

TA 16



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



National Nuclear Security Administration
Los Alamos Site Operations, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
(505) 667-7203/FAX (505) 665-4504



Date: June 27, 2003
Refer to: ER2003-0410

Mr. John Young, Corrective Action Project Leader
Permits Management Program
NMED – Hazardous Waste Bureau
2905 Rodeo Park Drive East
Building 1
Santa Fe, NM 87505-6303

Mr. Carl Will, LANL Permits Project Leader
Permits Management Program
NMED – Hazardous Waste Bureau
2905 Rodeo Park Drive East
Building 1
Santa Fe, NM 87505-6303

SUBJECT: SUBMITTAL OF MATERIAL DISPOSAL AREA (MDA) P SITE: PHASE I CLOSURE IMPLEMENTATION REPORT

Dear Messrs. Young and Will:

Enclosed are two copies of the Los Alamos National Laboratory (LANL) Risk Reduction Environmental Stewardship-Environmental Characterization and Remediation (RRES-ECR) MDA P Site: Phase I Closure Implementation Report. This report was originally submitted to your office on January 31, 2003 (ER2003-0095) as Annex II in the MDA P Area Closure Certification Report (ER2002-0773). Per your letter dated April 30, 2003, the aforementioned annex has been augmented to address your concerns and is now being resubmitted. Please note that Appendices D and E will be provided within 30 days of this submittal.

If you have any questions, please contact William Criswell at (505) 665-5886 or Lance Woodworth at (505) 665-5820.

Sincerely,

David McInroy, Acting Deputy Project Director
Remediation Services
Los Alamos National Laboratory

Sincerely,

David Gregory, Project Manager
Department of Energy
Los Alamos Site Operations



DM/DG/NR/am

Enclosure: MDA P Site: Phase I Closure Implementation Report (ER2003-0409)

Cy:(w/enc)

W. Criswell, RRES-RS, MS M992
D. Hickmott, RRES-RS, MS M992
R. Miranda, RRES-RS, MS M992
N. Quintana, RRES-RS, MS M992
N. Riebe, RRES-RS, MS M992
K. VanDerpoel, RRES-RS, MS M992
D. Gregory, LASO, MS A316
S. Yanicak, NMED-OB
V. Maranville, NMED-HWB
K. Olsen, NMED-HWB
J. Davis, NMED-SWB
L. King, EPA Region 6
RRES-RS File, MS M992
IM-5, MS A150
RPF MS M707

Cy:(w/o enclosure)

S. Den Baars, Shaw, MS M892
D. McInroy, RRES-RS, MS M992
B. Newman, EES-2, MS J495
B. Ramsey, RRES-DO, MS J591
R. Romero, RRES-SWRC, MS M992
J. Salazar, EES -2, MS J495
A. Sherrard, ESA-OPS, MS C924, FMU-ESH
M. Tardiff, Neptune, MS M969
M. Wade, Weston, MS M992
S. Wirth, Shaw, MS M992
J. Bearzi, NMED-HWB
N. Dhawan, NMED-HWB
D. Goering, NMED-HWB
J. Kieling, NMED-HWB
J. Parker, NMED-OB



Remediation Program

LA-UR-02-7002
June 2003
ER2003-0409

Material Disposal Area P Site: Phase I Closure Implementation Report

CDs
included
with this
document

 1943 - 2003
Los Alamos
NATIONAL LABORATORY
Ideas That Change the World

Disclaimer

This document contains data regarding radioactive wastes, the management of which is regulated under the Atomic Energy Act and specifically excluded from regulation under the Resource Conservation and Recovery Act and the New Mexico Hazardous Waste Act. These data are provided to the New Mexico Environment Department for information purposes only.

Produced by the
Risk Reduction and Environmental Stewardship Division—Remediation Services

Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by the University of California for the United States Department of Energy under contract W-7405-ENG-36.

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the Regents of the University of California, the United States Government nor any agency thereof, nor any of their employees make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represent that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the Regents of the University of California, the United States Government, or any agency thereof.

Los Alamos National Laboratory strongly supports academic freedom and a researcher's right to publish; as an institution, however, the Laboratory does not endorse the viewpoint of a publication or guarantee its technical correctness. By acceptance of this article, the publisher recognizes that the U.S. Government retains a nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or to allow others to do so, for U.S. Government purposes. Los Alamos National Laboratory requests that the publisher identify this article as work performed under the auspices of the U.S. Department of Energy.

EXECUTIVE SUMMARY

This report documents the closure implementation activities conducted at Material Disposal Area P (MDA P) and Flash Pad 387 and the voluntary corrective action (VCA) performed at adjacent sites known as Solid Waste Management Unit (SWMU) 16-016(c)-99. All of these sites are located at Los Alamos National Laboratory's Technical Area 16 Burning Ground, within the high explosives (HE) exclusion area. They are referred to collectively as the MDA P Site (previously referred to as the MDA P Area). MDA P and Flash Pad 387 are hazardous waste management units subject to closure; SWMU 16-016(c)-99 is subject to corrective action. The sites are a contiguous group with overlapping boundaries and similar characteristics. Therefore, the VCA and closures were integrated to promote efficient and effective field operations while achieving a common cleanup goal and satisfying the following requirements:

- Demonstrating that the appropriate closure performance standards have been met for MDA P and Flash Pad 387, pursuant to 20.4.1.500 and 600 of the New Mexico Administrative Code, which incorporates 40 CFR 264 and 265; and
- Demonstrating that the appropriate no further action criterion has been met for SWMU 16-016(c)-99, pursuant to Module VIII of the Laboratory's Hazardous Waste Facility permit.

The field activities at MDA P, Flash Pad 387, and SWMU 16-016(c)-99 included excavation, waste removal, waste segregation, waste staging, waste characterization, and waste disposal. These activities, known as Phase I, are documented in this report. The quantities and types of waste generated during Phase I activities are presented in Table ES-1 below.

Table ES-1
Quantities of Wastes Generated During Phase I Activities

Quantity	Unit	Description
21,506	yd ³	Hazardous waste soils
26,150	yd ³	Industrial waste soils
1111	yd ³	Rock, decontaminated, used as riprap at TA-16 Burning Ground
757	yd ³	Rock, released, used as riprap within the MDA P Site footprint
3200	yd ³	Concrete debris, recycled and industrial waste
2200	yd ³	Metal debris, recycled and industrial waste
3947	lb	Asbestos-containing materials
888	each	Containers of unknown content
95	each	Miscellaneous metal objects
441	lb	HE
85	lb	Ash from burning HE
500	lb	Ash and contaminated debris
6706	lb	Barium nitrate pieces
3240	lb	Radioactive low-level waste
5389	lb	Mixed waste
219,545	gal.	Decontamination water
16,318	gal.	Stormwater
37	gal.	Acetone
33	bag	Personal protective equipment
70	lb	Waste aerosol cans
250	lb	Soil/transmission oil
70	lb	Miscellaneous field laboratory trash

Fieldwork at MDA P was conducted in accordance with the MDA P closure plan (LANL 1995, 58713), which was approved by the New Mexico Environment Department (NMED) on February 18, 1997 (NMED 1997, 55425), with the exception of variances that have been documented in Appendix B. Fieldwork at Flash Pad 387 was conducted in accordance with the closure plan for the flash pad (LANL 1999, 63547), which was approved by the NMED on April 28, 2000 (NMED 2000, 66866). Fieldwork at SWMU 16-016(c)-99 was conducted in accordance with the sampling and analysis plan (SAP) for MDA P (LANL 1999, 63546), which was approved by NMED on June 7, 2001 (NMED 2001, 70925). The SAP incorporates the VCA plan for SWMU 16-016(c)-99.

CONTENTS

1.0 INTRODUCTION	1
1.1 Purpose and Scope	1
1.2 Unit Descriptions	4
1.2.1 General	4
1.2.2 MDA P	5
1.2.3 Flash Pad 387	5
1.2.4 SWMU 16-016(c)-99	6
1.3 Pre-mobilization Activities	7
1.3.1 General	7
1.3.2 Segregation Pad	7
1.3.3 Decontamination Pad	7
1.3.4 Runoff Trenches	7
1.3.5 Surface Barium Survey	7
1.3.6 Hand Sorting Pad	8
2.0 MDA P CLOSURE IMPLEMENTATION	8
2.1 General	8
2.2 Closure Plan Deviations	9
2.3 Test Pits	9
2.4 Site-Specific Health and Safety Plan	10
2.5 Site Preparations	10
2.6 Radiological Work Permits	12
2.7 PRGs for Field Screening	12
3.0 EXCAVATION	13
3.1 General	13
3.2 Robotics System	13
3.3 Remote Excavation Operations	14
3.4 Contaminated Soil Excavation	16
3.5 Localized Excavations	17
3.6 Upper East Drainage Excavation	18
3.7 Excavation Tracking	18
3.8 Interim Contamination Survey	19
3.9 Final Contamination Surveys	19
4.0 DEMOBILIZATION AND SITE STABILIZATION	20
4.1 Removal of Soil Staging Areas	20
4.2 Site Stabilization	20
5.0 WASTE SEGREGATION	21
5.1 General	21
5.2 Process Description	21

6.0 WASTE STAGING	22
6.1 General	22
6.2 Soils	24
6.3 Decontamination Water Staging	25
6.4 Stormwater Staging	25
6.5 Debris Staging	25
6.6 Asbestos Containing Material	26
6.7 Staging Other Wastes	27
6.8 Less-Than-90-Day and Satellite Accumulation Areas	27
7.0 WASTE CHARACTERIZATION	27
7.1 General	27
7.2 Waste Sampling of Soils and Debris	30
7.3 Sampling of Wastewater	31
7.4 Sampling of Containers of Unknown Content	31
7.5 HE and HE-Contaminated Debris	31
7.6 Ash from Burning High Explosives	32
7.7 Barium Nitrate Pieces	32
7.8 Radioactive Material	32
7.9 Asbestos-Containing Material	32
7.10 Personal Protective Equipment	32
7.11 Acetone	33
8.0 WASTE DETERMINATION	33
8.1 General	33
8.2 Soils	33
8.3 Debris	33
8.4 Wastewaters	34
8.5 Containers of Unknown Content	34
8.6 Ash from Destruction of High Explosives	34
8.7 Barium Nitrate	34
8.8 Radioactive Material	34
8.9 Asbestos-Containing Material	34
8.10 Personal Protective Equipment	34
8.11 Acetone	35
9.0 WASTE DISPOSAL	35
9.1 General	35
9.2 Hazardous Soils	36
9.3 Industrial Soils	37
9.4 Debris	37
9.5 Decontamination Water	38
9.6 Stormwater	38
9.7 HE and Related Materials	38
9.8 Barium Nitrate	39
9.9 Radioactive Material	39
9.10 Containers of Unknown Content	39

9.11 Asbestos-Containing Material	41
9.12 Personal Protective Equipment	41
9.13 Acetone	41
9.14 Miscellaneous Wastes	41
10.0 WELL ABANDONMENT	42
11.0 FLASH PAD 387 CLOSURE IMPLEMENTATION	42
11.1 General	42
11.2 Unit Description	43
11.3 Preexcavation Activities	43
11.4 Closure Plan Deviations	43
11.5 Excavation	43
11.6 Waste Segregation and Staging	43
11.7 Waste Characterization	44
11.8 Waste Disposal	44
12.0 VOLUNTARY CORRECTIVE ACTION FOR SWMU 16-016(C)-99	44
12.1 Excavation	45
12.2 Waste Segregation and Staging	45
12.3 Waste Characterization	46
12.4 Waste Disposal	46
13.0 REFERENCES	46
Appendix A. Drawings, Maps, and Results of Preimplementation Construction and Investigation	
Appendix B. Correspondence Related to the Closure Activities at the MDA P Site	
Appendix C. Summaries of Operational Activities Related to Material Removal and Staging at the MDA P Site	
Appendix D. Sample Request Summaries	
Appendix E. Summary of Analytical Results	
Appendix F. QA Assessment for Analysis Conducted August 9, 2000–January 3, 2001	
Appendix G. Summaries of Waste Shipments	
Appendix H. Summary of Observation Wells in the Vicinity of MDA P Site	
Appendix I. Summaries of Waste Analyses and Shipments from Flash Pad 387	

Plates

Plate 1. MDA P “As-Built” Support Facilities, February 2, 2000

Plate 2. Geologic Map of MDA P: Completion of Phase I Closure Implementation

Plate 3. Confirmation Sample Locations: Completion of Phase II Closure Implementation

List of Tables

Table 2.1-1. MDA P Closure Phase I Milestones8
 Table 3.1-1. Estimated Volume of Material Excavated at MDA P 13
 Table 7.1-1. Phase I Samples and Analyses29
 Table 9.1-1. Quantities of Wastes Generated from MDA P and SWMU 16-016(c)-9935
 Table 9.10-1. Disposition of Containers of Unknown Contents40
 Table 11.1-1. Flash Pad 387 Closure Phase I Milestones42

List of Figures and Photographs

Figure 1.1-1. Location of the TA-16 exclusion area and MDA P.....2
 Figure 1.1-2. Locations of MDA P, Flash Pad 387, and SWMU 16-016(c)-99..... 3
 Photograph 1.2-1. MDA P and Flash Pad 387 before closure activities, 1996 (view to south) 4
 Photograph 3.3-1. Excavation activities in west lobe of MDA P, 1999 (view to south) 15
 Photograph 3.3-2. Excavation activities in east lobe of MDA P, 2000 (view to south) 15
 Photograph 5.2-1. Waste segregation and sorting activities at MDA P, 1999 (view to south) 22
 Figure 6.1-1. Staging areas (Pads 1 through 4) at the 90s Line staging area23
 Photograph 6.2-1. Soil staging at Pad 1, at the 90s Line, 1999 (view to north) 24
 Photograph 6.5-1. Debris staging at Pad 3, 90s Line, 1999 (view to north)..... 26
 Photograph 6.5-2. Personnel and debris at the decontamination pad, 1999 26
 Photograph 9.2-1. Soil loading at the AOC, 2000 36
 Photograph 9.4-1. Loading recyclable metals at 90s Line, 1999 37

List of Acronyms and Abbreviations

ACM	asbestos-containing materials
AHERA	Asbestos Hazard Emergency Response Act
AOC	area of contamination
BEAR	Boissiere Engineering and Applied Robotics
CFR	Code of Federal Regulations
CWDR	chemical waste disposal request
DOE	US Department of Energy
DOT	US Department of Transportation
DU	depleted uranium
DX-2	Materials Dynamics Group (a Laboratory group)
EM&R	Emergency Management & Response (a Laboratory division)
EOD	Explosive Ordnance Disposal
EPA	US Environmental Protection Agency
ER	environmental restoration
ESA	Engineering and Sciences Applications (a Laboratory division)
FWO	Facility Waste Operations (a Laboratory division)
HDPE	high-density polyethylene
HE	high explosives
HERMES	Hybrid rEmote Robotic Manipulation and Excavation System
HEWTF	High Explosives Wastewater Treatment Facility
HMX	cyclotetramethylene tetranitramine
HPAL	Health Physics Analytical Laboratory

HRMB	Hazardous and Radioactive Materials Bureau
HWB	Hazardous Waste Bureau
MDA	material disposal area
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
PCB	polychlorinated biphenyls
PETN	pentaerythritol tetranitrate
PPE	personal protective equipment
PRG	preliminary remediation goal
PVC	polyvinyl chloride
RCA	radiologically controlled area
RCRA	Resource Conservation and Recovery Act
RCT	radiological control technician
RDX	cyclotrimethylenetrinitramine
RF	radio frequency
RPF	Records Processing Facility
RRES-RS	Risk Reduction and Environmental Stewardship Division—Remediation Services (a Laboratory project)
RWP	radiological work permit
SAL	screening action level
SAP	sampling and analysis plan
SMO	Sample Management Office (for the Laboratory)
SOP	standard operating procedure
SSHASP	site-specific health and safety plan
SVOCs	semi-volatile organic compounds
SWMU	solid waste management unit
SWO	Solid Waste Operations (a Laboratory group)
SWRC	Solid Waste Regulatory Compliance (a Laboratory group)
TA	technical area
TCLP	toxicity characteristic leaching procedure
TNT	trinitrotoluene
TSD	treatment, storage, and disposal
UTL	upper tolerance limit
VCP	vitrified clay pipe
VCA	voluntary corrective action
VOC	volatile organic compound
WAC	waste acceptance criteria
WCS	Waste Control Specialists
WDR	waste disposal request
WMC	waste management coordinator
WPF	waste profile form
XRF	x-ray fluorescence

Glossary

abandonment — The plugging of a well or borehole in such a manner as to preclude migration of surface runoff or ground water along the length of the well.

aquifer — Body of permeable geologic material whose saturated portion is capable of readily yielding groundwater to wells.

area of contamination (AOC) — Discrete areas of generally dispersed contamination.

- background level — Naturally occurring concentrations (levels) of an inorganic chemical and naturally occurring radionuclides in soil, sediment, and tuff.
- best management practices (BMPs) — For facilities that manufacture, use, store, or discharge toxic or hazardous pollutants as defined by the 1977 Clean Water Act, a required program to control the potential spill or release of those materials to surface waters. (The Facts on File Dictionary of Environmental Science, edited by L. Harold Stevenson and Bruce Wyman)
- chemical of concern — Chemical identified as a potential risk during a site-specific human-health or ecological risk assessment.
- chemical of potential concern (COPC) — A chemical, detected at a site, that has the potential to adversely affect human receptors due to its concentration, distribution, and mechanism of toxicity. A COPC remains a concern until exposure pathways and receptors are evaluated in a site-specific human health risk assessment.
- chemical of potential ecological concern (COPEC) — A chemical, detected at a site, that has the potential to adversely affect ecological receptors due to its concentration, distribution, and mechanism of toxicity.
- Hazardous and Solid Waste Amendments (HSWA) — The Hazardous and Solid Waste Amendments of 1984 (Public Law No. 98-616, 98 Stat. 3221), which amended the Resource Conservation and Recovery Act of 1976, 42 U.S.C. § 6901 et seq.
- hazardous waste — Any solid waste is generally a hazardous waste if it is not excluded from regulation as a hazardous waste, is listed in the regulations as a hazardous waste, exhibits any of the defined characteristics of hazardous waste (ignitability, corrosivity, reactivity, or toxicity), or is a mixture of solid waste and hazardous waste. See 40 CFR 261.3 for a complete definition of hazardous waste.
- industrial-use scenario — Industrial use is the scenario in which current Laboratory operations continue. Any necessary remediation involves cleanup to standards designed to ensure a safe and healthy work environment for Laboratory workers.
- release — Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of hazardous waste or hazardous constituents into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles that contain any hazardous wastes or hazardous constituents).
- request number — An identifying number assigned by the ER Project to a group of samples that are submitted for analysis.
- residential-use scenario — The standards for residential use are the most stringent of the three current- and future-use scenarios being considered by the ER Project and is the level of cleanup the EPA is currently specifying for SWMUs located off the Laboratory site and for those released for non-Laboratory use.
- screening action level (SAL) — Medium-specific concentration level for a chemical derived using conservative criteria below for which it is generally assumed that there is no potential for unacceptable risk to human health. The derivation of a SAL is based on conservative exposure and land-use assumptions. However, if an applicable regulatory standard exists that is less than the value derived by risk-based computations, it will be used for the SAL.
- technical area (TA) — The Laboratory established technical areas as administrative units for all its operations. There are currently 49 active TAs spread over 43 square miles.
- tuff — A compacted deposit of volcanic ash and dust that contains rock and mineral fragments accumulated during an eruption.

1.0 INTRODUCTION

1.1 Purpose and Scope

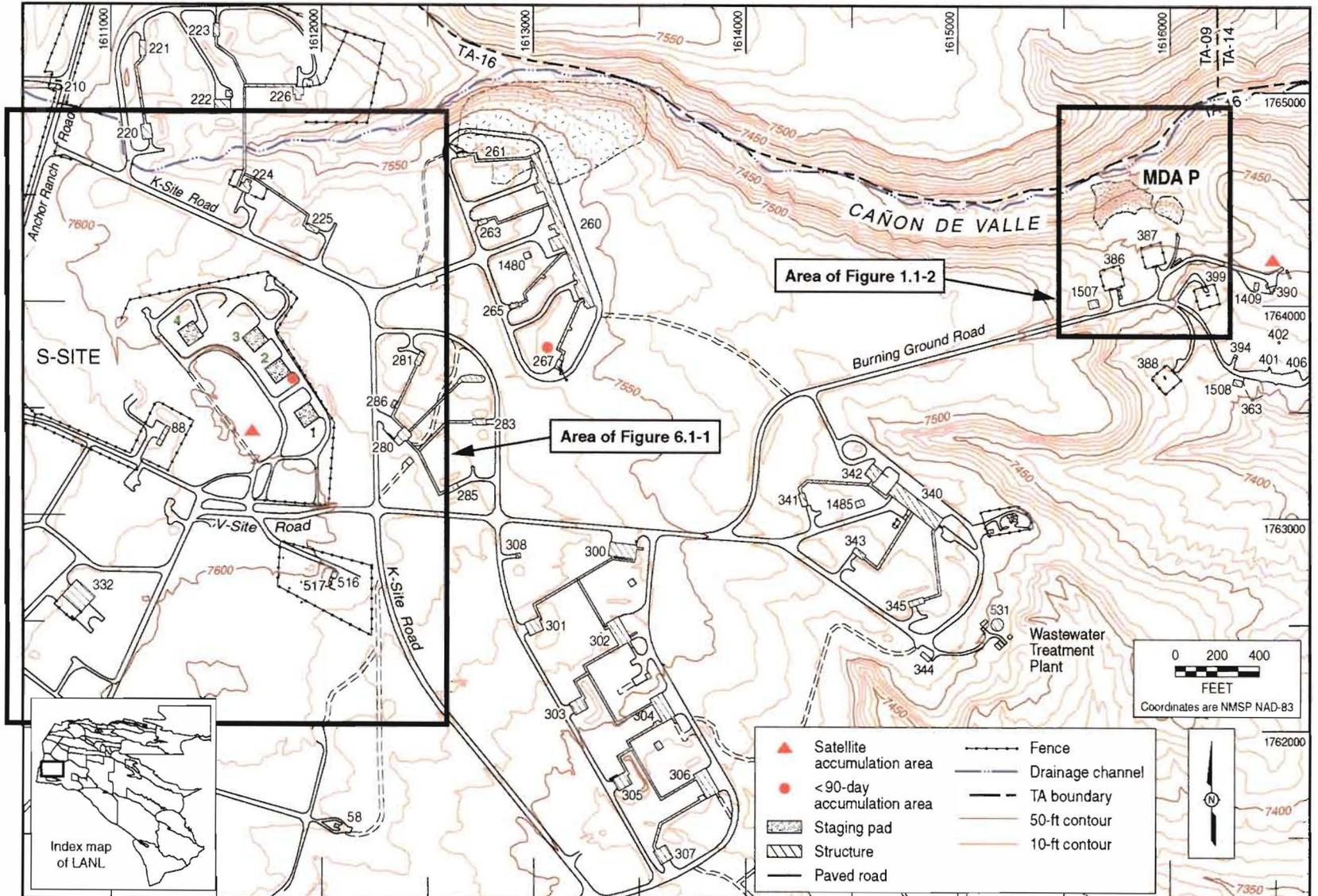
This report documents the closure implementation activities conducted at Material Disposal Area (MDA) P and Flash Pad 387, and the voluntary corrective action (VCA) at adjacent sites known collectively as Solid Waste Management Unit (SWMU) 16-016(c)-99 (Figure 1.1-1 and Figure 1.1-2). The sites are located in Los Alamos National Laboratory (the Laboratory), at the Technical Area 16 (TA-16) Burning Ground, within the high explosives (HE) exclusion area. They are referred to collectively as the MDA P Site (previously known as the MDA P Area). The sites are a contiguous group with overlapping boundaries and similar characteristics. Therefore, the VCA and closures were integrated to promote efficient and effective field operations while achieving a common cleanup goal and satisfying the following requirements:

- Demonstrating that the appropriate closure performance standards have been met for MDA P and Flash Pad 387, pursuant to 20.4.1.500 and 600 of the New Mexico Administrative Code, which incorporates 40 CFR 264 and 265; and
- Demonstrating that the appropriate no further action criterion has been met for SWMU 16-016(c)-99, pursuant to Module VIII of the Laboratory's Hazardous Waste Facility permit.

The decision to consolidate the fieldwork at these sites was agreed upon during discussions between the Laboratory's Risk Reduction and Environmental Stewardship Division–Remediation Services (RRES-RS) Project (formerly the Environmental Restoration [ER] Project) and the New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB) (formerly the Hazardous and Radioactive Materials Bureau [HRMB]).

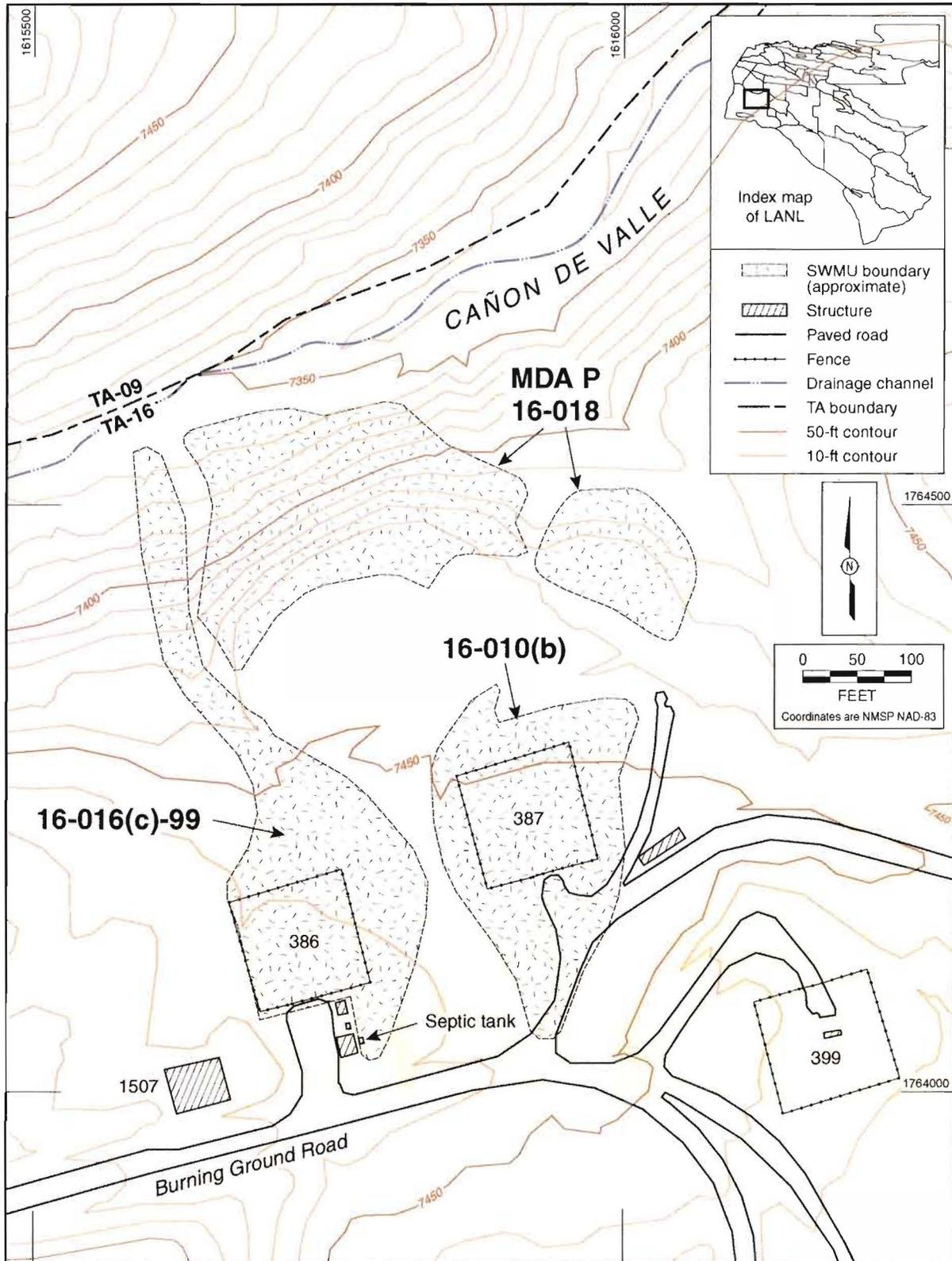
Field activities at MDA P, the Flash Pad 387, and SWMU 16-016(c)-99 (Figure 1.1-2) included excavation, waste removal, waste segregation, waste staging, waste characterization, and waste disposal. These activities, referred to as Phase I, are documented in this report.

Fieldwork at MDA P was conducted in accordance with the MDA P closure plan (LANL 1995, 58713), which was approved by NMED on February 20, 1997, with the exception of variances that have been documented in Appendix B. Fieldwork at Flash Pad 387 was conducted in accordance with the closure plan for the flash pad (LANL 1999, 63547), which was approved by the NMED on April 28, 2000 (NMED 2000, 66866). Fieldwork at SWMU 16-016(c)-99 was conducted in accordance with the sampling and analysis plan (SAP) for MDA P (LANL 1999, 63546), which was approved by NMED on June 7, 2001 (NMED 2001, 70925). The SAP incorporates the VCA plan for SWMU 16-016(c)-99.



Source: FIMAD G109756 & G109758, 053101_Rev, SMWU Rpt, 073101, A. Kron_Rev, F6.1-1 in MDA P Phase I Closure Implementation Rpt, 120602, lcf

Figure 1.1-1. Location of the TA-16 exclusion area and MDA P



Source: FIMAD G109756, 053101_Rev. SWMU Rpt, 080101. A. Kron_Rev, MDA P Phase I Closure Implementation Rpt, 012603. cf

Figure 1.1-2. Locations of MDA P, Flash Pad 387, and SWMU 16-016(c)-99

1.2 Unit Descriptions

1.2.1 General

MDA P is located directly north of Flash Pad 387 at the TA-16 Burning Ground (Figure 1.1-2 and Photograph 1.2-1). The use of MDA P is directly linked to the history and use of this flash pad, as well as other HE facilities at the burning ground. The history has been compiled for this report from documentation in the MDA P closure plan, as well as personnel interviews, interpretation of vertical and oblique aerial photos, and interior exposures of the excavations.

The burning ground was established, circa 1950, at its present location on the southern margin of Cañon de Valle, a tributary of Water Canyon. Originally, the area was remote and heavily forested. To construct the flash pad, however, the trees were cut and the slash and timber were burned in a central location. The ground was leveled and a significant amount of backfill was brought in to provide a barren, relatively flat area on which to construct the flash pad and its control building. The backfill consisted of crushed Bander Tuff matrix with angular boulders up to 2 m across. The placement of the backfill resulted in a lobate mesa of dirt that extended northward from Flash Pad 387. The larger west lobe infilled a small recess eroded into the southern canyon wall. A smaller east lobe rested directly on an exposed, resistant ledge of the lower slopes of the canyon.



Photograph 1.2-1. MDA P and Flash Pad 387 before closure activities, 1996 (view to south)

Some evidence exists that small-scale burning and disposal activities took place prior to the construction of the area in its present configuration. During excavation, a thin indurated layer of burned and mixed debris was identified overlying the older soil and exposed bedrock that was locally overlain by a mixed layer of partially burned tree trunks, slash, and charcoal in a sandy soil matrix. Both layers were overlain by the thick sequence of backfill material.

The construction of the burning ground was thought to be closely related to the construction of Building 260 from 1949 to 1950. During that time frame, MDA R, located directly north of Building 260, was used as a burning ground and associated disposal site. MDA R was active during, and immediately after, World War II. When construction began on Building 260, the destruction of HE at MDA R was discontinued for safety reasons. A small-scale burning operation was established at the burning ground in order to continue mission-critical operations. Spoils from the foundation excavations were transported the short distance to the burning ground and disposed of at the edge of the canyon. This backfill covered materials from interim activities. At the completion of the backfill activities, Flash Pads 386 and 387 and Building 390 were established at the burning ground using the newly cleared and leveled ground. A firebreak was cleared around the area, and the burning ground began operating in its current configuration.

1.2.2 MDA P

MDA P is a regulated waste management unit subject to Resource Conservation and Recovery Act (RCRA) interim status closure standards and is designated SWMU 16-018 (LANL 1995, 58713). MDA P was redefined, by NMED, from a landfill to a waste pile for the purpose of closure activities (NMED 2003, 76017). From 1950 until 1984, MDA P was used for disposal of rubble and debris generated by the burning of HE, HE-contaminated equipment and material, vehicles, building materials, drums, containers, and trash. From the 1950s through 1984, few items were allowed to leave the HE exclusion area, so most materials suspected of having HE residue were disposed of at MDA P. Burning operations were conducted at burn and flash facilities within the burning ground. Residual materials were pushed over the edge of the mesa and allowed to accumulate at the base and up the slope. The waste pile then aggraded over time toward the canyon floor along the leading margins of the construction backfill.

Throughout its history, the east lobe of MDA P was the most active portion of the waste pile. Material from the burning ground was disposed of over the leading edge of the east lobe and occasionally covered with soil. Photographic evidence indicates that the lobe grew very slowly but continuously. The leading edge aggraded approximately 60 ft over the entire period of use. The wastes disposed of included ashes and the burned residues of HE compounds, HE-contaminated equipment and materials, barium nitrate compounds, miscellaneous containers from the flash pad, and sands and soils from the sand filters and the floor of Flash Pad 387. Residual levels of depleted uranium indicate that, although present, these materials were largely segregated from wastes disposed of at MDA P.

Use of the west lobe was episodic. In 1968, the Laboratory razed several World War II-era buildings at TA-16. These were wood-frame structures that housed the original HE research, development, and production facilities. All noncombustible residual materials were trucked to the west lobe of MDA P for disposal. Limited records indicate that 1325 dump truck loads were involved (LANL 1995, 58713). The materials disposed of included water, sewer, steam, and process piping; electrical conduit; concrete sidewalks; foundations and sumps; asbestos tile; and miscellaneous soil and trash. In addition, in the early 1970s, the rear apron of Building 260 was replaced and the old broken concrete sidewalks and sumps were disposed of at the western lobe of MDA P. Larger items that had been treated at Flash Pad 387 also appear to have been disposed of on the west lobe. In the 1950s and 1960s, at least 10 vehicles were flashed (i.e., burned to remove HE residues) and then pushed over the edge. With the exception of the periods noted between 1965 and 1975, the west lobe annual volume appears constant.

1.2.3 Flash Pad 387

Flash Pad 387 operated from 1951 until 2000 as a treatment unit for the destruction of HE and HE-contaminated equipment and debris and it is subject to RCRA interim status closure standards. It is designated SWMU 16-010(b) (LANL 1999, 63547). At closure, the flash pad was a concrete structure consisting of a

base pad (30 by 30 ft) with an 8-ft-high shield reflector wall around the western, northern, and eastern sides. It was situated within a 100- by 100-ft area enclosed by an 8-ft-high chainlink fence. The fence is believed to have been installed in 1951, but the concrete bin blocks were not installed until the late 1980s. The floor of the pad was predominantly soil throughout most of its usage. A layer of sand was laid across the floor and the materials to be flashed were placed on top of the sand layer. Flash Pad 387 was largely wood-fired, but kerosene and other accelerants were used historically. The pad received solid and scrap HE, HE-contaminated equipment and debris, and HE-contaminated combustibles. Burning these materials occasionally resulted in partial detonations and incomplete burns. The sands were removed and the residues disposed of within MDA P. Occasionally, the dirt floor was excavated and fresh backfill was installed to provide a clean surface. The contaminated soils were also disposed of at MDA P.

During excavation, a previously unknown trench was located immediately east of the unit. The trench appeared to originate in the middle of the south boundary and it trended northeasterly where it terminated approximately 20 ft east of the eastern boundary fence. The trench contained remnants of a vitrified clay pipe (VCP) 4 in. in diameter. Both ends of the pipe were crushed, with no evidence of original source fittings or termination outfall. The interior of the pipe was contaminated with HE.

1.2.4 SWMU 16-016(c)-99

The sites known as SWMU 16-016(c)-99 are made up of Flash Pad 386 [SWMU 16-010(a)], the former barium nitrate pile [SWMU 16-016(c)], and the septic tank and drain field [SWMU 16-006(e)]. These SWMUs were consolidated during a 1998 Laboratory audit and they are now called consolidated SWMU 16-016(c)-99 (LANL 1998, 62060).

Flash Pad 386 is located approximately 150 ft southwest of Flash Pad 387. Flash Pad 386 was constructed in 1951, concurrent with Flash Pad 387. Historically, Flash Pad 386 was used more for storage of equipment and materials than for treatment or flashing operations. It was originally constructed in a manner identical to Flash Pad 387. Its dirt floor was situated within a 100- by 100-ft area enclosed by an 8-ft-high chainlink fence. In 1998, a metal building was installed in the southeast corner of the area. In 1999, as part of the MDA P closure activities, the area was cut in half and the northern section of fence was relocated to the south, resulting in an enclosed area of 50 by 100 ft. This was done to give heavy trucks access through the area in support of waste shipments during MDA P closure.

The barium pile was located in the west-central area of Flash Pad 386. The VCA plan, which is part of the MDA P SAP (LANL 1999, 63546), states that the barium pile was probably located within the confines of Flash Pad 386 in the late 1960s but had been removed by the early 1970s. The SWMU boundary extends around the suspected location of the pile and northward, where surface migration may have caused contamination down the drainage.

The septic tank and drain field consisted of a steel septic tank located immediately east of Building 389 and its associated leach field. The tank and ancillary equipment were installed in 1963 as a sanitary facility (LANL 1999, 63546). In 1988, the tank outfall was also plugged. During the excavation, no evidence of a leach field or drain field associated with the tank was found. A VCP, 4 in. in diameter, was plugged and left in place at the tank end. The termination of the pipe was crushed and there were no indications of the location or existence of an outfall or drain field. The interior of the pipe was not contaminated with HE.

1.3 Pre-mobilization Activities

1.3.1 General

Prior to the start of closure/remediation activities at the MDA P Site, several nonintrusive projects were completed that enhanced Phase I closure performance. These projects included construction as well as surface contamination level surveys and are described in the following sections.

1.3.2 Segregation Pad

In late 1996, a materials segregation area was constructed on the east side of MDA P (Plate 1). The segregation area was designed for the required waste-segregation operations within the MDA P boundary during Phase I closure implementation. The area consisted of a compacted earth pad, a liner, and erosion control barriers. Some waste was removed from the western side of the pad and stockpiled on the waste pile. Approximately 5000 yd³ of clean backfill soil was imported for the construction. A 40-mm high-density polyethylene (HDPE) liner was installed and covered by a layer of compacted, imported soil approximately 8 to 12 in. thick. The completed elevation of the area was 7434 ft with a berm that extended approximately 2 additional ft. The base of the compacted earthen slopes was protected by a line of straw bales. An asphalt-lined trench was constructed around the east side and tied to the existing MDA P runoff trench. A construction drawing of the segregation area is included in Appendix A, section A-1.0. The segregation pad, which was modified by Roy F. Weston, Inc., prior to remediation to enlarge it and reduce the access grade, was used for debris and soil staging. It was renamed Pad 11 (see Plate 1).

1.3.3 Decontamination Pad

In late 1996, a materials decontamination pad was constructed on the upland area south of MDA P and directly east of Flash Pad 387 (Plate 1). The decontamination pad was designed for the debris decontamination operations required during Phase I closure implementation. The pad consisted of a 40- by 40-ft, 5000-lb psi concrete pad with integral curbing, drainage, and sump. The concrete was placed over a compacted earthen base and HDPE liner. The finished grade of the pad was approximately equivalent to the adjacent roadway. The catch basin, or sump, had a total capacity of 180 gal. A 20- by 80-ft compacted earthen ramp was constructed on the north side to allow access from MDA P. A culvert 24 in. wide was installed in the ramp where it crossed the existing MDA P runoff trench. The decontamination pad was completed with a set of steel grates on the floor as well as a steel fence, tarps, and gates on the perimeter. A construction drawing of the decontamination pad is included in Appendix A, section A-1.0.

1.3.4 Runoff Trenches

In 1997, a series of runoff trenches were constructed at the base of MDA P (Plate 1). The trenches were designed to collect stormwater runoff during Phase I closure implementation. Three trenches were constructed: two were below the west lobe in the terrace materials and one was below the east lobe in the bedrock. The total length of the three trenches was approximately 470 ft. The trenches were approximately 3- to 4-ft deep, 6- to 8-ft wide, and lined with 40-mm HDPE. Construction of the runoff trench below the east lobe of MDA P required constructing an access road along the upper east side of the project area. A construction drawing of the runoff trenches is included in Appendix A, section A-1.0. This road, known as the East Access Road, remained largely unmodified throughout Phase I and Phase II activities.

1.3.5 Surface Barium Survey

In 1996, Laboratory personnel conducted a surface survey for barium contamination and surface radiation on the upper terrace of MDA P and the area where the segregation area was to be constructed (see Appendix A, section A-2.0). A 30- by 30-ft grid was established that contained 88 sampling points. A field

portable x-ray fluorescence (XRF) instrument (Spectrace Model 9000) was used for the barium analyses, and beta gamma and low energy gamma radiation meters (Eberline Model ESP-1) were used for the radiation surveys. The results of the survey indicated that roughly one-third of the sample locations exhibited barium concentrations above 1000 ppm. The highest barium concentrations were measured on the east lobe of the waste pile. The radiation measurements indicated that beta gamma levels were at, or slightly above, Laboratory background values (BVs). The results are included in Appendix A, section A-2.0.

1.3.6 Hand Sorting Pad

In 1998, a concrete pad was constructed west of Flash Pad 387 to provide a surface for hand sorting. The pad consisted of a 40- by 60-ft, 3500-lb psi concrete pad with integral curbing, drainage, and sump. The concrete was placed over a compacted earthen base and HDPE liner. The sump had a total capacity of approximately 180 gal. A 20- by 20-ft compacted earthen ramp was constructed on the west side so that equipment could access the soil staging area. Originally, this pad was intended to contain a hopper and conveyor system, but the system was never placed into operation. This concrete pad was used to stage contaminated soils within the area of contamination (AOC) and was called Pad 12 (Plate 1).

2.0 MDA P CLOSURE IMPLEMENTATION

2.1 General

Weston, under subcontract to the Laboratory’s ER Project, began implementing the approved MDA P closure plan in 1997. Weston was given the tasks of removing, segregating, decontaminating, and disposing of the MDA P contents, as well as coordinating the project. Personnel from Laboratory organizations provided such support services as waste sampling and analyses and waste determinations. Table 2.1-1 lists the milestones (and their dates) that were achieved during the project. During the latter portion of MDA P fieldwork, the closure of Flash Pad 387 and the remediation of SWMU 16-016(c)-99 were added as tasks. These two additional activities are described in sections 11 and 12.

**Table 2.1-1
MDA P Closure Phase I Milestones**

Contract award	8/26/97
SSHASP approval	10/29/97
Test pit mobilization	11/12/97
Test pit demobilization	12/08/97
Phase I mobilization	7/13/98
Phase I demobilization	2/22/02
Remote excavation start	2/2/99
Remote excavation finish	6/30/00
Non-remote excavation start	8/07/00
Non-remote excavation finish	3/20/02
Waste disposal start (industrial)	3/29/99
Waste disposal finish (industrial)	6/15/01
Waste disposal start (hazardous)	9/03/99
Waste disposal finish (hazardous)	3/24/02

2.2 Closure Plan Deviations

All the operational variances and deviations associated with the Phase I closure implementation activities for MDA P were identified previously in a number of letters and/or Class I Closure Plan modification requests (see Appendix B). All the Phase I changes to the approved closure plan for MDA P were incorporated into the NMED-approved May 2002 request for Closure Plan modification (LANL 2002, 73159). Thus, the changes to the Phase I activities are no longer represented as deviations or variances, according to the definition of such changes in the MDA P closure plan (LANL 1995, 58713). Approved changes are divided into the following four categories: changes to the schedule; changes to the estimates of waste types and/or volumes; changes to the sampling plan; and changes to waste management practices, including decontamination, staging, and/or disposal.

With the exception of MDA P closure plan changes that may have also had an impact on the closure implementation of Flash Pad 387 due to the overlap in closure activities, no additional changes were identified for the Flash Pad 387 closure implementation.

2.3 Test Pits

A series of test pits were excavated to provide data for characterizing the depth and extent of MDA P's boundaries prior to full-scale excavation. The test pits were designed to provide information about the true extent of the waste pile boundaries, the types and extent of debris, the types and extent of soil cover and fill, and the types and extent of contamination in areas designed for access, haul roads, and excavation support. A surface radiation survey was conducted prior to the excavation of the pits to determine if there was any indication of the presence of depleted uranium (DU). The closure plan indicates that DU was a component of waste burned at Flash Pad 387, but that it was removed before the materials were disposed of in MDA P. The results of the surface survey indicated no evidence of elevated radiation levels that could be attributed to surface or near-surface DU concentrations.

Six pits were excavated during November and December 1997. These were oriented radially from Flash Pad 387 (Appendix A, section A-3.0). Excavation at each test pit was initiated approximately 75 ft south of the leading edge of the slope and then proceeded north, but halted when debris or waste material was exposed. Excavation at each pit then proceeded south to the target location. Depths to bedrock, debris, and other soil horizons were observed. Soil samples were collected from each pit and subjected to field analyses for barium, beta and gamma activity, and HE. Each sample was then submitted for laboratory analysis.

Physical observations in the pits indicated that debris was generally restricted to the outer margins of the waste pile outline. A general line was established and called the debris line (Plate 1). North of the debris line the subsurface material was composed of waste material; south of the debris line the subsurface was composed of soil and rock backfill with only minor scattered surface debris. At the southern portion of Test Pit 4, a layer of burned forest debris was found to underlie the soil backfill. The burned layer was observed to lie on the older forest soil layer. The test pits did not intersect with the buried debris beneath the burned forest layer that was later found during waste pile excavation.

