Los Alamos Environmental Restoration Records Processing Facility

ER Record I.D.# 65010

LOS ALAMOS NATIONAL LABORATORY
ENVIRONMENTAL RESTORATION
Records Processing Facility
ER Records Index Form

ER ID NO. 65010 *Date Received:* 12/8/98 *Processor:* DIC *Page Count:* 63

Privileged: (Y/N) N *Record Category:* P

FileFolder: ERM/GOLDER TA-21 GENERAL SUPPORT FU 1 OU 1106/READINESS REVIEW/REPORTING

Correction: (Y/N) N *Corrected No.* 0 *Corrected By Number:* 0

Administrative Record: (Y/N) Y

Refilmed: (Y/N) N *Old ER ID Number:* 0 *New ER ID Number:* 0

Miscellaneous Comments:

N/A

14331

THIS FORM IS SUBJECT TO CHANGE. CONTACT THE RPF FOR LATEST VERSION. (JUNE 1997)

(63)

READINESS REVIEW / REPORT-T / MDA T HISTORY 63 PGS

MATERIAL DISPOSAL AREA T
PRS GROUP 21-016

I. MDA T SITE HISTORY

MDA T is a liquid radioactive waste disposal area located at DP West within TA-21, which is located on DP Mesa. MDA T is approximately 2.21 acres in size and is at an elevation of approximately 7,140 feet above sea level. TA-21 was used primarily for plutonium research, metal production, and related activities from 1945 to 1978. Additional background information is presented in Chapters 3 and 16.3 of the TA-21 Operable Unit RFI Work Plan (LANL 1991, 0689).

Absorption Beds

MDA T was one of the first disposal areas used at the laboratory. Construction of four absorption beds, which are approximately 120 feet long by 20 feet wide by 6 feet deep, for disposal of DP West liquid waste was completed in 1945. Untreated waste from uranium and plutonium processing laboratories and the filter building, TA-21-12, was released to the absorption beds from 1945 to 1952. In 1952, building TA-21-35 was constructed to remove the plutonium and other radionuclides from the liquid waste. When the amount of wastes discharged to the absorption beds had reached several thousand gallons per day, the absorption beds had to be abandoned (Rogers 1977, 0216). After 1952, effluent from TA-21-35 was discharged to an outfall, now designated as SWMU 21-011(k), in DP Canyon north of MDA T. However, a few hundred gallons of treated wastes from TA-21-35 were still released to the absorption beds at infrequent intervals until 1967. In addition, wastes from DP East were discharged to the absorption beds from 1965 to 1967. The composition of the DP East wastes is unknown (LANL 1991, 0689).

The absorption beds were designed so that absorption beds 1 and 2 received most of the liquid wastes. Overflow from absorption beds 1 and 2 was then discharged to absorption beds 3 and 4, respectively. Absorption bed 1 could have also received liquid waste directly from a floor drain in building TA-21-12, and absorption bed 2 could have received liquid waste directly from TA-21-35 and adjacent influent holding tanks TA-21-110 and -111. Effluent from TA-21-35 was also pumped to two other holding tanks, TA-21-112 and -113, installed in 1952. Tanks TA-21-112 and -113 discharged effluent to the outfall in DP Canyon (PRS 21-011[k]) as well as to absorption bed 4 (LANL 1991, 0689).

Infiltration Experiments

In 1959, a caisson was constructed at the northeast corner of absorption bed 1 to study subsurface plutonium distribution. The caisson was 30 ft deep, 6 ft wide, and 12 ft long. Two horizontal holes at 2-ft depth intervals down to a 28-ft depth were drilled into the absorption bed and tuff beneath the bed. Each pair of horizontal holes was instrumented, one for soil moisture and one for gross alpha measurement. Generally, these studies showed that alpha activity had percolated into the tuff and that its concentration decreased with increasing depth. An increase in activity at the 12-ft depth coincided with high moisture readings at that depth (LANL 1991, 0689).

In 1960, wastes from DP West were diverted into bed 1 from July 6 to July 31, 1960. The average daily rate of this diversion was approximately 8,000 - 8,700 gallons per day (gpd). From August 1 to September 7, 1960, Los Alamos tap water was added to bed 1 at a rate of approximately 6,500 - 6,600 gpd. Six boreholes ranging in depth from 76 - 99 ft were drilled around the periphery of bed 1 in late 1960. The highest gross alpha content was obtained from a hole drilled at 19 degrees from vertical and angled under absorption bed 1. The elevated alpha was detected at a depth of 45 feet below the surface and was attributed to a vertical fissure (LANL 1991, 0689).

DEC 0 8 1998
RIC

In 1961, 6,400 gpd of DP raw waste was diverted to absorption bed 1 from June 30 - August 1. This was followed by adding tap water to bed 1 from August 2 to August 26 at a rate of 7,100 gpd. Moisture distributions indicated that the bed had a high infiltration capacity and there was little lateral movement of water in the tuff. The limited lateral movement is further supported by the lack of contamination in holes drilled adjacent to the absorption beds. However, irregular moisture curves for three holes suggest that percolating water may either perch or travel rapidly along fissures. Abrupt decreases in moisture indicate rapid drainage that may be caused by fissures.

Disposal Shafts

Sixty-two disposal shafts, which are 6 to 8 feet in diameter and 15.2 to 69.3 feet in depth, were drilled primarily between absorption beds 2 and 4. Starting in May 1968, radioactive wastes, including neutralized americium, alkaline fluoride, and plant sludge, were mixed with cement in the building TA-21-257 pug mill and discharged as a slurry into the shafts. Building TA-21-257 is a waste treatment facility constructed in 1967 to replace TA-21-35 and remains in operation today. Five shafts have bathyspheres containing plutonium-239/240 (Pu-239/240) or other mixed fission products buried at various depths with the cement-filled shafts. The operation was discontinued in 1983 (LANL 1991, 0689; and Rogers 1977, 0216).

According to LANL employees involved in the operation, cement paste discharged to the shafts would occasionally "explode" during the cement curing process. The employees reported that these "explosions" would spread the americium-contaminated cement paste on the ground surface around the disposal shafts. The paste would be cleaned up afterward. It was initially thought that sugar was added to the cement slurry to slow the curing process and reduce or eliminate the chance for these "explosions". However, David Salazar, EM-RLW, stated that sugar was never used, but a commercial cement curing retardant was used. Although the reason for the "explosions" is still unknown, it is thought that a chemical reaction occurred caused by the heat of the cement curing process.

Retrievable Waste Storage Area

In 1974, the Retrievable Waste Storage Area (RWSA), a pit measuring 60 feet long by 30 feet wide by 20 feet deep, was excavated between absorption beds 1 and 3. Beginning in 1975, treated wastes from TA-21-257 containing concentrations greater than 10 nCi/g Pu-239/240 and Am-241 were mixed with cement and then pumped into 20-foot long by 2.5-foot diameter corrugated metal pipes (CMPs), which were stored on end in the RWSA. The pipes were removed in 1984 and 1986 and transferred to TA-54, MDA G, and the RWSA backfilled (Rogers 1977, 0216).

The CMPs were sealed on each end with a concrete cap. It was reported that the cold cap on one of the CMPs broke loose and americium-contaminated slurry spilled onto the tuff floor of the RWSA. Although it was also reported that the spill was cleaned up to standards in place at the time, we believe that we drilled through the spill location with borehole 21-05057. Elevated gamma activity and a very high calcium concentration was detected in this borehole at a depth of approximately 22 feet below ground surface (bgs).

Distribution Box

The distribution box, located between absorption beds 1 and 2, received liquid wastes through subsurface pipelines and discharged the effluent first to bed 1 and then to bed 2. The distribution box was not investigated directly but was included in the overall MDA T subsurface investigation.

II. PRS DESIGNATIONS

The absorption beds and disposal shafts of MDA T are designated as PRSs 21-016 (a and c), respectively, while the distribution box is designated PRS 21-011(c). The RWSA should be designated PRS 21-016(b). However, some confusion exists regarding the PRS designation of the RWSA and the caisson that was constructed at the northeast corner of absorption bed 1. The 21-016 SWMU Report, dated October 31, 1990, states "A pit, TA-21-186 (SWMU 21-016[b]), was built in 1959 of redwood and it was about 6 feet by 10 feet by 30 feet deep. The pit was located between two rows of absorption beds. This pit, referred to as the 'Snake Pit', was used for monitoring purposes and did not contain waste. From 1974 to 1982, transuranic wastes were mixed with cement and pumped into corrugated metal pipes into the pit. There were 175 corrugated metal pipes (2.5 feet in diameter, 20 feet long) in the pit, which was located between absorption beds 1 and 3. In 1984 to 1986, the pipes were transported to TA-54 with the intention of shipping them to the WIPP site near Carlsbad, NM." The SWMU Report also states, "A 30-foot deep caisson (the 'Snake Pit') was dug to obtain horizontal cores in 1961..." (Solid Waste Management Units, Report, Vol. II of IV, [TA-10 to TA-25], 7512).

The description in the SWMU Report contains several inconsistencies. For instance, the SWMU Report states that the "Snake Pit" was used for monitoring (which was the purpose of the caisson) and did not contain waste, and then states that transuranic wastes were pumped into corrugated metal pipes in the pit (which was the purpose of the RWSA). In addition, the term "pit" was used interchangeably for both the caisson and the RWSA. It is clear by the descriptions in the SWMU Report that, although the physical description of the caisson (Snake Pit) is given, the RWSA is actually the SWMU because "... transuranic wastes were mixed with cement and pumped into corrugated metal pipes into the pit." Therefore, the investigation to be performed will address the RWSA as well as the absorption beds, disposal shafts, and distribution box.

III. ASSOCIATED PRSs

Building TA-21-35

The former industrial liquid waste treatment facility, TA-21-35 (PRS Group 21-010), began operations in 1952 and was decontaminated and decommissioned in 1967. The building was converted to a waste treatment facility in 1952, and was modified and added to several times throughout its years of operation (LANL 1991, 0689).

A Phase I RFI was conducted at TA-21-35 in 1994. Results indicated shallow radiological contamination near the SW and NE corners of the former building location as well as the former location of above-ground storage tanks TA-21-110 and -111.

Building TA-21-257

The new industrial liquid waste treatment facility, TA-21-257 (PRS Group 21-011), began operations in 1967 when operations were discontinued at TA-21-35. In addition to the routine waste stream treatment process, a variety of other wastes classified as "batch wastes" were treated at TA-21-257 from 1967 to 1984. From 1968 to 1983, batch wastes that required the greatest treatment were those that had high-dissolved solids or were highly acidic. Treatment of these types of batch wastes included neutralization with 50% sodium hydroxide, then mixing with cement in a pug mill, and finally, pumping the cement paste to the asphalt-lined disposal shafts at MDA T (LANL 1991, 0689).

PRS 21-011(k)

PRS 21-011(k) (NPDES No. EPA050050) routed industrial waste water from TA-21-257 through tanks TA-21-112 and -113. The discharge line ran NE toward DP Canyon and discharged onto the north side of

DP Mesa. The line from tanks TA-21-112 and -113 was a 4-in vitrified clay pipe (VCP) that discharged to an outfall ditch and is no longer active.

IV. PREVIOUS INVESTIGATIONS

There is an abundance of historical radionuclide data for MDA T from subsurface characterizations in 1953, 1974, and 1978, and surface characterizations in 1984, 1986, and 1993. The radionuclides detected (tritium, strontium-90, americium-241, cesium-137, plutonium-238, and plutonium-239/240) are consistent with the suspected effluent constituents from the uranium and plutonium processing laboratories, from the floor drain in the filter building (TA-21-12), and from TA-21-35 and TA-21-257. Each radionuclide was detected at a concentration greater than its respective screening action level (SAL). These historical data are discussed in Section 16.3.1.2 of the TA-21 RFI work plan (LANL 1991, 0689).

In 1953, E. R. Herman (1954) of the USGS initiated a study to investigate the distribution discharged into the beds. Five holes were drilled into and around the absorption beds. The data showed that, at that time, little movement of radionuclides had occurred between the absorption beds. Higher radionuclide concentrations were present in the holes located in the beds and an obvious increase in plutonium concentration occurred in an angled hole where it intersected bed 1 (LANL 1991, 0689).

In 1974, a hole was drilled to a depth of 14 ft into absorption bed 3. All sample results were above the worldwide fallout background levels. The highest levels of americium were at the surface and between 8.5 and 10 ft and the highest levels of plutonium were at the surface and between 12.5 and 14 ft (LANL 1991, 0689).

In 1978, holes were drilled into both beds 1 and 2, and these results were reported by Nyhan, et. al., (1984;1985). The data indicated that both plutonium and americium have moved to depths of 100 ft beneath bed 1. The radionuclides had migrated to a depth of approximately 46 ft beneath bed 2 (LANL 1991, 0689).

In 1984, environmental surveillance surface data were collected at or near MDA T on a 20- x 20-m grid at depths of 0 to 1 cm, 1 to 10 cm, and 10 to 30 cm. The survey showed very few elevated tritium levels (i.e., above 7200 pCi/L used as an upper limit for background) (LANL 1991, 1689). The elevated levels occurred in samples from the deeper depth intervals in the area between the northern fence and absorption bed 4. In contrast, Pu-238 and Pu-239/240 were above the background levels (0.005 pCi/g for Pu-238 and 0.025 pCi/g for Pu-239/240) at all sampling locations.

In 1986, surface data were collected on a 10- by 10-m grid at a depth of 0 to 5 cm. Pu-238, Pu-239/240, and Am-241 levels generally exceeded their background levels. These elevated levels reflect a widespread source of these nuclides on the surface of MDA T (LANL 1991, 0689). Concentrations ranged from background levels to 35 pCi/g Pu-238, 70 pCi/g Pu-239/240, and 260 pCi/g Am-241 (LANL 1991, 0689).

In July 1993, a surface investigation was conducted by collecting samples from 0 to 6 in within a 65.6-ft by 65.6-ft grid. Additionally, samples were collected from 0 to 12 in within a drainage to DP Canyon that is north of MDA T and west of PRS 21-011(k). Cs-137, Sr-90, and Pu-239 were measured above their SALs in drainages that may have been affected by PRS 21-011(k). Pu-239 was measured above its SAL at one location along the perimeter of the cap where Am-241 was also detected above its SAL.

Chapter 3 of the TA-21 RFI work plan provides more information regarding the origins of RCRA constituents suspected to be present at MDA T (LANL 1991, 0689), although there was no existing data for RCRA constituents from any MDA T subsurface characterizations prior to the FY97 RFI. The screening assessment performed on the MDA T surface RFI data identified polynuclear aromatic hydrocarbons (PAHs). Concentrations of these PAHs were consistent with urban and industrial levels in Los Alamos County.

Subsurface hydrogeologic data collected during the drilling and completion of LADP-3, a monitoring well in LA Canyon, and LAUZ-1, LAUZ-2, and LADP-4, groundwater monitoring wells in DP Canyon, are available for use in subsurface transport modeling at MDA T. Additional data was gathered by Everett Springer from archived core collected during the drilling of a deep borehole, MDA V-DP, which was located adjacent to MDA V in TA-21. Samples were also collected from one MDA T borehole for hydrogeologic analyses. These data include, but may not be limited to, porosity, bulk density, mineralogy, saturated hydraulic conductivity, and moisture characteristic.

V. MDA T FIELD ACTIVITIES

Objectives and Conceptual Model

The objectives of the Phase I RFI at MDA T were to:

1. define the source term,
2. determine the lateral and vertical distribution of contaminants,
3. assess the long-term risk posed by MDA T to groundwater,
4. assess migration and exposure pathways,
5. define the TA-21 OU conceptual model, and
6. provide initial cost/risk reduction estimates for various remedial alternatives.

The conceptual model for MDA T is presented in Chapters 5 and 7 of the TA-21 Operable Unit RFI Work Plan. All TA-21 PRSs were placed into conceptual categories, with MDA T being categorized as having deep liquid releases, subsurface solid waste disposals, and surface contamination. Potential release/transport mechanisms include:

1. unsaturated flow of liquids in the vadose zone,
2. vapor-phase transport in the vadose zone,
3. erosive exposure of subsurface contamination, and
4. surface erosion and entrainment of contaminated material in surface run-off or dispersal of contaminated material by wind. Human or terrestrial animal exposure to possible site contaminants may occur through inhalation of suspended particulates or incidental ingestion of or dermal contact with soil (LANL 1991, 0689).

Geophysical Survey

A geophysical survey was conducted in November 1996, in an attempt to assess the location, orientation, depth, and width of the paleochannel, and to identify the boundaries of the four absorption beds, the RWSA, and the concrete disposal shaft field.

An electromagnetic survey was conducted using a hand-held, digital, broad-band EM sensor. The survey was conducted along survey lines spaced 2.5 feet apart, with an in-line sampling interval of approximately 1 foot. This interval provided approximately 19,000 sampling locations. A ground-penetrating radar survey was conducted along eleven profiles across the site. Each profile was surveyed with reflection data recorded at 1-foot intervals using three different frequencies. The surveys confirmed, at least

partially, the geodetically surveyed locations of the absorption beds, as well as several local anomalies interpreted to be man-made structures in the area.

Drilling

The drilling and subsurface sampling investigation began in December, 1996. A CME 750 drilling rig, equipped with standard 8.25-inch outside diameter (OD), 4-inch inside diameter (ID) hollow-stem augers, was used to drill each borehole. As the augers were advanced, continuous subsurface core samples were collected using a 3.125-inch O.D., 5-foot long, stainless steel, split-barrel sampler.

A total of 19 boreholes were drilled during the investigation. Eight vertical boreholes were drilled directly through the absorption beds in order to establish the vertical extent of contamination under the beds. Two vertical boreholes were drilled through the former RWSA in order to determine if any contamination exists below the RWSA. Two vertical boreholes were drilled near the east end of the disposal shafts to evaluate the paleochannel and assess whether the paleochannel has provided a pathway for off-site transport of contamination. Four vertical boreholes were drilled outside of the absorption beds to assess the lateral extent of contamination found in the beds. Three angled boreholes were drilled under the disposal shafts to evaluate the presence and vertical extent of contamination beneath the shafts.

Borehole Summaries

<u>21-05051: Absorption Bed 1</u>

The borehole is located in absorption bed #1 (approximately 35 ft from the eastern edge of the surveyed bed location) and was drilled to a depth of 150 ft bgs. The bed has been covered with approximately 6 ft of backfill. The absorption bed is consistent with the description in Rogers' report and contains radiological contamination. The upper moderately welded Unit 3 tuff was noticeably moist in core samples to a depth of 40 ft bgs where it began to dry with depth. The moisture content increased at the contact with the lower unwelded Unit 3 tuff (~60 ft bgs) and remained moist until the Unit 2 tuff contact (~110 ft bgs) where it quickly dried with depth. Elevated radioactivity was found in the bed and in the underlying tuff. The higher levels of rad activity were found in the upper Unit 3 tuff (not in the absorption bed as expected), while lower radiological levels were found in the lower Unit 3 tuff and dropped off dramatically at/near the Unit 2 tuff contact.

Met objective of evaluating RCRA constituents and determining vertical extent of radiological contamination.

<u>21-05052: Absorption Bed 1/Paleochannel</u>

The borehole is located southwest of the MDA-T fence near the NE corner of building TA-21-228 in absorption bed #1 (approximately 18 ft from the western edge of the surveyed bed location) and was drilled to a depth of 150 ft bgs. Backfill material is evident to 6 ft bgs where a layer of decomposed grasses was located. The absorption bed may or may not have been located. The depth at which the absorption bed would be located contains more silt and clays than sand. The paleochannel was located at a depth 10-27 ft bgs. The sands in the upper part of the channel are moist and weakly cemented while the lower sands are moist and non-cemented. A dacite/rhyolite cobble zone was encountered at the bottom of the channel. The tuff beneath the paleochannel does not contain the same visible moisture content as encountered in 21-05051. Radiological contamination was not detected in any fixed lab samples collected from the borehole. Hydrogeologic samples were collected in the upper portion of the paleochannel and submitted to DBS for analyses.

Met objective of evaluating RCRA constituents and determining vertical extent of radiological contamination.

21-05053: Absorption Bed 2

The borehole is located in absorption bed #2 (approximately 35 ft from the western edge of the surveyed bed location) and was drilled to a depth of 90 ft bgs. The bed has been covered with approximately 6 ft of backfill. The absorption bed is consistent with the description in the Rogers report and contains high levels of radiological contamination. Low levels of radiological contamination is in the tuff to approximately 30 ft bgs. From this point on, the radiological contamination was found only in fractures, and increased in the fractures from 30 to 67 ft bgs where they dropped to background levels.

Met objective of evaluating RCRA constituents and determining vertical extent of radiological contamination.

21-05054: Absorption Bed 2

The borehole is located in absorption bed #2 (approximately 43 ft from the eastern edge of the surveyed bed location) and was drilled to a depth of 60 ft bgs. The bed has been covered with approximately 6 ft of backfill. The absorption bed is consistent with the description in the Rogers report and contains elevated radiological contamination. Elevated radioactivity was encountered in the tuff (and fractures) to 36 ft bgs.

Met objective of evaluating RCRA constituents and determining vertical extent of radiological contamination.

21-05055: Absorption Bed 4

The borehole is located in absorption bed #4 (approximately 39 ft from the western edge of the surveyed bed location) and was drilled to a depth of 15 ft bgs. The bed has been covered with approximately 6 ft of backfill. The absorption bed is consistent with the description in the Rogers report and contains high levels of radiological contamination. The auger angled off vertical while drilling with the center bit through the cobble zone at the bottom of the bed. The hole was abandoned and a second borehole (2-05073) was drilled approximately 5 ft west of 21-05055.

Did not meet objective because borehole had to be abandoned.

21-05056: Absorption Bed 4

The borehole is located in absorption bed #4 (approximately 39 ft from the eastern edge of the surveyed bed location) and was drilled to a depth of 50 ft bgs. The bed has been covered with approximately 5 ft of backfill. The absorption bed is consistent with the description in the Rogers report and contains background levels of radioactivity.

Met objective of evaluating RCRA constituents and determining vertical extent of radiological contamination.

21-05057: RWSA/Paleochannel

The borehole is located in the RWSA (approximately 20 ft from the eastern edge of the surveyed RWSA location) and was drilled to a depth of 50 ft bgs. The cover material over the RWSA's surface is indistinguishable from the backfill material in the RWSA. The bottom of the RWSA is believed to be at approximately 20-22 ft bgs. Photographs of the RWSA (before the placement of the CMPs) show that the eastern end of the RWSA was excavated into the paleochannel (sands, gravels, dacite/rhyolite boulders, and cross bedding are evident in the south wall) and that the floor on the eastern end was not excavated into the tuff. Directly beneath the RWSA's floor, the drill penetrated into a moist medium-grained sand

with black dacite boulders. The backfill material in the RWSA has slightly elevated radioactivity while the dacite layer contains very high levels of radioactivity. Note that the dacite/sand layer analysis also had extremely high levels of calcium. This is in the area of a reported spill while filling a CMP with the cement slurry. Photographs of the dacite/sand are available for review. The tuff beneath the paleochannel does not contain any elevated radioactivity (note that fractures in the tuff were not encountered in this hole).

Met objective of evaluating RCRA constituents and determining vertical extent of radiological contamination.

Note: it is possible that the dacite boulders may actually be cement. Due to the high levels of rad, the dacite(?) boulders were not handled nor closely inspected. The sample from this zone consisted of sands and silts with minor pieces of dacite. Similar looking cement was observed in borehole 21-05062 when it breached a disposal shaft.

21-05058: RWSA

The borehole is located in the RWSA (approximately 40 ft from the NW edge of the surveyed RWSA location) and was drilled to a depth of 50 ft bgs. The cover material over the RWSA is indistinguishable from the backfill material in the RWSA. A sharp backfill/tuff contact is located at 18 ft bgs. It is believed that the borehole was drilled into the access road into the main pit of the RWSA. The underlying tuff is solid and non-fractured. Slightly elevated radioactivity was encountered in the backfill material.

Met objective of evaluating RCRA constituents and determining vertical extent of radiological contamination.

