
MD21-06-65985	21-25375	29.00–30.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65986	21-25375	32.00–33.00	Qbt 3	—	—	—	—	0.00245 (J)	—	—	—	—
MD21-06-65988	21-25375	80.00–83.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65989	21-25375	190.00–192.00	Qbt 1v	—	—	—	—	—	—	—	—	—
MD21-06-65990	21-25375	253.00–255.00	Qbt 1g	—	—	—	—	—	—	—	—	—
MD21-06-65991	21-25375	277.00–280.00	Qbt 1g	—	—	—	—	—	—	—	—	—
MD21-06-65994	21-25375	6.00–7.00	Fill	—	—	—	—	—	—	—	—	—
MD21-06-66000	21-25376	28.00–29.50	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-66001	21-25376	31.50–33.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-66002	21-25376	70.00–72.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-66003	21-25376	108.50–110.90	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-66004	21-25376	148.00–151.00	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-66005	21-25376	198.00–200.00	Qbt 1v	—	—	—	—	—	—	—	—	—
MD21-06-66006	21-25376	238.00–240.00	Qbt 1g	—	—	—	—	—	—	—	—	—
MD21-06-66007	21-25376	280.00–283.00	Qbt 1g	—	—	—	0.00151 (J)	—	—	—	—	—
MD21-06-66243	21-25405	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Pentachlorodibenzofuran [1,2,3,7,8-]	Pentachlorodibenzofuran [2,3,4,7,8-]	Pentachlorodibenzofurans (totals)	Phenanthrene	Pyrene	Tetrachloroethene	Toluene	Trichloroethene	Trichlorofluoromethane
AAA3950	21-01615	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3951	21-01616	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3952	21-01617	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3953	21-01618	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3954	21-01619	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3957	21-01620	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3958	21-01621	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3959	21-01622	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3961	21-01623	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3962	21-01624	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3963	21-01625	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3964	21-01626	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3965	21-01627	0.00–0.50	Soil	—	—	—	—	0.078 (J)	—	—	—	—
AAA3985	21-01644	0.00–0.50	Soil	—	—	—	0.12 (J-)	0.26 (J-)	—	—	—	—
AAA3987	21-01646	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3993	21-01652	0.00–0.50	Soil	—	—	—	—	0.029 (J)	—	—	—	—
AAA3996	21-01655	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3997	21-01656	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3998	21-01657	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA4001	21-01658	0.00–0.50	Soil	—	—	—	0.094 (J)	0.16 (J)	—	—	—	—
AAA4006	21-01662	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
0121-97-0001	21-05051	3.50–4.00	Fill	—	—	—	—	—	—	0.002 (J)	—	—
0121-97-0002	21-05051	6.00–6.50	Fill	—	—	—	—	—	—	0.007	—	—
0121-97-0003	21-05051	8.50–9.00	Fill	—	—	—	—	—	—	0.005	—	—
0121-97-0004	21-05051	11.50–12.00	Fill	—	—	—	—	—	—	0.004 (J)	—	—
0121-97-0005	21-05051	13.80–14.50	Qbt 3	—	—	—	—	—	—	0.014	—	—
0121-97-0006	21-05051	20.00–21.00	Qbt 3	—	—	—	—	—	—	0.004 (J)	—	—
0121-97-0007	21-05051	27.50–28.00	Qbt 3	—	—	—	—	—	—	0.003 (J)	—	—
0121-97-0008	21-05051	40.00–40.50	Qbt 3	—	—	—	—	—	—	0.001 (J)	—	—
0121-97-0009	21-05051	50.00–50.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0010	21-05051	61.00–61.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0026	21-05052	2.50–3.00	Fill	—	—	—	0.17 (J)	0.16 (J)	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Pentachlorodibenzofuran [1,2,3,7,8-]	Pentachlorodibenzofuran [2,3,4,7,8-]	Pentachlorodibenzofurans (totals)	Phenanthrene	Pyrene	Tetrachloroethene	Toluene	Trichloroethene	Trichlorofluoromethane
0121-97-0031	21-05052	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—	0.002 (J)
0121-97-0051	21-05053	4.20–4.60	Fill	—	—	—	—	0.043 (J)	—	0.009	—	—
0121-97-0052	21-05053	6.50–7.00	Fill	—	—	—	0.039 (J)	0.092 (J)	—	0.034	—	—
0121-97-0053	21-05053	9.50–10.00	Fill	—	—	—	—	0.043 (J)	0.004 (J)	0.04	—	—
0121-97-0059	21-05053	48.00–48.50	Qbt 3	—	—	—	—	—	—	0.004 (J)	—	—
0121-97-0066	21-05054	3.00–3.50	Fill	—	—	—	0.047 (J)	0.064 (J)	—	0.008	0.002 (J)	—
0121-97-0067	21-05054	6.00–6.50	Fill	—	—	—	—	—	0.002 (J)	0.032	0.01	—
0121-97-0068	21-05054	7.50–8.20	Fill	—	—	—	—	—	0.002 (J)	0.14	0.004 (J)	—
0121-97-0069	21-05054	10.50–11.00	Fill	—	—	—	—	—	0.008	0.088 (J+)	0.01 (J+)	—
0121-97-0071	21-05054	21.80–22.10	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0096	21-05056	4.50–5.00	Fill	—	—	—	—	—	—	—	—	—
0121-97-0098	21-05056	20.00–20.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-96-0481	21-05057	4.30–5.00	Fill	—	—	—	0.63	1	—	—	0.0075	—
0121-96-0482	21-05057	9.50–10.00	Fill	—	—	—	—	—	—	—	0.01	—
0121-96-0483	21-05057	19.50–20.00	Fill	—	—	—	—	—	—	—	0.0078	—
0121-96-0497	21-05058	49.50–50.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0115	21-05059	36.40–36.80	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0166	21-05061	5.50–6.00	Soil	—	—	—	—	—	—	0.006	—	—
0121-97-0167	21-05061	10.00–10.50	Qbt 3	—	—	—	—	—	—	0.003 (J)	—	—
0121-97-0173	21-05061	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0185	21-05061	189.50–190.00	Qbt 1v	—	—	—	—	—	—	—	—	—
0121-97-0191	21-05062	5.00–5.50	Qbt 3	—	—	—	—	—	0.012	—	—	—
0121-97-0223	21-05063	10.00–11.60	Qbt 3	—	—	—	—	—	—	0.003 (J)	—	—
0121-96-0621	21-05065	4.50–5.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-0326	21-05073	2.50–3.00	Soil	—	—	—	—	—	0.004 (J)	—	—	—
0121-97-0327	21-05073	8.50–9.00	Qbt 3	—	—	—	—	—	0.028 (J)	0.004 (J)	—	—
0121-97-0331	21-05073	42.00–42.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1133	21-05075	15.50–16.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1137	21-05075	45.00–46.00	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1138	21-05075	58.00–58.50	Qbt 3	—	—	—	—	—	—	—	—	—
0121-97-1139	21-05075	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-63935	21-25263	40.00–42.00	Qbt 3	—	—	—	—	0.0245 (J)	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Pentachlorodibenzofuran [1,2,3,7,8-]	Pentachlorodibenzofuran [2,3,4,7,8-]	Pentachlorodibenzofurans (totals)	Phenanthrene	Pyrene	Tetrachloroethene	Toluene	Trichloroethene	Trichlorofluoromethane
MD21-06-63938	21-25263	125.00–127.00	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-63939	21-25263	165.00–167.00	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-63940	21-25263	215.00–217.00	Qbt 1v	—	—	—	—	—	—	—	—	—
MD21-06-63941	21-25263	269.00–271.00	Qbt 1g	—	—	—	—	—	—	—	—	—
MD21-06-63942	21-25263	330.00–332.00	Qbt t	—	—	—	—	—	—	—	—	—
MD21-06-63943	21-25263	340.00–342.00	Qct	—	—	—	—	—	—	—	—	—
MD21-06-63944	21-25263	351.00–354.00	Qbo	—	—	—	—	—	—	—	—	—
MD21-06-63973	21-25264	30.00–31.50	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-63974	21-25264	60.00–63.00	Qbt 3	—	—	—	0.0186 (J)	0.0125 (J)	—	—	—	—
MD21-06-63981	21-25264	325.80–327.00	Qct	—	—	—	—	—	—	0.00042 (J)	—	—
MD21-06-63982	21-25264	351.00–354.00	Qct	—	—	—	—	—	—	0.000387 (J)	—	—
MD21-06-65821	21-25361	11.50–13.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65823	21-25361	5.00–6.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65843	21-25362	22.50–24.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65844	21-25362	37.00–39.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65847	21-25362	8.00–9.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65851	21-25363	18.00–20.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65852	21-25363	37.00–40.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65855	21-25363	7.00–8.00	Fill	1.63E-07 (J)	1.73E-07 (J)	6.96E-07	—	—	—	—	—	—
MD21-06-65883	21-25365	27.00–30.00	Qbt 3	—	—	—	—	—	0.00359	—	—	—
MD21-06-65890	21-25366	25.00–27.90	Qbt 3	—	—	—	0.0173 (J)	0.0131 (J)	0.0022	—	—	—
MD21-06-65942	21-25372	50.00–52.00	Qbt 3	—	—	—	—	—	—	0.000597 (J)	—	—
MD21-06-65943	21-25372	75.00–77.00	Qbt 3	—	—	—	—	—	—	0.000462 (J)	—	—
MD21-06-65944	21-25372	101.50–103.50	Qbt 2	—	—	—	—	—	—	0.000442 (J)	—	—
MD21-06-65945	21-25372	181.00–183.00	Qbt 1v	—	—	—	—	—	—	0.00041 (J)	—	—
MD21-06-65951	21-25372	6.00–7.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65956	21-25373	32.00–34.00	Qbt 3	—	—	—	0.0109 (J)	—	—	—	—	—
MD21-06-65959	21-25373	66.00–69.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65960	21-25373	99.00–101.00	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-65961	21-25373	139.00–141.00	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-65962	21-25373	211.00–213.00	Qbt 1v	—	—	—	—	—	—	—	—	—
MD21-06-65963	21-25373	276.00–279.00	Qbt 1g	—	—	—	—	—	—	—	—	—

Table 6.2-2 (continued)

Sample ID	Location ID	Depth (ft)	Media	Pentachlorodibenzofuran [1,2,3,7,8-]	Pentachlorodibenzofuran [2,3,4,7,8-]	Pentachlorodibenzofurans (totals)	Phenanthrene	Pyrene	Tetrachloroethene	Toluene	Trichloroethene	Trichlorofluoromethane
MD21-06-65973	21-25374	27.00–29.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65974	21-25374	109.00–111.00	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-65975	21-25374	174.00–176.00	Qbt 1v	—	—	—	—	—	—	—	—	—
MD21-06-65985	21-25375	29.00–30.00	Qbt 3	—	—	—	—	0.0559	—	—	—	—
MD21-06-65986	21-25375	32.00–33.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65988	21-25375	80.00–83.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-65989	21-25375	190.00–192.00	Qbt 1v	—	—	—	—	—	—	—	—	—
MD21-06-65990	21-25375	253.00–255.00	Qbt 1g	—	—	—	—	—	—	—	—	—
MD21-06-65991	21-25375	277.00–280.00	Qbt 1g	—	—	—	—	—	—	—	—	—
MD21-06-65994	21-25375	6.00–7.00	Fill	—	—	—	—	—	—	—	—	—
MD21-06-66000	21-25376	28.00–29.50	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-66001	21-25376	31.50–33.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-66002	21-25376	70.00–72.00	Qbt 3	—	—	—	—	—	—	—	—	—
MD21-06-66003	21-25376	108.50–110.90	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-66004	21-25376	148.00–151.00	Qbt 2	—	—	—	—	—	—	—	—	—
MD21-06-66005	21-25376	198.00–200.00	Qbt 1v	—	—	—	—	—	—	—	—	—
MD21-06-66006	21-25376	238.00–240.00	Qbt 1g	—	—	—	—	—	—	—	—	—
MD21-06-66007	21-25376	280.00–283.00	Qbt 1g	—	—	—	—	—	—	0.00227	—	—
MD21-06-66243	21-25405	0.00–0.50	Soil	—	—	—	0.0113 (J)	0.0176 (J)	—	—	—	—

See Appendix A for qualifier definitions.

Units are mg/kg.

— = Not detected.

Table 6.2-3
Radionuclide COPCS for the Shafts, Beds, and RWSA

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	1.65	na	0.023	0.054	1.31	na	2.59	0.2	2.29
Sediment Background Value				0.04	0.9	na	0.006	0.068	1.04	0.093	2.59	0.2	2.29
Qbt 2,3,4 Background Value				na	na	na	na	na	na	na	1.98	0.09	1.93
Qbt 1v Background Value				na	na	na	na	na	na	na	3.12	0.14	3.05
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	na	4.0	0.18	3.9
AAA3950	21-01615	0.00–0.50	Soil	0.033 (J-)	—	—	—	0.11 (J-)	—	5.015713E-02 (J-)	—	—	—
AAA3951	21-01616	0.00–0.50	Soil	0.1 (J-)	—	—	—	0.149 (J-)	—	—	—	—	—
AAA3954	21-01619	0.00–0.50	Soil	9.751 (J-)	—	—	0.535 (J-)	8.919 (J-)	—	—	—	—	—
AAA3958	21-01621	0.00–0.50	Soil	—	—	—	—	—	—	0.0533557 (J-)	—	—	—
AAA3959	21-01622	0.00–0.50	Soil	—	—	—	—	—	—	5.678161E-02 (J-)	—	—	—
AAA3961	21-01623	0.00–0.50	Soil	3.406 (J-)	—	—	0.354 (J-)	0.969 (J-)	—	6.667447E-02 (J-)	—	—	—
AAA3962	21-01624	0.00–0.50	Soil	—	—	—	—	—	—	3.782066E-02 (J-)	—	—	—
AAA3963	21-01625	0.00–0.50	Soil	0.08 (J-)	—	—	—	0.182 (J-)	—	3.370412E-02 (J-)	—	—	—
AAA3964	21-01626	0.00–0.50	Soil	—	—	—	0.031 (J-)	—	—	4.902605E-02 (J-)	—	—	—
AAA3965	21-01627	0.00–0.50	Soil	1.31 (J-)	—	—	3.639 (J-)	4.108 (J-)	—	7.801332E-02 (J-)	—	—	—
AAA3985	21-01644	0.00–0.50	Soil	12.333 (J-)	—	—	1.307 (J-)	19.237 (J-)	—	0.3575631 (J-)	—	—	—
AAA3986	21-01645	0.00–0.50	Soil	0.89 (J-)	—	—	0.124 (J-)	6.547 (J-)	—	0.3305381 (J-)	—	—	—
AAA3987	21-01646	0.00–0.50	Soil	26.395 (J-)	—	—	6.851 (J-)	201.254 (J-)	—	9.712644E-02 (J-)	3.363 (J-)	—	—
AAA3988	21-01647	0.00–0.50	Soil	—	—	—	—	—	—	4.237251E-02 (J-)	—	—	—
AAA3989	21-01648	0.00–0.50	Soil	1.56 (J-)	—	—	0.273 (J-)	1.565 (J-)	—	5.045045E-02 (J-)	—	—	—
AAA3993	21-01652	0.00–0.50	Soil	2.042 (J)	—	—	0.223 (J-)	3.735 (J-)	—	6.343915E-02 (J-)	—	0.38 (J-)	—
AAA3996	21-01655	0.00–0.50	Soil	0.504 (J-)	—	—	—	0.136 (J-)	—	4.768559E-02 (J-)	—	—	—
AAA3997	21-01656	0.00–0.50	Soil	—	—	—	—	—	—	5.432373E-02 (J-)	—	—	—
AAA3998	21-01657	0.00–0.50	Soil	0.027 (J-)	—	—	—	0.06 (J-)	—	7.567567E-02 (J-)	—	—	—
AAA4001	21-01658	0.00–0.50	Soil	2.831 (J-)	—	—	6.625 (J-)	8.602 (J-)	—	0.2471635 (J-)	—	—	—
AAA4006	21-01662	0.00–0.50	Soil	3.212 (J-)	—	—	0.511 (J-)	4.791 (J-)	—	—	—	—	—

Table 6.2-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	na	na	0.023	0.054	1.31	na	2.59	0.2	2.29
Sediment Background Value				0.04	na	na	0.006	0.068	1.04	0.093	2.59	0.2	2.29
Qbt 2,3,4 Background Value				na	na	na	na	na	na	na	1.98	0.09	1.93
Qbt 1v Background Value				na	na	na	na	na	na	na	3.12	0.14	3.05
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	na	4.0	0.18	3.9
0121-97-0002	21-05051	6.00–6.50	Fill	242.5	—	—	—	108.5	—	—	—	—	—
0121-97-0003	21-05051	8.50–9.00	Fill	952.7	—	—	18.02	2791	98.75	—	3.68	—	—
0121-97-0004	21-05051	11.50–12.00	Fill	1944	1.56	—	—	—	—	—	6.44	—	—
0121-97-0005	21-05051	13.80–14.50	Qbt 3	2155	6.78	—	—	—	5.17	—	8.82	—	2.41
0121-97-0006	21-05051	20.00–21.00	Qbt 3	3617	7.95	—	—	13170	8.6	—	7.56	—	2.77
0121-97-0007	21-05051	27.50–28.00	Qbt 3	1092	—	—	15.56	2006	—	—	2.17	—	—
0121-97-0008	21-05051	40.00–40.50	Qbt 3	93.58	—	—	—	463.9	—	—	—	—	—
0121-97-0009	21-05051	50.00–50.50	Qbt 3	57.31	—	—	—	377.4	—	—	—	—	—
0121-97-0010	21-05051	61.00–61.50	Qbt 3	71.67	—	—	—	87.42	—	—	—	—	—
0121-97-0011	21-05051	71.00–71.50	Qbt 3	27.06	—	—	—	49.23	—	—	—	—	—
0121-97-0012	21-05051	80.00–80.50	Qbt 3	20.32	—	—	—	28.86	—	—	—	—	—
0121-97-0013	21-05051	89.50–90.00	Qbt 3	46.1	—	—	—	49.57	—	—	—	—	—
0121-97-0014	21-05051	99.50–100.00	Qbt 3	26.83	—	—	—	59.56	—	—	—	—	—
0121-97-0015	21-05051	109.00–109.50	Qbt 2	4.89	—	—	—	—	—	—	—	—	—
0121-97-0019	21-05051	149.50–150.00	Qbt 2	—	—	—	—	—	1.14	—	—	—	—
0121-97-0026	21-05052	2.50–3.00	Fill	—	—	—	—	0.86	—	—	—	—	—
0121-97-0027	21-05052	9.00–9.50	Qal	—	—	—	—	0.4	—	—	—	—	—
0121-97-0028	21-05052	20.00–20.50	Qal	—	—	—	0.31	—	—	—	—	—	—
0121-97-0038	21-05052	119.00–120.00	Qbt 2	—	—	—	0.34	—	—	—	—	—	—
0121-97-0040	21-05052	139.00–140.00	Qbt 2	—	—	—	0.31	—	—	—	—	—	—
0121-97-0041	21-05052	149.00–150.00	Qbt 2	—	—	4.42	—	—	—	—	—	—	—
0121-97-0051	21-05053	4.20–4.60	Fill	6638	43.05	—	—	5872	54.22	—	—	—	—
0121-97-0052	21-05053	6.50–7.00	Fill	2749	243.1	—	843.8	15,490	756.88	—	17.53	1.15	2.89