The results of the field screening and laboratory analyses (Appendix A) indicated the general trend of contamination across MDA P. The west lobe was contaminated with barium along the western margin and locally near the debris line, but the backfill generally was not contaminated. This pattern was consistent with contaminant migration from the barium pile [SWMU 16-016(c)] along the drainage. Much of the west lobe appeared to be free of barium. The burned forest layer was not contaminated. Locally, pieces of friable and non-friable asbestos were observed, along with concrete and other construction debris. Within the east lobe, the extent of contamination appeared to exceed the initial estimates by an order of magnitude,

as the entire east lobe appeared to be uniformly contaminated with barium and pieces of HE. The general trend of contamination was consistent with the working model of the waste pile that ascribed most of the east lobe to wastes from the burning ground operations, but the morphology of the west lobe was due to construction backfill with a mantle of construction demolition debris.

2.4 Site-Specific Health and Safety Plan

The results from the test pits were used to develop the MDA P excavation strategy and the site-specific health and safety plan (SSHASP) (LANL 1997, 58623).

First, pieces of HE known as PBX 9404, as large as 5 in. in diameter, were discovered in Test Pit 5 within the east lobe of MDA P. PBX 9404 is an explosive compound that is known to be especially sensitive to shock and accidental detonation. As a result of this discovery, the premise (based on existing historical information) that the waste pile contained only explosives residues was not valid, and the area was classified by the operating group as a "heterogeneous soil sample area" (LANL 1997, 58623). A heterogeneous soil sample area is an area that contains randomly dispersed pieces of explosives that are not well mixed in a sample volume and that cannot be detected reliably by soil analyses. The explosive pieces may be in large chunks or small pieces, and they may be on the surface or buried. The excavation of this area required the use of a remote excavator. The remote excavator also performed all initial waste pile excavation.

Second, the central premise of the SSHASP during the remote excavation operations was that the site contained fragments of HE, not ordnance. Because this area of the Laboratory is used as a research and development facility for explosive compounds, any accidental detonation was expected to produce secondary fragments, such as rocks and debris, but primary fragments such as shrapnel were not expected to be present. An explosives operations and safety protocols plan was compiled in accordance with the US Department of Energy (DOE) explosives safety manual. The protocols plan determined personnel and explosives limits for the working areas, and provided general guidelines for the waste excavation and sorting operations. The protocols plan is included as an appendix to the SSHASP.

Other attachments to the SSHASP included an asbestos management plan, a contingency plan for containers of unknown content, and a guidance document for the operation of the Hybrid rEmote Robotic Manipulator and Excavation System (HERMES). A copy of the SSHASP and its modifications is located at the RRES-RS Project's Records Processing Facility (RPF). Modifications to the SSHASP were required as the project proceeded, to accommodate changes in respiratory protection and safeguards, including the Cerro Grande fire.

2.5 Site Preparations

Site preparations for the MDA P Site closure/remediation activities included installing haul roads, staging pads, water tanks, office and support trailers, and waste sorting areas, as well as mobilizing equipment for excavation, decontamination, safety, and communication. Plate 1 is a map of the MDA P support area, as built. Facilities for runoff and runoff controls, waste segregation, and debris decontamination were provided at the start of Phase I closure implementation.

The existing ramp from the top of the waste pile to the decontamination pad was widened and the slope was reduced using on-site materials. The grade was reduced to ease access and to provide space for staging some debris materials at the decontamination pad entrance. A borrow pit was excavated in the southern part of the waste pile area that was determined to meet the preliminary remediation goals (PRGs) (see section 2.7) during the test pit sampling.

The existing earthen segregation pad (Pad 11) was widened and lowered approximately 6 ft and a new liner was installed. Approximately 170 ft of 24-in.-wide culvert was installed along the asphalt-lined trench to provide the space for the wider pad. Additional clean backfill soil was purchased from an off-site vendor to complete the soil cover, and a cap of compacted, crushed gravel was installed for protection from traffic.

The existing runoff trench was modified to enlarge the working areas. Approximately 40 ft of 24-in.-wide culvert was installed below the ramp to the decontamination pad. The upper far-western portion was back-filled completely and abandoned to allow the construction of an additional waste segregation pad. The central portion of the trench between the abandoned section and the decontamination pad ramp was filled with coarse river cobble to create a French drain immediately north of Flash Pad 387 which created working space yet allowed the runoff trench to function properly.

A new haul road was constructed on the western side of MDA P to allow access to the lower slopes and the canyon bottom. An existing road on the west side was deemed too steep for light equipment to negotiate safely and was abandoned. The new haul road actually followed an older trail nearly parallel to the one abandoned. A new West Access Road was constructed from the paved burning ground access road to the upper western project area. The northern fence of Flash Pad 386 was moved south to improve the access (i.e., Flash Pad 386 was reduced in area from 100 by 100 ft to 50 by 100 ft). All roads were topped with crushed road-base gravel and compacted to withstand use by heavy equipment and tractor-trailer trucks.

The decontamination pad was fitted with a hot-water pressure-washer system, which was entirely powered by propane. The system delivered 4.5 gal./min at a pressure of 4000 psi. The hot water was deemed safer than steam for the operators, yet effective for removing contaminants. The propane was also deemed safer to use than alternatives, and a 250-gal. propane tank was installed near the holding tanks to simplify fuel storage and secondary containment. A personnel decontamination station was installed in the southwest corner of the decontamination pad that included a boot-wash facility, trash cans for personal protective equipment (PPE), and a radiological screening facility. The wash water drained directly into the decontamination pad for collection in the sump.

Four new staging pads were constructed within the MDA P support area. A new pad on the far western project boundary was constructed for soil staging and loading, a new pad on the far eastern project boundary was designed for staging stormwater tanks, and two new pads on either side of the decontamination pad were designed and constructed for large holding tanks for the decontamination water. Five 21,000-gal. tanks were installed. Three of the tanks at the decontamination pad were for decontamination water, pending sample results. A fourth tank was located at the burning ground HE Wastewater Treatment Facility (HEWTF) for water containing HE above release limits and barium less than 1.2 mg/L after filtration. A fifth tank was located west of Flash Pad 387 for water scheduled to be reapplied for dust control; the fifth tank was not placed on a lined pad. All staging pads consisted of a compacted earthen base with marginal berms, a 40-mm HDPE liner with a soil cover 6- to 12-in. thick, and a cap of compacted, crushed gravel for protection from traffic. The berms were constructed of soil from the base of the pad, but the soil covers and gravel caps were constructed with materials from an off-site commercial source.

Each pad was sloped to collect stormwater in an adjacent sump. Sumps were constructed by either installing coarse gravel as the base layer in the lowest corner of the pad, or connecting the pad through a drainage to a lined earthen sump. All sumps were generally pumped when required and the water transferred to one of the large holding tanks at the decontamination pad. Due to space limitations, all waste segregation pads and the eastern tank pad, as well as postexcavation Flash Pad 387, were eventually used for soil staging.

A separate waste staging area was constructed approximately one mile west of the burning ground in an area known colloquially as the 90s Line. A group of older buildings with the designations Building 91, 92, etc., had once occupied the area. The vacant land and roads provided a suitable place to stage soils and debris that were designated as industrial wastes. Eventually, four staging pads were constructed at the 90s Line. Each of the pads consisted of compacted earthen base with marginal berms, a 40-mm, HDPE liner with a soil cover 6- to 12-in. thick, and a cap of compacted, crushed gravel for protection from traffic. The berms were constructed of the local soils, but the soil covers and gravel caps were constructed with materials from a commercial source. Each pad was sloped to collect stormwater in the lowest corner of the pad. The perimeter roads were refurbished with a layer of crushed gravel and compacted to withstand heavy equipment and truck traffic. Support facilities included a generator, field office trailer and toilets, portable truck scales, storage trailers, and eventually a tall, modular building to allow trucks to drive through and seal their loads during inclement weather.

The operating areas of MDA P were fitted with a series of empty storage trailers or conex boxes. These were placed where site personnel could use them to stage field equipment and PPE. They also served as fragmentation protection in the event of an accidental detonation in the waste pile area during excavation. The premise of the SSHASP during the remote excavation operations was that the site contained fragments of HE, not ordnance. A detonation would have produced secondary fragments such as rocks and debris, but primary fragments such as shrapnel would not be present. No detonations ever occurred as a result of closure activities of MDA P.

No changes were made to the existing runoff control trenches. One trench had been constructed directly below the east lobe of MDA P in the welded tuff bedrock. Two additional trenches had been constructed directly below the west lobe of the waste pile in the canyon sediments. The western trenches were eventually removed to allow access to the debris in the canyon bottom and the stream channel.

2.6 Radiological Work Permits

Due to the potential presence of radioactive materials in MDA P, Laboratory ESH-1 personnel provided radiation protection program implementation and oversight during all waste excavation, segregation, and disposal activities. An ESH-1 radiological control technician (RCT) compiled and implemented a series of radiological work permits (RWP) to monitor and control work practices in accordance with the Laboratory Radiation Protection Program. The MDA P exclusion zone, established for access control to a hazardous waste site, was posted and controlled as a radiologically controlled area (RCA). All personnel entering the area were required to read and comply with the requirements of the RWPs. Copies of the RWPs are stored at the RPF.

2.7 PRGs for Field Screening

PRGs were established as operational guidelines during excavation. Barium was established as the primary index for removal activities for inorganic chemicals for the following reasons: barium contamination was ubiquitous across the MDA P Site; barium was assumed to be collocated with other inorganic chemicals; barium was likely to be at higher concentrations, and may have been more mobile, in the environment than other metals; and barium concentrations could be readily measured with a field XRF instrument. It was determined that the barium PRG of 5600 mg/kg presented in the closure plan would not meet the removal criterion for hazardous waste soils; i.e., soils for which a sample extract would fail the toxicity characteristic leaching procedure (TCLP) limit of 100 milligrams per liter (mg/L) for barium. Thus, the "20-times" rule ($20 \times 100 \text{ mg/L} = \text{mg/kg}$) for total barium concentration and TCLP was used as the operational PRG for field-screening determinations of suspected hazardous waste for staging purposes and for making

determinations of whether sufficient materials had been excavated to reduce human health and ecological risks related to residual contamination at MDA P.

Other contaminants known to be ubiquitous across MDA P were the HE compounds RDX and TNT. As with barium, RDX and TNT were measured in the excavated materials in order to assess health and safety concerns during waste segregation operations and to determine whether sufficient material had been excavated and removed. RDX and TNT measurements were not as efficient or as timely as the XRF results, as soil samples had to be collected and processed for analysis by EPA Solid Waste 846 (SW-846) Methods 8510 and 8515. RDX was established as the operational index for removal activities for HE for the following reasons: RDX was found to be more prevalent than TNT; RDX has a higher toxicity than TNT (thus, removal based on RDX is based on a more restrictive standard and is more protective of human health than TNT); RDX was assumed to be collocated with other HE contamination; and RDX was likely to be at higher concentrations, and is more mobile in the environment, than other HE compounds. An operational PRG of 16 mg/kg was used for RDX to determine if sufficient materials had been excavated and removed to address human health and ecological risk concerns. This value is consistent with the EPA Region 6 industrial PRG (EPA 1999, 64637).

3.0 EXCAVATION

3.1 General

As a result of the observations in the test pits (i.e., pieces of HE as large as 5 in. across), the SSHASP was revised to require the use of a remotely operated excavator for all initial excavation operations. When the waste pile contents had been completely removed, excavation activities were continued to remove contaminated soils. The closure plan referred to these activities as "over-excavation." Since the excavation operations did not involve mixed debris in a heterogeneous area, the excavations were performed with a conventional, tracked excavator equipped with a Lexan blast shield. Table 3.1-1 lists the materials excavated for disposal and segregation during the closure implementation.

Table 3.1-1
Estimated Volume of Material Excavated at MDA P

Date	Soil (yd ³)	Debris (yd ³)	Rock (yd ³)	Subtotal (yd ³)
12/1/1999–6/30/2000	24,387	5,727	1,111	31,225
8/7/200–3/30/2001	20,205	NA	757	20,962
9/10/2001–9/14/2001	1,000	NA	NA	1,000
1/14/2002–3/20/2002	350	NA	NA	350
			Total	53,537

3.2 Robotics System

As part of the SSHASP requirements for excavation in a heterogeneous area and to mitigate the dangers of a detonation, Boissiere Engineering and Applied Robotics (BEAR), Inc., developed and deployed a computer-controlled, remotely operated 25-metric-ton hydraulic excavator for all initial excavation operations. BEAR Inc. developed and deployed a HERMES specifically for remote excavation at MDA P. The HERMES used at MDA P consisted of a computer-controlled 62,000-lb tracked excavator coupled with a hydraulic manipulator. The manipulator arm was mounted at the distal end of the excavator boom directly behind and to the side of the bucket. This configuration allowed the excavator to remotely accomplish conventional excavation operations, such as removal of overburden and debris at MDA P. The versatility and dexterity of the robotic manipulator allowed HERMES to address any sensitive objects once they were

uncovered without placing personnel in direct contact with the hazard. The excavator was controlled from a remote operator console, which receives and transmits data to and from the system via multiple radio frequency (RF) communication channels. Multiple on-board cameras were used to facilitate remote operations, including excavation and robot manipulation.

In the unstructured environment of the waste pile, complete autonomous excavation was not feasible as with robotic systems at other facilities. The robot operator motion commands were combined with several other sensory inputs (e.g., pressure and attitude) to produce motion input to the on-board trajectory control system of the excavator. Eight levels of error correction and detection were used to monitor and correct the HERMES during operation. Interference from external radiation sources (probably an unidentified radio signal) were erratic and minor. The control room was initially installed in a corner of one of the field trailers. This configuration worked well for much of the project. The robotic system required line-of-sight for the RF antennas, and when the excavation reached the lower part of the west lobe, the control room was moved to a temporary trailer established in the East Access Road. For the excavation of the east lobe, the control room was moved back to its initial location in the office trailer.

3.3 Remote Excavation Operations

The remote excavation operations started on the lower western portions of MDA P. Initial debris removal operations were conducted near the canyon floor in December 1998 and January 1999 to test the system and establish the coordination efforts between the robotics system and technical personnel on the ground. The actual excavation of the waste materials began on February 2, 1999, on the upper portion of the west lobe. All initial excavation operations were performed by the HERMES system.

A series of six benches were excavated across the western lobe, each terminating at approximately the boundary with the eastern lobe. Photograph 3.3-1 shows the operating area during remediation activities and the upper three benches. The benches provided working surfaces for access down the slope of the west lobe. This excavation approach permitted working from the least contaminated areas in the west lobe to the most contaminated areas in the east lobe. One bench proved problematic, as the rock was fractured and brecciated and collapsed after construction. Access to that area was limited to the margins of the collapse. At the base of the west lobe, the debris was found to rest on unconsolidated, sandy deposits associated with the Cañon de Valle streambed. Both western runoff interceptor trenches were removed for access. Some debris materials were removed from the streambed, but no real in-stream excavation was performed or required by the MDA P SAP.

Once the entire west lobe had been removed, the excavation operations moved to the east lobe. A series of four benches were excavated, each extending across the entire width of the east lobe of MDA P (Photograph 3.3-2). The excavation of the east lobe was relatively uneventful. The lobe was entirely underlain by bedrock. The debris of the east lobe did not extend down the lower slopes, as had been the case with the west lobe. No robotics excavation was performed on the lower east lobe. The excavation was extended southward until no evidence of the waste pile was encountered.



Photograph 3.3-1. Excavation activities in west lobe of MDA P, 1999 (view to south)



Photograph 3.3-2. Excavation activities in east lobe of MDA P, 2000 (view to south)

Excavation occurred in approximately 100- to 200-yd³ increments. The excavated materials were placed in a pile adjacent to the excavation. The excavation operation was monitored by an explosives specialist that accompanied the robotics operator and observed the operation on the video monitor in the control trailer. The excavation was also terminated every 20 to 30 yd³ to allow personnel to walk out and inspect the materials to ensure that dangerous materials were not overlooked. If the robotics operator observed or the monitor showed suspicious items, the excavation operation was terminated to allow additional inspections. Once the field inspectors agreed that there was little danger of detonation from a large object, the excavated materials were handled with conventional heavy equipment equipped with Lexan blast shields. Excavation of the waste pile typically occurred once a week. The excavated materials required inspection and waste segregation, and there was little space for staging materials. Once the excavated materials were segregated and staged for waste management, the excavation sequence was repeated.

3.4 Contaminated Soil Excavation

When the waste pile contents were completely removed, excavation activities continued to remove contaminated soils (i.e., over-excavation). Approximately 21,000 yd³ of contaminated soil and rock were excavated by conventional methods to remove residual contamination that surrounded MDA P. None of these soil materials underwent the segregation process.

Soils were excavated in each 30- by 30-ft grid cell in approximately 6-in. lifts. The grid cell was then surveyed with the XRF instrument. Five locations were measured for barium concentration and the measurements were averaged. If the area did not meet the PRG for barium, additional materials were removed. If the area did meet the PRG, a grab sample was collected near the grid center for HE field analysis. If the area did not meet the PRG for RDX, additional soil or rock excavation was attempted. If the area did meet the criteria, excavation in the cell was deemed complete. The entire MDA P Site was subjected to this technique to ensure that the AOC was defined and remediated to established PRGs.

Excavation of the contaminated soils and rock began August 13, 2000, after removal activities at Flash Pad 387 were complete (see section 11). Excavations for the contaminated soil within the MDA P footprint began by removing the former laydown area (Pad 15). The area was scraped to bedrock with a smooth-tipped bucket.

In the southern part of the former hand sorting area, evidence of older debris was discovered. A layer of mixed soil and debris was found to underlie the burned forest layer. The debris consisted of broken glass and containers, metal shards and pieces, and pieces of barium nitrate in an indurated soil matrix, approximately 12- to 18-in. thick. Unlike the loose overlying materials, the soil and debris layer had the consistency of an adobe brick. No evidence of pieces of HE was observed. Excavation of the waste layer indicated that it covered an irregular area approximately 100 ft in diameter. Excavation continued in the area until no evidence of the layer or barium contamination by XRF field-screening was observed. The underlying bedrock and the overlying burned forest layer yielded barium levels near background or below the PRG.

Excavations continued manually on the steep, lower slopes of the east lobe. The area below the east lobe runoff trench possessed only a thin veneer of soil and unconsolidated deposits. The area had not been excavated during the robotics excavation activities, as no waste materials were present in the area. The area did exhibit elevated concentrations of barium during the interim survey and nearly all areas were excavated to bedrock. Heavy equipment access to the area was arduous, as the rock consisted of competent outcrop. The area was scraped to bedrock with a smooth-tipped bucket. Removal was accomplished by very experienced personnel working on steep, rocky slopes. Temporary access ramps were installed and removed afterward.

Unconsolidated materials on the lower west lobe were also excavated to bedrock, and nearly all evidence of the access benches was removed. Excavation was accomplished by very experienced personnel working on steep, rocky slopes. Temporary access ramps were installed and removed afterward. Access to part of the lower west lobe was very limited where the bench had collapsed. The bedrock was fractured and brecciated, so that locally very steep slopes existed to create a bowl effect. The area was scraped to bedrock with a smooth-tipped bucket, but the brecciated rock left a veneer of rocky, surface debris.

On the east part of the waste pile, the segregation pad was removed, as it was found that some debris and contaminated soil extended under the pad from the west, the former east lobe. The clean backfill that comprised the pad was locally surveyed for barium contamination and found to be clean. The entire contents of the pad, approximately 5000 yd³, were removed and transported to the 90s Line, staged, and stabilized for use during reclamation. Because the soils under the segregation pad were found to contain isolated areas of elevated barium, the entire area was scraped to bedrock with a smooth-tipped bucket. In the area, the asphalt-lined trench was removed, and the drainage re-established along the original watercourse with riprap for sediment control.

Other areas along the margins of MDA P were also excavated to bedrock. The final release surveys extended from the MDA P footprint south to Flash Pad 387 and staging areas, and east and west along the haul roads to the other soil staging areas.

The decontamination pad (section 1.3.3) and the hand sorting pad (section 1.3.6) were demolished and staged for waste sampling. The soils under and adjacent to these pads were surveyed for barium and HE contamination. The soils adjacent to the decontamination pad, extending west to Flash Pad 387, were found to be contaminated; however, the soils extending east from the decontamination pad were not. All excavated soils were staged for waste sampling and characterization. A trench with remnants of a 4-in. diameter VCP was found to extend northeast from Flash Pad 387 to the western boundary of the decontamination pad liner. Only fragments of the pipe were found near the terminus, and it could not be determined where or how the pipe was originally terminated.

3.5 Localized Excavations

At the completion of Phase I excavation activities, Phase II confirmation samples were collected in accordance with the SAP. The results of these sampling efforts indicated that 14 sample locations exhibited concentrations of barium or RDX above the PRGs of 2000 ppm and 16 ppm, respectively. Eight of the fourteen locations contained bedrock outcrop that could not be easily excavated with available equipment. Six locations were identified that contained soil or other unconsolidated deposits that could be additionally excavated. The highest concentration of barium was 18,600 ppm at grid cell 314 (Plate 2). Investigation of this area resulted in the excavation of the upper east drainage. The remaining locations were investigated and an additional 50 yd³ were collectively removed from grid cells 232, 268, 379, 670, and 742. A secondary survey of grid cells 670 and 742 in the lower east drainage was performed after the excavation of the upper east drainage revealed elevated levels of barium beneath surface materials. The entire length of the lower reach of the east drainage was investigated with the field XRF. Most sediment in the lower east drainage was found to meet the PRGs, but small lenses of sediment were present that exhibited elevated barium concentrations. Sediment lenses within grid cell 670 were excavated with hand tools, due to the small volumes and difficult access. Grid cell 742 was excavated by conventional techniques with heavy equipment. Approximately 24 yd³ of sediment were collectively removed from the lower east drainage.

The remaining localized areas of elevated contamination at grid cells 232, 268, and 379 were investigated for barium contamination using the field XRF. Approximately 30 yd³ were collectively removed from grid cells 232 and 379. Elevated concentrations of barium were not confirmed at grid cell 268.

3.6 Upper East Drainage Excavation

At the completion of Phase I excavation activities, Phase II confirmation sampling in grid cell 314 indicated elevated barium in the undisturbed drainage east of Flash Pad 387. This area, now referred to as the upper east drainage, had not been excavated prior to this time because there was no indication of contamination. There were no records of disposal or contamination, and the final surveys at MDA P, Flash Pad 387, and support areas did not indicate that contamination extended into this area. Thus, the confirmation sampling within the AOC had resulted in identification of additional, previously unknown contamination.

An initial survey of the area using the XRF instrument indicated that barium concentrations increased southward, upstream from grid cell 314 toward the road. An intense thunderstorm had apparently exposed barium materials that had been buried under clean cover. The area was excavated between September 10 and 14, 2001, with approximately 1000 yd³ of materials removed. The excavated soils were staged on Pad 17, and sampled for waste characterization. Nine of the ten lots generated proved to be hazardous waste. However, all the soil lots were shipped for hazardous waste treatment and disposal at a permitted treatment, storage, and disposal (TSD) facility.

Confirmation sampling was conducted on the excavated area down the center of the drainage and along the margins. Four confirmation sample results indicated that barium and RDX contamination were still present. An additional survey of the area for barium with the XRF instrument indicated that a small area of bedrock in the southern wall was still contaminated. It was found that the barium contamination was highest in the bedrock in grid cell 205 and appeared to extend under the unconsolidated materials to the west, but was spotty and not continuous. To expose the rock, cover materials were removed and staged. The exposed areas were surveyed with the XRF instrument until the barium concentrations appeared to drop to background. Spot tests for HE contamination in the bedrock indicated that after excavation, the concentrations of RDX were below 16 ppm. To ensure that no areas of elevated contamination were buried in the unconsolidated cover, additional materials were removed and staged so that a broader area could be investigated. No other areas of elevated contamination were found on the western side of the drainage.

The other areas of elevated contamination indicated by the confirmation samples in the east and west walls of the excavation appeared isolated and difficult to relocate. To ensure that the extent of the residual contamination was investigated, the entire circumference of the upper reach of the east drainage was surveyed with the XRF instrument at 5-ft intervals. Two areas of elevated contamination were located along the eastern margin of the drainage. Each of these areas was excavated as appropriate. Examination of the excavation indicated that barium contamination was greater 12 in. below the surface. At each area, contamination concentrations increased with depth, but appeared to stop at the bedrock interface. Approximately 300 yd³ of soil and rock that contained elevated barium concentrations were excavated and removed until barium concentrations were below the PRG. These materials were disposed of as hazardous waste soils. Field tests for barium and HE in the remaining soil and rock indicated that residual concentrations of barium and RDX were below 2000 and 16 ppm, respectively.

3.7 Excavation Tracking

An excavation grid was established to track the progress of the excavation. The 30- by 30-ft grid used during the 1996 surface barium survey was selected as the basis for the excavation grid. This size was small enough that the grid could be used for confirmation or verification sampling during Phase II without having to create a different grid, and large enough to represent a measurable portion of the waste pile area. The center point of each excavation grid was selected as a sampling node from the barium survey (i.e., the barium survey grid and the excavation grid were offset by 15 ft north and east). This method, in addition to the test pits, provided a sample result and an initial indication of contamination levels in many of the grids prior to excavation. Since the barium surface survey only covered the upper terrace of MDA P, the excavation

grid was extended north to cover the entire waste pile footprint. The grid origin was established in the southwest corner from the survey benchmarks set during the barium surface survey (see section 1.3.5). The original excavation grid was labeled A through M from south to north and numbered 1 through 14 from west to east (also see the excavation grid tracking table in Appendix C, section C-4.0).

After completion of the waste pile excavation, the grid was enlarged to include areas south and west of the original excavation grid so that areas of contaminated soils, Flash Pad 387, and the SWMU 16-016(c)-99 VCA could be included in the grid system (see Plate 2). The origin of this sampling grid was established in the far southwest corner of the MDA P project area, but projected into and on top of the original excavation grid. The resulting sampling grid system exactly superimposed over the excavation grid and the grid first established for the barium surface survey. The sampling nodes for the barium surface survey comprise the center of the new sampling grid. The enlarged grid system required that each grid cell be individually numbered to simplify the location identifier and eliminate negative or redundant grid numbers. After completion of the interim survey, all grid locations were labeled as unique numbers from 1 to 792 (Plate 2). This grid system also was used for the confirmation sampling efforts of Phase II. Appendix C, section C-4.0, contains a table that correlates the original excavation grid tracking system and the confirmation sample grid tracking system.

The general locations of the origins of soils and debris were recorded as part of the materials staging described in section 6. Grid cell notations follow the conventions described above (i.e., all grid locations during waste pile removal are denoted by a letter/number combination, and all grid locations during contaminated-soil removal are denoted by a unique number).

3.8 Interim Contamination Survey

Prior to the start of the excavation of contaminated soils, a preliminary surface survey was conducted across the excavated footprints of MDA P and Flash Pad 387 for residual barium and uranium contamination. The objective of the interim survey was to identify areas that required additional excavation to achieve the cleanup criteria identified in the SAP. The interim survey was not designed or implemented to achieve final remediation confirmation.

Residual barium concentrations were measured by a field XRF instrument. Uranium activities were measured by a beta/gamma radiation counter. The activity measurements provided the basis for the release of the area from requirements established by the Laboratory Radiation Protection Program. This was required due to the occurrence of elevated DU concentrations in the excavated materials. The elevated DU activity required postings and area exclusion requirements. As a result of these surveys, postings could be removed from large areas. XRF measurements were collected at the grid center. When a barium concentration in a grid cell exceeded the 2000 ppm PRG for barium, the grid cell was scheduled for additional excavation. No grids were found to have radioactivity above background after excavation.

The HE concentrations in individual grid cells were not measured in this interim survey. Grid cells that exceeded barium cleanup PRGs required additional excavation without this test. Grid cells that met the PRGs underwent a final release survey.

3.9 Final Contamination Surveys

When contaminated soils were completely excavated, a final surface survey was conducted in the AOC for residual barium and HE contamination. Residual barium concentrations were measured by a field XRF instrument. HE concentrations were measured by a field-test kit. These surveys were conducted at grid cells that passed the interim survey, and grid cells that received additional excavation. The objective was to determine if each grid cell met the cleanup criteria identified in the SAP, and to identify which cells did not.

The surveys were conducted across the excavated footprints of MDA P, Flash Pad 387, the areas included in SWMU 16-016(c)-99, and the field support areas, including the soil and water-tank staging areas, decontamination pad, and haul roads.

XRF measurements were performed at four points and at the grid center and then averaged. If the average concentration of barium in the grid cell exceeded 2000 ppm, additional excavation was performed, if possible from an operational standpoint. If the average barium concentration in the grid cell met the PRG, a grab sample was collected from the grid center for HE analysis.

Semiquantitative HE analyses were performed using SW-846 Method 8515 for nitroaromatics (e.g., TNT) and Method 8510 for RDX and nitroamines. These methods are EPA SW-846-approved and -proposed methodologies, respectively. Areas contaminated with TNT could generally be identified by a red-brown stain. However, the stain did not indicate that contamination was present above cleanup goals (EPA Region 6 PRGs). It was discovered very early in the project that RDX contamination was widespread across the MDA P Site and could not be identified without testing. Some grid cells received additional excavation due to residual RDX contamination.

The results of the final survey were grid cells that contained bedrock outcrop that was excavated to the maximum depth possible with available technology, or unconsolidated deposits consisting of fill or soil materials that appeared to test clean and were left in place. Six test pits were excavated in the unconsolidated deposits northwest, north, and northeast of Flash Pad 387 and found to meet PRGs for barium and HE. Some residual barium and HE contamination was expected in the bedrock. Plate 2 is a map of the final survey results at the completion of Phase I.

4.0 DEMOBILIZATION AND SITE STABILIZATION

4.1 Removal of Soil Staging Areas

Demobilization consisted of removing of the staging area pads and segregation pad constructed for materials management. The liner on the segregation pad was removed and the soil beneath the liner was surveyed for contamination. No breaks in the liner were observed and no contamination was found. Since the entire pad had been constructed from imported fill, the pad was removed and the soils were transported to the 90s Line and staged for re-use during site reclamation. These soils were bermed and treated with a surfactant (Soil Sement) to control erosion and resuspension. Soil Sement is a product by Mid-West Industrial Supply Company in Cleveland, Ohio. Approximately 5000 yd³ of clean fill are staged at the 90s Line (as of this writing). All other soil was staged in 100 yd³ lots for sampling and management.

4.2 Site Stabilization

After excavation operations were complete, the project area was stabilized for erosion and sediment control. The MDA P footprint consisted of scraped bedrock surfaces with locally thin veneers of unconsolidated deposits of soil and rock debris. The area south of MDA P had a relatively thick veneer (1 to 2 m) of soil and fill materials. Some of these residual unconsolidated deposits were left in place and the slopes were graded to reduce potential erosion. Slopes on the western, eastern, and southern parts of the project area were reseeded with a mixture containing both fast-germinating grasses and annuals for longer-term stabilization. The steeper slopes on the margins of the east drainage were seeded and covered with a coconut-straw matting provided by ESH-18.

Boulders and rocks that had been staged within the MDA P exclusion zone were used for riprap in areas that required slope and sediment control. Along the western and eastern margins of the former MDA P footprint, the drainages were lined with boulders. The lower, western drainage especially received a riprap-

lined drainage for water from the adjacent watershed that impinged on the former MDA P footprint. The West Access Road was vulnerable to erosion from this source. Along the middle and lower reaches of the east drainage, riprap was installed to collect sediment from the unconsolidated deposits near the former decontamination pad. Additionally, the east runoff trench was left in place and unlined to collect sediment from this area. The remnant of the former runoff trench just north of the former Flash Pad 387 was left to collect runoff water and to distribute it to the lower east drainage. Plate 3 depicts site conditions at the conclusion of the Phase I excavation and stabilization activities.

5.0 WASTE SEGREGATION

5.1 General

Waste segregation was performed for waste minimization, to facilitate proper waste characterization, and to meet the RCRA TSD facility waste acceptance criteria (WAC). Segregation operations included removing pieces of HE, barium nitrate, asbestos, metal and concrete debris, containers of unknown content, and radioactive materials from soil. The segregation process followed the flow diagrams shown in Appendix C, section C-1.0, except that no on-site treatment was performed. The entire contents of MDA P were subjected to this segregation process. A concrete sorting pad with a conveyor system was planned and assembled, but was not implemented due to technical difficulties. The closure plan originally assumed that MDA P consisted largely of debris with small quantities of soil materials. At completion of the robotic excavation, only 6300 yd³ of debris were removed and the remaining 24,000 yd³ of excavated material had to undergo sorting and waste segregation. No segregation was performed on soil excavated during manual over-excavation.

The sorting process confirmed the trend of barium contamination observed in the test pits. Although each laydown was field-screened for barium concentrations and segregated appropriately, broader trends were identified. Results of field-screening soils from the west lobe generally indicated barium concentrations of less than 2000 mg/kg. As the excavation neared the materials in the east lobe, barium concentrations appeared to increase. Barium concentrations measured by analytical chemistry in east lobe soils were the highest from the waste pile. The east lobe soils also exhibited higher background radiation levels, as measured by field instruments.

Soils excavated to achieve the PRGs did not undergo the segregation process. All soils excavated during this activity were assumed to be contaminated with barium and HE. These soils did not contain the debris associated with the waste pile excavations.

5.2 Process Description

After robotic excavation, the materials were moved to the upper bench of MDA P. Large pieces of debris (e.g., concrete) were segregated immediately and moved to the decontamination pad. Mixed materials were passed through a static screen. Material larger than 8 in. dropped to the front of the device, whereas mixed materials dropped through the screen. The larger materials were transferred to the decontamination pad, and the mixed materials were staged for hand sorting.

Hand sorting was conducted at an area constructed on the flat, upper terrace south of the debris line. The mixed materials from the static screen were placed in a thin layer on the ground by a wheel loader, and then inspected by a technical team (Photograph 5.2-1). The team consisted of HE specialists, a chemist, radiation technicians, and laborers. Pieces of HE, barium nitrate, asbestos, containers of unknown content, metal debris, and radioactive materials were removed from the soils. The HE, barium nitrate, asbestos, containers of unknown content, and radioactive materials were identified by their physical characteristics. Suspect HE and barium nitrate were subjected to spot testing using the HE spot test kit (LANL-ER-SOP

10.06, "HE Spot Test Kit," Rev. 3). Radioactive materials were identified by a Geiger-Mueller pancake instrument, as well as the bright colors of the oxidized materials. Metal debris was transferred to the decontamination pad. Pieces of HE, barium nitrate, asbestos, and radioactive materials were containerized near the sorting area. During the sorting process, the soils were screened for barium and other heavy metals concentrations by field XRF instrumentation.

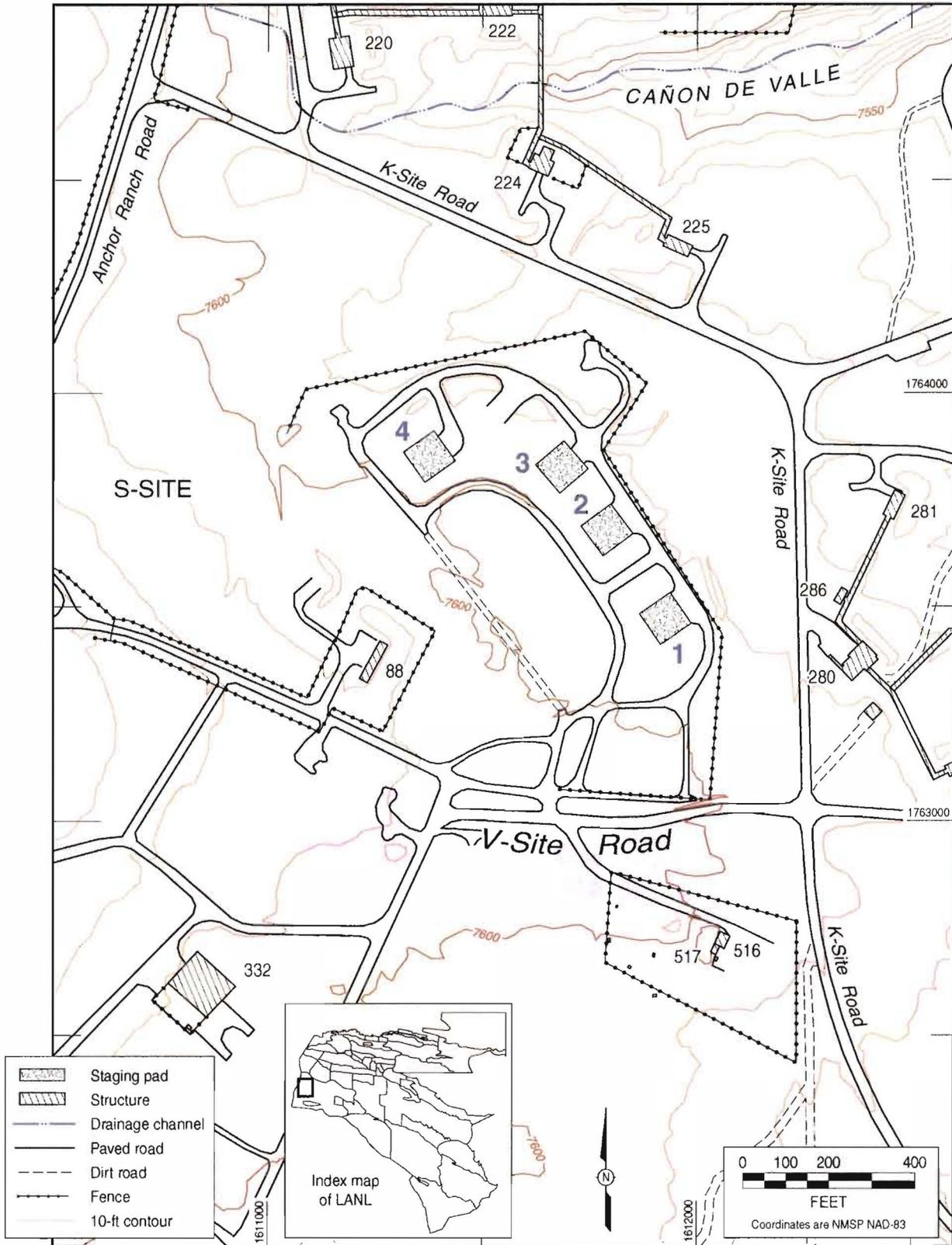


Photograph 5.2-1. Waste segregation and sorting activities at MDA P, 1999 (view to south)

6.0 WASTE STAGING

6.1 General

Staging of wastes removed from the MDA P segregation processes required increasing space as the project progressed. Waste staging areas were constructed within the AOC for contaminated soils, decontamination water, stormwater, and containers of unknown content. Holding tanks for the decontamination water, stormwater, and the area reserved for containers of unknown content proved to be adequate; however, the staging area for contaminated soil was inadequate because the volume greatly exceeded initial expectations. As a result, the 90s Line staging areas were used for suspected industrial waste soils and decontaminated debris (Figure 6.1-1). Appendix C, section C-2.0, provides a summary table of all soil and debris wastes generated during the excavation of MDA P and staged at the 90s Line or within the AOC.



Source: FIMAD G109758, 053101_Rev, SWMU Rpt, 073101, A. Kron_Rev, MDA P Phase I Closure Implementation Rpt, 111902, Icf

Figure 6.1-1. Staging areas (Pads 1 through 4) at the 90s Line staging area

6.2 Soils

All soils were staged in 100-yd³ lots and assigned a unique tracking number. Each staging pad was mapped with the position of each lot within the pad, and each lot was marked with a wooden stake with a unique lot number so it could be identified in the field. During each sampling event, each soil lot was marked with a wooden stake with the sample number, so that each soil lot had at least two markers from which it could be identified. Temporary staging area maps were compiled and used for relocation and identification of each soil lot.

Soils that were identified not to exceed the screening levels for barium during the sorting and segregation process were staged in 100-yd³ lots at the 90s Line staging area. Three pads (Pads 1, 2, and 4) were dedicated to soils that were tentatively identified by field screening to be industrial waste (Figure 6.2-1). Waste characterization sampling was performed to determine waste type and disposition. All soils transferred to the 90s Line as suspect industrial waste were excavated from the west lobe.

Soils that exceeded screening levels for barium during the sorting and segregation process were staged in 100-yd³ lots within the AOC. Pad 10 was initially constructed for these soils. As the volume of potentially hazardous waste soils increased, the segregation pad (Pad 11), the former hand sorting pad (Pad 12), the stormwater staging pad, and former Flash Pad 387 (Pad 14) were also used for staging soils within the AOC. All soils from the over-excavation activities were staged on Pads 15 and 16. Pads 15 and 16 were located at the former waste sorting area (i.e., the laydown area) as that process was no longer required. All soils excavated during over-excavation activities were assumed to be potentially hazardous wastes.

Soil lots with elevated DU concentrations were isolated on Pad 12. This pad had a concrete base with integral curb and sump. A liner was placed in the pad and soil lots were staged in the pad, until shipped for disposal.

Each soil lot was treated with a commercial surfactant (Soil Sement) to prevent resuspension and erosion. The surfactant, often treated with a green dye to aid visual recognition, was a water soluble, biodegradable, nontoxic material mixed with water for spray application.



Photograph 6.2-1. Soil staging at Pad 1, at the 90s Line, 1999 (view to north)

6.3 Decontamination Water Staging

Decontamination water was staged in three 20,000-gal., single-walled, steel fractionation tanks designed to separate solids from liquids. These tanks were located on lined and bermed pads constructed adjacent to the decontamination pad within the AOC. The three tanks received decontamination water pumped from the sump in the decontamination pad. When a tank was full, a lot number was assigned to the tank for tracking purposes. Each tank of water was marked (lot number and sample numbers) for identification purposes. As their contents were sampled and managed, the use of the three tanks was rotated: actively receiving water from the decontamination pad, awaiting sample results, or awaiting disposition.

Two similar tanks were located at other locations in the support area. A fourth tank was located immediately west of Flash Pad 387. This tank was used as a reservoir for water for dust control and was not placed on a lined pad. This tank received water pumped from one of the three tanks at the decontamination pad; waste determination results indicated when the water could be used for dust control. Much more water was required for dust control than could be supplied by re-used decontamination water, so this tank was filled from a local fire hydrant through a temporary hose.

A fifth tank of similar construction was located at the HEWTF within the burning ground. This tank was installed to receive water pumped from one of the three tanks at the decontamination pad, if sampling results indicated that the water could not be used for dust control.

6.4 Stormwater Staging

Stormwater was staged in three new 10,000-gal., single-walled, steel tanks; each tank was dedicated to one of the three runoff trenches. These tanks were located on a lined and bermed pad. When the tank was full, a batch number was assigned to that tank of stormwater for tracking purposes. Each tank was filled only once.

6.5 Debris Staging

Debris from the excavation and waste segregation processes at MDA P included metal and concrete debris. All debris materials were staged in 100-yd³ lots (Photograph 6.5-1) and assigned a unique tracking number. Each staging pad was mapped with the position of each lot within the pad, and each lot identification number was marked with a wooden stake or spray paint so it could be identified in the field. During each sampling event, each debris lot was spray painted with the sample number, so that each debris lot had at least two markers for identification. Temporary staging area maps were compiled and used to relocate and identify individual debris lots.

All debris was staged at the decontamination pad and visually inspected for the presence of HE or other materials that needed to be removed prior to decontamination. All debris was subjected to a surface radiation survey with a beta-gamma radiation instrument. Representative swipe samples for removable radioactive materials (i.e., smears) were collected and submitted to the Laboratory health physics analytical laboratory (HPAL) for analysis. All materials that exhibited elevated levels of surface or removable radiation were segregated into the radioactive waste boxes and were not decontaminated. All other debris materials were subjected to decontamination by high-pressure washing with hot water at the decontamination pad (Photograph 6.5-2). Once decontaminated, all debris was transferred to Pad 3 at the 90s Line. At the staging area, debris was segregated into 100-yd³ lots of metal and concrete. Each lot was assigned a unique lot number for tracking purposes. Each lot then received another representative swipe sampling for removable radioactive materials before the lot was released for disposal or recycle. No metal was recycled after implementation of the DOE moratorium that prohibited shipment of metal from an RCA (DOE 2000, 73792).



Photograph 6.5-1. Debris staging at Pad 3, 90s Line, 1999 (view to north)



Photograph 6.5-2. Personnel and debris at the decontamination pad, 1999

6.6 Asbestos Containing Material

Asbestos-containing materials (ACM) were staged within the AOC. Large items, including wrapped pipe and other debris removed from MDA P, were double wrapped in accordance with the U.S. EPA Asbestos

Hazard Emergency Response Act (AHERA) regulations, and staged in a sealed box-trailer. Smaller items were double wrapped and staged in 55-gal. drums.

6.7 Staging Other Wastes

Other waste streams resulting from the waste sorting and segregation process included HE, barium nitrate, and radioactive materials. All of these were staged within the AOC in containers consisting of 5-gal. buckets, 55-gal. drums, or standard radioactive waste boxes, as appropriate. The drums and buckets were placed on pallets for ease of staging and movement by forklift. Buckets with HE were staged near the sorting pad in a designated area. Once the bucket reached the 10-lb limit, the materials were either moved to a separate less than 90-day accumulation area, or transferred to the Engineering and Sciences Applications (ESA) operating group for treatment at the interim status open burn unit. The radioactive waste boxes were staged in an isolated area of the pad constructed for containers of unknown content. Each of the containers was assigned a unique number for tracking purposes. Appendix C, section C-3.0, describes the miscellaneous wastes generated during the excavation of MDA P and staged at the 90s Line or within the AOC.