21-05059: East of Disposal Shafts/Paleochannel

The borehole is located approximately 10 ft east of the disposal shafts and was drilled to a depth of 50 ft bgs. The upper 8.5 ft consists of cover and overburden material. Paleochannel sands were encountered from 8.5-36.4 ft bgs. The paleochannel consisted of moist fine to course grain sands with varying amounts of small pebbles and gravel. A large tuff boulder was also encountered at 25 ft bgs. The characteristic dacite/rhyolite boulders at the bottom of the channel were not encountered. Elevated radioactivity was not encountered in the channel or underlying tuff.

Met objective of evaluating RCRA constituents and determining lateral extent of radiological contamination.

21-05060: Disposal Shafts and Absorption Bed 2

The borehole is located approximately 30 ft south of absorption bed #2 and was drilled at a 30-degree angle from vertical to the NE to get underneath the disposal shafts. The total length of the borehole is 175 ft, and the vertical depth is approximately 152 ft bgs. Elevated radioactivity (other than tritium) was not encountered. High levels of tritium were found in the nonwelded Unit #3 and Unit #2.

Met objective of evaluating RCRA constituents and determining vertical and lateral extent of radiological contamination.

21-05061: Disposal Shafts

The borehole is located approximately 15 ft north of absorption bed #3 and was drilled at a 35 degree angle from vertical to the SE to get under the disposal shafts. The total length of the borehole is 190 ft and the vertical depth is approximately 157 feet bgs. Elevated radioactivity (other than tritium) was not encountered. High levels of tritium were found in the nonwelded Unit #3 and Unit #2.

Met objective of evaluating RCRA constituents and determining vertical and lateral extent of radiological contamination.

21-05062: Disposal Shafts

The borehole is located approximately 5 ft north of the NE corner of absorption bed #3 and was drilled at a 30 degree angle from vertical to the SE to get under the disposal shafts. The total length of the borehole is 82.5 ft and the vertical depth is approximately 71 ft bgs. Cement was encountered at 79-79.5 linear ft and drilling was stopped. Drilling continued on a 3- ft run to confirm whether or not a disposal shaft was encountered, which we had. The grout from 79-80 linear ft was a dark gray, solid cement. The grout from 80-81.8 linear ft. was moist (similar to moist modelling clay) and contained pieces of a plastic bag and gloves (from 81.8-82.5 linear ft there was no recovery). Elevated radioactivity was not encountered in the tuff, but very high radiological levels were present in the cement grout. Note that the grout is still moist and has not set in over 20 years.

Did not meet objective because borehole was abandoned when disposal shaft was encountered.

21-05063: South of Absorption Bed 1

The borehole is located approximately 25 ft south of absorption bed #1 and was drilled to a depth of 110.5 ft bgs. The intent of this borehole was to assess lateral extent of contamination from absorption bed #1 and tritium to the top of Unit #2. Background levels of radioactivity were detected in the borehole.

Met objective of evaluating RCRA constituents and determining vertical and lateral extent of radiological contamination. May need to further evaluate lateral extent of organics detected.

21-05064: South of Absorption Bed 2/Trench Associated with Building TA-21-35

The borehole is located approximately 25 ft south of absorption bed #2, inside the footprint of former building TA-21-35, and was drilled to a depth of 50 ft bgs. The intent of this borehole was to assess lateral extent of contamination from absorption bed #2. It is believed a trench associated with TA-21-35 was drilled into. Backfill material was encountered, with high levels of radioactivity, to 14 ft bgs. The underlying tuff is solid, non- fractured, and has no elevated radioactivity.

RCRA constituents were not analyzed for per contingency in SAP. Met objective in determining vertical extent of radiological contamination. May need to further evaluate lateral extent of radiological contamination detected in trench in borehole. Trench may have been associated with TA-21-35. Soils in trench were saturated, so may also need to evaluate where water is coming from.

21-05065: North of Absorption Bed 3

The borehole is located approximately 20 ft north of absorption bed #3 and was drilled to a depth of 50 ft bgs. The intent of this borehole was to assess lateral extent of containment from absorption bed #3. Elevated radioactivity was not encountered in the tuff.

Met objective of evaluating RCRA constituents and determining vertical and lateral extent of radiological contamination.

21-05071: East of Disposal Shafts/Paleochannel

The borehole is located approximately 12 ft east of disposal shaft #2 and 14 ft north of borehole 21-05059. Borehole 21-05071 was drilled to a depth of 200 ft bgs. The upper 8.5 ft consists of cover and overburden material. Paleochannel sands were encountered from 8.5-34.3 ft bgs. The paleochannel consisted of moist fine to course grain sands with varying amounts of small pebbles and gravel. The characteristic dacite/rhyolite boulders were encountered at 30.5-34.3 ft bgs (the bottom of the channel). Elevated radioactivity, except tritium, was not encountered in the channel or underlying tuff. Elevated tritium was encountered from approximately 20 ft bgs to approximately 150 ft bgs.

Note: The borehole was drilled to a 200 ft depth chasing tritium "hits" with a hand-held instrument. The tritium results detected with the hand-held instruments did not correlate with tritium results received from the TA-21 radiological screening lab (RSL), i.e., field screening results were much higher than TA-21 radiological lab results. This indicated that we were possibly chasing tritium vapors in the borehole from 150 to 200 ft bgs and not actual tritium contamination.

Met objective of evaluating RCRA constituents and determining vertical and lateral extent of radiological contamination.

21-05073: Absorption Bed 4

The borehole is located in absorption bed #4 (approximately 35 ft from the western edge of the surveyed bed location) and was drilled to a depth of 70 ft bgs. The bed has been covered with approximately 5 ft of backfill. The absorption bed is consistent with the description in the Rogers report and contains elevated radiological contamination. This borehole was drilled 5 ft west of 21-05055, which was terminated at 15 ft bgs after the auger angled off. The TA-21 RSL data indicated that elevated radioactivity was present to the bottom of the hole, but fixed lab data did not confirm the RSL data.

Met objective of evaluating RCRA constituents and determining vertical extent of radiological contamination.

21-05074: North of Absorption Bed 4

The borehole is located approximately 15 ft north of absorption bed #4 and was drilled to a depth of 50 ft bgs. The intent of this borehole was to assess lateral extent of contamination from absorption bed #4. Elevated radioactivity was detected only in the upper 1.5 ft within the cover material.

Met objective of evaluating RCRA constituents and determining vertical and lateral extent of radiological contamination.

21-05075: Absorption Bed 3

The borehole is located in the middle of absorption bed #3 at the overflow pipe location and was drilled to a depth of 70 ft bgs. The bed has been covered with approximately 5 ft of cover material. The absorption bed is consistent with the description in the Rogers report and contains elevated radiological contamination. The tuff underlying the absorption bed contains elevated radioactivity to approximately 22 ft bgs. A large fracture system with elevated radioactivity was encountered from 45-49 ft bgs. A moist silty sand that contained a 1-inch rounded clast of dacite (rhyolite?) was encountered at 47.5-48.5 ft bgs.

Met objective of evaluating RCRA constituents and determining vertical extent of radiological contamination.

MDA T BOREHOLE SUMMARY

Borehole FIMAD ID Number	Inclination (Angle from horizontal)	Azimuth	Total Depth (ft)[1]	Elevation (ft)[2]	Field Screening and Comments
21-05051	90	NA	150	7140.58	20 - 2,600 cpm alpha from 5.0 - 67.5 ft and 140 - 360 cpm beta/gamma from 5.0 - 40.0 ft.
21-05052	90	NA	150	7141.99	No elevated VOCs or radioactivity based on field screening.
21-05053	90	NA	90	7140.70	40 - 26,000 cpm alpha and 120 - 3,800 cpm beta/gamma from 2.5 - 60 ft.
21-05054	90	NA	60		40 - 8,000 cpm alpha and 120 - 1,600 cpm beta/gamma from 5.0 - 45.0 ft.
21-05055	90	NA	15	7134.35	700 - 1,060 cpm alpha and 220 - 460 cpm beta/gamma from 8.5 - 15.0 ft. Refusal at 15 ft. Replaced with 21-05063
21-05056	90	NA	50	7133.94	60 and 67 cpm alpha at 10 - 12.5 ft and 15.0 - 17.5 ft, respectively.
21-05057	90	NA	50	7137.79	15 - 52,000 cpm alpha and 320 - 40,000 cpm beta/gamma from 20 30 ft based on field screening.
21-05058	90	NA	50	7137.15	No elevated VOCs or radioactivity based on field screening.
21-05059	90	NA	50	7136.96	No elevated VOCs or radioactivity based on field screening.
21-05060	60	N44E	175	7141.92	No elevated VOCs or radioactivity based on field screening.
21-05061	55	S22E	190	7133.93	No elevated VOCs or radioactivity based on field screening.
21-05062	60	S10E	82.5	7133.36	No elevated VOCs or radioactivity based on field screening from surface to a depth of 75 ft. 25,000 - 43,000 cpm alpha and 10,000 - 20,000 cpm beta/gamma from 75 - 83 ft where disposal shaft encountered. Drilling terminated after contacting disposal shaft
21-05063	90	NA	110.5	7142.66	No elevated VOCs or radioactivity based on field screening.
21-05064	90	NA	50	7141.78	25 - 350 cpm alpha and 200 - 400 cpm beta/gamma from 7.5 - 15.0 ft.
21-05065	90	NA	50	7132.36	No elevated VOCs or radioactivity based on field screening.
21-05071	90	NA	200	7135.81	No elevated VOCs or radioactivity based on field screening.
21-05073	90	NA	70	7134.25	40 - 2,570 cpm alpha and 200 - 600 cpm beta/gamma at 5.0 - 17.5 ft. 60 - 100 cpm alpha and 120 - 140 cpm beta/gamma at 35 - 50 ft.
21-05074	90	NA	50	7132.29	1,000 cpm alpha and 165 cpm beta/gamma from 0.0 - 2.5 ft. 60 cpm alpha and 140 cpm beta/gamma at 25 - 27.5 ft.
21-05075	90	NA	70	7135.84	20 - 115 cpm alpha and 200 - 300 cpm beta/gamma from 7.5 - 22.5 ft. 55 - 115 cpm alpha and 120 - 140 cpm beta/gamma from 45 - 50 ft.

1 - Depth indicated is the vertical depth below ground surface except for the angled holes, in which the total depth indicated is the linear drilling footage.
2 - Elevation in feet above mean sea level.

VI. Summary

1. Current site surface is not original surface. Fill cap emplaced in late 1980s. Surface investigations in 1984 and '86 were conducted on original surface. The surface investigation conducted in 1993 was conducted on the cap.

2. Radioactive contamination was detected beneath beds 1, 2, 3, and 4. Radioactive contamination beneath bed 1 was found to extend to a depth of approximately 100 ft, which concurs with Nyhan's 1978 results. Radioactive contamination beneath bed 2 extends to approximately 67 ft, but the concentrations were higher than those detected in bed 1. We think differences between beds 1 and 2 are result of infiltration experiments in bed 1. Contamination beneath beds 3 and 4 to depths of 21 and 12 ft, respectively. Elevated rad detected at a depth of approximately 45 ft beneath bed 3 in a fracture. Rad contamination also detected at depth in fractures in other boreholes.

3. Little to no lateral rad contamination outside of absorption beds with exception of tritium detected in boreholes drilled on east side of disposal shafts and borehole drilled into old trench between bed 2 and building TA-21-35 footprint.

4. Cement in at least one disposal shaft has not completely cured in 25+ years since the disposal shafts were filled. Very high levels of americium and plutonium in cement.

5. Organics detected in 14 boreholes, but vast majority of the data is "J", "B", or "JB" qualified. Non-qualified organics were detected in eight boreholes as summarized below:

   - SVOCs at 5 ft, acetone at 5 ft, and TCE at 5, 10, and 20 ft in 21-05057 (RWSA)
   - 2-Hexanone at 3 ft (common lab contaminant but not qualified as "B") and PCE at 9 ft in 21-05073 (Bed 4)
   - Toluene at 3.5 ft, 7.5 ft, 8.2 ft, and 11.2 ft and TCE at 7.5 ft in 21-05054 (Bed 2)
   - Toluene at 4.6, 7.0, and 10.0 ft and 4-isopropyltoluene at 7.0 and 10.0 ft in 21-05053 (Bed 2)
   - Toluene at 6.5, 9.0, and 14.5 ft in 21-05051 (Bed 1)
   - PCE at 5.5 ft in 21-05062 (Angled hole that hit disposal shaft)
   - Toluene at 6.0 ft in 21-05061 (Angled hole beneath Bed 3 and disposal shafts)
   - Methylene Chloride at 119 and 129.5 ft in 21-05060 (Angled hole beneath Bed 2 and shafts)

6. Angled boreholes beneath disposal shafts revealed:

   - Am-241 greater than SAL at 70 linear feet (60.6 vertical feet) and tritium greater than SAL from 118 to 130 linear feet (102.2 - 112.6 vertical ft) in borehole 21-05060 (beneath bed 2)
   - Plutonium greater than SAL at 10.5 linear feet (8.6 vertical feet) and tritium greater than SAL at 180.5 linear feet (148 vertical feet) in borehole 21-05061 (beneath bed 3)
   - No rad greater than SAL in borehole 21-05062 (until we hit the disposal shaft).

VII. QUESTIONS

1. Were objectives met for each borehole? If not, why? Do we need to drill more boreholes. If so, where?

2. Cobble layer within absorption bed was not sampled. Radioactivity within cobble layer is likely very high. Is this a concern? Do we need to sample the cobble layer in each bed?

3. What is the effect of fracture flow at site? What is the amount of contaminant absorption into the tuff?

4. Organics were detected in 14 boreholes. Vast majority were "J", "B", and/or "JB" qualified and shallow, i.e., within or immediately beneath absorption beds. Occasional detects at depth. Do we have a larger organics "plume"? Do we need to do more organic sampling or soil gas survey? NMED likely to question sample collection for organics because of time it took to collect samples. All core was screened for radioactivity before samples collected.

5. Do we need more geologic/hydrogeologic characterization of paleochannel including extent to the east and west and width? Do we need to characterize the paleochannel west of Bldg 228 and through TA-21 to evaluate liquid and contaminant flow threw paleochannel from other sources? Do we need to characterize the paleochannel east of MDA T, between MDA T and MDA A, and east of MDA A? Does the paleochannel also cross through or beneath MDA A and/or MDA U?

6. Where did moisture in trench encountered by Borehole 21-05074 come from and where is it going? Is it a concern to MDA T investigation and ultimate remedial action? How may it be addressed?

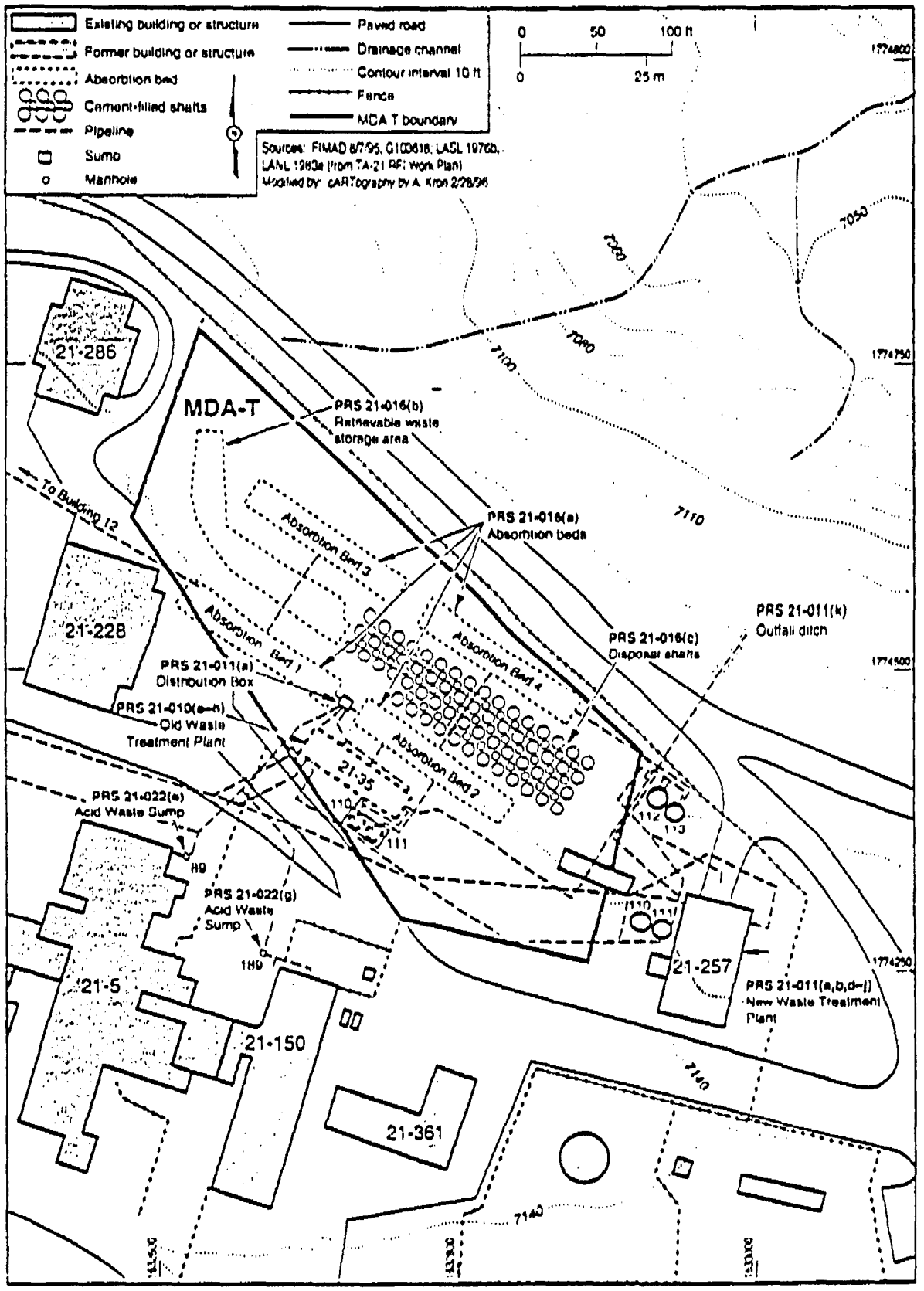
VIII. REFERENCES

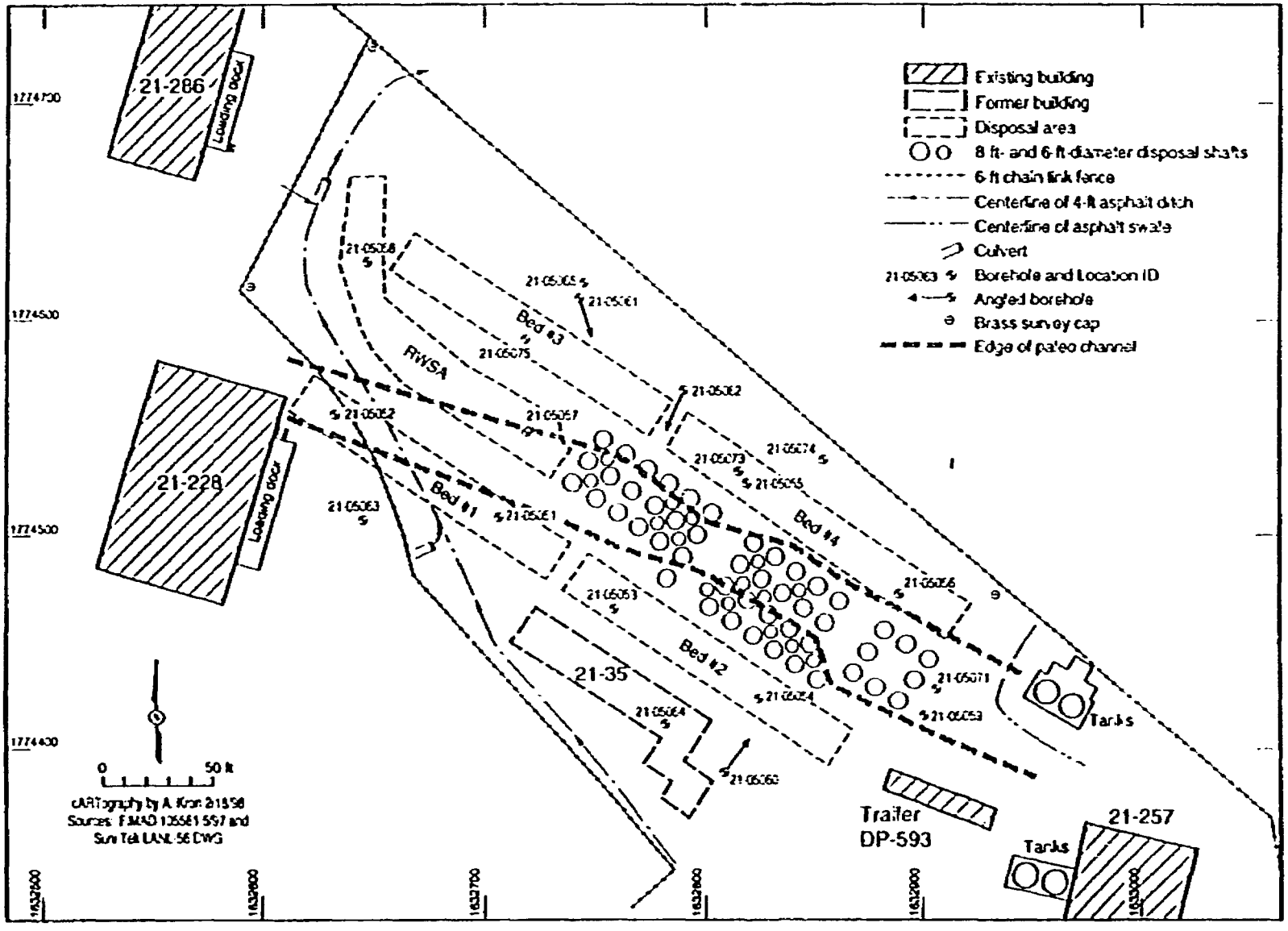
LANL (Los Alamos National Laboratory), November 1990. "Solid Waste Management Units Report," Volumes I through IV, Los Alamos National Laboratory Report No. LA-UR-90-3400, prepared by International Technology Corporation under Contract 9-XS8-0062R-1, Los Alamos, New Mexico. (LANL 1990, 0145)