Table 6.2-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	na	na	0.023	0.054	1.31	na	2.59	0.2	2.29
Sediment Background Value				0.04	na	na	0.006	0.068	1.04	0.093	2.59	0.2	2.29
Qbt 2,3,4 Background Value				na	na	na	na	na	na	na	1.98	0.09	1.93
Qbt 1v Background Value				na	na	na	na	na	na	na	3.12	0.14	3.05
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	na	4.0	0.18	3.9
0121-97-0053	21-05053	9.50–10.00	Fill	14,760	19.89	—	2480	230,600	6.33	—	25.34	1.7	—
0121-97-0054	21-05053	12.50–13.00	Qbt 3	308.5	—	—	1.33	233.3	26.23	—	2.42	—	—
0121-97-0055	21-05053	17.00–17.30	Qbt 3	1,198	—	—	—	14.39	2.56	—	6.42	—	5.09
0121-97-0056	21-05053	20.50–21.50	Qbt 3	602.6	—	—	—	29.9	6.32	—	—	—	—
0121-97-0057	21-05053	28.00–29.00	Qbt 3	1,740	—	—	—	8.63	2	—	—	—	—
0121-97-0059	21-05053	48.00–48.50	Qbt 3	1,615	—	—	56.02	10,470	16.47	—	4.51	—	—
0121-97-0060	21-05053	59.50–60.00	Qbt 3	83.25	—	—	—	1292	—	—	—	—	—
0121-97-0061	21-05053	60.00–60.70	Qbt 3	150	—	—	—	2871	2.7	—	—	—	—
0121-97-0066	21-05054	3.00–3.50	Fill	8.68	—	—	—	26.83	6.56	—	—	—	—
0121-97-0067	21-05054	6.00–6.50	Fill	3011	—	—	146.4	11,030	37.55	—	—	—	—
0121-97-0068	21-05054	7.50–8.20	Fill	3000	1.17	—	—	—	52.26	—	4.54	—	—
0121-97-0069	21-05054	10.50–11.00	Fill	14,950	20.9	—	1687	161,900	8.94	—	34.51	2.44	3.22
0121-97-0070	21-05054	14.20–15.00	Qbt 3	2893	—	—	—	1565	133.68	—	—	—	—
0121-97-0071	21-05054	21.80–22.10	Qbt 3	3787	—	—	—	4134	3.96	—	8.94	—	5.05
0121-97-0072	21-05054	32.00–32.50	Qbt 3	313.4	—	—	—	—	—	—	—	—	—
0121-97-0073	21-05054	35.50–36.00	Qbt 3	1138	—	—	—	—	—	—	—	—	—
0121-97-0074	21-05054	50.00–50.50	Qbt 3	3.93	—	—	—	5.91	—	—	—	—	—
0121-97-0081	21-05055	3.50–4.00	Fill	—	—	—	—	2.5	4.6	—	—	—	—
0121-97-0082	21-05055	8.50–9.00	Fill	270	33	—	88	14,000	21	—	—	—	33
0121-97-0083	21-05055	14.50–15.00	Fill	510	21	—	200	32,000	14	—	18	—	18
0121-97-0096	21-05056	4.50–5.00	Fill	—	—	—	0.065	0.17	2	—	—	—	—
0121-97-0097	21-05056	11.80–12.20	Qbt 3	—	—	—	0.051	1.7	—	—	—	—	—
0121-97-0098	21-05056	20.00–20.50	Qbt 3	—	—	—	0.063	1.1	—	—	—	—	—

Table 6.2-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	na	na	0.023	0.054	1.31	na	2.59	0.2	2.29
Sediment Background Value				0.04	na	na	0.006	0.068	1.04	0.093	2.59	0.2	2.29
Qbt 2,3,4 Background Value				na	na	na	na	na	na	na	1.98	0.09	1.93
Qbt 1v Background Value				na	na	na	na	na	na	na	3.12	0.14	3.05
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	na	4.0	0.18	3.9
0121-97-0099	21-05056	29.00–29.50	Qbt 3	—	—	—	0.096	8.9	1.1	—	—	—	—
0121-97-0100	21-05056	39.00–39.50	Qbt 3	—	—	—	—	1.4	—	—	—	—	—
0121-97-0101	21-05056	49.50–50.00	Qbt 3	—	—	—	0.074	0.75	1.2	—	—	—	—
0121-96-0481	21-05057	4.30–5.00	Fill	8.56	—	—	0.045	1.203	—	—	—	—	—
0121-96-0482	21-05057	9.50–10.00	Fill	2.41	—	—	0.193	1.458	—	—	—	—	—
0121-96-0483	21-05057	19.50–20.00	Fill	28.9	0.863	—	0.27	15.23	0.82	—	—	—	—
0121-96-0484	21-05057	22.50–23.90	Qal	210,000	2.5	—	170	2,800	—	—	92	—	55
0121-96-0485	21-05057	29.50–30.00	Qbt 3	2.56	—	—	—	0.174	—	—	—	—	—
0121-96-0486	21-05057	39.50–40.00	Qbt 3	—	—	—	—	0.843	—	—	—	—	—
0121-96-0487	21-05057	49.50–50.00	Qbt 3	0.435	—	—	—	2.067	—	—	—	—	—
0121-96-0491	21-05058	4.50–5.00	Fill	—	—	—	0.26	27	1.6	—	—	—	—
0121-96-0492	21-05058	7.70–8.20	Fill	—	—	—	0.24	43	4.8	—	—	—	—
0121-96-0494	21-05058	17.50–18.20	Fill	41	—	—	0.37	36	1.3	—	—	—	—
0121-96-0495	21-05058	29.50–30.00	Qbt 3	—	—	—	—	—	1.5	—	—	—	—
0121-96-0496	21-05058	39.50–40.00	Qbt 3	—	—	—	—	—	2.1	—	—	—	—
0121-96-0497	21-05058	49.50–50.00	Qbt 3	—	—	—	—	0.026	2.2	—	—	—	—
0121-97-0112	21-05059	10.20–10.70	Qal	—	—	—	—	—	—	—	1.57	—	1.56
0121-97-0113	21-05059	20.00–20.50	Qal	—	—	—	—	—	—	—	1.77	—	1.85
0121-97-0114	21-05059	31.50–32.00	Qal	—	—	—	—	2.64	—	—	—	—	—
0121-97-0167	21-05061	10.00–10.50	Qbt 3	—	—	—	—	201.7	—	—	—	—	—
0121-97-0171	21-05061	49.00–49.50	Qbt 3	—	—	—	—	—	—	—	—	—	2.05
0121-97-0173	21-05061	69.50–70.00	Qbt 3	—	—	—	—	—	1.48	—	—	—	—
0121-97-0178	21-05061	118.00–118.50	Qbt 2	—	—	—	—	1.33	—	—	—	—	—

Table 6.2-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	na	na	0.023	0.054	1.31	na	2.59	0.2	2.29
Sediment Background Value				0.04	na	na	0.006	0.068	1.04	0.093	2.59	0.2	2.29
Qbt 2,3,4 Background Value				na	na	na	na	na	na	na	1.98	0.09	1.93
Qbt 1v Background Value				na	na	na	na	na	na	na	3.12	0.14	3.05
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	na	4.0	0.18	3.9
0121-97-0179	21-05061	128.50–129.00	Qbt 2	—	—	—	—	1.3	—	—	—	—	—
0121-97-0180	21-05061	140.00–140.50	Qbt 2	—	—	—	—	—	—	—	—	—	2.47
0121-97-0191	21-05062	5.00–5.50	Qbt 3	—	—	—	—	5.37	—	—	—	—	—
0121-97-0194	21-05062	20.00–20.50	Qbt 3	—	—	—	—	3.88	—	—	—	—	—
0121-97-0196	21-05062	40.00–40.50	Qbt 3	—	—	—	—	15.56	3.45	—	—	—	—
0121-97-0200	21-05062	78.40–79.50	Qbt 3	66,420	—	—	3,719	49,020	50.38	—	99.44	—	4.08
0121-96-0621	21-05065	4.50–5.00	Qbt 3	—	—	—	—	0.11	—	—	—	—	—
0121-96-0622	21-05065	10.00–10.50	Qbt 3	—	—	—	—	0.028	—	—	—	—	—
0121-96-0624	21-05065	29.50–30.00	Qbt 3	2	—	—	—	—	0.99	—	—	—	—
0121-96-0625	21-05065	39.50–40.00	Qbt 3	—	—	—	—	—	1	—	—	—	—
0121-96-0626	21-05065	48.20–48.70	Qbt 3	—	—	—	—	0.027	0.53	—	—	—	—
0121-97-1167	21-05071	50.50–51.00	Qbt 3	—	—	—	—	0.45	—	—	—	—	—
0121-97-0326	21-05073	2.50–3.00	Soil	2.6	—	—	0.087	4.3	2.2	—	—	—	—
0121-97-0327	21-05073	8.50–9.00	Qbt 3	780	460	—	390	67,000	81	—	29	—	13
0121-97-0328	21-05073	11.70–12.20	Qbt 3	330	27	—	96	12,000	10	—	45	—	—
0121-97-0329	21-05073	22.00–23.00	Qbt 3	—	—	—	0.048	7.7	8.8	—	—	—	—
0121-97-0330	21-05073	32.00–32.50	Qbt 3	—	—	—	0.13	21	2.8	—	—	—	—
0121-97-0331	21-05073	42.00–42.50	Qbt 3	—	—	—	0.033	7.1	3.5	—	—	—	—
0121-97-0332	21-05073	46.50–47.00	Qbt 3	—	—	—	—	3.9	0.8	—	—	—	—
0121-97-0333	21-05073	62.00–62.50	Qbt 3	—	—	—	—	2.3	5.4	—	—	—	—
0121-97-0334	21-05073	69.50–70.00	Qbt 3	—	—	—	—	1.7	5	—	—	—	—
0121-97-1001	21-05074	0.80–1.30	Soil	83.21	—	—	—	—	—	—	—	—	—
0121-97-1003	21-05074	19.50–20.00	Qbt 3	8.27	—	—	—	—	—	—	—	—	—

Table 6.2-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	na	na	0.023	0.054	1.31	na	2.59	0.2	2.29
Sediment Background Value				0.04	na	na	0.006	0.068	1.04	0.093	2.59	0.2	2.29
Qbt 2,3,4 Background Value				na	na	na	na	na	na	na	1.98	0.09	1.93
Qbt 1v Background Value				na	na	na	na	na	na	na	3.12	0.14	3.05
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	na	4.0	0.18	3.9
0121-97-1131	21-05075	6.70–7.20	Qbt 3	4.35	—	—	—	3.73	—	—	—	—	—
0121-97-1132	21-05075	8.80–9.30	Qbt 3	164.5	25.86	—	—	1836	2.33	—	—	—	—
0121-97-1133	21-05075	15.50–16.00	Qbt 3	65.85	—	—	3.41	613.1	2.55	—	—	—	—
0121-97-1134	21-05075	20.00–21.00	Qbt 3	51.71	—	—	2.74	410.1	2.47	—	—	—	—
0121-97-1137	21-05075	45.00–46.00	Qbt 3	101.2	0.58	—	12.1	2,150	—	—	—	—	—
0121-97-1138	21-05075	58.00–58.50	Qbt 3	—	—	—	—	18.8	2.18	—	—	—	—
0121-97-1139	21-05075	69.50–70.00	Qbt 3	3.34	0.5	—	—	166	—	—	—	—	—
MD21-06-63902	21-25262	170.00–172.00	Qbt 1v	—	—	—	—	—	—	0.383765	—	0.2	—
MD21-06-63903	21-25262	235.00–238.00	Qbt 1v	—	—	—	—	—	—	0.4727273	—	0.284	—
MD21-06-63935	21-25263	40.00–42.00	Qbt 3	—	—	—	—	—	—	0.8364249	—	—	—
MD21-06-63936	21-25263	70.00–73.00	Qbt 3	—	—	—	—	—	—	0.7110922	—	—	—
MD21-06-63937	21-25263	80.00–82.00	Qbt 3	—	—	—	—	—	—	0.4974159	—	—	—
MD21-06-63938	21-25263	125.00–127.00	Qbt 2	—	—	—	—	—	—	0.2936922	—	0.139	—
MD21-06-63939	21-25263	165.00–167.00	Qbt 2	—	—	—	—	—	—	0.4899831	—	0.182	—
MD21-06-63940	21-25263	215.00–217.00	Qbt 1v	—	—	—	—	—	—	0.3713124	—	0.273	—
MD21-06-63941	21-25263	269.00–271.00	Qbt 1g	—	—	—	—	0.0584	—	6.661682	—	—	—
MD21-06-63942	21-25263	330.00–332.00	Qbt t	—	—	—	—	0.0385	—	0.4357953	3.2 (J-)	0.184 (J-)	3.3 (J-)
MD21-06-63943	21-25263	340.00–342.00	Qct	—	—	—	—	0.138	—	0.555258	—	0.195 (J-)	—
MD21-06-63944	21-25263	351.00–354.00	Qbo	—	—	—	—	—	—	2.371801E-02	—	—	—
MD21-06-63973	21-25264	30.00–31.50	Qbt 3	—	—	—	—	—	—	0.5436301	—	0.0958	—
MD21-06-63974	21-25264	60.00–63.00	Qbt 3	—	—	—	—	—	—	0.5060955	—	—	—
MD21-06-63975	21-25264	114.00–117.00	Qbt 2	—	—	—	—	—	—	1.819956	—	—	—
MD21-06-63976	21-25264	149.00–150.50	Qbt 2	—	—	—	—	—	—	12.37195	—	—	—

Table 6.2-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	na	na	0.023	0.054	1.31	na	2.59	0.2	2.29
Sediment Background Value				0.04	na	na	0.006	0.068	1.04	0.093	2.59	0.2	2.29
Qbt 2,3,4 Background Value				na	na	na	na	na	na	na	1.98	0.09	1.93
Qbt 1v Background Value				na	na	na	na	na	na	na	3.12	0.14	3.05
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	na	4.0	0.18	3.9
MD21-06-63977	21-25264	152.50–154.00	Qbt 2	—	—	—	—	—	—	15.80106	—	—	—
MD21-06-63978	21-25264	196.00–199.00	Qbt 1v	—	—	—	—	—	—	17.51237	—	0.478	—
MD21-06-63979	21-25264	257.00–259.00	Qbt 1g	—	—	—	—	—	—	8.294977	—	0.192	—
MD21-06-63980	21-25264	301.00–304.00	Qbt 1g	—	—	—	—	—	—	—	—	0.374	—
MD21-06-63982	21-25264	351.00–354.00	Qct	—	—	—	—	—	—	0.2085714	—	—	—
MD21-06-65942	21-25372	50.00–52.00	Qbt 3	—	—	—	—	—	—	5.01568	—	—	—
MD21-06-65943	21-25372	75.00–77.00	Qbt 3	—	—	—	—	—	—	3.205729	—	—	—
MD21-06-65944	21-25372	101.50–103.50	Qbt 2	—	—	—	—	—	—	4.465968	—	—	—
MD21-06-65945	21-25372	181.00–183.00	Qbt 1v	—	—	—	—	—	—	7.433543	—	—	—
MD21-06-65946	21-25372	229.00–231.00	Qbt 1g	—	—	—	—	—	—	21.69505	—	—	—
MD21-06-65947	21-25372	276.00–279.00	Qbt 1g	—	—	—	—	—	—	24.54441	—	—	—
MD21-06-65956	21-25373	32.00–34.00	Qbt 3	—	—	—	—	—	—	0.0454976	—	—	—
MD21-06-65957	21-25373	36.00–38.00	Qbt 3	—	—	—	—	—	—	5.166652E-02	—	—	—
MD21-06-65958	21-25373	52.50–54.00	Qbt 3	—	—	—	—	—	—	5.043579E-02	—	—	—
MD21-06-65959	21-25373	66.00–69.00	Qbt 3	—	—	—	—	—	—	5.897444E-02	—	—	—
MD21-06-65960	21-25373	99.00–101.00	Qbt 2	—	—	—	—	—	—	0.1307482	—	0.0943	—
MD21-06-65961	21-25373	139.00–141.00	Qbt 2	—	—	—	—	—	—	0.468239	—	—	—
MD21-06-65962	21-25373	211.00–213.00	Qbt 1v	—	—	—	—	—	—	3.512641	—	—	—
MD21-06-65963	21-25373	276.00–279.00	Qbt 1g	—	—	—	—	—	—	0.0405793	—	0.186	—
MD21-06-65973	21-25374	27.00–29.00	Qbt 3	0.14	—	—	—	0.162 (J-)	—	6.731767	—	—	—
MD21-06-65974	21-25374	109.00–111.00	Qbt 2	0.11	—	—	—	—	—	3.546952	—	—	—
MD21-06-65975	21-25374	174.00–176.00	Qbt 1v	—	—	—	—	—	—	12.8	—	—	—
MD21-06-65977	21-25374	276.00–279.00	Qbt 1g	—	—	—	—	—	—	1.51373	—	—	—

Table 6.2-3 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Europium-152	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	na	na	0.023	0.054	1.31	na	2.59	0.2	2.29
Sediment Background Value				0.04	na	na	0.006	0.068	1.04	0.093	2.59	0.2	2.29
Qbt 2,3,4 Background Value				na	na	na	na	na	na	na	1.98	0.09	1.93
Qbt 1v Background Value				na	na	na	na	na	na	na	3.12	0.14	3.05
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	na	4.0	0.18	3.9
MD21-06-65985	21-25375	29.00–30.00	Qbt 3	12.1	—	—	0.146	16.4	—	—	—	—	—
MD21-06-65986	21-25375	32.00–33.00	Qbt 3	83.5	—	—	0.531	58.2	—	—	—	—	—
MD21-06-65987	21-25375	57.00–58.00	Qbt 3	—	—	—	—	—	—	—	—	0.216 (J-)	—
MD21-06-65988	21-25375	80.00–83.00	Qbt 3	9.63 (J+)	—	—	0.0869 (J+)	15.6 (J+)	—	—	—	0.202	—
MD21-06-65990	21-25375	253.00–255.00	Qbt 1g	—	—	—	—	—	—	—	—	0.212	—
MD21-06-65991	21-25375	277.00–280.00	Qbt 1g	—	—	—	—	—	—	6.755451E-02	—	0.262	—
MD21-06-66000	21-25376	28.00–29.50	Qbt 3	—	—	—	—	—	—	0.2884367	—	—	—
MD21-06-66001	21-25376	31.50–33.00	Qbt 3	—	—	—	—	—	—	0.1994072	—	—	—
MD21-06-66002	21-25376	70.00–72.00	Qbt 3	—	—	—	—	—	—	0.1383011	—	—	—
MD21-06-66003	21-25376	108.50–110.90	Qbt 2	—	—	—	—	—	—	0.1800255	—	—	—
MD21-06-66004	21-25376	148.00–151.00	Qbt 2	—	—	—	—	—	—	0.2247865	—	—	—
MD21-06-66005	21-25376	198.00–200.00	Qbt 1v	—	—	—	—	—	—	0.325968	—	0.163	—
MD21-06-66006	21-25376	238.00–240.00	Qbt 1g	—	—	—	—	—	—	1.67386	—	—	—
MD21-06-66007	21-25376	280.00–283.00	Qbt 1g	—	—	—	—	—	—	—	—	0.223	—
MD21-06-66243	21-25405	0.00–0.50	Soil	34.8	—	—	—	12.2	—	2.462706E-02	—	—	—
MD21-06-66244	21-25405	1.50–2.00	Soil	7.26 (J+)	—	—	0.117	8.19	—	8.805069E-02	—	—	—

See Appendix A for qualifier definitions.

Units are pCi/g.

Background values and fallout values are from LANL 1998, 59730.

— = Not above background/fallout value or not detected.

na = Not available.

