

TA-00



Los Alamos National Laboratory/University of California
Risk Reduction & Environmental Stewardship (RRES)
Remediation (R) Program, MS M992
Los Alamos, New Mexico 87545
(505) 667-0808/FAX (505) 665-4747



Date: April 11, 2003
Refer to: ER2003-0285

Mr. James Bearzi
Bureau Chief
NMED – Hazardous Waste Bureau
2905 Rodeo Park Drive East
Building 1
Santa Fe, NM 87505-6303

**SUBJECT: RESPONSE TO DEPARTMENT OF JUSTICE / NEW MEXICO ENVIRONMENT
DEPARTMENT (DOJ / NMED) ACTION ITEM FOR POLYCHLORINATED
BIPHENYL (PCB) SITES**

Dear Mr. Bearzi:

Pursuant to the April 4, 2003 e-mail message from Wendy Blake of the United States (US) DOJ to Charles De Saillan and yourself, the US Department of Energy and University of California (DOE/UC) are providing the following information related to Areas of Concern (AOCs) 00-029(a), 00-029(b), and 00-029(c). These three sites were identified in the e-mail as part of Group 1 of polychlorinated biphenyl (PCB) sites being addressed by DOE/UC.

- (1) 1995 EPA No Further Action (NFA) Determination. Attachment A.
- (2) June 20, 2002, Voluntary Corrective Action (VCA) Plan, Sections 2.4 and E-3.2.7, relating to LANL's proposal to conduct additional sampling at AOCs 00-029 (a), (b) and (c). Attachment B.
- (3) February 20, 2003, NMED letter, approving the VCA plan (as modified by LANL's response to NMED's Request for Supplemental Information which did not specifically address these three AOCs). Attachment C.

The approval letter requested that LANL determine the applicability of PCB regulations to sites addressed in the VCA plan. LANL is preparing a response to this request that will indicate that releases of PCBs at AOCs 00-029(a), 00-029(b), and 00-029(c) would be subject to the Toxic Substances Control Act (TSCA) but that cleanup of these sites under TSCA is not required based on levels of PCBs detected, as summarized below.

(4) Validated Sampling Results

The sampling described in the VCA plan was performed by LANL during the summer of 2002. A total of 116 samples (including quality assurance/quality control samples) were collected and analyzed for PCBs. Complete results will be included in a VCA Report for these sites to be



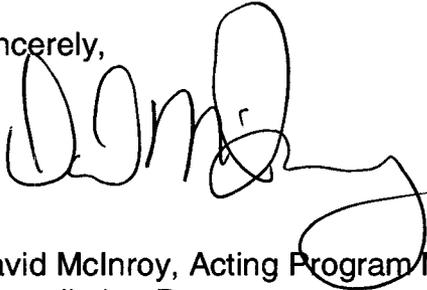
April 11, 2003

prepared by LANL. The sampling and analysis results for AOCs 00-029(a), 00-029(b), and 00-029(c) indicate that three PCB species were detected (Aroclor-1242, Aroclor-1254, and Aroclor-1260). All detected concentrations of Aroclors and all detection limits were below 1.0 mg/kg (ppm). Further, the sum of all maximum detection limits and all maximum detected concentrations is less than 1.0 mg/kg. These results are consistent with EPA's NFA decision.

A summary of the results from analysis of the 116 samples collected at AOCs 00-029(a), 00-029(b), and 00-029(c) in 2002 is as follows:

Analyte	Number of Samples With Non-detects	Maximum Detection Limit, mg/kg	Number of Samples With Detects	Maximum Detected Concentration, mg/kg
Aroclor-1016	116	0.0372	0	NA
Aroclor-1221	116	0.0372	0	NA
Aroclor-1232	116	0.0372	0	NA
Aroclor-1242	109	0.0372	7	0.137
Aroclor-1248	116	0.0372	0	NA
Aroclor-1254	68	0.0372	48	0.175
Aroclor-1260	20	0.0372	96	0.134

Sincerely,



David McInroy, Acting Program Manager
Remediation Program
Los Alamos National Laboratory

DM/JE/dv

Enclosure: Attachments

Cy:(w/enc)

N. Quintana, RRES-R, MS M992

D. Gregory, LASO, MS A316

J. Davis, NMED-SWB

S. Yanicak, NMED-OB

L. King, EPA Region 6

RRES-R File, MS M992

IM-5, MS A150

RPF MS M707

Cy:(w/o enclosure)

D. McInroy, RRES-R, MS M992

B. Ramsey, RRES-DO, MS J591

J. Bearzi, NMED-HWB

J. Parker, NMED-OB

Attachment A

1995 EPA Approval Letter for RFI Report for AOCs 00-029(a), 00-029(b), and 00-029(c)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

1.4.2.6.1.4.1.4

Bonnie - As
prepare transmittal
memo to Jorg.
Ted

JAN 10 1995

JAN 15 1995

Mr. Theodore J. Taylor
Program Manager
Department of Energy
Los Alamos Area Office
Los Alamos, NM 87544

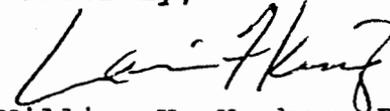
Re: RFI Report on Aggregate 0-G, Operable Unit 1071
Los Alamos National Laboratory NM0890010515

Dear Mr. Taylor:

The Environmental Protection Agency (EPA) has reviewed the RCRA Facility Investigation (RFI) Report received May 25, 1993, for Aggregate 0-G in Operable Unit 1071. The Solid Waste Management Units (SWMUs) listed in the report, 0-029(a-c) do not require any additional investigation, and do not need to be added to the HSWA portion of the RCRA permit.