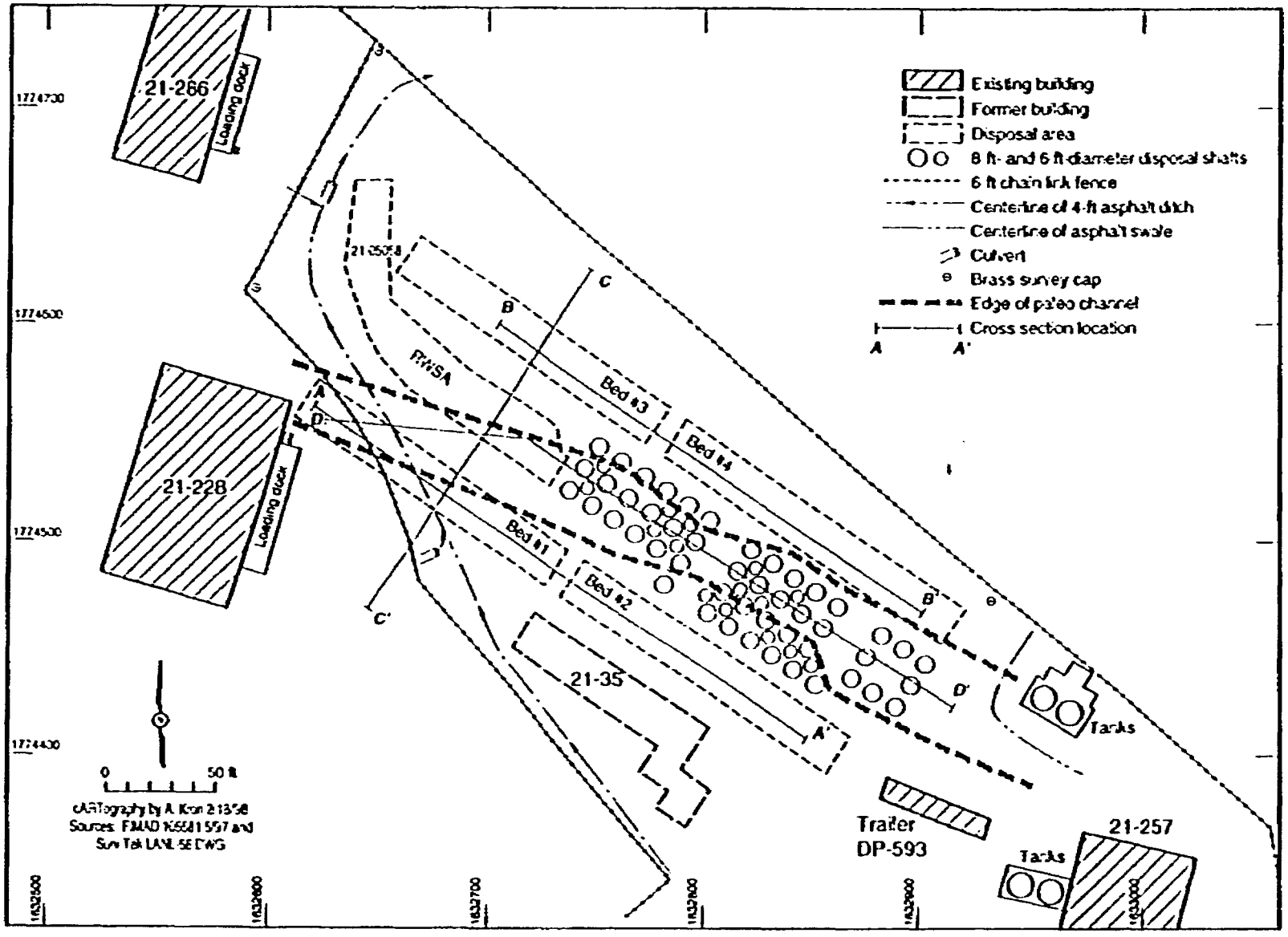
LANL (Los Alamos National Laboratory), May 1991. "TA-21 Operable Unit RFI Work Plan for Environmental Restoration," Volumes I-III, Los Alamos National Laboratory Report LA-UR-91-962, Los Alamos, New Mexico. (LANL 1991, 0689)

Nyhan, J. W., and B. J. Drennon, September 1993. "Data Analysis of the 1984 and 1986 Soil Sampling Programs at Materials Disposal Area T in the Los Alamos National Laboratory," Los Alamos National Laboratory Report, Los Alamos, New Mexico. (Nyhan and Drennon 1993, 23248)

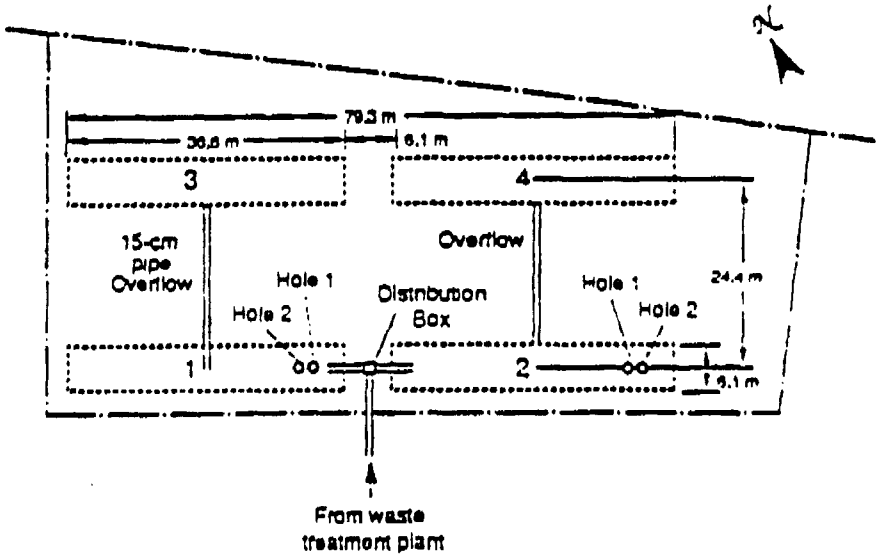
Rogers, M. A., June 1977. "History and Environmental Setting of LASL Near-Surface Land Disposal Facilities for Radioactive Wastes (Areas A, B, C, D, E, F, G, and T)," Los Alamos Scientific Laboratory Report LA-6848-MS, Vols. I and II, Los Alamos, New Mexico. (Rogers 1977, 0216)


Existing building or structure
Former building or structure
Absorption bed
Cement-filled shafts
Pipeline
Sump
Manhole
Paved road
Drainage channel
Contour interval 10 ft
Fence
MDA T boundary
0 50 100 ft
0 25 m
Sources: FIMAD 8/7/95, G100616, LASL 1976b, LANL 1983a (from TA-21 RFI Work Plan)
Modified by: cARTography by A. Kron 2/28/96
MDA-T
PRS 21-016(b)
Retrievable waste storage area
PRS 21-016(a)
Absorption beds
Absorption Bed 3
Absorption Bed 1
Absorption Bed 4
Absorption Bed 2
PRS 21-016(c)
Disposal shafts
PRS 21-011(k)
Outfall ditch
PRS 21-011(a)
Distribution Box
PRS 21-010(a-h)
Old Waste Treatment Plant
PRS 21-022(e)
Acid Waste Sump
PRS 21-022(g)
Acid Waste Sump
PRS 21-011(a,b,d-j)
New Waste Treatment Plant
To Building 12
21-286
21-228
21-5
21-150
21-361
21-257
21-35
110
111
112
113
189
7050
7060
7090
7100
7110
7140
1774800
1774750
1774500
1774250

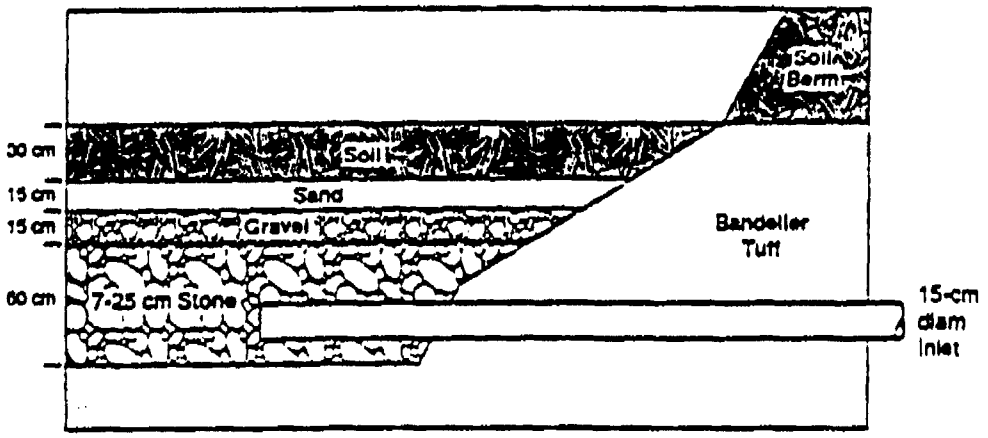

Existing building
Former building
Disposal area
8 ft- and 6-ft-diameter disposal shafts
6-ft chain link fence
Centerline of 4-ft asphalt ditch
Centerline of asphalt swale
Culvert
Borehole and Location ID
Angled borehole
Brass survey cap
Edge of paleo channel
21-286
Loading dock
21-228
Loading dock
21-35
21-257
Trailer
DP-593
Tanks
Tanks
Bed #1
Bed #2
Bed #3
Bed #4
RWSA
0
50 ft
1774700
1774600
1774500
1774400
1632600
1632700
1632800
1632900
1633000

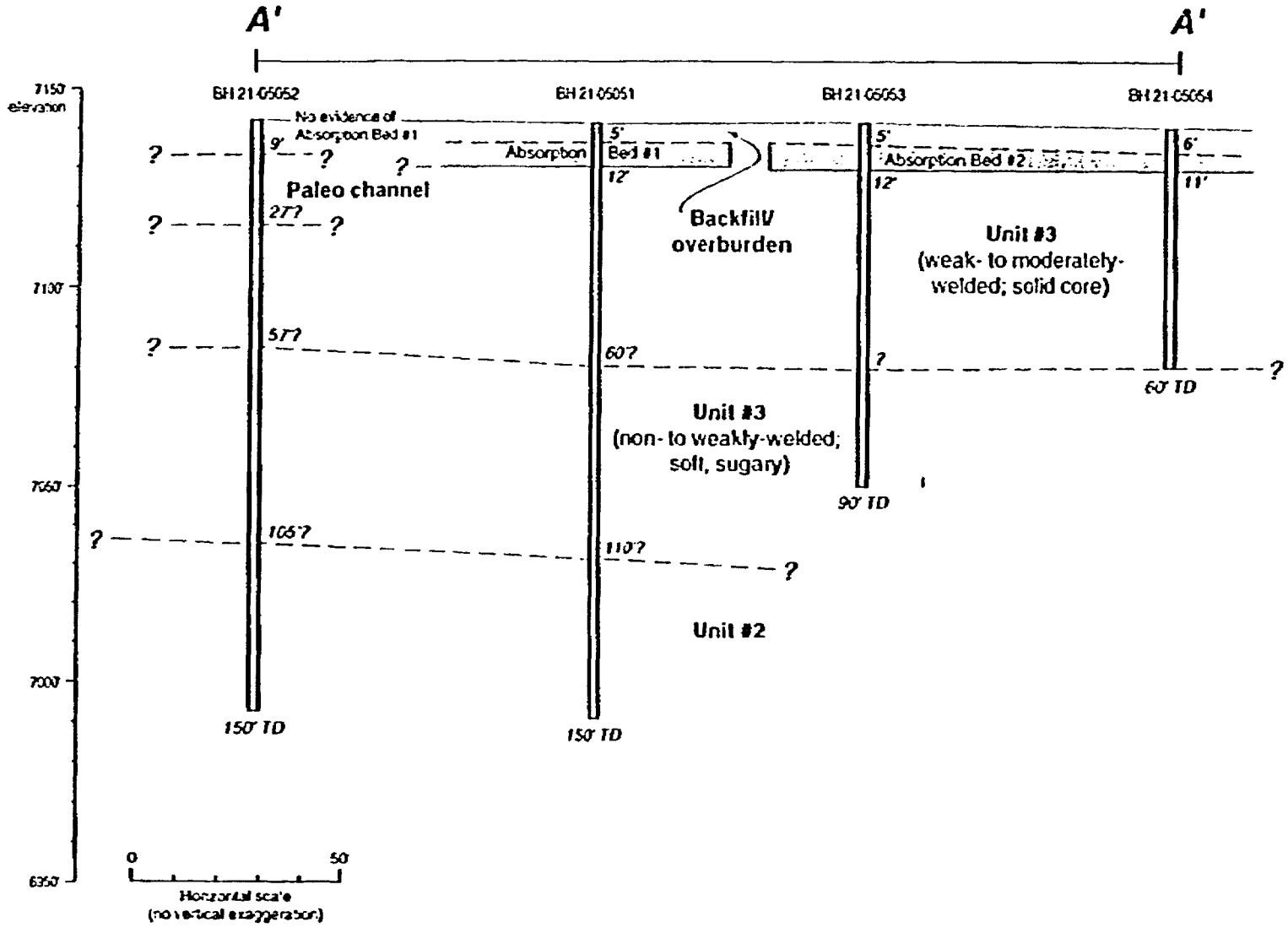

Existing building
Former building
Disposal area
8 ft- and 6 ft-diameter disposal shafts
6 ft chain link fence
Centerline of 4-ft asphalt ditch
Centerline of asphalt swale
Culvert
Brass survey cap
Edge of paleo channel
Cross section location
A A'
21-266
Loading dock
21-228
Loading dock
21-35
21-257
Tanks
Tanks
Trailer
DP-593
RWSA
Bed #1
Bed #2
Bed #3
Bed #4
A
A'
B
B'
C
C'
D
D'
0 50 ft
1774700
1774600
1774500
1774400
1632500
1632600
1632700
1632800
1632900
1633000

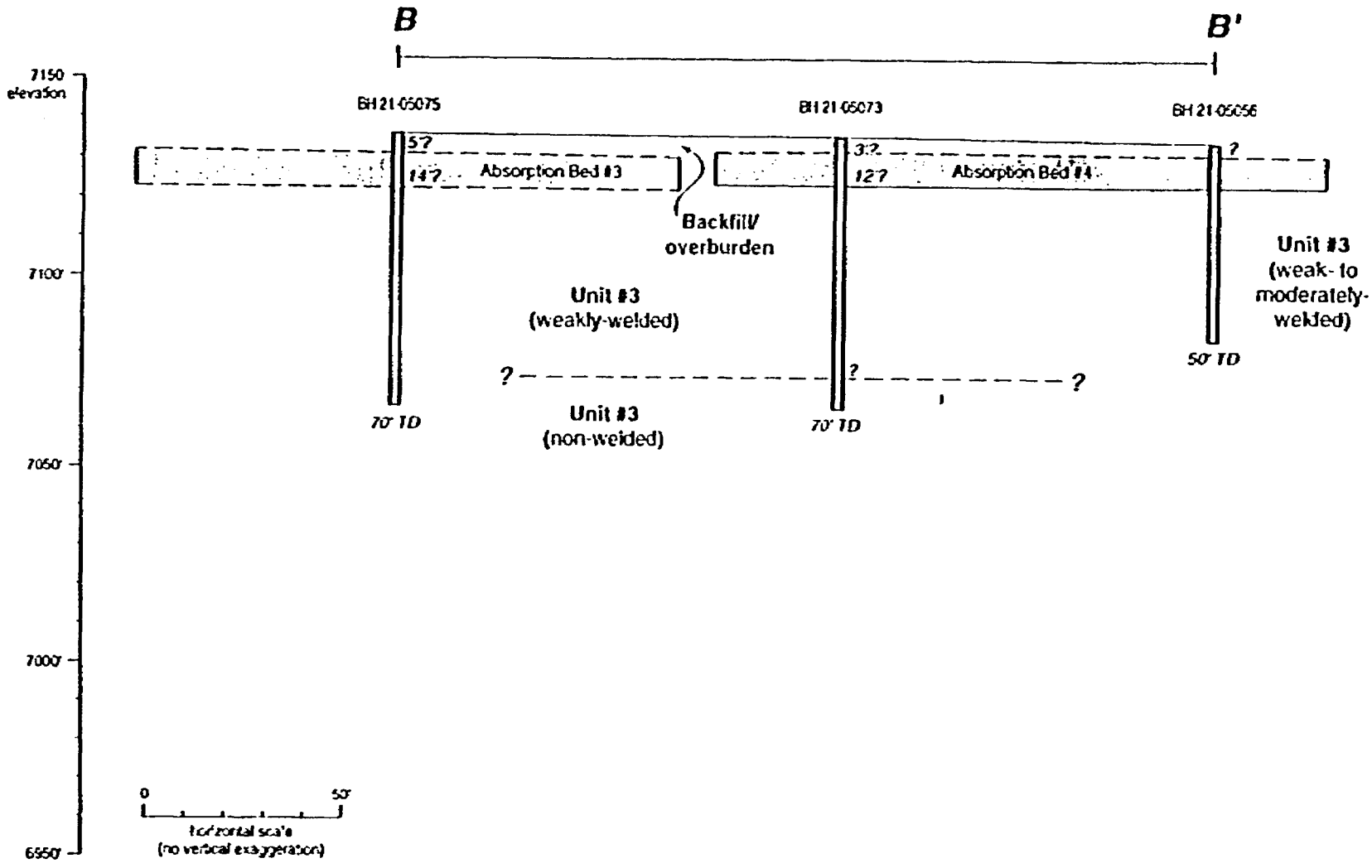
(a)

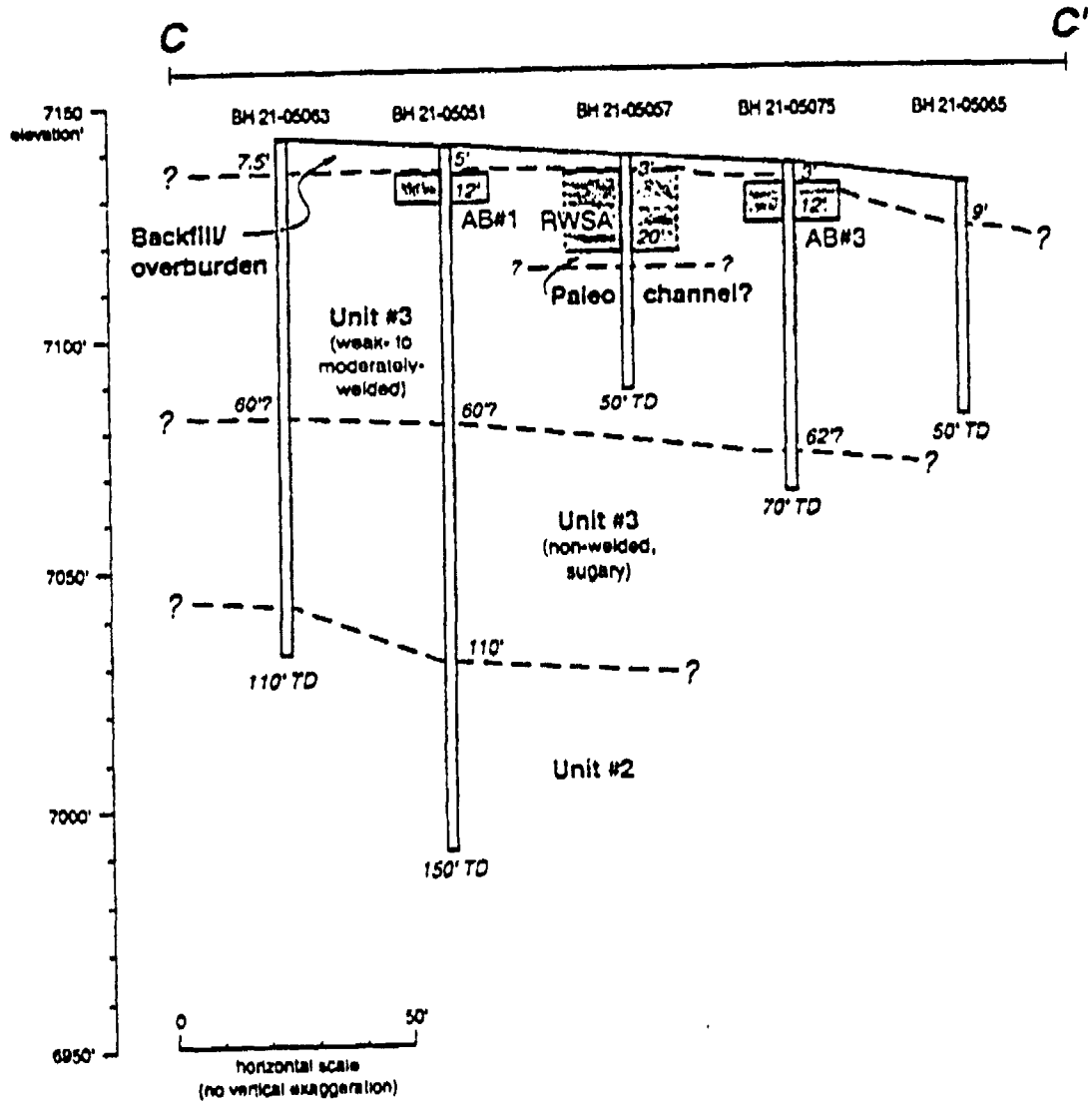

N
79.3 m
36.6 m
6.1 m
3
4
15-cm
pipe
Overflow
Overflow
Hole 1
Hole 2
Distribution
Box
Hole 1
Hole 2
24.4 m
1
2
6.1 m
From waste
treatment plant

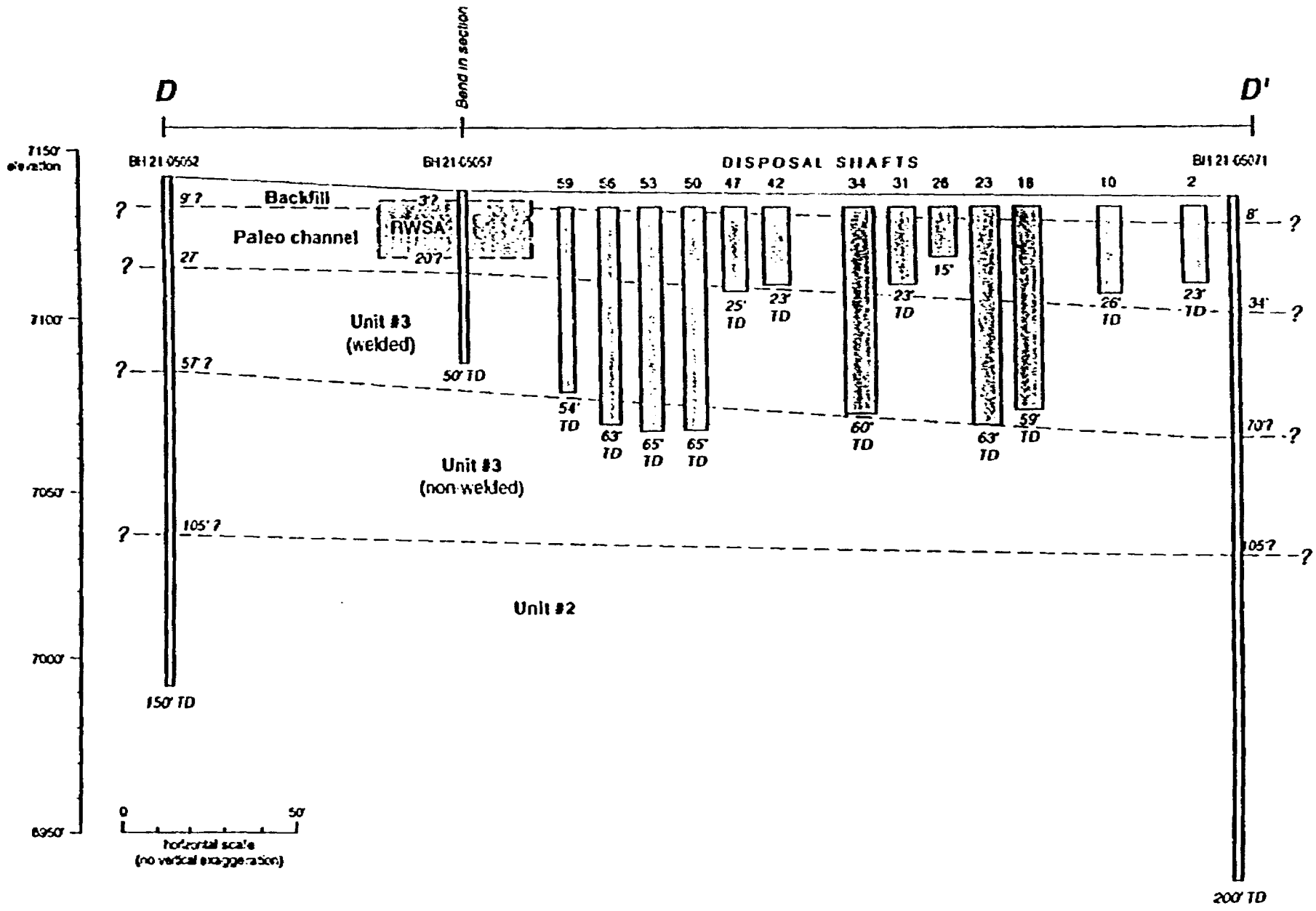
(b)


Soil
Berm
30 cm
Soil
15 cm
Sand
15 cm
Gravel
Bandelier
Tuff
60 cm
7-25 cm Stone
15-cm
diam
Inlet