Table 6.2-4
Inorganic COPCs for Building 21-035

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
AAA0564	21-01085	0.00–0.08	Soil	5.2 (U)	—	—	—	—	0.45 (UJ)	—
AAA3966	21-01628	0.00–0.50	Soil	—	—	—	—	—	1.7 (U)	—
AAB7314	21-02535	2.50–5.00	Fill	—	—	—	—	—	0.57 (U)	—
AAB7316	21-02536	5.00–7.50	Soil	—	—	—	—	—	0.5 (U)	—
AAB7320	21-02537	7.50–10.00	Qbt 3	—	—	—	—	—	—	—
AAB7323	21-02538	5.00–7.50	Fill	—	—	—	—	—	0.7 (U)	—
AAB7328	21-02539	7.50–10.00	Soil	—	—	—	—	—	1 (J)	—
AAB7332	21-02540	7.50–10.00	Qbt 3	—	—	—	—	—	—	—
AAB7334	21-02541	2.50–5.00	Soil	—	—	—	—	—	0.76 (J)	—
AAB9109	21-02541	10.00–12.50	Qbt 3	7390	—	—	79.6	—	—	—
AAB7340	21-02543	2.50–5.00	Soil	—	—	—	—	—	0.49 (U)	—
AAB7342	21-02544	5.00–7.50	Soil	—	—	—	—	—	0.83 (J)	—
AAB7343	21-02545	0.00–5.00	Soil	—	—	—	—	—	0.7 (U)	—
AAB7347	21-02546	0.00–5.00	Soil	—	—	—	—	—	0.48 (U)	—
AAB7352	21-02547	5.00–10.00	Soil	—	—	—	—	—	7.1	—
AAB7355	21-02548	2.50–5.00	Soil	—	—	—	—	—	0.47 (U)	—
AAB9110	21-02609	5.00–7.50	Soil	—	—	—	—	—	0.84 (J)	—
AAB9111	21-02610	5.00–7.50	Soil	—	—	—	—	—	0.65 (J)	—
0121-97-0136	21-05060	4.50–5.00	Soil	9 (U)	—	—	—	—	0.5 (U)	—
0121-97-0137	21-05060	10.00–10.50	Qbt 3	—	8.5 (U)	—	—	—	—	—
0121-97-0138	21-05060	20.00–20.50	Qbt 3	—	8.5 (U)	—	—	—	—	—
0121-97-0139	21-05060	30.00–30.50	Qbt 3	—	8.6 (J)	—	—	—	—	—
0121-97-0140	21-05060	42.00–42.50	Qbt 3	—	8.7 (U)	—	—	—	—	—
0121-97-0141	21-05060	50.00–50.50	Qbt 3	—	8.1 (U)	—	—	—	—	22.5
0121-97-0142	21-05060	60.00–60.50	Qbt 3	—	8.2 (U)	—	—	—	—	—

Table 6.2-4 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
0121-97-0143	21-05060	69.50–70.00	Qbt 3	—	8.5 (U)	—	—	—	—	—
0121-97-0144	21-05060	79.50–80.00	Qbt 3	—	8.7 (U)	—	—	—	—	—
0121-97-0145	21-05060	89.00–89.50	Qbt 3	—	9.5 (J)	—	—	—	—	—
0121-97-0146	21-05060	99.50–100.00	Qbt 3	—	8.4 (U)	—	—	—	—	—
0121-97-0147	21-05060	109.00–109.20	Qbt 2	—	8.3 (U)	—	—	—	—	—
0121-97-0148	21-05060	118.50–119.00	Qbt 2	—	8.4 (U)	—	—	—	—	—
0121-97-0149	21-05060	129.00–129.50	Qbt 2	—	8.3 (U)	—	—	—	—	—
0121-97-0150	21-05060	139.00–139.50	Qbt 2	—	8.4 (U)	—	—	—	—	—
0121-97-0151	21-05060	150.00–150.50	Qbt 2	—	8.3 (U)	—	—	—	—	—
0121-97-0152	21-05060	160.00–160.50	Qbt 2	—	8.4 (U)	—	—	—	—	—
0121-97-0153	21-05060	169.50–170.00	Qbt 2	—	8.5 (U)	—	—	—	—	—
0121-97-0154	21-05060	174.50–175.00	Qbt 2	—	8.5 (U)	—	—	—	—	—
MD21-06-63897	21-25262	22.00–23.50	Qbt 3	—	—	—	—	—	—	—
MD21-06-63898	21-25262	75.00–77.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-63899	21-25262	110.00–113.00	Qbt 2	—	—	—	—	—	—	—
MD21-06-63900	21-25262	116.00–118.00	Qbt 2	—	—	—	—	—	—	17.1 (J)
MD21-06-63901	21-25262	141.90–143.40	Qbt 2	12,300 (J+)	—	—	51.6	6.93	—	—
MD21-06-63902	21-25262	170.00–172.00	Qbt 1v	—	—	—	—	—	—	—
MD21-06-63903	21-25262	235.00–238.00	Qbt 1v	—	—	2.37	—	—	0.596 (U)	—
MD21-06-63904	21-25262	251.00–253.00	Qbt 1g	—	—	0.714 (J)	—	—	0.56 (U)	3.09
MD21-06-63905	21-25262	333.00–335.00	Qct	7,940 (J+)	—	1.81 (U)	—	1.47 (J-)	0.603 (U)	3.12
MD21-06-63906	21-25262	373.00–375.00	Qct	—	—	1.74 (U)	—	—	0.581 (U)	—
MD21-06-63907	21-25262	378.00–380.00	Qbo	—	—	1.67 (U)	—	—	0.558 (U)	—
MD21-06-65769	21-25355	17.50–20.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65770	21-25355	38.00–40.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65777	21-25356	27.50–28.50	Qbt 3	—	—	—	—	—	—	—
MD21-06-65778	21-25356	38.00–40.00	Qbt 3	—	—	—	—	—	—	—

Table 6.2-4 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium
Soil Background Value				29,200	0.83	8.17	295	1.83	0.4	19.3
Qbt 2,3,4 Background Value				7340	0.5	2.79	46	1.21	1.63	7.14
Qbt 1v Background Value				8170	0.5	1.81	26.5	1.7	0.4	2.24
Qbt 1g, Qct, Qbo Background Value				3560	0.5	0.56	25.7	1.44	0.4	2.6
MD21-06-65785	21-25357	38.00–40.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65794	21-25358	38.00–40.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65802	21-25359	5.00–7.50	Fill	—		—	—	—	2.7	—
MD21-06-65803	21-25359	21.00–22.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65804	21-25359	38.00–40.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65810	21-25360	38.00–40.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-66187	21-25390	30.00–31.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-66188	21-25390	32.50–33.50	Qbt 3	—	—	—	—	—	—	—
MD21-06-66189	21-25390	74.00–75.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-66190	21-25390	97.00–100.00	Qbt 3	—	—	—	—	—	—	—

Table 6.2-4 (continued)

Sample ID	Location ID	Depth (ft)	Media	Copper	Fluoride	Iron	Lead	Lithium	Manganese	Mercury	Nickel
Soil Background Value				14.7	na	**21,500**	22.3	na	**671**	0.1	15.4
Qbt 2,3,4 Background Value				4.66	na	14,500	11.2	na	482	0.1	6.58
Qbt 1v Background Value				3.26	na	9900	18.4	na	408	0.1	2
Qbt 1g, Qct, Qbo Background Value				3.96	na	3700	13.5	na	189	0.1	2
AAA0564	21-01085	0.00–0.08	Soil	—	—	—	—	2.9	—	—	—
AAA3966	21-01628	0.00–0.50	Soil	—	—	—	—	10.6 (J)	—	—	—
AAB7314	21-02535	2.50–5.00	Fill	—	—	—	—	—	—	—	—
AAB7316	21-02536	5.00–7.50	Soil	—	—	—	—	—	—	—	—
AAB7320	21-02537	7.50–10.00	Qbt 3	—	—	—	—	—	—	—	—
AAB7323	21-02538	5.00–7.50	Fill	—	—	—	—	—	—	—	—
AAB7328	21-02539	7.50–10.00	Soil	—	—	—	—	—	—	0.2	—
AAB7332	21-02540	7.50–10.00	Qbt 3	—	—	—	—	—	—	—	—
AAB7334	21-02541	2.50–5.00	Soil	—	—	—	—	—	—	—	—
AAB9109	21-02541	10.00–12.50	Qbt 3	7.5	—	—	11.4	—	—	—	15.9
AAB7340	21-02543	2.50–5.00	Soil	—	—	—	—	—	—	—	—
AAB7342	21-02544	5.00–7.50	Soil	—	—	—	—	—	—	0.3	—
AAB7343	21-02545	0.00–5.00	Soil	—	—	—	—	—	—	—	—
AAB7347	21-02546	0.00–5.00	Soil	—	—	—	—	—	—	—	—
AAB7352	21-02547	5.00–10.00	Soil	23.1	—	—	—	7.9 (J)	—	—	53.5
AAB7355	21-02548	2.50–5.00	Soil	—	—	—	—	—	—	—	—
AAB9110	21-02609	5.00–7.50	Soil	—	—	—	—	—	—	0.12	—
AAB9111	21-02610	5.00–7.50	Soil	—	—	—	—	—	—	0.2	—
0121-97-0136	21-05060	4.50–5.00	Soil	—	—	—	—	—	—	—	—
0121-97-0137	21-05060	10.00–10.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0138	21-05060	20.00–20.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0139	21-05060	30.00–30.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0140	21-05060	42.00–42.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0141	21-05060	50.00–50.50	Qbt 3	—	—	—	—	—	—	—	10.8
0121-97-0142	21-05060	60.00–60.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0143	21-05060	69.50–70.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0144	21-05060	79.50–80.00	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0145	21-05060	89.00–89.50	Qbt 3	—	—	—	—	—	—	—	—
0121-97-0146	21-05060	99.50–100.00	Qbt 3	—	—	—	—	—	—	—	—

Table 6.2-4 (continued)

Sample ID	Location ID	Depth (ft)	Media	Copper	Fluoride	Iron	Lead	Lithium	Manganese	Mercury	Nickel
Soil Background Value				14.7	na	**21,500**	22.3	na	**671**	0.1	15.4
Qbt 2,3,4 Background Value				4.66	na	14,500	11.2	na	482	0.1	6.58
Qbt 1v Background Value				3.26	na	9900	18.4	na	408	0.1	2
Qbt 1g, Qct, Qbo Background Value				3.96	na	3700	13.5	na	189	0.1	2
0121-97-0147	21-05060	109.00–109.20	Qbt 2	—	—	—	—	—	—	—	—
0121-97-0148	21-05060	118.50–119.00	Qbt 2	—	—	—	—	—	—	—	—
0121-97-0149	21-05060	129.00–129.50	Qbt 2	—	—	—	—	—	—	—	—
0121-97-0150	21-05060	139.00–139.50	Qbt 2	—	—	—	—	—	—	—	—
0121-97-0151	21-05060	150.00–150.50	Qbt 2	—	—	—	—	—	—	—	—
0121-97-0152	21-05060	160.00–160.50	Qbt 2	—	—	—	—	—	—	—	—
0121-97-0153	21-05060	169.50–170.00	Qbt 2	—	—	—	—	—	—	—	—
0121-97-0154	21-05060	174.50–175.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-63897	21-25262	22.00–23.50	Qbt 3	—	—	—	17.2	—	—	—	—
MD21-06-63898	21-25262	75.00–77.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-63899	21-25262	110.00–113.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-63900	21-25262	116.00–118.00	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-63901	21-25262	141.90–143.40	Qbt 2	—	—	—	—	—	—	—	—
MD21-06-63902	21-25262	170.00–172.00	Qbt 1v	—	—	—	—	—	—	—	—
MD21-06-63903	21-25262	235.00–238.00	Qbt 1v	—	18.2	—	—	—	—	—	—
MD21-06-63904	21-25262	251.00–253.00	Qbt 1g	—	—	5980 (J+)	—	—	201	—	—
MD21-06-63905	21-25262	333.00–335.00	Qct	—	—	4400	—	—	—	—	—
MD21-06-63906	21-25262	373.00–375.00	Qct	—	—	—	—	—	—	—	—
MD21-06-63907	21-25262	378.00–380.00	Qbo	—	—	—	—	—	—	—	—
MD21-06-65769	21-25355	17.50–20.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65770	21-25355	38.00–40.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65777	21-25356	27.50–28.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65778	21-25356	38.00–40.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65785	21-25357	38.00–40.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65794	21-25358	38.00–40.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65802	21-25359	5.00–7.50	Fill	—			—	—		0.292	17.2 (J+)
MD21-06-65803	21-25359	21.00–22.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65804	21-25359	38.00–40.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65810	21-25360	38.00–40.00	Qbt 3	—	—	—	—	—	—	—	—

Table 6.2-4 (continued)

Sample ID	Location ID	Depth (ft)	Media	Copper	Fluoride	Iron	Lead	Lithium	Manganese	Mercury	Nickel
Soil Background Value				14.7	na	**21,500**	22.3	na	**671**	0.1	15.4
Qbt 2,3,4 Background Value				4.66	na	14,500	11.2	na	482	0.1	6.58
Qbt 1v Background Value				3.26	na	9900	18.4	na	408	0.1	2
Qbt 1g, Qct, Qbo Background Value				3.96	na	3700	13.5	na	189	0.1	2
MD21-06-66187	21-25390	30.00–31.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66188	21-25390	32.50–33.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66189	21-25390	74.00–75.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66190	21-25390	97.00–100.00	Qbt 3	—	—	—	—	—	—	—	—

Table 6.2-4 (continued)

Sample ID	Location ID	Depth (ft)	Media	Nitrate	Perchlorate	Selenium	Silver	Strontium	Vanadium	Zinc
Soil Background Value				**na**	**na**	1.52	1	**na**	**39.6**	48.8
Qbt 2,3,4 Background Value				**na**	**na**	0.3	1	**na**	17	63.5
Qbt 1v Background Value				**na**	**na**	0.3	**1**	**na**	4.48	40
Qbt 1g, Qct, Qbo Background Value				**na**	**na**	0.3	1	**na**	4.59	84.6
AAA0564	21-01085	0.00–0.08	Soil	—	—	—	—	2.5 (J)	—	63.8
AAA3966	21-01628	0.00–0.50	Soil	—	—	—	1.1 (U)	32	—	—
AAB7314	21-02535	2.50–5.00	Fill	—	—	—	2.7 (U)	—	—	—
AAB7316	21-02536	5.00–7.50	Soil	—	—	—	2.5 (U)	—	—	—
AAB7320	21-02537	7.50–10.00	Qbt 3	—	—	1.1 (U)	3.8 (U)		—	—
AAB7323	21-02538	5.00–7.50	Fill	—	—	—	2.6 (U)	—	—	—
AAB7328	21-02539	7.50–10.00	Soil	—	—	—	2.5 (U)	—	—	—
AAB7332	21-02540	7.50–10.00	Qbt 3	—	—	0.73 (U)	2.4 (U)		—	—
AAB7334	21-02541	2.50–5.00	Soil	—	—	—	2.2 (U)	—	—	—
AAB9109	21-02541	10.00–12.50	Qbt 3	—	—	0.73 (U)	2.4 (U)		—	—
AAB7340	21-02543	2.50–5.00	Soil	—	—	—	2.3 (U)	—	—	—
AAB7342	21-02544	5.00–7.50	Soil	—	—	—	2.4 (U)	—	—	—
AAB7343	21-02545	0.00–5.00	Soil	—	—	—	2.1 (U)	—	—	—
AAB7347	21-02546	0.00–5.00	Soil	—	—	—	2.4 (U)	—	—	—
AAB7352	21-02547	5.00–10.00	Soil	—	—	—	2.3 (U)	24.5	—	71.4
AAB7355	21-02548	2.50–5.00	Soil	—	—	—	2.3 (U)	—	—	—
AAB9110	21-02609	5.00–7.50	Soil	—	—	—	2.4 (U)	—	—	—
AAB9111	21-02610	5.00–7.50	Soil	—	—	—	2.3 (U)	—	—	—
0121-97-0136	21-05060	4.50–5.00	Soil	—	—	—	—	—	—	—
0121-97-0137	21-05060	10.00–10.50	Qbt 3	—	—	0.45 (J-)	—	—	—	—
0121-97-0138	21-05060	20.00–20.50	Qbt 3	—	—	0.34 (UJ)	—	—	—	—
0121-97-0139	21-05060	30.00–30.50	Qbt 3	—	—	0.43 (J-)	1.5 (J)	—	—	—
0121-97-0140	21-05060	42.00–42.50	Qbt 3	—	—	0.35 (UJ)	—	—	—	—
0121-97-0141	21-05060	50.00–50.50	Qbt 3	—	—	0.33 (UJ)	—	—	—	—
0121-97-0142	21-05060	60.00–60.50	Qbt 3	—	—	0.34 (UJ)	1.3 (J)	—	—	—
0121-97-0143	21-05060	69.50–70.00	Qbt 3	—	—	0.34 (UJ)	—	—	—	—
0121-97-0144	21-05060	79.50–80.00	Qbt 3	—	—	0.33 (UJ)	—	—	—	—
0121-97-0145	21-05060	89.00–89.50	Qbt 3	—	—	0.54 (J-)	—	—	—	—
0121-97-0146	21-05060	99.50–100.00	Qbt 3	—	—	0.6 (J-)	1.2 (J)	—	—	—

Table 6.2-4 (continued)

Sample ID	Location ID	Depth (ft)	Media	Nitrate	Perchlorate	Selenium	Silver	Strontium	Vanadium	Zinc
Soil Background Value				**na**	**na**	1.52	1	**na**	**39.6**	48.8
Qbt 2,3,4 Background Value				**na**	**na**	0.3	1	**na**	17	63.5
Qbt 1v Background Value				**na**	**na**	0.3	**1**	**na**	4.48	40
Qbt 1g, Qct, Qbo Background Value				**na**	**na**	0.3	1	**na**	4.59	84.6
0121-97-0147	21-05060	109.00–109.20	Qbt 2	—	—	0.34 (U)	—	—	—	—
0121-97-0148	21-05060	118.50–119.00	Qbt 2	—	—	0.34 (U)	—	—	—	—
0121-97-0149	21-05060	129.00–129.50	Qbt 2	—	—	0.34 (U)	—	—	—	—
0121-97-0150	21-05060	139.00–139.50	Qbt 2	—	—	0.34 (U)	—	—	—	—
0121-97-0151	21-05060	150.00–150.50	Qbt 2	—	—	0.34 (U)	—	—	—	—
0121-97-0152	21-05060	160.00–160.50	Qbt 2	—	—	0.34 (U)	—	—	—	—
0121-97-0153	21-05060	169.50–170.00	Qbt 2	—	—	0.34 (U)	—	—	—	—
0121-97-0154	21-05060	174.50–175.00	Qbt 2	—	—	0.34 (U)	—	—	—	—
MD21-06-63897	21-25262	22.00–23.50	Qbt 3	—	—	1.56 (U)	—	—	—	—
MD21-06-63898	21-25262	75.00–77.00	Qbt 3	—	0.000909 (J)	1.51 (U)	—	—	—	—
MD21-06-63899	21-25262	110.00–113.00	Qbt 2	—	—	1.55 (U)	—	—	—	—
MD21-06-63900	21-25262	116.00–118.00	Qbt 2	0.531 (J)	—	1.58 (U)	—	—	—	—
MD21-06-63901	21-25262	141.90–143.40	Qbt 2	0.655 (J)	—	1.59 (U)	—	—	—	64.7
MD21-06-63902	21-25262	170.00–172.00	Qbt 1v	—	—	1.62 (U)	—	—	—	—
MD21-06-63903	21-25262	235.00–238.00	Qbt 1v	2.48	0.001 (J)	1.79 (U)	—	—	—	—
MD21-06-63904	21-25262	251.00–253.00	Qbt 1g	4.14	0.001 (J)	1.68 (U)	—	—	—	—
MD21-06-63905	21-25262	333.00–335.00	Qct	3.26	0.0211	1.81 (U)	—	—	4.99	—
MD21-06-63906	21-25262	373.00–375.00	Qct	22.1 (J-)	0.0111	1.74 (U)	—	—	—	—
MD21-06-63907	21-25262	378.00–380.00	Qbo	8.34 (J-)	0.01	1.67 (U)	—	—	—	—
MD21-06-65769	21-25355	17.50–20.00	Qbt 3	0.519 (J)	—	1.61 (U)	—	—	—	—
MD21-06-65770	21-25355	38.00–40.00	Qbt 3	0.741 (J)	—	1.63 (U)	—	—	—	—
MD21-06-65777	21-25356	27.50–28.50	Qbt 3	2.45	—	1.6 (U)	—	—	—	—
MD21-06-65778	21-25356	38.00–40.00	Qbt 3	2.41	0.000686 (J)	1.63 (U)	—	—	—	—
MD21-06-65785	21-25357	38.00–40.00	Qbt 3	0.862 (J)	—	1.52 (U)	—	—	—	—
MD21-06-65794	21-25358	38.00–40.00	Qbt 3	1.59	—	1.56 (U)	—	—	—	—
MD21-06-65802	21-25359	5.00–7.50	Fill	—	—	1.78 (U)	—	—		—
MD21-06-65803	21-25359	21.00–22.00	Qbt 3	0.483 (J-)	—	1.76 (U)	—	—	—	—
MD21-06-65804	21-25359	38.00–40.00	Qbt 3	0.448 (J-)	—	1.73 (U)	—	—	—	—
MD21-06-65810	21-25360	38.00–40.00	Qbt 3	0.515 (J)	—	1.59 (U)	—	—	—	—

Table 6.2-4 (continued)

Sample ID	Location ID	Depth (ft)	Media	Nitrate	Perchlorate	Selenium	Silver	Strontium	Vanadium	Zinc
Soil Background Value				**na**	**na**	1.52	1	**na**	**39.6**	48.8
Qbt 2,3,4 Background Value				**na**	**na**	0.3	1	**na**	17	63.5
Qbt 1v Background Value				**na**	**na**	0.3	**1**	**na**	4.48	40
Qbt 1g, Qct, Qbo Background Value				**na**	**na**	0.3	1	**na**	4.59	84.6
MD21-06-66187	21-25390	30.00–31.00	Qbt 3	1.3	—	1.7 (U)	—	—	—	—
MD21-06-66188	21-25390	32.50–33.50	Qbt 3	1.13	—	1.61 (U)	—	—	—	—
MD21-06-66189	21-25390	74.00–75.00	Qbt 3	1.28	—	1.63 (U)	—	—	—	—
MD21-06-66190	21-25390	97.00–100.00	Qbt 3	1.36	—	1.58 (U)	—	—	—	—

See Appendix A for qualifier definitions.