Containers of unknown content were segregated during the waste-sorting process. These typically consisted of bottles and jars of less than 100-mL-volume with liquid and solid contents, unidentifiable metal objects, a couple of gas cylinders, and a few inert ordnance items. These objects were staged at the pad constructed for this purpose (Plate 1). The staging pad consisted of a lined area with spill pallets and two storage trailers. Containers were grouped by suspected contents, placed in 5-gal. buckets with an absorbent, and each group assigned a tracking number.

6.8 Less-Than-90-Day and Satellite Accumulation Areas

Two satellite accumulation areas were established for the wastes generated at MDA P. The first was located at the sampling trailer (trailer 16-653) in the MDA P support area. This area was for the waste acetone generated by the HE field test kits. The second was located at the 90s Line for wastes generated from processing containers of unknown content.

Two less-than-90-day accumulation areas were established for the MDA P closure. The first was at Building 267. This area was used for staging HE wastes destined to be burned, as well as residues from the HE burning operations. The second area was established at the 90s Line. This area was used for roll-off containers of hazardous waste soils that had been moved from the AOC. These soils were generated from either excess materials during the loading and shipping operations, or from one of the soil lots that had been staged at the 90s Line as suspect industrial waste and subsequently identified through laboratory analysis as hazardous waste. The hazardous wastes were containerized the day the waste determination was made. Only two lots of soils were identified in this manner.

7.0 WASTE CHARACTERIZATION

7.1 General

Waste characterization included sampling, analysis, data review, and waste determination. These activities were conducted by a dedicated team of Laboratory personnel from the Solid Waste Regulatory Compliance (RRES-SWRC) Group (formerly ESH-19). The team was assigned to track, sample, and review analytical results for all materials excavated from MDA P in accordance with procedures for sampling specified in SW-846 methods, the Laboratory ER Project standard operating procedures (SOPs), and the approved closure plan (LANL 1995, 58713).

The data tracking system included the following information:

- date sampled,
- sample request number,
- sample identification number,
- sample media,
- analytical suite,
- data due date, and
- date analytical data received.

Table 7.1-1 provides a summary of the total number of samples collected for waste characterization during Phase I of the MDA P closure. Appendix D provides summaries of the analytical requests for soil, debris, water, and sediments generated during the Phase I closure activities. These tables serve as indexes to the analytical data results, as these are archived by analytical request number. Appendix E provides summaries of analytical results for soils, debris, and water characterization samples collected during the Phase I closure activities. The sample collection logs and supporting documentation are on file in the RRES-RS Project's RPF.

**Table 7.1-1
Phase I Samples and Analyses**

Analysis (EPA SW-846 Method, except where noted)	Metals ^a	VOCs ^b	SVOCs ^c	Reactive Cyanide/ Sulfide ^{d,e}	Total Cyanide ^{e,f}	HE + PETN ^g	Gamma Spectroscopy	Gross Alpha, Beta ^h
Waste soil/tuff	500	500	500	125	0	500	500	500
Duplicate ⁱ	25	25	25	7	0	25	25	25
Decontamination water	36	36	36	36	36	36	36	36
Matrix spike ^j	25	25	25	7	0	25	25	25
Background (soil and tuff)	55	0	0	0	0	0	0	0
Baseline soil (staging area)	10	10	10	10	10	10	10	10
Total samples, Phase I	651	596	596	185	46	596	596	596

Analysis (EPA SW-846 Method, except where noted)	Total Uranium ^k	Isotopic Uranium ^l	Asbestos ^m	Organo-chlorine Pesticides, PCBs ^{e,n}	Chlorinated Herbicides ^e	pH ^{e,o}	Dioxin ^{e,p}	Perchlorate ^q
Waste soil/tuff	52	437	500	125	125	125	125	0
Duplicate ⁱ	3	22	25	7	7	7	7	0
Decontamination water	18	14	36	36	36	36	36	6
Matrix spike ^j	3	22	25	7	7	7	7	0
Background (soil and tuff)	0	0	0	0	0	0	0	0
Baseline soil (staging area)	0	0	10	10	10	10	10	0
Total samples, Phase I	76	495	596	185	185	185	185	6

^a Methods 3005A and 3050A were used for digestion of water and soil; 6020 is the analytical method used for most total metals; Method 7740 is the analytical method used for total selenium; Methods 7470 and 7471 are the analytical methods used for total mercury; Method 1311 is the TCLP method used; other methods may have been used (e.g., Method 6010A and 7000A series methods).

^b Method 8240A. Method 8260 may have been substituted for 8240A.

^c Methods 3520A and 3540A are extraction methods used for water and soil; 8270A is the laboratory analytical method used.

^d Determination of reactive cyanide is described in SW-846, Chapter 7, Section 7.3.3; this determination included portions of Method 9010A; determination of reactive sulfide included portions of Method 9030A.

^e Soil/tuff samples were taken from every fourth 100-yd³ batch of waste that was deposited.

^f Method 9011 was used for digestion of soil for cyanide analysis; Methods 9010A and 9012A are the laboratory analytical methods used.

^g PETN = pentaerythritol tetranitrate. Method 8330 (modified) was used for PETN.

^h Method 9310 was used for water samples; soil samples were measured using calibrated field instruments.

ⁱ Duplicates were collected at a frequency of one per 20 soil or tuff samples, and one per 10 water samples.

^j Matrix spike samples were collected at a frequency of one per sample delivery group per matrix, with a maximum of 20 samples per delivery group.

^k Method 6020 was used for total uranium.

^l HASL = Health and Safety Laboratory method 300.

^m NIOSH = National Institute of Occupational Safety and Health Method 7400.

ⁿ PCB = polychlorinated biphenyl.

^o Method 9020 was used for pH.

^p Method 8280 was used for dioxins.

^q Method 314 was used for perchlorate.

7.2 Waste Sampling of Soils and Debris

Waste characterization sampling was conducted to characterize soil, tuff, debris (concrete and metal), containers of unknown content, stormwater, decontamination water, rinsate water and other liquids, and solids to ensure the proper disposition of the segregated wastes. Sampling was also conducted to satisfy the most stringent WAC of the respective receiving disposal facilities. Additionally, field-screening methods for radiological materials, metals, HE, and visual techniques were employed to ensure safe sample handling and management. A total of over 600 samples, including soil, water, and concrete debris, were collected during MDA P Phase I investigations. Table 7.1-1 summarizes the number of samples collected and the requested analytes.

One composite sample was collected from each 100-yd³ lot of waste soil, soil/tuff, and concrete. Each composite sample consisted of homogenized grab samples collected from a minimum of 10 locations within each lot. Sufficient sample material was collected from each grab sample to ensure adequate sample volume for the prescribed analyses. A larger number of grab samples (i.e., >10) could have resulted in excessive dilution of contaminant concentrations. Biased grab samples were collected from waste material that exhibited discoloration, elevated moisture content, elevated field screening results or other evidence of potential contamination. Grab samples were also collected from throughout the respective 100 yd³ lots to ensure adequate distribution and representation of waste material and to provide data that are representative and of sufficient quality. The number of samples was also chosen to satisfy characterization, staging, and disposal requirements based upon best professional judgment concerning the heterogeneity of the waste lots. By employing systematic composite sampling combined with a judgment-based sampling regimen, the waste was effectively segregated into and managed as unique waste streams.

All samples were collected according to ER Project SOPs employing discrete clean stainless steel sampling equipment (i.e., bowls, scoops, pails, etc.) per sample location and sampling event. Sample material was submitted to the Laboratory Sample Management Office (SMO) and ER-certified external contract laboratories for analysis in accordance with EPA SW-846 methods and the MDA P closure plan (LANL 1995, 58713).

All 100-yd³ soil lots were analyzed for TCLP metals, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), HE including pentaerythritol tetranitrate (PETN), radionuclides (isotopic uranium [495], total uranium [76], gross alpha beta, and gamma spectroscopy), and asbestos. One in four lots were additionally analyzed for reactive cyanide, reactive sulfide, organochlorine, pesticides, polychlorinated biphenyls (PCBs), dioxin, chlorinated herbicides, and pH. To satisfy the waste acceptance criteria of receiving facilities.

Only the initial lots of steel and concrete debris were sampled for waste characterization in accordance with the rinsate sampling methodology described in the MDA P closure plan. This methodology proved difficult and unrepresentative. The Laboratory chose to invoke the alternative treatment standards for hazardous debris specified in 20.4.1.800 of the New Mexico Administrative Code (NMAC), which adopts 40 CFR 268.45. This standard states that debris that undergoes a physical extraction technology, such as high-pressure steam and water sprays, has met the performance standard if treatment to a clean debris surface is obtained. Starting in April 1999, sampling of all concrete lots changed from the rinsate methodology to bulk sampling. Representative samples of each concrete lot were collected and composited. The bulk samples were submitted for the suite of analytes listed in Table 7.1-1.

Quality Assurance Assessment

A representative sampling of the data collected for waste characterization of soils was assessed for quality beginning with data collected between August 9, 2000 and January 3, 2001 (Appendix F). This validation

report is considered representative of the waste characterization analyses conducted for the MDA P Phase I activities. The report includes assessment of analyses for dioxins, herbicides, HE, PCBs, pesticides, SVOCs, VOCs, inorganic metals, reactive cyanide and sulfide, isotopic uranium, and other radionuclides.

7.3 Sampling of Wastewater

Wastewaters were generated as storm, decontamination, and rinsate waters. Stormwater samples were collected from the three 10,000-gal. storage tanks. Decontamination water samples were collected from the three 20,000-gal. storage tanks adjacent to the decontamination pad. Rinse water samples were collected from each of these tanks after they had served their purpose, had undergone thorough cleaning, and had been rinsed clean. The tank rinse water samples were collected for information purposes only.

All water samples were submitted and analyzed for TCLP metals (total analyses), VOCs, SVOCs, total cyanide, HE including PETN, radionuclides (total uranium, radium-226, radium-228, gamma spectroscopy, gross alpha/beta), nitrates, sulfates, total dissolved solids, polyaromatic hydrocarbons (total naphthalene, monoethylnaphthalenes, benzo-a-pyrene), asbestos, organochlorine pesticides, PCBs, dioxin, chlorinated herbicides, and pH. Perchlorate analysis in rinsate and decontamination water samples was added to the analytical suite in 2001 per agreement with the NMED. Table 7.1-1 also summarizes the water samples collected during the Phase I activities.

7.4 Sampling of Containers of Unknown Content

Containers of unknown content were sampled individually. Sealed containers were opened using a remote-control device within the MDA P AOC. The containers were then transported as samples to TA-59 for analysis by ESH-19. Solids and liquids were subjected to a hazardous categorization technique, also known as HAZCAT, for assignment. Fifty-five items were additionally submitted to an analytical laboratory for analysis.

Six items were determined to be too dangerous to handle or to sample appropriately. These six items were managed by the Laboratory Emergency Management and Response (EM&R) group. Five were destroyed with explosive charges in the AOC and one was destroyed at TA-49.

7.5 HE and HE-Contaminated Debris

HE and HE-contaminated debris were not sampled for laboratory analyses, but were identified as HE from their physical properties by trained explosives ordnance disposal (EOD) personnel. A field test kit for HE, devised by the Laboratory Materials Dynamics Group (DX-2) and commercial kits (i.e., D-TEK) were utilized for the rapid identification of unusual species of HE found in the excavated materials. Once the general physical properties were confirmed, visual identification of suspect HE materials was the sole method of identification.

Debris materials, consisting of wood or metallic debris that visually appeared to be contaminated with HE, were spot tested with the HE spot test kit. The test kit was designed by Laboratory DX-2 as a quick method to identify explosives in field environments. This kit utilizes a series of reagents on a sample collected on a filter paper. Color changes represent positive identification of residual HE materials (LANL-ER-SOP 10.06).

7.6 Ash from Burning High Explosives

The ash from the burning of HE and HE-contaminated debris was containerized, managed within a less-than-90-day accumulation area, and sampled by ESH-19 personnel. The samples were submitted to a local laboratory for TCLP metals analysis.

7.7 Barium Nitrate Pieces

Pieces of barium nitrate were segregated during the sorting process. The physical characteristics were used to identify these pieces, along with negative results of the HE spot test kit (ER-SOP 10.06). One representative sample of the materials was collected and submitted for laboratory analysis.

7.8 Radioactive Material

All soils and debris materials received an initial screening examination for radioactive materials by direct-reading instruments. Debris materials received additional examination for removable surface contamination using surface smears submitted to a Laboratory HPAL count laboratory. All samples of soil and concrete lots were submitted to an off-site laboratory for gamma spectroscopy and total uranium analyses. After July 1999, all samples of soil and concrete were additionally submitted for isotopic uranium to identify specific radionuclides.

One 55-gal. drum was filled with pieces of radioactive materials and soil as a result of the sorting process. The radioactive materials were crumbly and could not be segregated. A representative sample of this material was collected and analyzed for its radiological characteristics. The soil portion was known to contain high barium concentrations, so the laboratory results for associated soil lots were used for characterization. A representative analysis from an associated soil was used to characterize the hazardous waste portion of the drummed material.

7.9 Asbestos-Containing Material

ACMs removed during the excavation were not sampled or analyzed, but were identified by an AHERA-certified asbestos inspector in accordance with the approved MDA P closure plan (LANL 1995, 58713). Typical samples of materials from MDA P were identified positively as ACM during the initial test pits investigation in 1997. All ACM was inspected for radioactivity by direct-reading field instruments to ensure that no radioactive materials were containerized with ACM. The bag filters used for filtering decontamination water were managed as ACM due to the potential for ACM fiber content in the water.

7.10 Personal Protective Equipment

PPE consisted primarily of coveralls, gloves, booties, tape, and other miscellaneous related supplies. The potential contaminants were expected to consist of HE residues and barium. PPE was not sampled directly, but was managed to minimize contamination and waste volume. Sampling and analysis of PPE waste from remediation activities was not feasible due to its heterogeneous nature. PPE was characterized for hazardous constituents using the analytical results of the associated soil and debris samples, as appropriate. PPE that was not visibly soiled was managed as nonhazardous. If the PPE came into contact with radioactively contaminated materials, the PPE was segregated, bagged, and containerized with the corresponding materials.

7.11 Acetone

Acetone was generated from the use of field test kits for identifying the high explosives RDX and TNT by EPA SW-846 Methods 8510 and 8515, respectively. Acetone was used as a solvent in the analysis process. The waste acetone was not sampled, but it was characterized by process knowledge.

8.0 WASTE DETERMINATION

8.1 General

Waste determinations were made by the waste management coordinator (WMC) assigned by the ER Project. The WMC reviewed the analytical results and other information available for each waste stream and determined the proper pathways for disposal. The WMC was responsible for compiling and submitting a waste profile form (WPF) to the Laboratory's Facility and Waste Operations Division Solid Waste Operations Group (FWO-SWO) at TA-54. The WPF included a description of the waste and all pertinent characterization information, including analytical data. FWO-SWO reviewed and approved the WPF package and assigned a unique number to each waste stream. Once the WPF was approved, the WMC compiled and submitted a chemical waste disposal request (CWDR) to FWO-SWO for assignment of container and manifest tracking numbers. All containers received a unique container number. Once the container and manifest tracking numbers were obtained from FWO-SWO, shipping documents were compiled and the transportation and disposal scheduled.

8.2 Soils

The largest waste stream volume from the MDA P removal was soil. Soils were determined to be hazardous or nonhazardous wastes based on analytical results, and EPA hazardous waste numbers for characteristic wastes were assigned accordingly. No waste soils were determined to contain listed wastes, as no specific F-listed sources were determined to be in contact with the soils (LANL 1999, 63343). The nonhazardous waste soils are considered industrial wastes and are referred to as such in this report.

The majority of soil lots that were determined to be hazardous wastes contained barium at concentrations for which a sample extract exceeded the EPA toxicity characteristic limit of 100 mg/L. Eleven lots contained lead, chromium, and 2-4, dinitrotoluene, in addition to barium. Seven lots additionally contained elevated DU levels at limits authorized by DOE to be within the limits of the operating permit of the receiving facility; 61 soil lots were determined to be industrial wastes.

8.3 Debris

Classification of concrete debris followed the same convention as soils, but no hazardous concrete debris lots were identified by sample results. All concrete debris lots were determined to be industrial wastes or recyclable materials.

Most metallic scrap debris was determined to be nonhazardous and nonradioactive based on HE spot tests and radiological screening. Prior to May 2000, all metallic scrap debris was determined to be eligible for recycling. After that date, all metallic scrap debris was determined to be ineligible for recycling based on the DOE moratorium on recycling of such materials from an RCA (DOE 2000, 73792).

Samples of the mass of metallic lead were not submitted for bulk analysis. Since the lead served as a natural shielding device, the mass could have been very heterogeneous, and a representative sample was not possible. Surface smears were collected and proved negative for removable surface contamination. The mass of metallic lead was determined to be a mixed waste. The lead itself was determined to not be recyclable due to the possible presence of embedded materials.

8.4 Wastewaters

Storm- and decontamination waters were determined to meet the release criteria for reapplication as dust control, or were classified as HE-contaminated water. Results of water sample analyses were compared to 20 NMAC 6.1 (Livestock Watering and Wildlife Habitat) water standards and the acceptance criteria of the HEWTF at TA-16.

8.5 Containers of Unknown Content

Results of the hazardous categorization techniques or laboratory analyses were used to assign the contents of each container to one of the categories of nonhazardous solids, ignitable liquids, aqueous solutions, and organic acids. Two hundred items were determined to be empty and were managed as scrap or solid waste. Six items destroyed by Laboratory EM&R were determined to be scrap metal. Three hydraulic accumulators were drained of their oil and the cylinders were determined to be scrap metal. Ninety-five metallic items were determined to be potential resource materials and were returned to the ESA operating group at TA-16.

8.6 Ash from Destruction of High Explosives

Ash from destruction of HE and HE-contaminated debris was determined to be characteristic hazardous waste based on laboratory analytical results.

8.7 Barium Nitrate

Pieces of barium nitrate were determined to be characteristic hazardous waste based on laboratory analytical results.

8.8 Radioactive Material

The characteristics of radioactive materials were determined from the results of direct reading instruments and the results of swipe samples submitted to the Laboratory HPAL.

A 55-gal. drum containing an admixture of soils and crumbly pieces of radioactive materials was determined to be a mixed waste containing characteristic hazardous waste (barium contaminated soils) and DU. The hazardous waste determination was based on a representative analysis of associated soils. The activity level of the radioactive component was based on analytical results from the Laboratory HPAL.

A large mass of metallic lead with embedded debris was managed as a mixed waste due to the inability to characterize the radiological characteristics. Lead is a natural shielding material and could have been masking radioactive materials embedded in the interior of the mass. A surface smear sample of the mass indicated that the surface was clean; however, as a conservative assumption, the lead mass was assumed to be radiologically contaminated.

8.9 Asbestos-Containing Material

Asbestos materials consisted of friable asbestos and ACM. The characterization of these materials was made by an on-site AHERA-certified asbestos inspector. All ACM was determined to be free of hazardous and radioactive materials by a surface inspection.

8.10 Personal Protective Equipment

PPE was characterized by association with contaminated soils and debris. Most PPE associated with the excavation and sorting activities was determined to be a nonhazardous waste. All PPE associated with

handling radioactive materials was containerized at the end of each day with the materials involved. PPE utilized for sealing the hazardous waste soils in the tractor-trailers was included in the waste packages at the end of each day. These materials were not tracked or managed separately.

8.11 Acetone

Acetone was determined to be an F-listed, hazardous waste based on process knowledge. The acetone was generated as part of a solvent solution process for the semi-quantitative analysis of HE materials using EPA SW-846 Methods 8510 and 8515.

9.0 WASTE DISPOSAL

9.1 General

Wastes generated during the MDA P closure and SWMU 16-016(c)-99 VCA included large volumes of soil and debris, moderate volumes of storm and decontamination water, and small volumes of radioactive and mixed wastes, HE, barium nitrate, containers with unknown contents, ACM, PPE, and acetone.

Table 9.1-1 summarizes the estimated volumes of these wastes for the project. All of these waste streams were assigned one or more WPF numbers, and each container was assigned one or more tracking numbers. Only natural rock was not considered a waste and did not receive a WPF number. The disposal documentation records for all waste streams are filed in the RPF by WPF number.

Table 9.1-1
Quantities of Wastes Generated from MDA P and SWMU 16-016(c)-99

Quantity	Unit	Description
21,506	yd ³	Hazardous waste soils
26,150	yd ³	Industrial waste soils
1111	yd ³	Rock, decontaminated, used as riprap at TA-16 Burning Ground
757	yd ³	Rock, released, used as riprap within the MDA P Site footprint
3200	yd ³	Concrete debris, recycled and industrial waste
2200	yd ³	Metal debris, recycled and industrial waste
3947	lb	Asbestos-containing materials
888	each	Containers of unknown content
95	each	Miscellaneous metal objects
441	lb	HE
85	lb	Ash from burning HE
500	lb	Ash and contaminated debris
6706	lb	Barium nitrate pieces
3240	lb	Radioactive low-level waste
5389	lb	Mixed waste
219,545	gal.	Decontamination water
16,318	gal.	Stormwater
37	gal.	Acetone
33	bag	Personal protective equipment (PPE)
70	lb	Waste aerosol cans
250	lb	Soil/transmission oil
70	lb	Miscellaneous field laboratory trash

9.2 Hazardous Soils

Soils determined to be hazardous wastes were shipped directly from the staging area within the AOC into 20-yd³ end-dump tractor-trailer trucks (Photograph 9.2-1) and shipped directly offsite to the RCRA TSD facility in Andrews, Texas, operated by Waste Control Specialists (WCS) LLC. Shipments occurred in accordance with applicable US Department of Transportation (DOT) and the New Mexico state hazardous waste management regulations. Waste soils were contained in a sealed inner liner within the trailer, and the trailer was sealed with a weatherproof cover. Prior to shipment, each truck was inspected for compliance with DOT regulations and placarded. The bulk of the soils shipped exhibited the hazardous waste characteristic for barium, EPA hazardous waste number D005. However, some soils also were characteristic for lead (D008), cadmium (D006), and 2,4-dinitrotoluene (D030), in addition to the barium. Seven hundred yd³ of soil contaminated with barium and low-level radionuclides were accepted under an authorized limits exemption at WCS and therefore classified only as hazardous waste. Appendix G contains a summary table of the soil lots, shipment dates, and documentation records for each shipment. Complete copies of these records are available in the RPF.

Each truck was originally loaded to its approximately maximum legal weight to minimize costs. In the beginning of the shipping campaign, each truck was weighed, but the accuracy and temperature variations of the portable scales suggested the results were flawed. The hazardous soils were weighed for treatment and billing records at the receiving permitted facility. The net weights of the soils were recorded in tons to 2 decimal places. This accuracy allowed the actual quantity of soil to be calculated more accurately than the on-site methods allowed. Hence, each truck was loaded with approximately 18 yd³ of soil. The estimates of the actual volumes of soil shipped from the project required adjusting for the inaccuracies in field measurements. The volume of hazardous waste soil was calculated by taking the total weight of soils in tons, as received at the facility, and dividing the result by an estimated average bulk density of 1.2 tons yd³.

The estimated bulk density of 1.2 tons yd³ was evaluated by comparing the estimated, average bulk density per load. Each truck was loaded in a similar manner; each was loaded with approximately 18 yd³, as measured with a front-end loader. If 18 yd³ per truck is assumed, the total weight of soil received by the facility, divided by the total number of trucks, yields an average bulk density of 1.18 tons per yd³. If an average bulk density of 1.2 tons per yd³ is assumed, a similar calculation yields an average load volume of 17.74 yd³ per truck. The results of these calculations indicate that the average bulk density assumption of 1.2 tons per yd³ is within the margin of measurable error.



Photograph 9.2-1. Soil loading at the AOC, 2000

9.3 Industrial Soils

Soils determined to be industrial wastes were shipped directly from the staging areas at either the 90s Line or the AOC to the receiving facility in Rio Rancho, New Mexico, operated by Waste Management, Inc., or to Laboratory Area J at TA-54. Shipments occurred in 20-yd³ end-dump tractor-trailer trucks in accordance with applicable DOT and New Mexico state solid waste management regulations. Due to weight limitations, each truck was loaded with approximately 18 yd³ of soil. Sections G-1.0 through G-3.0 (Appendix G) provide summary tables of the soil lots, shipment dates, and documentation records for each shipment to Rio Rancho and Laboratory Area J, respectively. Complete copies of these records are available in the RRES-RS Project's RPF. The volume of industrial soils was estimated in accordance with the density factors determined from the hazardous soils, as described above.

9.4 Debris

Debris disposal included concrete and metallic debris; some lots were submitted for recycling. The majority of metallic debris was recycled at a facility in Espanola, New Mexico operated by Gallegos Recycling, Inc. Twenty-one lots of metal debris were submitted for recycling (Photograph 9.4-1). In June 2000, the DOE imposed a moratorium on recycling metal debris from all RCAs (DOE 2000, 73792). Since the MDA P exclusion zone included an RCA, all metal debris was prohibited from recycling after this date. One lot of miscellaneous metal debris was disposed of as industrial waste at the facility in Rio Rancho, operated by Waste Management, Inc. Sections G-4.0 and G-5.0 provide summary tables of metallic debris shipments sent to recycle and disposal. Since recycling is not considered waste disposal, container numbers were not assigned to shipments of metallic debris to recycle. Container numbers were assigned to shipments going to Rio Rancho, New Mexico.



Photograph 9.4-1. Loading recyclable metals at 90s Line, 1999

Concrete debris was either recycled or disposed of as industrial waste, the majority being the latter. The recycle requirements for concrete included no rebar, due to the difficulty of separation during crushing. Separation of rebar from concrete debris was not feasible for the entire volume generated, as it was labor- and equipment-intensive. Shipments occurred directly from the staging areas at the 90s Line in 20-yd³ end-dump tractor-trailer trucks in accordance with applicable DOT regulations. Concrete suitable for recy-

cle was submitted to a Santa Fe, New Mexico, facility operated by Lafarge, Inc. Section G-6.0 (Appendix G) provides a summary table of concrete debris shipments sent to be recycled. Concrete debris determined to be industrial wastes was shipped directly from the staging areas at either the 90s Line or the AOC to the receiving facility in Rio Rancho, operated by Waste Management, Inc., or to Laboratory Area J at TA-54. Appendix G also provides summary tables of concrete debris shipments to disposal at Rio Rancho or Laboratory Area J.

A large mass of lead was removed from MDA P and staged at the decontamination pad. This mass of metallic lead was essentially contained in one large piece that weighed over two tons. The mass consisted of metallic lead that had been molten with embedded pieces of other metallic debris. Since it was not possible to determine what other materials, including potentially radioactive materials, may have been part of the waste form, the mass was managed as a mixed waste. The large mass was cut into manageable pieces with the excavator, drummed and transported to the Laboratory's permitted storage facility where it was stored until it was transported to an authorized facility.

Several metallic items were staged within the AOC and determined by ESA personnel to be of historic interest. These objects were returned to ESA-FM for management.

9.5 Decontamination Water

Decontamination water was disposed of by reapplication as dust control or it was sent for treatment at the TA-16 HEWTF at the burning ground. Six lots of decontamination water were reapplied as dust control. Six lots were submitted for treatment at the HEWTF. All lots of decontamination water were filtered through a set of Rosedale bag filters to remove the asbestos fibers. The filter train consisted of 50-, 20-, and 5-micron filters in accordance with standard practices. Appendix G summarizes the volumes and disposal option for each lot of decontamination water.

9.6 Stormwater

Three lots of stormwater were disposed by re-use as a dust control agent during excavation of MDA P. The water was filtered through a set of graded filters to 5-micron finish filter during pumping to the holding tank. Appendix G summarizes the volumes and disposal option for each lot of stormwater.

9.7 HE and Related Materials

HE and HE-contaminated materials found during the screening process, including some soil and debris, were declared RCRA reactive waste (EPA Hazardous Waste Number D003) and either placed in the less than 90-day accumulation area established in Building 16-267 until treatment could be arranged, or given directly to the ESA division representative for immediate treatment at the interim status open-burn unit. Ash from the treatment of HE and HE-contaminated material was accepted back from ESA and placed in the less than 90-day accumulation area as D005 characteristic waste until it was transported for storage at the Laboratory's permitted storage facility and ultimately disposed of at the WCS-permitted facility. Small quantities of soil containing HE were also treated and later disposed of at WCS. Appendix G summarizes the quantities and documentation records for these wastes.

9.8 Barium Nitrate

Barium nitrate was accumulated during the screening process in a 55-gal. steel drum within the AOC. When the drum was filled, it was transferred to the less than 90-day accumulation area in Building 16-267 where it was managed as D005 characteristic waste. This waste was then transported to the Laboratory's permitted storage facility. The barium nitrate was disposed at an off-site facility as determined by the Laboratory's FWO-SWO Group, which contracts with a number of disposal facilities. Documentation on the final disposition of these wastes is maintained with this group. Appendix G summarizes the quantities and documentation records for this waste stream.

9.9 Radioactive Material

Radioactive wastes or radioactively contaminated debris was accumulated during the screening process and placed in containers appropriate for the size of the waste. The predominant radionuclide encountered was uranium. In order to determine what activities of uranium constituted a waste, a formal determination for upper tolerance limits (UTLs) was needed. This determination was based on a formula that incorporates information from the V-Site completion report (LANL 1999, 63973), which delineates a UTL for uranium that is specific to TA-16, and UTL values delineated in the following document developed by the ER Project: "Inorganic and Radionuclide Background Data for Soils, Canyon Sediments and Bandelier Tuff at Los Alamos National Laboratory" (LANL 1998, 59730). Based on this determination, radioactive wastes were stored within the AOC and sent for disposal at TA-54 Area G. Mixed wastes were transported to the Laboratory's permitted storage facility. The ultimate disposition of the mixed wastes was determined by FWO-SWO. Documentation on the final disposition of these wastes is maintained with this group. Appendix G summarizes the quantities and documentation records for this waste stream.

9.10 Containers of Unknown Content

Containers and vessels of unknown content, ranging in size from approximately one ounce to one gal., recovered during excavation and screening activities were initially staged within the AOC until they were safely opened by the Laboratory's EM&R hazardous materials response team as per the SSHASP. After being opened by EM&R, the containers were transported as samples to TA-59 for HAZCAT analysis. Based on the results of the HAZCAT analysis, the containers were either characterized and profiled or were sent for further analysis. Samples that were not sent for analysis were segregated based on the characterization and stored in a satellite accumulation area until transported to the Laboratory's permitted storage facility. The ultimate disposition of these wastes was determined by FWO-SWO. Empty containers were considered solid waste and disposed of as such. Containers sent for analysis were not returned due to the fact that the small quantities in the containers were used in the analysis. Table 9.10-1 summarizes the categories of waste, WPF, the EPA Hazardous Waste Number (if applicable), the CWDR, and the number of containers disposed of under the category.

**Table 9.10-1
Disposition of Containers of Unknown Contents**

Category	Hazardous Waste Number	WPF Number	CWDR Number	No. of Containers
Nonhazardous solids	N/A	32142	3009749	48
			3010137	68
			3011376	109
			3012270	1
		30442	3007915	1
		30443		1
		30440		1
		29964	3007363	1
		29966		1
		29932		1
		29963		1
		29967		1
		29962		1
		29968		1
		29930		1
		31003	3008290	1
		30238	3007578	1
		30235		1
		31315	3008485	1
		29931	3007362	1
		29969		1
		29974		1
		29971		1
		29970		1
		29972		1
		Aqueous solutions	N/A	32138
29929	3007363			1
31314	3008485			1
31317				1
Organic liquids	N/A	32139	3009737	23
			3010139	8
			3011376	33
		30454	3007915	1
		29912	3007362	1
Organic acid	D002	32157	3011376	5
		31004	3008290	1
		31001		1

Table 9.10-1 (continued)
Disposition of Containers of Unknown Contents

Category	Hazardous Waste Number	WPF Number	CWDR Number	No. of Containers
Ignitable liquids	D001	32150	3012270	1
			3010138	6
			3011376	15
		31000	3008290	1
		31002		1
		29973	3007362	1
Lead compounds	D008	33770	3012270	16
		30236	3007578	1
Silver compounds	D011	30237	3007578	1
Barium compounds	D005	31316	3008485	1
		30441	3007912	2
Unknowns sent for analysis	N/A	N/A	N/A	130
Empty containers	N/A	N/A	N/A	333

9.11 Asbestos-Containing Material

The bulk of the ACM was manifested and disposed of by direct shipment from MDA P to a licensed asbestos landfill in Mountainaire, New Mexico, operated by Keers Inc., of Albuquerque, New Mexico. Three shipments of bulk waste materials were shipped directly from MDA P to the Mountainaire facility and one shipment of drummed materials was submitted to the Laboratory FWO-SWO for disposal. Appendix G summarizes the quantities and documentation records for this waste stream. The NMED tracking number is 028.84126.049.

9.12 Personal Protective Equipment

PPE was disposed of as radioactively contaminated materials, hazardous wastes, or nonhazardous solid wastes. All PPE associated with handling radioactive materials were containerized at the end of each day with the materials involved. PPE utilized for the sealing of the hazardous waste soils in the tractor-trailers was included in the waste packages at the end of each day. These were not tracked or managed separately. PPE from the daily excavation and sorting activities was segregated and managed as nonhazardous solid waste and were placed in the TA-16 Burning Ground dumpster for disposal at the Los Alamos County landfill as solid waste.

9.13 Acetone

Acetone was generated from the HE spot testing process at the MDA P site field laboratory. Daily accumulations were placed in a container in the satellite accumulation area established for this waste stream. This waste was characterized as F003, D001 by knowledge of process and transported to the Laboratory permitted storage facility. The ultimate disposition of this waste was determined by FWO-SWO. Acetone was disposed of as an F-listed hazardous waste at an off-site facility through the Laboratory FWO-SWO. Appendix G summarizes the quantities and documentation records for this waste stream.

9.14 Miscellaneous Wastes

Miscellaneous wastes include waste aerosol cans (D003), laboratory trash (D001, F003) generated by the HE testing in the field laboratory, and media contaminated with spilled transmission oil. These waste

streams were profiled and sent to the Laboratory RCRA-permitted storage facility. The ultimate disposition of these wastes was determined by FWO-SWO. Documentation on the final disposition of these wastes is maintained with this group.

10.0 WELL ABANDONMENT

As part of the Phase I implementation of the MDA P Site closure, 12 observation wells or vadose zone monitoring well access casings were abandoned in-place or entirely removed as part of the excavations. Nine observation wells were located at the toe of the slope along the stream terrace below MDA P. These were installed in 1987 as part of the initial MDA P groundwater investigations. All were known to be dry (Brown et al. 1988, 6871; McLin 1989, 11718). All of these wells consisted of 2-in. diameter casings with slotted screens. Seven of these were abandoned by filling with bentonite pellets or complete excavation, and removing the surface casings. One had been abandoned at the time of drilling. Of the original nine observations wells, only P-1 remains intact as shown on Plate 3.

Three aluminum well casings located to the south and west of the MDA P footprint were abandoned by filling with bentonite pellets and removing the surface casings. The depths of these three casings varied from 79 to 92 ft. None was reportedly screened, but had sealed casings to monitor vadose zone moisture with neutron instrumentation (Brown et al. 1988; McLin 1989, 11718). Four similar casings located within the waste pile footprint were abandoned by complete removal during the excavation. The depth of these four casings was approximately 30 ft. Only well P-18 had casing that extended approximately 6 ft into the bedrock and was exposed after complete excavation of the waste pile and contaminated soil. This casing was filled with bentonite pellets. Two other observation wells, known as test holes P-0 and P-12, were not disturbed. These two wells are located in the adjacent watershed, south of MDA P. They were not located for this project and are still intact.

Appendix H contains a summary table of available completion data and the disposition of all observation wells in the vicinity of MDA P. The locations of these wells and test holes are shown on Plate 3.

11.0 FLASH PAD 387 CLOSURE IMPLEMENTATION

11.1 General

In 2000, Weston was contracted to implement the approved Flash Pad 387 closure plan (LANL 1999, 63547). Weston was given the task of removing, segregating, decontaminating, and disposing of the waste materials associated with the unit, as well as the project coordination. Personnel from Laboratory organizations provided support services that included waste sampling and analyses and waste determinations. Table 11.1-1 lists the milestones achieved during the project.

Table 11.1-1
Flash Pad 387 Closure Phase I Milestones

Initial survey of debris	07/05/2000
Removal and decontamination of debris	07/07/2000
Excavation start	07/07/2000
Excavation finish	07/14/2000
Ship hazardous wastes, start	09/06/2000
Ship hazardous wastes, finish	09/18/2000
Ship industrial wastes, start	12/14/2000
Ship industrial wastes, finish	12/14/2000

11.2 Unit Description

Flash Pad 387 is designated SWMU 16-010(b) (LANL 1999, 63547). At the time of closure, the pad was a concrete structure consisting of a base pad (30 by 30 ft) and shield reflector walls around the western, northern, and eastern sides. It was situated within a 100- by 100-ft area enclosed by an 8-ft high cyclone (i.e., chainlink) fence on all four sides. A detailed description of the site is provided in section 1 of this report.

11.3 Preexcavation Activities

Prior to the start of activities associated with the Flash Pad 387 closure, the decontamination pad used in the MDA P closure was cleared of all debris, and soil staging Pad 11 was cleared of all other soils. No other mobilization or preparatory activities were required. The MDA P SSHASP included all tasks required for the closure implementation. The chainlink fences on the west, north, and east sides were removed for access. The fence on the south side was temporarily retained to restrict access at the road.

11.4 Closure Plan Deviations

Closure operations at Flash Pad 387 did not result in any modifications or additions to the described activities in the approved closure plan (LANL 1999, 63547).

11.5 Excavation

The remote excavation operations started on the lower portions of Flash Pad 387 and worked southward. All initial excavation operations were performed by the HERMES system due to the potential presence of HE; however, no buried HE was encountered. Very minor quantities of metallic debris were found to be scattered around the site, some wholly or partially buried. The highest contamination readings by field screening were found on the eastern side that extended beyond the fenceline. Bedrock was encountered across the entire area. Some bedrock was scraped with the excavator teeth to achieve the operational PRGs for barium and RDX.

During excavation, a previously unknown trench was located in the eastern part of the area. The trench appeared to originate in the middle of the south boundary and trended northeasterly where it terminated approximately 20 ft east of the eastern boundary fence. The trench contained remnants of a 4-in. VCP. Both ends of the pipe were crushed with no evidence of original source fittings or termination outfall. The interior of the pipe was contaminated with HE.

11.6 Waste Segregation and Staging

The bin blocks that comprised the walls and floor of Flash Pad 387 were surveyed for radiological contamination, and were released from radiological control. The blocks were broken for ease of handling and transferred to the decontamination pad for decontamination by pressure washing. The concrete was then transferred to the 90s Line staging area. One lot of concrete was created. Water generated from the decontamination of the debris was not segregated, but was managed with other water generated from decontamination activities associated with the closure of MDA P.

Soils and bedrock excavated from Flash Pad 387 were moved by front-end loader to the staging area at Pad 13. No other soils were staged at this pad during this time. Seven soil lots of approximately 100 yd³ each, and one small lot of concrete were generated. Each was assigned a unique tracking number. The one lot of concrete debris was stage on Pad 3. Appendix I provides a summary of wastes staged from the closure activities of Flash Pad 387.

The fragments of the 4-in. diameter VCP were tested for HE contamination and found to be positive for residues. No bulk HE materials were observed. The pipe was staged on a wood pallet and covered with plastic. The pipe was transferred to Flash Pad 388 for thermal treatment of the residues. After treatment, the pipe materials were staged on a pallet and returned to Weston for management (see section 11.8).

11.7 Waste Characterization

The soils and concrete lots were sampled in accordance with the closure plan. Appendix I provides a summary of the waste characterization samples collected from materials excavated from Flash Pad 387. The concrete was additionally surveyed for radiological and HE contamination after decontamination. No surface contamination or bulk contamination was found in the concrete debris.

11.8 Waste Disposal

All soils were determined to be hazardous wastes. Appendix I provides summaries of the analytical results of the waste characterization samples. All soils were shipped directly from the staging area within the AOC to a RCRA-permitted TSD facility in Andrews, Texas, operated by WCS. Shipments occurred in 20-yd³ end-dump tractor-trailer trucks in accordance with applicable DOT and the New Mexico state solid waste management regulations. Due to weight limitations, each truck was loaded with approximately 18 yd³ of soil. A 10-mm polypropylene inner liner provided a seal. The trucks were tarped and placarded appropriately. Appendix I contains a summary table of the soil lots, shipment dates, and waste manifest, certificate of receipt, and disposal forms from the facility for each shipment. Complete copies of these records are available in the RRES-RS Project's RPF.

The concrete lots were determined to be industrial wastes. Concrete debris was shipped directly from the staging areas at the 90s Line to the receiving facility in Rio Rancho, New Mexico, operated by Waste Management Inc. Shipments occurred in 20-yd³ end-dump tractor-trailer trucks in accordance with applicable DOT and New Mexico state solid waste management regulations. Due to weight limitations, each truck was loaded with approximately 18-yd³ of soil. Appendix G contains a summary table of the soil lots, shipment dates, and bill of lading records for each shipment. Complete copies of these records are available in the RRES-RS Project's RPF.

The fragments of the 4-in. VCP were disposed of as industrial waste. The materials were included in soil shipments to the receiving facility in Rio Rancho, New Mexico, operated by Waste Management, Inc., and are included in the soil shipment documentation.

12.0 VOLUNTARY CORRECTIVE ACTION FOR SWMU 16-016(c)-99

As part of the contract modification for Flash Pad 387, Weston was contracted to implement the approved VCA plan for remediation of consolidated SWMU 16-016(c)-99. The VCA plan was included as Attachment 3 in the MDA P SAP (LANL 1999, 63546). Consolidated SWMU 16-016(c)-99 consists of three SWMUs that were originally listed in Table A of Module VIII of the Laboratory Hazardous Waste Facility Permit:

- TA-16-386 Flash Pad, SWMU 16-010(a);
- the former barium nitrate pile, SWMU 16-016(c); and
- septic tank, SWMU 16-006(e).

Descriptions of these SWMUs are provided in section 1.2.4 of this document.

12.1 Excavation

Excavation of the area within the SWMU 16-016(c) boundary included both remote and conventional means. Since part of the SWMU boundary extends down the western margin of MDA P, contaminated materials in this area were excavated during both waste pile removal with the robotic equipment and subsequent manual excavation of contaminated materials. No attempt was made to segregate or identify materials that were specifically related to migration of barium nitrate from the pile area. Most of the excavation for SWMU 16-016(c)-99 was performed during the excavation of contaminated materials after removal of the MDA P waste pile was complete (circa August 2000 to March 2001).

The soils within the footprint of the 386 Flash Pad were excavated and staged with soils from adjacent areas used for support of the MDA P closure. Access to the interior of the fenced area was coordinated with personnel from ESA-FM, as the area was operational. The extent of the excavation is shown on Plate 3. Field screening for barium, using a field XRF instrument, was used as an indicator for the limit of excavation. The extent of barium contamination was not found to be continuous downgradient of the location of the former pile within the 386 Flash Pad. Surface soils and some bedrock materials were removed from within the flash pad, and only spotty areas were found downgradient. Contamination was not found to have penetrated the bedrock. Some residual bedrock contamination was recognized in the drainage along the western margin of MDA P, but it was below the PRG of 2000 ppm barium.

The remaining areas within the 386 Flash Pad fence were spot-checked for contamination around the excavated area to ensure that all soils contaminated above the PRGs were removed. The new building in the southeast corner of the 386 fence area did not hinder or preclude these activities. After the excavation activities were complete, a layer of soil and gravel was placed in the excavation within the current fence. Gravel was placed on the north side of the current fenceline as an erosion control agent. At this writing, the 386 Flash Pad remains in use for equipment staging.

The septic tank and waste line were remediated in two stages (March 2001 and March 2002). In March 2001, the waste line (4-in.-diameter VCP) was located and excavated from the tank to its endpoint. The pipe was empty and the connection with the tank had been plugged. The tank outlet was plugged and the waste line was taken out of service. Field-screening of the pipe interior indicated that no HE or barium contamination was present. The distal 10 ft of the waste line was crushed pipe with no defined outfall. The metal top and riser of the tank were excavated to expose the tank itself, estimated to be a 100-gal. metal tank. A representative of NMED Field Operations Division inspected the tank and the tank was backfilled with clean soil to grade and left in place. A copy of the NMED inspector's form is included in Appendix B. The pipe inlet was plugged with a polyvinyl chloride pipe fitting and the water was turned off inside the building at the toilet to decommission the source. Soil surrounding the tank and the edges and interior portions of the tank were field-tested for HE and barium and found to be below operational PRGs for both. In March 2002, the tank and pipe were excavated, sampled, and removed completely.

12.2 Waste Segregation and Staging

Waste generated during the excavation of the soils from the former barium pile and septic tank includes soils and debris. Soils from the excavation of contaminated areas were staged in 100-yd³ lots for waste sampling. No effort was made to segregate soils from the SWMU 16-016(c)-99 sites from other areas being excavated as part of the MDA P support areas, include soils staging pads and roads cover. Soils mixed with the contents of the septic tank were containerized at the time of the tank removal and staged at the excavation.

The debris generated includes the pipe materials and the debris from the tank removal. The pipe and debris was inspected by a representative from ESA and found to be free of HE residues. Spot tests for barium residues were also negative.

12.3 Waste Characterization

Soils generated from excavation of the SWMU 16-016(c)-99 sites were subjected to the same sampling regime as all soils generated during the MDA P closure (see section 7.2). Generated soils were incorporated into those generated from the MDA P activities and were not sampled independently. No sampling was conducted on the debris other than tests for residual levels of HE and barium. The contents of the septic tank, as well soils at the tank inlet and outlet, were sampled at the time of the tank removal. The sample request summaries are included in Appendix D.

