Stu - Please forward as appropriate. Benito 2/17

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Date: February 14, 1997
Refer to: EM/ER:97-032

Mr. Benito Garcia
NMED-HRMB
P.O. Box 26110
Santa Fe, NM 87502

SUBJECT: QUARTERLY TECHNICAL REPORT

Dear Mr. Garcia:

Enclosed are two copies of the Environmental Restoration Project's Quarterly Technical Report, October–December 1996. The Quarterly Technical Report presents information from each field unit on the quarter's activities, including sampling, cleanups, and report writing. Also enclosed is a certification statement signed by the designee owner and operator for the Los Alamos National Laboratory.

If you have questions regarding this report, please contact Dave McInroy at (505) 667-0819 or Bonnie Koch at (505) 665-7202.

Sincerely,

Jorg Jansen, Program Manager
LANL/ER Project

Sincerely,

Theodore J. Taylor, Program Manager
DOE/LAAO

JJ/TT/ss

Enclosures: (1) Quarterly Technical Report, October–December 1996
(2) Certification

8149

TL

Cy (w/ encs.):
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EM/ER File, MS M992

CERTIFICATION

I certify under penalty of law that these documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation.

Document Title: Quarterly Technical Report, October–December 1996

Name: _____ Date: 2-14-97

Jorg Jansen, Program Manager
Environmental Restoration Project
Los Alamos National Laboratory

or

Tom Baca, Program Director
Environmental Management
Los Alamos National Laboratory

Name: _____ Date: 2/14/97

Joseph Vozella,
Acting Assistant Area Manager of
Environment Projects
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Theodore J. Taylor
Program Manager
Environment Restoration Program
DOE-Los Alamos Area Office

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Los Alamos National Laboratory

Environmental Restoration

A Department of Energy Environmental Cleanup Program

QUARTERLY TECHNICAL REPORT

OCTOBER–DECEMBER 1996

February 14, 1997

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LIST OF ACRONYMS AND ABBREVIATIONS

DOE	US Department of Energy
DOE/LAAO	US Department of Energy/Los Alamos Area Office
DX	Dynamic Experimentation (Division)
EPA	US Environmental Protection Agency
ER	Environmental restoration
ESA	Engineering Sciences and Applications (Division)
ESH	Environment, Safety, and Health (Division)
ESH-17	Air Quality Group
ESH-18	Water Quality and Hydrology Group
ESH-19	Hazardous Waste Group
FIMAD	Facility for Information Management, Analysis, and Display
FY	Fiscal year
HE	High explosives
HSWA	Hazardous and Solid Waste Amendments
LANL	Los Alamos National Laboratory
MDA	Material disposal area
NMED	New Mexico Environment Department
NOD	Notice of deficiency
OU	Operable unit
PCB	Polychlorinated biphenyl
PRS	Potential release site
RCRA	Resource Conservation and Recovery Act
RFI	RCRA facility investigation
TA	Technical area
UST	Underground storage tank
VCA	Voluntary corrective action
WWTP	Wastewater treatment plant

QUARTERLY TECHNICAL REPORT
OCTOBER–DECEMBER 1996
LOS ALAMOS NATIONAL LABORATORY
ENVIRONMENTAL RESTORATION PROJECT

ALBUQUERQUE OPERATIONS OFFICE

CONTRACTOR: University of California

PROGRAM MANAGER: Jorg Jansen

NUMBER OF POTENTIAL RELEASE SITES: Approximately 2,000

POTENTIAL WASTE: Radionuclides, High Explosives, Metals, Organics

1.0 INTRODUCTION

This quarterly report describes the technical status of activities in the Los Alamos National Laboratory (the Laboratory) Environmental Restoration (ER) Project. The activities are divided according to field units and then by the technical area (TA) where the specific activity is located. The Hazardous and Solid Waste Amendments (HSWA) portion of the Laboratory's Hazardous Waste Facility Permit (Module VIII, Section P, Task V, C) requires the submission of a technical progress report on a quarterly basis. This report, submitted to fulfill the permit's requirement, summarizes much of the field work performed this quarter in the ER Project.