A'
A'
7150 elevation
7100
7050
7000
6950
BH21-05052
BH21-05051
BH21-05053
BH21-05054
No evidence of Absorption Bed #1
Absorption Bed #1
Absorption Bed #2
9'
5'
12'
5'
12'
6'
11'
Paleo channel
27?
Backfill/ overburden
Unit #3 (weak- to moderately-welded; solid core)
57?
60?
60' TD
Unit #3 (non- to weakly-welded; soft, sugary)
90' TD
105?
110?
Unit #2
150' TD
150' TD
0
50
Horizontal scale (no vertical exaggeration)


B
B'
7150
elevation
7100'
7050'
7000'
6950'
BH21-05075
BH21-05073
BH21-05056
5?
14?
Absorption Bed #3
3?
12?
Absorption Bed #4
?
Backfill/
overburden
Unit #3
(weakly-welded)
Unit #3
(weak- to
moderately-
welded)
50' TD
70' TD
70' TD
Unit #3
(non-welded)
0
50'
horizontal scale
(no vertical exaggeration)


C
C'
7150 elevation'
7100'
7050'
7000'
6950'
BH 21-05063
BH 21-05051
BH 21-05057
BH 21-05075
BH 21-05065
7.5'
5'
3'
3'
12'
AB#1
RWSA
20'
12'
AB#3
9'
Backfill/ overburden
Paleo channel?
Unit #3 (weak- to moderately-welded)
60'?
60'?
62'?
50' TD
50' TD
70' TD
Unit #3 (non-welded, sugary)
110'
110' TD
Unit #2
150' TD
0
50'
horizontal scale (no vertical exaggeration)


D
D'
Bend in section
7150' elevation
7100'
7050'
7000'
6950'
BH21-05052
BH21-05057
BH21-05071
DISPOSAL SHAFTS
59 56 53 50 47 42 34 31 26 23 18 10 2
Backfill
Paleo channel
RWSA
Unit #3 (welded)
Unit #3 (non-welded)
Unit #2
9'?
3'?
20'?
2'?
57'?
105'?
50' TD
54' TD
63' TD
65' TD
65' TD
25' TD
23' TD
60' TD
23' TD
15'
63' TD
59' TD
26' TD
23' TD
8'
34'
70'?
105'?
150' TD
200' TD
0
50'
horizontal scale
(no vertical exaggeration)

TA-21, MDA T
Borehole Stratigraphic Summary

Borehole FIMAD ID #	Elev. (ft)	Total Depth (ft)	Angle (degrees from vertical)	Backfill / Overburden	Absorption Bed	RWSA	Paleo-channel
21-05051	7141	150	vert.	0-6 ft	#1 6-12 ft	n/a	n/a
21-05052	7142	150	vert.	0-6 ft	#1 6-10 ft (?)	n/a	10-27 ft
21-05053	7141	90	vert.	0-5 ft	#2 5-12 ft	n/a	n/a
21-05054	7140(?)	60	vert.	0-6 ft	#2 6-11 ft	n/a	n/a
21-05055	7134	15	vert.	0-7 ft	#4 7-13 ft	n/a	n/a
21-05056	7134	50	vert.	0-4 ft	#4 4-10 ft	n/a	n/a
21-05057	7138	50	vert.	0-3 ft	n/a	3-21 ft	21-24 ft
21-05058	7137	50	vert.	0-2 ft	n/a	2-18 ft	n/a
21-05059	7137	50	vert.	0-8 ft	n/a	n/a	8-36 ft
21-05060	7142	175	30	0-7 ft	n/a	n/a	n/a
21-05061	7134	190	35	0-10 ft	n/a	n/a	n/a
21-05062	7133	82.5	30	0-6 ft	n/a	n/a	n/a
21-05063	7143	110.5	vert.	0-8 ft	n/a	n/a	n/a
21-05064	7142	50	vert.	0-4 ft	n/a	n/a	n/a
21-05065	7132	50	vert.	0-9 ft	n/a	n/a	n/a
21-05071	7136	200	vert.	0-8 ft	n/a	n/a	8-34 ft
21-05073	7134	70	vert.	0-5 ft	#4 5-12 ft	n/a	n/a
21-05074	7132	50	vert.	0-5 ft	n/a	n/a	n/a
21-05075	7136	70	vert.	0-5 ft	#3 5-14 (?)ft	n/a	n/a
	Total	1713					

TA-21, MDA T
Borehole Stratigraphic Summary

Borehole FIMAD ID #	Disposal Shafts	Unit 3 (welded)	Unit 3 (nonwelded)	Unit 2	Unit 1v
21-05051	n/a	12-60 ft	60-111 ft	111-150 ft (TD)	n/a
21-05052	n/a	27-57 ft	57-105 ft	105-150 ft (TD)	n/a
21-05053	n/a	12-60 ft	60-90 ft (TD)	n/a	n/a
21-05054	n/a	11-60 ft (TD)	n/a	n/a	n/a
21-05055	n/a	13-15 ft (TD)	n/a	n/a	n/a
21-05056	n/a	10-50 ft (TD)	n/a	n/a	n/a
21-05057	n/a	24-50 ft (TD)	n/a	n/a	n/a
21-05058	n/a	18-50 ft (TD)	n/a	n/a	n/a
21-05059	n/a	36-50 ft (TD)	n/a	n/a	n/a
21-05060	East End of Shaft Field	7-85 ft	85-145 ft	145-175 ft (TD)	n/a
21-05061	West End of Shaft Field	10-70 ft	70-120 ft	120-190 ft (TD)	n/a
21-05062	Center of Shaft Field	10-79 ft (79-82.5 grout) (TD)	n/a	n/a	n/a
21-05063	n/a	8-65 ft	65-100 ft	100-110.5 ft (TD)	n/a
21-05064	n/a	14-50 ft (TD)	n/a	n/a	n/a
21-05065	n/a	9-50 ft (TD)	n/a	n/a	n/a
21-05071	n/a	34-70 ft	70-105 ft	105 - 190 ft (?)	190 (?)-200 ft (TD)
21-05073	n/a	12-62 ft	62-70 ft (TD)	n/a	n/a
21-05074	n/a	5-50 ft (TD)	n/a	n/a	n/a
21-05075	n/a	14-70 (?) ft (TD)	n/a	n/a	n/a

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	βγ (cpm)	Tritium (nCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
21-05058	RWSA	12/10/96	0.0	2.5				NDA	NDA	0	0.0									
			2.5	5.0	0491	4.5	5.0	NDA	NDA	0	0.0	2.6	17.9	6.5	2.7	4.7			4.5	
			5.0	7.5				NDA	NDA	0	0.0									
			7.5	10.0	0492	7.7	8.2	NDA	NDA	0	0.0	19.7	37.3	8.1	6.5	14.5			5.6	
			10.0	12.5				NDA	NDA	0	0.0									
			12.5	15.0	0493	14.5	15.0	NDA	NDA	0	0.0	6.9	14.4	10.3	3.2	3.7			5.5	
		12/11/96	15.0	17.5				NDA	NDA	0	0.0									
			17.5	20.0	0494	17.5	18.2	NDA	NDA	0	0.0	11.5	15.6	28.3	5.5	2.7			6.5	
			20.0	22.5				NDA	NDA	0	0.0									
			22.5	25.0				NDA	NDA	0	0.0									
			25.0	30.0	0495	29.5	30.0	NDA	NDA	0	0.0	1.0	15.5	6.3	2.3	2.6			5.5	
			30.0	35.0				NDA	NDA	0	0.0									
			35.0	40.0	0496	39.5	40.0	NDA	NDA	0	0.0	1.6	17.1	6.6	2.5	2.5			6.3	
			40.0	45.0				NDA	NDA	0	0.0									
			45.0	50.0	0497	49.5	50.0	NDA	NDA	0	0.0	2.1	13.3	3.3	1.9	2.0			8.2	X
21-05065	N of Bed 3	12/13/96	0.0	2.5				NDA	NDA	0	0.0									
			2.5	5.0	0621	4.5	5.0	NDA	NDA	0	0.0	0.0	21.3	5.9	2.7	5.5			4.9	X
			5.0	7.5				NDA	NDA	0	0.0									
			7.5	10.0				NDA	NDA	0	0.0									
			10.0	12.5	0622	10.0	10.5	NDA	NDA	0	0.0	9.5	18.8	5.4	3.4	9.4			5.9	
			12.5	15.0				NDA	NDA	0	0.0									
		12/15/96	15.0	20.0	0623	19.5	20.0	NDA	NDA	0	0.0	3.8	21.1	6.3	3.1	8.4			3.6	
			20.0	25.0				NDA	NDA	0	0.0									
			25.0	30.0	0624	29.5	30.0	NDA	NDA	0	0.0	4.4	22.8	7.0	3.1	21.6			4.2	
			30.0	35.0				NDA	NDA	0	0.0									
			35.0	40.0	0625	39.5	40.0	NDA	NDA	0	0.0	1.1	23.7	6.8	3.2	21.7			5.1	
			40.0	45.0				NDA	NDA	0	0.0									
			45.0	50.0	0626	48.2	48.7	NDA	NDA	0	0.0	2.9	22.6	6.0	3.1	22.8			5.8	
21-05067	RWSA	12/18/96	0.0	2.5				NDA	NDA	0	0.0									
			2.5	5.0	0481	4.3	5.0	NDA	NDA	0	0.0	9.7	32.5	32.2	7.4	8.2			4.7	X
			5.0	7.5				NDA	NDA	0	0.0									
			7.5	10.0	0482	9.5	10.0	NDA	NDA	0	0.0	18.2	29.4	6.6	5.4	35.2			4.8	X
			10.0	12.5				NDA	NDA	0	0.0									
			12.5	15.0				NDA	NDA	0	0.0									
			15.0	17.5				NDA	NDA	0	0.0									
			17.5	20.0	0483	19.5	20.0	NDA	NDA	0	0.0	4.8	15.2	27.3	4.7	120.4			6	X
		12/19/96	20.0	22.5				20	320	0	0.0									
			22.5	25.0	0484	22.5	23.9	52000	40000	90	0.0	5.33E+04	4.79E+03	4.12E+05	470090					
			25.0	27.5				NDA	NDA	0	0.0									

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-0000) (0121-97-0000)	From (feet)	To (feet)	α (cpm)	β-γ (cpm)	Tritium (nCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			27.5	30.0	0465	29.5	30.0	15	NDA	0	0.0	3.9	29.8	6.5	40	3353			24.2	
			30.0	35.0				NDA	NDA	0	0.0									
			35.0	40.0	0466	39.5	40.0	NDA	NDA	0	0.0	9.3	16.4	4.6	30	4928			4.7	
			40.0	45.0				NDA	NDA	0	0.0									
			45.0	50.0	0487	49.5	50.0	NDA	NDA	0	0.0	6.1	18.5	4.5	31	2535			6.3	
21-05065	Bed 4	1.7.97	0.0	2.5				NDA	NDA	0	0.0									
		(Refusal)	2.5	5.0	0081	3.5	4.0	NDA	NDA	0	0.0	17.5	23.4	4.7	45	ND			6.7	
			5.0	7.5				NDA	NDA	0	0.0									
			7.5	10.0	0082	8.5	9.0	700	220	0	0.0	7890	32.1	63.6	685	381			4.2	
			10.0	12.5	Center Bit															
			12.5	15	0083	14.5	15.0	1060	450	0	0.0	2140	56.9	216	2413	545			4.7	
21-05073	Bed 4	1.3.97	0.0	2.5				NDA	NDA	0	0.0									
			2.5	5.0	0326	2.5	3.0	NDA	NDA	0	0.0	12.7	15.0	6.3	34	ND			5.1	X
			5.0	7.5				40	NDA	0	0.0									
			7.5	9.0	0327	8.5	9.0	2570	600	0	0.0	3260	17.8	427	3385	326			3.8	X
			9.0	11.5	Center Bit															
			11.5	15.0	0328	11.7	12.2	682	260	0	0.0	12600	31.2	2160	1507	290			4.5	
		1.9.97	15.0	17.5				100	200	0	0.0									
			17.5	20.0				NDA	NDA	0	0.0									
			20.0	25.0	0329	22.0	23.0	NDA	NDA	0	0.0	27.3	13.4	5.7	46	207			4.2	
			25.0	30.0				NDA	NDA	0	0.0									
			30.0	35.0	0330	32.0	32.5	NDA	NDA	0	0.0	20.8	24.0	4.7	49	318			5.6	
			35.0	40.0				60	120	0	0.0									
			40.0	45.0	0331	42.0	42.5	65	140	0	0.0	21.8	14.5	5.6	42	570			6.1	X
			45.0	50.0	0332	45.5	47.0	100	140	0	0.0	0.0	14.8	5.4	20	702			5.1	
			50.0	52.5				NDA	NDA	0	0.0									
			52.5	55.0				NDA	NDA	0	0.0									
			55.0	60.0				NDA	NDA	0	0.0									
			60.0	62.5	0333	61.8	62.5	NDA	NDA	0	0.0	57.0	45.2	4.7	107	518			4.1	
			60.0	62.5	0401 FD	61.8	62.5	NDA	NDA	0	0.0	*Not Submitted to Screening Facility								
			62.5	65.0				NDA	NDA	0	0.0									
			65.0	67.5				NDA	NDA	0	0.0									
			67.8	70.0	0334	69.5	70.0	NDA	NDA	0	0.0	97.3	65.7	5.4	188	422			4.2	
21-05066	Bed 4	1.13.97	0.0	2.5				NDA	NDA	0	0.0									
			2.5	5.0	0096	4.5	5.0	NDA	NDA	0	0.0	5.2	37.4	6.2	43		0.2	0.0	7	X
			5.0	7.5				NDA	NDA	0	0.0									
		1.15.97	7.5	8.5				NDA	NDA	0	0.0									
			8.5	9.5	Center Bit			-	-	-	-									
			9.5	10.0				NDA	NDA	0	0.0									

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	β-γ (cpm)	Tritium (uCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			10.0	12.5	0097	11.8	12.2	60	NDA	0	0.0	2.2	27.8	4.5	3.5		0.1	0.0	8	
			12.5	15.0				NDA	NDA	0	0.0									
			15.0	17.5				67	NDA	0	0.0									
			17.5	20.0				NDA	NDA	0	0.0									
			20.0	25.0	0096	20.0	20.5	NDA	NDA	0	0.0	6.4	32.7	4.3	4.3		0.6	0.0	7	X
			25.0	30.0	0099	29.0	29.5	NDA	NDA	0	0.0	5.9	16.5	5.4	2.8		1.4	0.1	8	
			30.0	35.0	*No Recovery															
			35.0	40.0	0100	39.0	39.5	NDA	NDA	0	0.0	5.5	25.5	4.2	3.5		1.6	0.1	6	
			40.0	42.5				NDA	NDA	0	0.0									
			42.5	45.0				NDA	NDA	0	0.0									
			45.0	50.0	0101	49.5	50.0	NDA	NDA	0	0.0	12.3	23.4	4.3	4.0		1.6	0.2	9	
21-05054	Bed 2	1-17-97	0.0	2.5				NDA	NDA	0	0.0									
			2.5	5.0	0066	3.0	3.5	NDA	NDA	0	0.0	9.71	8.44	7.01	2.5		ND		5	X
			5.0	7.5	0067	5.0	7.5	1125	300	0	0.0	5150	29.5	1010	6190		0.8	0.1	10	X
			7.5	8.5	0068	7.5	8.2	3800	1000	0	0.0	32500	181	2810	35491		4.7	0.3	6	X
			8.5	10.0	Center Bit															
			10.0	12.5	0069	10.5	11.2	8000	1600	0	0.0	26000	194	3500	31694		0.1	0.0	6	X
			12.5	15.0	0070	14.2	15.0	800	260	0	0.0	842	35.7	867	1745		0.1	0.0	10	
			15.0	17.5				120	220	0	0.0									
			17.5	20.0				40	120	0	0.0									
			20.0	25.0	0071	21.8	22.1	2600	500	0	0.0	169	25.6	165	361		0.8	0.0	5	X
			25.0	30.0				NDA	NDA	0	0.0									
			30.0	35.0	0072	32.0	32.5	65	160	0	0.0	38.4	29.9	43	117		1.1	0.1	6	
		1-20-97	35.0	40.0	0073	35.5	36.0	450	160	0	0.0	151	37.4	204	392		1.0	0.1	7	
			40.0	45.0				45	120	0	0.0									
			45.0	50.0				NDA	NDA	0	0.0									
			50.0	55.0	0074	50.0	50.5	NDA	NDA	0	0.0	666	19.9	468	31		2.4	0.1	5	
			55.0	60.0	0075	59.5	60.0	NDA	NDA	0	0.0	16.4	29	677	52		0.7	0.0	5	
21-05053	Bed 2	1-21-97	0.0	2.5				NDA	NDA	0	0.0									
			2.5	5.0	0061	4.2	4.6	950	400	0	0.0	3300	166	1470	4936		30	1.6	5	X
			5.0	7.5	0062	6.5	7.0	550	2400	0	0.0	3510	683	889	5068		138	10.1	7	X
			5.0	7.5	0064 FD	6.5	7.0	550	2400	0	0.0	*Not Submitted to Screening Facility								X
			7.5	10.0	0063	9.5	10.0	26000	3800	0	0.0	29100	179	1430	31009		2070	64.0	3	X
			10.0	12.5	Center Bit															
			12.5	15.0	0064	12.5	13.0	160	140	0	0.0	362	35	112	509		Lab Lost Sample			
			15.0	17.5	0065	17.0	17.3	40	120	0	0.0	94.1	21.2	181	226		310	30.7	9	

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-x000) (0121-97-x000)	From (feet)	To (feet)	α (cpm)	β/γ (cpm)	Tritium (uCi/ml)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			17.5	20.0				150	120	0	0.0									
			20.0	25.0	0056	20.5	21.5	100	140	0	0.0	82.9	159	135	234		ND		8	
			25.0	30.0	0057	28.0	29.0	220	200	0	0.0	511	508	660	1222		ND		11	
			30.0	35.0				150	200	0	0.0									
		12.2.97	35.0	40.0	0058	39.5	40.0	NDA	NDA	0	0.0	38.8	36.2	4.95	80		58	5.1	5	
			40.0	45.0				NDA	NDA	0	0.0									
			45.0	50.0	0059	48.0	48.5	125	140	0	0.0	3250	577	215	3523		113	11.2	9	
			50.0	55.0				60	140	0	0.0									
			55.0	60.0	0060	59.5	60.0	176	150	0	0.0	186	299	176	234		83	5.7	7	
			60.0	65.0	0061	60.0	67.0	1200	300	0	0.0	293	25	26.3	348		138	13.6	9	
			65.0	70.0				NDA	NDA	0	0.0									
		12.3.97	70.0	75.0	0062	74.0	75.0	NDA	NDA	0	0.0	33.4	30.3	4.6	68		59	2.5	4	
			75.0	80.0				NDA	NDA	0	0.0									
			80.0	85.0	0063	80.0	83.5	NDA	NDA	0	0.0	106	155	7.72	24		62	3.9	6	
			85.0	90.0	0445	89.5	90.0	NDA	NDA	0	0.0	7.12	22.4	6.23	36		60	4.5	7	
21-05061	Bed 1	12.7.97	0.0	2.5				NDA	NDA	0	0.0									
			2.5	5.0	0001	3.4	4.0	NDA	NDA	0	0.0	14.4	27.9	5.63	43		4.9	0.2	4	X
			5.0	7.5	0002	6.0	6.5	220	160	0	0.0	254	451	188	458		6.2	0.3	4	X
			7.5	9.0	0003	8.5	9.0	600	200	0	0.0	314	25	137	476		1.5	0.8	5	X
			9.0	11.5	Center Bit			NA	NA	NA	NA									
			11.5	15.0	0004	11.5	11.8	170	160	0	0.0	1620	435	265	1930		5.9	0.2	4	X
			11.5	15.0	0005	13.8	14.5	2600	360	0	0.0	2300	531	597	2950		0.6	0.0	5	X
			15.0	20.0				260	NDA	0	0.0									
			20.0	25.0	0006	20.0	21.0	800	250	0	0.0	1000	603	125	1185		2.1	0.1	6	X
			25.0	30.0	0007	27.5	28.0	650	210	0	0.0	1620	879	145	1654		2.0	0.1	6	X
			30.0	35.0				330	190	0	0.0									
		12.8.97	35.0	40.0				140	140	0	0.0									
			40.0	45.0	0008	40.0	40.5	40	NDA	0	0.0	132	28	24.4	184		1.4	0.1	6	X
			45.0	50.0				45	NDA	0	0.0									
			50.0	55.0	0009	50.0	50.5	45	NDA	0	0.0	150	454	18.1	215		0.7	0.0	5	X
			55.0	60.0				30	NDA	0	0.0									
			60.0	65.0	0010	61.0	61.5	30	NDA	0	0.0	74	637	16.2	154		0.6	0.0	5	X
			65.0	67.5				20	NDA	0	0.0									
			67.5	70.0				20	NDA	0	0.0									
			70.0	72.5	0011	71.0	71.5	NDA	NDA	0	0.0	20.2	22.1	14.8	57		3.8	0.2	5	
			72.5	75.0				NDA	NDA	0	0.0									

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
RMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	β/γ (cpm)	Tritium (uCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			75.0	77.5				NDA	NDA	0	0.0									
			77.5	80.0				NDA	NDA	0	0.0									
		1-29-97	80.0	82.5	0012	80.0	80.5	NDA	NDA	0	0.0	15.1	22.2	13.4	5.1		ND		5	
			82.5	85.0				NDA	NDA	0	0.0									
			85.0	87.5				NDA	NDA	0	0.0									
			87.5	90.0	0013	89.5	90.0	NDA	NDA	0	0.0	34.3	21.6	2.0	7.6		0.99	0.1	5	
			90.0	92.5				NDA	NDA	0	0.0									
			92.5	95.0				NDA	NDA	0	0.0									
			95.0	97.5				NDA	NDA	0	0.0									
			97.5	100.0	0014	99.5	100.0	NDA	NDA	0	0.0	1.8	25.7	14.8	5.9		0.1	0.0	4	
			100.0	102.5				NDA	NDA	0	0.0									
			102.5	105.0				NDA	NDA	0	0.0									
			105.0	107.5				NDA	NDA	0	0.0									
			107.5	110.0	0015	109.0	109.5	NDA	NDA	0	0.0	3.02	14.3	8.07	2.5		ND		4	
			110.0	112.5				NDA	NDA	0	0.0									
			112.5	115.0				NDA	NDA	0	0.0									
		1-30-97	115.0	117.5				NDA	NDA	0	0.0									
			117.5	120.0	0016	119.5	120.0	NDA	NDA	0	0.0	2.19	1.7	7.8	2.7		1.3	0.1	6	
			120.0	122.5				NDA	NDA	0	0.0									
			122.5	125.0				NDA	NDA	0	0.0									
			125.0	127.5				NDA	NDA	0	0.0									
			127.5	130.0	0017	129.5	130.0	NDA	NDA	0	0.0	1.73	31.9	5.66	5.5		ND		4	
			130.0	135.0				NDA	NDA	0	0.0									
			135.0	137.5				NDA	NDA	0	0.0									
			137.5	140.0	0018	137.5	138.0	NDA	NDA	0	0.0	0.94	2.3	6.56	3.1		0.7	0.0	4	
			140.0	142.5				NDA	NDA	0	0.0									
			142.5	145.0				NDA	NDA	0	0.0									
			145.0	147.5				NDA	NDA	0	0.0									
			147.5	150.0	0019	148.5	150.0	NDA	NDA	0	0.0	6.59	34.1	6.2	4.7		1.2	0.1	5	
21-06059	Shafts	2-3-97	0.0	2.5				NDA	NDA	0	0.0									
			2.5	5.0	0111	4.0	4.5	NDA	NDA	0	0.0	6.65	29.5	2.47	3.3		ND		6	
			5.0	7.5				NDA	NDA	0	0.0									
			7.5	10.0				NDA	NDA	0	0.0									
			10.0	12.5	0112	10.2	10.7	NDA	NDA	0	0.0	2.27	30.4	4.72	3.7		2.0	2.0	9	
			12.5	15.0				NDA	NDA	0	0.0									
			15.0	17.6				NDA	NDA	0	0.0									