Should you have any questions, please feel free to contact Mrs. Barbara Driscoll of my staff at (214) 665-7441.

Sincerely,

for 
William K. Honker, P.E., Chief
RCRA Permits Branch

cc: Mr. Benito Garcia
New Mexico Environment Department
Mr. Jorg Jansen
Los Alamos National Laboratory



30002860

US DOE/LAAO IN



Recycled/Recyclable
Printed with Soy/Canola Ink on paper that
contains at least 50% recycled fiber

Attachment B

Sections 2.4 and E-3.2.7 of Voluntary Corrective Action Plan for Potential Release Sites (PRSs) 00-030(b)-00, 00-027, 00-030(a), 00-029(a,b,c), 00-010(a,b), and 00-033(a).

Table 2.3-3
**Data Gaps for Wooden Septic Tank Receiving Incinerator Waste,
 Septic Tank Area, PRS 0-030(m)**

Suite	5 to 15 ft
PCBs	√
Pesticides	√
PAHs	√
VOCs	No data
SVOCs	√
Inorganics	No data
Radionuclides	No tritium data

√ = Data available for analysis, indicating no data gap.

Table 2.3-4
**Data Gaps for Wooden Septic Tank Receiving Incinerator Waste,
 Area Draining into Leach Field, PRS 0-030(m)**

Suite	5 to 15 ft
PCBs	√
Pesticides	√
PAHs	√
VOCs	No data
SVOCs	√
Inorganics	No data
Radionuclides	No tritium, isotopic-uranium data

√ = Data available for analysis, indicating no data gap.

Previous remedial activities at PRS 0-030(m) did not remove the outlet pipe. Although this outlet pipe is inactive and the source is removed, the outlet pipe will be removed to prevent exposure to any potential residual concentrations of COPCs within the pipe. When the outlet pipe is removed, the soil in the trench will be visually inspected for staining as evidence of leaks from the pipe.

The data gaps for the PRS 0-030(m) subareas will be addressed by additional sampling as described in Appendix E. If the screening assessments identify potential risks to human health or the environment, and if a cost-effective remedy is available, the remedy will be implemented and presented in the VCA completion report.

2.4 Former PCB Transformer Sites [PRS 0-029(a,b,c)]

PRSs 0-029(a,b,c) are identified in the SWMU report (LANL 1990, 0145) as Aggregate 0-G, leakage from transformers containing PCBs (Figure 1.0-3). PRSs 0-029(a,b) were two former production well sites located on San Ildefonso Pueblo property, and PRS 0-029(c) was a production well site located on Santa Fe National Forest land in Guaje Canyon. The PRSs consist of potentially contaminated soil resulting from leaks from transformers located on power poles.

PRSs 0-029(a,b,c) were investigated in 1992, and an RFI phase report was written and submitted (LANL 1993, 26972). The report contains the final analytical data for these PRSs, but these data were not submitted to the ER Project's analytical database (the Facility for Information Management, Analysis, and Display). The quality assurance/quality control information for the sample data was not available, therefore, the use of the sample data is questionable. These PRSs will be resampled to obtain data that meets current LANL quality assurance/quality control requirements.

PRSs 0-029(a,b) are located in Los Alamos Canyon on San Ildefonso Pueblo property near Totavi, and PRS 0-029(c) is located in the Santa Fe National Forest in Guaje Canyon approximately 2 mi directly north of PRSs 0-029(a,b). Despite the distance separating PRSs 0-029(a,b) and PRS 0-029(c), these sites are evaluated together because of the similar sources and nature of contamination (PCBs). The 0-029 PRSs are located near (within 50 to 200 ft of) intermittent stream beds (Appendix D, Ecological Checklists).

2.4.1 PRS 0-029(a), Leakage from PCB Transformers

2.4.1.1 PRS 0-029(a), Site Description and Operational History

PRS 0-029(a) is the location of potential soil contamination due to releases from two transformers located on a power pole used for a groundwater production well (Well #5) in Los Alamos Canyon (Figure 1.0-3). The well is located in the bottom of Los Alamos Canyon, adjacent to a stream channel; the power pole is located about 20 ft from the PRS boundary closest to the stream channel. The two transformers were removed in October 1987 and contained oil with PCB concentrations of 162 ppm and 292 ppm (LANL 1990, 0145; Bailey 1992, 02007.2).