2.0 FIELD UNITS

2.1 Field Unit 1 — Technical Areas 0, 1, 3, 10, 19, 21, 26, 30, 31, 32, 43, 45, 59, 60, 61, 64, 73, and 74 (Field Project Leader: Garry Allen)

2.1.1 General Information for Field Unit 1

In the first quarter of FY97, Resource Conservation and Recovery Act (RCRA) facility investigation (RFI) planning, readiness review preparations, drilling activities, and sampling continued at TA-0, TA-1, TA-10, TA-19, TA-21, and TA-73. In addition, voluntary corrective action (VCA) activities continued at TA-0, interim action field work was completed at TA-1 and TA-21, and alternative technologies for reducing polychlorinated biphenyl (PCB) concentrations were explored for application at TA-21. No progress was made at Potential Release Site (PRS) 3-056(c) this quarter because a regulatory determination for an adequate plan regarding slope stabilization and monitoring versus further cleanup requirements is still pending from the Toxic Substances Control Act branch of the US Environmental Protection Agency (EPA) and Surface Water Quality Bureau at the New Mexico Environment Department (NMED).

RFI reports in preparation this quarter include

- the RFI report for TA-1, Aggregates N and P [PRSs 1-001(s,u) and 1-007(l)];
- the RFI report for the TA-21 Waste Water Treatment Plant [PRSs 21-013(a) and 21-026(a–c)]; and
- the consolidated RFI/VCA report for PRSs 0-030(d,k) and C-0-043.

Interim action reports in preparation this quarter include

- the interim action report for PRS 1-001(d), Hillside 138 and
- the interim action report for the PRS 21-011(k) outfall

Notice of Deficiency (NOD) responses in preparation this quarter include

- the response to the NOD for the RFI report for PRS 0-030(g);
- the response to the disapproval of the RFI Work Plan for OU 1114, Addendum 1; and
- the response to the NOD for the RFI report for TA-21, 1B and 1C, and the related addendum.

Plans in preparation or submitted to the US Department of Energy (DOE) this quarter include

- the voluntary corrective action (VCA) plan for PRS C-0-043, submitted to DOE and
- the sampling plan for PRSs 10-008 and 10-009 in Bayo Canyon, in preparation.

Other reports in preparation or completed this quarter include

- the TA-10 shrapnel report for PRSs 10-001(a–d), in preparation and
- the internal reports for Material Disposal Area (MDA) B and MDA T, completed.

2.1.2 Technical Area Activities

2.1.2.1 TA-0

PRSs 0-003 and 0-012 Members of the field team prepared documentation for the readiness review for RFI activities at the Western Steam Plant (PRSs 0-003 and 0-012). The readiness review was held in December 1996.

PRS 0-016 The processing of the berm material at the former firing range (PRS 0-016) was nearly completed. The remaining 1 200 cu yd of berm material, which contain equal amounts of soil and bullets, require reprocessing to reduce the amount of soil so the bullets can be removed. Field Unit 1 and contractor personnel redesigned the method for processing the berm material and will implement the new method at the site beginning in January 1997.

PRS 0-017 Investigators conducted additional archival searches for the waste lines associated with PRS 0-017. These searches provided engineering drawings and memos that will facilitate estimation of resources for the baseline replan.

PRSs 0-018(a), 0-018(b), and 0-019 Drilling was completed at three wastewater treatment plants (WWTPs): the Pueblo Canyon WWTP [PRS 0-018(a)], the Bayo Canyon WWTP [PRS 0-018(b)], and the Central WWTP (PRS 0-019). At the Pueblo Canyon plant, the field team drilled one shallow boring in each of two sludge-drying beds. They encountered tuff in both beds at a depth of approximately 5 ft. At the Bayo Canyon plant, the team drilled two angled boreholes beneath the two oldest sludge-drying beds to a depth of approximately 52 ft below ground surface. Tuff was not encountered in these boreholes. The team collected a soil/sludge sample from inside a portion of the abandoned sludge distribution pipeline that was stored at the site. At the Central plant, they drilled two boreholes through two of the former sludge-drying beds. The drillers encountered tuff or bedrock at 3–4 ft depth in each of the boreholes. The field team obtained an access agreement from the County to sample outfall pipes associated with this site.

PRS 0-027 Drilling and subsurface sampling operations were completed at the DP Road Storage Area (PRS 0-027). Investigators drilled seventeen boreholes ranging in depth from 22–60 ft below ground surface north and west of the Knights of Columbus building. They encountered a layer of petroleum contamination in seven boreholes at depths that ranged from 5–50 ft below ground surface. As each 5-ft section of core was removed from the borehole, investigators collected a sample for total petroleum hydrocarbon analysis to determine the extent of the petroleum contamination within each borehole. The average contamination depth ranged from 10–27 ft.