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-98-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	βγ (cpm)	Tritium (vCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			17.5	20.0				NDA	NDA	0	0.0									
			20.0	22.5	0113	20.0	20.5	NDA	NDA	0	0.0	3.79	32.5	4.73	41		3600	229.8	6	
			22.5	25.0				NDA	NDA	0	0.0									
			25.0	27.5				NDA	NDA	0	0.0									
			27.5	30.0				NDA	NDA	0	0.0									
			30.0	32.5	0114	31.5	32.0	NDA	NDA	0	0.0	3.92	21	5.28	30		752	33.6	5	
			32.5	35.0				NDA	NDA	0	0.0									
		2.4.97	35.0	37.5	0115	36.4	36.8	NDA	NDA	0	0.0	0	51.9	6.35	58		187	7.8	4	X
			37.5	40.0				NDA	NDA	0	0.0									
			40.0	42.5	0116	40.0	40.5	NDA	NDA	0	0.0	9.88	51	4.87	66		450	19.2	4	
			42.5	47.5				NDA	NDA	0	0.0									
			47.5	50.0	0117	49.5	50.0	NDA	NDA	0	0.0	2.31	47.7	4.65	55		1050	79.0	7	
21-05062	Shafts	2.5.97	0.0	2.5				NDA	NDA	0	0.0									
			2.5	5.0				NDA	NDA	0	0.0									
		2.6.97	5.0	5.5	0191	5.0	5.5	NDA	NDA	0	0.0	1.47	18.8	0.272	21		5.5	0.2	3	X
			5.5	7.5	0192	6.0	6.5	NDA	NDA	0	0.0	4.58	22.2	2.02	29		6.8	0.4	5	
			7.5	10.0				NDA	NDA	0	0.0									
			10.0	12.5	0193	10.0	10.5	NDA	NDA	0	0.0	0.605	10.2	4.96	16		25	1.0	4	
			12.5	15.0				NDA	NDA	0	0.0									
			15.0	20.0				NDA	NDA	0	0.0									
			20.0	25.0	0194	20.0	20.5	NDA	NDA	0	0.0	2.82	22.1	6.15	31		27	1.1	4	
			25.0	30.0				NDA	NDA	0	0.0									
			30.0	35.0	0195	30.0	30.5	NDA	NDA	0	0.0	0.901	38.5	5.19	45		60	3.4	4	
			35.0	40.0				NDA	NDA	0	0.0									
			40.0	42.5	0196	40.0	40.5	NDA	NDA	0	0.0	1.12	23.5	5.11	40		96	4.0	4	
		2.7.97	42.5	45.0				NDA	NDA	0	0.0									
			45.0	47.5				NDA	NDA	0	0.0									
			47.5	50.0	0197	49.5	50.0	NDA	NDA	0	0.0	4.95	19.7	5.91	31		226	11.9	5	
			50.0	55.0				NDA	NDA	0	0.0									
			55.0	60.0	0198	58.8	59.5	NDA	NDA	0	0.0	0	29.3	8.44	36		291	12.1	4	X
			55.0	60.0	0218FD	58.8	59.5	NDA	NDA	0	0.0	Not Submitted to Screening Facility								
			60.0	65.0				NDA	NDA	0	0.0									
			65.0	70.0				NDA	NDA	0	0.0									
			70.0	72.5	0199	70.0	70.5	NDA	NDA	0	0.0	3.52	24.8	4.04	68		317	20.2	6	
			72.5	75.0				NDA	NDA	0	0.0									
			75.0	80.0	0200	78.4	79.5	25000	10000	0	0.0	659000	39700	17100	715800		2500	247.3	9	

TA-21, MDA-T
FRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	β/γ (cpm)	Tritium (nCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
		2/10/97	8.0	8.3				43000	20000	0	0.0									
21-05074	Bed 4	2/12/97	0.0	2.5	1001	0.8	1.3	1000	165	0	0.0	20.5	31.9	1.5	7.0		0.5	0.0	6	
			2.5	5.0				NDA	NDA	0	0.0									
			5.0	7.5				NDA	NDA	0	0.0									
			7.5	10.0	1002	9.0	9.5	NDA	NDA	0	0.0	1.9	22.7	6.2	3.1		8.4	3.5	4	
			10.0	12.5				NDA	NDA	0	0.0									
			12.5	15.0				NDA	NDA	0	0.0									
			15.0	17.5				NDA	NDA	0	0.0									
			17.5	20.0	1003	19.5	20.0	NDA	NDA	0	0.0	10.8	3.3	7.93	5.8		8.7	5.5	6	
			20.0	22.5				NDA	NDA	0	0.0									
			22.5	25.0				NDA	NDA	0	0.0									
			25.0	27.5	1004	26.5	26.9	60	140	0	0.0	5.9	31.2	12.9	5.0		12.7	6.7	5	
			27.5	30.0				NDA	NDA	0	0.0									
			30.0	32.5				NDA	NDA	0	0.0									
			32.5	35.0				NDA	NDA	0	0.0									
			35.0	37.5				NDA	NDA	0	0.0									
			37.5	40.0	1005	39.5	40.0	NDA	NDA	0	0.0	22.7	44.8	50.7	7.3		18.0	11.5	6	
			40.0	42.5				NDA	NDA	0	0.0									
			42.5	45.0				NDA	NDA	0	0.0									
			45.0	47.5				NDA	NDA	0	0.0									
			47.5	50.0	1006	43.5	43.0	NDA	NDA	0	0.0	11.8	34.7	49.1	5.1		19.5	10.3	5	
21-05064	Bed 2	2/14/97	0.0	2.5				NDA	NDA	NDA	0.0									
			2.5	5.0	0236	3.5	4.0	NDA	NDA	NDA	0.0	0	3.0	0.5	3.1		ND		14	
			5.0	7.5				NDA	NDA	NDA	0.0									
			7.5	10.0	0237	8.5	9.0	25	NDA	NDA	0.0	31.5	43.9	24.7	60.6		1.1	0.1	9	
			10.0	12.5	0238	11.5	12.0	80	200	NDA	0.0	145.0	11.8	66.5	223.3		ND		10	
			12.5	15.0	0239	13.5	13.9	350	400	NDA	0.0	92.0	70.9	32.0	131.1		ND		8	
			15.0	17.5				NDA	NDA	NDA	0.0									
			17.5	20.0				NDA	NDA	NDA	0.0									
			20.0	22.5	0240	20.0	20.5	NDA	NDA	NDA	0.0	14.0	53.7	45.4	19.8		ND		11	
			22.5	25.0				NDA	NDA	NDA	0.0									
			25.0	30.0	0241	29.5	30.0	NDA	NDA	NDA	0.0	16.6	29.1	56.9	5.1		ND		12	
			30.0	35.0				NDA	NDA	NDA	0.0									
			35.0	40.0	0242	39.5	40.0	NDA	NDA	NDA	0.0	15.2	24.3	43.8	4.4		ND		14	
			40.0	45.0				NDA	NDA	NDA	0.0									
			45.0	50.0	0243	49.5	50.0	NDA	NDA	NDA	0.0	21.1	21.5	43.7	4.7		ND		9	

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	βγ (cpm)	Tritium (uCi/ml)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
21-05060	Shafts	2/18/97	0	2.5				NDA	NDA	NDA	0.0									
			2.5	5	0136	4.5	5	NDA	NDA	NDA	0.0	19.2	5.0	4.14	7.3		1.3	0.1	6	
			5	7.5				NDA	NDA	NDA	0.0									
			7.5	10				NDA	NDA	NDA	0.0									
			10	12.5	0137	10	10.5	NDA	NDA	NDA	0.0	12.2	3.9.1	6.12	5.7		5.7	0.4	5	
			12.5	15				NDA	NDA	NDA	0.0									
			15	20				NDA	NDA	NDA	0.0									
			20	25	0138	20	20.5	NDA	NDA	NDA	0.0	1.35	37.3	6.42	4.5		4.1	0.2	5	
			25	30				NDA	NDA	NDA	0.0									
			30	35	0139	30	30.5	NDA	NDA	NDA	0.0	2.07	53.6	5.83	6.2		9.5	0.7	7	
			35	40				NDA	NDA	NDA	0.0									
			40	45	0140	42	42.5	NDA	NDA	NDA	0.0	7.32	35.7	4.38	4.7		5.4	2.2	4	
			45	47.5				NDA	NDA	NDA	0.0									
			47.5	50				NDA	NDA	NDA	0.0									
			50	52.5	0141	50	50.5	NDA	NDA	NDA	0.0	2.4.8	29.1	11.5	6.5		7.6	3.2	4	X
		2/13/97	52.5	55				NDA	NDA	NDA	0.0									
			55	57.5				NDA	NDA	NDA	0.0									
			57.5	60				NDA	NDA	NDA	0.0									
			60	62.5	0142	60	60.5	NDA	NDA	NDA	0.0	1.3	3.5	17.1	6.5		11.3	4.7	4	
			62.5	65				NDA	NDA	NDA	0.0									
			65	67.5				NDA	NDA	NDA	0.0									
			67.5	70	0143	69.5	70	NDA	NDA	NDA	0.0	1.9	4.0.3	3.3.6	9.3		13.0	6.8	5	
			67.5	70	0163 FD	69	70					*Kit Submitted to Screening Facility								
			70	72.5				NDA	NDA	NDA	0.0									
			72.5	75				NDA	NDA	NDA	0.0									
			75	77.5				NDA	NDA	NDA	0.0									
			77.5	80	0144	79.5	80	NDA	NDA	NDA	0.0	2.4	26.9	4.8	0		12.4	6.5	5	X
			80	82.5				NDA	NDA	NDA	0.0									
			82.5	85				NDA	NDA	NDA	0.0									
			85	87.5				NDA	NDA	NDA	0.0									
			87.5	90	0145	89	89.5	NDA	NDA	NDA	0.0	5.94	27.6	7.14	4.1		23.3	12.3	5	
			90	92.5				NDA	NDA	NDA	0.0									
			92.5	95				NDA	NDA	NDA	0.0									
			95	97.5				NDA	NDA	NDA	0.0									
			97.5	100	0146	99.5	100	NDA	NDA	NDA	0.0	1.9.7	37.7	5.38	6.3		43.5	19.1	4	
			100	102.5				NDA	NDA	NDA	0.0									

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	β/γ (cpm)	Tritium (uCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross n (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
		2 20 97	103	105				NDA	NDA	NDA	0 0									
			105	107.5				NDA	NDA	NDA	0 0									
			108	110	0147	109	109 5	NDA	NDA	NDA	0 0	52	45 2	5 92	104		2460	157.0	6	
			110	112 5				NDA	NDA	NDA	0 0									
			113	115				NDA	NDA	NDA	0 0									
			115	117.5				NDA	NDA	NDA	0 0									
			118	120	0148	118 5	119	NDA	NDA	NDA	0 0	19 3	32 6	5 92	58		15900	836 8	5	
			118	120	0165 FB	118 5	119					ND	ND	ND	ND		ND		NA	
			120	122.5				NDA	NDA	NDA	0 0									
			123	125				NDA	NDA	NDA	0 0									
			125	127.5				NDA	NDA	NDA	0 0									
			128	130	0149	129	129 5	NDA	NDA	NDA	0 0	25	18 8	6 07	50		12200	508 3	4	
			128	130	0164 FD	129	129 5					Not Submitted to Screening Facility								
			130	135 0				NDA	NDA	NDA	0 0									
			135	137 5				NDA	NDA	NDA	0 0									
			137 5	140 0	0150	139	133 5	NDA	NDA	NDA	0 0	26 7	40	7 94	75		1820	95 8	5	X
		2 21 97	140 0	142 5				NDA	NDA	NDA	0 0									
			142 5	145 0				NDA	NDA	NDA	0 0									
			145 0	147 5				NDA	NDA	NDA	0 0									
			147 5	150 0				NDA	NDA	NDA	0 0									
			150 0	152 5	0151	150 0	150 5	NDA	NDA	NDA	0 0	6 99	14 3	7.72	29		1150	73 4	6	
			150 0	152 5	0162 FB							ND	ND	ND	ND		ND		NA	
			152 5	155 0				NDA	NDA	NDA	0 0									
			155 0	157 5				NDA	NDA	NDA	0 0									
			157 5	162 5	0152	160 0	162 5	NDA	NDA	NDA	0 0	19 6	43 8	6 8	70		502	26 4	5	
			162 5	167 5				NDA	NDA	NDA	0 0									
			167 5	172 5	0153	167 5	172 5	NDA	NDA	NDA	0 0	2 48	37 5	6 16	45		400	21 1	5	
			172 5	175 0	0154	174 5	175 0	NDA	NDA	NDA	0 0	12 1	43	6 97	62		425	17 7	4	
21-05061		2 26 97	0 0	5 0				NDA	NDA	NDA	0 0									
			5 0	7 5	0166	5 5	6 0	NDA	NDA	NDA	0 0	16 1	12 5	5 62	292		32	1 3	4	X
			7 5	10 0				NDA	NDA	NDA	0 0									
			10 0	12 5	0167	10 0	10 5	NDA	NDA	NDA	0 0	96 3	43 2	6 23	143		43	2 6	5	X
			12 5	15 0				NDA	NDA	NDA	0 0									
			15 0	20 0				NDA	NDA	NDA	0 0									
			20 0	22 5	0168	20 0	21 0	NDA	NDA	NDA	0 0	25 5	33 9	3 95	69		15	0 9	6	

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-XXXX) (0121-97-XXXX)	From (feet)	To (feet)	α (cpm)	βγ (cpm)	Tritium (uCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			20.0	22.5	1126 FD	20.0	21.0	NDA	NDA	NDA	0.0	Not Submitted to Screening Facility								
		2/27/97	22.5	25.0				NDA	NDA	NDA	0.0									
			25.0	27.5				NDA	NDA	NDA	0.0									
			27.5	30.0				NDA	NDA	NDA	0.0									
			30.0	32.5	0169	30.0	30.5	NDA	NDA	NDA	0.0	45.4	53.2	0	100		36	31	8	
			32.5	35.0				NDA	NDA	NDA	0.0									
			35.0	37.5				NDA	NDA	NDA	0.0									
			37.5	40.0				NDA	NDA	NDA	0.0									
			40.0	42.5	0170	40.0	40.5	NDA	NDA	NDA	0.0	48.8	140	0	189		33	25	7	
			42.5	45.0				NDA	NDA	NDA	0.0									
			45.0	47.5				NDA	NDA	NDA	0.0									
			47.5	50.0	0171	48.0	49.5	NDA	NDA	NDA	0.0	41.6	88.2	0	130		41	67	14	
			47.5	50.0	1129 FB	48.0	49.5	NDA	NDA	NDA	0.0	ND	ND	ND	ND		ND		NA	
			50.0	52.5				NDA	NDA	NDA	0.0									
			52.5	55.0				NDA	NDA	NDA	0.0									
			55.0	57.5				NDA	NDA	NDA	0.0									
			57.5	60.0	0172	59.5	60.0	NDA	NDA	NDA	0.0	5.29	13.3	4.73	24		45	29	6	
			60.0	62.5				NDA	NDA	NDA	0.0									
			62.5	65.0				NDA	NDA	NDA	0.0									
			65.0	67.5				NDA	NDA	NDA	0.0									
			67.5	70.0	0173	69.5	70.0	NDA	NDA	NDA	0.0	0	0	6.8	7		24	10	4	X
		3/3/97	70.0	72.5				NDA	NDA	NDA	0.0									
			72.5	75.0				NDA	NDA	NDA	0.0									
			75.0	77.5				NDA	NDA	NDA	0.0									
			77.5	80.0	0174	78.5	78.8	NDA	NDA	NDA	0.0	6.95	15	5.11	27		26	16	6	
			80.0	82.5				NDA	NDA	NDA	0.0									
			82.5	85.0				NDA	NDA	NDA	0.0									
			85.0	87.5				NDA	NDA	NDA	0.0									
			87.5	90.0	0175	89.5	90.0	NDA	NDA	NDA	0.0	9.91	24.4	5.61	40		82	52	8	
			90.0	92.5				NDA	NDA	NDA	0.0									
			92.5	95.0				NDA	NDA	NDA	0.0									
			95.0	97.5				NDA	NDA	NDA	0.0									
			97.5	100.0	0176	98.7	99.2	NDA	NDA	NDA	0.0	25.7	12.8	5.52	44		356	203	5	
			100.0	102.5				NDA	NDA	NDA	0.0									
		3/4/97	102.5	105.0				NDA	NDA	NDA	0.0									
			105.0	107.5				NDA	NDA	NDA	0.0									

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	β-γ (cpm)	Tritium (uCi/ml)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			107.5	110.0	0177	108.5	109.0	NDA	NDA	NDA	0.0	4.05	37.4	4.47	45		1020	42.5	4	
			110.0	112.5				NDA	NDA	NDA	0.0									
			112.5	115.0				NDA	NDA	NDA	0.0									
			115.0	117.5				NDA	NDA	NDA	0.0									
			117.5	120.0	0178	119.0	119.5	NDA	NDA	NDA	0.0	40.2	73	5.33	119		2060	179.1	8	
			120.0	122.5				NDA	NDA	NDA	0.0									
			122.5	125.0				NDA	NDA	NDA	0.0									
			125.0	127.5				NDA	NDA	NDA	0.0									
			127.5	130.0	0179	128.5	129.0	NDA	NDA	NDA	0.0	2.45	32	4.82	39		4470	186.3	4	
			130.0	135.0				NDA	NDA	NDA	0.0									
			135.0	140.0				NDA	NDA	NDA	0.0									
		3.5.97	140.0	145.0	0180	140.0	140.5	NDA	NDA	NDA	0.0	3.63	43.5	0	47		2370	151.3	6	
			145.0	150.0				NDA	NDA	NDA	0.0									
			150.0	152.5				NDA	NDA	NDA	0.0									
			152.5	155.0	0181	152.5	153.0	NDA	NDA	NDA	0.0	11.1	29.5	6.65	47		657	26.5	3	X
			155.0	157.5				NDA	NDA	NDA	0.0									
			157.5	160.0				NDA	NDA	NDA	0.0									
			160.0	162.5	0182	160.0	160.5	NDA	NDA	NDA	0.0	28.2	45.7	7.11	81		349	14.5	4	
			162.5	167.5				NDA	NDA	NDA	0.0									
			167.5	172.5	0183	170.0	170.5	NDA	NDA	NDA	0.0	7.59	27.1	7.26	42		4.4	0.2	4	
			167.5	172.5	1128 FD			NDA	NDA	NDA	0.0	*Not Submitted to Screening Facility								
			172.5	177.5				NDA	NDA	NDA	0.0									
		3.6.97	177.5	182.5	0184	180.0	180.5	NDA	NDA	NDA	0.0	8.13	96.5	6.54	24		4424	282.4	6	X
			182.5	187.5				NDA	NDA	NDA	0.0									
			187.5	190.0	0185	189.5	190.0	NDA	NDA	NDA	0.0	10.7	52.5	6.26	69		562	42.3	7	X
21-05075	Bed 3	3.10.97	0.0	2.5				NDA	NDA	NDA	NDA									
			2.5	5.0				NDA	NDA	NDA	NDA									
			5.0	7.5	1131	6.7	7.2	NDA	NDA	NDA	NDA	43.8	64.2	5.51	120		2.4	0.4	15	
			7.5	10.0	1132	8.8	9.3	80	280	NDA	NDA	113.0	78.1	33.3	1241		10	0.9	8	
			10.0	12.5				55	300	NDA	NDA									
			12.5	15.0	center bit															
			15.0	16.0	1133	15	16	115	300	NDA	NDA	4.92	54.3	30.6	577		11	0.3	3	X
					1141FD							*Not Submitted to Screening Facility								
			16.0	20.0				125	300	NDA	NDA									
			20.0	22.5	1134	20.0	21.0	20	200	NDA	NDA	12.5	42.9	19.7	188		9.4	0.6	6	

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	βγ (cpm)	Tritium (nCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			22.5	25.0				NDA	NDA	NDA	NDA									
			25.0	27.5				NDA	NDA	NDA	NDA									
			27.5	30.0	1135	29.5	30.0	NDA	NDA	NDA	NDA	18.7	33.2	65.2	58		6.9	0.4	6	
			30.0	32.0				NDA	NDA	NDA	NDA									
			32.0	35.0				NDA	NDA	NDA	NDA									
			35.0	37.5				NDA	NDA	NDA	NDA									
		3.11.97	37.5	40.0	1136	38.8	39.3	NDA	NDA	NDA	NDA	26.5	69.4	69.1	103		13	1.1	8	
			40.0	42.5				NDA	NDA	NDA	NDA									
			42.5	45.0				NDA	NDA	NDA	NDA									
			45.0	47.5	1137	45.0	46.0	115	120	NDA	NDA	110.0	91.9	33.5	122.5		12	1.6	12	X
			47.5	50.0				55	140	NDA	NDA									
			50.0	52.5				NDA	NDA	NDA	NDA									
			52.5	55.0				NDA	NDA	NDA	NDA									
			55.0	57.5				NDA	NDA	NDA	NDA									
			57.5	60.0	1138	58.0	58.5	NDA	NDA	NDA	NDA	10.2	65.1	64.1	174		13	1.4	10	X
			60.0	62.5				NDA	NDA	NDA	NDA									
			62.5	65.0				NDA	NDA	NDA	NDA									
			65.0	67.5				NDA	NDA	NDA	NDA									
			67.5	70.0	1139	69.5	70.0	NDA	NDA	NDA	NDA	93.1	51.6	82.6	154		17	1.6	9	X
21-05071	Shafts	3.12.97	0.0	20.5.0				NDA	NDA	NDA	NDA									
			2.5	4.0				NDA	NDA	NDA	NDA									
			4.0	5.0				NDA	NDA	NDA	NDA									
			5.0	7.5	1161	5.0	5.5	NDA	NDA	NDA	NDA	17.7	44.5	26.6	65		9.9	2.5	20	
			7.5	10.0	1162	9.5	10.0	NDA	NDA	NDA	NDA	6.7	91.6	53.7	164		31.3	5.5	15	
			10.0	12.5				NDA	NDA	NDA	NDA									
			12.5	15.0				NDA	NDA	NDA	NDA									
			15.0	17.5				NDA	NDA	NDA	NDA									
			17.5	20.0				NDA	NDA	NDA	NDA									
			20.0	22.5	1163	20.0	20.5	NDA	NDA	NDA	NDA	29.7	45.7	66.8	56		44.8	61.1	12	
			22.5	25.0				NDA	NDA	NDA	NDA									
			25.0	26.5				NDA	NDA	NDA	NDA									
			26.5	27.5	Center Bit															
			27.5	30.0	1164	28.5	29.0	NDA	NDA	NDA	NDA	0	44.8	42.6	43		101.0	112.2	10	
			30.0	32.5				NDA	NDA	NDA	NDA									
			32.5	33.5	Center Bit															
			33.5	35.0	1165	34.0	34.5	NDA	NDA	NDA	NDA	7.62	47.3	3.9	59		117.0	115.7	9	