12.4 Waste Disposal

Soil generated from excavation of the SWMU 16-016(c)-99 sites were disposed of through the system developed for the MDA P closure. No attempt was made to distinguish the disposal of soils from the SWMU 16-016(c)-99 areas from those from MDA P. Disposal of soils from MDA P is described in sections 9.2 and 9.3. Soils mixed with the tank contents and under the tank were found to be nonhazardous and nonregulated, respectively, and were returned to the excavation.

The debris generated was found to be nonhazardous by the HE and barium spot tests. The fragments of the 4-in. diameter VCP and tank remnants were disposed as industrial waste. The materials were included in soil shipments to the receiving facility in Rio Rancho, New Mexico, operated by Waste Management, Inc. and are included in the soil shipment documentation. The remnants of the metal tank were turned over to personnel from ESA-FM for recycling.

13.0 REFERENCES

Brown, F., W. Purtymun, A. Stoker, A. Barr, February 1988. "Site Geology and Hydrology of Technical Area 16, Area P," Los Alamos National Laboratory report LA-11209-MS, Los Alamos, New Mexico. (Brown et al. 1988, 6871)

DOE (US Department of Energy), July 2000. "Secretary Richardson Suspends Release of Materials from DOE Facilities," DOE news release, Washington, DC. (DOE 2000, 73792)

EPA (US Environmental Protection Agency), June 1999. "EPA Region 6 Human Health Medium-Specific Screening Levels," US Environmental Protection Agency Region 6, Dallas, Texas. (EPA 1999, 64637)

LANL (Los Alamos National Laboratory), February 1995. "TA-16 Material Disposal Area P Closure Plan, Revision 0," Los Alamos National Laboratory document, Los Alamos, New Mexico. (LANL 1995, 58713)

LANL (Los Alamos National Laboratory), October 24, 1997. "LANL ER Project Site-Specific Health and Safety Plan (SSHASP)," #188, Los Alamos National Laboratory document, Los Alamos, New Mexico. (LANL 1997, 58623)

LANL (Los Alamos National Laboratory), July 22, 1998. "Potential Deviations from the MDA P Closure Plan," Los Alamos National Laboratory letter (EM/ER:98-232) to B. Garcia (NMED-HRMB) from J. Canepa (ER Project Program Manager) and T. Taylor (DOE/LAAO Program Manager), Los Alamos, New Mexico. (LANL 1998, 59714)

LANL (Los Alamos National Laboratory), September 1998. "Inorganic and Radionuclide Background Data for Soils, Canyon Sediments, and Bandelier Tuff at Los Alamos National Laboratory," draft, Los Alamos National Laboratory document LA-UR-98-4847, Los Alamos, New Mexico. (LANL 1998, 59730)

LANL (Los Alamos National Laboratory), November 1998. "Installation Work Plan for Environmental Restoration Project," Revision 7, Los Alamos National Laboratory document LA-UR-98-4652, Los Alamos, New Mexico. (LANL 1998, 62060)

LANL (Los Alamos National Laboratory), May 20, 1999. "MDA P Waste Determination Strategy," Los Alamos National Laboratory letter (EM/ER:99-132) to J. Bearzi (NMED-HRMB) from J. Canepa (ER Project Program Manager) and T. Taylor (DOE/LAAO Program Manager), Los Alamos, New Mexico. (LANL 1999, 63343)

LANL (Los Alamos National Laboratory), July 1999. "Voluntary Corrective Measures Completion Report for Potential Release Sites 16-006(g,) Drum Storage Area Aggregate [16-029(g2) and C-16-074], 16-005(d), 16-034(p)," Los Alamos National Laboratory document LA-UR-99-3001, Los Alamos, New Mexico. (LANL 1999, 63973)

LANL (Los Alamos National Laboratory), August 1999. "Closure Plan for the TA-16-387 Flash Pad," Los Alamos National Laboratory document LA-UR-99-4010, Los Alamos, New Mexico. (LANL 1999, 63547)

LANL (Los Alamos National Laboratory), August 1999. "Sampling and Analysis Plan for Material Disposal Area P," Los Alamos National Laboratory document LA-UR-99-3630, Los Alamos, New Mexico. (LANL 1999, 63546)

LANL (Los Alamos National Laboratory), May 13, 2002. "Revised Request for Class 1 Closure Plan Modification for Material Disposal Area (MDA) P, Los Alamos National Laboratory, NM0890010515, Task No. HWB-LANL-01-030," Los Alamos National Laboratory document LA-UR-02-2749, Los Alamos, New Mexico. (LANL 2002, 73159)

McLin, S. G., August 18, 1989. "Vadose Zone Monitoring Observations at the TA-16, Area P Landfill," draft, Los Alamos National Laboratory document, Los Alamos, New Mexico. (McLin 1989, 11718)

NMED (New Mexico Environment Department), February 18, 1997. Letter, with certificate of closure plan approval for MDA P, from E. Kelley, Division Director, Water and Waste Management Division, NMED, to G. Todd, DOE-LAAO, Santa Fe, New Mexico. (NMED 1997, 55425)

NMED (New Mexico Environment Department), April 28, 2000. "Approval to Proceed with the Closure Plan for TA-16-387 Flash Pad, HRMB-LANL-99-044," letter from J. Kieling, Acting Manager, NMED-WWMD, to J. Browne, Director, LANL, and D. Gurule, Program Manager, DOE-LAAO, Santa Fe, New Mexico. (NMED 2000, 66866)

NMED (New Mexico Environment Department), June 7, 2001. "Approval of Sampling and Analysis Plan [Phase II] for Material Disposal Area P, EPA ID# NM0890010515, Task Number HWB-LANL-99-001," letter from J. Young, Corrective Action Project Lead, NMED-HWB, to J. Browne, Director, LANL, and T. Taylor, Project Manager, DOE-LAAO, Santa Fe, New Mexico. (NMED 2001, 70925)

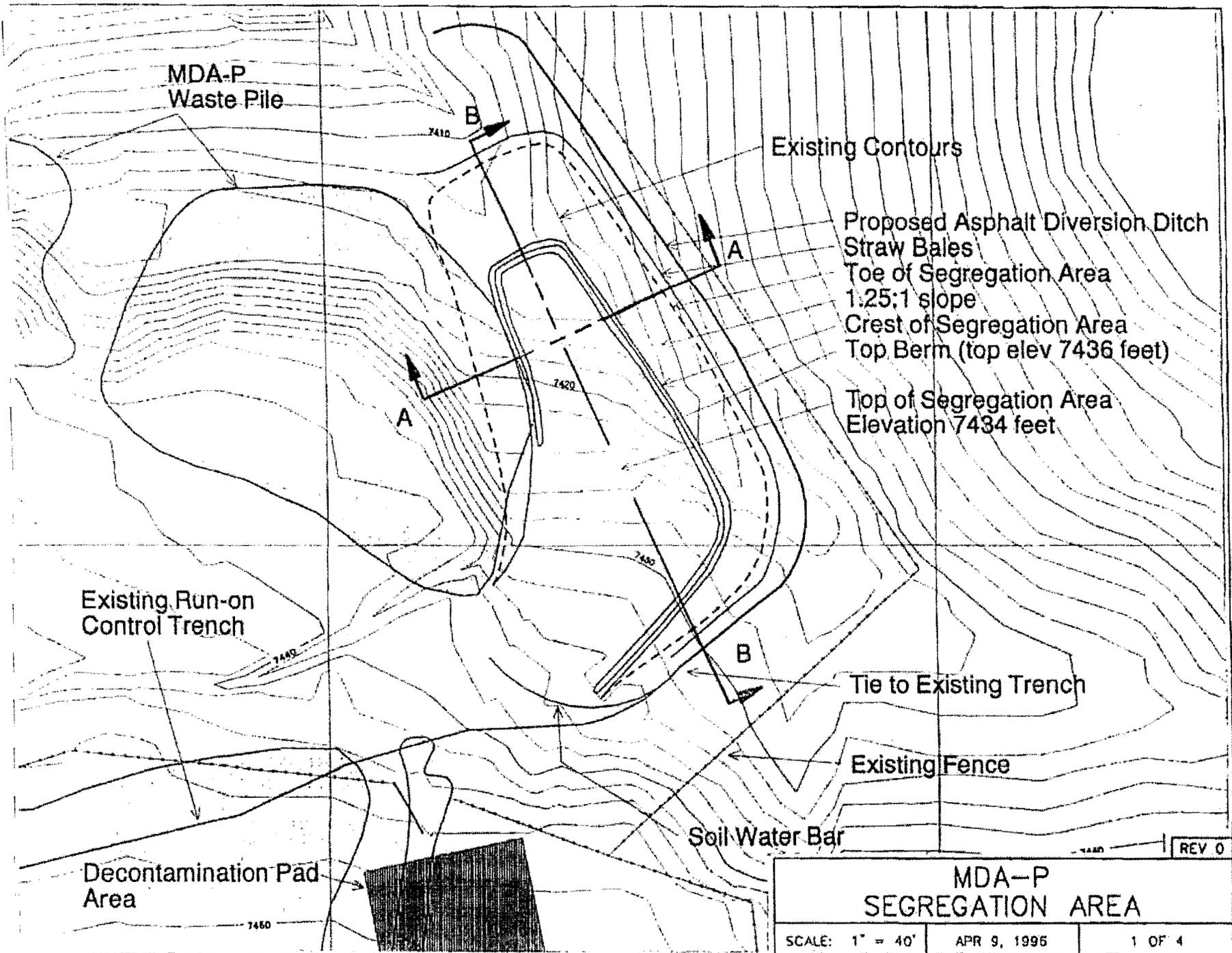
NMED (New Mexico Environment Department), April 30, 2003. "Revised Document Submittal Schedule for Material Disposal Area P Closure Demonstration, Los Alamos National Laboratory, EPA ID# NM0890010515, HWB-Facility-02-007," letter from J. Bearzi, Chief, Hazardous Waste Bureau, NMED, to G. Nanos, Interim Director, LANL, and D. Gregory, Project Manager, Office of Los Alamos Site Operations, DOE, Santa Fe, New Mexico. (NMED 2003, 76017)

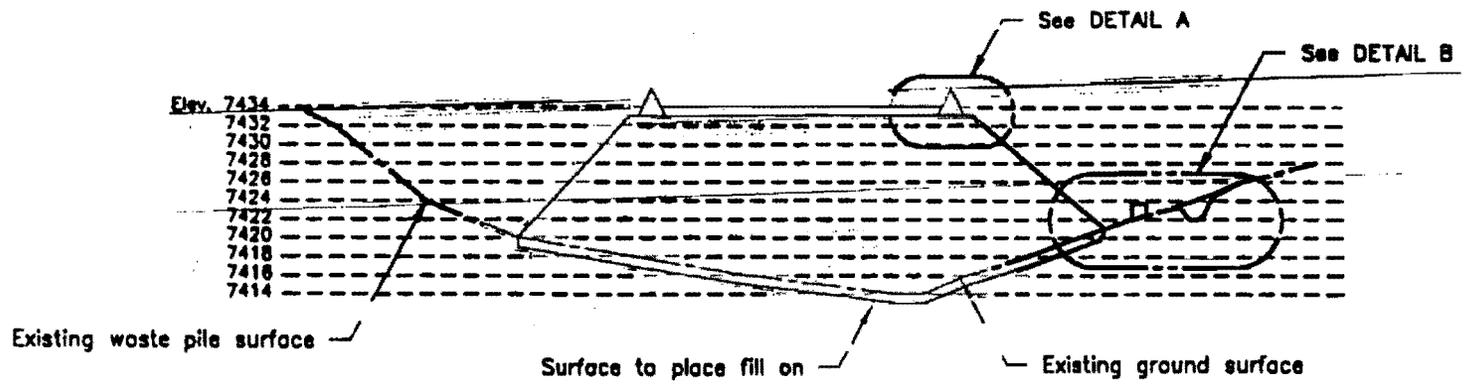


Appendix A

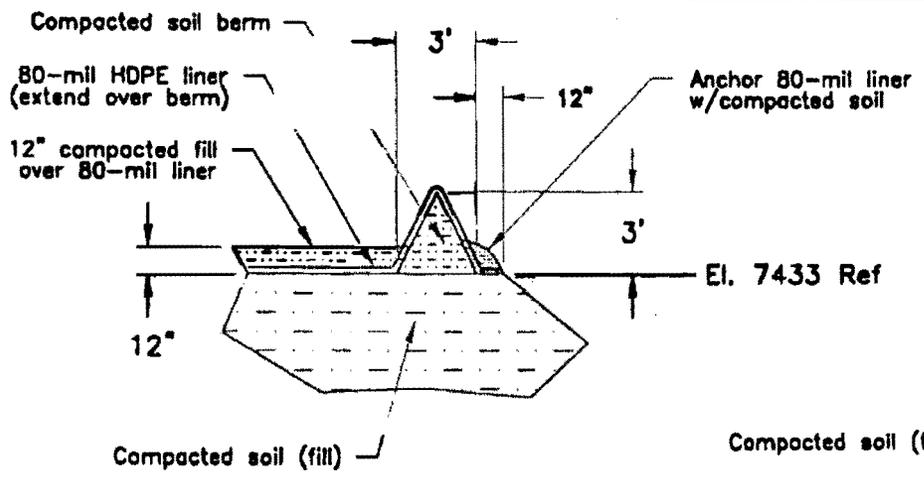
*Drawings, Maps, and Results of
Preimplementation Construction and
Investigation*

A-1.0 CONSTRUCTION DRAWINGS OF SUPPORT FACILITIES 1996–1997



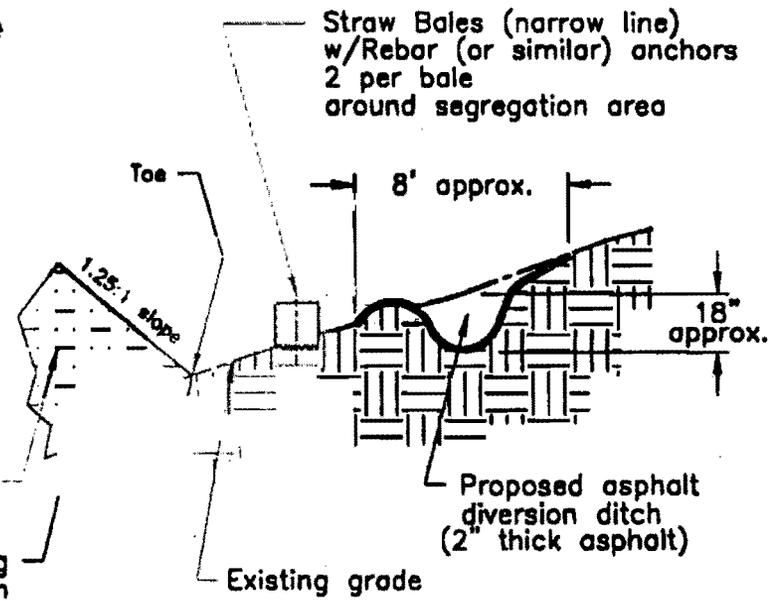


SECTION A-A



DETAIL A

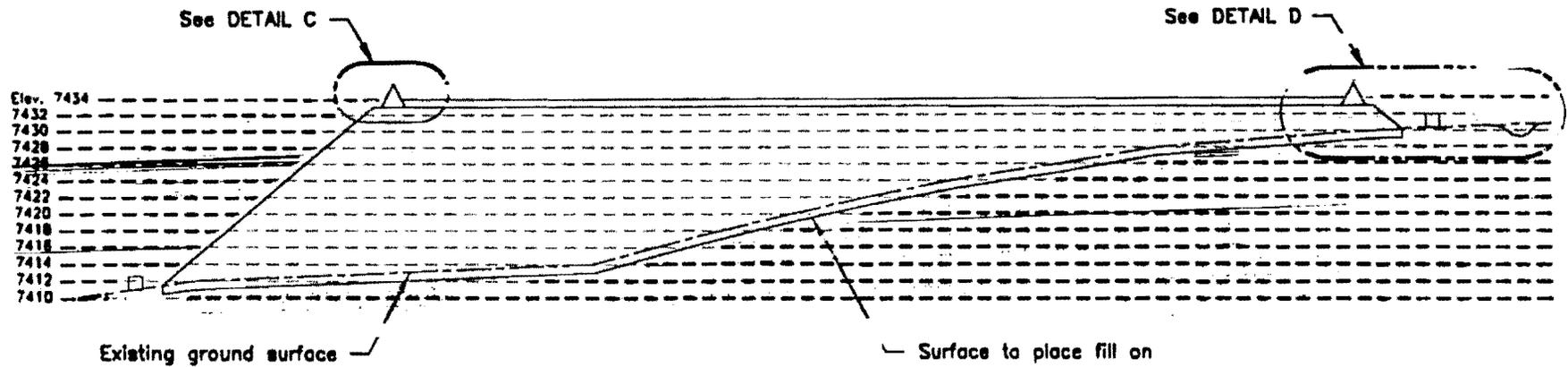
Remove 12" of existing grade under segregation area (toe to toe) and place south of MDA-P waste pile



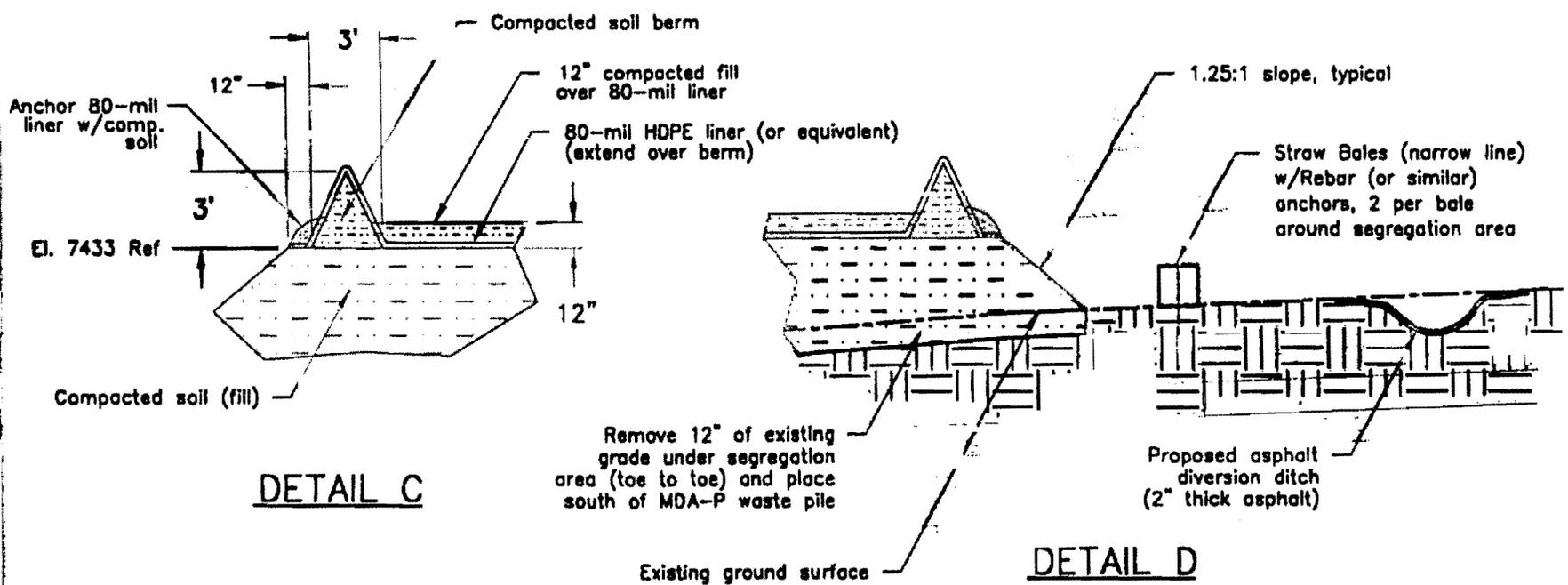
DETAIL B

REV 0

MDA-P SEGREGATION AREA		
SCALE: 1" = 20'	APR 9, 1998	2 OF 4



SECTION B-B



DETAIL C

DETAIL D

REV 0		
MDA-P SEGREGATION AREA		
SCALE: 1" = 20'	APR 9, 1996	3 OF 4

NOTES:

1. Remove stumps and slash. Temporarily stockpile stumps on poly and cover on top of waste pile until sampling and analysis is completed. Dispose of stumps and slash at Los Alamos County Landfill after sampling. Sampling and analysis will be performed by others.
2. Remove top 12" of soil under segregation pad area and stockpile south of and adjacent to MDA-P waste pile. ~~If waste is encountered, pile it on waste pile slope.~~
3. Install fill to 12" below top design elevation and build berm (1.25:1 slopes). Compact to 95% (modified proctor). Compaction tests will be performed by others.
4. Install 80-mil HDPE liner (or equivalent) extend over berm, anchor and splice per manufacturers directions.
Suggested Sources: Watersaver Company, Inc., P.O. Box 16465, Denver, CO 80216, Ph. (303) 289-1818.
Environmental Liners, Inc., 2009 N. Industrial Rd., Cortez, CO 81321, Ph. (800) 821-0531.
(or approved equal)
5. Install remaining 12" of compacted soil over 80-mil liner.
6. Install approximately 2 in. thick asphalt diversion ditch (tie to existing ditch). Approx. dimensions: 8 ft. wide x 1'-6" deep.
7. Install straw bale silt fence (narrow line) with 2 rebar anchors per bale.

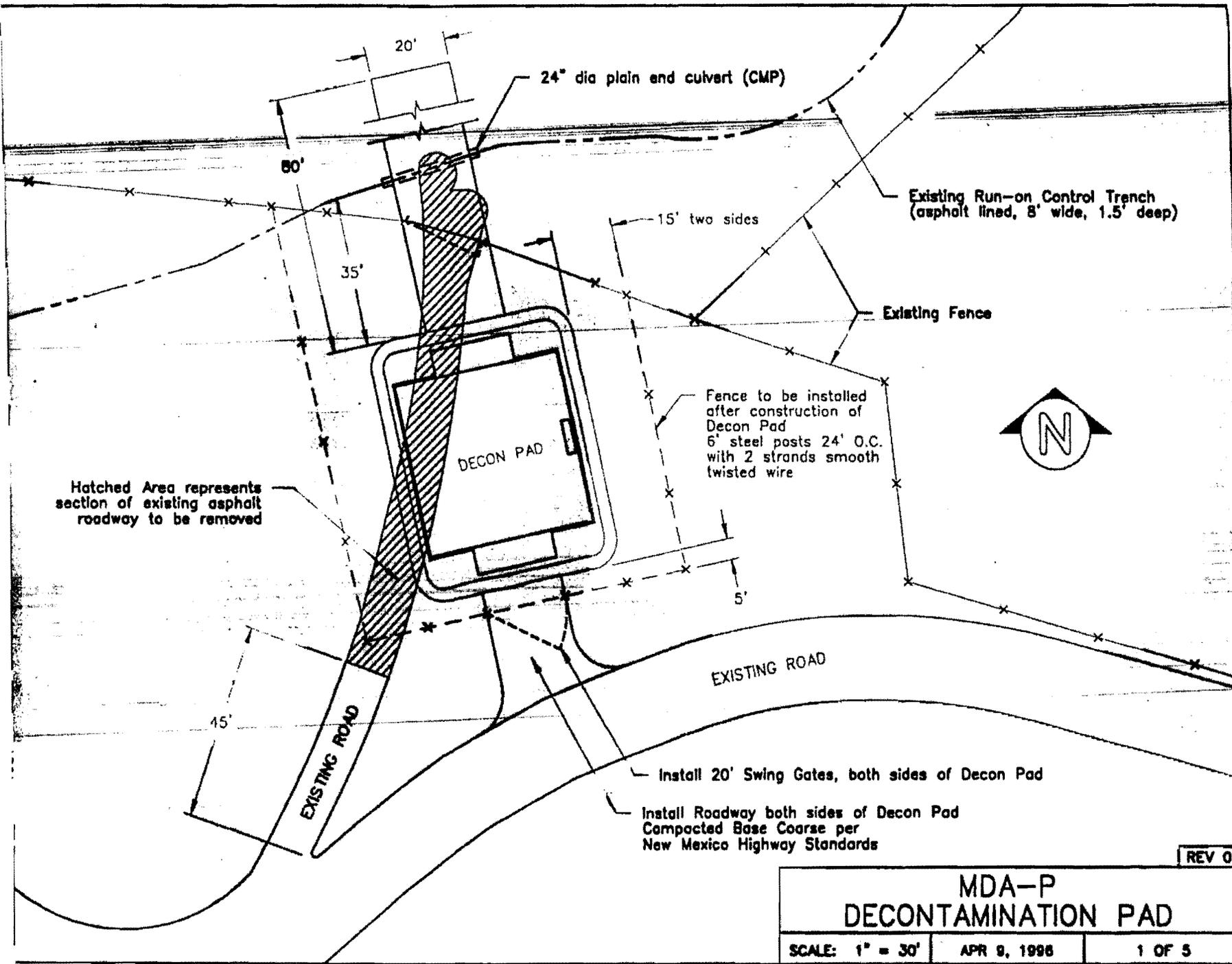
REV 0

MDA-P
SEGREGATION AREA

SCALE: None

APR 9, 1996

4 OF 4



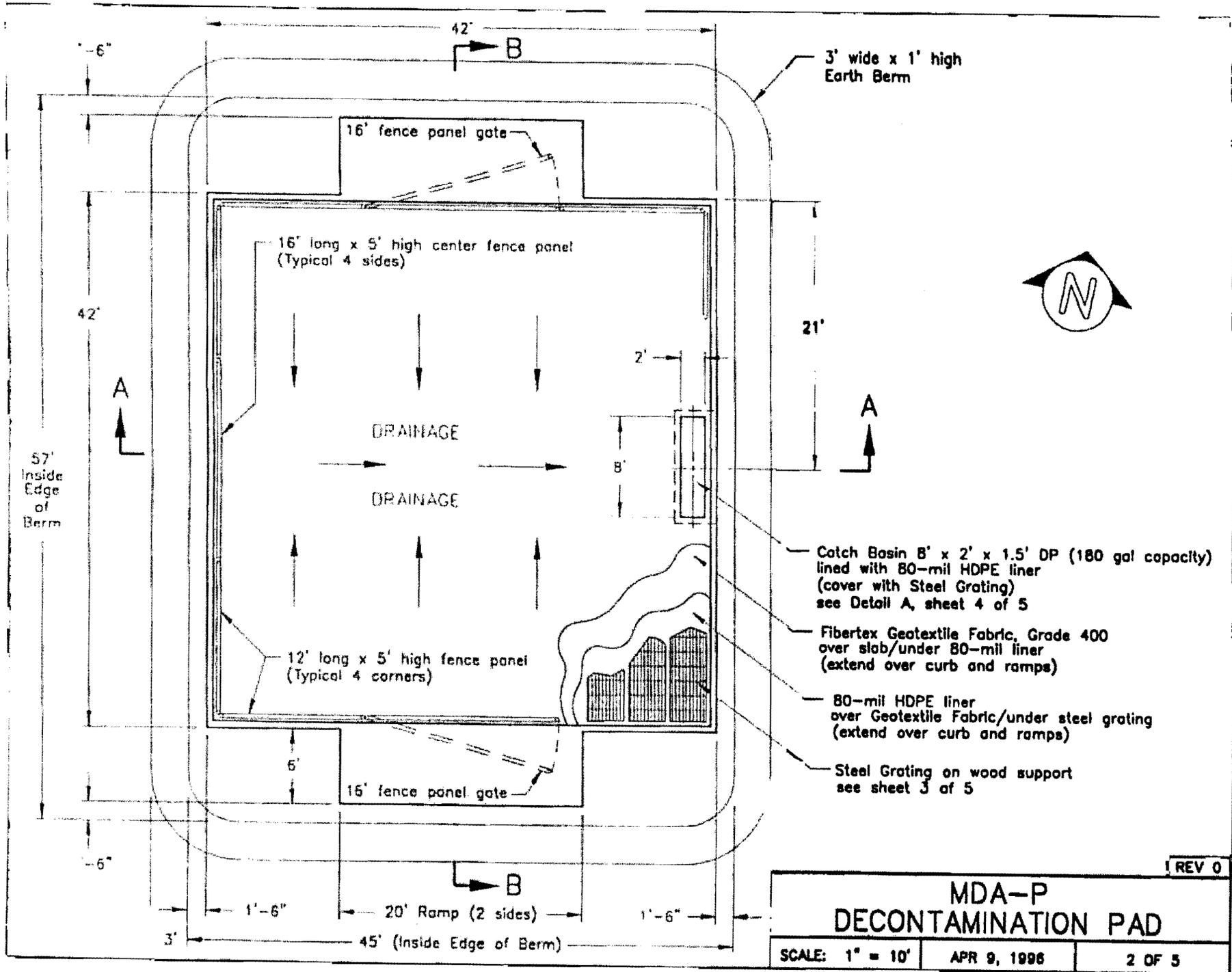
REV 0

MDA-P
DECONTAMINATION PAD

SCALE: 1" = 30'

APR 9, 1998

1 OF 5



3' wide x 1' high Earth Berm



Catch Basin 8' x 2' x 1.5' DP (180 gal capacity) lined with 80-mil HDPE liner (cover with Steel Grating) see Detail A, sheet 4 of 5

Fibertex Geotextile Fabric, Grade 400 over slab/under 80-mil liner (extend over curb and ramps)

80-mil HDPE liner over Geotextile Fabric/under steel grating (extend over curb and ramps)

Steel Grating on wood support see sheet 3 of 5

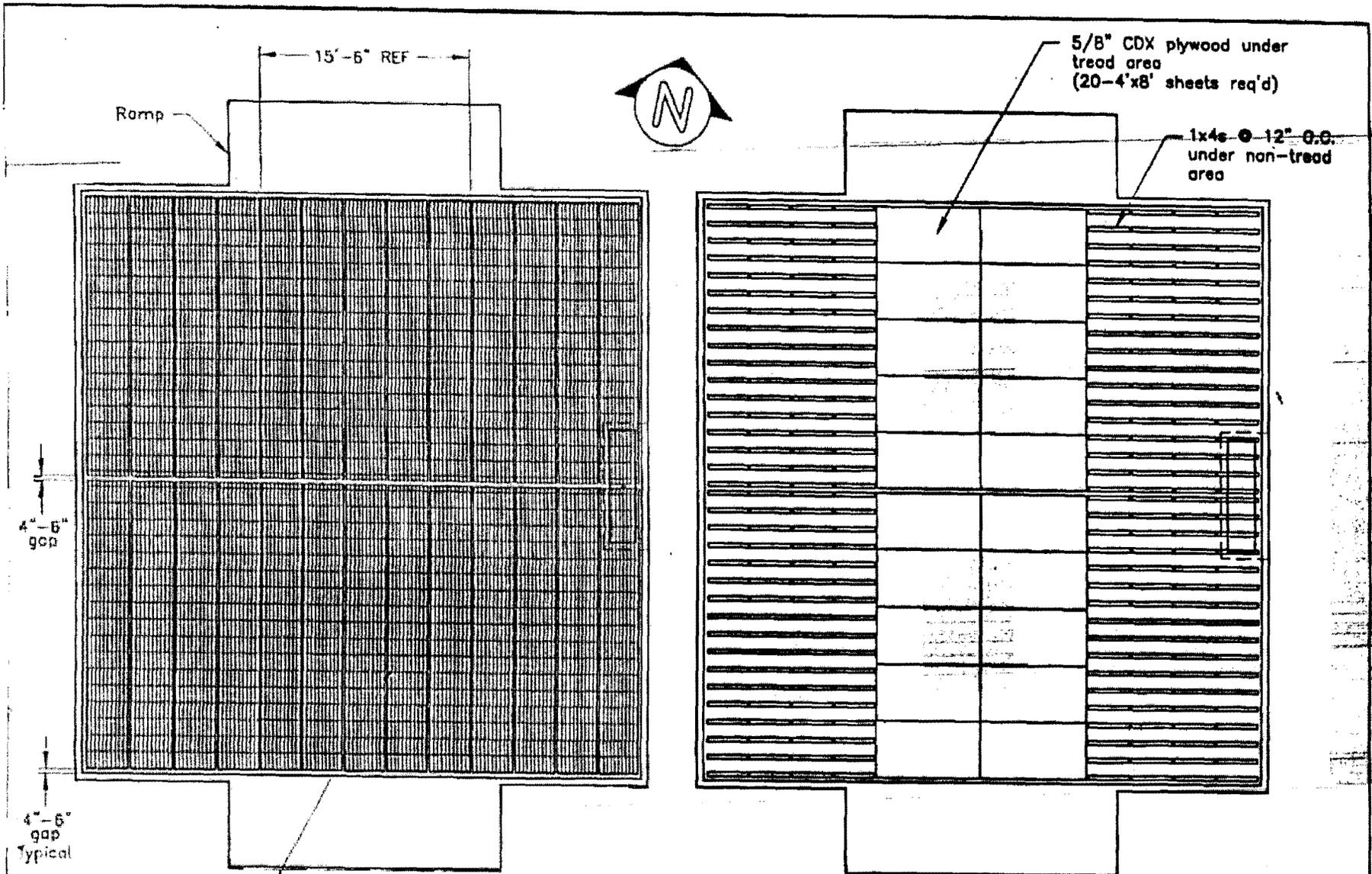
REV 0

**MDA-P
DECONTAMINATION PAD**

SCALE: 1" = 10'

APR 9, 1996

2 OF 5



GRATING DETAIL

Steel grating, see sheet 5 of 5 for specification
 26 required if using 3' x 20' panels
 38 required if using 2' x 20' panels

GRATING SUPPORT DETAIL

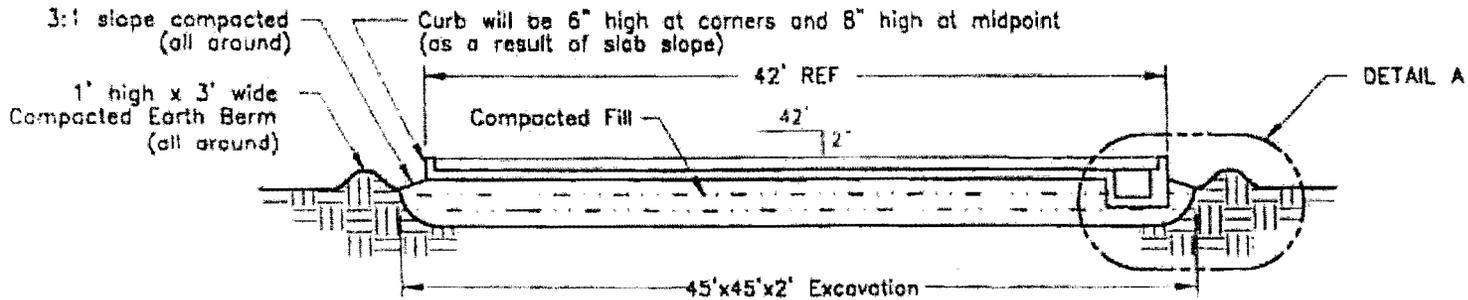
REV 0

MDA-P
 DECONTAMINATION PAD

SCALE: 1" = 10'

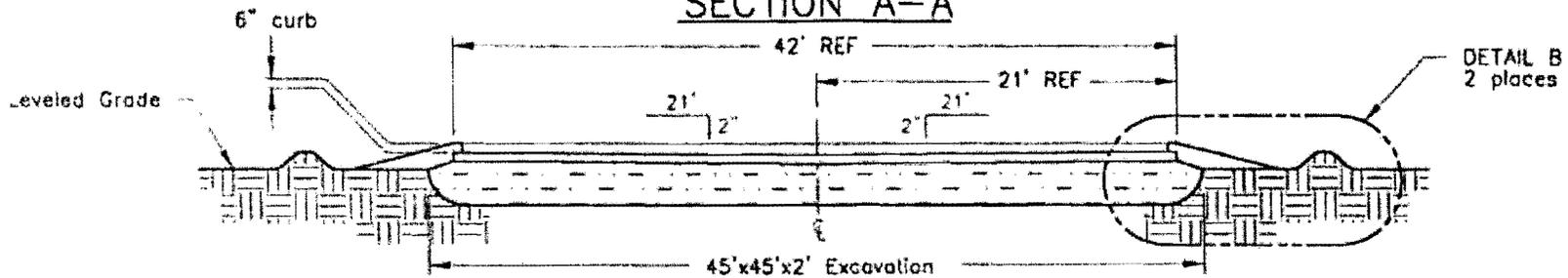
APR 9, 1996

3 OF 5



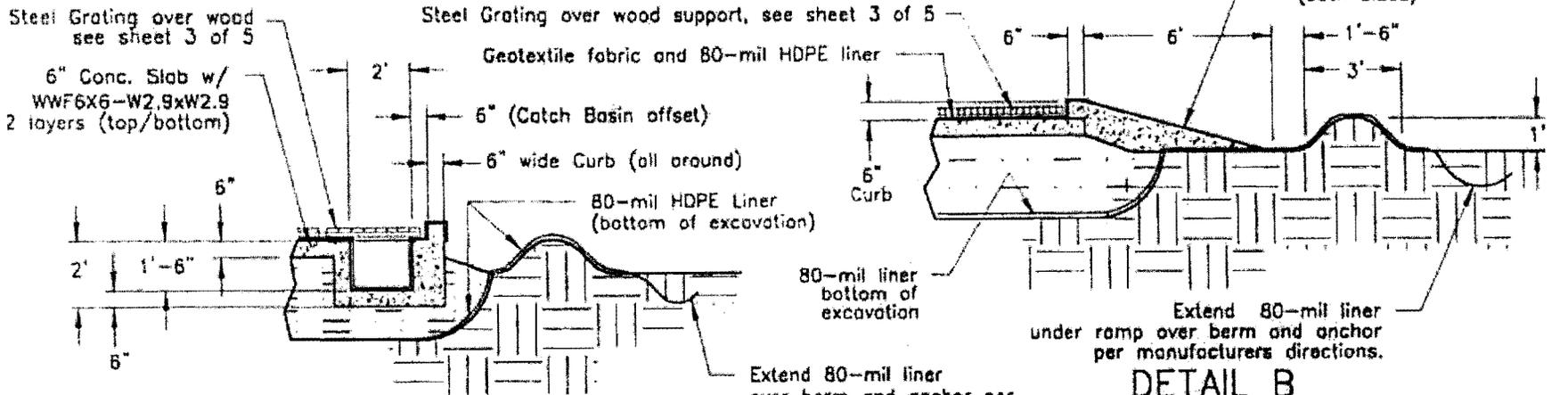
NOTE: SLOPE SLAB AS SHOWN (CURB SHOULD REMAIN LEVEL).

SECTION A-A



NOTE: SLOPE SLAB AS SHOWN (CURB SHOULD REMAIN LEVEL).

SECTION B-B



NOTE: HDPE liner at bottom of catch basin and over curb.

Extend 80-mil liner over berm and anchor per manufacturers directions (all around)

SCALE: 1" = 5'

DETAIL A
SCALE: 1" = 5'

MDA-P DECONTAMINATION PAD		
SCALE: 1" = 10'	APR 9, 1995	4 OF 5

REV 0

NOTES:

1. Remove and dispose of designated section of existing asphalt roadway (see sheet 1 of 5).
2. Level Pad area, excavate approx. 45 ft x 45 ft to a depth of 2 ft. below grade (compact bottom of excavation).
3. Construct approx. a 3 ft wide x 1 ft high compacted earth berm around excavation.
4. Install 80-mil HDPE liner (or equivalent) at bottom of excavation, extend over berm, splice and anchor per manufacturers directions.
Recommended Sources: Watersaver Co., Inc., P.O. Box 16465, Denver, CO 80202, Ph (800) 525-2424 or Environmental Liners, Inc., 2009 N. Industrial Rd., Cortez, CO 81321, Ph. (800) 821-0531. (or approved equal)
5. Replace two and one-half feet of compacted soil (95% modified proctor) in two 15 in. lifts and slope to accomodate designated slab slopes. Also slope back at 3 to 1 from the edge of the decon pad. (Base elevation of decon pad should be approximately 6 in. above leveled grade)
6. Two compaction tests will be required for each lift. Compaction tests will be performed by others.
7. Install roadway (compact base course per New Mexico Highway standards) on north and south sides of decon pad. Provide and install 24 in. diameter culvert (CMP) in existing asphalt lined drainage (see sheet 1 of 5).
8. Form and pour slab with catch basin, curb and access ramps using 5000psi concrete. Reinforce slab with two layers of 6x6-W2.9xW2.9 welded wire fabric. Place first layer of reinforcement 2 in. below the top of the slab and the second layer 2 in. up from the bottom of the slab (based on CRSI design handbook "Slabs on Ground" 600-800 psf uniform load). Smooth trowel finish on exterior surfaces.
9. Provide concrete batch tickets for approval prior to placing concrete. Concrete tests will be performed by others.
10. After adequate curing time of concrete pad, install a layer of Fibertex (or approved equal) Geotextile fabric (grade 400) and another layer of 80-mil (or equivalent) HDPE liner over entire pad, inside catch basin and over curb and ramps. Splice and anchor liner and fabric per manufacturers directions.
11. Install steel grate panels (2'-3' wide x 20' long).
Specification: Part No.: HD19-4-166; 4" x 3/8" Bearing Bars on 1-3/16" centers with load banding and cross rods top/bottom on 4" centers, or approved equal.
Recommended Sources: Peterson Company, 4949 Colorado Blvd., Denver, CO 80215. Phone 303-388-6322 or McNichols Co., P.O. Box 30300, Tampa, FL 33630-3300, Phone 800-237-3820. (or approved equal)
Provide approximately a 4-6 in. gap between the curb and the grating and approximately 1-2 in. between panels. Separate steel grating from 80-mil liner under tread area using 5/8 in. CDX plywood sheets. Separate grating from 80-mil liner under non-tread area using 1x4s placed to facilitate drainage and spaced at approximately 12 in. O.C.. This will help the liner from being damaged by the steel grating.
12. Install metal pipe fencing. Place 12 ft fence panels in corners (8 req'd). Place a 16 ft. fence panel in the center on each side (4 req'd). Two of the 16 ft. panels will serve as entrance/exit gates.
Recommended Source: Nathan's, 1110 Bellas Ln, Espanola, NM 87532, Ph. 505-753-7299 (or approved equal).
13. Provide & attach tarps (splash curtain) to fence panels using stretch (Bungee) type cords.
14. Provide and install a 20-mil liner (tarping) to cover pad during precipitation events. Precipitation cover will overlay grating and will not require supports. Liner will extend beyond pad. Provide filled sandbags to hold cover.
15. Install fencing around decon pad area using 6 ft. steel posts on 24 ft. centers with two strands of smooth twisted wire.

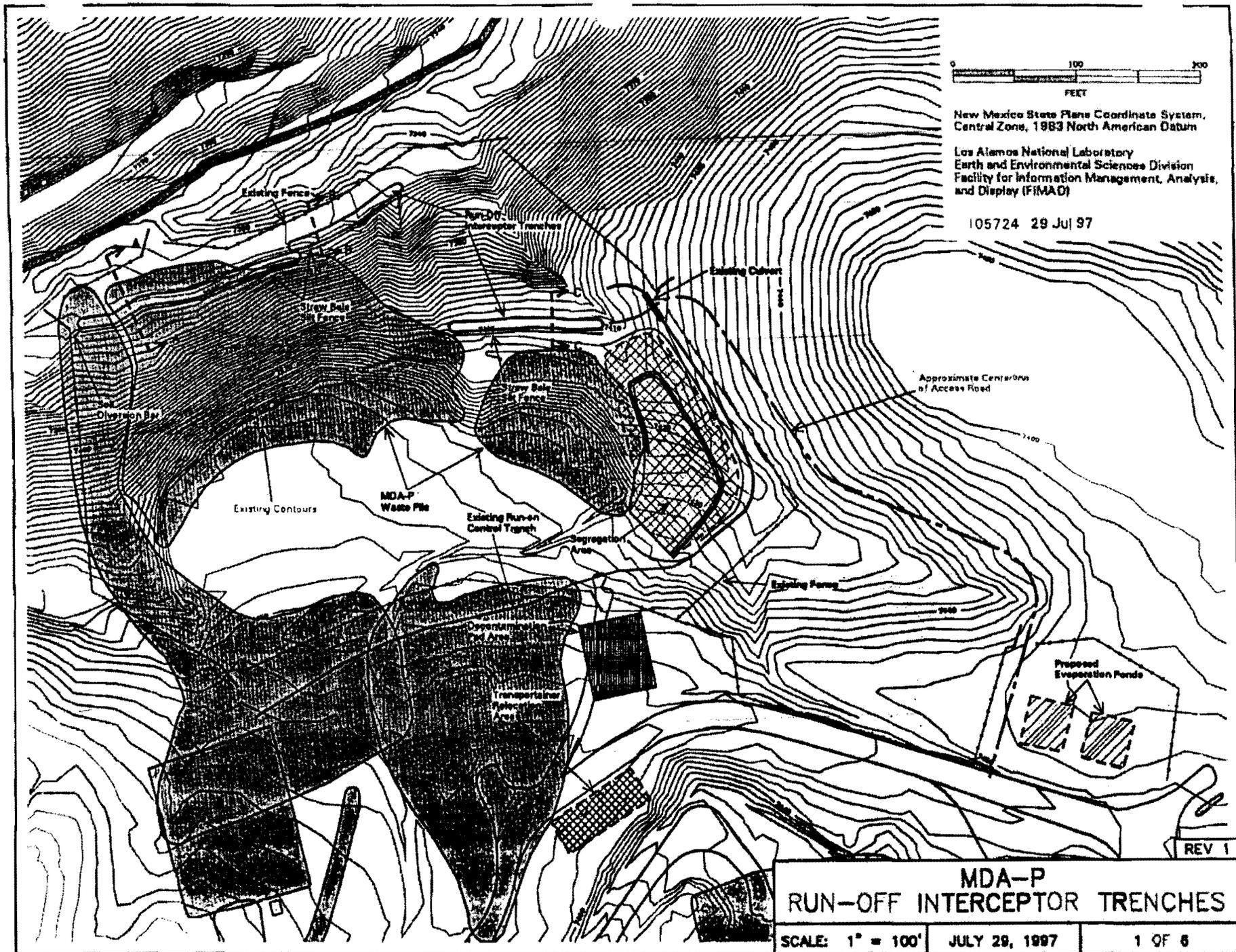
REV 0

MDA-P
DECONTAMINATION PAD

SCALE: NONE

APR 9, 1996

5 OF 5



Top of trench to remain a constant elevation $\pm .20$ ft. (full length)

Bottom trench elevation may vary $\pm .50$ ft.