Units are mg/kg.

Background values are from LANL 1998, 59730.

— = Not above background value.

na = Not available.

Table 6.2-5
Organic COPCs for Building 21-035

Sample ID	Location ID	Depth (ft)	Media	Acetone	Benzoic acid	Bis(2-ethylhexyl)phthalate	Bromophenyl-phenylether[4-]	Butanone[2-]	Carbon disulfide	Chloroform	Di-n-butylphthalate
AAA3966	21-01628	0.00–0.50	Soil	—	—	0.062 (J)	—	—	—	—	—
0121-97-0141	21-05060	50.00–50.50	Qbt 3	—	—	—	—	—	—	—	0.071 (J)
0121-97-0144	21-05060	79.50–80.00	Qbt 3	—	—	0.079 (J)	—	0.004 (J)	—	—	—
0121-97-0150	21-05060	139.00–139.50	Qbt 2	—	—	—	—	0.002 (J)	—	—	—
MD21-06-63897	21-25262	22.00–23.50	Qbt 3	—	0.278 (J)	—	—	—	—	—	—
MD21-06-63898	21-25262	75.00–77.00	Qbt 3	—	—	—	0.076 (J)	—	—	—	—
MD21-06-63902	21-25262	170.00–172.00	Qbt 1v	0.0402 (J)	—	—	—	—	—	—	—
MD21-06-63903	21-25262	235.00–238.00	Qbt 1v	0.0353 (J+)	0.348 (J)	—	—	—	—	—	—
MD21-06-63904	21-25262	251.00–253.00	Qbt 1g	—	—	—	—	—	0.00231 (J)	—	—
MD21-06-63905	21-25262	333.00–335.00	Qct	—	0.661 (J)	—	—	—	—	—	—
MD21-06-63906	21-25262	373.00–375.00	Qct	—	0.65 (J)	—	—	—	—	—	—
MD21-06-63907	21-25262	378.00–380.00	Qbo	—	0.617 (J)	—	—	—	—	—	—
MD21-06-65769	21-25355	17.50–20.00	Qbt 3	0.0223 (J)	—	—	—	—	—	—	—
MD21-06-65773	21-25355	5.80–6.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65781	21-25356	6.00–6.50	Fill	—	—	—	—	—	—	—	—
MD21-06-65789	21-25357	6.40–6.80	Fill	—	—	—	—	—	—	—	—
MD21-06-65802	21-25359	5.00–7.50	Fill	0.0407 (J)	—	—	—	0.014 (J)	—	—	—
MD21-06-65803	21-25359	21.00–22.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65804	21-25359	38.00–40.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65818	21-25360	11.00–11.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66187	21-25390	30.00–31.00	Qbt 3	—	—	—	—	—	—	0.000295 (J)	—
MD21-06-66188	21-25390	32.50–33.50	Qbt 3	—	0.59 (J)	—	—	—	—	—	—
MD21-06-66190	21-25390	97.00–100.00	Qbt 3	—	0.567 (J)	—	—	—	—	—	—

Table 6.2-5 (continued)

Sample ID	Location ID	Depth (ft)	Media	Heptachlorodibenzodioxin [1,2,3,4,6,7,8-]	Heptachlorodibenzodioxins (total)	Methylene chloride	Octachlorodibenzodioxin [1,2,3,4,6,7,8,9-]	Tetrachloroethene	Toluene	Xylene[1,3-]+Xylene[1,4-]
AAA3966	21-01628	0.00–0.50	Soil	—	—	—	—	—	—	—
0121-97-0141	21-05060	50.00–50.50	Qbt 3	—	—	—	—	—	—	—
0121-97-0144	21-05060	79.50–80.00	Qbt 3	—	—	—	—	—	—	—
0121-97-0150	21-05060	139.00–139.50	Qbt 2	—	—	—	—	—	—	—
MD21-06-63897	21-25262	22.00–23.50	Qbt 3	—	—	—	—	—	—	—
MD21-06-63898	21-25262	75.00–77.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-63902	21-25262	170.00–172.00	Qbt 1v	—	—	—	—	—	—	—
MD21-06-63903	21-25262	235.00–238.00	Qbt 1v	—	—	—	—	—	—	—
MD21-06-63904	21-25262	251.00–253.00	Qbt 1g	—	—	—	—	—	—	—
MD21-06-63905	21-25262	333.00–335.00	Qct	—	—	—	—	—	0.000382 (J)	—
MD21-06-63906	21-25262	373.00–375.00	Qct	—	—	—	—	—	0.000377 (J)	—
MD21-06-63907	21-25262	378.00–380.00	Qbo	—	—	—	—	—	—	—
MD21-06-65769	21-25355	17.50–20.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-65773	21-25355	5.80–6.00	Qbt 3	—	—	—	1.06E-06 (J)	—	—	—
MD21-06-65781	21-25356	6.00–6.50	Fill	—	—	—	1.03E-06 (J)	—	—	—
MD21-06-65789	21-25357	6.40–6.80	Fill	—	—	—	8.3E-07 (J)	—	—	—
MD21-06-65802	21-25359	5.00–7.50	Fill	—	—	0.0029 (J)	—	0.0035	0.008	0.00043 (J)
MD21-06-65803	21-25359	21.00–22.00	Qbt 3	—	—	—	—	0.00178	—	—
MD21-06-65804	21-25359	38.00–40.00	Qbt 3	—	—	—	—	0.00068 (J)	—	—
MD21-06-65818	21-25360	11.00–11.50	Qbt 3	2.24E-07 (J)	2.24E-07	—	5.35E-07 (J)	—	—	—
MD21-06-66187	21-25390	30.00–31.00	Qbt 3	—	—	—	—	—	—	—
MD21-06-66188	21-25390	32.50–33.50	Qbt 3	—	—	—	—	—	—	—
MD21-06-66190	21-25390	97.00–100.00	Qbt 3	—	—	—	—	—	—	—

See Appendix A for qualifier definitions.

Units are mg/kg.

— = Not detected.

Table 6.2-6
Radionuclide COPCs for Building 21-035

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Cobalt-60	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	1.65	na	0.023	0.054	1.31	na	2.59	0.2	2.29
Qbt 2,3,4 Background Value				**na**	**na**	**na**	**na**	**na**	**na**	na	1.98	0.09	1.93
Qbt 1v Background Value				**na**	**na**	**na**	**na**	**na**	**na**	**na**	**3.12**	0.14	**3.05**
Qbt 1g, Qct, Qbo Background Value				**na**	**na**	**na**	**na**	**na**	**na**	**na**	**4.0**	0.18	**3.9**
AAA3966	21-01628	0.00–0.50	Soil	—	—	—	—	—	—	5.091638E-02 (J-)	—	—	—
AAB7314	21-02535	2.50–5.00	Fill	—	—	—	—	0.0847	—	—	—	—	—
AAB7316	21-02536	5.00–7.50	Soil	338	4.17	—	9.2	411	0.918	0.1410856	—	—	—
AAB7320	21-02537	7.50–10.00	Qbt 3	—	—	—	—	0.0228	—	0.2399339	—	—	—
AAB7323	21-02538	5.00–7.50	Fill	259	2.37	—	2.07	135	0.324	—	—	—	—
AAB7328	21-02539	7.50–10.00	Soil	855 (J)	12.9	—	13.5	808	3.74	0.121928	—	—	—
AAB7332	21-02540	7.50–10.00	Qbt 3	—	—	—	—	0.0229	—	0.267933	—	—	—
AAB7334	21-02541	2.50–5.00	Soil	543 (J)	5.78	—	5.4	347	2.1	7.690036E-02	—	—	—
AAB9109	21-02541	10.00–12.50	Qbt 3	19500 (J)	97	—	215	13900	43.5	0.1136835	—	—	—
AAB7340	21-02543	2.50–5.00	Soil	1120	6.74	—	13	659	3.92	0.1340795	—	—	—
AAB7342	21-02544	5.00–7.50	Soil	793 (J)	8.93	—	19.7	1250	9.84	0.227282	—	—	—
AAB7343	21-02545	0.00–5.00	Soil	—	—	—	0.0079	1.03	—	—	—	—	—
AAB7347	21-02546	0.00–5.00	Soil	208	0.712	—	1.8	143	1.04	5.962933E-02	—	—	—
AAB7352	21-02547	5.00–10.00	Soil	19982	107.78	—	327	19143	44.3	5.820486E-02	3.45	—	—
AAB7355	21-02548	2.50–5.00	Soil	2.68	—	—	0.0427	1.36	0.574	0.290792	—	—	—
AAB9110	21-02609	5.00–7.50	Soil	668 (J)	14	—	6.03	595	11	0.091	—	—	—
AAB9111	21-02610	5.00–7.50	Soil	1730 (J)	8.26	—	1440	23	1.05	8.097598E-02	—	—	—
0121-97-0141	21-05060	50.00–50.50	Qbt 3	12.73	—	—	—	—	—	—	—	—	—
0121-97-0142	21-05060	60.00–60.50	Qbt 3	35.54	—	—	—	—	—	—	—	—	—
0121-97-0143	21-05060	69.50–70.00	Qbt 3	77.48	—	—	—	—	—	—	—	—	—
0121-97-0147	21-05060	109.00–109.20	Qbt 2	3.41	—	—	—	—	—	—	—	—	—
0121-97-0150	21-05060	139.00–139.50	Qbt 2	—	—	—	—	—	—	—	2.09	—	2.29
0121-97-0237	21-05064	8.50–9.00	Qbt 3	302.2	30.23	—	10.36	435.4	7.26	—	—	—	—
0121-97-0238	21-05064	11.50–12.00	Qbt 3	1480	16.33	—	57.36	3338	7.79	—	—	—	—
0121-97-0239	21-05064	13.50–13.90	Qbt 3	2668	19.45	—	—	—	129.13	—	2.84	—	—
0121-97-0242	21-05064	39.50–40.00	Qbt 3	—	—	—	—	—	2.55	—	—	—	—

Table 6.2-6 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Cobalt-60	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	1.65	na	0.023	0.054	1.31	na	2.59	0.2	2.29
Qbt 2,3,4 Background Value				**na**	**na**	**na**	**na**	**na**	**na**	na	1.98	0.09	1.93
Qbt 1v Background Value				**na**	**na**	**na**	**na**	**na**	**na**	**na**	**3.12**	0.14	**3.05**
Qbt 1g, Qct, Qbo Background Value				**na**	**na**	**na**	**na**	**na**	**na**	**na**	**4.0**	0.18	**3.9**
0121-97-0243	21-05064	49.50–50.00	Qbt 3	—	—	—	—	—	2.68	—	—	—	—
MD21-06-63897	21-25262	22.00–23.50	Qbt 3	—	—	—	—	—	—	0.1069528	—	—	—
MD21-06-63898	21-25262	75.00–77.00	Qbt 3	—	—	—	—	—	—	0.1052063	—	0.0983	—
MD21-06-63899	21-25262	110.00–113.00	Qbt 2	—	—	—	—	—	—	7.619108E-02	—	0.131	—
MD21-06-63900	21-25262	116.00–118.00	Qbt 2	0.0696	0.105	—	—	—	—	8.489618E-02	—	0.127	—
MD21-06-63901	21-25262	141.90–143.40	Qbt 2	—	—	—	—	—	—	0.4030435	—	0.108	—
MD21-06-63904	21-25262	251.00–253.00	Qbt 1g	—	—	—	—	—	—	1.09294	—	0.183	—
MD21-06-63905	21-25262	333.00–335.00	Qct	—	—	—	—	—	—	8.179182	—	—	—
MD21-06-63906	21-25262	373.00–375.00	Qct	—	—	—	—	—	—	11.14534	—	—	—
MD21-06-63907	21-25262	378.00–380.00	Qbo	—	—	—	—	—	—	5.587283	—	—	—
MD21-06-65769	21-25355	17.50–20.00	Qbt 3	—	—	—	—	0.0556	—	0.1954839	—	—	—
MD21-06-65770	21-25355	38.00–40.00	Qbt 3	0.0735	—	—	—	—	—	0.1221185	—	—	—
MD21-06-65777	21-25356	27.50–28.50	Qbt 3	—	—	—	—	—	—	6.920119E-02	—	—	—
MD21-06-65778	21-25356	38.00–40.00	Qbt 3	—	—	—	—	—	—	9.729021E-02	—	—	—
MD21-06-65785	21-25357	38.00–40.00	Qbt 3	—	—	—	—	—	—	0.0162878	—	—	—
MD21-06-65794	21-25358	38.00–40.00	Qbt 3	—	—	—	—	—	—	0.1171309	—	—	—
MD21-06-65802	21-25359	5.00–7.50	Fill	14000 (J+)	158	1.7	—	23000	1220	—	—	—	—
MD21-06-65803	21-25359	21.00–22.00	Qbt 3	0.0396	—	—	—	0.0596	2.73	—	—	—	—
MD21-06-65804	21-25359	38.00-40.00	Qbt 3	0.325	—	—	—	0.358	0.302	—	—	—	—
MD21-06-65810	21-25360	38.00–40.00	Qbt 3	—	—	—	—	0.201	—	—	—	—	—
MD21-06-65821	21-25361	11.50–13.00	Qbt 3	—	—	—	—	—	—	4.320717E-02	—	—	—
MD21-06-65822	21-25361	36.00–39.00	Qbt 3	—	—	—	—	—	—	1.583081E-02	—	—	—
MD21-06-65851	21-25363	18.00–20.00	Qbt 3	—	—	—	—	0.0205	—	4.600108E-02	—	—	—
MD21-06-66187	21-25390	30.00–31.00	Qbt 3	—	—	—	—	—	—	0.2669778	—	—	—
MD21-06-66188	21-25390	32.50–33.50	Qbt 3	—	—	—	—	—	—	9.522104E-02	—	—	—
MD21-06-66190	21-25390	97.00–100.00	Qbt 3	—	—	—	—	—	—	1.662715E-02	—	—	—

Table 6.2-7
Inorganic COPCs for Building 21-257

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Arsenic	Barium	Cadmium	Nitrate	Perchlorate	Selenium	Zinc
Soil Background Value				29,200	8.17	295	0.4	na	na	1.52	48.8
Qbt 2,3,4 Background Value				7340	2.79	46	1.63	na	na	0.3	63.5
Qbt 1v Background Value				8170	1.81	26.5	0.4	na	na	0.3	40
Qbt 1g, Qct, Qbo Background Value				3560	0.56	25.7	0.4	na	na	0.3	84.6
MD21-06-65934	21-25371	27.00–30.00	Qbt 3	—	3.03	—	—	8.71	—	1.56 (U)	—
MD21-06-66120	21-25382	48.50–50.00	Qbt 3	13,500	4.63	158	—	8.43	—	1.62 (U)	—
MD21-06-66118	21-25382	6.60–8.00	Fill	—	—	—	0.58 (U)	32.1	—	1.74 (U)	—
MD21-06-66119	21-25382	23.60–25.00	Qbt 3	—	—	—	—	3.91	—	1.53 (U)	—
MD21-06-65913	21-25368	26.00–29.00	Qbt 3	—	—	—	—	2.55	—	1.52 (U)	—
MD21-06-66127	21-25383	36.00–38.00	Qbt 3	—	—	—	—	2.55	—	5.03	—
MD21-06-66170	21-25388	45.00–47.80	Qbt 3	—	3.91	—	—	2.01 (J-)	0.00194 (J)	1.57 (U)	—
MD21-06-65927	21-25370	27.00–30.00	Qbt 3	—	—	—	—	10.9	—	1.5 (U)	—
MD21-06-66171	21-25388	55.00–58.00	Qbt 3	—	—	—	—	1.96 (J-)	0.0016 (J)	1.56 (U)	—
MD21-06-66111	21-25381	73.00–75.00	Qbt 3	—	—	—	—	1.86	—	1.56 (U)	—
MD21-06-65920	21-25369	25.00–27.90	Qbt 3	—	—	—	—	1.84	—	1.47 (U)	—
MD21-06-66128	21-25383	40.00–42.00	Qbt 3	—	—	—	—	1.84	—	3.36	—
MD21-06-66112	21-25381	97.00–100.00	Qbt 3	—	—	—	—	1.53	—	1.53 (U)	—
MD21-06-66110	21-25381	17.50–19.50	Qbt 3	10,000 (J+)	—	—	—	1.48	—	1.61 (U)	—
MD21-06-66138	21-25384	92.00–95.00	Qbt 3	—	—	—	—	1.47 (J-)	0.0016 (J)	1.51 (U)	—
MD21-06-66169	21-25388	12.50–15.00	Qbt 3	—	—	—	—	1.36 (J-)	0.00151 (J)	1.58 (U)	—
MD21-06-66172	21-25388	96.00–100.00	Qbt 3	—	—	—	—	1.35 (J-)	—	1.58 (U)	—
MD21-06-66168	21-25388	5.00–7.50	Qbt 3	—	—	—	—	1.34 (J-)	—	1.62 (U)	—
MD21-06-66180	21-25389	61.00–63.00	Qbt 3	—	—	—	—	1.34	0.000602 (J)	1.56 (U)	—
MD21-06-66137	21-25384	67.00–69.30	Qbt 3	—	—	—	—	1.31 (J-)	—	1.57 (U)	—
MD21-06-66103	21-25380	40.00–42.00	Qbt 3	—	—	—	—	1.27	—	1.59 (U)	—
MD21-06-66181	21-25389	100.00–103.00	Qbt 3	—	—	—	—	1.23	0.000539 (J)	1.56 (U)	—

Table 6.2-7 (continued)

Sample ID	Location ID	Depth (ft)	Media	Aluminum	Arsenic	Barium	Cadmium	Nitrate	Perchlorate	Selenium	Zinc
Soil Background Value				29,200	8.17	295	0.4	na	na	1.52	48.8
Qbt 2,3,4 Background Value				7340	2.79	46	1.63	na	na	0.3	63.5
Qbt 1v Background Value				8170	1.81	26.5	0.4	na	na	0.3	40
Qbt 1g, Qct, Qbo Background Value				3560	0.56	25.7	0.4	na	na	0.3	84.6
MD21-06-66102	21-25380	17.00–19.00	Qbt 3	—	—	—	—	1.19	—	1.59 (U)	—
MD21-06-66135	21-25384	12.00–14.00	Soil		—	—	0.604 (U)	1.16 (J-)	—	1.81 (U)	—
MD21-06-66178	21-25389	20.00–22.50	Qbt 3	—	—	—	—	1.15	—	1.6 (U)	—
MD21-06-66136	21-25384	56.50–58.50	Qbt 3	—	—	—	—	1.07 (J-)	—	1.55 (U)	—
MD21-06-66104	21-25380	80.00–82.00	Qbt 3	—	—	—	—	1.07	0.000603 (J)	1.5 (U)	—
MD21-06-66179	21-25389	46.00–48.00	Qbt 3	—	—	—	—	1.05 (J)	—	1.6 (U)	—
MD21-06-66105	21-25380	97.00–100.00	Qbt 3	—	—	—	—	1.02	0.000793 (J)	1.51 (U)	—
MD21-06-66129	21-25383	97.00–100.00	Qbt 3	—	—	—	—	0.863 (J)	—	2.24	—
MD21-06-66121	21-25382	97.00–100.00	Qbt 3	—	—	—	—	0.59 (J)	0.000665 (J)	1.49 (U)	—
MD21-06-66237	21-25402	0.00–0.50	Soil		—	—	0.535 (U)	—	—	1.6 (U)	—
MD21-06-66238	21-25402	1.50–2.00	Soil		—	—	0.557 (U)	—	0.00234	1.67 (U)	—
MD21-06-66239	21-25403	0.00–0.50	Soil		—	—	—	—	—	1.65 (U)	—
MD21-06-66240	21-25403	1.50–2.00	Soil		—	—	0.563 (U)	—	—	1.69 (U)	—
MD21-06-66241	21-25404	0.00–0.50	Soil		—	—	—	—	0.00218	—	74.7
MD21-06-66242	21-25404	1.50–2.00	Soil		—	—	1.03	—	—	1.59 (U)	—

See Appendix A for qualifier definitions.