2.4.1.2 PRS 0-029(a), Previous Field Investigations

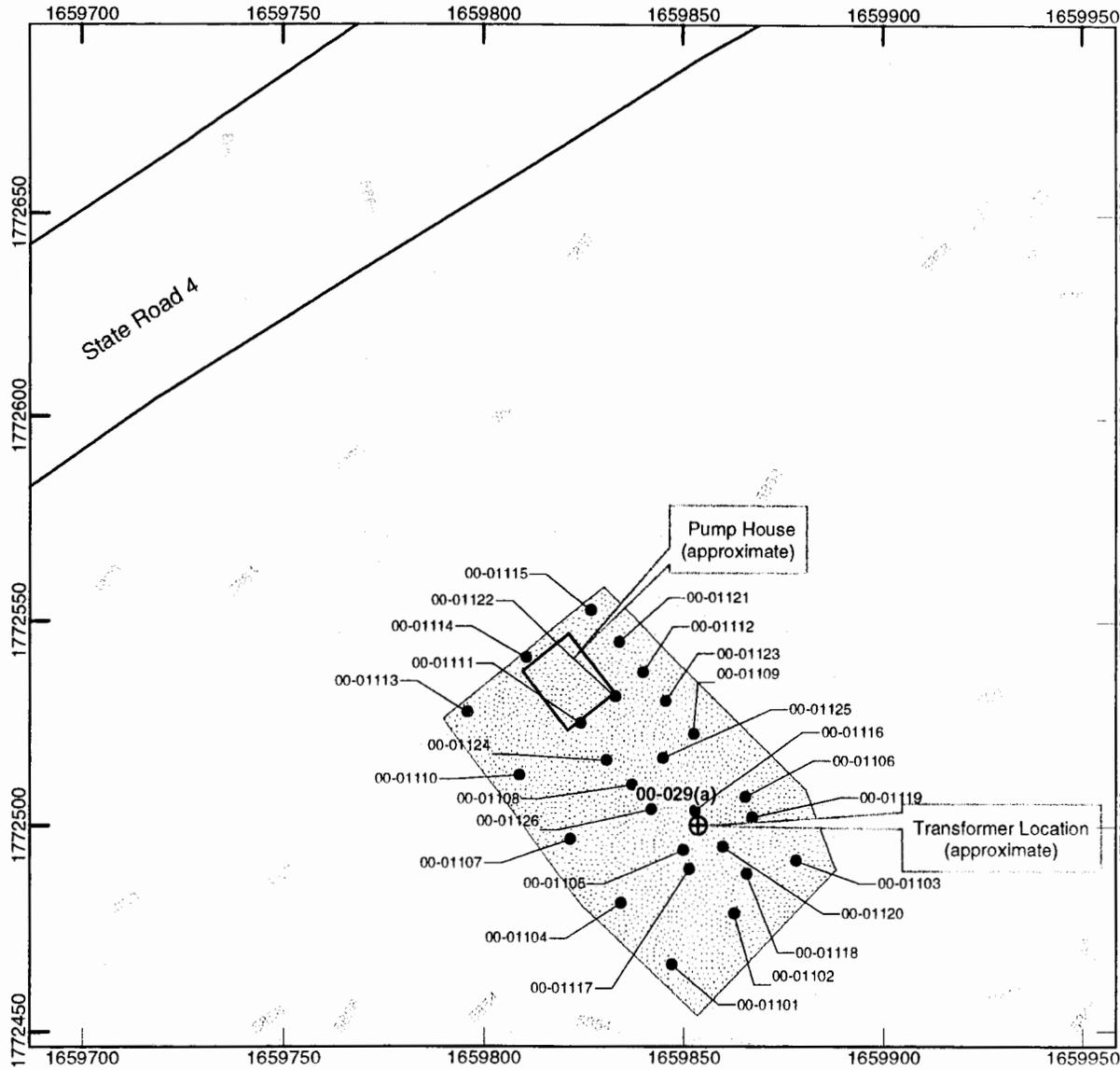
Sampling at PRS 0-029(a) was conducted in March 1992. A 100-ft by 50-ft grid was established, and fifteen soil samples were collected at regular intervals along the grid (Figure 2.4-1). Five additional samples were collected in the area around the power pole; one at the base. The analytical results indicated that the PCB levels in two of the samples were 0.09 ppm and that the remaining 18 samples were below the analytical detection limit of 0.06 ppm.

Although the PCB levels were an order of magnitude below the cleanup level of 10 ppm, a decision was made to define the nature and extent of the contamination. To define the nature and extent, six additional soil samples were collected in the area between the pump house and the power pole (Figure 2.4-1). The sampling sites were selected to more closely delineate the boundary of the suspected contaminated area (LANL 1993, 26972).

During the two sampling events, a total of 26 samples were collected and submitted to the LANL Environmental Chemistry Group (formerly EM-9, now C-ACS) for analysis of PCBs. For health and safety reasons, the soil samples were also screened for gross-alpha, -beta, and -gamma activity before submittal to the laboratory. One sample was collected and analyzed for VOCs by purge and trap gas chromatography/mass spectrometry analysis, and for petroleum hydrocarbons by Fourier transform infrared spectroscopy.

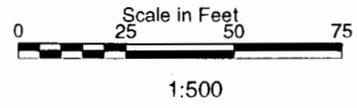
The original plan had been to remove the well house and to plug the well, but San Ildefonso Pueblo informed the Laboratory that they wanted the building and the well. Because the well house was left in place, additional samples were collected inside the well house. These samples included a swipe sample from the floor near the drain, and a sample of oil from inside a turbine located in the well house. The floor swipe contained 2.3 ppm of PCBs and the turbine oil less than 5 ppm of PCBs.

Figure 2.4-1. PRS 0-029(a), grid locations



Legend

- Location ID
- Paved Road
- 2 ft Contour (2000 LIDAR)
- ▨ PRS



Produced by Rick Kelley
 GIS Lab Map# M200020 21-MAR-02

During the second sampling event, an area of "oil-stained" soil was noted south of the pump house. An additional soil sample was collected from within this stained area and analyzed for VOCs, PCBs, and TPH. This sample had a PCB level below the detection limit of 0.06 ppm.

2.4.1.3 PRS 0-029(a), Results of Previous Investigations

Although the PCB contamination in the soil was below the Toxic Substances Control Act (TSCA) cleanup level of 10 ppm, the Laboratory elected to remove the contaminated soil. The boundary of the area identified for excavation was conservatively selected to ensure that all contaminated soil was removed. Approximately 20 yd³ of soil was removed in August 1992 (LANL 1993, 26972). In addition to the soil removal, the well house was decontaminated. No confirmatory sampling was conducted because the levels of PCBs were less than the TSCA cleanup level.