PRSs 0-030(b) and 0-033(b) Field personnel completed the final cleanup at the 6th Street Warehouse site [PRSs 0-030(b) and 0-033(b)]. They dismantled the drum and waste storage area and reconstructed a barbwire fence that was removed during field operations.

PRS 0-030(d) The field work was completed at the Pine Street septic tank [PRS 0-030(d)]. Investigators sampled the tank and associated outfall piping, removed 170 linear feet of the outfall piping, and sent the piping off-site for recycling. The tank was abandoned in place, according to State septic tank abandonment guidelines, based on the proximity of buried utilities, the sampling results, and the minimal added value of removal.

PRS 0-030(j) The delay of activities at the Sombrillo Nursing Facility septic tank [PRS 0-030(j)] continues because the field unit has not received an access agreement for intrusive activities. The representative from the facility's Board of Directors has been unavailable for direct communication. The field unit is considering alternative nonintrusive methods for locating the tank.

PRS 0-030(k) The field team completed the investigation at the Tewa Loop septic tank [PRS 0-030(k)]. They excavated thirteen trenches across suspected septic tank locations, but did not encounter the tank and associated piping.

PRSs 0-034(a,b) The RFI work plan for Operable Unit (OU) 1071 (LANL 1992, 0781) identified PRSs 0-034(a,b) as land disposal areas. PRS 0-034(a) was associated with a block plant and concrete-mixing operations, and PRS 0-034(b) was associated with the development of housing in the Los Alamos Western Area. During the quarter, the field team conducted archival research for these sites. Aerial photos and interviews with personnel associated with these projects indicate that no material was disposed at these sites and that the sites were used to store construction materials. The field unit will submit a report proposing both PRSs for no further action.

PRS C-0-043 A VCA was conducted in December 1996 at an abandoned manhole in the Immaculate Heart of Mary Catholic Church parking lot (PRS C-0-043). The manhole was removed, and verification samples were collected and submitted for laboratory analyses.

2.1.2.2 TA-1

PRS 1-001(d) The Storm Water Pollution Prevention Plan for the interim action at Hillside 138 [PRS 1-001(d)] was revised to incorporate results from remediation activities and observations of storm water migration during significant storms. Field personnel constructed soil berms below the remediated area on the lower bench, but will delay seeding until weather permits successful germination and establishment.

2.1.2.3 TA-10

PRSs 10-002(a,b), 10-003(a–o), 10-004(a,b), 10-005, and 10-007 Investigators completed sampling in Bayo Canyon to define the extent of strontium-90 contamination in the chamisa plants and other flora near PRSs 10-002(a,b) 10-003(a–o), 10-004(a,b), 10-005, and 10-007. The interim action plan will be revised as soon as the data are obtained.

2.1.2.4 TA-19

PRSs 19-001, 19-003, and C-19-001 The field team prepared documentation for the readiness review for VCA and RFI activities at the East Gate Laboratory (PRSs 19-001, 19-003, and C-19-001). The readiness review was held in December 1996.

2.1.2.5 TA-21

PRS 21-003 A one-liter sample of PCB-contaminated soil was collected at PRS 21-003 in December 1996 to be used in a bench scale study at Commodore Applied Technologies, Inc., in Columbus, Ohio. That organization has a chemical treatment technology for destroying toxic organic contaminants in soil. Their technology could lead to considerable cost savings if it works and the field team allowed to implement it. Currently the team anticipates that the waste will be shipped off-site for disposal (or incineration and disposal).

PRSs 21-011(c), 21-016(a–c), and 21-028(a) The field team conducted a readiness review for the subsurface investigation at MDA T [PRSs 21-011(c), 21-016(a–c), 21-028(a)]. They completed geodetic and geophysical surveys and began drilling and sampling in December. The team completed three boreholes (150 ft total), two in the retrievable storage area and one north of absorption bed 3. Core samples in the 22–24 ft interval screened high for radioactivity in one of the retrievable storage area boreholes. The samples were further screened in the TA-21 radiological laboratory and then sent to a laboratory for isotopic analysis and analysis for RCRA contaminants.