15' min

Existing Grade

EL. 7370
7368
7366
7364
7362
7360
7358
7356
7354
7352

Existing Fence

See Trench Detail (sheet 5 of 6)

SECTION A-A - "WEST LOBE" TRENCH

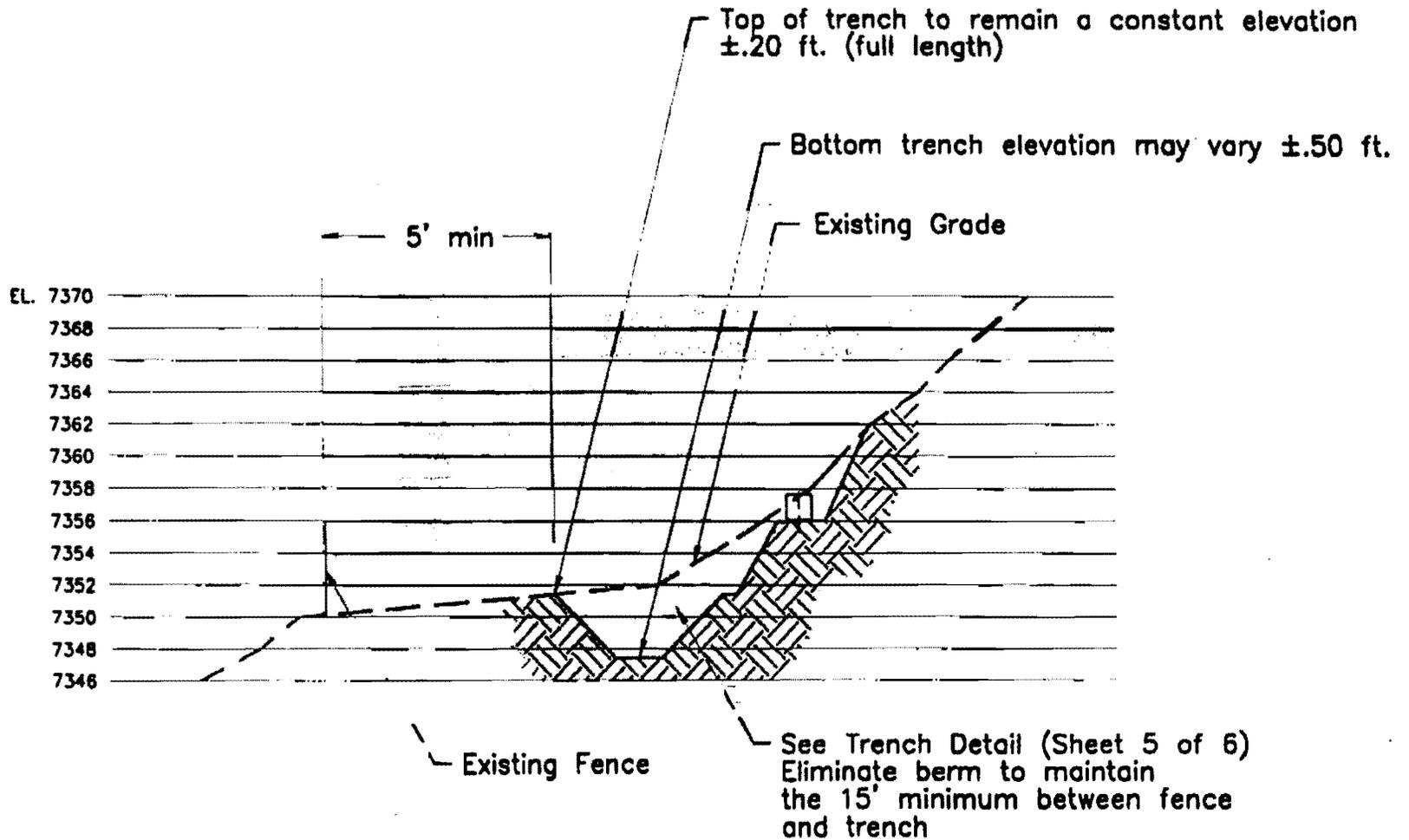
REV 1

MDA-P
RUN-OFF INTERCEPTOR TRENCHES

SCALE: 1" = 10'

JULY 29, 1996

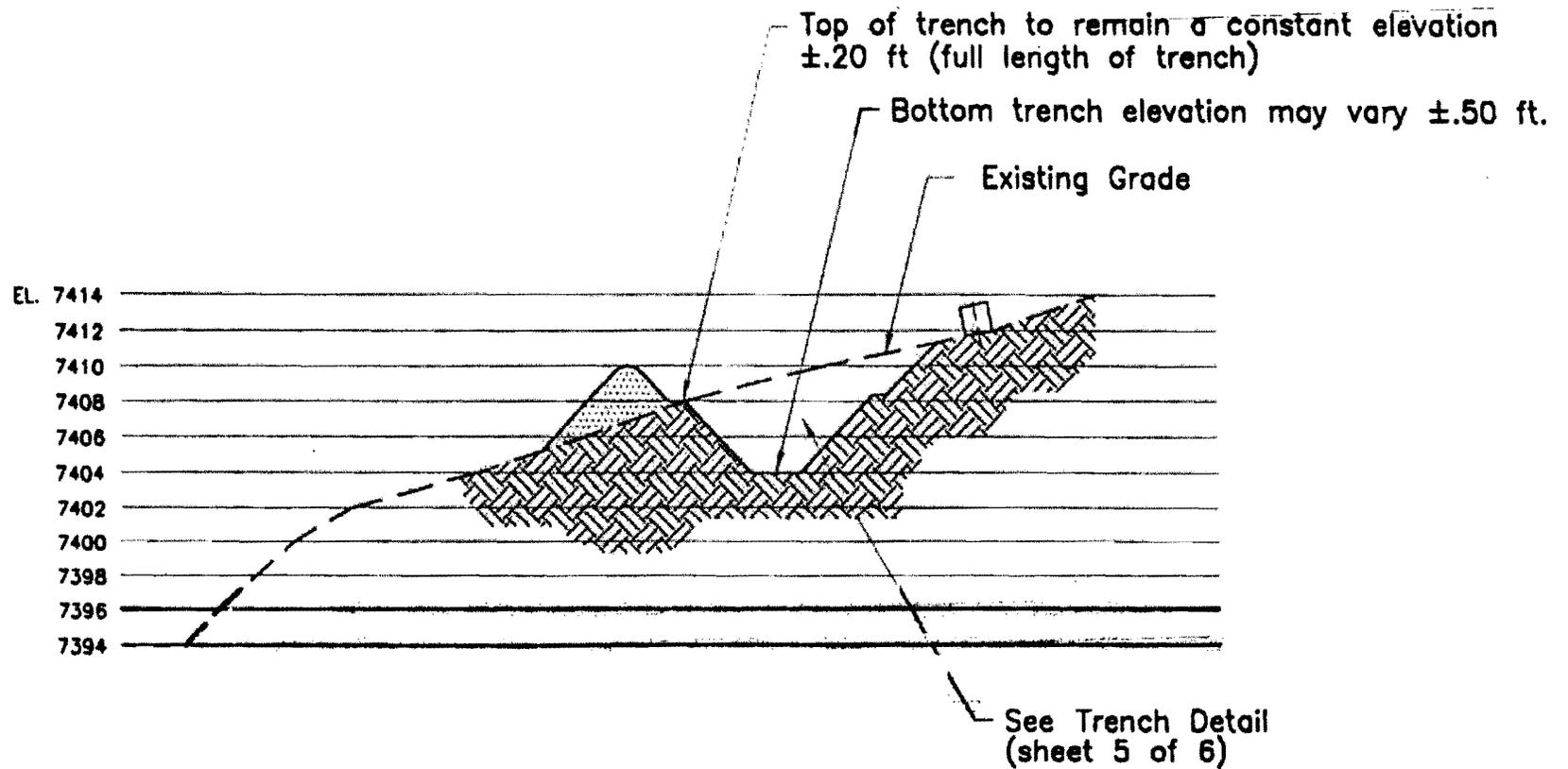
2 OF 6



SECTION B-B - "WEST LOBE" TRENCH

REV 1

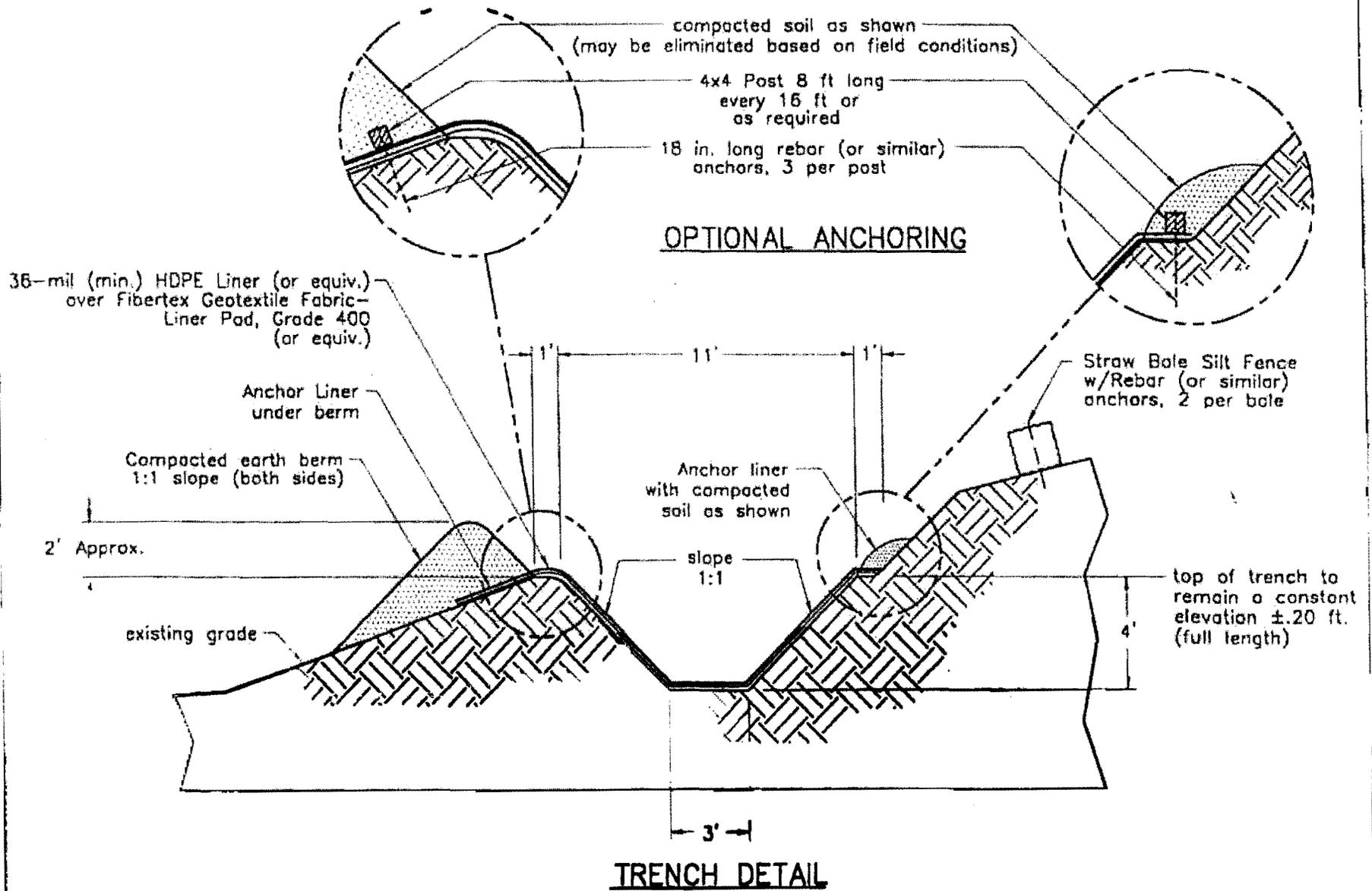
MDA-P		
RUN-OFF INTERCEPTOR TRENCHES		
SCALE: 1" = 10'	JULY 29, 1997	3 OF 6



SECTION C-C - "EAST LOBE" TRENCH

REV 1

MDA-P		
RUN-OFF INTERCEPTOR TRENCHES		
SCALE: 1" = 10'	JULY 29, 1997	4 OF 6



REV A

MDA-P
RUN-OFF INTERCEPTOR TRENCHES

SCALE: 1" = 5'	JULY 29, 1997	5 OF 6
----------------	---------------	--------

NOTES:

1. All work in the MDA-P area, except TASK 5 (Access Road), will require 40 hour Hazardous Waste Operations (29 CFR 1910.120(e)(8)) training and compliance.
2. Subcontractor shall provide a full time working superintendent.
3. Subcontractor shall provide and install all materials depicted on drawings.
4. Subcontractor shall be responsible for providing clean equipment prior to job start and or decontamination of equipment after job end.
5. Subcontractor shall be responsible for providing containers and containerizing all decontamination liquids and solids.
6. Subcontractor shall be responsible for removing all slash/firewood in the area. Firewood shall be stacked south of the MDA-P southern boundary fence as directed by the project manager.
7. Subcontractor shall clear, level and compact areas where trenches are to be constructed.
8. All excavated soil shall be stockpiled on the MDA-P waste pile and covered as required each night as directed by the project manager.
9. Subcontractor shall be responsible for removing/replacing portion of existing MDA-P boundary fence, where necessary, in order to maintain a 15' roadway width.
10. HDPE liner shall be equal to or greater than 36 mil thickness and shall be installed per manufacturer's instructions.

All work shall be in compliance with the Site Specific Health and Safety Plan (SSHASP) and SSHASP modifications, Work Plan, and TA-16 Site Specific Training.

2. All dimensions and locations are approximate and may change as a result of field conditions.

REV 1

MDA-P
RUN-OFF INTERCEPTOR TRENCHES

SCALE: NONE

JULY 29, 1997

6 OF 6

A-2.0 RESULTS OF SURFACE BARIUM SURVEY 1996

Los Alamos
NATIONAL LABORATORY
memorandum

Waste Site Studies Team
ESH-19, K490

To/MS: Ken Bostick / J495
Thru: Bill Kopp / K490 *BK*
From/MS: Albert Dye / K490 *AD*
Phone/FAX: 7-4715/7-5224
Date: September 25, 1996

SUBJECT: Field Surveys at MDA-P

Field surveys using a portable XRF spectrometer (metals), an ESP-1 meter (beta/gamma) and a Violinist III meter (low energy gamma) were conducted at MDA-P from July 3 to 15, 1996 by the ESH-19 Waste Site Studies Team. Elevated total barium in surface soils on the top of MDA-P and in the adjacent staging area east was detected at levels above 1000 ppm in roughly one third of the 88 grid locations. Other metals detected less frequently than barium included lead, silver cadmium mercury and antimony. Radiation measurements of the surface soils included some beta/gamma measurements slightly above LANL background values.

Land Surveying

The surveys covered the top, relatively level, surface of MDA-P. The coordinates for a 30 X 30 foot grid over MDA-P were calculated using a surveying computer software program. Control points were established using a GPS receiver system. The grid was then staked out using a total station theodolite. The grid points are shown in Figure 1.

XRF Survey

A portable Spectrace 9000 XRF spectrometer with the "Soils U, Th and Ag" application was used to take in-situ measurements at 64 grid points on the top surface of MDA-P. The ground surface at each grid point was smoothed and flattened using a stainless steel scoop, any gravel or vegetation was removed and a 60 second count (for each of the 3 sources) was taken. The measurement data were stored in the unit and downloaded into a laptop computer at the ESH-19 offices. During the field survey, the staging area immediately to the east of MDA-P was found to be under construction. The ground surface had been cleared of vegetation and was ready to be backfilled. An approximate 25 X 25 foot grid was estimated, grid coordinates were land surveyed and XRF measurements were taken at 24 grid points prior to the area being backfilled.

Background for the XRF survey was established by calculating the standard deviation of 10 measurements of a teflon plug using the count time given above. The minimum detection limit (MDL) is set at 3 times the standard deviation of the mean of the background measurements. The minimum quantitation limit (MQL) is set at 10 times the standard deviation of the mean background measurement. Any results less than

the MDL are reported as "nd" (not detected). Any results equal to or greater than the MDL, but less than the MQL are qualified with a "J" and are estimated values. Results equal to or greater than the MQL are reported as is.

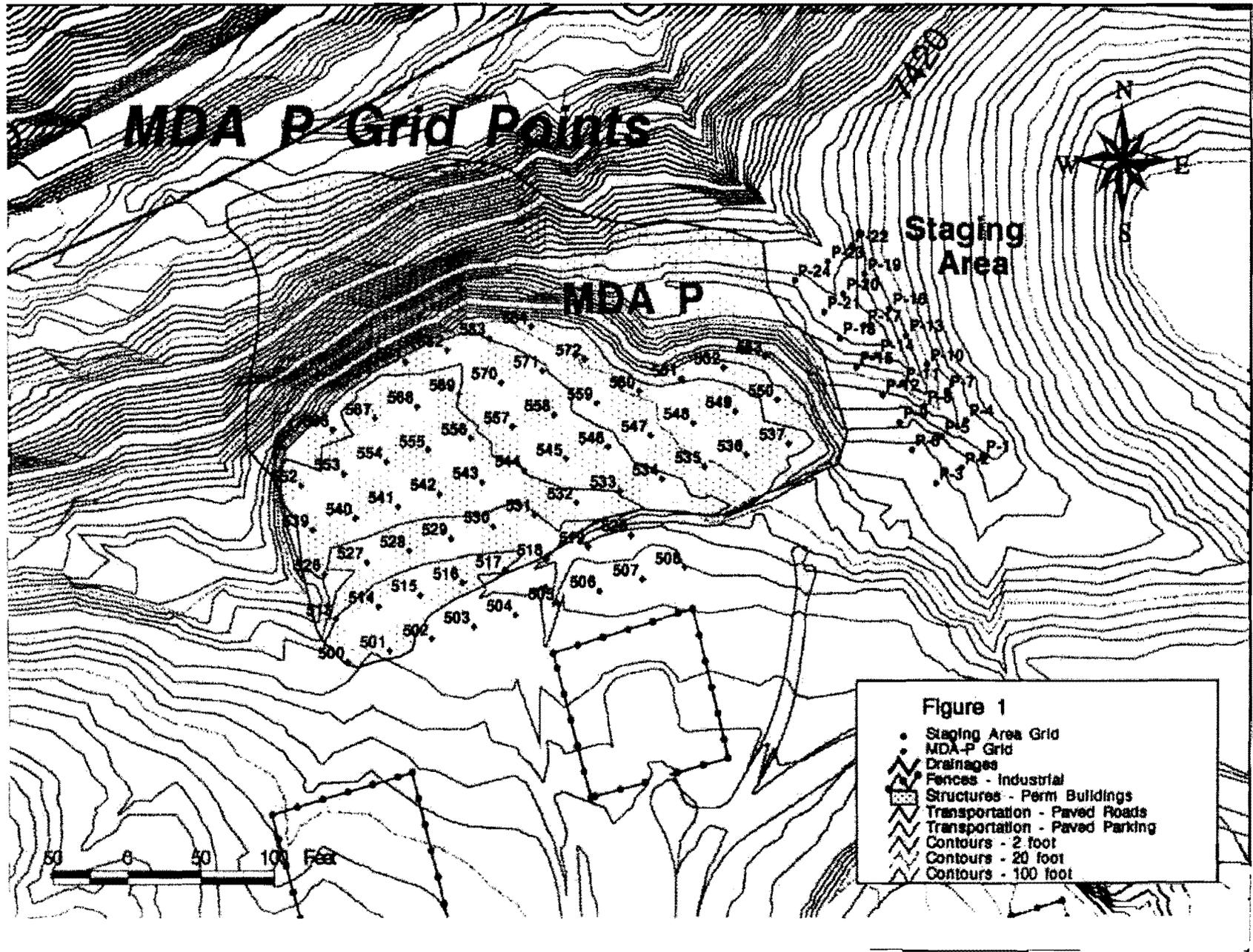
The results are shown in the attached table 1. Iso-concentration contours for barium are shown in figure 2 and on the attached FIMAD map. As can be noted, elevated barium levels were found in the surface soils with highest levels in the eastern "lobe" of MDA-P. Barium ranged from < 400 ppm to 27,000 ppm with a mean of 2200 ppm. Elevated levels of cadmium and silver were detected at the southwest corner of MDA-P (Grid point 500) and elevated antimony, lead and mercury levels were found at the north rim of MDA-P (Grid point 581). Point 500 was next to a steel fence post and there were strands of wire (possibly galvanized) on the ground, which may have influenced the measurement. Point 581 was in a pile of ashes, broken glass and metal debris. The difference in the matrix material found at this grid point may have also influenced the reported metals concentrations. The XRF data at this time should be considered as qualitative data. Nevertheless, the XRF spectrometer should prove to be a useful tool for quickly determining elevated metals, particularly barium, during the closure activities at MDA-P.

Rad Survey

Violinist and ESP-1 measurements were taken at each of the grid points over MDA-P. Violinist measurements were also taken at the center of each of the grid cells. These results are shown in Tables 2 and 3. A background Violinist survey at MDA-P has not been performed. However, the Violinist measurements taken at the MDA-P grid appear to be within background levels found at other technical areas at LANL. For the beta/gamma survey, the background levels at LANL using the ESP-1 meters average around 250 cpm. Beta/gamma levels slightly above the LANL average background were measured in the eastern and northern sections of MDA-P. A follow-up beta/gamma survey of the grid points will be conducted in the near future.

AD

cc Dave McInroy, EM/ER, MS M992
Richard Romero, ESH-19, MS K490
Roy Bohn, EM/ER, MS M992, M992 (Added 10/4/96)
Kathleen Naranjo, MS M992, M992 (Added 10/4/96)
RPF, MS M707



MDA P

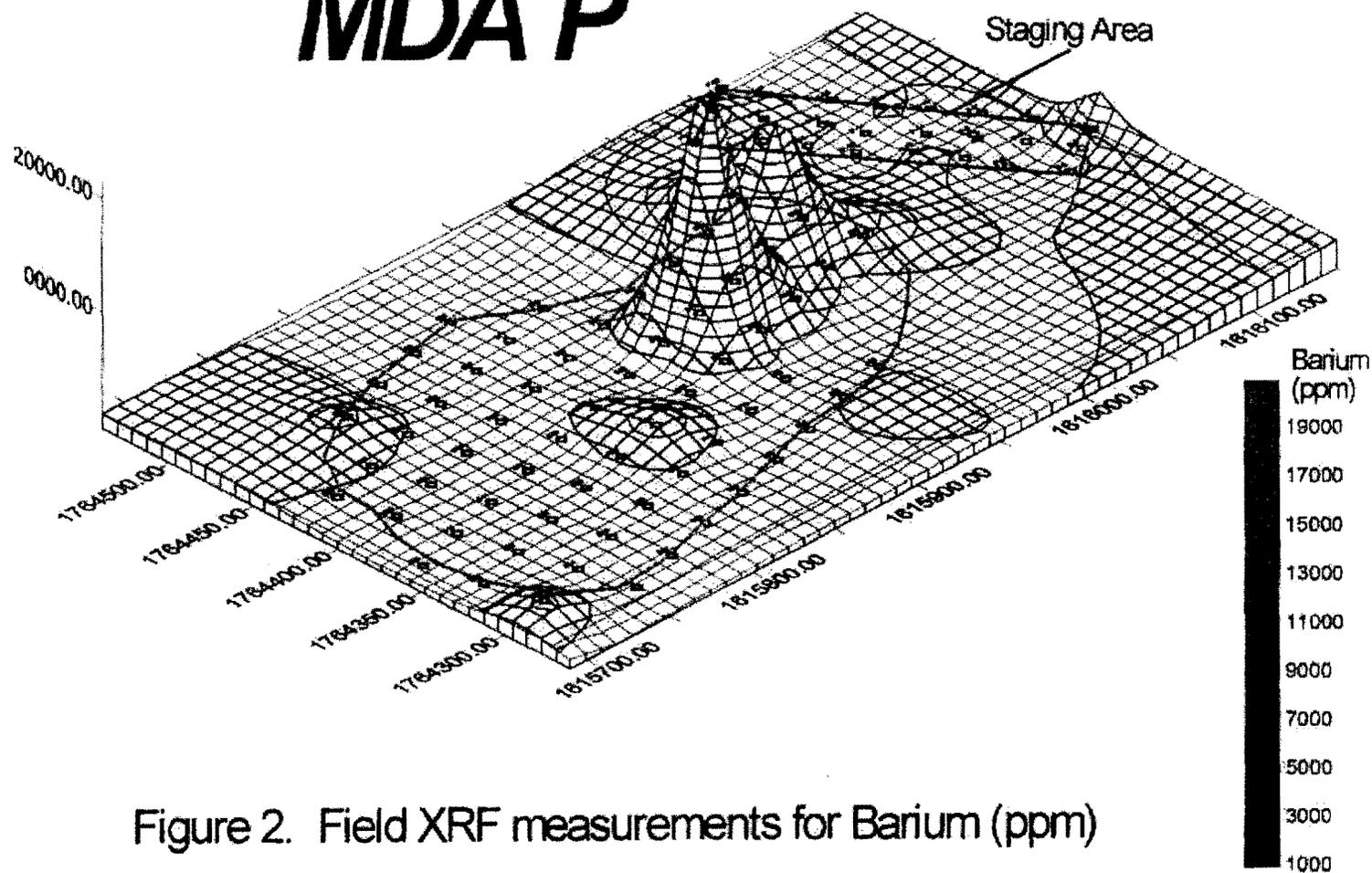


Figure 2. Field XRF measurements for Barium (ppm)

Table XRF Results

	Ag	As	Ba	Cd	CrHI	CrLO	Hg	Ni	Pb	Sb	Se	U
MDL ppm->	98	111	20	166	1106	464	130	262	67	42	56	30
MQL ppm->	328	369	67	553	3688	1547	435	875	223	140	188	101

MDA-P Grid

"500"	2878	nd	nd	2362		nd					nd	
"500"	3612	nd	21J	3411		nd					nd	
"501"		nd	343	nd		nd		nd			nd	
"502"		nd	426	nd		nd				nd	nd	
"503"			666	nd		nd					nd	
"504"		nd	776	nd		nd		nd	nd		nd	
"505"		nd		nd				nd	nd	nd	nd	nd
"506"	nd	nd	341	nd				nd	nd	nd	nd	nd
"507"	nd		154									nd
"508"	nd	nd	1121									nd
"513"	nd	nd	2564					nd				
"514"	nd	nd	423					nd				
"515"		nd	597					nd	nd			
"516"	nd		475			nd		nd	nd			
"517"			522			nd		nd				
"518"			356			nd		nd		44J		
"519"			341			nd		nd				
"520"			748	nd		nd		nd	nd			
"526"			565	nd		nd		nd	nd			
"527"			592	nd		nd		nd	nd		nd	
"528"			513	nd				nd	nd	nd	nd	nd
"528"			514	nd		nd		nd	nd	nd	nd	nd
"529"			373	nd				nd		nd		nd
"530"				nd						nd		nd
"531"			3043									
"532"			808					nd				
"533"			925					nd	76J		nd	

Table XRF Results

	Ag	As	Ba	Cd	CrHI	CrLO	Hg	Ni	Pb	Sb	Se	U
MQL ppm->	328	369	67	553	3688	1547	435	875	223	140	188	101
MDL ppm->	98	111	20	166	1106	464	130	262	67	42	56	30

"534"		nd	520	nd		nd	nd	nd				
"535"		nd	2278	nd		nd	nd					nd
"536"		nd	810	nd		nd	nd					
"537"		nd	3610	nd		nd	nd					
"539"		nd	553	nd	nd	nd	nd					
"540"		nd	596	nd		nd	nd					
"541"		nd	505			nd	nd					nd
"542"		nd	469			nd	nd					
"543"			422			nd	nd					
"544"		nd	514			nd	nd		70J			
"545"		nd	436			nd	nd					
"546"		nd	154	nd		nd	nd	nd		nd		
"547"	nd		23065	nd	nd	563J	nd	nd	nd	98J	nd	
"547"		nd	26739	nd	nd	nd	nd	nd	nd	36J	nd	
"548"		nd	3105	nd		nd	nd		nd	nd	nd	nd
"549"	nd	nd	14701	nd		nd	nd		nd	80J	nd	nd
"550"	nd	nd	2781	nd		nd			nd		nd	
"551"	nd		709						nd	53J	nd	
"552"			455									nd
"553"			880			nd				43J		nd
"554"		nd	530			nd						nd
"555"			562		nd	nd	nd					nd
"556"		nd	514	nd	nd	nd	nd	nd	nd			
"557"		nd	808	nd	nd	nd	nd	nd	nd	75J		
"558"		nd	462	nd	nd	nd	nd	nd	nd	nd		
"559"		nd	713		nd	nd	nd	nd	nd			
"560"		nd	305			nd	nd	nd	nd		nd	
"561"	nd		1269			nd	nd	nd	nd		nd	

Table XRF Results

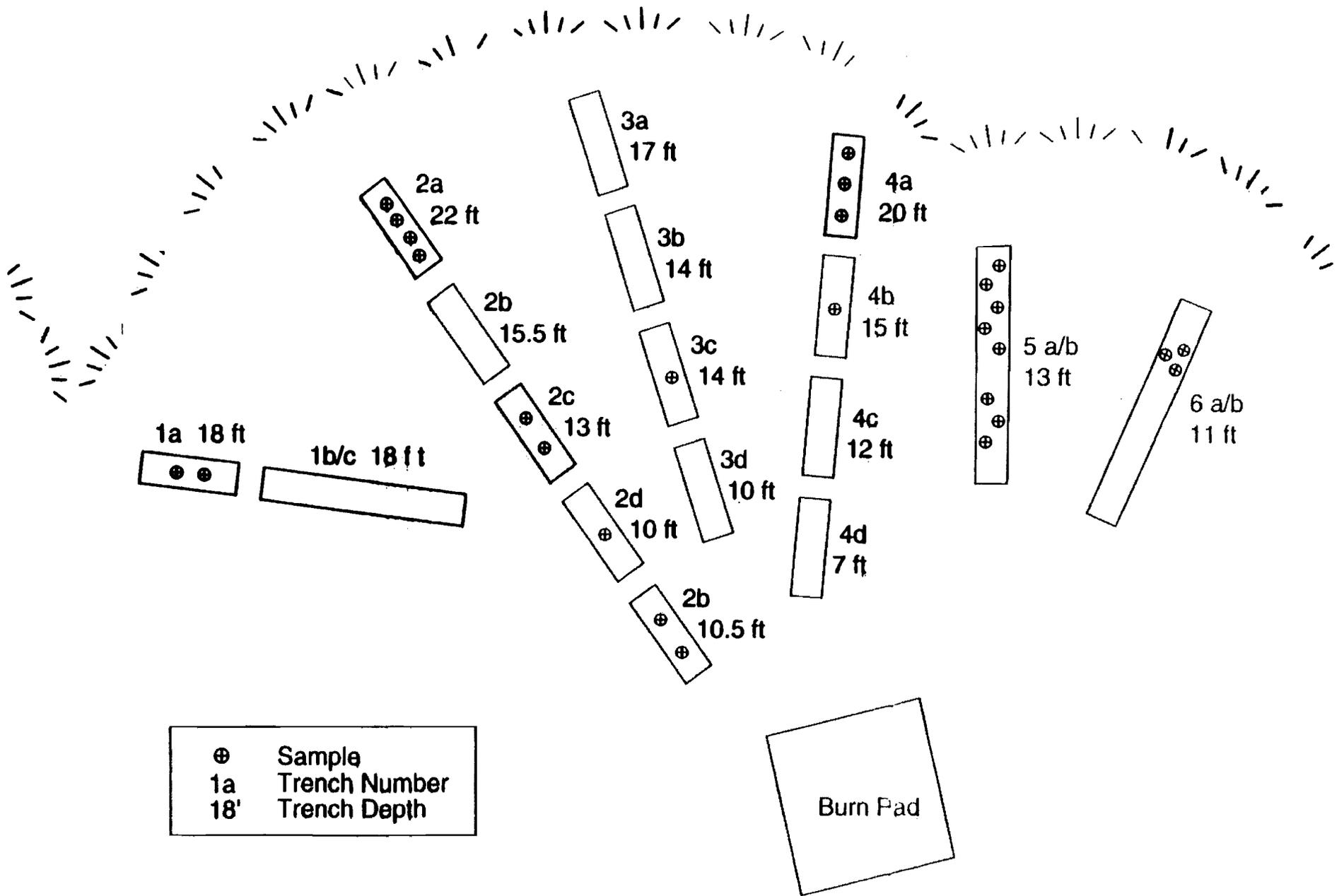
	Ag	As	Ba	Cd	CrHI	CrLO	Hg	Ni	Pb	Sb	Se	U
MQL ppm->	328	369	67	553	3688	1547	435	875	223	140	188	101
MDL ppm->	98	111	20	166	1106	464	130	262	67	42	56	30

"562"	nd	nd	3807							45J	nd	
"563"	nd	nd	3519							05J	nd	
"563"	nd	nd	1693								nd	
"566"	nd	nd	677								nd	
"567"	nd	nd	908								nd	
"568"	nd	nd	781						02J		nd	
"569"	nd	nd	708								nd	
"570"		nd	598									
"571"		nd	756						70J			
"572"			963									
"581"	72J		2435					186J	563	154	44J	
"582"		nd	463					nd	nd	nd	nd	
"583"		nd	359	nd				nd		nd	nd	
"584"		nd	552					nd		nd	nd	
Stage Grid												
"P1"		nd	5888	nd		nd	nd	nd		55J	nd	nd
"P2"			981	nd			nd	nd		nd		nd
"P3"			092				nd	nd		nd		
"P4"			1006	nd				nd		nd		
"P5"		nd	386	nd				nd	nd	nd	nd	
"P6"		nd	341				nd	nd		nd	nd	
"P7"			643							nd	nd	
"P8"			212							nd		
"P9"	nd									nd		
"P10"	nd											
"P11"			637									
"P12"			561									
"P13"			278					nd		nd	nd	
"P14"			550							nd	nd	

Table XRF Results

	Ag	As	Ba	Cd	CrHI	CrLO	Hg	Ni	Pb	Sb	Se	U
MQL ppm->	328	369	67	553	3688	1547	435	875	223	140	188	101
MDL ppm->	98	111	20	166	1106	464	130	262	67	42	56	30
"P15"	nd		484	nd				nd	nd	nd	nd	nd
"P16"	nd		628	nd					nd	nd	nd	nd
"P17"	nd		389	nd					nd			
"P18"	nd		844	nd				nd	nd	nd	nd	nd
"P19"	nd		1090	nd				nd		nd	nd	nd
"P20"	nd	nd	1235	nd				nd		nd	nd	nd
"P21"	nd		1676	nd				nd	nd	44J	nd	
"P22"	nd		71	nd				nd		nd	nd	
"P23"	nd	nd	2252	nd						nd	nd	
"P24"	nd		2046	nd						nd	nd	

A-3.0 RESULTS OF TEST PITS 1997



MDA-P Exploratory Trench Excavation and Sampling

MDA-P Phase I E atory Trench Samples

Sample ID	Trench	Depth	Sample Type	Date Sampled	C-O-C Number	Field Screen b, g (cpm)	Field Screen Ba (ppm)	Field Screen HE	ASBESTOS	GROSS α Benzois Pci/g	GROSS β Benzois Pci/g	GSCAN	METALCLP-pH	SEMIN-REACTIV-HEXP-MENGPETN-PESTP CB-HERB-DIOXIN	VOAGCMN
0816-97-0015	4a	4 - 6 ft	Soil	11/17/97	8888-97-0011	252	1400	Neg	x	0	7.57	x	x	x	x
0816-97-0016	4a	10 - 15 ft	Soil	11/17/97	8888-97-0011	251	4370	Neg	x	0.045	22.1	x	x	x	x
0816-97-0017	4a	20 ft	Soil	11/17/97	8888-97-0011	268	526	Neg	x	0	16.2	x	x	x	x
0816-97-0018	4b	13 - 15 ft	Soil	11/18/97	8888-97-0011	252	491	Neg	x	0	0	x	x	x	x
0816-97-0019	3c	9 ft	Soil	11/21/97	8888-97-0012	278	652	Neg	x	0.479	9.02	x	x	x	x
0816-97-0020	2a	15 ft	Soil	11/24/97	8888-97-0014	205	640	Neg	x	0.045	14.1	x	x	x	x
0816-97-0021	2a	6 ft	Soil	11/24/97	8888-97-0014	264	390	Neg	x	0.391	12.6	x	x	x	x
0816-97-0022	2a	2 ft	Soil	11/24/97	8888-97-0014	254	742	Neg	x	0.443	9.99	x	x	x	x
0816-97-0023	2a	22 ft	Soil	11/24/97	8888-97-0014	219	639	Neg	x	1.33	5.06	x	x	x	x
0816-97-0024	1a	4 - 6 ft	Soil	11/25/97	8888-97-0014	271	1400	Neg	x	0.992	7.36	x	x	x	x
0816-97-0025	1a	14.5 ft	Soil	11/25/97	8888-97-0015	226	2000	Neg	x	1.66	8.4	x	x	x	x
0816-97-0026	2e	3 - 4 ft	Soil	12/1/97	8888-97-0017	242	428	Neg	x	0	9.52	x	x	x	x
0816-97-0027	2e	7 - 10 ft	Soil	12/1/97	8888-97-0017	240	548	Neg	x	0.549	9.29	x	x	x	x
0816-97-0028	2d	4 ft	Soil	12/1/97	8888-97-0017	346	542	Neg	x	0	6.43	x	x	x	x
0816-97-0029	2c	4 ft	Soil	12/1/97	8888-97-0017	240	614	Neg	x	0.512	15.7	x	x	x	x
0816-97-0030	2c	13 ft	Soil	12/1/97	8888-97-0017	217	1064	Neg	x	0	0	x	x	x	x
0816-97-0031	5a	3 ft	Soil	12/4/97	8888-97-0020	228	218200	Pos	x	0	0	x	x	x	x
0816-97-0032	5b	4 ft	Soil	12/4/97	8888-97-0019	221	113830	Neg	x	0.448	8.37	x	x	x	x
0816-97-0033	5a	13 ft	Soil	12/4/97	8888-97-0019	202	3278	Neg	x	0.614	9.7	x	x	x	x
0816-97-0034	5a	9 ft	Soil	12/4/97	8888-97-0020	<250	10931	Pos	x	0.247	4.99	x	x	x	x
0816-97-0035	5b	8 ft	Soil	12/5/97	8888-97-0021	<250	26735*	Neg	x	0.512	5.28	x	x	x	x

MDA-P Phase I Exporatory Trench Samples

Sample ID	Trench	Depth	Sample Type	Date Sampled	C-O-C Number	Field Screen b, g (cpm)	Field Screen Ba (ppm)	Field Screen HE	ASBESTOS		GSCAN	METTALCLP+pH	SEMIN-REACTIV+HEXP+HENGPEIN+PESTP CB+HERB-DIOXIN	VOAGCMSN
									GROSS α Berthoud Pci/g	GROSS β Bei Pci/g				
0816-97-0042	6a	8 ft	Soil	12/8/97	8888-97-0024	243	31,770		x	0.409	11.8	x	x	x
0816-97-0037	6a Dup	8 ft	Soil	12/8/97	8888-97-0023	243	31,770		x	0.348	11.1	x	x	x
0816-97-0038	6a Mx Sp	8 ft	Soil	12/8/97	8888-97-0023	243	31,770	Neg	x	0.489	8.16	x	x	x
0816-97-0039	5a	3 ft	Soil	12/8/97	8888-97-0023	218	122,000	Pos	x	0.205	7.1	x	x	x
0816-97-0040	5b	5 ft	Soil	12/8/97	8888-97-0023	226	3355	Pos	x	0	5.39	x	x	x
0816-97-0041	5a	8 ft	Soil	12/8/97	8888-97-0023	207	19390	Pos	x	0.097	7.57	x	x	x
0816-97-0059	na	na	Field Blank	11/18/97	8888-97-0011	na	na	na						x
0816-97-0060	na	na	Trip Blank	11/18/97	8888-97-0011	na	na	na						x
0816-97-0061	na	na	Field Blank	12/4/97	8888-97-0019	na	na	na						x
0816-97-0062	na	na	Trip Blank	12/4/97	8888-97-0019	na	na	na						x
0816-97-0063	na	na	Field Blank	11/21/97	8888-97-0012	na	na	na						x
0816-97-0064	na	na	Trip Blank	11/21/97	8888-97-0012	na	na	na						x
0816-97-0065	na	na	Field Blank	11/24/97	8888-97-0014	na	na	na						x
0816-97-0066	na	na	Trip Blank	11/24/97	8888-97-0014	na	na	na						x
0816-97-0067	na	na	Field Blank	12/1/97	8888-97-0017	na	na	na						x
0816-97-0068	na	na	Trip Blank	12/1/97	8888-97-0017	na	na	na						x
0816-97-0069	na	na	Field Blank	12/8/97	8888-97-0023	na	na	na						
0816-97-0070	na	na	Trip Blank	12/8/97	8888-97-0023	na	na	na						

* Ba XRF Measurement taken from a composite sample, not at discrete sample location.
All field screening for Organic vapors and Alpha radiation showed NO DETECTABLE ACTIVITY.