The original data packages from the PRS 0-029(a) sampling events were not available for baseline or focused validation during preparation of this plan; thus the analytical data for these PRSs were not useable. Therefore, a PCBs data gap exists for this PRS. This PRS will be resampled for PCBs to obtain data that meet current LANL quality assurance/quality control requirements. The proposed sampling plan is described in Appendix E.

2.4.2 PRS 0-029(b), Leakage From PCB Transformers

2.4.2.1 PRS 0-029(b), Site Description and Operational History

PRS 0-029(b) is the location of potential soil contamination due to leaks from three transformers located on a power pole that supplied electric power to a groundwater production well (Well #4) in Los Alamos Canyon. The well was located in the bottom of Los Alamos Canyon, adjacent to a stream channel and approximately 1 mi upstream from Totavi. The power pole is located about 20 ft from the PRS boundary closest to the stream channel. The transformers were removed in October 1987 and contained oil with PCB concentrations of 231 ppm, 206 ppm, and 362 ppm (LANL 1992, 0781; Bailey 1992, 02007.2). The well was decommissioned and the well house removed in 1989 (Aldrich 1991, 71266).

2.4.2.2 PRS 0-029(b), Previous Field Investigations

Sampling at PRS 0-029(b) was conducted in March 1992. A 50-ft by 100-ft grid was established, and fifteen soil samples were collected at regular intervals along the grid (Figure 2.4-2). Five additional samples were collected at the base of the power pole.

2.4.2.3 PRS 0-029(b), Results of Previous Investigations

Twenty samples were collected and submitted to the LANL Environmental Chemistry Group (C-ACS) for analysis of PCBs. The soil samples were also screened for gross-alpha, -beta, and -gamma radioactivity before submittal. The PCB analytical data were less than the detection level of 0.06 ppm. Therefore, no additional action was performed or recommended at that time.

The original data packages were not available for baseline or focused validation during preparation of this plan; thus, the analytical data for these PRSs were not useable. Therefore, a data gap exists for this PRS for PCBs. This PRS will be resampled for PCBs to obtain data that meet current LANL quality assurance/quality control requirements.

2.4.3 PRS 0-029(c), Leakage from PCB Transformers

2.4.3.1 PRS 0-029(c), Site Description and Operational History

PRS 0-029(c) is the location of potential soil contamination due to leakage from a transformer located on a power pole that supplied electrical power to a groundwater production well (Well #1) in Guaje Canyon. The well was located about 30 m (100 ft) from a stream channel, approximately 3.2 km (2 miles) upstream of its confluence with Los Alamos Canyon. The power pole was located about 6 m (20 ft) from the PRS boundary closest to the stream channel. The transformer was removed in April 1986, and the oil contained less than 50 ppm of PCBs (Aldrich 1991, 71265).

2.4.3.2 PRS 0-029(c), Previous Field Investigations

Sampling at PRS 0-029(c) was conducted in March 1992. A 23-m by 20-m (75-ft by 65-ft) grid was established, and sixteen soil samples were collected. Five additional samples were collected from the area around the power pole (Figure 2.4-3).

2.4.3.3 PRS 0-029(c), Results of Previous Investigations

The analytical results for PRS 0-029(c) indicated that the PCB levels in the soil samples were less than 0.09 ppm. No additional action was performed or recommended in the RFI Report (LANL 1993, 26972).

The original data packages were not available for baseline or focused validation during preparation of this plan; thus, the analytical data for these PRSs were not useable. Therefore, a data gap exists for this PRS for PCBs. This PRS will be resampled for PCBs to obtain data meeting current LANL QA/QC requirements.

2.5 Non-HSWA PRSs near the 6th Street Warehouses [PRSs 0-010(a and b) and 0-033(a)]

PRSs 0-010(a and b) and PRS 0-033(a) are grouped together because they are non-HSWA PRSs that will not have additional sampling. Both PRS 0-010(a) and PRS 0-010(b) were approved by DOE for NFA under Criterion 2. PRS 0-033(a) was remediated, and an NFA was requested under Criterion 4. These PRSs are included in this VCA Plan because they are located within the DP Road land transfer boundary.