PRS 21-011(k) The interim action at the PRS 21-011(k) outfall was completed. The interim action included excavating and shipping contaminated soil, demobilizing field and excavation equipment, and conducting a confirmation radiation survey. Field personnel removed 200 cu yd of soil with >100 000 cpm gross gamma. In addition, they installed storm water control measures and completed site restoration (mulching the excavated area). The field unit is currently preparing the interim action report, remapping the radiation survey, and recalculating the waste volumes and excavation areas required to reach the 15 000 cpm gross gamma level.

PRS 21-024(i) Personnel began compiling the necessary readiness review documentation for the RFI at the PRS 21-024(i) outfall. The readiness review will be held in January 1997.

2.1.2.6 TA-73

PRSs 73-001(a,b,d), and 73-004(d) Planning began for drilling operations in the debris disposal area and waste oil pit at the Los Alamos Airport, Group 73-1 [PRSs 73-001(a,b,d) and 73-004(d)]. Personnel prepared data summaries of landfill gas samples for evaluating remediation strategies for PRS 73-001(a).

PRSs 73-001(b,c,d) The incinerator building is now under the control of Los Alamos County, the new airport operator for DOE. During planning for the Group 73-1 and 73-2 field work at the east end of the airport runway [PRSs 73-001(b,c,d)], personnel decided that more information should be obtained before committing to mobilizing a backhoe or drill rig. An employee from the US Army Corps of Engineers who worked on the 1980s airport development plan to extend the runway was interviewed about the nature of the fill beneath the runway.

PRSs 73-001(c), 73-002, 73-003, 73-004(c), 73-005, and 73-006 Preparations continued for investigating Los Alamos Airport Group 73-2 [PRSs 73-001(c), 73-002, 73-003, 73-004(c), 73-005, and 73-006]. Preparations included assessment of the Phase I data acquired in FY96. In addition, the field team implemented run-on storm water controls above the ash disposal area and arranged for fall protection training, which is required for field work in the ash disposal area.

2.2 Field Unit 2 — Technical Areas 12, 14, 15, 18, 20, 27, 36, 39, 53, 65, 67, 68, 71, and 72 (Field Project Leader: Gene Gould)

2.2.1 Technical Area Activities

2.2.1.1 TA-14

PRSs 14-002(a) and 14-010. Recommendations were made by the Water Quality and Hydrology Group (ESH-18) and NMED to control surface water runoff at PRSs 14-002(a), the firing site, and 14-010, the sump. Surface water runoff will be controlled during VCA activities this spring.

PRSs 14-003 and 14-009. Straw bales were placed in two locations in the drainage below PRS 14-009, the surface disposal site, and sandbags were placed along the asphalt driveway above the PRS. Straw bales were also placed at PRS 14-003, the open burning ground. ESH-18 and NMED requested a site visit of these PRSs to discuss controlling surface water runoff from the sites.

2.2.1.2 TA-15

In December, NMED requested a tour of all 50 PRSs located in TA-15. The field unit conducted the tour on December 19.

PRS 15-004(b) The previous excavations at PRS 15-004(b), Firing Site A, were filled in with clean soil.

PRS 15-004(f) The field team began an interim action at PRS 15-004(f), Firing Site E-F, but inclement weather interfered with its completion. Two meetings were held with the DOE field project manager for Field Unit 2 to discuss cleanup activities at this PRS. The field unit conducted a site tour for NMED to view the field team's success in removing visible pieces of depleted uranium and other contaminated debris from the surface.

2.2.1.3 TA-18

PRSs 18-003(a,b,c,d,g) The field unit prepared a draft response to the NOD on the interim action plan and report for PRSs 18-003(a,b,c,d,g), received this quarter from the NMED Hazardous and Radioactive Materials Bureau. The field unit received comments from the NMED Ground Water Bureau on the proposed corrective action at PRS 18-003(d), a septic system. Following discussions, agreement was reached on the extent of the proposed work. Investigators drilled shallow monitoring wells near the drainfield and collected soil and ground water samples for analysis for potential contaminants of concern.

PRS 18-006 Planning began on the proposed VCA for PRS 18-006, an underground pipe formerly used for temporary storage of liquid reactor fuel.

PRS 18-008 Field unit personnel held further discussions with the New Mexico Underground Storage Tank (UST) Bureau regarding PRS 18-008, a former UST. It was agreed that additional samples would be taken to establish the extent of any petroleum contamination that may have leaked from the tank. The field team drilled four auger holes to a depth of 28 ft beneath and adjacent to the former UST location. Analytical results indicated that concentrations of total petroleum hydrocarbons were less than cleanup levels. The tank is scheduled for off-site disposal in early 1997.