Units are mg/kg.

Background values and fallout values are from LANL 1998, 59730.

— = Not above background value.

Table 6.2-8
Organic COPCs for Building 21-257

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Acetone	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzoic acid
MD21-06-66119	21-25382	23.60–25.00	Qbt 3	0.0498 (J+)	0.0192	0.052 (J+)	0.0907 (J+)	0.192 (J)	0.308 (J+)	0.116 (J+)	0.634 (J)
MD21-06-65920	21-25369	25.00–27.90	Qbt 3	—	0.01	—	—	—	—	—	0.593 (J)
MD21-06-66237	21-25402	0.00–0.50	Soil	—	—	—	—	0.148	0.142	—	0.294 (J)
MD21-06-66106	21-25380	10.00–11.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66122	21-25382	11.50–12.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66136	21-25384	56.50–58.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66139	21-25384	12.00–14.00	Soil	—	—	—	—	—	—	—	—
MD21-06-66239	21-25403	0.00–0.50	Soil	—	—	—	—	0.0352 (J)	0.0225 (J)	—	—
MD21-06-66240	21-25403	1.50–2.00	Soil	—	—	0.00893 (J)	—	0.0648	0.0748	0.0195 (J)	—
MD21-06-66241	21-25404	0.00–0.50	Soil	—	—	—	—	0.106 (J)	—	—	—
MD21-06-66242	21-25404	1.50–2.00	Soil	—	—	—	—	—	—	—	—
MD21-06-66127	21-25383	36.00–38.00	Qbt 3	—	0.00353 (J)	—	—	—	—	—	—
MD21-06-66121	21-25382	97.00–100.00	Qbt 3	—	0.00354 (J)	—	—	—	—	—	—
MD21-06-65913	21-25368	26.00–29.00	Qbt 3	—	0.012	—	—	—	—	—	—
MD21-06-65927	21-25370	27.00–30.00	Qbt 3	—	0.0213	—	—	—	—	—	—
MD21-06-66181	21-25389	100.00–103.00	Qbt 3	—	0.0299 (J+)	—	—	—	—	—	—

Table 6.2-8 (continued)

Sample ID	Location ID	Depth (ft)	Media	Bis(2-ethylhexyl)phthalate	Chrysene	Fluoranthene	Fluorene	Heptachlorodibenzodioxin [1,2,3,4,6,7,8-]	Heptachlorodibenzodioxins (total)	Heptachlorodibenzofuran [1,2,3,4,6,7,8-]	Heptachlorodibenzofurans (total)
MD21-06-66119	21-25382	23.60–25.00	Qbt 3	—	0.0976 (J+)	0.244 (J+)	0.0306 (J+)	—	—	—	—
MD21-06-65920	21-25369	25.00–27.90	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66237	21-25402	0.00–0.50	Soil	—	0.0531	0.068	—	—	—	—	—
MD21-06-66106	21-25380	10.00–11.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66122	21-25382	11.50–12.00	Qbt 3	—	—	—	—	5.41E-06	8.86E-06	7.65E-07 (J)	4.01E-06
MD21-06-66136	21-25384	56.50–58.50	Qbt 3	0.228	—	—	—	—	—	—	—
MD21-06-66139	21-25384	12.00–14.00	Soil	—	—	—	—	—	—	—	—
MD21-06-66239	21-25403	0.00–0.50	Soil	—	0.0161 (J)	0.0306 (J)	—	—	—	—	—
MD21-06-66240	21-25403	1.50–2.00	Soil	—	0.056	0.0889	—	—	—	—	—
MD21-06-66241	21-25404	0.00–0.50	Soil	—	—	—	—	—	—	—	—
MD21-06-66242	21-25404	1.50–2.00	Soil	0.895 (J)	—	—	—	—	—	—	—
MD21-06-66127	21-25383	36.00–38.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66121	21-25382	97.00–100.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65913	21-25368	26.00–29.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65927	21-25370	27.00–30.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66181	21-25389	100.00–103.00	Qbt 3	—	—	—	—	—	—	—	—

Table 6.2-8 (continued)

Sample ID	Location ID	Depth (ft)	Media	Hexachlorodibenzodioxin [1,2,3,4,7,8-]	Hexachlorodibenzodioxin [1,2,3,6,7,8-]	Hexachlorodibenzodioxin [1,2,3,7,8,9-]	Hexachlorodibenzodioxins (total)	Hexachlorodibenzofuran [2,3,4,6,7,8-]	Hexachlorodibenzofurans (total)	Indeno(1,2,3-cd)pyrene	Methylene chloride
MD21-06-66119	21-25382	23.60–25.00	Qbt 3	—	—	—	—	—	—	0.141 (J)	—
MD21-06-65920	21-25369	25.00–27.90	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66237	21-25402	0.00–0.50	Soil	—	—	—	—	—	—	0.136	—
MD21-06-66106	21-25380	10.00–11.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66122	21-25382	11.50–12.00	Qbt 3	1.19E-07 (J)	2.87E-07 (J)	1.47E-07 (J)	7.18E-07	9.18E-08 (J)	7.37E-07	—	—
MD21-06-66136	21-25384	56.50–58.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66139	21-25384	12.00–14.00	Soil	—	—	—	—	—	—	—	—
MD21-06-66239	21-25403	0.00–0.50	Soil	—	—	—	—	—	—	—	—
MD21-06-66240	21-25403	1.50–2.00	Soil	—	—	—	—	—	—	0.067 (J)	—
MD21-06-66241	21-25404	0.00–0.50	Soil	—	—	—	—	—	—	—	—
MD21-06-66242	21-25404	1.50–2.00	Soil	—	—	—	—	—	—	—	—
MD21-06-66127	21-25383	36.00–38.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66121	21-25382	97.00–100.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65913	21-25368	26.00–29.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65927	21-25370	27.00–30.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66181	21-25389	100.00–103.00	Qbt 3	—	—	—	—	—	—	—	0.00452 (J)

Table 6.2-8 (continued)

Sample ID	Location ID	Depth (ft)	Media	Methylnaphthalene[2-]	Naphthalene	Octachlorodibenzodioxin [1,2,3,4,6,7,8,9-]	Octachlorodibenzofuran [1,2,3,4,6,7,8,9-]	Pentachlorodibenzofuran [2,3,4,7,8-]	Pentachlorodibenzofurans (totals)	Phenanthrene	Pyrene
MD21-06-66119	21-25382	23.60–25.00	Qbt 3	0.00813 (J+)	0.0206 (J+)	—	—	—	—	0.227 (J+)	0.236 (J+)
MD21-06-65920	21-25369	25.00–27.90	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66237	21-25402	0.00–0.50	Soil	—	—	—	—	—	—	0.039	0.103 (J)
MD21-06-66106	21-25380	10.00–11.00	Qbt 3	—	—	6.25E-07 (J)	—	—	—	—	—
MD21-06-66122	21-25382	11.50–12.00	Qbt 3	—	—	0.0000482	—	9.56E-08 (J)	9.56E-08	—	—
MD21-06-66136	21-25384	56.50–58.50	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66139	21-25384	12.00–14.00	Soil	—	—	1.85E-06 (J)	3.82E-07 (J)	—	—	—	—
MD21-06-66239	21-25403	0.00–0.50	Soil	—	—	—	—	—	—	0.0156 (J)	0.0281 (J)
MD21-06-66240	21-25403	1.50–2.00	Soil	—	—	—	—	—	—	0.0433	0.0706
MD21-06-66241	21-25404	0.00–0.50	Soil	—	—	—	—	—	—	—	—
MD21-06-66242	21-25404	1.50–2.00	Soil	—	—	—	—	—	—	—	—
MD21-06-66127	21-25383	36.00–38.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66121	21-25382	97.00–100.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65913	21-25368	26.00–29.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-65927	21-25370	27.00–30.00	Qbt 3	—	—	—	—	—	—	—	—
MD21-06-66181	21-25389	100.00–103.00	Qbt 3	—	—	—	—	—	—	—	—

See Appendix A for qualifier definitions.

Units are mg/kg.

— = Not detected.

Table 6.2-9
Radionuclide COPCs for Building 21-257

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-235
Soil Background Value				0.013	1.65	0.023	0.054	1.31	na	0.2
Qbt 2,3,4 Background Value				na	na	na	na	na	na	0.09
Qbt 1v Background Value				na	na	na	na	na	na	0.14
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	0.18
MD21-06-65913	21-25368	26.00–29.00	Qbt 3	—	—	—	—	—	6.095318E-02	—
MD21-06-65920	21-25369	25.00–27.90	Qbt 3	—	—	—	—	—	7.106815E-02	—
MD21-06-65927	21-25370	27.00–30.00	Qbt 3	—	—	—	—	—	5.129211E-02	—
MD21-06-65934	21-25371	27.00–30.00	Qbt 3	—	—	—	—	—	9.047794E-02	0.0913
MD21-06-66102	21-25380	17.00–19.00	Qbt 3	—	—	—	—	—	4.673994E-02	—
MD21-06-66103	21-25380	40.00–42.00	Qbt 3	—	—	—	—	—	0.1923935	—
MD21-06-66104	21-25380	80.00–82.00	Qbt 3	—	—	—	—	—	0.2545821	—
MD21-06-66105	21-25380	97.00–100.00	Qbt 3	—	—	—	—	—	0.1595183	0.0913
MD21-06-66110	21-25381	17.50–19.50	Qbt 3	—	—	—	—	—	0.2491581	—
MD21-06-66111	21-25381	73.00–75.00	Qbt 3	—	—	—	—	—	0.1642366	—
MD21-06-66112	21-25381	97.00–100.00	Qbt 3	—	—	—	—	—	0.1694399	—
MD21-06-66118	21-25382	6.60–8.00	Fill	—	—	—	—	—	0.2159863	—
MD21-06-66119	21-25382	23.60–25.00	Qbt 3	—	—	—	—	—	0.195848	—
MD21-06-66120	21-25382	48.50–50.00	Qbt 3	—	—	—	—	—	0.5521076	—
MD21-06-66121	21-25382	97.00–100.00	Qbt 3	—	—	—	—	—	8.006679E-02	—
MD21-06-66127	21-25383	36.00–38.00	Qbt 3	—	—	—	—	—	9.375277E-02	—
MD21-06-66128	21-25383	40.00–42.00	Qbt 3	—	—	—	—	—	8.465903E-02	—
MD21-06-66129	21-25383	97.00–100.00	Qbt 3	—	—	—	—	—	0.1271453	—
MD21-06-66135	21-25384	12.00–14.00	Soil	—	—	—	—	—	5.767464E-02	—
MD21-06-66136	21-25384	56.50–58.50	Qbt 3	—	—	—	—	—	5.439898E-02	—
MD21-06-66137	21-25384	67.00–69.30	Qbt 3	—	—	—	—	—	0.0623134	—
MD21-06-66138	21-25384	92.00–95.00	Qbt 3	—	—	—	—	—	3.683647E-02	—
MD21-06-66168	21-25388	5.00–7.50	Qbt 3	—	—	—	—	—	0.3802502	0.176
MD21-06-66169	21-25388	12.50–15.00	Qbt 3	—	—	—	—	—	0.9861512	—

Table 6.2-9 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-235
Soil Background Value				0.013	1.65	0.023	0.054	1.31	na	0.2
Qbt 2,3,4 Background Value				na	na	na	na	na	na	0.09
Qbt 1v Background Value				na	na	na	na	na	na	0.14
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	0.18
MD21-06-66170	21-25388	45.00–47.80	Qbt 3	—	—	—	—	—	1.00672	—
MD21-06-66171	21-25388	55.00–58.00	Qbt 3	—	—	—	—	—	1.120826	—
MD21-06-66172	21-25388	96.00–100.00	Qbt 3	—	—	—	—	—	0.5083697	—
MD21-06-66178	21-25389	20.00–22.50	Qbt 3	—	—	—	—	—	3.193978E-02	—
MD21-06-66179	21-25389	46.00–48.00	Qbt 3	—	—	—	—	—	0.1255461	—
MD21-06-66180	21-25389	61.00–63.00	Qbt 3	—	—	—	—	—	0.2861956	0.135
MD21-06-66181	21-25389	100.00–103.00	Qbt 3	—	—	—	—	—	0.1516888	0.194
MD21-06-66237	21-25402	0.00–0.50	Soil	7.08	—	0.375	3.09	—	3.352954E-02	—
MD21-06-66238	21-25402	1.50–2.00	Soil	0.118	—	—	0.161	—	0.1002166	—
MD21-06-66239	21-25403	0.00–0.50	Soil	15.5	—	—	5.22	—	4.970715E-02	—
MD21-06-66240	21-25403	1.50–2.00	Soil	3.89	0.3	0.316	11.1	0.28	0.2036095	—
MD21-06-66241	21-25404	0.00–0.50	Soil	15.1	8.45	1.39	7.85	5.04	3.595754E-02	—
MD21-06-66242	21-25404	1.50–2.00	Soil	8.01	692	0.376	12.5	112	6.694374E-02	—

Units are pCi/g.

Background values and fallout values are from LANL 1998, 59730.

— = Not above background/fallout value or not detected.

Table 6.2-10
Inorganic COPCs for the DP Canyon Slope

Sample ID	Location ID	Depth (ft)	Media	Antimony	Arsenic	Cadmium	Lead	Lithium	Nickel	Perchlorate	Selenium	Silver	Strontium	Thallium	Zinc
Soil Background Value				0.83	8.17	0.4	22.3	na	15.4	na	1.52	1	na	0.73	48.8
Qbt 2,3,4 Background Value				0.5	2.79	1.63	11.2	na	6.58	na	0.3	1	na	1.1	63.5
Qbt 1v Background Value				0.5	1.81	0.4	18.4	na	2	na	0.3	1	na	1.22	40
Qbt 1g, Qct, Qbo Background Value				0.5	0.56	0.4	13.5	na	2	na	0.3	1	na	1.24	84.6
AAA0420	21-01135	0.00–0.08	Soil	24.8 (U)	62 (U)	1.2 (U)	—	—	—	—	62 (U)	2.5 (U)	16.4	62 (U)	—
AAA0421	21-01135	0.00–0.50	Soil	24.2 (U)	60.5 (U)	1.2 (U)	—	—	—	—	60.5 (U)	2.4 (U)	14.7	60.5 (U)	—
AAA3967	21-01629	0.00–0.50	Soil	—	—	0.99 (J)	—	4.4 (J)	—	—	—	1.1 (U)	13.1 (J)	—	—
AAA3968	21-01630	0.00–0.50	Soil	—	—	0.62 (U)	—	2 (J)	—	—	—	—	5.3 (J)	—	—
AAA3969	21-01631	0.00–0.50	Soil	—	—	0.69 (U)	—	3.7 (J)	—	—	—	1.1 (U)	11.6 (J)	—	—
AAA3970	21-01632	0.00–0.50	Soil	—	—	0.74 (J)	—	3 (J)	—	—	—	1.1 (U)	18.1 (J)	—	—
AAA3971	21-01633	0.00–0.50	Soil	—	—	0.62 (U)	—	3.6 (J)	—	—	—	—	10.4 (J)	—	—
AAA3973	21-01635	0.00–0.50	Soil	—	—	1.1 (J)	—	4.5 (J)	—	—	—	1.1 (U)	20.9 (J)	—	—
AAA3974	21-01636	0.00–0.50	Soil	—	—	1.1 (J)	—	4.8 (J)	—	—	—	1.3 (U)	22 (J)	—	—
AAA3975	21-01637	0.00–0.50	Soil	—	—	1.4	—	3.8 (J)	—	—	—	1.1 (U)	16.9 (J)	—	—
AAA3976	21-01638	0.00–0.50	Soil	—	—	0.88 (J)	—	4.5 (J)	—	—	—	1.1 (U)	16.2 (J)	—	—
AAA3980	21-01640	0.00–0.50	Soil	—	—	0.66 (U)	—	4.3 (J)	—	—	—	1.1 (U)	20.3 (J)	—	—
AAA3981	21-01641	0.00–0.50	Soil	—	—	0.68 (U)	—	6 (J)	—	—	—	1.1 (U)	27.1	—	—
AAA3983	21-01642	0.00–0.50	Soil	—	—	0.69 (J)	—	4 (J)	—	—	—	1.1 (U)	20.2 (J)	—	—
AAA3994	21-01653	0.00–0.50	Soil	—	—	0.72 (U)	—	4.7 (J)	—	—	—	1.2 (U)	15.2 (J)	—	—
AAA3995	21-01654	0.00–0.50	Soil	—	—	0.64 (U)	—	3.6 (J)	—	—	—	1.1 (U)	12.9 (J)	—	—
AAA4003	21-01659	0.00–0.50	Soil	—	—	0.98 (J)	—	3.8 (J)	—	—	—	1.1 (U)	23	—	—
AAA4004	21-01660	0.00–0.50	Soil	—	—	0.75 (J)	—	5.2 (J)	—	—	—	1.3 (J)	15.5 (J)	—	—
AAA4005	21-01661	0.00–0.50	Soil	—	—	0.66 (U)	—	3.4 (J)	—	—	—	1.1 (U)	15.1 (J)	—	—
AAA4008	21-01664	0.00–0.50	Soil	—	—	0.65 (U)	—	4.4 (J)	19.4	—	—	1.1 (U)	12.1 (J)	—	—
AAA7510	21-01860	0.00–0.25	Soil	—	—	0.48 (U)	—	—	—	—	—	2.4 (U)	—	—	—
AAA7511	21-01860	0.25-0.50	Soil	—	—	0.47 (U)	—	—	—	—	—	2.4 (U)	—	—	—
AAA7512	21-01860	0.50–1.00	Soil	—	—	0.48 (U)	—	—	—	—	—	2.4 (U)	—	—	58.7
AAA7513	21-01861	0.00–0.25	Soil	—	—	0.47 (J)	61.3	—	—	—	—	2.2 (U)	—	—	—
AAA7514	21-01861	0.25-0.50	Soil	—	—	0.56 (J)	—	—	—	—	—	2.2 (U)	—	—	56.8
AAA7515	21-01861	0.50–1.00	Soil	—	—	0.44 (U)	—	—	—	—	—	2.2 (U)	—	—	—