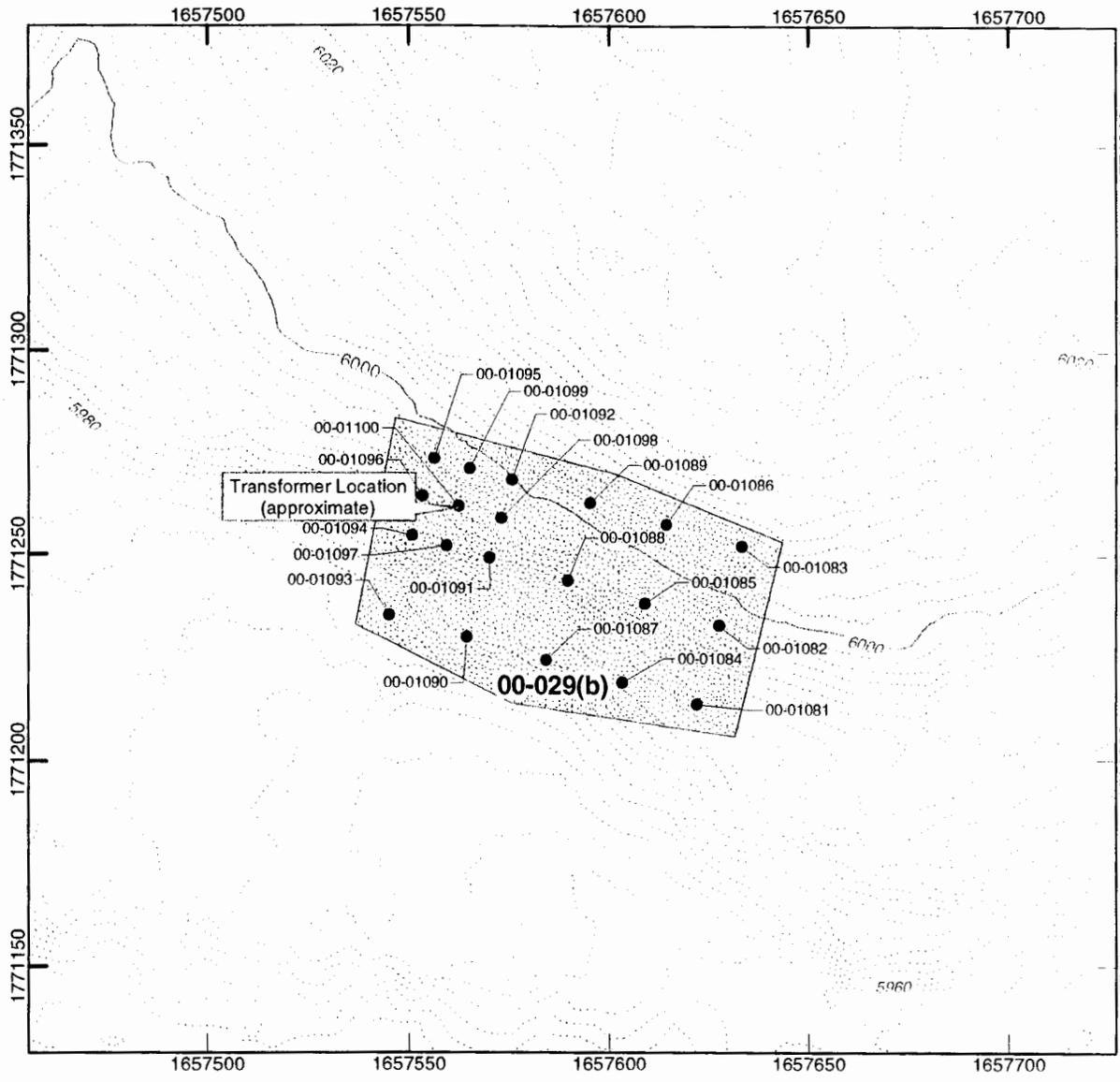
2.5.1 PRS 0-010(a), Surface Disposal

2.5.1.1 PRS 0-010(a), Site Description and Operational History

PRS 0-010(a) was identified originally as a surface disposal site located on a small mesa southwest of Material Disposal Area (MDA) B, along DP Road near TA-21 (Figure 1.0-2). It was first identified as a PRS based on a preliminary review of aerial photographs taken in the mid-1940s, which seemed to indicate the presence of a drum storage area and several trenches.

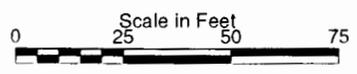
2.5.1.2 PRS 0-010(a), Previous Field Investigations

Figure 2.0-1, an aerial photo from 1946, clearly shows rows of material, not trenches. After an in-depth analysis of the photograph was performed before the submittal of the OU 1071 Work Plan (LANL 1992, 0781), the PRS was proposed for NFA under Criterion 2 (the site was never used for the management of RCRA solid or hazardous waste). Additional information gained in 1996 from an interview with a former Zia Company employee (LANL 1996, 71415) who had worked in the area identified the stored materials as canisters of roofing asphalt and roofing tar pitch. Thus, it was determined that the PRS had been incorrectly identified on the SWMU Report (LANL 1990, 0145).



Legend

- Location ID
- 2 ft Contour (2000 LIDAR)
- 10 ft Contour (2000 LIDAR)
- 20 ft Contour (2000 LIDAR)
- 100 ft Contour (2000 LIDAR)
- ▨ PRS