2.2.1.4 TA-36

PRS 36-003(b) Data were received on the analysis of sludge removed from PRS 36-003(b), a septic tank that serves building TA-36-55. The data indicate that the sludge is not hazardous waste. After sorption to eliminate free liquids, the sludge can be disposed of as low-level radioactive waste.

2.2.1.5 TA-39

PRSs 39-004(a–e) and 39-008 The project team worked to resolve several programmatic and regulatory issues affecting several PRSs at TA-39. The first issue involves how to transfer PRSs 39-004(a–e) and 39-008, which are proposed for deferred action, back to the operating group in the Dynamic Experimentation (DX) Division. The operating group wants to maintain these PRSs as mothballed but not inactive. Several meetings were held with DX Division, the ER Project, and the Laboratory legal counsel to reach an agreement. Additional meetings are scheduled for the second quarter of FY97 to work out the details.

The second issue involves storm water runoff from Ancho Canyon and what types of monitoring and control will be required by NMED's Surface Water Quality Bureau. Meetings were held with representatives of ESH-18, the Hazardous Waste Group (ESH-19), Laboratory legal counsel, DX Division, and the ER Project to develop a proposal for NMED. TA-39 will be a participant in a storm water monitoring and control program. Additional meetings will be conducted in the second quarter of FY97 to establish intra-institutional responsibilities.

2.3 Field Unit 3 — Technical Areas 11, 13, 16, 24, 25, 28, 33, 37, 46, and 70 (Field Project Leader: Roy Michelotti)

2.3.1 Technical Area Activities

2.3.1.1 TA-16

Field work began at PRSs 16-021(c) and 16-003(k), the 260 Outfall and the sump that discharges to the outfall. First quarter activities consisted of moderate-depth (< 70 ft) drilling in the highly contaminated high-explosives (HE) pond area. This investigation led to two unexpected results: (1) low levels of HE (< 10 ppm) were found at depth (~ 70 ft) in a surge bed in a borehole located roughly 85 ft from the outfall, and (2) a saturated zone was found at a depth of 17 ft in a surge bed in a bore hole located beneath the HE pond. The surge bed is contaminated with HE at high levels (> thousands of ppm). Although no free water is currently present within this bore hole, a screened well was completed. The team placed straw-bale check dams downgradient from several contaminated sites at TA-16 as a best management practice; those sites included the burning ground, the TA-16-340 drainage, the silver outfall, and K-Site. Planning for VCA activities at V-Site and TA-16-27 began. The RFI report for TA-16 sample groups 1–8 is complete except for ecological risk assessment.

2.3.1.2 TA-33

Field work occurred at several PRSs in TA-33. Data for this field campaign are almost complete. Mixed waste at PRS 33-010(b) was successfully treated in containers to remove the RCRA characteristic and will be disposed as radioactive waste, in accordance with appropriate regulations. The field team placed straw-bale dams downgradient from PRSs 33-008(c), 33-009, and 33-010(b). Work began on the RFI report for this field campaign. Investigators completed the interim action shrapnel pickup in Chaquehui Canyon.

2.3.1.3 TA-46

Straw-bale dams were placed downgradient from PRSs 46-004(g) and 46-004(q). The field team continued to prepare for the FY97 field campaign.

2.4 Field Unit 4 — Technical Areas 2, 4, 5, 35, 41, 42, 48, 52, 55, 63, and 66 and Canyons (Field Project Leader: Allyn Pratt)

2.4.1 General Information for Field Unit 4

Baseline activities continued this quarter. The field unit worked on the 10-year plan, updated the current baseline, and began replanning for a lower budget.

2.4.2 Technical Area Activities

2.4.2.1 Canyons

Monthly measurements of the water level of monitoring wells in Los Alamos Canyon and Pueblo Canyon continued this quarter.

Field Unit 4 personnel completed the following work on the Canyons pilot study:

- met with the governor of San Ildefonso Pueblo to discuss the status of Los Alamos Canyon and Pueblo Canyon characterization wells and to discuss asbestos concerns at the Totavi location on the reservation;
- worked on well summary reports for characterization wells LLAO-1, LLAO-2, LLAO-4, LLAO-5, LAO-1.6(g), PO-4, and POI-4;
- completed a location map of five reaches in Los Alamos Canyon and Pueblo Canyon;
- worked on a draft report for Reach P-4;
- completed the final report on the geophysical investigation;
- completed, developed, and sampled characterization wells LLAO-2 and LLAO-4, according to the Los Alamos Canyon and Pueblo Canyon work plan;
- modified characterization well LLAO-5 as requested by the San Ildefonso Tribal Council;
- performed geodetic surveys on all characterization wells and reach sampling locations, and transferred the information to the Facility for Information Management, Analysis, and Display (FIMAD);
- coordinated with the Air Quality Group (ESH-17) to redesign the air-monitoring stations; and
- completed field activities, and decontaminated and demobilized all equipment from the various locations.