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	βγ (cpm)	Tritium (nCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			35.0	37.5				NDA	NDA	NDA	NDA									
		3.13.97	37.5	40.0				NDA	NDA	NDA	NDA									
			40.0	45.0	1166	42.0	42.5	NDA	NDA	NDA	NDA	0	51.4	4.98	56		484	42.1	8	
			45.0	50.0				NDA	NDA	NDA	NDA									
			50.0	55.0	1167	50.5	51.0	NDA	NDA	NDA	NDA	25.4	28.1	6.04	60		673	168.3	20	
			55.0	60.0				NDA	NDA	NDA	NDA									
			60.0	65.0	1168	61.0	61.5	NDA	NDA	NDA	NDA	58.2	77.5	5.24	142		935	81.3	8	
			65.0	70.0				NDA	NDA	NDA	NDA									
			70.0	75.0	1169	70.0	70.5	NDA	NDA	NDA	NDA	23.3	123	5.46	152		886	77.0	8	
			75.0	80.0				NDA	NDA	15	NDA									
			80.0	82.5	1170	80.0	80.5	NDA	NDA	14	NDA	188	577	6.83	772		936	59.7	6	
			82.5	85.0				NDA	NDA	10	NDA									
			85.0	87.5				NDA	NDA	10	NDA									
			87.5	90.0				NDA	NDA	4	NDA									
			90.0	92.5	1171	90.0	90.5	NDA	NDA	22	NDA	83.3	185	5.45	279		711	37.4	5	
			92.5	95.0				NDA	NDA	10	NDA									
			95.0	97.5	1172	97.0	97.5	NDA	NDA	26	NDA	243	70.1	5.71	319		492	31.4	6	
			97.5	100.0				NDA	NDA	20	NDA									
			100.0	102.5	1173	100	100.5	NDA	NDA	10	NDA	90.5	252	5.91	348		321	16.9	5	
			102.5	105.0	1174	104.2	105.0	NDA	NDA	120	NDA	70	215	6.09	291		271	11.3	4	
			105.0	107.0				NDA	NDA	40	NDA									
			107.0	109.0				NDA	NDA	12	NDA									
			109.0	110.0	1175	109.5	110.0	NDA	NDA	10	NDA	25.4	145	1.08	171		188	12.0	6	
		3.14.97	*Ab Footage					NDA	NDA		NDA									
		3.17.97	110.0	112.5				NDA	NDA	10	NDA									
			112.5	115.0				NDA	NDA	NDA	NDA									
			115.0	117.5				NDA	NDA	18	NDA									
			117.5	120.0	1176	118.5	119.5	NDA	NDA	30	NDA	193	200	6.58	406		82	5.3	6	
			120.0	122.5				NDA	NDA	14	NDA									
			122.5	125.0				NDA	NDA	10	NDA									
			125.0	127.5				NDA	NDA	8	NDA									
			127.5	130.0	1177	129.0	130.0	NDA	NDA	12	NDA	0	120	6.81	127		148	9.4	6	
			130.0	135.0				NDA	NDA	18	NDA									
			135.0	140.0				NDA	NDA	22	NDA									
			140.0	145.0	1178	140.0	141.0	NDA	NDA	10	NDA	97	180	7.04	284		407	30.6	7	
			145.0	147.5				NDA	NDA	40	NDA									

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	βγ (cpm)	Tritium (nCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			147.5	150.0	1179	149.0	149.5	NDA	NDA	32	NDA	11.7	54.9	54.5	72		387	24.7	6	
			150.0	152.5				NDA	NDA	20	NDA									
			152.5	155.0				NDA	NDA	18	NDA									
			155.0	157.5				NDA	NDA	25	NDA									
			157.5	160.0	1180	159.5	150.0	NDA	NDA	30	NDA	19.9	29.5	84.3	58		57	0.4	6	
			150.0	162.5				NDA	NDA	30	NDA									
		3/18/97	162.5	165.0				NDA	NDA	40	NDA									
			165.0	170.0				NDA	NDA	40	NDA									
			170.0	175.0	1181	170.0	171.0	NDA	NDA	40	NDA	0	0	89.9	9		9.1	0.9	9	
			175.0	180.0				NDA	NDA	45	NDA									
			180.0	185.0	1182	180.0	181.0	NDA	NDA	40	NDA	42.6	84.8	85.5	136		5.3	0.5	8	
			185.0	190.0				NDA	NDA	40	NDA									
			190.0	195.0	1183	190.0	191.0	NDA	NDA	40	NDA	8.9	73.2	97.1	92		9.5	0.7	7	
			195.0	200.0	1184	197.0	198.0	NDA	NDA	60	NDA	19.7	17.8	88.8	354		7.4	0.5	6	
21-05052	Bed 1	3/24/97	0.0	2.5				NDA	NDA	0	NDA									
			2.5	5.0	0026	2.5	3.0	NDA	NDA	0	NDA	0	15.1	34.2	15.4		6.2	1.2	16.0	X
			2.5	5.0	0050 FB			NDA	NDA	0	NDA	0	0	0	0		5.8		NA	X
			5.0	7.5				NDA	NDA	0	NDA									
			7.5	10.0	0027	9.0	9.5	NDA	NDA	0	NDA	92.3	13.2	27.8	22.7		0.03	0.0	17.0	X
			10.0	12.5				NDA	NDA	0	NDA									
			12.5	15.0				NDA	NDA	0	NDA									
			15.0	17.5				NDA	NDA	0	NDA									
			17.5	20.0				NDA	NDA	0	NDA									
			20.0	22.5	0028	20.0	20.5	NDA	NDA	0	NDA	35.6	10.2	51.6	14.3		0.03	0.0	14.0	
			22.5	25.0				NDA	NDA	0	NDA									
			25.0	27.5	0029	26.0	27.0	NDA	NDA	0	NDA	0	71.6	6.1	7.8		6.3	0.8	11.0	
			27.5	30.0				NDA	NDA	0	NDA									
			30.0	32.5				NDA	NDA	0	NDA									
			32.5	35.0				NDA	NDA	0	NDA									
			35.0	40.0	0030	33.5	40.0	NDA	NDA	0	NDA	62.8	15.6	5.2	22.4		6.1	0.5	8.0	
		3/25/97	40.0	45.0				NDA	NDA	0	NDA									
			45.0	50.0	0031	43.5	50.0	NDA	NDA	0	NDA	0	29.1	46.4	29.5		5.4	1.0	16.0	
		3/31/97	50.0	55.0				NDA	NDA	0	NDA									
			55.0	60.0	0032	59.5	60.0	NDA	NDA	0	NDA	9.25	26.4	42.7	4.3		3.1		12.0	
			55.0	60.0	1276 FB	59.5	60.0	NDA	NDA	0	NDA	0	0	0	0					

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-xxxx) (0121-97-xxxx)	From (feet)	To (feet)	α (cpm)	β/γ (cpm)	Tritium (nCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			60.0	65.0				NDA	NDA	0	NDA									
			65.0	70.0				NDA	NDA	0	NDA									
			70.0	75.0	0033	70.0	71.0	NDA	NDA	0	NDA	0	38.9	44.5	43		2.6		11.0	
			70.0	75.0	1271 FD	70.0	71.0	NDA	NDA	0	NDA	Not Submitted to Screening Facility								
			75.0	77.5				NDA	NDA	0	NDA									
			77.5	80.0	0034	79.5	80.0	NDA	NDA	0	NDA	0	30.8	49.2	36		4.8		8.0	
			80.0	82.5				NDA	NDA	0	NDA									
			82.5	85.0				NDA	NDA	0	NDA									
			85.0	90.0	0035	87.0	88.0	NDA	NDA	0	NDA	65.6	45.6	59.9	118		4.7		8.0	
			90.0	95.0				NDA	NDA	0	NDA									
			95.0	100.0	0036	96.0	96.5	NDA	NDA	0	NDA	7.62	43.6	48.6	56		5.2		7.0	
			100.0	105.0				NDA	NDA	0	NDA									
			105.0	107.5				NDA	NDA	0	NDA									
			107.5	110.0	0037	109.0	110.0	NDA	NDA	0	NDA	0	41.1	70.7	48		3.2		7.0	
			110.0	112.5				NDA	NDA	0	NDA									
			112.5	115.0				NDA	NDA	0	NDA									
			115.0	117.5				NDA	NDA	0	NDA									
			117.5	120.0	0038	119.0	120.0	NDA	NDA	0	NDA	0	74.5	67.8	81		4.2		9.0	
		4/1/97	120.0	122.5				NDA	NDA	0	NDA									
			122.5	125.0				NDA	NDA	0	NDA									
			125.0	127.5				NDA	NDA	0	NDA									
			127.5	130.0				NDA	NDA	0	NDA									
			130.0	132.5	0039	130.0	131.0	NDA	NDA	0	NDA	5.69	58.1	58.2	70		27.9		9.0	
			130.0	132.5	1277 FB	130.0	131.0	NDA	NDA	0	NDA	0	0	0	0		0		100.0	
			132.5	135.0				NDA	NDA	0	NDA									
			135.0	137.5				NDA	NDA	0	NDA									
			137.5	140.0	0040	139.0	140.0	NDA	NDA	0	NDA	0	52	65.2	59		51.5		7.0	
			140.0	142.5				NDA	NDA	0	NDA									
			142.5	145.0				NDA	NDA	0	NDA									
			145.0	147.5				NDA	NDA	0	NDA									
			147.5	150.0	0041			NDA	NDA	0	NDA	26.5	14.4	58.3	47		45.3		9.0	
			147.5	150.0	1272 FD			NDA	NDA	0	NDA	Not Submitted to Screening Facility								
21-05063	Bed 1	3/25/97	0.0	2.5				NDA	NDA	0	NDA									
			2.5	5.0	0221	4.5	5.0	NDA	NDA	0	NDA	13	67.2	34.7	23		63.8	1.0	1.4	
			5.0	7.5				NDA	NDA	0	NDA									

TA-21, MDA-T
PRS Group 21-016
Borehole Summary

			Run Information		Sample Information			Field Screening of Recovered Core				TA-21 Screening Results								Fixed Lab
FIMAD Location ID	Target Area	Drilling Dates	Start Depth (feet)	End Depth (feet)	Sample Number (0121-96-XXXX) (0121-97-XXXX)	From (feet)	To (feet)	α (cpm)	β/γ (cpm)	Tritium (uCi/m3)	Organic Vapors (ppm)	Gross α (pCi/g)	Gross β (pCi/g)	Gross γ (pCi/g)	Total Activity (pCi/g)	Tritium (dpm)	Tritium (pCi/ml)	Tritium (pCi/g)	Moisture (%)	VOCs / SVOCs
			7.5	10.0	0222	7.5	8.3	NDA	NDA	0	NDA	57.4	65.8	4.53	151		3.8	0.5	11	
			7.5	10.0	0234 FD	7.5	8.3	NDA	NDA	0	NDA	Not Submitted to Screening Facility								
			10.0	12.5	0223	10.0	11.6	NDA	NDA	0	NDA	23.7	81.1	0.412	105		6.31	0.6	9	X
			12.5	15.0				NDA	NDA	0	NDA									
			15.0	17.5				NDA	NDA	0	NDA									
			17.5	20.0				NDA	NDA	0	NDA									
			20.0	25.0	0224	20.0	20.5	NDA	NDA	0	NDA	35.2	54.9	5.87	48		3.68		11	
			25.0	30.0				NDA	NDA	0	NDA									
			30.0	35.0	0225	30.5	31.3	NDA	NDA	0	NDA	80.4	36.8	4.76	122		4.39		8	
			35.0	37.5				NDA	NDA	0	NDA									
			37.5	40.0				NDA	NDA	0	NDA									
			40.0	45.0	0226	41.0	42.0	NDA	NDA	0	NDA	41.6	33.1	3.94	65		4.49		12	
			45.0	50.0	0227	49.0	50.0	NDA	NDA	0	NDA	56.2	23.6	4.38	84		3.18		10	
			50.0	55.0				NDA	NDA	0	NDA									
			55.0	60.0	0228	59.5	60.0	NDA	NDA	0	NDA	0	79.6	4.76	81		3.53		12	
		3-27-97	60.0	65.0				NDA	NDA	0	NDA									
			65.0	70.0	0229	69.5	70.0	NDA	NDA	0	NDA	8.13	34.9	6.73	50		1.5		13	
			65.0	70.0	0235 FB	69.5	70.0	NDA	NDA	0	NDA	0	0	0	0		0		100	
			70.0	75.0				NDA	NDA	0	NDA									
			75.0	80.0	0230	78.0	78.5	NDA	NDA	0	NDA	32	43.4	5.24	86		2.93		10	
			80.0	82.5				NDA	NDA	0	NDA									
			82.5	85.0				NDA	NDA	0	NDA									
			85.0	87.5				NDA	NDA	0	NDA									
			87.5	90.0	0231	89.5	90.0	NDA	NDA	0	NDA	0	47.4	4.88	52		5.58		7	
			90.0	94.0				NDA	NDA	0	NDA									
			94.0	97.5				NDA	NDA	0	NDA									
			97.5	100.0	0232	99.5	100.0	NDA	NDA	0	NDA	32.7	94.6	5.29	133		3.87		12	
			97.5	100.0	1209 FD	99.5	100.0	NDA	NDA	0	NDA	Not Submitted to Screening Facility								
			100.0	105.0				NDA	NDA	0	NDA									
			105.0	107.5				NDA	NDA	0	NDA									
			107.5	110.0				NDA	NDA	0	NDA									
			110.0	110.5	0233	110.0	110.5	NDA	NDA	0	NDA	25.1	73.2	6.52	110		4.38		10	

MATERIAL DISPOSAL AREA T
VOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval		VOCs (ug/kg)									
					From (ft)	To (ft)	Acetone (2,000,000)	Methylene Chloride (11,000)	Trichlorotrifluoromethane	2-Butanone (8,700,000)	Trichloroethene (7100)	Toluene (1,900,000)	Tetrachloroethene (7000)	2-Hexanone	4-Isopropyltoluene	1,2-Dibromo-3-chloropropane
0121-96-0491	12/10/96	b	RWSA	58	4.5	5.0		8 B								
0121-96-0492	12/10/96				7.7	8.2	4 JB	13 B								
0121-96-0494	12/11/96				17.5	18.2		14 B								
0121-96-0495	12/11/96				29.5	30.0	28 B	12 B								
0121-96-0496	12/11/96				39.5	40.0	4 JB	10 B								
0121-96-0497	12/11/96				49.5	50.0	12 JB	12 B								
0121-96-0621	12/13/96	a	N. of Bed 3	65	4.5	5.0	8 JB	7 B								1 J
0121-96-0622	12/13/96				10.0	10.5	7 JB	9 B								
0121-96-0623	12/16/96				19.5	20.0	3 JB	10 B								
0121-96-0624	12/16/96				29.5	30.0	7 JB	13B								
0121-96-0625	12/16/96				39.5	40.0		13B								
0121-96-0626	12/16/96				48.2	48.7		13B								
0121-96-0481	12/18/96	b	RWSA	57	4.3	5.0	30				7.5					
0121-96-0482	12/18/96				9.5	10.0					10					
0121-96-0483	12/18/96				19.5	20.0					7.8					
0121-96-0484	12/19/96				22.5	23.9		20 B								
0121-96-0485	12/19/96				29.5	30.0										
0121-96-0486	12/19/96				39.5	40.0										
0121-96-0487	12/19/96				49.5	50.0										
0121-97-0081	1/7/97	a	Bed 4	55	3.5	4.0	11JB	25B								
0121-97-0082	1/7/97				8.5	9.0	5JB	27B								
0121-97-0083	1/7/97				12.0	12.5	13JB	15B								
0121-97-0326	1/8/97	a	Bed 4	73	2.5	3.0	8JB	32B					4J	43		
0121-97-0327	1/8/97				8.5	9.0	34B	34B				4J	28			

MATERIAL DISPOSAL AREA T
VOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval From (ft)	Sampled Interval To (ft)	VOCs (ug/kg) Acetone (2,000,000)	Methylene Chloride (11,000)	Trichlorotrifluoromethane	2-Butanone (8,700,000)	Trichloroethene (7100)	Toluene (1,900,000)	Tetrachloroethene (7000)	2-Hexanone	4-Isopropyltoluene	1,2-Dibromo-3-chloropropane
0121-97-0328	1/8/97				11.7	12.2	18JB	30B								
0121-97-0329	1/9/97				22.0	23.0	6JB	20B								
0121-97-0330	1/9/97				32.0	32.5	6JB	19B								
0121-97-0331	1/9/97				42.0	42.5	8JB	16B		4J						2J
0121-97-0332	1/9/97				46.5	47.0	6JB	17B								
0121-97-0333	1/9/97				61.8	62.5	5JB	14B								
0121-97-0401	1/9/97				61.8	62.5	5JB	13B								
0121-97-0334	1/9/97				69.5	70.0	7JB	19B								
0121-97-0096	1/13/97	a	Bed 4	56	4.5	5.0	9JB	21B								
0121-97-0097	1/15/97				11.8	12.2	10JB	22B								
0121-97-0098	1/15/97				20.0	20.5	6JB	12B								
0121-97-0099	1/15/97				29.0	29.5	8JB	23B								
0121-97-0100	1/15/97				39.0	39.5	8JB	20B								
0121-97-0101	1/15/97				49.5	50.0	5JB	12B								
0121-97-0066	1/17/97	a	Bed 2	54	3.0	3.5	5JB	21B			2J	8				
0121-97-0067	1/17/97				5.0	7.5	14JB	24B			10	32	2J			
0121-97-0068	1/17/97				7.5	8.2	130B	40B			4J	140	2J			
0121-97-0069	1/17/97				10.5	11.2	6JB	13B			2J	24	2J			
0121-97-0421	1/17/97				10.5	11.2										
0121-97-0070	1/17/97				14.2	15.0	33B	20B								
0121-97-0071	1/17/97				21.8	22.1	25B	13B								
0121-97-0072	1/17/97				32.0	32.5	6JB	13B								
0121-97-0073	1/20/97				35.5	36.0	3JB	13B								
0121-97-0074	1/20/97				50.0	50.5	7JB	22JB								

MATERIAL DISPOSAL AREA T
VOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval		VOCs (ug/kg)									
					From (ft)	To (ft)	Acetone (2,000,000)	Methylene Chloride (11,000)	Trichlorofluoromethane	2-Butanone (8,700,000)	Trichloroethene (7100)	Toluene (1,900,000)	Tetrachloroethene (7000)	2-Hexanone	4-Isopropyltoluene	1,2-Dibromo-3-chloropropane
0121-97-0075	1/20/97				59.5	60.0	4JB	16B								
0121-97-0501	1/20/97	N/A	N/A	N/A	Personal	Air										
0121-97-0502	1/21/97	N/A	N/A	N/A	Samples											
0121-97-0503	1/22/97	N/A	N/A	N/A	•	•										
0121-97-0504	1/23/97	N/A	N/A	N/A	•	•										
0121-97-0514	1/29/97	N/A	N/A	N/A	•	•										
0121-97-0051	1/21/97	a	Bed 2	53	4.2	4.6	26B	17B				9				
0121-97-0052	1/21/97				6.5	7.0	40B	19B				34			12	
0121-97-0064	1/21/97				6.5	7.0	130B	22B				30			13	
0121-97-0053	1/21/97				9.5	10.0	32B	21B				40	4J		6	
0121-97-0054	1/21/97				12.5	13.0	16JB	16B								
0121-97-0055	1/21/97				17.0	17.3	9JB	19B								
0121-97-0056	1/21/97				20.5	21.5	6JB	16B								
0121-97-0057	1/21/97				28.0	29.0	7JB	23B								
0121-97-0058	1/22/97				39.5	40.0	8JB	17B								
0121-97-0059	1/22/97				48.0	48.5										
0121-97-0060	1/22/97				59.5	60.0	11JB	15B								
0121-97-0061	1/22/97				60.0	67.0	50B	14B								
0121-97-0062	1/23/97				74.0	75.0	5JB	14B								
0121-97-0063	1/23/97				80.0	80.5	7JB	11B								
0121-97-0445	1/23/97				89.5	90.0	3JB	11B								
0121-97-0001	1/27/97	a	Bed 1	51	3.4	4.0	12JB	20B				2J				
0121-97-0002					6.0	6.5	16JB	21B				7				
0121-97-0003					8.5	9.0	35B	17B				5				

MATERIAL DISPOSAL AREA T
VOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval		VOCs (ug/kg)									
					From (ft)	To (ft)	Acetone (2,000,000)	Methylene Chloride (11,000)	Trichlorofluoromethane	2-Butanone (8,700,000)	Trichloroethene (7100)	Toluene (1,900,000)	Tetrachloroethene (7000)	2-Hexanone	4-Isopropyltoluene	1,2-Dibromo-3-chloropropane
0121-97-0004					11.5	11.8	46B	19B		4JB		4J				
0121-97-0005					13.8	14.5	21JB	26B				14				
0121-97-0006					20.0	21.0	12JB	23B				4J				
0121-97-0007					27.5	28.0	19JB	21B				3J				
0121-97-0008	1/28/97				40.0	40.5	5JB	15B				1J				
0121-97-0009					50.0	50.5	5JB	17B								
0121-97-0010					61.0	61.5	5JB	18B								
0121-97-0011					71.0	71.5	6JB	15B								
0121-97-0012	1/29/97				80.0	80.5	4JB	13B								
0121-97-0013					89.5	90.0	4JB	14B								
0121-97-0014					99.5	100.0	6JB	14B								
0121-97-0015					109.0	109.5	7JB	10B								
0121-97-0016	1/30/97				119.5	120.0	9JB	11B								
0121-97-0017					129.5	130.0	7JB	11B								
0121-97-0018					137.5	138.0	7JB	12B								
0121-97-0019					148.5	150.0	4JB	10B								
0121-97-0111	2/3/97	c	Shafts	59	4.0	4.5	7JB	15B								
0121-97-0112					10.2	10.7	5JB	13B								
0121-97-0113					20.0	20.5	9JB	12B								
0121-97-0114					31.5	32.0	9JB	24B								
0121-97-0115	2/4/97				36.4	36.8	10JB	22B								
0121-97-0116					40.0	40.5	4JB	15B								
0121-97-0117					49.5	50.0	4JB	19B								
0121-97-0191	2/6/97	c	Shafts	62	5.0	5.5	3JB	6B					12			

MATERIAL DISPOSAL AREA T
VOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval From (ft)	Sampled Interval To (ft)	VOCs (ug/kg) Acetone (2,000,000)	Methylene Chloride (11,000)	Trichlorofluoromethane	2-Butanone (8,700,000)	Trichloroethene (7100)	Toluene (1,900,000)	Tetrachloroethene (7000)	2-Hexanone	4-Isopropyltoluene	1,2-Dibromo-3-chloropropane
0121-97-0192					6.0	6.5	14JB	7B								
0121-97-0193					10.0	10.5	3JB	6B								
0121-97-0194					20.0	20.5	5JB	14B								
0121-97-0195					30.0	30.5	4JB	6B								
0121-97-0196					40.0	40.5	6JB	8B								
0121-97-0197	2/7/97				49.5	50.0	8JB	4JB								
0121-97-0198					58.8	59.5	5JB	6B								
0121-97-0218					58.8	59.5	8JB	10B								
0121-97-0199					70.0	70.5	7JB	9B								
0121-97-0220					FB											
0121-97-0200					78.4	79.5	46B	15B				2J				
0121-97-1001	2/12/97	a	Bed 4	74	0.8	1.3										
0121-97-1002					9.0	9.5										
0121-97-1003					19.5	20.0										
0121-97-1004					26.5	26.9										
0121-97-1005					39.5	40.0										
0121-97-1006					48.5	49.0										
0121-97-0236	2/14/97	a	Bed 1	64	3.5	4.0										
0121-97-0237					8.5	9.0										
0121-97-0238					11.5	12.0										
0121-97-0239					13.5	13.9										
0121-97-0240					20.0	20.5										
0121-97-0241					29.5	30.0										
0121-97-0242					39.5	40.0										

MATERIAL DISPOSAL AREA T
VOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval		VOCs (ug/kg)									
					From (ft)	To (ft)	Acetone (2,000,000)	Methylene Chloride (11,000)	Trichlorofluoromethane	2-Butanone (8,700,000)	Trichloroethene (7100)	Toluene (1,900,000)	Tetrachloroethene (7000)	2-Hexanone	4-Isopropyltoluene	1,2-Dibromo-3-chloropropane
0121-97-0243					49.5	50.0										
0121-97-0136	2/18/97	a/c	Bed 2 and Shaft Field	60	4.5	5.0	10JB	8B								
0121-97-0137					10.0	10.5	27B	6B								
0121-97-0138					20.0	20.5	7JB	7B								
0121-97-0139					30.0	30.5	12JB	7B								
0121-97-0140							15JB	8B								
0121-97-0141					50.0	50.5	6JB	6B								
0121-97-0142	2/19/97				60.0	60.5	11JB	7B								
0121-97-0143					69.5	70.0	12JB	7B								
0121-97-0163					69.5	70.0	5JB	10B								
0121-97-0144					79.5	80.0	6JB	13B								
0121-97-0145					89.0	89.5	6JB	4JB								
0121-97-0146					99.5	100.0	5JB	10B								
0121-97-0147	2/20/97				109.0	109.5	7JB	13B								
0121-97-0148					118.5	119.0	9J	10								
0121-97-0165					FB		3JB	2JB								
0121-97-0149					129.0	129.5	9J	11								
0121-97-0164					129.0	129.5	9JB	11B								
0121-97-0150					139.0	139.5	12JB	13B		2J						
0121-97-0151					150.0	150.5	6JB	10B								
0121-97-0152					FB		7JB	3JB		4J						
0121-97-0152					160.0	162.5	8JB	15B								
0121-97-0153					167.5	172.5	8JB	11B								
0121-97-0154					174.5	175.0	6JB	11B								