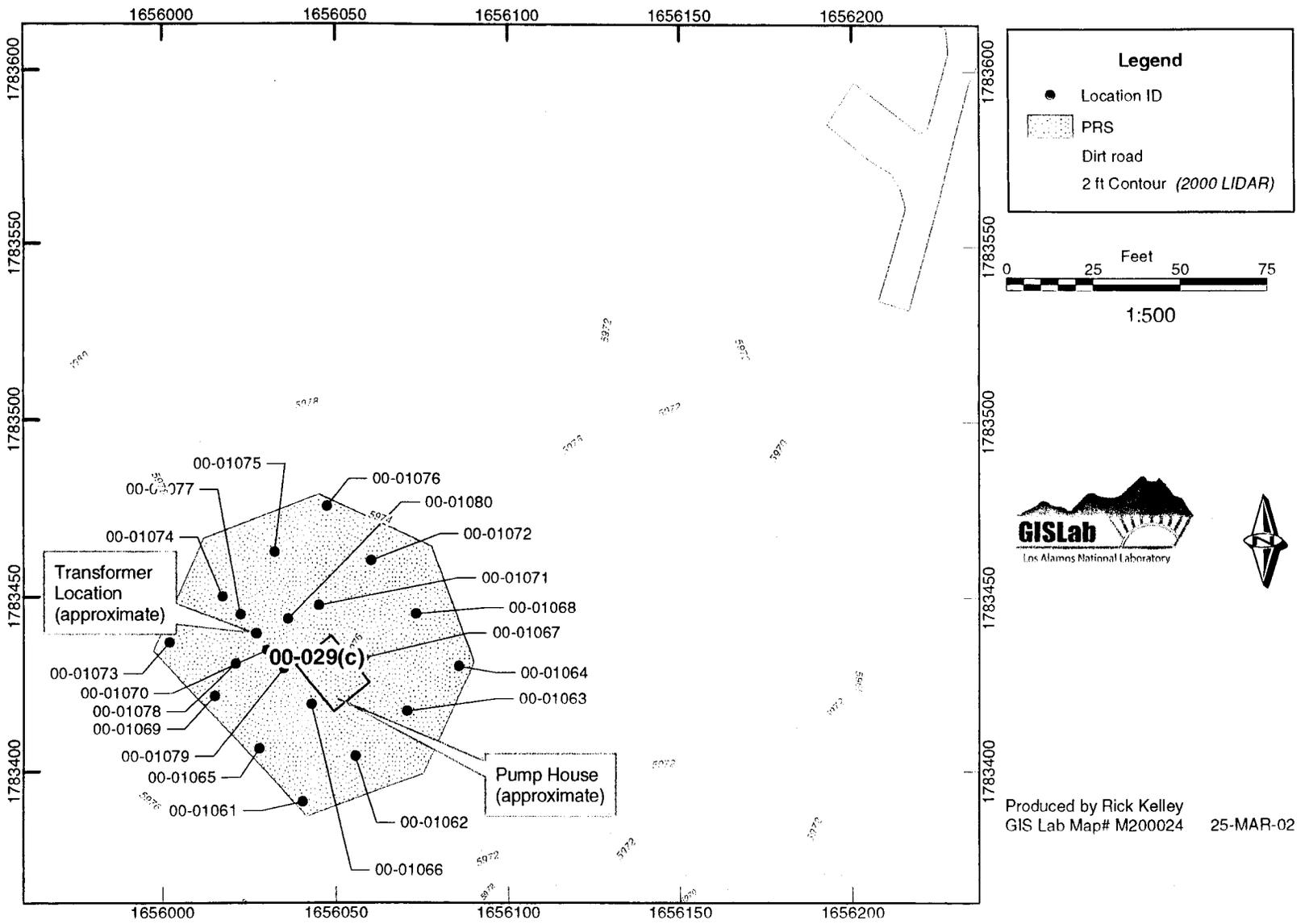
1:500



Produced by Rick Kelley
 GIS Lab Map# M200022 22-MAR-02

Figure 2.4-2. PRS 0-029(b), grid locations

Figure 2.4-3. PRS 0-029(c), grid locations



This sampling will define the nature and extent of the contamination, if any, within the leach field. In addition, the vertical and lateral extent of any contamination associated with the piping will be defined.

E-3.2.7 PRS 0-029(a,b,c)

PRS 0-029(a) is the location of potential soil contamination due to releases from two PCB-containing transformers located on a power pole for a groundwater production well (Well #5) in Los Alamos Canyon. Approximately 20 yd³ of soil that was stained was removed from this site. There is no record of the area being regraded; therefore, the samples will be collected from 0–6 in. and 12-18 in. (Table E-3.2-7). The original sampling plan that was implemented in 1993 (LANL 1993, 26972) will be followed, with a few exceptions. The previous plan did not call for collecting any samples from the rill. The new grid will have nine sample locations instead of fifteen. In addition, samples will be collected from the area around the base of the power pole and inside the well house (see Figure E-3.2-3).

Table E-3.2-7
PRS 0-029(a,b,c) Sampling Design

Location Description	Depth (ft)	Analytical Suites	Objective
PRS 0-029(a): 9 grid samples (grid is 50 ft by 100 ft) 1 sample from base of power pole 4 samples from area around power pole 3 samples along rill on eastern perimeter 3 samples from inside well house	0–0.5 1–1.5	PCBs	Resample to determine if PCBs exist at the site
PRS 0-029(b): 15 grid samples (grid is 65 ft by 75 ft) 5 samples from base of power pole	0–0.5 1–1.5	PCBs	Resample to determine if PCBs exist at the site
PRS 0-029(c): 16 grid samples (grid is 65 ft by 75 ft) 5 samples from area around power pole	0–0.5 1–1.5	PCBs	Resample to determine if PCBs exist at the site

PRS 0-029(b) is the location of potential soil contamination due to releases from three transformers located on a power pole that was used to supply electrical power to a groundwater production well (Well #4) in Los Alamos Canyon. A grid similar to the one used in 1992 will be used to collect the soil samples (LANL 1993, 26972).

Fifteen grid samples will be collected, and another five samples will be collected from the area around the base of the former power pole (see Figure E-3.2-4).

PRS 0-029(c) is the location of potential soil contamination due to leakage from a PCB-containing transformer. This transformer was located on a power pole that was used to supply electrical power to a groundwater production well (Well #1) in Guaje Canyon (see Figure E-3.2-5). The original sampling plan (LANL 1993, 26972) that was implemented in 1993 will be followed. Briefly, this plan involved collecting the soil samples from a grid system. Each sample will be submitted to a fixed analytical laboratory for PCB analysis (see Table E-3.2-7).