Table 6.2-10 (continued)

Sample ID	Location ID	Depth (ft)	Media	Antimony	Arsenic	Cadmium	Lead	Lithium	Nickel	Perchlorate	Selenium	Silver	Strontium	Thallium	Zinc
Soil Background Value				0.83	8.17	0.4	22.3	na	15.4	na	1.52	1	na	0.73	48.8
Qbt 2,3,4 Background Value				0.5	2.79	1.63	11.2	na	6.58	na	0.3	1	na	1.1	63.5
Qbt 1v Background Value				0.5	1.81	0.4	18.4	na	2	na	0.3	1	na	1.22	40
Qbt 1g, Qct, Qbo Background Value				0.5	0.56	0.4	13.5	na	2	na	0.3	1	na	1.24	84.6
AAA7516	21-01862	0.00–0.25	Soil	—	—	0.45 (U)	—	—	—	—	—	2.2 (U)	—	—	62.1
AAA7517	21-01862	0.25-0.50	Soil	—	—	0.46 (U)	—	—	—	—	—	2.3 (U)	—	—	64.9
AAA7518	21-01862	0.50–1.00	Soil	—	—	0.82 (J)	—	—	—	—	—	2.1 (U)	—	—	—
AAB7275	21-02568	0.00–0.25	Soil	—	—	0.63 (J)	—	—	—	—	—	2.4 (U)	—	—	66.4
AAB7276	21-02568	0.25-0.50	Soil	—	—	0.57 (J)	—	—	—	—	—	2.3 (U)	—	—	66
AAB7277	21-02568	0.50–1.00	Soil	—	—	0.54 (J)	—	—	—	—	—	2.2 (U)	—	—	82.4
AAB7278	21-02569	0.00–0.25	Soil	—	—	0.58 (J)	—	—	—	—	—	2.3 (U)	—	—	—
AAB7279	21-02569	0.25-0.50	Soil	—	—	0.44 (U)	—	—	—	—	—	2.2 (U)	—	—	—
AAB7280	21-02569	0.50–1.00	Soil	—	—	0.53 (J)	—	—	—	—	—	2.4 (U)	—	—	—
MD21-06-64167	21-25265	0.00–0.50	Soil	—	—	—	—	—	—	—	1.67 (U)	—	—	—	59.8
MD21-06-64168	21-25265	1.50–2.00	Soil	—	—	0.573 (U)	—	—	—	—	1.72 (U)	—	—	—	—
MD21-06-64169	21-25266	0.00–0.50	Soil	—	—	0.545 (U)	—	—	—	—	1.63 (U)	—	—	—	63
MD21-06-64170	21-25266	1.50–2.00	Soil	—	—	0.63 (U)	—	—	—	—	1.89 (U)	—	—	—	49.3
MD21-06-64171	21-25267	0.00–0.50	Soil	—	—	0.612 (U)	—	—	—	—	1.84 (U)	—	—	—	—
MD21-06-64172	21-25267	1.50–2.00	Soil	—	—	0.57 (U)	—	—	—	—	1.71 (U)	—	—	—	—
MD21-06-64173	21-25268	0.00–0.50	Soil	—	—	0.544 (U)	—	—	—	0.000684 (J)	1.63 (U)	—	—	—	66.2
MD21-06-64174	21-25268	1.50–2.00	Soil	—	—	0.594 (U)	—	—	—	—	1.78 (U)	—	—	—	—
MD21-06-64175	21-25269	0.00–0.50	Soil	—	—	0.605 (U)	—	—	—	—	1.81 (U)	—	—	—	—
MD21-06-64176	21-25269	1.50–2.00	Soil	—	—	0.562 (U)	—	—	—	—	1.69 (U)	—	—	—	—
MD21-06-64177	21-25270	0.00–0.50	Soil	—	—	0.529 (U)	—	—	—	—	1.59 (U)	—	—	—	72.1
MD21-06-64179	21-25271	0.00–0.50	Soil	—	—	—	—	—	—	0.000872 (J)	1.65 (U)	—	—	—	74.5
MD21-06-64181	21-25272	0.00–0.50	Soil	—	—	—	27.4	—	—	—	1.82 (U)	—	—	—	104
MD21-06-64182	21-25272	0.50–1.00	Soil	—	—	0.566 (U)	—	—	—	—	1.7 (U)	—	—	—	58.7
MD21-06-64183	21-25273	0.00–0.50	Soil	—	—	0.538 (U)	—	—	—	—	1.61 (U)	—	—	—	—
MD21-06-64184	21-25273	1.50–2.00	Soil	—	—	0.511 (U)	—	—	—	—	1.53 (U)	—	—	—	—
MD21-06-64185	21-25274	0.00–0.50	Soil	—	—	—	30.3	—	—	—	1.92 (U)	—	—	—	—
MD21-06-64187	21-25275	0.00–0.50	Soil	—	—	0.523 (U)	—	—	—	—	1.57 (U)	—	—	—	—
MD21-06-64189	21-25276	0.00–0.50	Soil	—	—	0.534 (U)	—	—	—	—	1.6 (U)	—	—	—	—

Table 6.2-10 (continued)

Sample ID	Location ID	Depth (ft)	Media	Antimony	Arsenic	Cadmium	Lead	Lithium	Nickel	Perchlorate	Selenium	Silver	Strontium	Thallium	Zinc
Soil Background Value				0.83	8.17	0.4	22.3	na	15.4	na	1.52	1	na	0.73	48.8
Qbt 2,3,4 Background Value				0.5	2.79	1.63	11.2	na	6.58	na	0.3	1	na	1.1	63.5
Qbt 1v Background Value				0.5	1.81	0.4	18.4	na	2	na	0.3	1	na	1.22	40
Qbt 1g, Qct, Qbo Background Value				0.5	0.56	0.4	13.5	na	2	na	0.3	1	na	1.24	84.6
MD21-06-64190	21-25276	1.50–2.00	Soil	—	—	0.555 (U)	—	—	—	—	1.66 (U)	—	—	—	—
MD21-06-64191	21-25277	0.00–0.50	Soil	—	—	0.529 (U)	—	—	—	0.000617 (J)	1.59 (U)	—	—	—	—
MD21-06-66235	21-25401	0.00–0.50	Soil	—	—	0.527 (U)	—	—	—	—	1.58 (U)	—	—	—	—

See Appendix A for qualifier definitions.
Units are mg/kg.
Background values are from LANL 1998, 59730.
— = Not above background value.

Table 6.2-11
Organic COPCs for the DP Canyon Slope

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate
AAA3967	21-01629	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3968	21-01630	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3970	21-01632	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3971	21-01633	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3974	21-01636	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3976	21-01638	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3980	21-01640	0.00–0.50	Soil	—	—	0.033 (J)	0.036 (J)	0.036 (J)	—	0.045 (J)	—	0.095 (J)
AAA3981	21-01641	0.00–0.50	Soil	—	—	—	—	—	—	—	0.21 (J)	0.069 (J)
AAA3983	21-01642	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA3995	21-01654	0.00–0.50	Soil	—	—	—	—	—	—	—	—	0.051 (J)
AAA4003	21-01659	0.00–0.50	Soil	—	—	—	—	—	—	—	—	0.44
AAA4004	21-01660	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA4005	21-01661	0.00–0.50	Soil	—	—	—	—	—	—	—	—	0.066 (J)
AAA4008	21-01664	0.00–0.50	Soil	—	—	—	—	—	—	—	—	0.066 (J)
AAA7511	21-01860	0.25-0.50	Soil	—	—	0.31 (J)	0.33 (J)	0.25 (J)	0.23 (J)	0.25 (J)	—	—
AAA7512	21-01860	0.50–1.00	Soil	—	—	—	—	—	—	—	—	—
AAA7513	21-01861	0.00–0.25	Soil	—	—	—	0.16 (J)	0.13 (J)	—	0.11 (J)	—	—
AAA7514	21-01861	0.25-0.50	Soil	—	—	—	—	—	—	—	—	—
AAA7516	21-01862	0.00–0.25	Soil	—	—	0.4	0.48	0.52	0.36 (J)	0.3 (J)	—	—
AAA7517	21-01862	0.25-0.50	Soil	—	—	—	—	0.083 (J)	—	—	—	—
AAB7275	21-02568	0.00–0.25	Soil	—	—	—	—	—	—	—	—	—
AAB7276	21-02568	0.25-0.50	Soil	—	—	—	—	—	—	—	—	—
AAB7277	21-02568	0.50–1.00	Soil	0.082 (J)	0.25 (J)	0.61	0.67	0.61	0.4	0.61	—	0.12 (J)
AAB7278	21-02569	0.00–0.25	Soil	—	—	0.16 (J)	0.17 (J)	0.15 (J)	0.1 (J)	0.17 (J)	—	—
AAB7279	21-02569	0.25-0.50	Soil	—	—	—	—	—	—	—	—	—
AAB7280	21-02569	0.50–1.00	Soil	—	—	—	—	—	—	—	—	—

Table 6.2-11 (continued)

Sample ID	Location ID	Depth (ft)	Media	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic acid	Bis(2-ethylhexyl)phthalate
MD21-06-64167	21-25265	0.00–0.50	Soil	—	—	—	0.321	0.397	—	—	—	—
MD21-06-64168	21-25265	1.50–2.00	Soil	—	0.00947 (J)	—	—	—	—	—	—	—
MD21-06-64169	21-25266	0.00–0.50	Soil	0.0187 (J)	0.0263 (J)	—	0.169	0.237	—	—	—	0.0969 (J)
MD21-06-64170	21-25266	1.50–2.00	Soil	—	—	—	—	—	—	—	—	—
MD21-06-64171	21-25267	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
MD21-06-64172	21-25267	1.50–2.00	Soil	—	—	—	—	—	—	—	0.556 (J)	—
MD21-06-64173	21-25268	0.00–0.50	Soil	0.0168 (J)	0.0306 (J)	—	0.233 (J)	0.333 (J)	—	0.0697 (J)	—	0.171 (J)
MD21-06-64177	21-25270	0.00–0.50	Soil	—	—	—	0.0558	0.083	—	0.043	—	—
MD21-06-64179	21-25271	0.00–0.50	Soil	0.073	0.103	—	0.295 (J)	0.609 (J)	0.14 (J)	—	—	0.199 (J)
MD21-06-64181	21-25272	0.00–0.50	Soil	—	0.0176 (J)	—	0.128	0.258	—	—	—	0.182 (J)
MD21-06-64182	21-25272	0.50–1.00	Soil	—	0.0121 (J)	—	0.0798	0.122	—	0.0572	—	0.129 (J)
MD21-06-64183	21-25273	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
MD21-06-64185	21-25274	0.00–0.50	Soil	—	0.0119 (J)	—	—	—	—	—	—	—
MD21-06-64187	21-25275	0.00–0.50	Soil	—	0.0243 (J)	—	0.125	0.0962	—	—	0.285 (J)	—
MD21-06-64189	21-25276	0.00–0.50	Soil	—	—	—	0.145	0.166	—	—	0.3 (J)	—
MD21-06-64190	21-25276	1.50–2.00	Soil	—	—	—	—	0.0895	—	—	—	—
MD21-06-64191	21-25277	0.00–0.50	Soil	—	—	—	0.131	0.101	—	0.0185 (J)	—	—
MD21-06-66235	21-25401	0.00–0.50	Soil	0.0181 (J)	0.0233 (J)	—	0.172	0.246	0.145	—	0.315 (J)	—

Table 6.2-11 (continued)

Sample ID	Location ID	Depth (ft)	Media	Chrysene	Di-n-butylphthalate	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Methylnaphthalene[2-]	Naphthalene	Phenanthrene	Pyrene
AAA3967	21-01629	0.00–0.50	Soil	—	—	0.041 (J)	—	—	—	—	—	—
AAA3968	21-01630	0.00–0.50	Soil	—	—	0.21 (J)	—	—	—	—	0.13 (J)	0.18 (J)
AAA3970	21-01632	0.00–0.50	Soil	—	—	0.04 (J)	—	—	—	—	—	0.06 (J)
AAA3971	21-01633	0.00–0.50	Soil	—	—	—	—	—	—	—	—	0.69 (J)
AAA3974	21-01636	0.00–0.50	Soil	—	—	—	—	—	—	—	—	0.045 (J)
AAA3976	21-01638	0.00–0.50	Soil	—	—	0.044 (J)	—	—	—	—	—	0.044 (J)
AAA3980	21-01640	0.00–0.50	Soil	0.052 (J)	—	0.1 (J)	—	—	—	—	0.058 (J)	0.079 (J)
AAA3981	21-01641	0.00–0.50	Soil	—	—	0.041 (J)	—	—	—	—	—	0.036 (J)
AAA3983	21-01642	0.00–0.50	Soil	—	—	0.051 (J)	—	—	—	—	0.046 (J)	0.084 (J)
AAA3995	21-01654	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA4003	21-01659	0.00–0.50	Soil	—	—	—	—	—	—	—	—	—
AAA4004	21-01660	0.00–0.50	Soil	—	—	0.057 (J)	—	—	—	—	—	0.052 (J)
AAA4005	21-01661	0.00–0.50	Soil	0.039 (J)	—	0.069 (J)	—	—	—	—	—	0.067 (J)
AAA4008	21-01664	0.00–0.50	Soil	—	—	0.035 (J)	—	—	—	—	—	—
AAA7511	21-01860	0.25-0.50	Soil	0.32 (J)	—	0.71	—	0.24 (J)	—	—	0.62	0.75
AAA7512	21-01860	0.50–1.00	Soil	—	—	0.2 (J)	—	—	—	—	—	0.19 (J)
AAA7513	21-01861	0.00–0.25	Soil	0.15 (J)	—	0.32 (J)	—	—	—	—	0.15 (J)	0.29 (J)
AAA7514	21-01861	0.25-0.50	Soil	—	—	0.27 (J)	—	—	—	—	—	0.24 (J)
AAA7516	21-01862	0.00–0.25	Soil	0.48	—	0.95	—	0.33 (J)	—	—	0.64	0.86
AAA7517	21-01862	0.25-0.50	Soil	—	—	—	—	—	—	—	—	—
AAB7275	21-02568	0.00–0.25	Soil	0.088 (J)	—	0.2 (J)	—	—	—	—	0.089 (J)	0.15 (J)
AAB7276	21-02568	0.25-0.50	Soil	—	—	0.14 (J-)	—	—	—	—	—	0.11 (J-)
AAB7277	21-02568	0.50–1.00	Soil	0.83	—	2.5	—	0.43	—	—	1.3	1.8
AAB7278	21-02569	0.00–0.25	Soil	0.24 (J)	—	0.59	—	0.1 (J)	—	—	0.31 (J)	0.44
AAB7279	21-02569	0.25-0.50	Soil	0.083 (J)	—	0.17 (J)	—	—	—	—	0.086 (J)	0.12 (J)
AAB7280	21-02569	0.50–1.00	Soil	—	—	0.14 (J)	—	—	—	—	—	0.12 (J)
MD21-06-64167	21-25265	0.00–0.50	Soil	—	—	0.249	—	—	—	—	0.162	0.257
MD21-06-64168	21-25265	1.50–2.00	Soil	—	—	0.0169 (J)	—	—	—	—	—	0.0166 (J)
MD21-06-64169	21-25266	0.00–0.50	Soil	0.146	—	0.313	0.0131 (J)	—	—	—	0.168	0.327

Table 6.2-11 (continued)

Sample ID	Location ID	Depth (ft)	Media	Chrysene	Di-n-butylphthalate	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Methylnaphthalene[2-]	Naphthalene	Phenanthrene	Pyrene
MD21-06-64170	21-25266	1.50–2.00	Soil	—	0.0402 (J)	—	—	—	—	—	—	—
MD21-06-64171	21-25267	0.00–0.50	Soil	0.0492	0.048 (J)	0.0734	—	—	—	—	0.0337 (J)	0.0842
MD21-06-64172	21-25267	1.50–2.00	Soil	—	—	—	—	—	—	—	—	—
MD21-06-64173	21-25268	0.00–0.50	Soil	0.2	—	0.44	0.0122 (J)	—	—	—	0.216	0.594
MD21-06-64177	21-25270	0.00–0.50	Soil	0.0603	—	0.0984	—	—	—	—	0.044	0.116
MD21-06-64179	21-25271	0.00–0.50	Soil	0.336	—	0.79	0.0585	0.193 (J)	0.0156 (J)	0.0365	0.558	0.802
MD21-06-64181	21-25272	0.00–0.50	Soil	0.132	0.0548 (J)	0.269	—	—	—	—	0.119	0.261
MD21-06-64182	21-25272	0.50–1.00	Soil	0.0771	0.0427 (J)	0.168	—	—	—	—	0.0802	0.168
MD21-06-64183	21-25273	0.00–0.50	Soil	—	—	0.0284 (J)	—	—	—	—	0.0148 (J)	0.034 (J)
MD21-06-64185	21-25274	0.00–0.50	Soil	—	—	0.19	—	—	—	—	0.0977	0.213
MD21-06-64187	21-25275	0.00–0.50	Soil	0.0228 (J)	—	0.0313 (J)	—	—	—	—	0.0233 (J)	0.0446 (J)
MD21-06-64189	21-25276	0.00–0.50	Soil	0.0702	—	0.0552	—	—	—	—	0.0286 (J)	0.0853 (J)
MD21-06-64190	21-25276	1.50–2.00	Soil	—	—	—	—	—	—	—	—	0.0162 (J)
MD21-06-64191	21-25277	0.00–0.50	Soil	0.0311 (J)	—	0.0354 (J)	—	—	—	—	0.0158 (J)	0.0466 (J)
MD21-06-66235	21-25401	0.00–0.50	Soil	0.171	—	0.276	0.0124 (J)	0.158	0.0112 (J)	0.0299 (J)	0.294	0.388 (J)

See Appendix A for qualifier definitions.
Units are mg/kg.
— = Not detected.