Personnel completed the draft versions of Chapters 1, 2, and 3 of the Mortandad Canyon work plan; these chapters are being reviewed. Geodetic surveys of all wells and structures in Mortandad Canyon were completed, and the information was transferred to FIMAD.

2.4.2.2 TA-2 and TA-41

Work continued on the addendum to the work plan for TA-2 and TA-41. Personnel conducted waste management activities for the TA-41 waste management area. They profiled 19 drums of drill cuttings and personal protective equipment and disposed of them at TA-54, in accordance with regulations, and they profiled one drum of decontamination fluids and disposed of it at TA-50, in accordance with regulations.

2.4.2.3 TA-35

Work continued on the sampling and analysis plan for TA-35. Field activities at TA-35 included collecting samples at PRS 35-003(misc.); analysis results indicated that cleanup was not required.

2.4.2.4 TA-48

Personnel submitted the first draft of the sampling and analysis plan for TA-48 to the US Department of Energy/Los Alamos Area Office (DOE/LAAO) for review, completed the comment resolution process, and submitted the plan for formal review. The final draft was prepared and submitted to DOE. Field unit personnel also developed and received approval for the site-specific health and safety plan and completed the excavation permit.

2.5 Field Unit 5 — Technical Areas 6, 7, 8, 9, 22, 23, 40, 49, 54, 57, 58, 62, and 69 (Field Project Leader: Don Krier)

2.5.1 General Information for Field Unit 5

Work continued on the Baseline and Baseline Change Proposal, and analytical data management, validation, and verification continued for all existing data needed for FY97 reports. Interaction with Site-Wide Environmental Impact Statement office continued, with the transfer of several draft documents for consideration in the MDA G expansion issue.

In October, personnel resumed preparation of the RFI report for PRSs to be recommended for no further action in the field unit's explosives area (in TAs 6, 7, 8, 22, and 40). PRSs covered in this report include 6-001(a),6-001(b), 6-003(a), 6-003(c), 6-008, C-6-019, 6-003(f), 6-007(g), 7-001(a), 7-001(b), 7-001(c), 7-001(d), 8-002, 22-010(a), 22-010(b), 22-014(a), 22-014(b), 22-016, and 40-005. Report completion is expected in the second quarter of FY97.

2.5.2 Technical Area Activities

2.5.2.1 TA-22

Preparations are under way for the VCA for PRSs 22-012 and 22-015(b,d,e), the explosives sumps. The VCA plan is near completion, and the field team is in the process of obtaining the applicable permits. Field activity is projected to begin May 31, 1997.

2.5.2.2 TA-49

The field team completed the VCA plan for PRS 49-008(d), the Bottle House, and submitted it to DOE. The team is in the process of obtaining applicable permits and will begin field activities as soon as the soil at the site thaws, probably between mid-February and mid-April.

2.5.2.3 TA-50

Field Unit 5 personnel are preparing a response to NMED's Request for Additional Information for the RFI Report on PRSs 50-006(a), 50-006(c), 50-007, and 50-008. They also prepared a complete response to the NOD for the RFI report on PRSs 50-001(a), 50-004(a), and 50-004(c).

PRS 50-006(a) In accordance with the interim action plan for PRS 50-006(a) at Ten Site Canyon, which was completed and approved this quarter, the ESH-19 Waste Site Studies field team manually removed (using a pick, shovel, and lined plastic bucket) a small volume of contaminated sediment and part of a log from the side of the stream channel. The field activities took place on November 8, 14, and 27. The interim action plan required that excavation continue until a surface alpha meter (Ludlum Model 135) showed a count of 50 cpm or lower. Because of the moisture present in the area, field instruments would not yield reliable alpha measurements. Therefore, soil samples were taken at the completion of excavation each day and counted in a Berthold LB 770 ten-channel low-level counter at TA-59 to determine whether the interim action cleanup level of 25 pCi/g gross alpha and 35 pCi/g gross beta had been achieved.