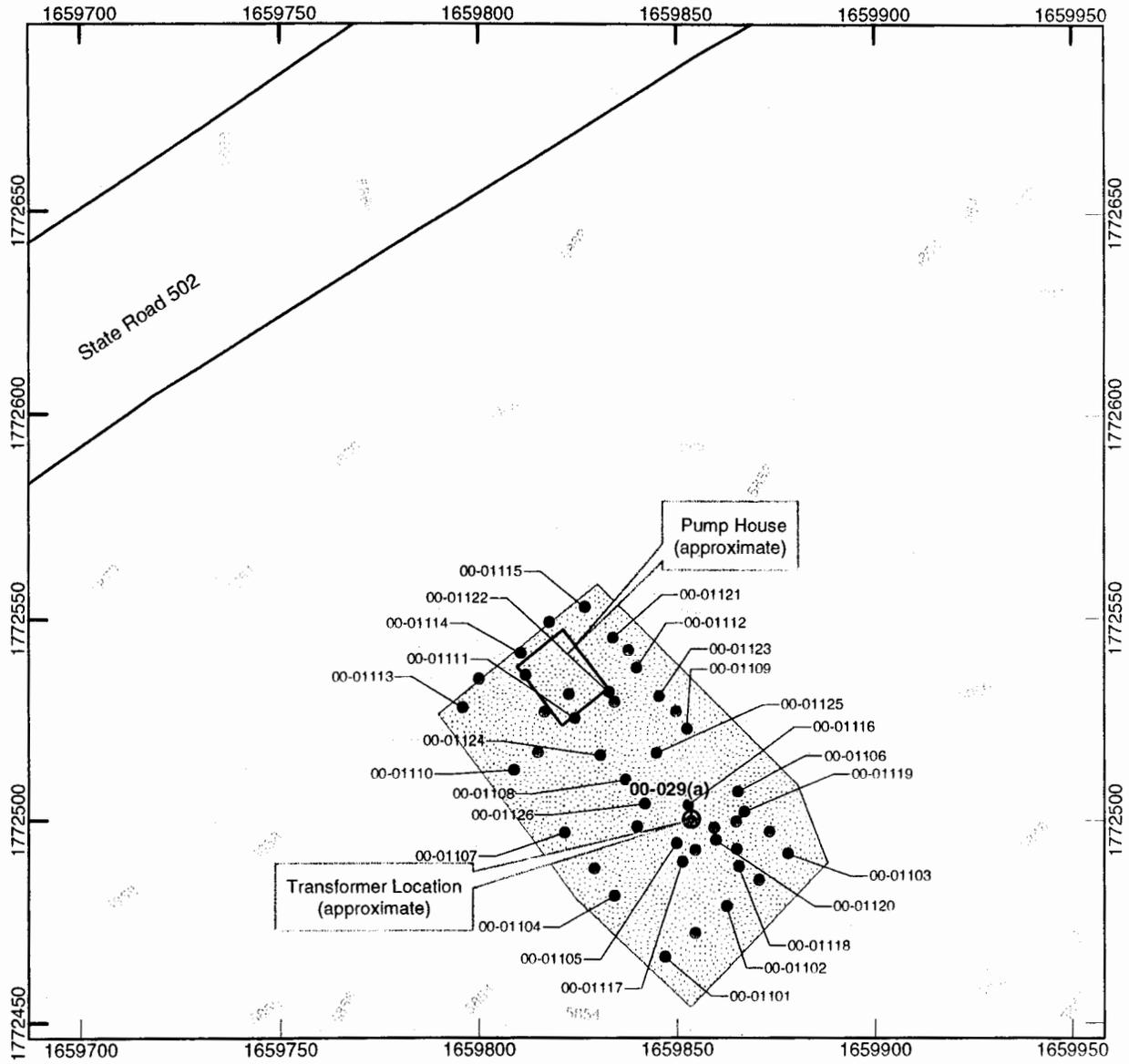


Figure E-3.2-3. PRS 0-029(a), proposed sample locations

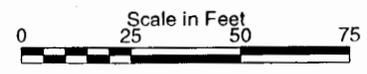
June 2002

E-16

ER2002-0094

Legend

- Proposed location
- Location ID
- Paved Road
- - - 2 ft Contour (2000 LIDAR)
- ▨ PRS