MATERIAL DISPOSAL AREA T
VOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval		VOCs (ug/kg)									
					From (ft)	To (ft)	Acetone (2,000,000)	Methylene Chloride (11,000)	Trichlorofluoromethane	2-Butanone (8,700,000)	Trichloroethene (7100)	Toluene (1,900,000)	Tetrachloroethene (7000)	2-Hexanone	4-Isopropyltoluene	1,2-Dibromo-3-chloropropane
0121-97-0166	2/26/97	a/c	Bed 3 and Shaft Field	61	5.5	6.0	6JB	15B				6				
0121-97-0167					10.0	10.5	5JB	13B				3J				
0121-97-0168					20	21	6JB	14B								
0121-97-1126					20	21	4JB	13B								
0121-97-0169	2/27/97				30	30.5	7JB	12B								
0121-97-0170					40	40.5	6JB	10B								
0121-97-0171					48	48.5	7JB	9B								
0121-97-1129					FB		17JB	2JB								
0121-97-0172					59.5	60	28B	15B								
0121-97-0173					69.5	70	19BJ	15B								
0121-97-0174	3/3/97				78.5	78.8	12BJ	12B								
0121-97-0175					89.5	90	33B	15B								
0121-97-0176					93.7	93.2	33B	13B								
0121-97-0177	3/4/97				108.5	109	5JB	7B								
0121-97-0178					119	119.5		8B								
0121-97-0179					128.5	129		7B								
0121-97-0180	3/5/97				140	140.5	8JB	8B								
0121-97-0181					152.5	153	7JB	10B		4J						
0121-97-0182					160.0	160.5	7JB	9B								
0121-97-0183					170.0	170.5		9B								
0121-97-1128					170.0	170.5	7JB	8B								
0121-97-0184	3/6/97				180.0	180.5	9JB	9B		6J						
0121-97-0185					189.5	190.0		8B		3J						
0121-97-1131	3/10/97	a	Bed 3	75	6.7	7.2	6JB	12B								

MATERIAL DISPOSAL AREA T
VOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval		VOCs (ug/kg)									
					From (ft)	To (ft)	Acetone (2,000,000)	Methylene Chloride (11,000)	Trichlorofluoromethane	2-Butanone (8,700,000)	Trichloroethene (7100)	Toluene (1,900,000)	Tetrachloroethene (7000)	2-Hexanone	4-Isopropyltoluene	1,2-Dibromo-3-chloropropane
0121-97-1132					8.8	9.3		12B								
0121-97-1133					15	16		8B								
0121-97-1141					15	16		9B								
0121-97-1134					20	21		10B								
0121-97-1135					39.5	30		10B								
0121-97-1136	3/11/97				38.8	39.3		6B								
0121-97-1137					45	46		7B								
0121-97-1138					58	58.5		6B								
0121-97-1139					69.5	70		6B								
0121-97-1161	3/12/97	c	Shafts	71	5.0	5.5										
0121-97-1162					9.5	10.0										
0121-97-1163					20.0	20.5										
0121-97-1164					28.5	29.0										
0121-97-1165					34.0	34.5										
0121-97-1166	3/13/97				42.0	42.5										
0121-97-1167					50.5	51.0										
0121-97-1168					61.0	61.5										
0121-97-1169					70.0	70.5										
0121-97-1170					80.0	80.5										
0121-97-1171					90.0	90.5										
0121-97-1172					97.0	97.5										
0121-97-1173					100.0	100.5										
0121-97-1174					104.2	105.0										
0121-97-1175					109.5	110.0										
0121-97-1176	3/17/97				118.5	119.5										

MATERIAL DISPOSAL AREA T
VOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval From (ft)	Sampled Interval To (ft)	VOCs (ug/kg) Acetone (2,000,000)	Methylene Chloride (11,000)	Trichlorofluoromethane	2-Butanone (8,700,000)	Trichloroethene (7100)	Toluene (1,900,000)	Tetrachloroethene (7000)	2-Hexanone	4-Isopropyltoluene	1,2-Dibromo-3-chloropropane
0121-97-1177					129.0	130.0										
0121-97-1178					140.0	149.5										
0121-97-1179					149.0	149.5										
0121-97-1180					159.5	160.0										
0121-97-1181	3/18/97				170.0	171.0										
0121-97-1182					180.0	181.0										
0121-97-1183					190.0	191.0										
0121-97-1184					197.0	198.0										
0121-97-0026	3/24/97	a	Bed 1	52	2.5	3.0	34B	6B		7JB						
0121-97-0050					FB		48B	3JB		7JB						
0121-97-0027					9.0	9.5	5JB	6B	2J			2J	2J			
0121-97-0028					20.0	20.5	4JB	5JB								
0121-97-0029					26.0	27.0	6JB	4JB								
0121-97-0030					39.5	40.0	6JB	4JB								
0121-97-0031	3/25/97				49.5	50.0	7JB	7B	2J							
0121-97-0032	3/31/97				59.5	60.0	7JB	6B								
0121-97-1276					FB		37B	4JB		5J						
0121-97-0033					70.0	71.0	4JB	5JB								
0121-97-1271					FD		4JB	6B								
0121-97-0034					79.5	80.0	5JB	5JB								
0121-97-0035					87.0	88.0	8JB	5JB								
0121-97-0036					96.0	96.5	4JB	4JB								
0121-97-0037					109.0	110.0	5JB	4JB								
0121-97-0038					119.0	120.0		5JB								
0121-97-0039	4/1/97				130.0	131.0	8JB	5JB								

MATERIAL DISPOSAL AREA T
VOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval From (ft)	Sampled Interval To (ft)	VOCs (ug/kg) Acetone (2,000,000)	Methylene Chloride (11,000)	Trichlorofluoromethane	2-Butanone (8,700,000)	Trichloroethene (7100)	Toluene (1,900,000)	Tetrachloroethene (7000)	2-Hexanone	4-Isopropyltoluene	1,2-Dibromo-3-chloropropane
0121-97-1277					FB		3JB	4JB		4J						
0121-97-0040					139.0	140.0	5JB	4JB								
0121-97-0041					149.0	150.0	4JB	5JB								
0121-97-1272					FD		4JB	5JB								
0121-97-0221	3/25/97	a	Bed 1	63	4.5	5.0	6JB	4JB								
0121-97-0222					7.5	8.3	7JB	6B								
0121-97-0234					7.5	8.3	30B	7B								
0121-97-0223					10.0	11.6	17JB	11B				3J				
0121-97-0224					20.0	20.5	19JB	8B								
0121-97-0225					30.5	31.3	20JB	8B								
0121-97-0226					41.0	42.0	14JB	7B								
0121-97-0227					49.0	50.0	26B	8B								
0121-97-0228					59.5	60.0										
0121-97-0229	3/27/97				69.5	70.0										
0121-97-0235					FB											
0121-97-0230					78.0	78.5										
0121-97-0231					89.5	90.0										
0121-97-0232					99.5	100.0										
0121-97-1209					FD											
0121-97-0233					110.0	110.5										

MATERIAL DISPOSAL AREA T
SEMIVOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050bx)	Sampled Interval From (ft)	Sampled Interval To (ft)	SVOCs (ug/kg) Benzoic Acid	Phenanthrene	Anthracene	Di-n-Butylphthalate	Fluoranthene (2,600,000)	Butylbenzylphthalate	Pyrene (2,000,000)	Benzo (a) anthracene	Chrysene (24,000)	bis(2-Ethylhexyl)phthalate	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno(1,2,3-cd) pyrene	Dichlorodifluoromethane	Benzo(g,h,i) perylene
0121-96-0491	12/10/96	b	RWSA	58	4.5	5.0																
0121-96-0492	12/10/96				7.7	8.2																
0121-96-0494	12/11/96				17.5	18.2																
0121-96-0495	12/11/96				29.5	30.0																
0121-96-0496	12/11/96				39.5	40.0																
0121-96-0497	12/11/96				49.5	50.0				57 J												
0121-96-0621	12/13/96	a	N. of Bed 3	65	4.5	5.0																
0121-96-0622	12/13/96				10.0	10.5																
0121-96-0623	12/16/96				19.5	20.0																
0121-96-0624	12/16/96				29.5	30.0																
0121-96-0625	12/16/96				39.5	40.0																
0121-96-0626	12/16/96				48.2	48.7																
0121-96-0481	12/18/96	b	RWSA	57	4.3	5.0		630			1400		1000	460	460		410		410			
0121-96-0482	12/18/96				9.5	10.0																
0121-96-0483	12/18/96				19.5	20.0																
0121-96-0484	12/19/96				22.5	23.9																
0121-96-0485	12/19/96				29.5	30.0																
0121-96-0486	12/19/96				39.5	40.0																
0121-96-0487	12/19/96				49.5	50.0																
0121-97-0081	1/7/97	a	Bed 4	55	3.5	4.0																
0121-97-0082	1/7/97				8.5	9.0																
0121-97-0083	1/7/97				12.0	12.5																
0121-97-0326	1/8/97	a	Bed 4	73	2.5	3.0																
0121-97-0327	1/8/97				8.5	9.0																
0121-97-0328	1/8/97				11.7	12.2																
0121-97-0329	1/9/97				22.0	23.0																
0121-97-0330	1/9/97				32.0	32.5																
0121-97-0331	1/9/97				42.0	42.5																
0121-97-0332	1/9/97				46.5	47.0																
0121-97-0333	1/9/97				61.8	62.5																

MATERIAL DISPOSAL AREA T
SEMIVOLATILE ORGANIC COMPOUND RESULTS

					Sampled Interval		SVOCs (ug/kg)																
Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	From (ft)	To (ft)	Benzoic Acid	Phenanthrene	Anthracene	Di-n-Butylphthalate	Fluoranthene (2,600,000)	Butylbenzylphthalate	Pyrene (2,000,000)	Benzo (a) anthracene	Chrysene (24,000)	bis(2-Ethylhexyl)phthalate	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno(1,2,3-cd) pyrene	Dichlorodifluoromethane	Benzo(g,h,i) perylene
0121-97-0401	1/9/97				61.8	62.5																
0121-97-0334	1/9/97				69.5	70.0																
0121-97-0096	1/13/97	a	Bed 4	56	4.5	5.0				39J												
0121-97-0097	1/15/97				11.8	12.2																
0121-97-0098	1/15/97				20.0	20.5				52J												
0121-97-0099	1/15/97				29.0	29.5																
0121-97-0100	1/15/97				39.0	39.5																
0121-97-0101	1/15/97				49.5	50.0																
0121-97-0066	1/17/97	a	Bed 2	54	3.0	3.5		47J			85J		64J	27J	38J							
0121-97-0067	1/17/97				5.0	7.5				91J												
0121-97-0068	1/17/97				7.5	8.2				150J						67J						
0121-97-0069	1/17/97				10.5	11.2				43J												
0121-97-0421	1/17/97				10.5	11.2																
0121-97-0070	1/17/97				14.2	15.0																
0121-97-0071	1/17/97				21.8	22.1				90J												
0121-97-0072	1/17/97				32.0	32.5																
0121-97-0073	1/20/97				35.5	36.0																
0121-97-0074	1/20/97				50.0	50.5																
0121-97-0075	1/20/97				59.5	60.0																
0121-97-0051	1/21/97	a	Bed 2	53	4.2	4.6				150J	62J		43J	47J	51J	46J	51J	39J	41J			
0121-97-0052	1/21/97				6.5	7.0		39J		58J	120J		92J	91J	100J	58J	89J	81J	70J			
0121-97-0064	1/21/97				6.5	7.0				180J	97J		72J	62J	82J	52J	72J	66J	59J	44J		45J
0121-97-0053	1/21/97				9.5	10.0				180J	46J		43J	37J	59J	120J				43J		47J
0121-97-0054	1/21/97				12.5	13.0																
0121-97-0055	1/21/97				17.0	17.3																
0121-97-0056	1/21/97				20.5	21.5																
0121-97-0057	1/21/97				28.0	29.0																
0121-97-0058	1/22/97				39.5	40.0																
0121-97-0059	1/22/97				48.0	48.5																
0121-97-0060	1/22/97				59.5	60.0																

MATERIAL DISPOSAL AREA T
SEMIVOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval From (ft)	Sampled Interval To (ft)	SVOCs (ug/kg) Benzoic Acid	Phenanthrene	Anthracene	Di-n-Butylphthalate	Fluoranthene (2,600,000)	Butylbenzylphthalate	Pyrene (2,000,000)	Benzo (a) anthracene	Chrysene (24,000)	bis(2-Ethylhexyl)phthalate	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno(1,2,3-cd) pyrene	Dichlorodifluoromethane	Benzo(g,h,i) perylene
0121-97-0061	1/22/97				60.0	67.0																
0121-97-0062	1/23/97				74.0	75.0																
0121-97-0063	1/23/97				80.0	80.5																
0121-97-0445	1/23/97				89.5	90.0																
0121-97-0001	1/27/97	a	Bed 1	51	3.4	4.0																
0121-97-0002					6.0	6.5				53J												
0121-97-0003					8.5	9.0				46J												
0121-97-0004					11.5	11.8				63J												
0121-97-0005					13.8	14.5																
0121-97-0006					20.0	21.0				77J												
0121-97-0007					27.5	28.0																
0121-97-0008	1/28/97				40.0	40.5				43J												
0121-97-0009					50.0	50.5										74J						
0121-97-0010					61.0	61.5										120J						
0121-97-0011					71.0	71.5																
0121-97-0012	1/29/97				80.0	80.5																
0121-97-0013					89.5	90.0																
0121-97-0014					99.5	100.0																
0121-97-0015					109.0	109.5																
0121-97-0016	1/30/97				119.5	120.0																
0121-97-0017					129.5	130.0																
0121-97-0018					137.5	138.0																
0121-97-0019					148.5	150.0																
0121-97-0111	2/3/97	c	Shafts	59	4.0	4.5																
0121-97-0112					10.2	10.7																
0121-97-0113					20.0	20.5																
0121-97-0114					31.5	32.0																
0121-97-0115	2/4/97				36.4	36.8				37J												
0121-97-0116					40.0	40.5																
0121-97-0117					49.5	50.0																

MATERIAL DISPOSAL AREA T
SEMIVOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval From (ft)	Sampled Interval To (ft)	SVOCs (ug/kg) Benzoic Acid	Phenanthrene	Anthracene	Di-n-Butylphthalate	Fluoranthene (2,600,000)	Butylbenzylphthalate	Pyrene (2,000,000)	Benzo (a) anthracene	Chrysene (24,000)	bis(2-Ethylhexyl)phthalate	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno(1,2,3-cd) pyrene	Dichlorodifluoromethane	Benzo(g,h,i) perylene
0121-97-0191	2/6/97	c	Shafts	62	5.0	5.5																
0121-97-0192					6.0	6.5																
0121-97-0193					10.0	10.5																
0121-97-0194					20.0	20.5																
0121-97-0195					30.0	30.5																
0121-97-0196					40.0	40.5																
0121-97-0197	2/7/97				49.5	50.0																
0121-97-0198					58.8	59.5																
0121-97-0218					58.8	59.5				120J												
0121-97-0199					70.0	70.5																
0121-97-0220					FB																	
0121-97-0200					78.4	79.5				210JB												
0121-97-1001	2/12/97	a	Bed 4	74	0.8	1.3																
0121-97-1002					9.0	9.5																
0121-97-1003					19.5	20.0																
0121-97-1004					26.5	26.9																
0121-97-1005					39.5	40.0																
0121-97-1006					48.5	49.0																
0121-97-0236	2/14/97	a	Bed 1	64	3.5	4.0																
0121-97-0237					8.5	9.0																
0121-97-0238					11.5	12.0																
0121-97-0239					13.5	13.9																
0121-97-0240					20.0	20.5																
0121-97-0241					29.5	30.0																
0121-97-0242					39.5	40.0																
0121-97-0243					49.5	50.0																
0121-97-0136	2/18/97	a/c	Bed 2 and Shaft Field	60	4.5	5.0																
0121-97-0137					10.0	10.5																
0121-97-0138					20.0	20.5																

MATERIAL DISPOSAL AREA T
SEMIVOLATILE ORGANIC COMPOUND RESULTS

Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval From (ft)	Sampled Interval To (ft)	SVOCs (ug/kg) Benzoic Acid	Phenanthrene	Anthracene	Di-n-Butylphthalate	Fluoranthene (2,600,000)	Butylbenzylphthalate	Pyrene (2,000,000)	Benzo (a) anthracene	Chrysene (24,000)	bis(2-Ethylhexyl)phthalate	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno(1,2,3-cd) pyrene	Dichlorodifluoromethane	Benzo(g,h,i) perylene
0121-97-0139					30.0	30.5																
0121-97-0140																						
0121-97-0141					50.0	50.5				71J												
0121-97-0142	2/19/97				60.0	60.5																
0121-97-0143					69.5	70.0																
0121-97-0163					69.5	70.0																
0121-97-0144					79.5	80.0										79J						
0121-97-0145					89.0	89.5																
0121-97-0146					99.5	100.0																
0121-97-0147	2/20/97				109.0	109.5																
0121-97-0148					118.5	119.0																
0121-97-0165					FB																	
0121-97-0149					129.0	129.5																
0121-97-0164					129.0	129.5																
0121-97-0150					139.0	139.5																
0121-97-0151					150.0	150.5																
0121-97-0162					FB		3J			1JB		5J										
0121-97-0152					160.0	162.5																
0121-97-0153					167.5	172.5																
0121-97-0154					174.5	175.0																
0121-97-0166	2/26/97	a'c	Bed 3 and Shaft Field	61	5.5	6.0																
0121-97-0167					10.0	10.5																
0121-97-0168					20	21																
0121-97-1126					20	21																
0121-97-0169	2/27/97				30	30.5																
0121-97-0170					40	40.5																
0121-97-0171					48	48.5																
0121-97-1129					FB					1JB						9JB						
0121-97-0172					59.5	60																

MATERIAL DISPOSAL AREA T
SEMIVOLATILE ORGANIC COMPOUND RESULTS

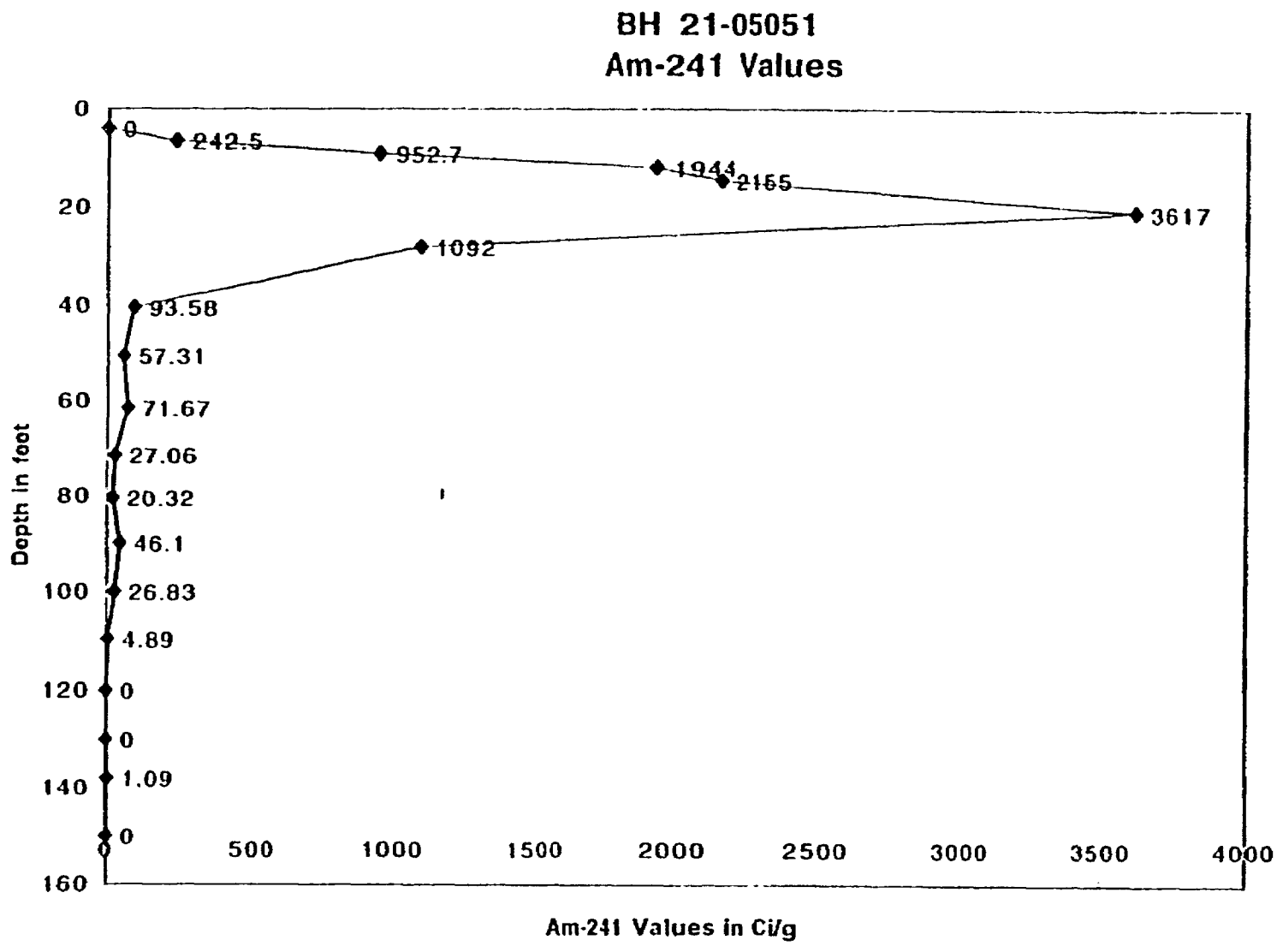
Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval From (ft)	Sampled Interval To (ft)	SVOCs (ug/kg) Benzoic Acid	Phenanthrene	Anthracene	Di-n-Butylphthalate	Fluoranthene (2,600,000)	Butylbenzylphthalate	Pyrene (2,000,000)	Benzo (a) anthracene	Chrysene (24,000)	bis(2-Ethylhexyl)phthalate	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno(1,2,3-cd) pyrene	Dichlorodifluoromethane	Benzo(g,h,i) perylene
0121-97-0173					69.5	70				130J												
0121-97-0174	3/3/97				78.5	78.8																
0121-97-0175					89.5	90																
0121-97-0176					98.7	99.2																
0121-97-0177	3/4/97				108.5	109																
0121-97-0178					119	119.5																
0121-97-0179					128.5	129																
0121-97-0180	3/5/97				140	140.5																
0121-97-0181					152.5	153																
0121-97-0182					160.0	160.5																
0121-97-0183					170.0	170.5																
0121-97-1128					170.0	170.5																
0121-97-0184	3/6/97				180.0	180.5																
0121-97-0185					189.5	190.0																
0121-97-1131	3/10/97	a	Bed 3	75	6.7	7.2																
0121-97-1132					8.8	9.3																
0121-97-1133					15	16				71J												
0121-97-1141					15	16																
0121-97-1134					20	21																
0121-97-1135					39.5	30																
0121-97-1136	3/11/97				38.8	39.3																
0121-97-1137					45	46				100J												
0121-97-1138					58	58.5				91J												
0121-97-1139					69.5	70				99J												
0121-97-1161	3/12/97	c	Shafts	71	5.0	5.5																
0121-97-1162					9.5	10.0																
0121-97-1163					20.0	20.5																
0121-97-1164					28.5	29.0																
0121-97-1165					34.0	34.5																
0121-97-1166	3/13/97				42.0	42.5																