The soil samples taken after the third excavation exhibited 23.4 pCi/g average gross alpha and 11.2 pCi/g average gross beta, indicating interim action cleanup levels had been attained. The team removed a total of 0.72 cu yd of radioactively contaminated soil from the area and

transported the material by rope and pulley to the top of the canyon. The material is temporarily stored in one 55-gallon drum and three 30-gallon drums at a marked site on the north slope of Ten Site Canyon; disposal in TA-54 Area G is tentatively scheduled for January 30, 1997.

The Waste Site Studies team is completing a draft letter for submittal to DOE that reports the results of the interim action and requests transfer of RFI responsibility to the Field Unit 4 Canyons Study.

PRS 50-009 Field unit personnel have resumed work on the Phase 1, Stage 1 report for MDA C. Drafts of Chapters 1–3 are almost complete. Chapters 4 and 5 will be completed upon data assessment. The report covers surface sampling done in 1993 and vertical and near-vertical borehole sampling done in 1995 and will incorporate a modification to the drilling and sampling plan proposed in the RFI work plan for OU 1147 (LANL 1992, 0787) for stage 2 sampling of MDA C. Stage 2 proposes several near-horizontal boreholes, and the proposed modification to the plan involves both the number and location of those holes.

2.5.2.4 TA-54

A draft of the RFI report for MDA L was completed and has undergone internal review. Review comments are being incorporated into the document in preparation for external review in late January.

Work continues on the MDA L pilot study. Personnel have begun fabricating equipment for subsurface investigation of hydrologic properties in the region of the volatile organic compound plume. The goal of this work is to measure moisture potentials in the vertical stratigraphic column in the volume beneath volatile organic liquid disposal sites.

Due to field unit transition, personnel changes, and budgetary problems, quarterly sampling of the subsurface volatile organic vapors at MDA L did not occur during the fourth quarter of FY96. Sampling of the network of monitoring wells is running late for the first quarter of FY97 due to start-up delays related to re-assembly of teams and equipment. Two rounds of sampling are planned for January-March 1997 to remain on schedule. The existing well network was augmented with two additional monitoring wells, which were established during RCRA facility investigations in 1995 to monitor the deep subsurface beneath MDA L. Both the ongoing RCRA investigations and several years of quarterly sampling of the vapors indicate that volume and composition are constant within the limits of the analytical techniques employed.

3.0 CLOSURES AND REGULATORY COMPLIANCE — (Project Leader: David McInroy)

3.1 TA-16 — MDA P Landfill

NMED written approval of the closure plan for MDA P is still pending. The selection process continued for a contractor to perform the closure; the closure contract evaluation team has requested additional information from selected bidders. Personnel continued premobilization tasks and completed the construction of the decontamination pad. Additional background sampling to define the surface and ground water baseline concentrations at MDA P continued.

Investigators found detonable pieces of HE in the area where the runoff control trench (below the east lobe of the waste pile) was to be constructed. As a result, the Engineering Sciences and Applications (ESA) Division will have a greater involvement and more control of future activities at the site.

Baseline rock and soil sample analysis is complete and a report is being drafted.

3.2 TA-35 — TSL 85 Surface Impoundment

No response has been received from the NMED on the closure report submitted to them at the end of last quarter.

3.3 TA-53 — Surface Impoundments

The original due date for the revised closure plan for the northern impoundments [PRS 53-002(a)] has been suspended, pending agreement with NMED on the future land use scenario that will be used for risk assessment.

In July, NMED notified the Laboratory that a closure plan must be developed for the southern impoundment [PRS 53-002(b)], with a due date of late January 1997, or a Part B Application for a RCRA Permit must be submitted. Negotiations between the Laboratory and NMED continued concerning whether this surface impoundment should be regulated under RCRA. A draft closure plan was prepared this quarter for the south surface impoundment.

4.0 REFERENCES

LANL (Los Alamos National Laboratory), May 1992. "RFI Work Plan for Operable Unit 1071," Los Alamos National Laboratory Report LA-UR-92-810, Los Alamos, New Mexico. (LANL 1992, 0781)

LANL (Los Alamos National Laboratory), May 1992. "RFI Work Plan for Operable Unit 1147," Los Alamos National Laboratory Report LA-UR-92-969, Los Alamos, New Mexico. (LANL 1992, 0787)