Table 6.2-12
Radionuclide COPCs for the DP Canyon Slope

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	1.65	0.054	0.023	1.31	na	2.59	0.2	2.29
Qbt 2,3,4 Background Value				na	na	na	na	na	na	1.98	0.09	1.93
Qbt 1v Background Value				na	na	na	na	na	na	3.12	0.14	3.15
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	4.0	0.18	3.9
AAA0420	21-01135	0.00–0.08	Soil	—	—	0.055 (J)	—	—	—	—	—	—
AAA0421	21-01135	0.00–0.50	Soil	0.199	—	0.025 (J)	—	—	—	—	—	—
AAA3967	21-01629	0.00–0.50	Soil	3.119 (J-)	—	0.305 (J-)	5.735 (J-)	—	—	—	—	—
AAA3968	21-01630	0.00–0.50	Soil	1.349 (J-)	—	0.131 (J-)	1.687 (J-)	—	1.426778E-02 (J-)	—	—	—
AAA3969	21-01631	0.00–0.50	Soil	0.441 (J-)	—	0.052 (J-)	4.912 (J-)	—	—	—	—	—
AAA3970	21-01632	0.00–0.50	Soil	0.062 (J-)	—	—	0.996 (J-)	—	—	—	—	—
AAA3971	21-01633	0.00–0.50	Soil	0.257 (J-)	—	0.065 (J-)	1.912 (J-)	—	2.150884E-02 (J-)	—	—	—
AAA3973	21-01635	0.00–0.50	Soil	0.352 (J-)	—	0.046 (J-)	4.388 (J-)	—	8.930415E-02 (J-)	—	—	—
AAA3974	21-01636	0.00–0.50	Soil	2.962 (J-)	—	1.82 (J-)	4.453 (J-)	—	0.2247188 (J-)	—	—	—
AAA3975	21-01637	0.00–0.50	Soil	0.165 (J-)	—	—	0.599 (J-)	—	7.033149E-02 (J-)	—	—	—
AAA3976	21-01638	0.00–0.50	Soil	1.361 (J-)	—	0.107 (J-)	3.856 (J-)	12.34 (J-)	0.1323723 (J-)	—	—	—
AAA3980	21-01640	0.00–0.50	Soil	1.444 (J-)	—	0.214 (J-)	8.847 (J-)	2.78 (J-)	0.174126 (J-)	—	—	—
AAA3981	21-01641	0.00–0.50	Soil	2.958 (J-)	—	0.49 (J-)	7.585 (J-)	—	0.3018494 (J-)	—	—	—
AAA3983	21-01642	0.00–0.50	Soil	1.321 (J-)	—	0.183 (J-)	28.512 (J-)	—	8.590909E-02 (J-)	—	—	—
AAA3994	21-01653	0.00–0.50	Soil	0.616 (J-)	—	0.102 (J-)	8.75 (J-)	—	1.035012 (J-)	—	—	—
AAA3995	21-01654	0.00–0.50	Soil	0.442 (J)	—	0.058 (J-)	2.363 (J-)	—	0.0550053 (J-)	—	—	—
AAA4003	21-01659	0.00–0.50	Soil	0.035 (J-)	—	—	0.324 (J-)	—	—	—	—	—
AAA4004	21-01660	0.00–0.50	Soil	1.936 (J-)	—	0.194 (J-)	3.755 (J-)	2.59 (J-)	9.319149E-02 (J-)	—	—	—
AAA4005	21-01661	0.00–0.50	Soil	1.03 (J-)	—	0.121 (J-)	10.576 (J-)	—	0.2033554 (J-)	2.738 (J-)	—	—
AAA4008	21-01664	0.00–0.50	Soil	0.756 (J)	—	0.107 (J-)	7.359 (J-)	—	0.1669542 (J-)	—	—	—
AAA7510	21-01860	0.00–0.25	Soil	5.626	—	3.983	3.569	—	4.620911E-02	—	—	—
AAA7511	21-01860	0.25-0.50	Soil	5.641	—	2.629	3.003	—	—	—	—	—
AAA7512	21-01860	0.50–1.00	Soil	6.348	0.8821	1.059	6.726	—	8.274699E-02	—	—	—
AAA7513	21-01861	0.00–0.25	Soil	2.657	—	1.101	2.043	—	6.743786E-02	—	—	—

Table 6.2-12 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	1.65	0.054	0.023	1.31	na	2.59	0.2	2.29
Qbt 2,3,4 Background Value				na	na	na	na	na	na	1.98	0.09	1.93
Qbt 1v Background Value				na	na	na	na	na	na	3.12	0.14	3.15
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	4.0	0.18	3.9
AAA7514	21-01861	0.25-0.50	Soil	4.549	—	2.078	8.662	—	7.186081E-02	—	—	—
AAA7515	21-01861	0.50–1.00	Soil	1.85	0.3733	0.4124	12.83	—	4.634626E-02	—	—	—
AAA7516	21-01862	0.00–0.25	Soil	4.87	—	4.053	7.634	—	8.474749E-02	—	—	—
AAA7517	21-01862	0.25-0.50	Soil	3.781	—	3.277	8.809	—	5.640794E-02	—	—	—
AAA7518	21-01862	0.50–1.00	Soil	1.5	—	0.6322	9.282	—	2.142156E-02	—	—	—
AAB7275	21-02568	0.00–0.25	Soil	5.061	—	3.307	6.442	—	8.839373E-02	—	—	—
AAB7276	21-02568	0.25-0.50	Soil	4.224	—	3.345	4.565	—	4.211384E-02	—	—	—
AAB7277	21-02568	0.50–1.00	Soil	7.404	0.8751	2.452	6.488	—	0.1550372	—	—	—
AAB7278	21-02569	0.00–0.25	Soil	1.101	—	1.848	2.223	—	4.727854E-02	—	—	—
AAB7279	21-02569	0.25-0.50	Soil	2.576	—	1.516	3.17	—	0.0595572	—	—	—
AAB7280	21-02569	0.50–1.00	Soil	3.459	0.3989	2.454	3.962	—	5.755274E-02	—	—	—
MD21-06-64167	21-25265	0.00–0.50	Soil	3.25	—	7.71	5.87	—	0.1325607	—	—	—
MD21-06-64168	21-25265	1.50–2.00	Soil	0.32	—	0.37	0.457	—	—	—	—	—
MD21-06-64169	21-25266	0.00–0.50	Soil	5.4	—	6.69	6.26	—	3.734426E-02	—	—	—
MD21-06-64170	21-25266	1.50–2.00	Soil	0.591	—	0.206	10.7	—	3.398876E-02	—	—	—
MD21-06-64171	21-25267	0.00–0.50	Soil	1	—	0.91	11.4	—	0.1025062	—	—	—
MD21-06-64172	21-25267	1.50–2.00	Soil	0.13	—	0.0753	0.448	—	6.029329E-02	—	—	—
MD21-06-64173	21-25268	0.00–0.50	Soil	4.69	—	5.25	9.11	—	2.843567E-02	—	—	—
MD21-06-64174	21-25268	1.50–2.00	Soil	0.226	—	0.0857	0.615	—	7.862791E-02	—	—	—
MD21-06-64175	21-25269	0.00–0.50	Soil	0.171	—	—	0.735	—	7.342522E-02	—	—	—
MD21-06-64176	21-25269	1.50–2.00	Soil	—	—	—	—	—	7.377817E-02	—	—	—
MD21-06-64177	21-25270	0.00–0.50	Soil	2.42	—	2.94	5.38	—	0.1941097	—	0.235	—
MD21-06-64179	21-25271	0.00–0.50	Soil	3.94	—	6.09	5.81	—	0.1353975	—	—	—
MD21-06-64181	21-25272	0.00–0.50	Soil	11.7	—	9.13	17.6	—	0.1030768	3.62	0.336	—
MD21-06-64182	21-25272	0.50–1.00	Soil	5.79	0.389	3.8	13.1	0.211	7.468209E-02	2.84	0.266	—
MD21-06-64183	21-25273	0.00–0.50	Soil	1.24	—	0.0689	4	—	5.375542E-02	—	—	—

Table 6.2-12 (continued)

Sample ID	Location ID	Depth (ft)	Media	Americium-241	Cesium-137	Plutonium-238	Plutonium-239	Strontium-90	Tritium	Uranium-234	Uranium-235	Uranium-238
Soil Background Value				0.013	1.65	0.054	0.023	1.31	na	2.59	0.2	2.29
Qbt 2,3,4 Background Value				na	na	na	na	na	na	1.98	0.09	1.93
Qbt 1v Background Value				na	na	na	na	na	na	3.12	0.14	3.15
Qbt 1g, Qct, Qbo Background Value				na	na	na	na	na	na	4.0	0.18	3.9
MD21-06-64184	21-25273	1.50–2.00	Soil	0.0536	—	—	0.176	—	4.067127E-02	—	—	—
MD21-06-64185	21-25274	0.00–0.50	Soil	2.54	2.98	0.34	16.2	—	0.1755892	3.98	0.263	2.37
MD21-06-64187	21-25275	0.00–0.50	Soil	1.19	10.6	0.111	3.78	—	5.870613E-02	—	—	—
MD21-06-64189	21-25276	0.00–0.50	Soil	1.58	—	0.304	4.7	—	2.903822E-02	—	—	—
MD21-06-64190	21-25276	1.50–2.00	Soil	0.26	0.244	0.085	1.96	—	3.084027E-02	—	—	—
MD21-06-64191	21-25277	0.00–0.50	Soil	2.06	—	0.103	3.5	—	5.190902E-02	—	—	—
MD21-06-66235	21-25401	0.00–0.50	Soil	3.19	—	0.546	5.13	—	0.058962	—	—	—
0121-96-0303	21-04933	0.00–0.50	Soil	0.93	9.39	—	—	—	—	—	—	—
MD21-03-51517	21-22206	0.00–0.50	Soil	0.13	—	—	0.963	—	—	—	0.268	—

See Appendix A for qualifier definitions.

Units are pCi/g.

Background values and fallout values are from LANL 1998, 59730.

— = Not above background/fallout value or not detected.

na = Not available.

Table 6.5-1
Summary of Organic Chemicals Detected in Pore Gas at Consolidated Unit 21-016(a)-99

Sample ID	Location ID	Analyte	Sample Concentration	Depth (ft)	Collection Date
MD21-06-64201	21-25262	Acetone	55	370.00–380.00	1/5/2006
MD21-06-64202	21-25262	Acetone	840	189.00–191.00	1/10/2006
MD21-06-64204	21-25262	Acetone	200	79.00–81.00	1/11/2006
MD21-06-64203	21-25262	Acetone	150	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Acetone	430 (J)	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Acetone	61 (J)	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Acetone	230	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Acetone	91	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Acetone	320	234.00–236.00	4/18/2006
MD21-06-67524	21-25262	Acetone	150	114.00–116.00	4/19/2006
MD21-06-67525	21-25262	Acetone	490	79.00–81.00	4/20/2006
MD21-06-64202	21-25262	Benzene	8	189.00–191.00	1/10/2006
MD21-06-64203	21-25262	Benzene	5.4	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Benzene	8.6	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Benzene	1.4	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Benzene	48	290.00–292.00	4/17/2006
MD21-06-64203	21-25262	Bromodichloromethane	3.3	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Bromodichloromethane	5.5	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Bromodichloromethane	2.8	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Butanol[1-]	17 (J)	290.00–292.00	4/17/2006
MD21-06-64205	21-25262	Butanone[2-]	27	234.00–236.00	1/20/2006
MD21-06-67521	21-25262	Butanone[2-]	54	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Butanone[2-]	9	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Butanone[2-]	4.6	234.00–236.00	4/18/2006
MD21-06-67524	21-25262	Butanone[2-]	3.3	114.00–116.00	4/19/2006
MD21-06-67525	21-25262	Butanone[2-]	7.2	79.00–81.00	4/20/2006
MD21-06-67521	21-25262	Carbon disulfide	3	290.00–292.00	4/17/2006
MD21-06-67522	21-25262	Carbon disulfide	36	234.00–236.00	4/18/2006
MD21-06-67525	21-25262	Carbon disulfide	8.2	79.00–81.00	4/20/2006
MD21-06-64201	21-25262	Carbon tetrachloride	1.4	370.00–380.00	1/5/2006
MD21-06-64202	21-25262	Carbon tetrachloride	160	189.00–191.00	1/10/2006
MD21-06-64204	21-25262	Carbon tetrachloride	100	79.00–81.00	1/11/2006
MD21-06-64203	21-25262	Carbon tetrachloride	200	294.00–296.00	1/11/2006

Table 6.5-1 (continued)

Sample ID	Location ID	Analyte	Sample Concentration	Depth (ft)	Collection Date
MD21-06-64205	21-25262	Carbon tetrachloride	410	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Carbon tetrachloride	90	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Carbon tetrachloride	220	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Carbon tetrachloride	95	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Carbon tetrachloride	98	234.00–236.00	4/18/2006
MD21-06-67524	21-25262	Carbon tetrachloride	6.5	114.00–116.00	4/19/2006
MD21-06-67525	21-25262	Carbon tetrachloride	39	79.00–81.00	4/20/2006
MD21-06-64201	21-25262	Chloroform	13	370.00–380.00	1/5/2006
MD21-06-64202	21-25262	Chloroform	580	189.00–191.00	1/10/2006
MD21-06-64204	21-25262	Chloroform	960	79.00–81.00	1/11/2006
MD21-06-64203	21-25262	Chloroform	470	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Chloroform	690	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Chloroform	690	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Chloroform	370	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Chloroform	380	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Chloroform	410	234.00–236.00	4/18/2006
MD21-06-67524	21-25262	Chloroform	380	114.00–116.00	4/19/2006
MD21-06-67525	21-25262	Chloroform	760	79.00–81.00	4/20/2006
MD21-06-64201	21-25262	Chloromethane	1.4	370.00–380.00	1/5/2006
MD21-06-64201	21-25262	Dichlorodifluoromethane	2.9	370.00–380.00	1/5/2006
MD21-06-64204	21-25262	Dichlorodifluoromethane	7.7	79.00–81.00	1/11/2006
MD21-06-64203	21-25262	Dichlorodifluoromethane	5.9	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Dichlorodifluoromethane	9.6 (J)	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Dichlorodifluoromethane	7.8 (J)	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Dichloroethane[1,1-]	4.3	290.00–292.00	4/17/2006
MD21-06-67521	21-25262	Dichloroethane[1,2-]	17	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Dichloroethane[1,2-]	3.3	189.00–191.00	4/18/2006
MD21-06-64203	21-25262	Dichloroethene[1,1-]	5.1	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Dichloroethene[1,1-]	8	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Dichloroethene[1,1-]	1.3	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Dichloroethene[1,1-]	14	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Dichloroethene[1,1-]	3.5	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Dichloroethene[1,1-]	6.6	234.00–236.00	4/18/2006
MD21-06-64201	21-25262	Ethyltoluene[4-]	4	370.00–380.00	1/5/2006
MD21-06-67521	21-25262	Hexane	30	290.00–292.00	4/17/2006

Table 6.5-1 (continued)

Sample ID	Location ID	Analyte	Sample Concentration	Depth (ft)	Collection Date
MD21-06-67523	21-25262	Hexane	5.7	189.00–191.00	4/18/2006
MD21-06-67521	21-25262	Methyl-2-pentanone[4-]	4.2	290.00–292.00	4/17/2006
MD21-06-64201	21-25262	Methylene chloride	2.9	370.00–380.00	1/5/2006
MD21-06-64202	21-25262	Methylene chloride	34	189.00–191.00	1/10/2006
MD21-06-64204	21-25262	Methylene chloride	11	79.00–81.00	1/11/2006
MD21-06-64203	21-25262	Methylene chloride	100	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Methylene chloride	73	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Methylene chloride	12	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Methylene chloride	93	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Methylene chloride	26	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Methylene chloride	37	234.00–236.00	4/18/2006
MD21-06-67521	21-25262	n-Heptane	64	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	n-Heptane	3.4	189.00–191.00	4/18/2006
MD21-06-64202	21-25262	Styrene	14	189.00–191.00	1/10/2006
MD21-06-64204	21-25262	Styrene	17	79.00–81.00	1/11/2006
MD21-06-64203	21-25262	Styrene	51	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Styrene	39	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Styrene	11	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Styrene	35	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Styrene	26	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Styrene	35	234.00–236.00	4/18/2006
MD21-06-67524	21-25262	Styrene	4.8	114.00–116.00	4/19/2006
MD21-06-67525	21-25262	Styrene	18	79.00–81.00	4/20/2006
MD21-06-64201	21-25262	Tetrachloroethene	7	370.00–380.00	1/5/2006
MD21-06-64202	21-25262	Tetrachloroethene	230	189.00–191.00	1/10/2006
MD21-06-64204	21-25262	Tetrachloroethene	1500	79.00–81.00	1/11/2006
MD21-06-64203	21-25262	Tetrachloroethene	190	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Tetrachloroethene	230	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Tetrachloroethene	490	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Tetrachloroethene	160	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Tetrachloroethene	170	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Tetrachloroethene	170	234.00–236.00	4/18/2006
MD21-06-67524	21-25262	Tetrachloroethene	200	114.00–116.00	4/19/2006
MD21-06-67525	21-25262	Tetrachloroethene	590	79.00–81.00	4/20/2006
MD21-06-64201	21-25262	Toluene	11	370.00–380.00	1/5/2006

Table 6.5-1 (continued)

Sample ID	Location ID	Analyte	Sample Concentration	Depth (ft)	Collection Date
MD21-06-64203	21-25262	Toluene	11	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Toluene	9	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Toluene	3.4	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Toluene	19	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Toluene	39	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Toluene	17	234.00–236.00	4/18/2006
MD21-06-67524	21-25262	Toluene	7.5	114.00–116.00	4/19/2006
MD21-06-67525	21-25262	Toluene	12	79.00–81.00	4/20/2006
MD21-06-64203	21-25262	Trichloro-1,2,2-trifluoroethane[1,1,2-]	15	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Trichloro-1,2,2-trifluoroethane[1,1,2-]	34	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Trichloro-1,2,2-trifluoroethane[1,1,2-]	9.1	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Trichloro-1,2,2-trifluoroethane[1,1,2-]	20	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Trichloro-1,2,2-trifluoroethane[1,1,2-]	8.5	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Trichloro-1,2,2-trifluoroethane[1,1,2-]	10	234.00–236.00	4/18/2006
MD21-06-64202	21-25262	Trichloroethane[1,1,1-]	29	189.00–191.00	1/10/2006
MD21-06-64204	21-25262	Trichloroethane[1,1,1-]	30	79.00–81.00	1/11/2006
MD21-06-64203	21-25262	Trichloroethane[1,1,1-]	13	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Trichloroethane[1,1,1-]	32	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Trichloroethane[1,1,1-]	28	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Trichloroethane[1,1,1-]	34	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Trichloroethane[1,1,1-]	16	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Trichloroethane[1,1,1-]	14	234.00–236.00	4/18/2006
MD21-06-67525	21-25262	Trichloroethane[1,1,1-]	12	79.00–81.00	4/20/2006
MD21-06-64203	21-25262	Trichloroethane[1,1,2-]	5	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Trichloroethane[1,1,2-]	5.4	234.00–236.00	1/20/2006
MD21-06-67521	21-25262	Trichloroethane[1,1,2-]	10	290.00–292.00	4/17/2006
MD21-06-64201	21-25262	Trichloroethene	4.4	370.00–380.00	1/5/2006
MD21-06-64202	21-25262	Trichloroethene	390	189.00–191.00	1/10/2006
MD21-06-64204	21-25262	Trichloroethene	780	79.00–81.00	1/11/2006
MD21-06-64203	21-25262	Trichloroethene	420	294.00–296.00	1/11/2006
MD21-06-64205	21-25262	Trichloroethene	690	234.00–236.00	1/20/2006
MD21-06-64206	21-25262	Trichloroethene	400	114.00–116.00	1/23/2006
MD21-06-67521	21-25262	Trichloroethene	490	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Trichloroethene	270	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Trichloroethene	300	234.00–236.00	4/18/2006

Table 6.5-1 (continued)