SAMPLE REQUEST MARIES - TEST PITS 1997

Date Sampled	Sample ID	Sample Type	Analytical Suite	Request Number	Comments
11/17/1997	0816-97-0015; 0016; 0017; 0018	Soil	Herb	3923R	
11/17/1997	0816-97-0015; 0016; 0017; 0018	Soil	PestPCB	3923R	
11/17/1997	0816-97-0015; 0016; 0017; 0018	Soil	Reactive CN/Sulfide	3923R	
11/17/1997	0816-97-0015; 0016; 0017; 0018	Soil	SVOC	3923R	
11/17/1997	0816-97-0015; 0016; 0017; 0018	Soil	VOC	3923R	
11/17/1997	0816-97-0015; 0016; 0017; 0018	Soil	Dioxin	3923R	
11/17/1997	0816-97-0015; 0016; 0017; 0018	Soil	HEXP	3923R	
11/17/1997	0816-97-0015; 0016; 0017; 0018	Soil	HengPETN	3923R	
11/17/1997	0816-97-0015; 0016; 0017; 0018	Soil	TCLP Metals + pH	3924R	
11/17/1997	0816-97-0015; 0016; 0017; 0018	Soil	Asbestos	3925R	
11/17/1997	0816-97-0015; 0016; 0017; 0018	Soil	GSCAN	3926R	
11/21/1997	0816-97-0019	Soil	Herb	3933R	
11/21/1997	0816-97-0019	Soil	PestPCB	3933R	
11/21/1997	0816-97-0019	Soil	Reactive CN/Sulfide	3933R	
11/21/1997	0816-97-0019	Soil	SVOC	3933R	
11/21/1997	0816-97-0019	Soil	VOC	3933R	
11/21/1997	0816-97-0019	Soil	Dioxin	3933R	
11/21/1997	0816-97-0019	Soil	HEXP	3933R	
11/21/1997	0816-97-0019	Soil	HengPETN	3933R	
11/21/1997	0816-97-0019	Soil	TCLP Metals + pH	3934R	
11/21/1997	0816-97-0019	Soil	Asbestos	3935R	
11/21/1997	0816-97-0019	Soil	GSCAN	3936R	
11/24/1997	0816-97-0020; 0021; 0022; 0023; 0024	Soil	Herb	3948R	
11/24/1997	0816-97-0020; 0021; 0022; 0023; 0024	Soil	PestPCB	3948R	
11/24/1997	0816-97-0020; 0021; 0022; 0023; 0024	Soil	Reactive CN/Sulfide	3948R	
11/24/1997	0816-97-0020; 0021; 0022; 0023; 0024	Soil	SVOC	3948R	
11/24/1997	0816-97-0020; 0021; 0022; 0023; 0024	Soil	VOC	3948R	
11/24/1997	0816-97-0020; 0021; 0022; 0023; 0024	Soil	Dioxin	3948R	
11/24/1997	0816-97-0020; 0021; 0022; 0023; 0024	Soil	HEXP	3948R	
11/24/1997	0816-97-0020; 0021; 0022; 0023; 0024	Soil	HengPETN	3948R	
11/24/1997	0816-97-0020; 0021; 0022; 0023; 0024	Soil	TCLP Metals + pH	3949R	
11/24/1997	0816-97-0020; 0021; 0022; 0023; 0024	Soil	Asbestos	3950R	
11/24/1997	0816-97-0020; 0021; 0022; 0023; 0024	Soil	GSCAN	3951R	

SAMPLE REQUEST SUMMARIES - TEST PITS 1997

11/25/1997	0816-97-0025	Soil	Herb	3952R
11/25/1997	0816-97-0025	Soil	PestPCB	3952R
11/25/1997	0816-97-0025	Soil	Reactive CN/Sulfide	3952R
11/25/1997	0816-97-0025	Soil	SVOC	3952R
11/25/1997	0816-97-0025	Soil	VOC	3952R
11/25/1997	0816-97-0025	Soil	Dioxin	3952R
11/25/1997	0816-97-0025	Soil	HEXP	3952R
11/25/1997	0816-97-0025	Soil	HengPETN	3952R
11/25/1997	0816-97-0025	Soil	TCLP Metals + pH	3953R
11/25/1997	0816-97-0025	Soil	Asbestos	3954R
11/25/1997	0816-97-0025	Soil	GSCAN	3955R
12/1/1997	0816-97-0026; 0027; 0028; 0029; 0030	Soil	Herb	3964R
12/1/1997	0816-97-0026; 0027; 0028; 0029; 0030	Soil	PestPCB	3964R
12/1/1997	0816-97-0026; 0027; 0028; 0029; 0030	Soil	Reactive CN/Sulfide	3964R
12/1/1997	0816-97-0026; 0027; 0028; 0029; 0030	Soil	SVOC	3964R
12/1/1997	0816-97-0026; 0027; 0028; 0029; 0030	Soil	VOC	3964R
12/1/1997	0816-97-0026; 0027; 0028; 0029; 0030	Soil	Dioxin	3964R
12/1/1997	0816-97-0026; 0027; 0028; 0029; 0030	Soil	HEXP	3964R
12/1/1997	0816-97-0026; 0027; 0028; 0029; 0030	Soil	HengPETN	3964R
12/1/1997	0816-97-0026; 0027; 0028; 0029; 0030	Soil	TCLP Metals + pH	3965R
12/1/1997	0816-97-0026; 0027; 0028; 0029; 0030	Soil	Asbestos	3966R
12/1/1997	0816-97-0026; 0027; 0028; 0029; 0030	Soil	GSCAN	3967R
12/4/1997	0816-97-0032; 0033	Soil	Herb	3972R
12/4/1997	0816-97-0032; 0033	Soil	PestPCB	3972R
12/4/1997	0816-97-0032; 0033	Soil	Reactive CN/Sulfide	3972R
12/4/1997	0816-97-0032; 0033	Soil	SVOC	3972R
12/4/1997	0816-97-0032; 0033	Soil	VOC	3972R
12/4/1997	0816-97-0032; 0033	Soil	Dioxin	3972R
12/4/1997	0816-97-0032; 0033	Soil	HEXP	3972R
12/4/1997	0816-97-0032; 0033	Soil	HengPETN	3972R
12/4/1997	0816-97-0032; 0033	Soil	TCLP Metals + pH	3973R
12/4/1997	0816-97-0032; 0033	Soil	Asbestos	3974R
12/4/1997	0816-97-0032; 0033	Soil	GSCAN	3975R

SAMPLE REQUEST MARIES - TEST PITS 1997

12/4/1997	0816-97-0031; 0034; 0035	Soil	Herb	3979R
12/4/1997	0816-97-0031; 0034; 0035	Soil	PestPCB	3979R
12/4/1997	0816-97-0031; 0034; 0035	Soil	Reactive CN/Sulfide	3979R
12/4/1997	0816-97-0031; 0034; 0035	Soil	SVOC	3979R
12/4/1997	0816-97-0031; 0034; 0035	Soil	VOC	3979R
12/4/1997	0816-97-0031; 0034; 0035	Soil	Dioxin	3979R
12/4/1997	0816-97-0031; 0034; 0035	Soil	HEXP	3979R
12/4/1997	0816-97-0031; 0034; 0035	Soil	HengPETN	3979R
12/4/1997	0816-97-0031; 0034; 0035	Soil	TCLP Metals + pH	3980R
12/4/1997	0816-97-0031; 0034; 0035	Soil	Asbestos	3981R
12/4/1997	0816-97-0031; 0034; 0035	Soil	GSCAN	3982R
12/8/1997	0816-97-0037; 0038; 0039; 0040; 0041; 0042	Soil	Herb	3993R
12/8/1997	0816-97-0037; 0038; 0039; 0040; 0041; 0042	Soil	PestPCB	3993R
12/8/1997	0816-97-0037; 0038; 0039; 0040; 0041; 0042	Soil	Reactive CN/Sulfide	3993R
12/8/1997	0816-97-0037; 0038; 0039; 0040; 0041; 0042	Soil	SVOC	3993R
12/8/1997	0816-97-0037; 0038; 0039; 0040; 0041; 0042	Soil	VOC	3993R
12/8/1997	0816-97-0037; 0038; 0039; 0040; 0041; 0042	Soil	Dioxin	3993R
12/8/1997	0816-97-0037; 0038; 0039; 0040; 0041; 0042	Soil	HEXP	3993R
12/8/1997	0816-97-0037; 0038; 0039; 0040; 0041; 0042	Soil	HengPETN	3993R
12/8/1997	0816-97-0037; 0038; 0039; 0040; 0041; 0042	Soil	TCLP Metals + pH	3994R
12/8/1997	0816-97-0037; 0038; 0039; 0040; 0041; 0042	Soil	Asbestos	3995R
12/8/1997	0816-97-0037; 0038; 0039; 0040; 0041; 0042	Soil	GSCAN	3996R

MDA-P Phase I Exploratory Trench Samples (11/1997)

SAMPLE ID	Asbestos %	Barium mg/L	SVOC's ug/kg	Cyanide mg/kg	Sulfide mg/kg	RDX mg/kg	HMX mg/kg	PETN mg/kg	Herbicides ug/kg	2,4,6-TNT mg/kg	Dioxin ng/g	VOC's ug/kg	GSCAN pCl/g	Pesticides ug/kg	PCB's ug/kg
0816-97-0015	NO	11	ND	ND	ND	ND	ND	ND	NO	1.3	NO	ND	ND	ND	ND
0816-97-0016	ND	124	ND	ND	ND	2	ND	ND	NO	4	NO	ND	ND	ND	ND
0816-97-0017	ND	5.8	ND	ND	ND	ND	ND	ND	NO	NO	NO	ND	ND	ND	ND
0816-97-0018	ND	2.9	ND	ND	ND	ND	ND	ND	NO	NO	NO	ND	ND	ND	ND
0816-97-0019	ND	1.3	ND	ND	ND	ND	ND	ND	NO	NO	NO	ND	ND	ND	ND
0816-97-0020	ND	2	ND	ND	ND	ND	ND	ND	NO	NO	NO	ND	ND	ND	ND
0816-97-0021	NO	1.9	ND	ND	ND	ND	ND	ND	NO	NO	NO	ND	ND	ND	ND
0816-97-0022	4% Total	0.9	ND	ND	ND	ND	3.3	ND	NO	ND	Total HxCDD: .56	ND	ND	Endrin Aldehyde: 10	Arochlor-1260: 180
0816-97-0023	< 1%	1.3	ND	ND	ND	ND	ND	ND	NO	ND	NO	ND	ND	ND	ND
0816-97-0024	ND	3.4	ND	ND	ND	ND	ND	ND	NO	ND	NO	ND	ND	Alpha-Chlordane: 4.4	ND
0816-97-0025	ND	1.5	ND	ND	ND	ND	ND	ND	NO	ND	NO	ND	ND	Gamma-Chlordane: 2.6	ND
0816-97-0026	ND	1.3	ND	ND	ND	ND	ND	ND	NO	ND	NO	ND	ND	ND	ND
0816-97-0027	ND	1	ND	ND	ND	ND	ND	ND	NO	ND	NO	ND	ND	ND	ND
0816-97-0028	ND	1.9	ND	ND	ND	ND	ND	ND	NO	ND	NO	ND	ND	ND	ND
0816-97-0029	ND	1.3	ND	ND	ND	ND	ND	ND	NO	ND	NO	ND	ND	ND	ND
0816-97-0030	ND	1.2	ND	ND	ND	ND	ND	ND	NO	ND	NO	ND	ND	ND	ND
0816-97-0031	ND	2290	Anthracene: 1800	ND	ND	940	ND	5	NO	120	Total HxCDD: .08	ND	ND	ND	ND
0816-97-0032	ND	112	ND	ND	ND	1	1.4	ND	NO	ND	NO	ND	ND	ND	ND
0816-97-0033	ND	11	Anthracene: 97	ND	ND	35	5.5	ND	NO	6.1	NO	ND	ND	ND	ND
0816-97-0034	ND	613	Anthracene: 1600	ND	ND	110	ND	ND	NO	27	NO	ND	ND	ND	ND
0816-97-0035	ND	3.4	ND	ND	ND	ND	ND	ND	NO	ND	NO	ND	ND	ND	ND
0816-97-0037	ND	612	Anthracene: 480	ND	ND	75	13	ND	NO	23	NO	ND	ND	Lindane: 12	ND
0816-97-0038	ND	731	Anthracene: 490	ND	ND	100	ND	ND	NO	47	NO	ND	ND	ND	ND
0816-97-0039	ND	1690	2,4-DNT: 590 Anthracene: 4300	ND	ND	300	26	1.1	NO	95	Total TCDF: 1.2 Total PECCDF: .37	ND	ND	ND	ND
0816-97-0040	ND	23	ND	ND	ND	9.3	ND	ND	Galapon: 750	2.5	NO	ND	ND	ND	ND
0816-97-0041	ND	662	ND	ND	ND	44	ND	ND	ND	32	Total PECCDF: .04 Total HxCDF: .02	ND	ND	ND	ND
0816-97-0042	ND	589	ND	ND	ND	69	8.8	ND	NO	11	NO	ND	ND	ND	ND

ND= Non-Detect and B and/or J qualified

Appendix B

*Correspondence Related to the Closure
Activities at the MDA P Site*

B-1.0 SUMMARY OF MDA P CLOSURE PLAN DEVIATIONS

**MDA P Closure Implementation
Approved Closure Plan Changes to Phase I Activities**

Closure Plan Section/ Page	Closure Plan Information, As Submitted	Closure Plan Information, As Revised	Type of Change	Related Correspondence
Changes to the Closure Plan Schedule				
6.1.1.4/6-7	"An amendment to the Closure Plan will be submitted to the NMED whenever...a change occurs in the expected year of closure..."	"Unanticipated delays have been incurred due to the presence of detonable pieces of HE. It has been determined that closure will exceed the proposed 26 months to complete Phase I and Phase II. Phase I includes removing waste from the waste pile and was estimated to be 17 months from the time the Closure Plan was submitted. This time frame has already passed; therefore a new closure plan schedule has been prepared and submitted to HRMB as a Class I Closure Plan Modification. Per their request, the new closure plan schedule completion date has been extended until September 2001."	Class I closure plan modification to schedule	July 22, 1998 letter ^a
6.1.2.1/6-9	"For this project, an extension of the 90-day and 180-day closure time frames will be necessary. Removal of wastes and completion of closure activities...will require at least 20 months if a risk assessment is not conducted."			March 10, 1999 letter ^b
6.1.2.2/6-9	"If completion of final closure will take longer than 26 months from the time the closure plan is approved, the Laboratory will submit a closure plan amendment..."			May 7, 1999 letter ^c
6.2.7/6-26	"If a risk assessment is necessary but additional waste removal is not required, the total time to complete closure is estimated to be 26 months... This schedule assumes no unanticipated delays."			
Figure 6-2	Estimated Project Schedule with no Risk Assessment.			

**MDA P Closure Implementation
Approved Closure Plan Changes to Phase I Activities (continued)**

Closure Plan Section/ Page	Closure Plan Information, As Submitted	Closure Plan Information, As Revised	Type of Change	Related Correspondence																																										
6.1.2.1/6-9 & 6-10	<p>Figure 6-2, Estimated Project Schedule (Revision 1.0, May 1999)</p> <table border="1"> <thead> <tr> <th></th> <th>Start</th> <th>Finish</th> </tr> </thead> <tbody> <tr> <td>Begin operations</td> <td>5/13/96</td> <td>5/13/96</td> </tr> <tr> <td>Preliminary construction</td> <td>5/13/96</td> <td>11/27/98</td> </tr> <tr> <td>Excavate, decontaminate & sample</td> <td>11/5/97</td> <td>4/28/00</td> </tr> <tr> <td>Waste treatment (as needed)</td> <td>7/1/99</td> <td>4/28/00</td> </tr> <tr> <td>Phase II sampling</td> <td>2/28/00</td> <td>6/23/00</td> </tr> <tr> <td>Final closure report</td> <td>4/3/00</td> <td>11/30/00</td> </tr> <tr> <td>Reseed/replant vegetation</td> <td>5/22/00</td> <td>9/7/01</td> </tr> </tbody> </table> <p>“For this project, an extension of the 90-day and 180-day closure time frames will be necessary. Removal of wastes and completion of closure activities as described in Sections 6.3.4, 6.2.5, and 6.2.6 will extend until September 2001. This extended time frame is necessary because the Laboratory was unable to meet the original project schedule for waste removal due to safe operating process at the site having to be re-evaluated when detonable pieces of HE were observed during excavation. The extended time frame is also necessary because of the following factors:</p> <ul style="list-style-type: none"> • the logistics of removing relatively large amounts of waste from a steep incline; • decontaminating waste in an area that is limited in size; and • weather conditions that cannot be predicted with any high degree of accuracy. <p>For these reasons, the Laboratory requests that NMED approve the extended project schedule until September 2001 for final closure. The anticipated closure schedule is presented in Section 6.2.7.”</p>		Start	Finish	Begin operations	5/13/96	5/13/96	Preliminary construction	5/13/96	11/27/98	Excavate, decontaminate & sample	11/5/97	4/28/00	Waste treatment (as needed)	7/1/99	4/28/00	Phase II sampling	2/28/00	6/23/00	Final closure report	4/3/00	11/30/00	Reseed/replant vegetation	5/22/00	9/7/01	<p>Figure 6-2. Estimated Project Schedule (Revision 2.0, May 2002)</p> <table border="1"> <thead> <tr> <th></th> <th>Start</th> <th>Finish</th> </tr> </thead> <tbody> <tr> <td>Field work</td> <td>11/5/97</td> <td>10/31/02</td> </tr> <tr> <td>16-006(e) septic tank removal</td> <td>4/4/02</td> <td>5/9/02</td> </tr> <tr> <td>Eco risk assessment</td> <td>6/4/02</td> <td>10/31/02</td> </tr> <tr> <td>Final closure report</td> <td>3/4/02</td> <td>1/31/03</td> </tr> <tr> <td>Site restoration</td> <td>5/26/04</td> <td>11/3/04</td> </tr> </tbody> </table> <p>“For this project, an extension of the 90-day and 180-day closure time frames will be necessary. Removal of wastes and completion of closure activities as described in Sections 6.3.4, 6.2.5, and 6.2.6 will extend until the end of January 2003. This extended time frame is necessary because the Laboratory was unable to meet the original project schedule for waste removal due to safe operating process at the site having to be re-evaluated when detonable pieces of HE were observed during excavation. The extended time frame is also necessary because of the following factor[s]: The Cerro Grande fire delayed completion of excavation...</p> <p>For these reasons, the Laboratory requests that NMED approve the extended project schedule until January 2003 for final closure. The anticipated closure schedule is presented in Section 6.2.7.”</p>		Start	Finish	Field work	11/5/97	10/31/02	16-006(e) septic tank removal	4/4/02	5/9/02	Eco risk assessment	6/4/02	10/31/02	Final closure report	3/4/02	1/31/03	Site restoration	5/26/04	11/3/04	Class I closure plan modification to schedule	<p>May 13, 2002 letter^d</p> <p>May 30, 2002 letter^e</p>
	Start	Finish																																												
Begin operations	5/13/96	5/13/96																																												
Preliminary construction	5/13/96	11/27/98																																												
Excavate, decontaminate & sample	11/5/97	4/28/00																																												
Waste treatment (as needed)	7/1/99	4/28/00																																												
Phase II sampling	2/28/00	6/23/00																																												
Final closure report	4/3/00	11/30/00																																												
Reseed/replant vegetation	5/22/00	9/7/01																																												
	Start	Finish																																												
Field work	11/5/97	10/31/02																																												
16-006(e) septic tank removal	4/4/02	5/9/02																																												
Eco risk assessment	6/4/02	10/31/02																																												
Final closure report	3/4/02	1/31/03																																												
Site restoration	5/26/04	11/3/04																																												

EH2003-0409

B-5

June 2003

Phase I Closure Implementation Report

MDA P Closure Implementation
Approved Closure Plan Changes to Phase I Activities (continued)

Closure Plan Section/ Page	Closure Plan Information, As Submitted	Closure Plan Information, As Revised	Type of Change	Related Correspondence
6.1.2.2/ 6-9	"As indicated in Figure 6-2, removal of wastes and completion of closure activities will need to be extended until September 2001. If completion of final closure activities will take longer than September 2001, the Laboratory will submit a closure plan amendment in accordance with 265.112(c)."	"As indicated in Figure 6-2, removal of wastes and completion of closure activities will need to be extended until January 2003. If completion of final closure activities will take longer than January 2003, the Laboratory will submit a closure plan amendment in accordance with 265.112(c)."	Class I closure plan modification to schedule	May 13, 2002 letter ^d May 30, 2002 letter ^e
Changes to the Closure Plan Waste Estimates				
1.1.3/ 1-8	"Approximately 30,000 cubic yards (yd ³) of debris will be excavated."	"After the submittal and approval of the original Closure Plan, it was discovered that the southern part of the morphologic feature of MDA P is composed of uncontaminated soils placed during the original construction of the burning grounds. Therefore, a large volume of clean fill that composes the morphologic feature of MDA P will not be removed, but will be sampled during the Phase II verification activities. The new estimated volume is 16,500 cubic yards. This new volume has been reflected as a Class I Closure Plan Modification (May 7, 1999 letter ^c)."	Class I closure plan modification of waste estimates	July 22, 1998 letter ^a
4.1.3.1/ 4-3	"Based on the estimated waste pile volume (30,000 yd ³)...."			May 7, 1999 letter ^c
6.2.3/ 6-19	"The MDA P waste pile contains an estimated 30,000 yd ³ of waste and debris."			

MDA P Closure Implementation
Approved Closure Plan Changes to Phase I Activities (continued)

Closure Plan Section/ Page	Closure Plan Information, As Submitted	Closure Plan Information, As Revised	Type of Change	Related Correspondence
1.1.3/ 1-8	"To achieve closure, the entire waste pile, including hazardous and non-hazardous waste and soil, will be removed. Approximately 16,500 cubic yards (yd ³) of debris and contaminated media will be excavated."	"To achieve closure, the entire waste pile, including hazardous and non-hazardous waste and soil, will be removed. Approximately 60,000* cubic yards (yd ³) of debris and contaminated media will be excavated. *52,187 cubic yards of media have been excavated and 55,093 cubic yards of waste were submitted for off-site disposal; 21,500 cubic yards of waste were hazardous."	Class I closure plan modification of waste estimates	May 13, 2002 letter ^d May 30, 2002 letter ^a
4.1.3.1/ 4.3	"Based on the estimated volume of the waste-pile volume (16,500 yd ³), a total of approximately 165 composite samples will be collected."	"Based on the estimated volume of the waste-pile and contaminated media 60,000* cubic yards (yd ³), a total of approximately 500 composite samples will be collected. *52,187 cubic yards of media have been excavated and 55,093 cubic yards of waste were submitted for off-site disposal; 21,500 cubic yards of waste were hazardous."		
Table 4-2/ 4-17	Table 4-2, Summary of Samples and Analysis, provides the number of samples based on 16,500 yd ³ of waste.	"Table 4-2, Summary of Samples and Analysis, was revised to provide the number of samples based on 60,000 yd ³ of waste."		
6.2.3/ 6-19	"The MDA P waste pile contains an estimated 16,500 yd ³ of waste and debris. It is anticipated that 500 yd ³ of excavated soil will require treatment. This estimate is based on professional judgment and visual inspection of the waste pile."	"The MDA-P waste pile contains an estimated maximum volume of 60,000 yd ³ of waste, debris, and contaminated media. It is estimated that 21,000 yd ³ of excavated soil will require treatment and disposal as hazardous waste at a permitted, off-site facility."		
Changes to the Closure Plan Sampling				
4.1.3.1/ 4-3	"Based on the estimated waste pile volume (30,000 yd ³), a total of approximately 300 composite samples will be collected."	"The estimated number of soil samples to be collected during Phase I will be proportional to the reduced estimated volume of waste of 16,500 cubic yards (165 composite samples). The new estimated number of soil samples has been reflected as a Class I Closure Plan Modification, submitted with the May 7, 1999 letter ^c . Duplicate, rinsate blank, and matrix spike samples were also adjusted to reflect the new estimate. (See new Table 4-2 replacement page in the May 7, 1999 letter ^c)."	Class I closure plan modification to Phase I sampling	July 22, 1998 letter ^a
Table 4-2	Summary of Samples and Analyses.			May 7, 1999 letter ^c

ER2003-0409

B-7

June 2003

Phase I Closure Implementation Report

MDA P Closure Implementation
Approved Closure Plan Changes to Phase I Activities (continued)

Closure Plan Section/ Page	Closure Plan Information, As Submitted	Closure Plan Information, As Revised	Type of Change	Related Correspondence
Changes to the Closure Plan Waste Management Procedures				
1.1.3/1-8	"The final rinsate from the debris will be sampled to demonstrate that any debris waste characteristics have been removed."	"The original Closure Plan had conflicting language (Section 1.1.3, Page 1-8, 3 rd paragraph) with respect to treatment or verification standard for hazardous debris currently contained in the approved Closure Plan per 20 NMAC 4.1, Subpart IX, 268.45(a)(1). The HRMB required the Laboratory to submit a Class I Closure Plan Modification under 20 NMAC 4.1, Subpart V, 270.42, Appendix I (a)(2): correction of typographical errors (March 10, 1999 letter ^b). The Laboratory submitted a Class I Closure Plan Modification for the typographical error, in which the sampling of decon water language was removed and replaced with visual inspection language consistent with Chapter 4 of the Approved Closure Plan (May 7, 1999 letter ^c)."	Class I Closure Plan Modification to Decontamination Procedure	March 10, 1999, letter ^b May 7, 1999, letter ^c
Table 4-2	Summary of Samples and Analyses			
6.3.2/6-28	"If Appendix VIII constituents are not detected in the final rinsate samples..."			
Not Applicable	Not Applicable	"The land disposal treatment standard for barium (7.6 mg/L) has changed as of May 26, 1998 (63 FR 28555). The HRMB has given the Laboratory permission to use the EPA's newly promulgated Phase IV LDR treatment standard of 21 mg/L in addition to identifying underlying hazardous constituents (UHCs) expected to be present in metal-bearing waste (D005-barium at 100 mg/L) (March 10, 1999 letter ^b)."	Regulatory Change	July 22, 1998, letter ^a September 18, 1998, letter ^f November 9, 1998, letter ^g March 10, 1999, letter ^b
Table 3-4/ 3-13	"Note (b) Because the HE was burned before disposal, D003 and K044 waste is not expected to be present. If the waste exhibits the characteristic of reactivity due to explosivity, it will be classified as D003 and K044 waste."	"HE is currently managed as any reactive characteristic hazardous waste (D003) and treated by Laboratory personnel at the 387 Burn Pad. To the best of the Laboratory's knowledge, all wastewater treatment sludge from the manufacturing and processing of explosives was burned to remove the characteristic (reactivity) for which it was listed (K044), thereby rendering it no longer listed per the mixture rule. Since detonable pieces of HE will be segregated from soil, the soil is not expected to be considered a reactive characteristic hazardous waste."	Regulatory Interpretation	July 22, 1998 letter ^a

MDA P Closure Implementation
Approved Closure Plan Changes to Phase I Activities (continued)

Closure Plan Section/ Page	Closure Plan Information, As Submitted	Closure Plan Information, As Revised	Type of Change	Related Correspondence
6.2.6/ 6-25	"This segregation area will be used for temporary storage of soils/debris in rolloff boxes or other containers and temporary storage of liquids in drums."	"Decontamination liquid is currently stored in several 20,000-gallon single walled steel tanks designed to fractionate solids from liquids. Stormwater is stored in three 10,000-gallon single walled steel tanks (each devoted to a separate runoff trench). Unknown liquids are either containerized or are already in containers. These are stored on spill pallets within the area of contamination until they can be characterized. Soils (both non-hazardous and hazardous) are stored separately within the area of contamination in 100 yd ³ lots. Small debris are staged in wire cage pallets to minimize handling. All liquids, soil, and debris removed from MDA P are stored in separate lined bermed pads."	Regulatory Interpretation	July 22, 1998 letter ^a May 7, 1999 letter ^c
6.2.6/ 6-24	"On-site treatment of contaminated soils or liquids will be conducted... The treatment will occur in less than 90 days and is exempted from permit requirements as described in 20 NMAC 4.1, Subpart V, Section 262.34. On-site treatment is expected to consist of stabilization of barium contaminated soils."	"During an April 8, 1999 meeting with HRMB, ER Project personnel discussed the possibility of finding F-listed constituents in soil or on debris removed from MDA P once excavation activities entered into the east lobe. Historically gasoline, kerosene, and solvents were used in an ignition train to start the burn process at the 387 Burn Pad and to keep the burn hot. In most cases, it is not possible for the Laboratory to determine whether the presence of a hazardous constituent was a product of incomplete combustion or the result of disposal of residues from an F-listed solvent. HRMB has approved an approach whereby the Laboratory will manage waste materials removed from MDA P as F-listed wastes only when there is directly observable evidence that the waste at issue, i.e., soils or debris, were in contact with an F-listed source. All other soil and debris waste will undergo waste characterization to determine whether the waste is a characteristic hazardous waste."	Regulatory Interpretation	May 20, 1999 letter ^h

MDA P Closure Implementation
Approved Closure Plan Changes to Phase I Activities (continued)

Closure Plan Section/ Page	Closure Plan Information, As Submitted	Closure Plan Information, As Revised	Type of Change	Related Correspondence
Not Applicable	Not Applicable	"In a September 18, 1998 letter ^c , HRMB stated that the sorting pad and filtration system for on-site treatment of barium-contaminated soils shall meet the requirement for a temporary unit as defined in 20 NMAC 4.1, Subpart V, Section 264.533. Currently, there are no intentions to treat barium-contaminated soils; therefore the use of a filtration system will not be implemented. The Laboratory believes that segregating pieces of HE from soil at MDA P does not constitute treatment because it does not alter the chemical or physical characteristics of the waste streams generated (November 9, 1999 letter ^c). The Laboratory is currently following EPA guidance for management of remediation waste in a document entitled "Management of Remediation Waste Under RCRA" (EPA 530-F98-026 dated October 1998) that allows consolidation of hazardous waste within an area of contamination without creating a new point of hazardous waste generation or triggering land disposal restrictions or minimum technology requirements."	Regulatory Interpretation	September 18, 1998 letter ^f November 9, 1998 letter ^g March 10, 1999 letter ^b May 7, 1999 letter ^c
6.2.6/ 6-25	"The treatment tank used for soil stabilization will be within this segregation area and bermed separately."	"Currently, there are no intentions to treat barium-contaminated soils; therefore there are no treatment tanks associated with soil stabilization for treatment of barium-contaminated soils within the segregation area."	Variance to Phase I Waste Treatment Procedures	July 22, 1998 letter ^a November 9, 1998 letter ^g

MDA P Closure Implementation
Approved Closure Plan Changes to Phase I Activities (continued)

Closure Plan Section/ Page	Closure Plan Information, As Submitted	Closure Plan Information, As Revised	Type of Change	Related Correspondence
2.1.1.3/2-4	"A surface runoff trench was installed in 1994 as a mechanism for erosion control that redirects rainwater and snowmelt around the waste pile and serves to limit infiltration of water into the waste pile."	"In March 1999, the Storm Water Pollution Prevention Plan for MDA P was updated to account for waste handling and management systems required at MDA P. As part of the new waste handling and management systems required for HE segregation, the west end of the trench has been filled with gravel to create a French drain. Stormwater will be redirected around the new hand sorting pad into the French drain. The sorting pad contains its own water containment and collection system."	Variance to Phase I Waste Handling Procedures	July 22, 1998 letter ^a
6.2.4/ 6-19	"Nearby, two 40- x 40-ft evaporation ponds will be constructed for the drying of treated soils."	"Since there will be no treatment of barium contaminated soils, the evaporation ponds have not been constructed. An HE hand sorting pad of similar dimensions has been used in the same location as the evaporation ponds."	Variance to Phase I Waste Treatment Procedures	July 22, 1998 letter ^a

- ^a July 22, 1998, letter from Julie Canepa and Theodore J. Taylor to Benito Garcia (LANL 1998, 59714) regarding potential operational deviations from the MDA P closure plan.
- ^b March 10, 1999, letter from Benito Garcia to Theodore Taylor and Dr. John C. Brown (NMED 1999, 63074), replying to the November 9, 1998, letter (LANL 1998, 62240) regarding the MDA P Closure Plan and correspondence related to operational deviations.
- ^c May 7, 1999, letter from Julie Canepa and Theodore J. Taylor to Benito Garcia (LANL 1994, 63409) regarding submittal of class 1 closure plan modification for MDA P and response to comments contained in the March 10, 1999 letter from HRMB (NMED 1999, 63074).
- ^d May 13, 2002, letter from Julie Canepa and Everett Trollinger to John Young (LANL 2002, 73159) regarding submittal of Revised Request for Class 1 Closure Plan Modification for Material Disposal Area (MDA) P.
- ^e May 30, 2002, letter from James Bearzi to John Brown and Everett Trollinger (NMED 2002, 73198), regarding Notice of Administrative Completeness and Approval of Revised Request for Class 1 Closure Plan Modification for Material Disposal Area P.
- ^f September 18, 1998, letter from Benito Garcia to Theodore J. Taylor and John C. Brown (NMED 1998, 62559) regarding the requirement of a Class 2 modification for the potential operational deviations from the MDA P Closure Plan.
- ^g November, 9, 1998, letter from Julie Canepa and Theodore J. Taylor to Benito Garcia (LANL 1998, 62240), responding to the September 18, 1998, letter.
- ^h May 20, 1999, letter from Julia Canepa and Theodore J. Taylor to James Bearzi (LANL 1999, 63343) regarding MDA P waste determination strategy.

EH2003-0409

B-11

June 2003

Phase I Closure Implementation Report

B-2.0 CORRESPONDENCE RELATING TO DEVIATIONS AND VARIANCES



University of California
Environmental Restoration Project, MS M992
Los Alamos, New Mexico 87545
505-667-0808/FAX 505-665-4747



U. S. Department of Energy
Los Alamos Area Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
505-667-7203/FAX 505-665-4504

Date: July 22, 1998
Refer to: EM/ER:98-232

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

**SUBJECT: POTENTIAL OPERATIONAL DEVIATIONS FROM THE MDA P
CLOSURE PLAN**

Dear Mr. Garcia:

The purpose of this letter is to outline potential operational deviations from the approved Closure Plan that may occur during waste removal activities at Material Disposal Area (MDA) P, and to follow-up as requested during the meeting with representatives of the Hazardous and Radioactive Materials Bureau on June 17, 1998, at which these potential operational deviations were discussed.

In November of 1997, detonable pieces of high explosives (HE) were discovered during the excavation of test pits into MDA P. The presence of these detonable pieces of HE has caused a schedule delay in the implementation of the approved Closure Plan in order to re-evaluate all safe operating practices. Depending on whether a risk assessment will be required, Los Alamos National Laboratory may or may not exceed the 24 to 26 months allowed to complete closure activities as depicted in Figures 6-2 and 6-3 of the approved Closure Plan.

The following operational activities have been modified or added to accommodate either safety or waste management issues.

- The site layout has been modified to allow 100-ft buffer areas for safe operating distances (to allow for potential detonation over-pressures) between waste management operations that will proceed concurrently. Waste management operations include excavation, segregation, sorting, decontamination, and treatment. Portable blast shields will be in place to protect personnel from secondary fragments.

A hand-sorting pad will be constructed west of the interim status 387 Burn Pad. It will consist of a curbed, concrete pad with a water collection sump, underlain by an appropriate liner. Space restrictions require that the pad be built on or near overlapping solid waste management units adjacent to MDA P [16-016(c) and 16-010(b)].

- Water from decontamination and sorting operations will be reused by recycling it through a filtration system. This system will consist of a skid-mounted filter system plumbed to fractionation and holding tanks installed in a bermed area lined for secondary containment. Filters generated as a result of this process will be managed as listed hazardous waste (K045).
- Residues resulting from generator treatment of barium contaminated soils will be sampled and analyzed for proper waste management. The approved Closure Plan generally specifies that sampling and analysis will be done for proper disposition of waste, but does not contain definitive language for residues from onsite treatment.

The land disposal treatment standard for barium has changed as of May 26, 1998 (63 FR 28555). Because barium contaminated soil will be stabilized onsite, the Laboratory requests a determination of whether it should use the updated treatment standard for industrial hazardous waste or whether it could use the new soil treatment standard of a 90% reduction of the concentration of hazardous constituents, capped at 10 times the universal treatment standard.

- Detonable pieces of HE will be segregated from soils by trained, experienced personnel. The HE will be managed as characteristic hazardous waste (D003) and treated by Laboratory personnel at the interim status 387 Burn Pad. Generated soil will not be considered listed hazardous waste (K044) because, to the best of our knowledge, all wastewater treatment sludge from the manufacturing and processing of explosives was burned to remove the characteristic (reactivity) for which it was listed; thereby rendering it no longer listed per the mixture rule. Since detonable pieces of HE will be segregated from soil, the soil will not be considered a reactive characteristic hazardous waste (D003).
- A large volume of clean fill that composes the morphologic feature of MDA P will not be removed, but will be sampled during the Phase II verification activities. The entire southern part of the morphologic feature of MDA P is composed of apparently uncontaminated soils placed during the original construction of the burning grounds in 1950. Waste disposal occurred over the leading edge of the soils and aggregated over time.

The estimated number of soil samples to be collected during Phase I will be proportional to the reduced estimated volume of waste to be excavated, segregated and managed.

- The schedule for project completion is currently unknown, but may require a plan modification if it deviates from the original schedule specified in Figures 6-2 and 6-3 of the approved Closure Plan.

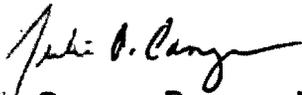
A table was developed outlining the existing sections of the approved Closure Plan and the potential deviations from the plan. This table is enclosed as requested during the meeting. The Laboratory is in the process of implementing closure activities; therefore, we request your concurrence that all potential deviations may be

July 22, 1998

documented in the Closure Certification Report as operational deviations (unless the "Potential Deviation" column specifies that modification of the Closure Plan is required by July 31, 1998). We are also requesting your assistance with determining the appropriate land disposal treatment standard for barium contaminated soil, as mentioned above.

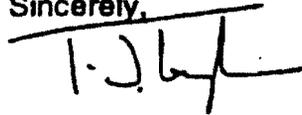
If you wish to further discuss the subject of this letter, please contact Dave McInroy at (505) 667-0819 or Joe Mose at (505) 667-5808.

Sincerely,



Julie Canepa, Program Manager
EM/ER

Sincerely,



Theodore J. Taylor, Program Manager
DOE/LAO

JC/TT/HW/dm

Enclosure: TA-16 MDA P Closure Plan Deviation Review

Cy: K. Bostick, EES-15, MS J495
J. Elvinger, ESH-19, MS K490
T. Grieggs, ESH-19, MS M992
H. Haynes, LAAO, MS A316
D. McInroy, EM/ER, MS M992
R. Michelotti, CST-7, MS E525
V. Rhodes, EM/ER, MS M992
T. Taylor, LAAO, MS A316
R. Dinwiddie, NMED-HRMB
M. Leavitt, NMED-GWQB
J. Parker, NMED-HRMB
G. Saums, NMED-SWQB
S. Yanicak, NMED-AIP, MS J993
EM/ER File (CT #C084), MS M992
EM/ER File, MS M992
RPF, MS M707

Subsection / Page	Closure Plan Language	Potential Deviation
<p>1.1.3 / 1-9</p> <p>6.2.4 / 6-21</p>	<p>After the waste materials are removed and decontaminated, the underlying soil will be over excavated... the approximate depth of this over excavation is expected to be two feet.</p> <p>Excavation will continue until the closure standards are thought to have been reached. This over excavation is estimated to be approximately 2 ft deep.</p>	<p>Because of the presence of highly welded tuff underlying MDA P, over excavation of two feet will be attempted, as necessary, but may not be possible due to geologic conditions. There are two units of the Bandelier Tuff underlying MDA P. The upper part of MDA P rests on unwelded tuff that excavates easily; the lower part rests on highly welded tuff that forms a very resistant ledge and is very difficult to excavate.</p>
<p>2.1.1.3 / 2-4</p>	<p>A surface run-on trench was installed in 1994 as a mechanism for erosion control [that] redirects rainwater and snowmelt around the waste pile [and] serves to limit infiltration of water into the waste pile.</p>	<p>As part of the waste handling and management systems required, the west end of the trench will be filled with gravel to create a French drain. Water will be redirected around the new hand-sorting pad into the French drain. The sorting pad will have its own water containment and collection system.</p>
<p>Table 3-4 / 3-13</p>	<p>Note (b) Because the HE was burned before disposal, D003 and K044 waste is not expected to be present. If the waste exhibits the characteristic of reactivity due to explosivity, it will be classified as D003 and K044 waste.</p>	<p>Detonable pieces of HE were observed during the excavation of test pits. All detonable pieces of HE will be separated from soil by hand, thereby; soil is not expected to exhibit the characteristic of reactivity. The pieces of HE will be managed as characteristic hazardous waste (D003) and treated by LANL personnel at the interim status 387 Burn Pad. Pieces of detonable HE are not considered sludge, therefore, K044 will not apply.</p>
<p>4.1.2 / 4-3</p>	<p>Baseline levels will be established for the soil at the top of the mesa in the approximate location of the closure waste handling/ management areas... baseline levels will be established by collecting 10 samples from locations distributed over the... area</p>	<p>Baseline levels for the newly established hand sorting and generator treatment area will be established by collecting additional samples in accordance with the Closure Plan to delineate contamination generated from closure activities from existing contamination within the adjacent SWMUs.</p>
<p>4.1.3.1 / 4-3</p>	<p>Based on the estimated waste pile volume (30,000 yd³), a total of approximately 300 composite samples will be collected.</p>	<p>Because the estimated waste volume has been revised to (11,000 yd³), the number of samples to be collected will be proportional to the revised</p>

Potential deviations from the approved Closure Plan will be documented in the Closure Certification Report unless otherwise specified.

		estimate (e.g., a total of approximately 110 composite samples will be collected).
4.2.2 / 4-6	If sample analysis indicates that contamination levels are above the preremoval baseline UTLs, contamination will be removed, and resampling will occur until preexisting baseline levels are reached.	Because the hand sorting pad and the generator treatment area will overlap SWMUs, the areas will be sampled and decontaminated as required.
6.1.1.4 / 6-7	An amendment to the Closure Plan will be submitted to the NMED whenever... a change occurs in the expected year of closure...	The presence of detonable pieces of HE has caused a schedule delay in the implementation of the approved Closure Plan in order to re-evaluate all safe operating practices. If a change of the expected year of closure occurs, an amendment to the Closure Plan will be submitted.
6.1.2.2 / 6-9 6.2.7 / 6-26	If completion of final closure will take longer than 26 months from the time the closure plan is approved, the Laboratory will submit a closure plan amendment... If a risk assessment is necessary but additional waste removal is not required, the total time to complete closure is estimated to be 26 months... This schedule assumes no unanticipated delays.	Unanticipated delays have been incurred due to the presence of detonable pieces of HE. If it is determined that closure will exceed, the schedules provided in Figures 6-2 and 6-3 of the approved Closure Plan, a plan amendment will be submitted.
6.2.4 / 6-19	Nearby, two 40-ft by 40-ft evaporation ponds will be constructed for the drying of treated soils	The evaporation ponds will not be utilized, but will be replaced by a HE hand-sorting pad of similar dimensions. The hand-sorting pad will be located west of the 387 Burn Pad and will overlap SWMUs 16-016(c) and 16-010(b)
6.2.6 / 6-25	If the treatability study is conducted onsite, the NMED Director will be notified in writing...	A treatability study will be conducted by an off-site laboratory. Current NMED regulatory requirements do not specify notification for off-site treatability studies.

<p>6.2.6 / 6-25</p>	<p>This segregation area will be used for temporary storage of soils/debris in rolloff boxes or other containers and temporary storage of liquids in drums</p>	<p>The segregation area will be used for staging of debris. Large debris will not be staged in containers, small debris will be staged in wire cage pallets to minimize handling. Liquids will be staged in a separate area within MDA P.</p>
<p>6.2.6 / 6-25</p>	<p>The treatment tank used for soil stabilization will be within this segregation area and bermed separately</p>	<p>The treatment system used for soil stabilization will be located in a separate area to the southwest of MDA P</p>



GARY E. JOHNSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous & Radioactive Materials Bureau
2044 Galisteo Street
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-1557
Fax (505) 827-1544

4



PETER MAGGIORE
SECRETARY

NEW MEXICO • ENVIRONMENT • NEW

ER PROJECT OFFICE RECEIVED SEP 22 1998

Certified Mail
Return Receipt Requested

Received by LIA-RPF
OCT 16 1998
SM

September 18, 1998

Mr. Theodore Taylor, Program Manager
Los Alamos Area Office
Department of Energy
528 35th Street, MS A100
Los Alamos, New Mexico 87544

Dr. John C. Browne, Director
Los Alamos National Laboratory
P. O. box 1663, MS A100
Los Alamos, New Mexico 87545

Re: Requirement for Class 2 Permit Modification for the Potential Operational Deviations from the MDA P Closure Plan

Dear Mr. Todd and Dr. Browne:

This letter is in response to Los Alamos National Laboratory's (LANL's) correspondence dated July 22, 1998 (EM/ER:98-232), regarding the Potential Operational Deviations from the MDA P Closure Plan. Class 2 Permit Modifications requirements and technical issues arising from the contents of LANL's letter are addressed below.

The changes to the closure plan described are a result of unexpected events occurring during closure of the site. According to 20 NMAC 4.1, subpart IX, 40 CFR 270.42, Appendix I - D, Closure a Class 2 Permit Modification is required for "Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this Appendix." Furthermore, the necessity for a temporary unit requires a Class 2 permit modification. Therefore, LANL shall submit the changes as a Class 2 Permit Modification request.

Based on the proposed changes in LANL's July 22, 1998 letter, the following technical issues shall be addressed in the Class 2 Permit Modification request.

1. All proposed changes to the closure plan to include high explosive (HE) handling

Mr. Taylor & Dr. Browne
September 18, 1998
page 2.

processes shall be clarified using process flow diagrams and narrative summaries that illustrate and describe all waste streams and their ultimate disposal.

2. Up-to-date figures illustrating the proposed new processes shall be included.
3. The filtration system and sorting pad shall meet the requirements for temporary units as defined in 20 NMAC 4.1, 40 CFR 264.553 - temporary units, and 40 CFR 270.42 Appendix 1.D.3.e - requirements for a Class 2 permit modification.
4. The state of New Mexico has not adopted the new land disposal requirements (LDR's) and therefore the more conservative concentration for barium still apply.
5. If the proposed hand-sorting pad is constructed over an existing potential release site then using this area for baseline sampling is not acceptable.
6. LANL shall include waste analysis plans (WAP's) for all waste streams including filters and soil generated from the sorting operation. A WAP may not be necessary for the decon water used in steam cleaning the debris if all LDR requirements for debris alternative treatment standards are met. These WAP's shall include sampling for underlying constituents and radioactivity.
7. Closure performance standards of SAL's or risk based clean up levels shall be met. If limited excavation of the tuff is proposed, additional sampling shall be proposed where contamination is below SAL's or risk based clean up levels is left in place.
8. LANL shall provide an adequate sampling and analysis plan which addresses depth (e.g. every 2 feet), location, and percentage of full suite analysis, to confirm the identified clean fill area. This sampling and analysis shall be performed in Phase I. If contamination is found above the performance standards the removal procedure shall be described. Rather than perform a detailed sampling and analysis plan of the clean fill it may be economically beneficial for LANL to choose to remove the clean fill and dispose of appropriately.

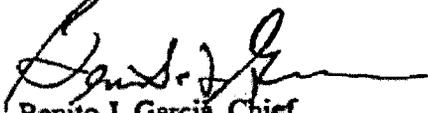
NMED suggest that DOE/LANL work closely with NMED AIP staff in preparing the class 2 permit modification request to ensure that the level of detail of the responses is adequate.

DOE/LANL must submit a class 2 permit modification request which addresses the items listed above within sixty (60) calendar days of receipt of this letter.

Mr. Taylor & Dr. Browne
September 18, 1998
page 3.

Should you have any questions regarding this letter, please contact me or Mr. John Kieling,
HRMB's LANL Facility Manager, at (505) 827-1558.