MATERIAL DISPOSAL AREA T
SEMIVOLATILE ORGANIC COMPOUND RESULTS

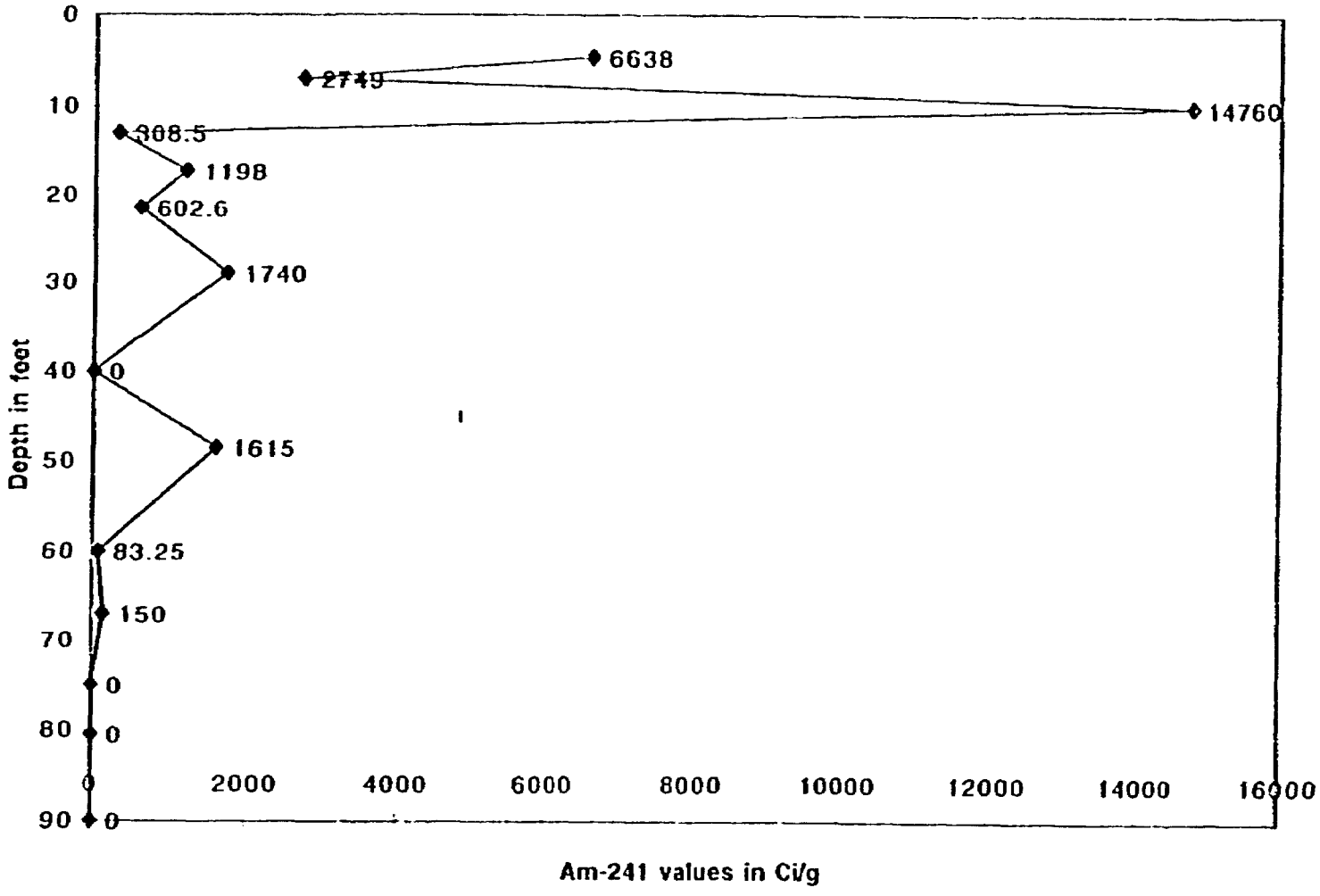
Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval From (ft)	Sampled Interval To (ft)	SVOCs (ug/kg) Benzoic Acid	Phenanthrene	Anthracene	Di-n-Butylphthalate	Fluoranthene (2,600,000)	Butylbenzylphthalate	Pyrene (2,000,000)	Benzo (a) anthracene	Chrysene (24,000)	bis(2-Ethylhexyl)phthalate	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno(1,2,3-cd) pyrene	Dichlorodifluoromethane	Benzo(g,h,i) perylene
0121-97-1167					50.5	51.0																
0121-97-1168					61.0	61.5																
0121-97-1169					70.0	70.5																
0121-97-1170					80.0	80.5																
0121-97-1171					90.0	90.5																
0121-97-1172					97.0	97.5																
0121-97-1173					100.0	100.5																
0121-97-1174					104.2	105.0																
0121-97-1175					109.5	110.0																
0121-97-1176	3/17/97				118.5	119.5																
0121-97-1177					129.0	130.0																
0121-97-1178					140.0	149.5																
0121-97-1179					149.0	149.5																
0121-97-1160					159.5	160.0																
0121-97-1181	3/18/97				170.0	171.0																
0121-97-1182					180.0	181.0																
0121-97-1183					190.0	191.0																
0121-97-1184					197.0	198.0																
0121-97-0026	3/24/97	a	Bed 1	52	2.5	3.0		170J	48J		150J		160J	73J	79J		50J	61J	71J	48J		51J
0121-97-0050					FB											5JB						
0121-97-0027					9.0	9.5																
0121-97-0028					20.0	20.5																
0121-97-0029					26.0	27.0																
0121-97-0030					39.5	40.0																
0121-97-0031	3/25/97				49.5	50.0																
0121-97-0032	3/31/97				59.5	60.0																
0121-97-1276					FB																	
0121-97-0033					70.0	71.0																
0121-97-1271					FD																4J	
0121-97-0034					79.5	80.0																

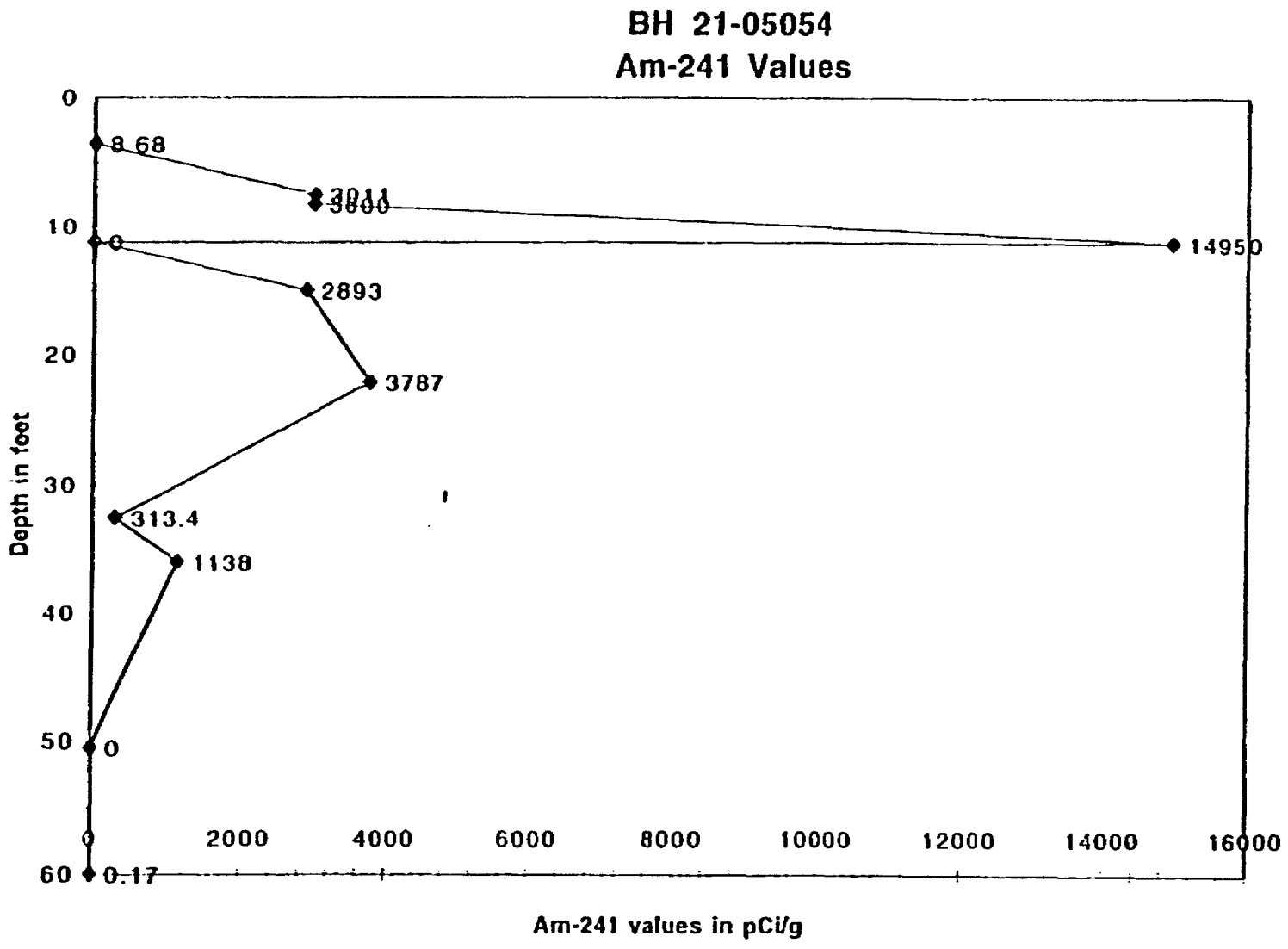
MATERIAL DISPOSAL AREA T
SEMIVOLATILE ORGANIC COMPOUND RESULTS

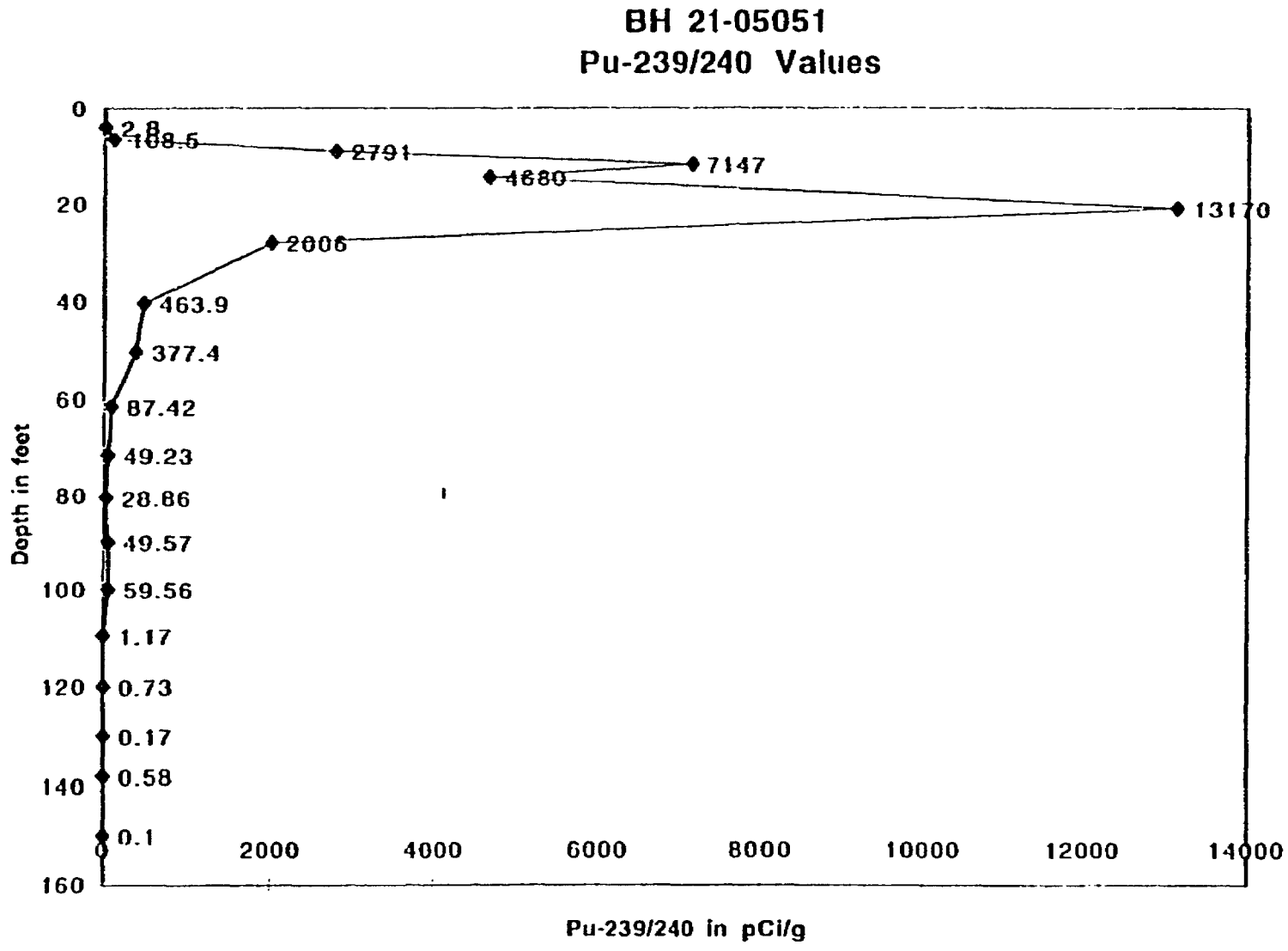
Sample Number	Sample Collection Date	PRS No. 21-016(*)	Unit	FIMAD Location ID (21-050xx)	Sampled Interval From (ft)	Sampled Interval To (ft)	SVOCs (ug/kg) Benzoic Acid	Phenanthrene	Anthracene	Di-n-Butylphthalate	Fluoranthene (2,600,000)	Butylbenzylphthalate	Pyrene (2,000,000)	Benzo (a) anthracene	Chrysene (24,000)	bis(2-Ethylhexyl)phthalate	Benzo (b) fluoranthene	Benzo (k) fluoranthene	Benzo (a) pyrene	Indeno(1,2,3-cd) pyrene	Dichlorodifluoromethane	Benzo(g,h,i) perylene
0121-97-0035					87.0	88.0																
0121-97-0036					96.0	96.5																
0121-97-0037					109.0	110.0																
0121-97-0038					119.0	120.0																
0121-97-0039	4/1/97				130.0	131.0																
0121-97-1277					FB											2J						
0121-97-0040					139.0	140.0																
0121-97-0041					149.0	150.0																
0121-97-1272					FD																	
0121-97-0221	3/25/97	a	Bed 1	63	4.5	5.0																
0121-97-0222					7.5	8.3																
0121-97-0234					7.5	8.3																
0121-97-0223					10.0	11.6																
0121-97-0224					20.0	20.5																
0121-97-0225					30.5	31.3																
0121-97-0226					41.0	42.0																
0121-97-0227					49.0	50.0																
0121-97-0228					59.5	60.0																
0121-97-0229	3/27/97				69.5	70.0																
0121-97-0235					FB																	
0121-97-0230					78.0	78.5																
0121-97-0231					89.5	90.0																
0121-97-0232					99.5	100.0																
0121-97-1209					FD																	
0121-97-0233					110.0	110.5																


BH 21-05051
Am-241 Values
Depth in feet
Am-241 Values in Ci/g
0
20
40
60
80
100
120
140
160
500
1000
1500
2000
2500
3000
3500
4000
0
242.5
952.7
1944
2165
3617
1092
93.58
57.31
71.67
27.06
20.32
46.1
26.83
4.89
0
0
1.09
0

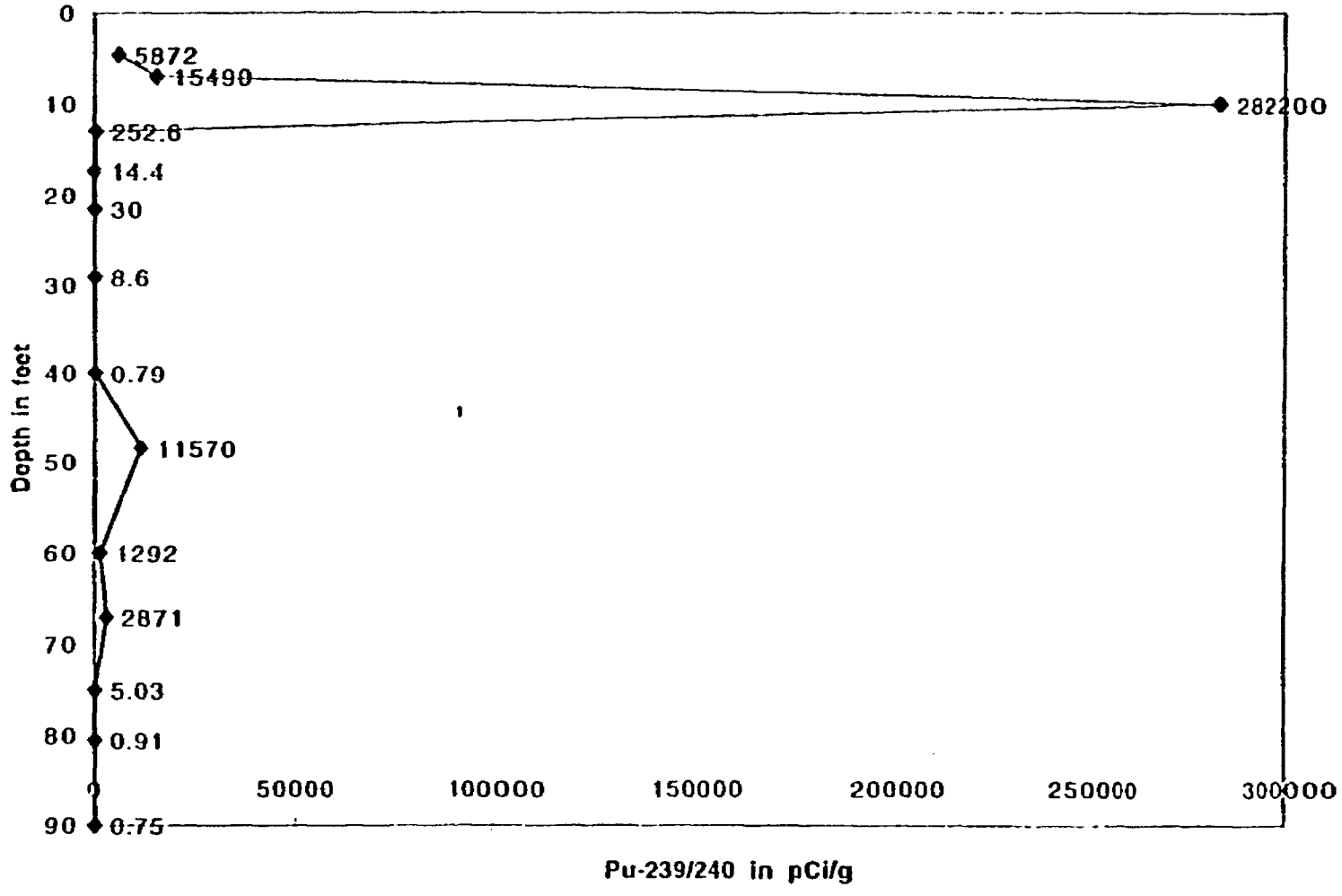
BH 21-05053
Am-241 Values

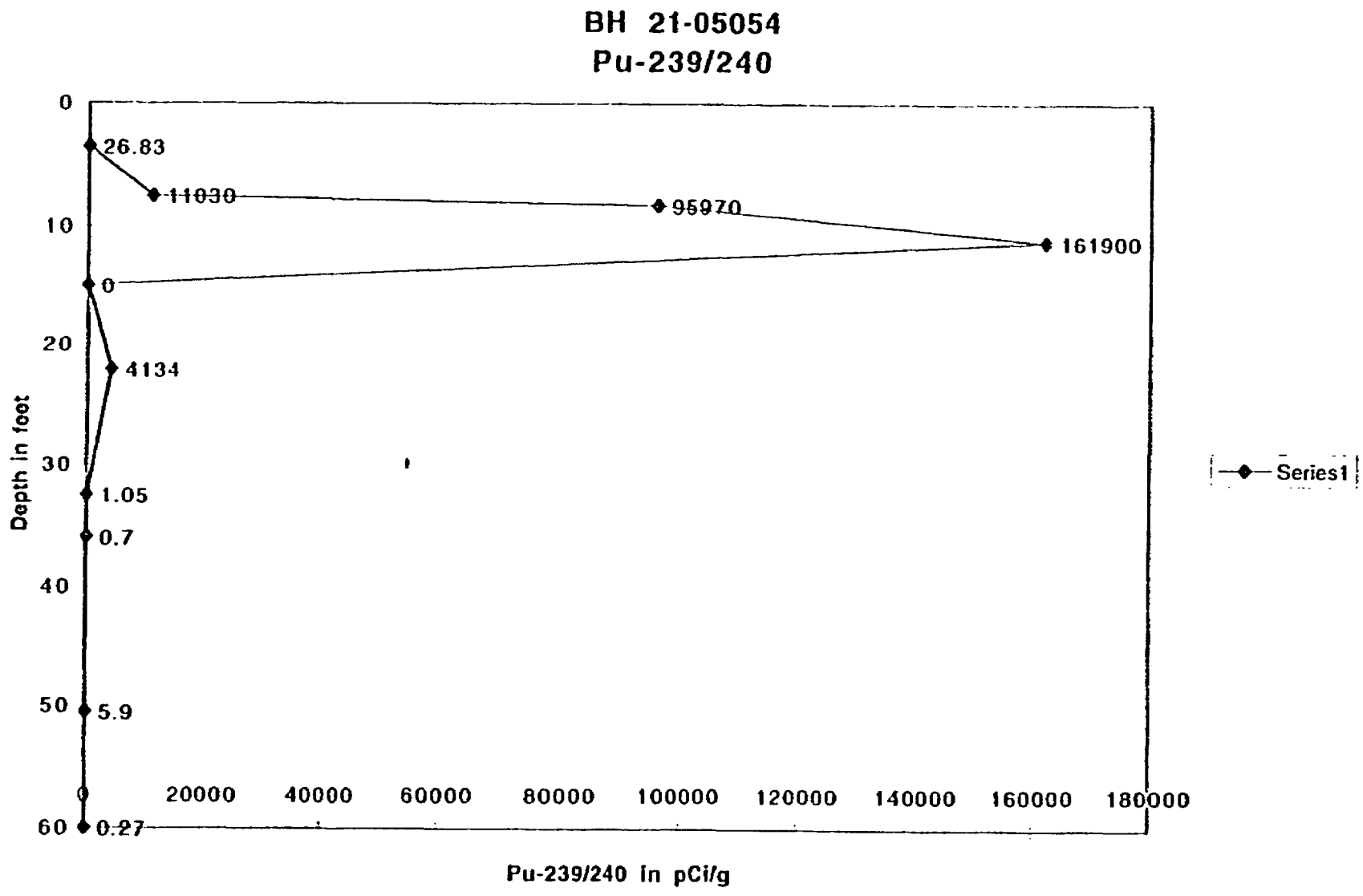



BH 21-05054
Am-241 Values
Depth in feet
0
10
20
30
40
50
60
8.68
3011
3600
0
14950
2893
3787
313.4
1138
0
0.17
0
2000
4000
6000
8000
10000
12000
14000
16000
Am-241 values in pCi/g


BH 21-05051
Pu-239/240 Values
Depth in feet
Pu-239/240 in pCi/g
0
20
40
60
80
100
120
140
160
0
2000
4000
6000
8000
10000
12000
14000
2.8
168.5
2791
7147
4680
13170
2006
463.9
377.4
87.42
49.23
28.86
49.57
59.56
1.17
0.73
0.17
0.58
0.1

BH 21-05053
Pu-239/240 Values




BH 21-05054
Pu-239/240
Depth in feet
0
10
20
30
40
50
60
26.83
11030
95970
161900
0
4134
1.05
0.7
5.9
0.27
20000
40000
60000
80000
100000
120000
140000
160000
180000
Pu-239/240 in pCi/g
Series1