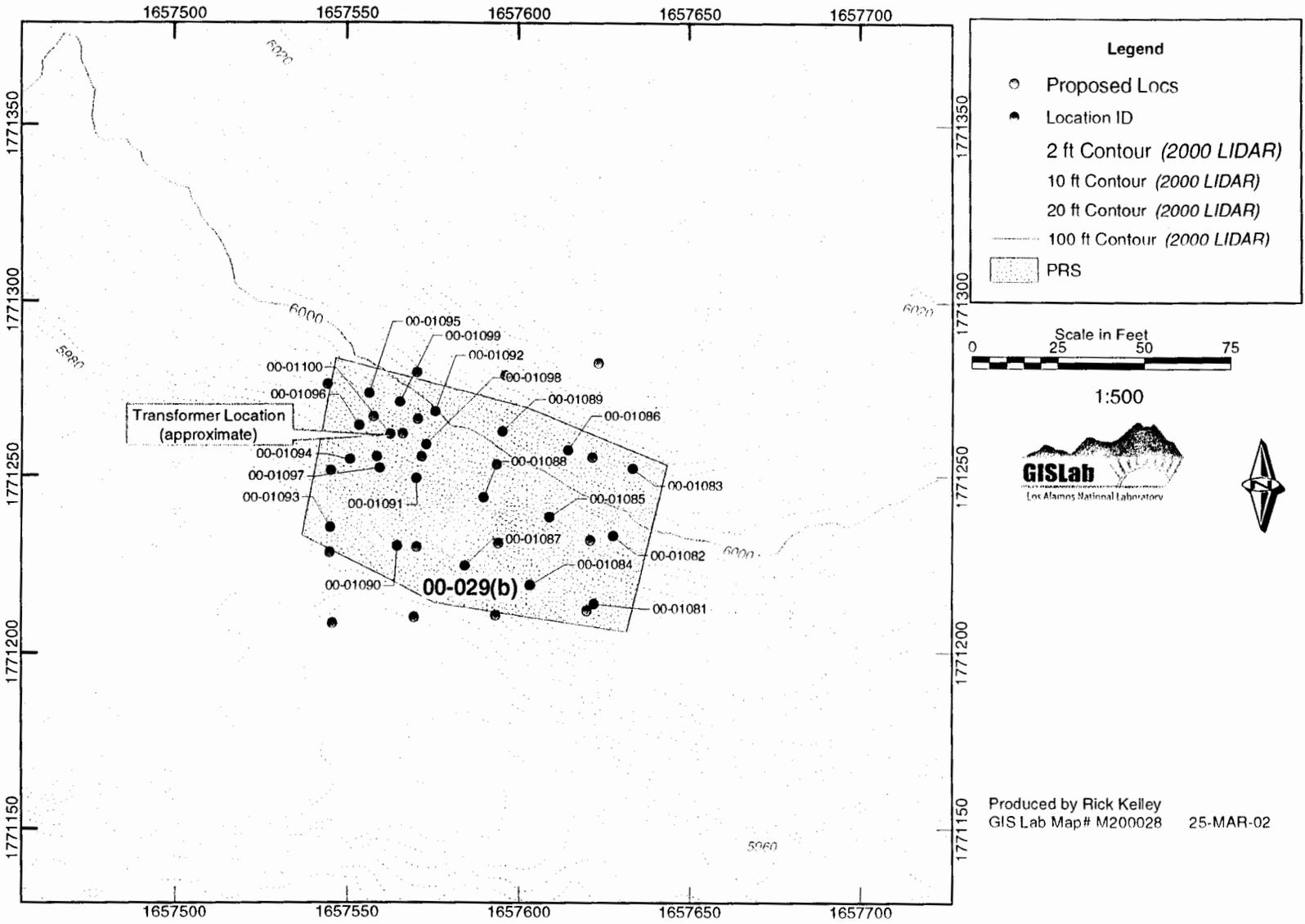


1:500



Produced by Rick Kelley
GIS Lab Map# M200027 25-MAR-02

Figure E-3.2-4. PRS 0-029(b), proposed sample locations



Attachment C

**NMED Approval Letter for Voluntary Corrective Action Plan for Potential Release Sites
(PRSs) 00-030(b)-00, 00-027, 00-030(a), 00-029(a,b,c), 00-010(a,b), and 00-033(a).**



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1

Santa Fe, New Mexico 87505-6303

Telephone (505) 428-2500

Fax (505) 428-2567

www.nmenv.state.nm.us



RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

February 20, 2003

Everett Trollinger, Program Manager
Office of Los Alamos Site Operations
Department of Energy
528 35th Street, Mail Stop A316
Los Alamos, NM 87544

Dr. John C. Browne, Director
Los Alamos National Laboratory
P.O. Box 1663, Mail Stop A100
Los Alamos, NM 87545

**RE: APPROVAL OF THE PLAN FOR THE VOLUNTARY CORRECTIVE ACTION
AT POTENTIAL RELEASE SITES (PRSs) 0-030(b)-00, 0-027, 0-030(a), 0-
029(a,b,c), 0-010(a,b), AND 0-033(a), AND THE INTERIM ACTION AT PRS 21-
021
LOS ALAMOS NATIONAL LABORATORY, NM0890010515
HWB-LANL-02-010**

Dear Mr. Trollinger and Dr. Browne:

The Hazardous Waste Bureau (HWB) of the New Mexico Environment Department is in receipt of the Plan for the Voluntary Corrective Action (VCA) at Potential Release Sites (PRSs) 0-030(b)-00, 0-027, 0-030(a), 0-029(a,b,c), 0-010(a,b), and 0-033(a), and the Interim Action at PRS 21-021, dated June 2002 and referenced by LA-UR-02-1081 (ER2002-0094). The HWB is also in receipt of the Response to the Request for Supplemental Information (RSI), dated January 6, 2003 and referenced by ER2002-0891. HWB has reviewed and approves these documents with the following exceptions.

In the RSI, the HWB commented that Los Alamos National Laboratory (LANL) shall use existing data from reach DP-1W of DP Canyon to evaluate releases from the PRS 0-030(a) outfall. The HWB further commented that this already-existing data shall be presented and evaluated in the final report for this VCA. The HWB does not agree with LANL's response to

this comment and is requiring LANL to present and evaluate this data as it may pertain to this site in its final report before the report can be approved and the site can be removed from the facility's Hazardous Waste Permit.

In the RSI, the HWB commented that the Environmental Protection Agency (EPA), under the Toxic Substance Control Act (TSCA), has established PCB remediation waste cleanup and disposal regulations. PCBs are also regulated under the Resource Conservation and Recovery Act (RCRA) as administered by HWB. In its response to the comment, LANL has failed to acknowledge that either the TSCA or RCRA regulations apply to these sites. LANL shall determine which of these regulations apply and shall use the appropriate regulations when remediating the PCB contaminated sites in this VCA plan. If LANL requires further information on how to perform corrective action at PCB sites under the TSCA regulations, LANL should contact the PCB Spill Coordinator at EPA Region VI.

Should you have any questions, please feel free to contact me at (505) 428-2548.

Sincerely,



Darlene X. Goering
Project Leader
Permits Management Program

cc: J. Bearzi, NMED HWB
J. Davis, NMED SWQB
D. Goering, NMED HWB
J. Parker, NMED DOE OB
S. Yanicak, NMED DOE OB, MS J993
L. King, EPA 6PD-N
J. Vozella, DOE OLASO, MS A316
B. Ramsey, LANL RRES/DO, MS M591
N. Quintana, LANL E/ER, MS M992
D. McInroy, LANL E/ER, MS M992
file: Reading and LANL TA:0 (Land Transfer, DP Road, 6th Street Warehouse,
SWMU 21-021)