Sincerely,



Benito J. Garcia, Chief
Hazardous and Radioactive Materials Bureau

BJG:lw

CC w/ attachments:

J. Cancpa, LANL EM/ER, MS M992
J. Davis, NMED SWQB
J. Ellvinger, LANL ESH19, MS K490
B. Garcia NMED HRMB
M. Johansen, DOE LAAO, MS A316
J. Kieling, NMED HRMB
L. Winn, NMED HRMB
M. Leavitt, NMED GWQB
H. LeDoux, DOE LAAO, MS A316
D. McInroy, LANL EM/ER, MS M992
D. Neleigh, EPA, 6PD-N
J. Parker, NMED DOE OB
S. Yanicak, NMED DOE OB, MS J993
J. Plum, DOE LAAO, MS A316
File: Reading and RED LANL TA-16, MDA P'98
Track: LANL, 9/18/98, NM, DOE/LANL, HRMB/Garcia, RE, File

W. J. GARDNER



University of California
Environmental Restoration Project, MS M992
Los Alamos, New Mexico 87545
505-667-0808/FAX 505-665-4747

U. S. Department of Energy
Los Alamos Area Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
505-667-7203/FAX 505-665-4504

Date November 9, 1998
Refer to EM/ER:98-442

Mr. Benito J. Garcia
HRMB-NMED
P.O. Box 26110
Santa Fe, New Mexico 87502

**SUBJECT: RESONSE TO SEPTEMBER 18, 1998, LETTER FROM HRMB AND
SUBSEQUENT MEETING REGARDING THE REQUIREMENT FOR A
CLASS 2 MODIFICATION FOR THE POTENTIAL OPERATIONAL
DEVIATIONS FROM THE MDA-P CLOSURE PLAN**

Dear Mr. Garcia:

The purpose of this letter is to provide the Hazardous and Radioactive Materials Bureau (HRMB) additional information on the technical issues identified in the letter to Los Alamos National Laboratory dated September 18, 1998, from HRMB. In addition, this letter provides a summary of the meeting held with representatives of the HRMB and the Department of Energy (DOE) Oversight Bureau on October 5, 1998, and includes additional information, as requested by HRMB after the meeting. This information is included as Enclosure 1. Further, the Laboratory requests concurrence in writing that substituting the alternative treatment standard for hazardous debris for the verification standard currently contained in the approved Closure Plan does not constitute a modification of the plan.

The September 18, 1998, letter from HRMB indicates that the changes specified in the Laboratory's letter dated July 22, 1998, regarding potential operational deviations from the Material Disposal Area P (MDA-P) Closure Plan were considered "unexpected events occurring during closure of the site." HRMB appears to be referring to safety and waste management operational issues regarding detonatable pieces of high explosive (HE) to be remediated within the MDA-P Area of Contamination (AOC). Although the size and concentration of detonatable pieces of HE prompted changes regarding operational safety, these changes have not altered the Laboratory's ability to meet the closure performance standard. The Laboratory believes that finding detonatable pieces of HE within the AOC was not unexpected as the following language in the approved Closure Plan explicitly refers to the presence of HE at the site. The plan states "One safety officer, employed by the contractor, will be responsible for general safety. The second safety officer, employed by Laboratory Technical Area (TA) 16 operations, will be responsible for evaluation of **any HE** [emphasis added] contamination in the excavated material."

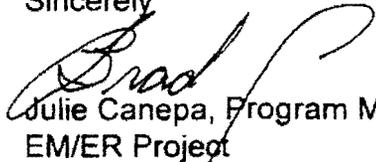
Further, Section 6.1.1.4 of the approved Closure Plan indicates that "No changes in unit operating plans or design are expected that would require amendment of the closure plan." This section also describes an unexpected event as something that "would include the discovery of hazardous waste or mixed-waste residuals that cannot be removed or decontaminated to meet the closure performance standard or additional excavation and sampling that may be required (e.g., removing contaminants in cracks or fractures)." Finally, Table H-8 of the approved Closure Plan in Appendix H lists specific HE analytes relative to Method 8330 which will be used for verification sampling of waste generated during closure activities. In summary, the Laboratory concludes that there is ample language in the approved Closure Plan to support the proposition that the presence of HE in the AOC was not an "unexpected" event. Thus, the Laboratory believes that a class 2 modification of the approved Closure Plan is not required and consequently, should not be submitted.

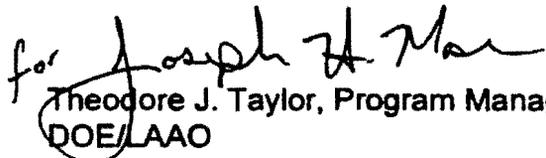
The Laboratory does recognize that any change in the schedules provided in Figures 6-2 and 6-3 of the approved Closure Plan would require an amendment to the plan pursuant to 20 NMAC 4.1, Subpart VI, [40 CFR 265.112] and Section 6.1.2.2 of the approved Closure Plan.

As indicated by Lee Winn of HRMB, in the October 7, 1998, telephone conversation, it does not appear that the Laboratory is required to submit a Class 2 modification of the approved Closure Plan.

If you desire to discuss the subject of this letter, please contact Dave McInroy at (505) 667-0819 or Joe Mose at (505) 667-5808.

Sincerely,


Julie Canepa, Program Manager
EM/ER Project

for 
Theodore J. Taylor, Program Manager
DOE/LAO

JC/TT/HWB/dm

Enclosures: Response to Technical Issues
Flow Diagrams
MDA-P Site Map
Waste Analysis Plan for Barium-Contaminated Soil

Cy: K. Bostick, EES-15, MS J495
B. Crizwell, Roy F. Weston, MS M992
S. Den-Baars, IT Corporation, MS K490
J. Ellvinger, ESH-19, MS K490
T. Grieggs, ESH-19, MS M992
H. Haynes, LAAO, MS A316
D. McInroy, EM/ER MS M992
W. Neff, CST-7, MS M992
J. Rochelle, LC-GL, MS A187
C. Hules, NMED-SWB
M. Leavitt, NMED-GWQB
J. Parker, NMED-HRMB
G. Saums, NMED-SWQB
S. Yanicak, NMED-AIP, MS J993
EM/ER File (CT# 546), MS M992
EM/ER File, MS M992
RPF, MS M707

Enclosure 1 Response to Technical Issues

Responses to specific technical issues raised in the letter from HRMB dated September 18, 1998 are addressed below. To facilitate review of this response, the wording on technical issues in HRMB's September 18, 1998, letter is included verbatim in italics. The Laboratory's response follows each HRMB comment.

RESPONSE TO TECHNICAL ISSUES

- 1 All proposed changes to the closure plan to include high explosive (HE) handling processes shall be clarified using process flow diagrams and narrative summaries that illustrate and describe all waste streams and their ultimate disposal.***

Although process flow diagrams of waste management operations were not required in the approved Closure Plan, the following are included as Enclosure 2 for your information.

- Excavation Process Flow
- Process Flow for Soils
- Process Flow for Debris

The Laboratory previously provided this information during a presentation on June 17, 1998, prior to submittal of our July 22, 1998, letter. Laboratory representatives also escorted a representative from the DOE Oversight Bureau of New Mexico Environmental Department (NMED) through the site on September 2, 1998, to view the area and an updated map of the site first hand.

- 2. Up to date figures illustrating the proposed new processes shall be included.***

The only "new process" proposed in our July 22, 1998, letter was the proposal to reclaim decontamination water and water generated during waste management operations within the AOC, such as excavation de-watering and run-off (collected in sumps) from staged soil or debris. However, due to operational considerations, the reclamation of decontamination water and the use of a filtration system associated with that process will not be implemented. Hence, no new processes are being proposed.

Waste segregation (i.e., segregating detonable pieces of HE from soil within MDA-P is not considered treatment: it is segregation. The Federal Register dated March 8, 1990 (55FR, 8759) indicates that if RCRA standards were applied to each movement of waste already in a unit, "...virtually no operational activities could occur at any RCRA land disposal unit containing hazardous waste without pretreatment of any waste disturbed by the operation: clearly an infeasible approach." Waste segregation is a common practice at RCRA corrective action sites and is necessary to facilitate final disposition of generated waste streams from these sites (i.e., to meet the receiving facility's waste acceptance criteria).

- 3. The filtration system and sorting pad shall meet the requirements for temporary units as defined in 20 NMAC 4.1, 40 CFR 264.553-temporary units, and 40 CFR 270.42 Appendix I.D.3.e-requirements for a Class 2 permit modification.***

As previously stated, the reclamation of decontamination water and the use of a filtration system associated with that process will not be implemented.

The sorting pad is contained within the AOC at MDA-P and is shown in the map provided as Enclosure 3. The Laboratory believes that the process of segregating pieces of HE from soil excavated at MDA-P clearly does not constitute treatment because it does not alter the chemical or physical characteristics of the waste streams generated (e.g., detonable pieces of HE retain their chemical and physical composition and contaminated soil retains its chemical and physical composition). These waste streams must be segregated because they are subject to different treatment standards and will be managed at different facilities. Environmental Protection Agency (EPA) policy allows repositioning of waste within the AOC without being considered newly generated and thus, the waste is not regulated as stored hazardous waste. In addition, Section 6.2.4 of the approved Closure Plan allows for segregation of waste materials. The excavation process flow diagram is provided in Enclosure 2. The Laboratory will not be operating a temporary unit to treat or store hazardous remediation waste and so a class 2 modification to the approved Closure Plan is not needed.

4. *The state of New Mexico has not adopted the new land disposal requirements (LDR's) and therefore the more conservative concentration for barium still apply.*

The Laboratory originally raised the subject of Land Disposal Restriction (LDR) treatment standards because the standard for barium recently changed as of May 26, 1998, (63 FR, 28555) and the Laboratory is proposing to conduct generator treatment of barium contaminated soil excavated from MDA-P. As part of the newly promulgated Phase IV LDR treatment standards, EPA re-evaluated available treatment performance data from wastes containing significant concentrations of barium. (The barium concentration in soil proposed for generator treatment at MDA-P ranges from 100 to 2,500 mg/L.) As a result, EPA changed the barium treatment standard from 7.6 mg/L to 21 mg/L because it "better reflects the diversity of metal-containing waste streams and their treatment." In addition, the Phase IV LDR treatment standards added the requirement to identify underlying hazardous constituents (UHCs) reasonably expected to be present in metal-bearing wastes. Phase IV indicates that "the more stringent HSWA portion of this rule will become effective at the same time in all states."

HRMB has indicated that the Laboratory is required to comply with the "more conservative concentration for barium". Although the treatment standard for barium in 20 NMAC 4.1, Subpart VIII is 7.6 mg/L (which is more conservative than Phase IV), it is also less stringent than Phase IV because it does not require the identification of UHCs for metal-bearing waste. To further complicate the issue, the Laboratory's site-wide background for barium in soil is 295 mg/kg. Thus, it would be exceedingly difficult for the Laboratory to meet the LDR treatment standard of 7.6 mg/L for native uncontaminated soil.

Since the Laboratory cannot meet HRMB's LDR treatment standard of 7.6 mg/L, we are requesting HRMB's use of discretionary authority to invoke a "no longer contained in" determination that would essentially adopt EPA's newly promulgated treatment standard of 21mg/L and UHCs. That is, soil treated to meet the Phase IV LDR treatment standard of 21 mg/L and UHCs would be determined to no longer contain the characteristic hazardous waste (D005-barium at 100mg/L). This option would allow the

Laboratory to manage the waste as New Mexico special waste and meet off-site waste acceptance criteria and the federal regulatory requirement without compromising protection of human health or the environment. An example of EPA codifying the "contained in rule" for characteristic hazardous waste is provided at 40 CFR 261.3(f) which allows the Regional Administrator to determine when the debris is no longer contaminated with hazardous waste.

5. *If the proposed hand-sorting pad is constructed over an existing potential release site then using this area for baseline sampling is not acceptable.*

The intent of sampling any contaminated location (i.e., those areas that overlap existing SWMUs) was simply to determine whether the closure activities to be conducted at MDA-P affected the area, above or beyond existing contamination derived from nearby Laboratory operations that are not related to MDA-P (refer to section 4.1.2 of the approved Closure Plan).

6. *LANL shall include waste analysis plans (WAP's) for all waste streams including filters and soil generated from the sorting operation. A WAP may not be necessary for the decon water used in steam cleaning the debris if all LDR requirements for debris alternative treatment standards are met. These WAP's shall include sampling for underlying constituents and radioactivity.*

The approved Closure Plan does not require waste analysis plans for all waste streams generated as part of closure activities at MDA-P. Uncontaminated soil is not considered a solid waste in the sense of being abandoned, recycled, or inherently waste-like as those terms are defined in the regulations, but rather is an environmental medium. EPA policy interprets its regulations to require that environmental media which contains hazardous waste must be managed as hazardous waste. Soil segregated as part of the excavation process will be field screened for volatile organic compounds, radionuclides, asbestos, barium and quantitatively analyzed for HE using approved or proposed SW-846 methodologies including 8515 for nitroaromatics [TNT and nitroamines] and 8510 for RDX. NOTE: Method 8510 is a proposed SW-846 method that may not be approved until spring of 1999. These qualitative and quantitative screening techniques will be utilized to initially segregate hazardous waste soil (D005 and/or D003) from non-hazardous waste soil. Segregated soil is not expected to be considered an explosive characteristic hazardous waste (D003); however, initial quantitative screening and fixed laboratory analysis (Method 8330) will confirm this determination. All stained soil will be segregated and managed separately.

A WAP is provided as Enclosure 4 in accordance with 20 NMAC 4.1, Subpart VIII [40 CFR 268.7(a)(5)] for generator treatment of barium-contaminated soil. The WAP includes language on waste generating activities, describes the waste to be treated in a less-than-90-day accumulation area, describes the treatment process, and includes verification sampling and analysis to ensure that the treated waste meets LDR standards. WAPs should not be required for generated waste excavated from MDA-P unless subsequent treatment will be conducted, as in the case of barium-contaminated soil.

The Laboratory concurs that a WAP would not be required if the Laboratory chose to invoke the alternative treatment standards for hazardous debris specified in 20 NMAC

4.1, Subpart VIII, [40 CFR 268.45]. However, the Laboratory requests concurrence in writing that substituting this alternative treatment standard for the verification standard currently contained in the approved Closure Plan for debris does not constitute a modification of the plan.

7. *Closure performance standards of SAL's or risk based clean up levels shall be met. If limited excavation of the tuff is proposed, additional sampling shall be proposed where contamination is below SAL's or risk based Clean up levels is left in place.*

The Laboratory will meet the closure performance standards as specified in the approved Closure Plan. Section 6.2.4 of the approved Closure Plan states "After the waste pile is removed, excavation will continue into the underlying subsoils and tuff. ...Excavation will continue until the closure standards are thought to have been reached. This over excavation is estimated to be approximately 2 ft deep....Some areas will be excavated to different depths than others." The Laboratory did not propose limited excavation of tuff, but rather indicated that the presence of highly welded tuff underlying MDA-P may make "over excavation" of the tuff difficult. Further, the Laboratory included a description of "clean fill" in the July 22, 1998, letter to identify fill materials used during the initial construction of the 387 Burn Pad. The morphology of MDA-P cannot simply be viewed as the extent of the waste pile, therefore, our description was meant to inform HRMB of the revision of the conceptual model.

As agreed in the meeting on October 5, 1998, verification that the MDA-P closure performance standard has been met pursuant to the approved Closure Plan is part of Phase 2 and will be negotiated through future meetings with HRMB, as appropriate. The approved Closure Plan states "The Laboratory will obtain NMED approval for the number and location of boreholes to be used to define the vertical extent of contamination."

8. *LANL shall provide an adequate sampling and analysis plan which addresses depth (e.g. every 2 feet), location, and percentage of full suite analysis, to confirm the identified clean fill area. This sampling and analysis shall be performed in Phase I. If contamination is found above the performance standards the removal procedure shall be described. Rather than perform a detailed sampling and analysis plan of the clean fill it may be economically beneficial for LANL to choose to remove the clean fill and dispose of appropriately.*

Determination of whether the closure performance standard has been met is a Phase 2 activity that will be conducted in accordance with section 4.2.1 of the approved Closure Plan. The Laboratory has previously indicated that there is a large volume of clean fill that composes the morphologic feature of MDA-P. Once all debris and obviously contaminated soil or tuff has been removed from MDAP, confirmatory samples will be collected from the exposed surface and downslope from the former waste pile to assess whether the concentrations of the remaining soil (i.e. the "clean fill") and tuff are below acceptable levels and the closure performance standard has been met.

The Laboratory believes that the approved Closure Plan adequately covers sampling and analysis of the "clean fill"; therefore, an additional sampling and analysis plan will

not be submitted, and the sampling and analysis will not be performed in Phase 1. Section 1.1.2 of the approved Closure Plan outlines a contingent approach that may be followed if any remaining Appendix VIII constituent concentrations equal or exceed the criteria specified in the plan that allows soil and or tuff to be left in place. The Laboratory will address any Phase 2 issues, as appropriate, through future meetings with HRMB.

During a telephone conversation on October 7, 1998, with the Laboratory representative, Holly Wheeler-Benson and Lee Winn of HRMB, additional information was requested by Ms. Winn on behalf of HRMB. The following issues raised by Ms. Winn are addressed in the Laboratory's response to the September 18, 1998, letter from HRMB provided in the text above.

- Provide a response to items #1 and 2 in the September 18, 1998 letter from HRMB.
- Reiterate that a change in schedule regarding closure activities at MDA-P would require modification of the approved Closure Plan.
- Indicate how the Laboratory knows that segregated soil would not be explosive characteristic hazardous waste (D003).

The following additional issues raised by Lee Winn are address below

- Provide clarification regarding generator treatment. Indicate when the less-than-90-day start date begins.
Indicate how the clean and treated soil and debris waste will be containerized at the staging area(s).
- Discuss de-watering of barium contaminated soil (presumably during generator treatment).
- Include characterization information regarding process waste streams generated.
- Indicated how barium sands will be managed.

Generator treatment will occur at Staging Area 1 identified in Figure 2-4 of the approved Closure Plan in accordance with 20 NMAC 4.1, Subpart V, [40 CFR 264, Subpart I]. Although the approved Closure Plan indicates that on-site treatment of contaminated soils will be conducted in tanks meeting the requirements of 20 NMAC 4.1, Subpart V [40 CFR 264.192 through 264.199] it goes on to describe the treatment process as follows: "The soil will be loaded into a hopper and placed in a mixer. It is expected that 12-yd³ batches will be mixed using mix equipment similar to a Maxon Paddle Mixer or possibly a 10-yd³ cement mixer truck. The mixer will be placed in a secondary containment system consisting of an 80-mil HDPE liner with 4-in. curbing made of wood. The equipment will be supported with a concrete pad." This description of the mix equipment fits the definition of a container, as it is a portable device, rather than a tank meeting 40 CFR 264.192 through 264.199 standards. The less-than-90-day start date for generator treatment of barium-contaminated soil at a less-than-90-day accumulation area will begin when the waste leaves the AOC, which is currently designated as the "exclusion zone boundary" on the map provided as Enclosure 3. The Laboratory will remove all debris and obviously contaminated soil associated with operations at MDA-P as part of Phase I, even if it is found outside of the exclusion zone boundary identified in Enclosure 3. Additional information regarding the proposed

generator treatment of barium contaminated soils is included in the Laboratory's response to #6 above and in Enclosure 4.

Non-hazardous waste soil, treated formerly characteristic hazardous waste, and debris will be staged on a 80-mil high-density polyethylene (HPDE) liner overlain by a protective layer of soil and gravel and bermed to contain any liquids. Non-hazardous waste soil and treated formerly characteristic hazardous waste will be covered with a tarp or other appropriate cover until verification sampling results are received and the waste is placed in dump trucks for off-site disposal.

At the point when these waste streams are staged outside of the AOC (for non-hazardous waste soil and debris) and after generator treatment of barium-contaminated soil, the waste would be considered "solid waste" pursuant to 20 NMAC 9.1, Section 105BV. Non-hazardous waste soil and debris staged outside of the AOC is considered "construction and demolition debris" pursuant to 20 NMAC 9.1, Section 105.T and does not require containerization. On October 27, 1998, Alex Puglisi of the Hazardous and Solid Waste Group contacted Charles Hules of the Solid Waste Bureau requesting a determination of whether treated formerly characteristic hazardous waste could be staged on a HPDE liner overlain by a protective layer of material, bermed to contain liquids and covered with a tarp or other appropriate cover. Mr. Hules indicated that the Laboratory could use provisions similar to those provided for petroleum contaminated soil to stage this waste stream prior to off-site disposal, provided that it was protective of the environment and the public health, welfare and safety and provided that it could not be discharged to surface water and would not be disbursed into the air (thus, the cover).

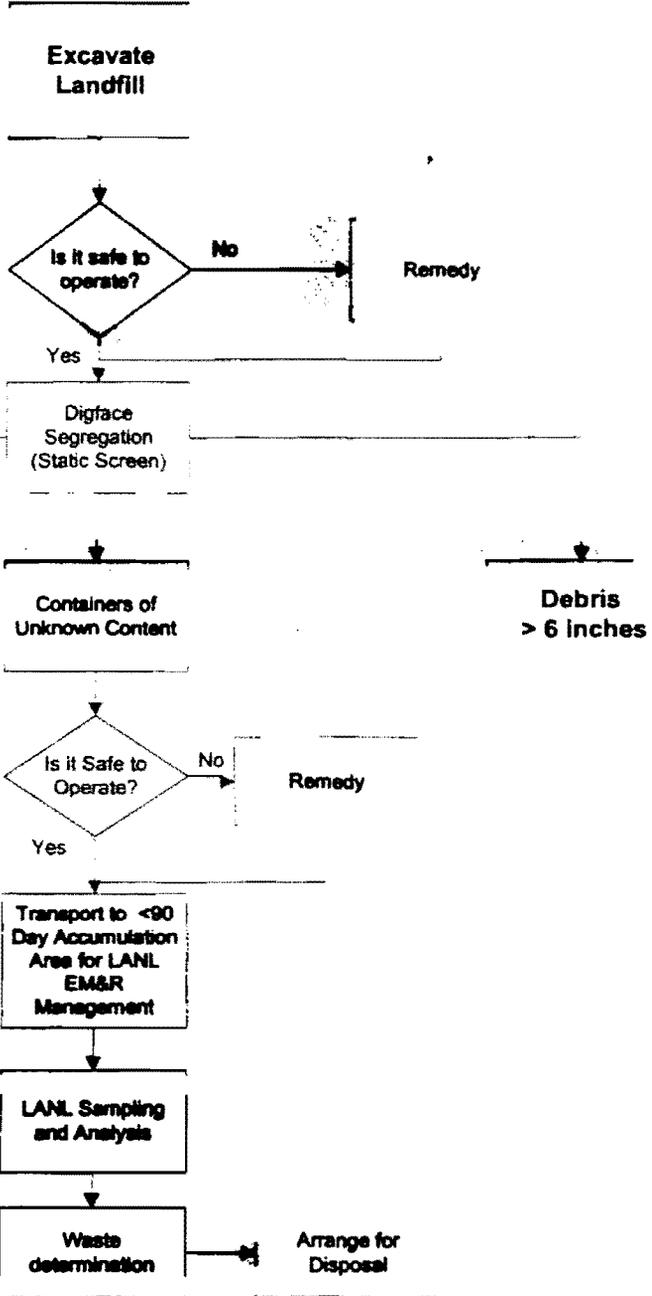
Section 6.2.6 of the approved Closure Plan indicates the treated barium-contaminated soil is expected to produce a moisture-free stabilized soil that will pass the paint filter test. Both treatment equipment and the treated formerly characteristic hazardous waste soil will be covered with tarps or other appropriate cover to prevent storm-water infiltration. Treatment and subsequent staging of the treated soil will be on a HPDE liner overlain by a protective layer of soil and bermed to contain water. Generator treatment of barium contaminated soil is described in the Waste Analysis Plan provided as Enclosure 4.

Process waste such as sludge or sedimentation generated from storage of decontamination water or storm-water will be characterized once it is generated. Decontamination water will be collected, sampled, and analyzed as specified in Sections 4.3.1 and 4.7.1 of the approved Closure Plan. As specified in Section 6.2.6 of the approved Closure Plan, water run-off will be collected, sampled, and analyzed for the waste constituents present in the waste pile as discussed in Section 4.7.1. All process waste streams will be managed based on sampling results.

Any residues from previously burned barium sands, historically disposed within MDA-P, would not be discernable from other soil.

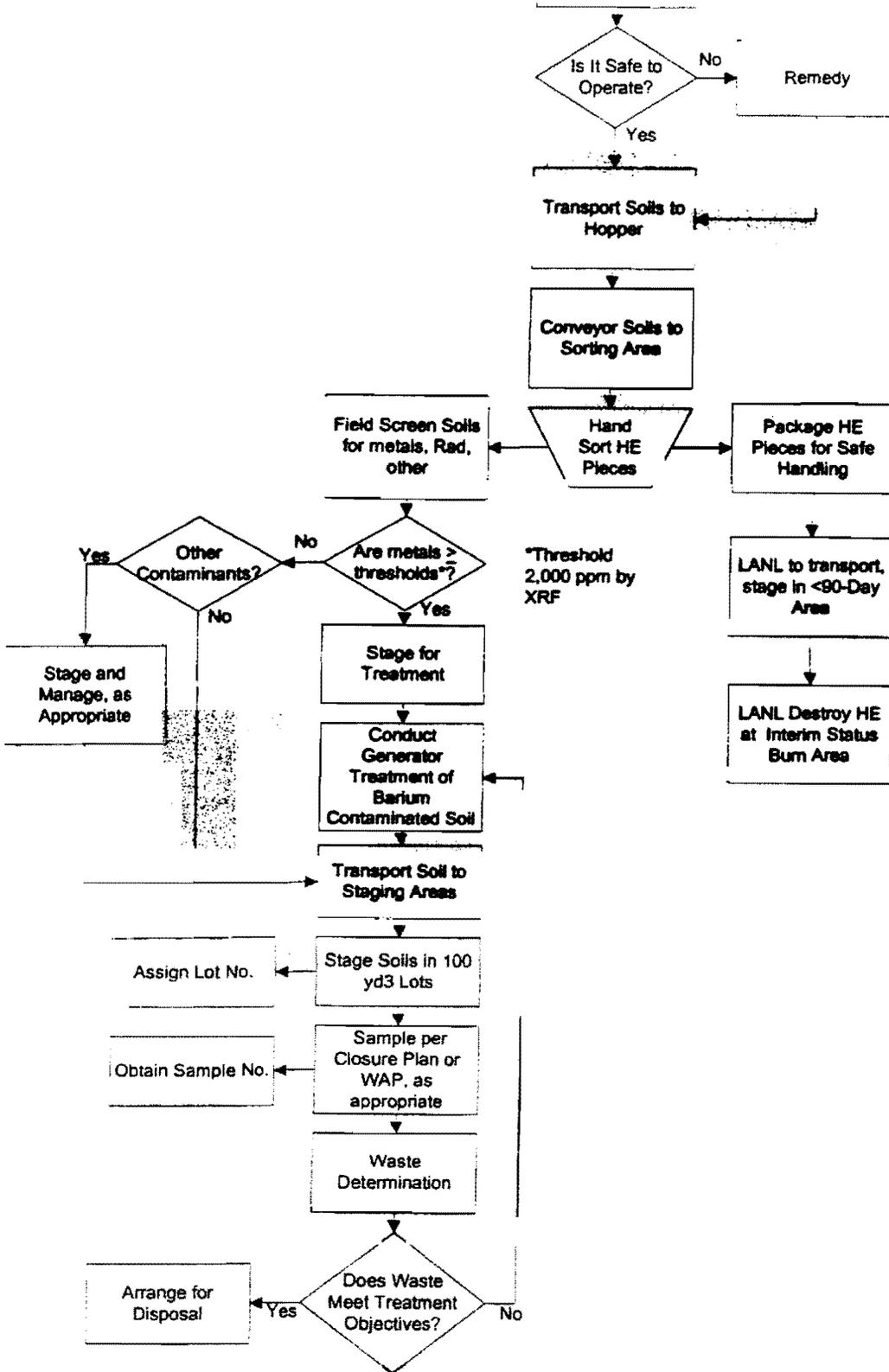
Enclosure 2 Flow Diagrams

**Excavation
Process
Flow**



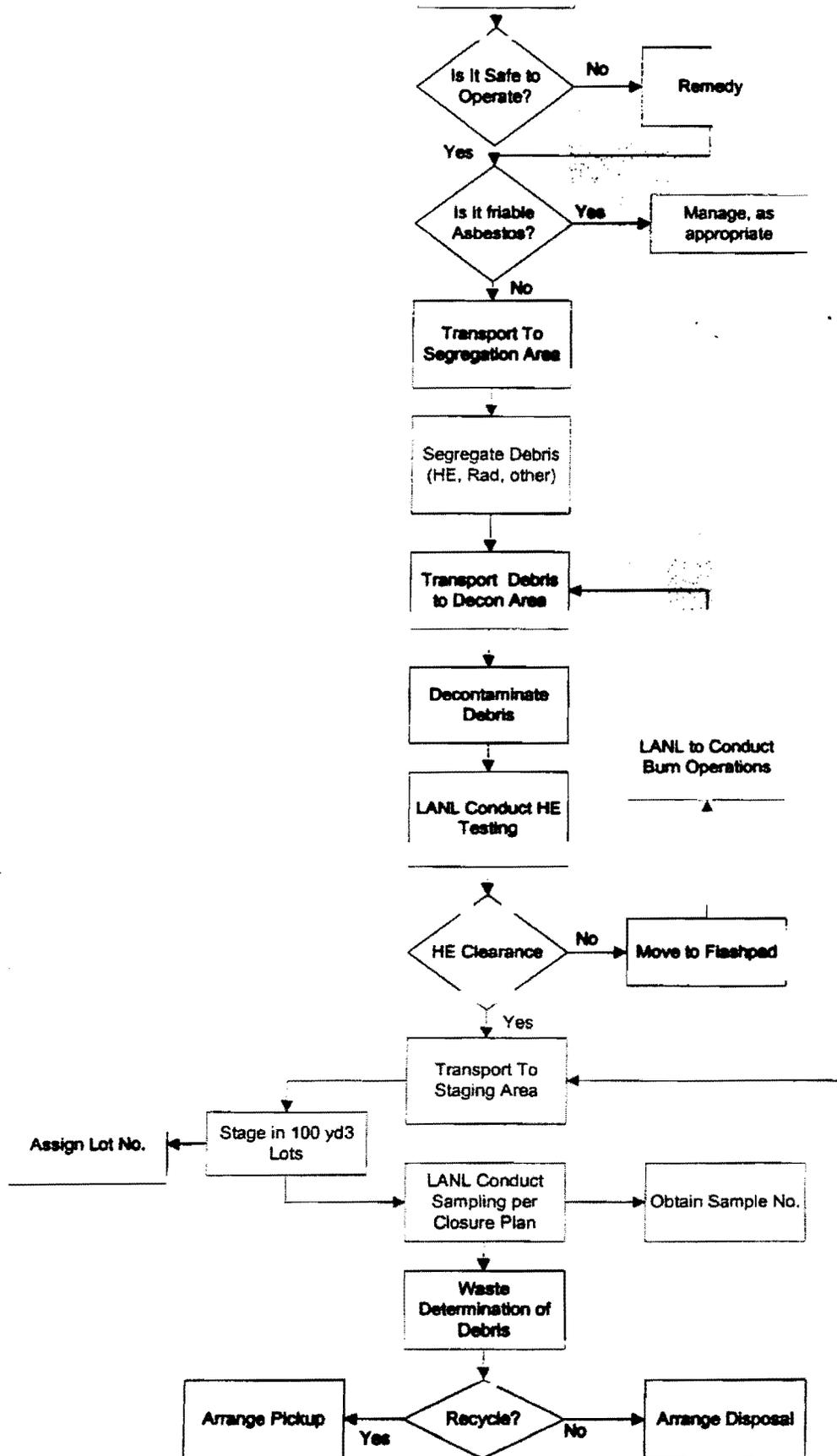
Process Flow for Soils

Soil
≤ 6 inches



Process Flow for Debris

Debris > 6 inches



Enclosure 3 MDA P Site Map (see Plate 1)

MDA P "As-Built" Support Facilities, February 2, 2000 - PLATE 1

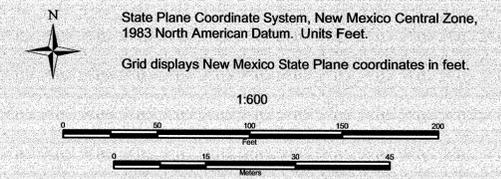
- Culvert
- Debris Line
- Drainage
- Exclusion Zone (Area of Contamination)
- Fence
- Leading Edge of Interim Bench
- Road, Dirt
- Road, Paved
- Run-On Interceptor Trench Wall
- Unknown Structure
- MDA P Landfill
- Pad
- Sump
- Trench
- Tank
- Structure
- Conex Boxes, Storage, Barricades, and Access Control
- Strawbales

6421-A

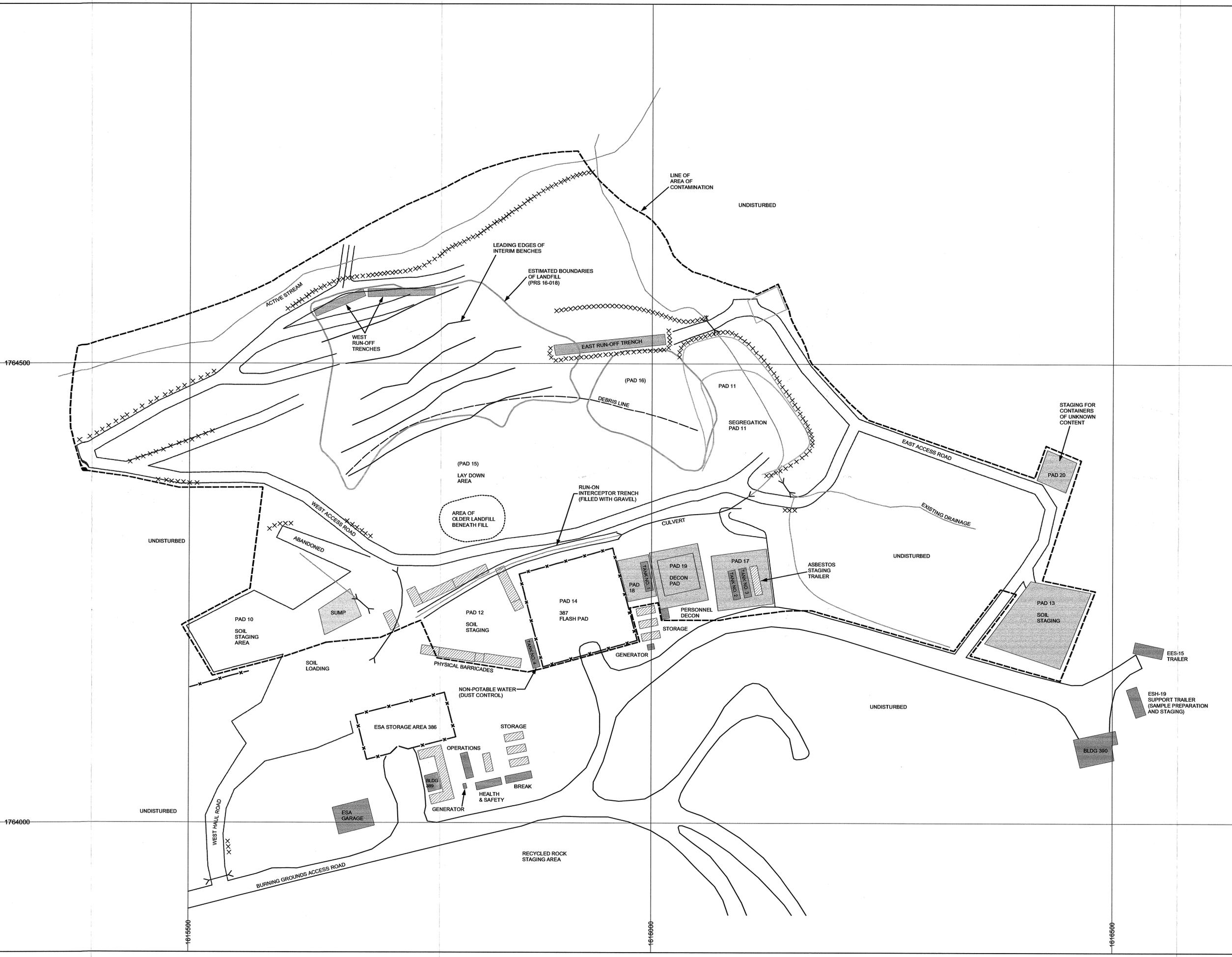
DATA SOURCES FOR PLOT: 200576
 Title, Owner, Pub Date, Intended Scale, (ERI ID), (GISLab ID)
 Area of Older Landfill, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Culverts as built 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Debris Line as of 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Drainage as of 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Exclusion Zone as of 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Fence as built 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Leading Edges of Interim Benches as of 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 MDA P boundary, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Pads as built 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Roads, Dirt, as built 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Roads, Paved, as built 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Structures as built 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Trenches as built 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)
 Unknown Structures as built 20000202, client supplied, Los Alamos National Laboratory, EIR, 20021210, 1:600, (NA), (Unknown)



Cartography by: Doug Walther
 Date: January 24, 2003 M#: 200576



DISCLAIMER OF LIABILITY:
 Neither the United States Government nor the University of California nor any of their employees, makes any warranty, express or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.
 Work performed on behalf of RRES-R, Los Alamos National Laboratory, Los Alamos, NM, 87545.



Enclosure 4 Waste Analysis Plan for Barium-Containment Soil

Waste Analysis Plan
For
Barium-Contaminated Soil
Treated in Less-Than 90 Day Storage

Generator:
Los Alamos National Laboratory
Environmental Restoration Project
Technical Area-16
Material Disposal Area P

November 2, 1998

Introduction

This waste analysis plan (WAP) presents information on the chemical and physical nature of waste soils to be treated at Los Alamos National Laboratory's (LANL) Technical Area 16 (TA-16), Material Disposal Area P (MDA-P). This plan is designed to fulfill the requirements listed in Title 20 of the New Mexico Administrative Code, Chapter 4, Part 1 (20 NMAC 4.1), Subpart VIII and 40 CFR 268.7 (a) (5). These regulations specify that a generator treating prohibited waste in tanks or containers must develop and follow a written plan as regulated under 20 NMAC 4.1, Subpart III and 40 CFR 262.34.

The MDA-P at TA-16 was operated as a disposal site for rubble and debris from 1950 to 1984. The majority of disposed materials consisted of residues and noncombustible debris resulting from burning high explosives (HE) and HE-contaminated equipment, building materials, and other trash. After burning, the material was pushed over the edge of the south wall of Canon de Valle. This accumulated material is the waste pile undergoing remediation. It is currently estimated that MDA-P contains 11,000 cubic yards (yd³) of waste materials, including soil and debris. All waste materials will be removed in their entirety in accordance with the Closure Plan approved by the New Mexico Environment Department in February of 1997.

The waste to be treated in a <90-day area will be composed primarily of soil contaminated with barium and potentially contaminated with debris less than 60 millimeters (mm) and residual HE compounds. Debris will consist of native rock, concrete, wood, metal, and friable or non-friable asbestos. Treatment will be accomplished using the best-demonstrated available technology (BDAT) for barium contaminated soil. The waste analysis information described in this WAP is specific to the generator treatment requirements for the waste soil generated and treated at MDA-P. Specific waste analysis requirements include the following:

- identification of hazardous or mixed waste under management, based on detailed chemical analyses of representative samples (note – no radiological contamination has been detected to date);
- pre- and post-treatment waste characterization;

information necessary to treat the waste in accordance with 40 CFR 268.7 (a) (5);
and
- verification of compliance with treatment objectives.

Waste Generating Activity

The soil waste will be generated during closure activities at MDA-P. All materials in MDA-P will be excavated and screened to remove debris >6-inches in diameter. Debris greater than 6-inches in diameter will be decontaminated according to the approved Closure Plan. Soils and residual debris <6 inches in diameter will be transported via conveyor to a sorting area where all visible pieces of HE will be segregated by hand by trained, professional technicians. The soils will then be field screened for volatile organic compounds, radionuclides, asbestos, and quantitatively analyzed for HE and barium. The HE screen will comply with SW-846 methodologies 8515 and 8510 (proposed) for nitroaromatics, e.g., TNT, and nitramines, e.g., RDX, respectively. The barium screen will use a portable X-ray fluorescence (XRF) instrument. Any visible staining or other physical characteristics will be noted and the suspect soils segregated and sampled per the Closure Plan.

The field screening and XRF results will constitute the pre-treatment characterization of total barium concentration to determine which soils will be treated in a <90 day accumulation area. A correlation analysis established from analyses of barium contaminated soils from MDA-P, indicates that a total barium concentration of 3,400 parts per million (ppm) is approximately equivalent to 100 milligrams per liter (mg/L) of soluble barium as determined by the Toxic Leaching Characteristic Procedure (TCLP). For treatment purposes, soils containing more than 2,000 ppm of total barium by XRF (the maximum uncertainty of the XRF instrument is ± 100 ppm) will be separated for treatment. All soils will be segregated and staged in lined, bermed areas for treatment and subsequent sampling and verification analysis. Soil containing less than 2,000 ppm of total barium by XRF will be stockpiled nearby and managed as solid waste. Other soils suspected of being contaminated, based on results of field screening will be segregated and staged in a lined, bermed area. Final disposition of all soils will depend on verification analyses.

Description of Waste

It is anticipated that approximately 3,000 yd³ of soil will be excavated from MDA-P that exhibits the toxicity characteristic for barium (EPA hazardous waste code D005). Results of test pit sampling of MDA-P conducted in December 1997 indicated that barium concentrations in soil range from 10 to 2,300 mg/L by TCLP analysis. Laboratory analyses of samples collected from the test pits indicate that no underlying hazardous constituents (UHC) are present in concentrations that exceed the Universal Treatment Standards (Federal Register 28555 May 26, 1998; CFR Part 268.48). These results are consistent with prior sampling and analyses reported in the Closure Plan. Therefore, UHCs are not reasonably expected to be present in soils designated for treatment. These barium-contaminated soils are anticipated to consist of HE residue (< 1% by weight), fragments of non-friable asbestos, metal, concrete, wood, and native rock, and barium

contamination that ranges from 100 to 2,500 mg/L.

Soil Treatment Processes

The selected treatment process for the barium-contaminated soil is stabilization of the barium by a dry treatment method. This will be accomplished by the addition and mixing of a reagent consisting of portland cement and calcium sulfate to the soil. A treatability study will be conducted on various concentrations of barium contaminated soils to find the optimum ratio of reagent to soil for treatment. The treatment process will consist of the following steps.

The soil will be screened with an XRF instrument to determine the barium concentration in the soil. Based on the XRF measurements, the barium-contaminated soils will be grouped into one of three groups. Groups I, II and III will contain total barium concentrations up to 10,000, 30,000 and 60,000 ppm, respectively.

2. All barium-contaminated soil will be transported to the treatment area by a wheel loader. Within this lined and bermed area, the soil will be screened to remove all debris and rocks >60 mm. The rocks and debris will follow the standard path of other debris from MDA-P. Soil stabilization treatment will take place in a trailer-mounted, auger-type mixer designed for soil mixing in distinct batches. Barium-contaminated soil and the appropriate amount of reagent will be placed into the equipment and thoroughly mixed. Treatment Groups I, II and III will be mixed with stabilization reagent of approximately 2 percent, 4 percent, and 6 percent reagent by weight, respectively.
3. After mixing, the material will be removed and transported to a lined, bermed staging area, placed in 100 cubic yard lots, and covered or sprayed with a surface stabilizer to prevent infiltration, runoff, and resuspension. Each lot of soil will be assigned a unique identifier number and labeled for management purposes.
4. Each lot of treated soil will be sampled for verification of the treatment process. Analyses will comply with specifications described below.
5. Upon receipt of the analytical data, a waste determination will be made for each lot of barium-contaminated soil. If the treated soils meet the treatment objectives, the lot of soil will be shipped offsite to an approved disposal facility. Treatment objectives will comply with treatment standards for hazardous wastes (40 CFR Part 26.40) as set forth in the Land Disposal Restrictions Phase IV: Final Rule Promulgating Treatment Standards for Metal Wastes and Mineral Processing Wastes (Federal Register 28555 May 26, 1998).

The site-specific health and safety plan (SSHASP) prepared for the MDA-P Closure includes tasks associated with generator treatment of barium-contaminated soils. The SSHASP evaluates all potential hazards to human health and the environment and describes mitigating measures to minimize or eliminate these hazards. All personnel

involved in the treatment activity will be trained in the SSHASP and a site safety officer will oversee treatment activity operations.

Waste Sampling and Analysis

Each 100 cubic yard lot of treated soil will be sampled and analyzed to determine that the wastes meet final land disposal restrictions and the waste acceptance criteria of the receiving facility. Sampling will be conducted by LANL, ESH-19 personnel and conducted according to LANL standard operating procedures to ensure that a representative sample is collected. Each 100 cubic yard lot will be sampled and analyzed for TCLP, HE, radionuclides, and asbestos. The first and each subsequent fourth 100 cubic yard lot will be sampled for pH, flashpoint, free liquids, total volatile organic compounds, semi-volatile compounds, reactive cyanide and sulfide, organochlorine pesticides, polychlorinated biphenyls (PCBs), dioxin, and chlorinated herbicides. An accredited laboratory under contract to LANL will perform all analyses.

Waste Certification

When it has been determined that the treated soils meet UTSs (Federal Register 28555 May 26, 1998) for land disposal, the treated, essentially decharacterized waste soils will be shipped off site to a landfill permitted to accept such special wastes. It is anticipated that most treated soils will go to the Waste Management Industrial Services Inc., facility at Rio Rancho, New Mexico. This facility can accept special wastes with non-friable asbestos, as well as friable asbestos less than 1 percent. If friable asbestos exceeds 1 percent, a disposal facility in Arizona may be used. Treated soils that do not meet the UTS may be shipped to a facility in California permitted to accept such wastes. Shipping manifests with analytical results will be provided for the transporter of the waste material to be submitted to the disposal facility.

A notice and certification will be prepared with information required under 20 NMAC 4.1, Subpart VIII, and 40 CFR 268.7 (a) (3) for the initial shipment of waste sent for land disposal. Subsequent shipments will include sample documentation and unique manifest numbers for each shipment of waste. A one-time notification and certification to the New Mexico Environmental Department will be submitted by the end of the calendar year. This submittal will include information specified in 20 NMAC 4.1, Subpart VIII, and 40 CFR 268.9 (d).