Sample ID	Location ID	Analyte	Sample Concentration	Depth (ft)	Collection Date
MD21-06-67524	21-25262	Trichloroethene	92	114.00–116.00	4/19/2006
MD21-06-67525	21-25262	Trichloroethene	320	79.00–81.00	4/20/2006
MD21-06-64201	21-25262	Trimethylbenzene[1,2,4-]	6.4 (J)	370.00–380.00	1/5/2006
MD21-06-64201	21-25262	Xylene (total)	4	370.00–380.00	1/5/2006
MD21-06-64203	21-25262	Xylene (total)	11 (J)	294.00–296.00	1/11/2006
MD21-06-64201	21-25262	Xylene[1,2-]	1.2	370.00–380.00	1/5/2006
MD21-06-67521	21-25262	Xylene[1,3-]+Xylene[1,4-]	5.4	290.00–292.00	4/17/2006
MD21-06-67523	21-25262	Xylene[1,3-]+Xylene[1,4-]	4.5	189.00–191.00	4/18/2006
MD21-06-67522	21-25262	Xylene[1,3-]+Xylene[1,4-]	5.1	234.00–236.00	4/18/2006
MD21-06-64211	21-25263	Acetone	51	350.00–354.00	4/7/2006
MD21-06-64213	21-25263	Acetone	56	228.50–230.50	4/12/2006
MD21-06-64212	21-25263	Acetone	280	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Acetone	52	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Acetone	53	172.00–174.00	4/13/2006
MD21-06-64211	21-25263	Butanone[2-]	6.8	350.00–354.00	4/7/2006
MD21-06-64213	21-25263	Butanone[2-]	10	228.50–230.50	4/12/2006
MD21-06-64212	21-25263	Butanone[2-]	38	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Butanone[2-]	10	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Butanone[2-]	8	172.00–174.00	4/13/2006
MD21-06-64211	21-25263	Carbon disulfide	42	350.00–354.00	4/7/2006
MD21-06-64212	21-25263	Carbon disulfide	4.4	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Carbon disulfide	6.2	79.00–81.00	4/13/2006
MD21-06-64211	21-25263	Carbon tetrachloride	420	350.00–354.00	4/7/2006
MD21-06-64213	21-25263	Carbon tetrachloride	10	228.50–230.50	4/12/2006
MD21-06-64216	21-25263	Carbon tetrachloride	8.6	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Carbon tetrachloride	15	172.00–174.00	4/13/2006
MD21-06-64211	21-25263	Chloroform	1400	350.00–354.00	4/7/2006
MD21-06-64213	21-25263	Chloroform	96	228.50–230.50	4/12/2006
MD21-06-64212	21-25263	Chloroform	63	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Chloroform	87	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Chloroform	150	172.00–174.00	4/13/2006
MD21-06-64211	21-25263	Dichlorobenzene[1,4-]	35	350.00–354.00	4/7/2006
MD21-06-64211	21-25263	Dichloroethane[1,1-]	39	350.00–354.00	4/7/2006
MD21-06-64211	21-25263	Dichloroethane[1,2-]	150	350.00–354.00	4/7/2006
MD21-06-64213	21-25263	Dichloroethane[1,2-]	14	228.50–230.50	4/12/2006

Table 6.5-1 (continued)

Sample ID	Location ID	Analyte	Sample Concentration	Depth (ft)	Collection Date
MD21-06-64212	21-25263	Dichloroethane[1,2-]	12	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Dichloroethane[1,2-]	12	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Dichloroethane[1,2-]	11	172.00–174.00	4/13/2006
MD21-06-64211	21-25263	Dichloroethene[1,1-]	170	350.00–354.00	4/7/2006
MD21-06-64212	21-25263	Dichloroethene[1,1-]	4.8	311.00–313.00	4/12/2006
MD21-06-64211	21-25263	Dichloroethene[cis-1,2-]	7.6	350.00–354.00	4/7/2006
MD21-06-64211	21-25263	Dichloropropane[1,2-]	11	350.00–354.00	4/7/2006
MD21-06-64211	21-25263	Hexane	8.9	350.00–354.00	4/7/2006
MD21-06-64212	21-25263	Hexane	3.6	311.00–313.00	4/12/2006
MD21-06-64211	21-25263	Methylene chloride	2200	350.00–354.00	4/7/2006
MD21-06-64213	21-25263	Methylene chloride	35	228.50–230.50	4/12/2006
MD21-06-64212	21-25263	Methylene chloride	41	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Methylene chloride	16	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Methylene chloride	28	172.00–174.00	4/13/2006
MD21-06-64212	21-25263	n-Heptane	11	311.00–313.00	4/12/2006
MD21-06-64213	21-25263	Propylene	8	228.50–230.50	4/12/2006
MD21-06-64212	21-25263	Propylene	7.3	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Propylene	9.8	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Propylene	9.2	172.00–174.00	4/13/2006
MD21-06-64213	21-25263	Styrene	8.8	228.50–230.50	4/12/2006
MD21-06-64212	21-25263	Styrene	12	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Styrene	16	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Styrene	7.2	172.00–174.00	4/13/2006
MD21-06-64211	21-25263	Tetrachloroethene	320	350.00–354.00	4/7/2006
MD21-06-64213	21-25263	Tetrachloroethene	91	228.50–230.50	4/12/2006
MD21-06-64212	21-25263	Tetrachloroethene	57	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Tetrachloroethene	120	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Tetrachloroethene	140	172.00–174.00	4/13/2006
MD21-06-64211	21-25263	Toluene	13	350.00–354.00	4/7/2006
MD21-06-64213	21-25263	Toluene	81	228.50–230.50	4/12/2006
MD21-06-64212	21-25263	Toluene	190	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Toluene	68	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Toluene	31	172.00–174.00	4/13/2006
MD21-06-64211	21-25263	Trichloro-1,2,2-trifluoroethane[1,1,2-]	40	350.00–354.00	4/7/2006
MD21-06-64211	21-25263	Trichloroethane[1,1,1-]	1500	350.00–354.00	4/7/2006

Table 6.5-1 (continued)

Sample ID	Location ID	Analyte	Sample Concentration	Depth (ft)	Collection Date
MD21-06-64213	21-25263	Trichloroethane[1,1,1-]	63	228.50–230.50	4/12/2006
MD21-06-64212	21-25263	Trichloroethane[1,1,1-]	37	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Trichloroethane[1,1,1-]	67	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Trichloroethane[1,1,1-]	33	172.00–174.00	4/13/2006
MD21-06-64211	21-25263	Trichloroethane[1,1,2-]	61	350.00–354.00	4/7/2006
MD21-06-64211	21-25263	Trichloroethene	2000	350.00–354.00	4/7/2006
MD21-06-64213	21-25263	Trichloroethene	170	228.50–230.50	4/12/2006
MD21-06-64212	21-25263	Trichloroethene	130	311.00–313.00	4/12/2006
MD21-06-64216	21-25263	Trichloroethene	120	79.00–81.00	4/13/2006
MD21-06-64214	21-25263	Trichloroethene	170	172.00–174.00	4/13/2006
MD21-06-64221	21-25264	Acetone	65	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Acetone	270	325.00–327.00	2/7/2006
MD21-06-64224	21-25264	Acetone	39	69.00–71.00	2/8/2006
MD21-06-64223	21-25264	Acetone	47	224.00–226.00	2/8/2006
MD21-06-64225	21-25264	Acetone	140	152.00–154.00	2/10/2006
MD21-06-67537	21-25264	Acetone	130	325.00–327.00	4/27/2006
MD21-06-67538	21-25264	Acetone	46	224.00–226.00	4/28/2006
MD21-06-67540	21-25264	Acetone	36	69.00–71.00	5/2/2006
MD21-06-67539	21-25264	Acetone	65	152.00–154.00	5/2/2006
MD21-06-64221	21-25264	Benzene	2.8	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Benzene	6.8	325.00–327.00	2/7/2006
MD21-06-64221	21-25264	Butanone[2-]	11	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Butanone[2-]	22	325.00–327.00	2/7/2006
MD21-06-64224	21-25264	Butanone[2-]	6.9	69.00–71.00	2/8/2006
MD21-06-64225	21-25264	Butanone[2-]	9	152.00–154.00	2/10/2006
MD21-06-67537	21-25264	Butanone[2-]	14	325.00–327.00	4/27/2006
MD21-06-67539	21-25264	Butanone[2-]	8.8	152.00–154.00	5/2/2006
MD21-06-64221	21-25264	Carbon disulfide	3.7	350.00–354.00	2/3/2006
MD21-06-64224	21-25264	Carbon disulfide	8.4	69.00–71.00	2/8/2006
MD21-06-64221	21-25264	Carbon tetrachloride	26	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Carbon tetrachloride	57	325.00–327.00	2/7/2006
MD21-06-64224	21-25264	Carbon tetrachloride	72 (J)	69.00–71.00	2/8/2006
MD21-06-64223	21-25264	Carbon tetrachloride	15 (J)	224.00–226.00	2/8/2006
MD21-06-64225	21-25264	Carbon tetrachloride	170 (J)	152.00–154.00	2/10/2006
MD21-06-67537	21-25264	Carbon tetrachloride	55	325.00–327.00	4/27/2006

Table 6.5-1 (continued)

Sample ID	Location ID	Analyte	Sample Concentration	Depth (ft)	Collection Date
MD21-06-67538	21-25264	Carbon tetrachloride	200	224.00–226.00	4/28/2006
MD21-06-67539	21-25264	Carbon tetrachloride	15	152.00–154.00	5/2/2006
MD21-06-64222	21-25264	Chloroethane	10	325.00–327.00	2/7/2006
MD21-06-64221	21-25264	Chloroform	56	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Chloroform	140	325.00–327.00	2/7/2006
MD21-06-64224	21-25264	Chloroform	160	69.00–71.00	2/8/2006
MD21-06-64223	21-25264	Chloroform	58	224.00–226.00	2/8/2006
MD21-06-64225	21-25264	Chloroform	330	152.00–154.00	2/10/2006
MD21-06-67537	21-25264	Chloroform	140	325.00–327.00	4/27/2006
MD21-06-67538	21-25264	Chloroform	390	224.00–226.00	4/28/2006
MD21-06-67539	21-25264	Chloroform	44	152.00–154.00	5/2/2006
MD21-06-64221	21-25264	Chloromethane	1.2	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Chloromethane	2.9	325.00–327.00	2/7/2006
MD21-06-64225	21-25264	Cyclohexane	13	152.00–154.00	2/10/2006
MD21-06-64221	21-25264	Dichlorodifluoromethane	2.8	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Dichlorodifluoromethane	5.2	325.00–327.00	2/7/2006
MD21-06-64224	21-25264	Dichlorodifluoromethane	7.8	69.00–71.00	2/8/2006
MD21-06-64225	21-25264	Dichlorodifluoromethane	9.2	152.00–154.00	2/10/2006
MD21-06-67538	21-25264	Dichlorodifluoromethane	6.1	224.00–226.00	4/28/2006
MD21-06-67537	21-25264	Dichloroethane[1,1-]	4.2	325.00–327.00	4/27/2006
MD21-06-64221	21-25264	Dichloroethane[1,2-]	1.8	350.00–354.00	2/3/2006
MD21-06-67537	21-25264	Dichloroethane[1,2-]	26	325.00–327.00	4/27/2006
MD21-06-67538	21-25264	Dichloroethane[1,2-]	16	224.00–226.00	4/28/2006
MD21-06-67540	21-25264	Dichloroethane[1,2-]	7.6	69.00–71.00	5/2/2006
MD21-06-67539	21-25264	Dichloroethane[1,2-]	20	152.00–154.00	5/2/2006
MD21-06-67537	21-25264	Dichloroethene[1,1-]	17	325.00–327.00	4/27/2006
MD21-06-67538	21-25264	Dichloroethene[1,1-]	8.6	224.00–226.00	4/28/2006
MD21-06-67539	21-25264	Dichloroethene[1,1-]	16	152.00–154.00	5/2/2006
MD21-06-67537	21-25264	Dichloropropane[1,2-]	7.4	325.00–327.00	4/27/2006
MD21-06-67539	21-25264	Dichloropropane[1,2-]	5.1	152.00–154.00	5/2/2006
MD21-06-67537	21-25264	Ethyltoluene[4-]	21	325.00–327.00	4/27/2006
MD21-06-67539	21-25264	Ethyltoluene[4-]	17	152.00–154.00	5/2/2006
MD21-06-64221	21-25264	Methylene chloride	97	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Methylene chloride	94	325.00–327.00	2/7/2006
MD21-06-64224	21-25264	Methylene chloride	66	69.00–71.00	2/8/2006

Table 6.5-1 (continued)

Sample ID	Location ID	Analyte	Sample Concentration	Depth (ft)	Collection Date
MD21-06-64223	21-25264	Methylene chloride	46	224.00–226.00	2/8/2006
MD21-06-64225	21-25264	Methylene chloride	390	152.00–154.00	2/10/2006
MD21-06-67537	21-25264	Methylene chloride	140	325.00–327.00	4/27/2006
MD21-06-67538	21-25264	Methylene chloride	510	224.00–226.00	4/28/2006
MD21-06-67539	21-25264	Methylene chloride	36	152.00–154.00	5/2/2006
MD21-06-64225	21-25264	n-Heptane	47	152.00–154.00	2/10/2006
MD21-06-64221	21-25264	Styrene	5.1	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Styrene	140	325.00–327.00	2/7/2006
MD21-06-64224	21-25264	Styrene	9.1	69.00–71.00	2/8/2006
MD21-06-64225	21-25264	Styrene	19	152.00–154.00	2/10/2006
MD21-06-67537	21-25264	Styrene	22	325.00–327.00	4/27/2006
MD21-06-67539	21-25264	Styrene	27	152.00–154.00	5/2/2006
MD21-06-64221	21-25264	Tetrachloroethene	31	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Tetrachloroethene	520	325.00–327.00	2/7/2006
MD21-06-64224	21-25264	Tetrachloroethene	730	69.00–71.00	2/8/2006
MD21-06-64223	21-25264	Tetrachloroethene	150	224.00–226.00	2/8/2006
MD21-06-64225	21-25264	Tetrachloroethene	320	152.00–154.00	2/10/2006
MD21-06-67537	21-25264	Tetrachloroethene	260	325.00–327.00	4/27/2006
MD21-06-67538	21-25264	Tetrachloroethene	440	224.00–226.00	4/28/2006
MD21-06-67540	21-25264	Tetrachloroethene	24	69.00–71.00	5/2/2006
MD21-06-67539	21-25264	Tetrachloroethene	91	152.00–154.00	5/2/2006
MD21-06-64221	21-25264	Toluene	4.8	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Toluene	17	325.00–327.00	2/7/2006
MD21-06-64224	21-25264	Toluene	3.6	69.00–71.00	2/8/2006
MD21-06-64223	21-25264	Toluene	4.6	224.00–226.00	2/8/2006
MD21-06-64225	21-25264	Toluene	1900	152.00–154.00	2/10/2006
MD21-06-67537	21-25264	Toluene	17	325.00–327.00	4/27/2006
MD21-06-67538	21-25264	Toluene	3.5	224.00–226.00	4/28/2006
MD21-06-67540	21-25264	Toluene	6.7	69.00–71.00	5/2/2006
MD21-06-67539	21-25264	Toluene	16	152.00–154.00	5/2/2006
MD21-06-67538	21-25264	Trichloro-1,2,2-trifluoroethane[1,1,2-]	8.1	224.00–226.00	4/28/2006
MD21-06-64222	21-25264	Trichloroethane[1,1,1-]	8.2	325.00–327.00	2/7/2006
MD21-06-64224	21-25264	Trichloroethane[1,1,1-]	10	69.00–71.00	2/8/2006
MD21-06-64225	21-25264	Trichloroethane[1,1,1-]	17	152.00–154.00	2/10/2006
MD21-06-67537	21-25264	Trichloroethane[1,1,1-]	110	325.00–327.00	4/27/2006

Table 6.5-1 (continued)

Sample ID	Location ID	Analyte	Sample Concentration	Depth (ft)	Collection Date
MD21-06-67538	21-25264	Trichloroethane[1,1,1-]	26	224.00–226.00	4/28/2006
MD21-06-67540	21-25264	Trichloroethane[1,1,1-]	33	69.00–71.00	5/2/2006
MD21-06-67539	21-25264	Trichloroethane[1,1,1-]	67	152.00–154.00	5/2/2006
MD21-06-64221	21-25264	Trichloroethene	59	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Trichloroethene	240	325.00–327.00	2/7/2006
MD21-06-64224	21-25264	Trichloroethene	320	69.00–71.00	2/8/2006
MD21-06-64223	21-25264	Trichloroethene	77	224.00–226.00	2/8/2006
MD21-06-64225	21-25264	Trichloroethene	400	152.00–154.00	2/10/2006
MD21-06-67537	21-25264	Trichloroethene	320	325.00–327.00	4/27/2006
MD21-06-67538	21-25264	Trichloroethene	530	224.00–226.00	4/28/2006
MD21-06-67540	21-25264	Trichloroethene	6	69.00–71.00	5/2/2006
MD21-06-67539	21-25264	Trichloroethene	200	152.00–154.00	5/2/2006
MD21-06-67537	21-25264	Trimethylbenzene[1,2,4-]	15 (J-)	325.00–327.00	4/27/2006
MD21-06-67539	21-25264	Trimethylbenzene[1,2,4-]	14 (J-)	152.00–154.00	5/2/2006
MD21-06-64221	21-25264	Vinyl chloride	0.63	350.00–354.00	2/3/2006
MD21-06-64222	21-25264	Vinyl chloride	1.4	325.00–327.00	2/7/2006
MD21-06-64221	21-25264	Xylene (total)	2.6	350.00–354.00	2/3/2006
MD21-06-64221	21-25264	Xylene[1,2-]	2.6	350.00–354.00	2/3/2006
MD21-06-67537	21-25264	Xylene[1,2-]	17	325.00–327.00	4/27/2006
MD21-06-67539	21-25264	Xylene[1,2-]	13	152.00–154.00	5/2/2006
MD21-06-67537	21-25264	Xylene[1,3-]+Xylene[1,4-]	9.5	325.00–327.00	4/27/2006
MD21-06-67539	21-25264	Xylene[1,3-]+Xylene[1,4-]	8.7	152.00–154.00	5/2/2006

See Appendix A for qualifier definitions.

Units are $\mu g/kg^3$.

Table 6.5-2
Summary of Tritium Detected in Pore Gas at Consolidated Unit 21-016(a)-99

Sample ID	Location ID	Depth (ft)	Sample Concentration ($\mu g/m^3$)	Collection Date
MD21-06-64201	21-25262	370.00–380.00	19,118	1/5/2006
MD21-06-64202	21-25262	189.00–191.00	9670	1/10/2006
MD21-06-64203	21-25262	294.00–296.00	13,700	1/11/2006
MD21-06-64204	21-25262	79.00–81.00	6680	1/11/2006
MD21-06-64205	21-25262	234.00–236.00	5150	1/20/2006
MD21-06-64206	21-25262	114.00–116.00	2290	1/23/2006
MD21-06-67521	21-25262	290.00–292.00	6330	4/17/2006
MD21-06-67522	21-25262	234.00–236.00	2870	4/18/2006
MD21-06-67523	21-25262	189.00–191.00	2190	4/18/2006
MD21-06-67524	21-25262	114.00–116.00	1970	4/19/2006
MD21-06-67525	21-25262	79.00–81.00	2090	4/20/2006
MD21-06-64211	21-25263	350.00–354.00	1810	4/7/2006
MD21-06-64212	21-25263	311.00–313.00	6100	4/12/2006
MD21-06-64213	21-25263	228.50–230.50	4300	4/12/2006
MD21-06-64214	21-25263	172.00–174.00	5300	4/13/2006
MD21-06-64216	21-25263	79.00–81.00	4300	4/13/2006
MD21-06-67529	21-25263	311.00–313.00	9470	5/19/2006
MD21-06-67530	21-25263	228.50–230.50	2300	5/22/2006
MD21-06-67531	21-25263	172.00–174.00	4830	5/22/2006
MD21-06-67532	21-25263	79.00–81.00	13,760	5/23/2006
MD21-06-64221	21-25264	350.00–354.00	2310	2/3/2006
MD21-06-64222	21-25264	325.00–327.00	5200	2/7/2006
MD21-06-64223	21-25264	224.00–226.00	23,900	2/8/2006
MD21-06-64224	21-25264	69.00–71.00	20,300	2/8/2006
MD21-06-64225	21-25264	152.00–154.00	61200	2/10/2006
MD21-06-67537	21-25264	325.00–327.00	5070	4/27/2006
MD21-06-67538	21-25264	224.00–226.00	63,100	4/28/2006
MD21-06-67539	21-25264	152.00–154.00	73,400	5/2/2006
MD21-06-67540	21-25264	69.00–71.00	14,070	5/2/2006