All analytical results completed in support of successful treatment of the waste and for LDR notification and certification will be retained in the project operating record and copies presented to the appropriate LANL Group.



GARY E. JOHNSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous & Radioactive Materials Bureau
2044 Galisteo Street
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-1557
Fax (505) 827-1544



PETER MAGGIORE
SECRETARY

Certified Mail
Return Receipt Requested

March 10, 1999

Mr. Theodore Taylor, Program Manager
Los Alamos Area Office
Department of Energy
528 35th Street, MS A316
Los Alamos, New Mexico 87544

Dr. John C. Browne, Director
Los Alamos National Laboratory
P. O. box 1663, MS A100
Los Alamos, New Mexico 87546

Re: Reply to the DOE/LANL November 9, 1998 (EMER:98-442) letter regarding the MDA-P Closure Plan and correspondence related to operation deviations.

Dear Mr. Taylor and Dr. Browne:

The Hazardous and Radioactive Materials Bureau (HRMB) has reviewed the DOE/LANL November 9, 1998 (EMER:98-442) letter regarding the MDA-P Closure Plan modification clarifications and provides comments in Attachment A.

Based on review of DOE/LANL's reply to comments, the Closure Plan requires a Class I permit modification for these operational deviations. The specifics for the modification are delineated in general comment number 1 of the attachment. The New Mexico Hazardous Waste Fees (20 NMAC 4.2) section 201.6 - Permit and Closure Plan Modification Fees specifies every facility which requests a Class I modification for which prior written approval by NMED is required by 40 CFR 270.42(a) (2) (incorporated into 20 NMAC 4.1.900) shall pay the basic fee for Class I modification set forth in Table 2.4. For a Class I modification the Basic Fee is \$1000. Based on HRMB's current understanding of the proposed operational deviations, DOE/LANL has described four (4) changes resulting in a Class I modifications with a total associated fee of \$1,000.

Furthermore, all comments in Attachment A which do not require a permit modification shall be addressed as a reply to this correspondence.

Should you have any questions regarding this letter, please contact me at (505) 827- 1567 extension 1015 or Mr. John Kielling, HRMB's LANL Facility Manager, at (505) 827-1558 extension 1012.

Sincerely,

Benito J. Garcia, Chief
Hazardous and Radioactive Materials Bureau

BJG:lw

March 10, 1999
TA 16 MDA-P
EM/ER:98-442

Los Alamos National Laboratory
NM0890010518

CC w/ attachments:

J. Canepa, LANL EM/ER, MS M992
J. Davis, NMED SWQB
S. Dinwiddie NMED HRMB
J. Elvinger, LANL ESH-19, MS K490
M. Johansen, DOE LAAO, MS A316
J. Kielling, NMED HRMB
L. Winn, NMED HRMB
M. Kirsch, LANL EM/ER, MS M992
S. Kruse, NMED HRMB
H. LeDoux, DOE LAAO, MS A316
D. McInroy, LANL EM/ER, MS M992
D. Neleigh, EPA, 6PD-N
J. Parker, NMED DOE OB
J. Plum, DOE LAAO, MS A316
J. Vozella, DOE LAAO, MS A316
S. Yanicak, NMED DOE OB, MS J993
File: Reading and RED LANL TA-16, MDA P'99
Track: LANL, 3/10/99, NA, DOE/LANL, HRMB/Garcia, RE, File

ATTACHMENT A
COMMENTS ON DOE/LANL NOVEMBER 9, 1998 (EM/ER:98-442) LETTER
TA - 16, MDA P

GENERAL COMMENTS:

1. 11/9/98 letter Paragraph 2, page 1: "The September 18, 1998, letter from HRMB indicates that the changes specified in the Laboratory's letter dated July 22, 1998, regarding potential operational deviations from the material Disposal area P (MDA-P) Closure Plan were considered unexpected events occurring during closure of the site. HRMB appears to be referring to safety and waste management operational issues regarding detonatable pieces of high explosives (HE) to be remediated within the MDA-P Area of contamination (AOC)."

11/9/98 letter Paragraph 1, page 2: "Further, Section 6.1.1.4 of the approved Closure Plan indicates that "No changes in unit operating plans or design are expected [emphasis added] that would require amendment of the closure plan." This section also describes an unexpected event as something that "would include the discovery of hazardous waste or mixed-waste residuals that cannot be removed or decontaminated to meet the closure performance standard or additional excavation and sampling that may be required (e.g., removing contaminants in cracks or fractures)."

HRMB RESPONSE TO DOE/LANL 11/9/98 LETTER:

NMED concurs that these operational deviations were not unexpected events. The reference to an unexpected event is an example not a definition. However, NMED sees a number of changes in the plan which require modification. They are as follows:

- a) *The treatment or verification standard for the hazardous debris currently contained in the approved Closure Plan per 40 CFR 268.45(a)(1), Table 1(A)(1)(e) allows for high pressure steam and water sprays to remove hazardous contaminants from debris surfaces or to remove contaminated debris surface layers. The alternative treatment standard is for Land Disposal Restrictions (LDR) consequently, a waste determination/disposal issue and does not affect the closure of the unit but how the removed waste is decontaminated, classified, and disposed. Therefore, because this LDR treatment standard is part of RCRA regulation for hazardous debris it will not constitute a modification of the plan. However, the sampling of the decon water contradicts the standard in section 6b. This typographical error must be clarified and will require a class I permit modification -reference 20 NMAC 4.1 section 270.42, Appendix I (a)(2): correction of typographical errors.*
- b) *not meeting the approved closure schedule without the Secretary's approval [Reference bullet number seven on page two of DOE/LANL's July 22, 1998 EM/ER:98-232, potential operational deviations from the MDA P Closure Plan. The schedule for project completion is currently unknown, but may require a plan modification if it deviates from the original schedule specified in Figures 6-2 and 6-3 of the approved Closure Plan.]*

It appears that there will be no way DOE/LANL will be able to meet the time requirements for removal and closure as specified in the Closure Plan. The Closure Plan proposes 26 months (with risk assessment) to complete Phase I and Phase II of the Closure Plan. Phase I includes

removing waste from the waste pile and was estimated to be 17 months from the time the Closure Plan was submitted. If given additional time and having the 17 month time clock begin after Closure Plan approval which occurred on February 20, 1997, phase I should have been completed by July 20, 1998. To complete final closure activities in accordance with the Closure Plan a 26 month time from the time of Closure Plan approval (February 20, 1997) would be on April 20, 1999. The facility has missed the removal date of July 20, 1998 and a modification to the Closure Plan will be required for the new schedule. This will require a class I permit modification -reference 20 NMAC 4.1 section 270.42, Appendix I (d)(1)(b): changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period, with prior approval of the Director.

- c) *proposing fewer samples than the approved Closure Plan [Reference bullet number five on page two of DOE/LANL's July 22, 1998 EMER:98-232, potential operational deviations from the MDA P Closure Plan- A large volume of clean fill that composes the morphologic feature of MDA P will not be removed, but will be sampled during the Phase II verification activities. The entire southern part of the morphologic feature of MDA P is composed of apparently uncontaminated soils placed during the original construction of the burning grounds in 1950. Waste disposal occurred over the leading edge of the soils and aggregated over time, and bullet number 6 on page two -The estimated number of soil samples to be collected during Phase I will be proportional to the reduced estimated volume of waste to be excavated, segregated and managed.]*

The closure plan defines the amount of sampling of waste as a percentage of 100 yd³ batches based on an estimated volume of approximately 30,000 yd³ (reference page 4-3 of approved Closure Plan). Because the original estimated proposed volume has changed this operational deviation will require a permit modification. This will require a class I permit modification -reference 20 NMAC 4.1 section 270.42, Appendix I (d)(1)(a): changes in the estimate of maximum extent of operations of maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the Director. Furthermore, HRMB emphasizes:

- 1) that fixed analytical sampling will still be performed prior to waste being removed from the soil before excavation or after it has been removed to the top of the mesa (Page 4-3 - 4-4 of approved Closure Plan), and*
- 2) that fixed analytical sampling will still be performed prior to waste being removed from the area of concern (AOC) (reference section 6.3.2 Management of Generated Waste, page 6-28 of the approved Closure Plan).*

- d) *apparent proposed treatment of other waste than from the MDA-P waste pile as specified in the approved Closure Plan (section 6.2.6), for example waste or soils from the proposed VCA PRS 16-016(c). This will require a class I permit modification -reference 20 NMAC 4.1 section 270.42, Appendix I (d)(1)(a): changes in the estimate of maximum extent of operations of maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the Director.*

Furthermore, DOE/LANL may choose to perform the confirmation portion of the VCA plan during phase 2 of the approved Closure Plan after the HE sorting pad is removed because a portion of the PRS is underneath the HE sorting pad and will not achieve NFA until this portion is investigated.

RESPONSE TO TECHNICAL ISSUES IN DOE/LANL 11/9/98 LETTER :

1. **HRMB original Issue:** *All proposed changes to the Closure Plan to include high explosive (HE) handling processes shall be clarified using process flow diagrams and narrative summaries that illustrate and describe all waste streams and their ultimate disposal.*

HRMB RESPONSE TO DOE/LANL 11/9/98 LETTER:

Response acceptable to HRMB.

2. **HRMB original Issue:** *Up to date figures illustrating the proposed new processes shall be included.*

HRMB RESPONSE TO DOE/LANL 11/9/98 LETTER:

Response acceptable to HRMB.

3. **HRMB original Issue:** *The filtration system and sorting pad shall meet the requirements for temporary units as defined in 20 NMAC 4.1, 40 CFR 264.553 - temporary units, and 40 CFR 270.42 Appendix I.D.3.e - requirements for a Class 2 permit modification.*

HRMB RESPONSE TO DOE/LANL 11/9/98 LETTER:

Response acceptable to HRMB.

4. **HRMB original Issue:** *The state of New Mexico has not adopted the new land disposal requirements (LDR's) and therefore the more conservative concentration for barium still applies.*

Reference bullet number two on page two of DOE/LANL's July 22, 1998 EM/ER:98-232, potential operational deviations from the MDA P Closure Plan - "The land disposal treatment standard for barium has changed as of May 26, 1998 (63 FR 28555). Because barium contaminated soil will be stabilized onsite, the Laboratory requests a determination of whether it should use the updated treatment standard for industrial hazardous waste or whether it could use the new soil treatment standard of a 90% reduction of the concentration of hazardous constituents capped at 10 times the universal treatment standard."

HRMB RESPONSE TO DOE/LANL 11/9/98 LETTER:

The NMED will approve a new regulatory cluster that includes the new land disposal treatment standard for barium this Spring. Therefore, HRMB will allow the early adoption of this standard for barium. Allowing the standard to be adopted a few months earlier will in no way be less protective of human health and the environment. However, for the barium waste being treated during removal of the waste pile DOE/LANL must use the new soil treatment standard for industrial hazardous waste, for contaminated environmental media (i.e. tuff, soil). During Phase II the new environmental media treatment standard is applicable.

5. *HRMB original Issue: If the proposed hand-sorting pad is constructed over an existing potential release site then using this area for baseline sampling is not acceptable.*

HRMB RESPONSE TO DOE/LANL 11/9/98 LETTER:

Response acceptable to HRMB.

6. *HRMB original Issue: LANL shall include waste analysis plans (WAP's) for all waste streams including filters and soil generated from the sorting operation. A WAP may not be necessary for the decon water used in steam cleaning the debris if all LDR requirements for debris alternative treatment standards are met. These WAP's shall include sampling for underlying constituents and radioactivity.*

HRMB RESPONSE TO DOE/LANL 11/9/98 LETTER:

Response acceptable to HRMB.

7. *HRMB original Issue: Closure performance standards of SAL's or risk based clean up levels shall be met. If limited excavation of the tuff is proposed, additional sampling shall be proposed where contamination is below SAL's or risk based clean up levels is left in place.*

HRMB RESPONSE TO DOE/LANL 11/9/98 LETTER:

It is understood that the MDA-P verification of closure performance standards is part of Phase 2 and will be negotiated through further meetings with HRMB. However since over excavation of the welded tuff may not be possible, DOE/LANL shall reflect this in the Phase 2 sampling and analysis, as well as possible alternative remediation strategies for the welded tuff, to meet the closure performance standard.

8. *HRMB original Issue: LANL shall provide an adequate sampling and analysis plan which addresses depth (e.g. every 2 feet), location, and percentage of full suite analysis, to confirm the identified clean fill area. This sampling and analysis shall be performed in Phase 1. If contamination is found above the performance standards the removal procedure shall be described. Rather than perform a detailed sampling and analysis plan of the clean fill it may be economically beneficial for LANL to choose to remove the clean fill and dispose of appropriately.*

HRMB RESPONSE TO DOE/LANL 11/9/98 LETTER:

It seems that the sampling described in the approved Closure Plan made no provision for "clean fill" and will not adequately verify that the "clean fill" was not actually contaminated waste and part of the waste pile. It is acceptable to NMED to propose a new sampling and analysis (S & A) plan to characterize the "clean fill" in Phase 2. The new S & A plan should provide a sampling location map with proposed sampling points and include sampling at different depths rather than just the top 12 inches. It is understood that some of the "clean fill" was moved to the top of the mesa and used to build the treatment pads. The new S & A plan for the "clean fill" should include that portion which was moved to the mesa top.

HRMB TELEPHONE CONVERSATION COMMENTS NOT ADDRESSED ABOVE:

Provide clarification regarding generator treatment. Indicate when the less-than-90-day start date begins.

Indicate how the clean and treated soil and debris waste will be containerized at the staging area(s).

Discuss de-watering of barium contaminated soil (presumably during generator treatment).

Include characterization information regarding process waste streams generated.

Indicate how barium sands will be managed.

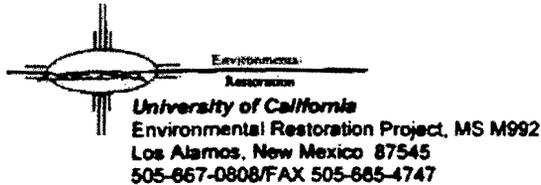
HRMB RESPONSE TO DOE/LANL 11/9/98 LETTER:

Regarding the 90-day start date, there is no time limit to treat the waste except for the scheduled closure. However, once treatment of a specific batch begins that batch must be treated to meet LDR standards, or if not treated to LDR, must be removed to a RCRA permitted storage facility within 90 days from the first time the batch is treated.

All other responses acceptable to HRMB.

HRMB FURTHER CLARIFICATIONS REQUESTED:

9. Reference first row of table on page six of DOE/LANL's July 22, 1998 EM/ER:98-232, potential operational deviations from the MDA P Closure Plan. *DOE/LANL shall clarify what kind of containers the soils and liquids will be staged in. Container storage is required pursuant to the approved Closure Plan.*
10. *DOE/LANL shall describe the procedure to track waste: which quadrant each waste pile came from, waste piles, each batch of treated waste, & containers. LANL shall also describe how the waste characterization data will be managed to assure the 90 day requirement is met.*



U.S. Department of Energy
Los Alamos Area Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
505-867-7203/FAX 505-665-4504

Date: May 20, 1999
Refer to: EM/ER:99-132

Mr. James Bearzi
NMED-HRMB
P.O. Box 26110
Santa Fe, NM 87502

SUBJECT: MDA P WASTE DETERMINATION STRATEGY

Dear Mr. Bearzi:

The Los Alamos National Laboratory Environmental Restoration (ER) Project would like to thank your staff for taking the time to meet with ER Project and Department of Energy (DOE) staff on April 8, 1999 to discuss a waste characterization issue regarding Material Disposal Area (MDA) P. The purpose of this letter is to provide our understanding of the agreement that was reached at the meeting regarding an approach to characterizing waste that could be viewed as having F-listed constituents, but that may not have actually come from F-listed waste sources.

During the April 8, 1999 meeting, ER Project personnel discussed the possibility of finding F-listed constituents in soil or on debris removed from MDA P once excavation activities entered into the east lobe. Historically gasoline, kerosene, and solvents were used in an ignition train to start the burn process at the Technical Area 16-387 burn pad and to keep the burn hot. In most cases, it is not possible for the Laboratory to determine whether the presence of a hazardous constituent from a sample analyzed for waste characterization purposes was a product of incomplete combustion or the result of the disposal of residues from an F-listed solvent. In light of this uncertainty, it is our understanding that the Hazardous and Radioactive Materials Bureau (HRMB) has approved an approach whereby the Laboratory will manage waste materials removed from MDA P as F-listed wastes only when there is directly observable evidence that the wastes at issue, i.e., soils or debris, were in contact with an F-listed source. Such evidence would typically include indications of contact with a spent solvent container, drum, or rags. All other soil and debris wastes will undergo a waste characterization to determine whether the waste is a characteristic hazardous waste, and, if so, this waste will be managed appropriately as a hazardous waste.

We understand that the approach we agreed upon is consistent with Environmental Protection Agency (EPA) guidance identified in *Management of Remediation Waste Under RCRA* (EPA530-F-98-026) which states "Where a facility owner/operator makes a good faith effort to determine if a material is a listed hazardous waste but cannot make such a determination because documentation regarding a source of

contamination, contaminant, or waste is unavailable or inconclusive, EPA has stated that one may assume the source, contaminant or waste is not listed hazardous waste and, therefore, provided the material in question does not exhibit a characteristic hazardous waste, RCRA requirements do not apply." A footnote to this guidance further states "Listing determinations are often particularly difficult in the remedial context because the listings are generally identified by the sources of the hazardous waste rather than the concentrations of various hazardous constituents; therefore, analytical testing alone, without information on a waste's source, will not generally produce information that will conclusively indicate whether a given waste is a listed hazardous waste."

The EPA affirms in 50 FR 53316, December 31, 1985, that the threshold level (10% or more by volume for solvent mixtures) promulgated in that particular federal register is not based on health criteria, but rather on typical use patterns. Consequently, the EPA is not applying the threshold to all waste (including remediation waste) that may contain one or more of the solvents.

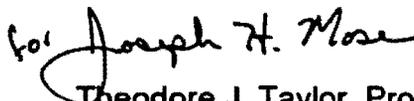
The ER Project is proceeding with the excavation of MDA P and is presently implementing the approach that we have agreed upon and that is described in this letter. Please let us know if you have any concerns regarding our understanding and implementation of this approach. Contact persons for this matter are Dave McInroy at (505) 667-0819 or Joe Mose at (505) 667-5808.

Sincerely,



Julie A. Canepa, Program Manager
LANL/ER Project

Sincerely,



Theodore J. Taylor, Program Manager
DOE/LAO

JC/TT/HWB/ ev

Cy: K. Bostick, EES-15, MS J495
M. Buksa, EM/ER, MS M992
J. Canepa, EM/ER, MS M992
B. Criswell, R.F Weston, MS M992
S. Den-Baars, IT Corp., MS K490
M. Ebinger, EES-15, MS J495
J. Ellvinger, ESH-19, MS K490
T. George, EM/ER, MS M992
T. Grieggs, ESH-19, MS M992
H. Haynes, LAAO, MS A316
D. Hickmott, EES-1, MS D462
J. Kieling, NMED-HRMB
M. Kirsch, EM/ER, MS M992
M. Leavitt, NMED-GWQB

D. McInroy, EM/ER, MS M992
J. Mose, DOE/LAAO, MS A316
W. Neff, CST-7, MS M992
J. Parker, NMED-HRMB
J. Rochelle, LC-GL, MS A187
G. Saums, NMED-SWQB
T. Taylor, LAAO, MS A316
S. Veenis, EM/ER ESH-18, MS M992
H. Wheeler-Benson, EM/ERESH-19, MS M992
S. Yanicak, NMED-AIP, MS J993
EM/ER File, MS M992
RPF, MS M707
Tracker RM 604, MS M992

B-3.0 ON-SITE LIQUID WASTE SYSTEM INSPECTION



Ryan Romero

STATE OF NEW MEXICO ENVIRONMENT DEPARTMENT FIELD OPERATIONS DIVISION ONSITE LIQUID WASTE SYSTEM INSPECTION



System Owner's Name: Los Alamos National Lab
System Location: JH 16 Burn Ground # 385
Installer's Name & Company: Same
Type of Inspection: OTHER Holding Tank Abandonment
Inspection Date: 7/24/01

1. BUILDING SEWER
a. Correct Size and Material
b. Required Cleanouts Present, Installed Correctly & to Finish Grade
c. Pipe at Correct Grade (1/8" to 1/4" per foot)

2. PRETREATMENT
a. Type:
b. Installed as per Plans or Manufacturer's Instructions
c. Other:

3. SEPTIC TANK / SEC./TERT. TREATMENT UNIT
Type: Concrete Plastic/Fiberglass Sec./Tert. Treatment Unit
a. Located as per Site Plan
b. Correct Setbacks
c. Tank Certified; Correctly Labeled
d. Tank Correctly Oriented, Level & Depth Below Grade
e. Bottom of Outlet Pipe 2" Lower than Bottom of Inlet Pipe
f. Inlet / Outlet Pipes Sealed & Watertight
g. Inlet / Outlet Baffle or Tee with Legs Extending 12" Minimum Below Liquid Level; Outlet Filter Installed if Required
h. Tank & Fittings Correctly Vented
i. Concrete Tank: Coated & Material Correct OR Type V Concrete
j. Outlet Pipe Correct Size & Material, Correct Grade
k. Manholes Correctly Sized & Located
l. Manhole Risers at Correct Height, Diameter, Coated & Lids
m. Tank Correctly Backfilled and Covered; Fiberglass / Plastic Tank Installed per Manufacturer's Instructions
n. Advanced Treatment Unit Installed per Manufacturer's Instructions
o. Water Tightness Test Required: Pass Fail
p. Other:

4. SURGE, PUMP AND HOLDING TANKS
Type: Surge Tank Pump Tank Holding Tank Other
a. Correct Size
b. Inlet/Outlet Sealed Correctly
c. Pump(s) Switches & Alarms Present and Installed Correctly
d. Manholes, Risers, Lids Correct and Water Tight

5. TEE OR DISTRIBUTION BOX
a. Pipe To and From Tee or "D" box 4" Diameter
b. Tee Level; Correct Type; Oriented Correctly
c. "D" Box Level and on Concrete Slab or Stable Soil
d. "D" Box Inlet Baffled and 1" Above Outlets
e. "D" Box Outlets at Same Height; Flow Equal to Outlets
f. Tee or "D" Located a Min. of 5' From Disposal Field
g. Other:

6. DISPOSAL TRENCH OR BED
Type: Trench Chamber Bed Seepage Pit(s) Other
a. Soil Type Correct: Type
b. Clearance to Ground Water or Limiting Layer Correct

c. Trench / Bed Sized Correctly:
Dimensions: Trench/ Bed
Number: Chambers Seepage Pit(s)
Other: Type Size/Units
d. Correct Setbacks
e. Excavation at Correct Grade
f. Spacing Between Trenches or Beds Correct
g. Smeared Soils Not Present on Trench or Bed
h. Aggregate Correct Type, Size, Clean and Amount
i. Correct Depth of Aggregate Above and Below Pipe
j. Lines On Correct Grade - 0" to 3" of Fall per 100'
k. Pipe Correct Size - 4" Minimum Diameter & Type
l. Aggregate Correctly Covered with Approved Material
m. Other:

For Seepage Pits:
a. Top cover: Underside Correctly Coated & Extends to Natural Ground
b. Domed covers covered with minimum 2" concrete extending 6" beyond pit wall
c. Brick or block laid end to end with staggered tight joints
d. Side wall inlet properly vented
e. Inlet/outlet fittings properly sealed with cement
For Other Disposal Methods:
a. Type:
b. Installed per Plans or Manufacturer's Instructions
c. Other:

Comments/ Violations:

2100 gallon tank - top removed w/ riser - filled w/ clean soil - filled to grade

Meets NMED Tank abandonment requirements

- Continued on attached Sheet(s)
Installation Approved
Installation Approved w/conditions (See Comments/Violations)
Installation Not Approved (See Comments/Violations)

Inspector's Signature: Jonathan Turnbull
7/24/01

PO Box 1663 - MSK-497

be inspected. Such notification shall be given not less than forty-eight (48) hours before the work is to be inspected [10-15-97].

2. System components shall be properly identified as to manufacturer and shall meet all specifications specified in this Subpart. Septic tanks, holding tanks (vaults) or other primary treatment systems shall have the rated capacity, the registration number and the year of manufacture permanently marked on the unit. [10-15-97]

B. Testing

1. The Department may require septic tanks or other primary components to be filled with water to flow line prior to inspection by the Department. If required by the Department, all seams or joints shall be left exposed (except the bottom) and the tank shall remain watertight for a period not less than twenty-four hours. [10-15-97]

2. The Department may require a flow test be performed through the system to the point of effluent disposal. All lines and components shall be watertight. Capacities, required air space, and fittings shall meet the requirements of this Subpart. [10-15-97]

409. AEROBIC TREATMENT SYSTEMS

Alternative on-site liquid waste systems employing aerobic treatment may be substituted for conventional septic tanks provided the permit applicant demonstrates that the proposed system will meet the requirements of Section 306, whether its aeration system is operating or not. [10-15-97]

410. ABANDONED SEWERS AND ON-SITE LIQUID WASTE SYSTEMS

1. Every abandoned building sewer, or part thereof, shall be plugged or capped utilizing a cap or plug prescribed by the Uniform Plumbing Code within five (5) feet of the property line. [10-15-97]

2. Every cesspool, holding tank, septic tank, seepage pit or other liquid waste treatment unit which has been abandoned or has otherwise been discontinued from further use or to which no waste or building sewer from a plumbing fixture is connected, shall have the liquid waste pumped therefrom and properly disposed. The empty liquid waste treatment unit shall be completely filled with earth, sand, gravel, concrete, or other approved material. [10-15-97]

3. The top cover or arch over the cesspool, holding tank, septic tank, seepage pit or other liquid waste treatment unit shall be removed before filling and the filling shall not extend above the top of the vertical portions of the sidewalls or above the level of any outlet pipe until inspection or authorization by the Department. After such inspection or authorization, the cesspool, holding tank, septic tank, seepage pit or other liquid waste treatment unit shall be filled to the level of the top of the ground. [10-15-97]

4. Where disposal facilities are abandoned consequent to connecting any premises with a public sewer, the permittee making the connection shall fill all abandoned facilities as required by the Department, within 30 days from the time of connection. [10-15-97]

411. - 499. RESERVED

500.

SUBPART V: MISCELLANEOUS

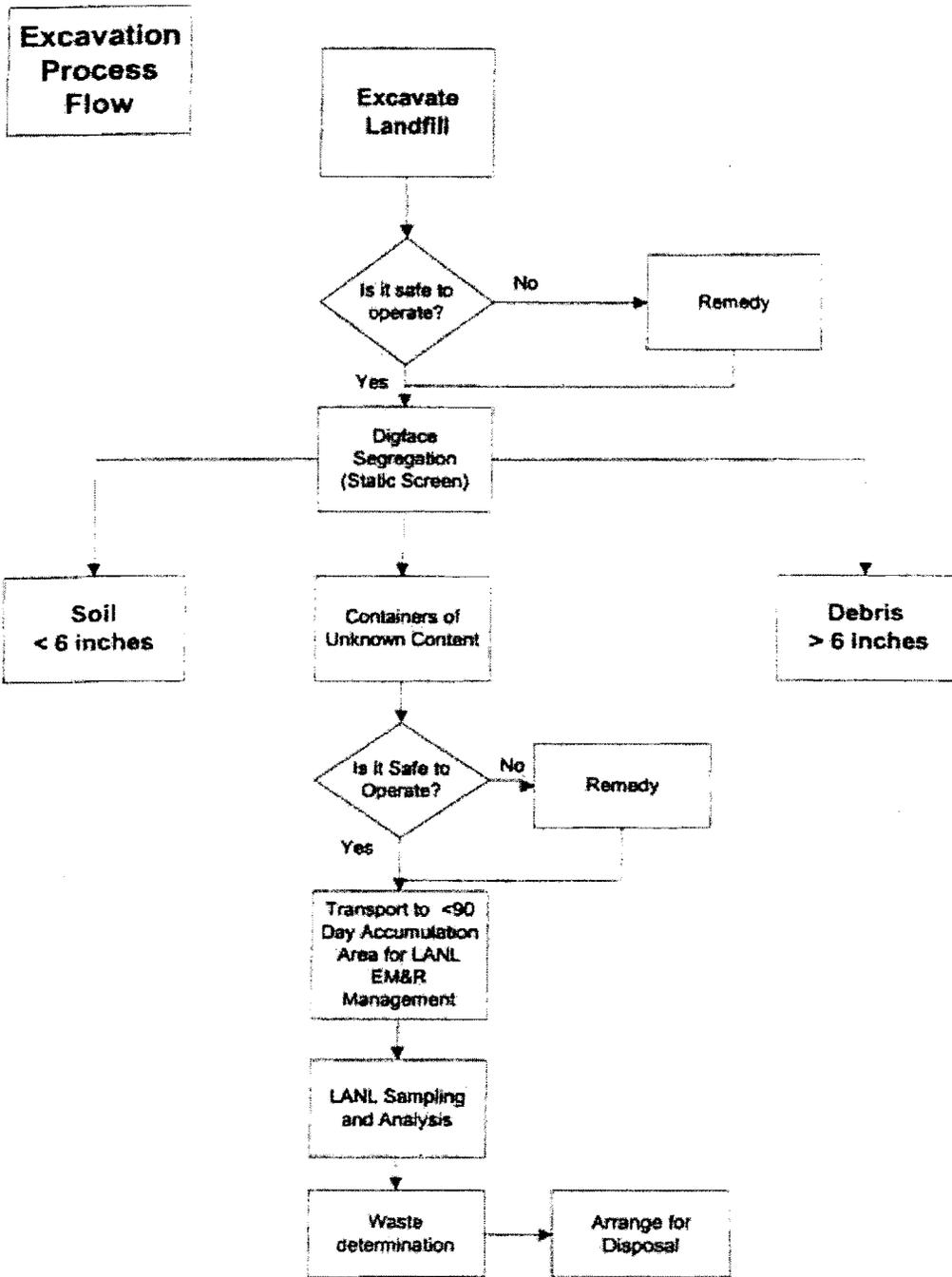
20 NMAC 7.3

55

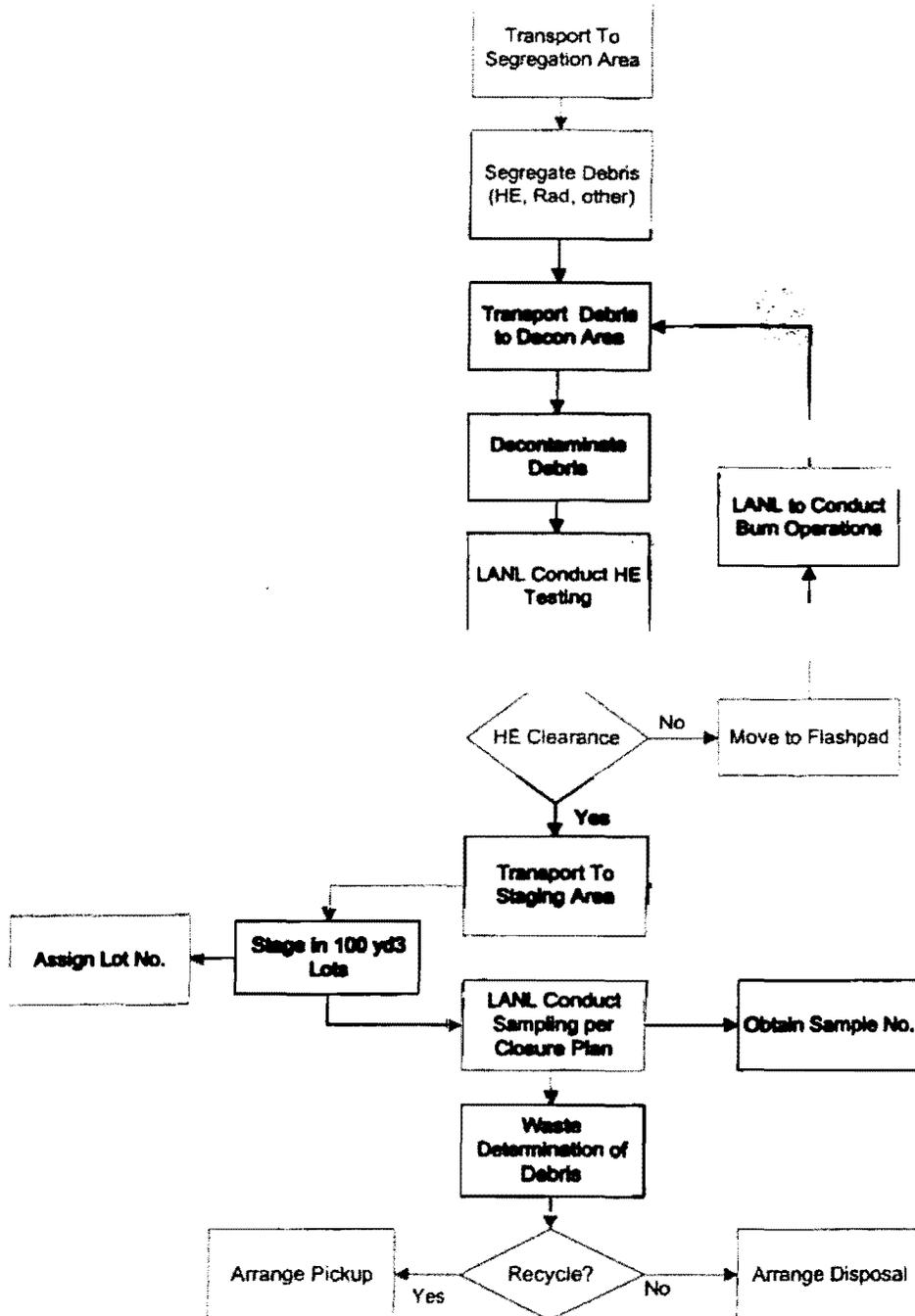
Appendix C

*Summaries of Operational Activities Related
to Material Removal and Staging at the
MDA P Site*

C-1.0 SEGREGATION PROCESS FLOW DIAGRAMS



Debris
> 6 inches



C-2.0 SUMMARY TABLE OF WASTES FROM MDA P EXCAVATION

Soil Sampled from MDA-P

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-SC-012999-0001	Soil	01/29/99	100	Pad1	D2	99- 1017	02/03/99
SL-SC-020299-0002	Soil	02/02/99	100	Pad 1	D2	99- 1021	02/04/99
SL-SC-020399-0003	Soil	02/03/99	100	Pad 1	C2	99- 1016	02/03/99
SL-SC-020399-0004	Soil	02/03/99	100	Pad 1	C2	99- 1020	02/04/99
SL-SC-020499-0005	Soil	02/04/99	100	Pad 1	D2	99- 1022	02/04/99
SL-AF-021999-0001	Soil	02/19/99	100	Pad 2	E2	99- 1028	02/22/99
SL-AF-021999-0002	Soil	02/19/99	100	Pad 2	E2	99- 1027	02/22/99
SL-AF-021999-0003	Soil	02/19/99	100	Pad 2	E2	99- 1026	02/22/99
SL-AF-021999-0004	Soil	02/19/99	100	Pad 2	E2	99- 1029	02/22/99
SL-SC-021999-0006	Soil	02/19/99	100	Pad 1	D1,D2	99- 1023	02/22/99
SL-AF-022399-0005	Soil	02/23/99	100	Pad 2	E2	99- 1030	02/24/99
SL-AF-022399-0006	Soil	02/23/99	100	Pad 2	E2	99- 1031	02/24/99
SL-AF-022699-0007	Soil	02/26/99	100	Pad 2	E2	99- 1034	03/16/99
SL-AF-022699-0008	Soil	02/26/99	100	Pad 2	E2	99- 1035	03/16/99
SL-AF-022699-0009	Soil	02/26/99	100	Pad 2	E2	99- 1036	03/16/99
SL-AF-030399-0010	Soil	03/03/99	100	Pad 2	D2	99- 1048	03/08/99
SL-AF-030499-0011	Soil	03/04/99	100	Pad 2	D2	99- 1047	03/08/99
SL-AF-038599-0012	Soil	03/08/99	100	Pad 2	D2	99- 1046	03/08/99
SL-AF-030999-0013	Soil	03/09/99	100	Pad 2	D2	99- 1052	03/18/99
SL-AF-031699-0014	Soil	03/16/99	100	Pad 2	E1	99- 1053	03/18/99
SL-AF-031699-0015	Soil	03/16/99	100	Pad 2	D2,E2	99- 1058	03/18/99
SL-AF-031699-0016	Soil	03/16/99	100	Pad 2	D2,E2	99- 1055	03/18/99

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-AF-031799-0017	Soil	03/17/99	100	Pad 2	E3	99- 1054	03/18/99
SL-AF-032299-0018	Soil	03/22/99	100	Pad 2	E2	99- 1059	03/24/99
SL-AF-032399-0019	Soil	03/23/99	100	Pad 2	E1,E3	99- 1060	03/24/99
SL-AF-032499-0020	Soil	03/24/99	100	Pad 2	E1,E3	99- 1064	03/29/99
SL-AF-032699-0021	Soil	03/26/99	100	Pad 1	E1,E3	99- 1069	03/31/99
SL-AF-032999-0022	Soil	03/29/99	100	Pad 1	E2	99- 1071	03/31/99
SL-AF-033099-0023	Soil	03/30/99	100	Pad 1	F5,F4	99- 1070	03/31/99
SL-AF-033099-0024	Soil	03/30/99	100	Pad 1	F5,F4	99- 1068	03/31/99
SL-AF-033099-0025	Soil	03/30/99	100	Pad 1	F5,F4	99- 1072	03/31/99
SL-AF-033199-0026	Soil	03/31/99	100	Pad 1	F1,F2	99- 1076	04/07/99
SL-AF-040199-0027	Soil	04/01/99	100	Pad 1	F2,F3	99- 1075	04/07/99
SL-AF-040699-0028	Soil	04/06/99	100	Pad 1	F2	99- 1077	04/07/99
SL-AF-040699-0029	Soil	04/06/99	100	Pad 1	F2	99- 1081	04/14/99
SL-AF-041299-0030	Soil	04/12/99	100	Pad 4	F3	99- 1082	04/14/99
SL-AF-041299-0031	Soil	04/12/99	100	Pad 4	F3	99- 1083	04/14/99
SL-AF-041399-0032	Soil	04/13/99	100	Pad 4	F2, F3	99- 1084	04/14/99
SL-AF-041399-0033	Soil	04/13/99	100	Pad 4	F2,F3	99- 1088	04/14/99
SL-AF-041599-0034	Soil	04/15/99	100	Pad 4	E3, F3	99- 1090	04/21/99
SL-AF-041699-0035	Soil	04/16/99	100	Pad 4	E3, F3	99- 1091	04/21/99
SL-AF-041699-0036	Soil	04/16/99	100	Pad 4	E3, F3	99- 1092	04/21/99
SL-AF-042099-0037	Soil	04/20/99	100	Pad 2	E2	99- 1089	04/21/99
SL-AF-042199-0038	Soil	04/21/99	100	Pad 2	E1, E2	99- 1096	04/22/99
SL-AF-042399-0039	Soil	04/23/99	100	Pad 4	G3,G4	99- 1097	04/26/99

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-AF-050399-0040	Soil	05/03/99	100	Pad 4	G4	99- 1101	05/05/99
SL-AF-050399-0041	Soil	05/03/99	100	Pad 4	G4	99- 1102	05/05/99
SL-AF-050499-0042	Soil	05/04/99	100	Pad 2	G6	99- 1099	05/05/99
SL-AF-050599-0043	Soil	05/05/99	100	Pad 4	G4	99- 1100	05/05/99
SL-AF-050799-0044	Soil	05/07/99	100	Pad 2	G5	99- 1103	05/10/99
SL-AF-051199-0045	Soil	05/11/99	100	Pad 2	G4, G5	99- 1104	05/12/99
SL-AF-051299-0046	Soil	05/12/99	100	Pad 2	G4, G5	99- 1105	05/13/99
SL-AF-051899-0047	Soil	05/18/99	100	Pad 2	G5, G6	99- 1107	05/18/99
SL-AF-060399-0048	Soil	06/03/99	100	Pad 2	G5	99- 1111	06/07/99
SL-AF-060799-0049	Soil	06/07/99	100	Pad 2	G5	99- 1130	06/08/99
SL-B-060899-1050	Soil	06/08/99	100	Pad 10	G5	99- 1112	06/08/99
SL-B-060899-1051	Soil	06/08/99	100	Pad 10	G5	99- 1113	06/08/99
SL-B-060899-1052	Soil	06/08/99	100	Pad 10	G5	99- 1114	06/08/99
SL-B-060899-1053	Soil	06/08/99	100	Pad 10	G5	99- 1115	06/08/99
SL-B-060899-1054	Soil	06/08/99	100	Pad 10	G5	99- 1116	06/08/99
SL-B-060899-1055	Soil	06/08/99	100	Pad 10	G5	99- 1117	06/08/99
SL-B-060899-1056	Soil	06/08/99	100	Pad 10	G5	99- 1118	06/08/99
SL-B-060899-1057	Soil	06/08/99	100	Pad 10	G5	99- 1119	06/08/99
SL-B-060899-1058	Soil	06/08/99	100	Pad 10	G5	99- 1122	06/09/99
SL-B-060899-1059	Soil	06/08/99	100	Pad 10	G5	99- 1123	06/09/99
SL-B-060899-1060	Soil	06/08/99	100	Pad 10	G5	99- 1124	06/09/99
SL-B-060899-1061	Soil	06/08/99	100	Pad 10	G5	99- 1125	06/09/99
SL-B-060899-1062	Soil	06/08/99	100	Pad 10	G5	99- 1126	06/09/99

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-060899-1063	Soil	06/08/99	100	Pad 10	G5	99- 1127	06/09/99
SL-B-060899-1064	Soil	06/08/99	100	Pad 10	G5	99- 1128	06/09/99
SL-B-060899-1065	Soil	06/08/99	100	Pad 10	G5	99- 1129	06/09/99
SL-B-061499-1066	Soil	06/14/99	100	Pad 10	E3, F3	99- 1133	06/14/99
SL-B-061499-1067	Soil	06/14/99	100	Pad 10	E3, F3	99- 1134	06/14/99
SL-B-061499-1068	Soil	06/14/99	100	Pad 10	E3, F3	99- 1135	06/14/99
SL-B-062399-1069	Soil	06/23/99	100	Pad 10	G6	99- 1137	06/23/99
SL-B-062399-1070	Soil	06/23/99	100	Pad 10	G6	99- 1138	06/23/99
SL-B-062399-1071	Soil	06/23/99	100	Pad 10	G6	99- 1139	06/23/99
SL-B-062899-1072	Soil	06/28/99	100	Pad 10	G6	99- 1140	06/30/99
SL-B-062899-1073	Soil	06/28/99	100	Pad 10	G6	99- 1142	06/30/99
SL-B-062899-1074	Soil	06/28/99	100	Pad 10	G6	99- 1141	06/30/99
SL-B-070799-1075	Soil	07/07/99	100	Pad 10	G9, E9	99- 1147	07/08/99
SL-B-070799-1076	Soil	07/07/99	100	Pad 10	G9, E9	99- 1148	07/08/99
SL-B-070799-1077	Soil	07/07/99	100	Pad 10	G9, E9	99- 1149	07/08/99
SL-B-070799-1078	Soil	07/07/99	100	Pad 10	F1	99- 1150	07/08/99
SL-AF-071999-0081	Soil	07/19/99	100	Pad 1	G4	99- 1154	07/20/99
SL-AF-071999-0082	Soil	07/19/99	100	Pad 3	G5	99- 1168	07/22/99
SL-AF-071999-0083	Soil	07/19/99	100	Pad 1	G5	99- 1155	07/20/99
SL-B-071999-1079	Soil	07/19/99	100	Pad 10	G4	99- 1152	07/20/99
SL-B-071999-1080	Soil	07/19/99	100	Pad 10	G4	99- 1153	07/20/99
SL-B-071999-1084	Soil	07/19/99	100	Pad 10	G5	99- 1156	07/20/99
SL-AF-072199-0085	Soil	07/21/99	100	Pad 2	G5, H5	99- 1173	07/29/99

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-072199-1086	Soil	07/21/99	100	Pad 10	G5, G6, H5	99- 1169	07/28/99
SL-B-072699-1087	Soil	07/26/99	100	Pad 10	G6	99- 1170	07/28/99
SL-B-072699-1088	Soil	07/26/99	100	Pad 10	G6	99- 1171	07/28/99
SL-AF-072799-0090	Soil	07/27/99	100	Pad 1	G8, H8	99- 1174	07/29/99
SL-B-072799-1089	Soil	07/27/99	100	Pad 10	G8, H8	99- 1172	07/28/99
SL-B-072999-1091	Soil	07/27/99	100	Pad 10	G8, H8	99- 1177	08/02/99
SL-B-072999-1092	Soil	07/27/99	100	Pad 10	G8, H8	99- 1178	08/02/99
SL-B-072999-1093	Soil	07/27/99	100	Pad 10	G8, H8	99- 1179	08/02/99
SL-B-080999-1094	Soil	08/09/99	100	Pad 10	F1, F2, G2	99-1182/ 1184	08/11/99
SL-AF-081099-0095	Soil	08/10/99	100	Pad 10	F1, F2, G2	99-1183/ 1185	08/11/99
SL-AF-081199-0096	Soil	08/11/99	100	Pad 1	F1,2,G2,G8-9	99- 1320	08/17/99
SL-B-081299-1097	Soil	08/12/99	100	Pad 10	F1, F2, G2	99- 1323	08/17/99
SL-AF-081699-0099	Soil	08/16/99	100	Pad 1	F3, G2, G3	99- 1321	08/17/99
SL-AF-081699-0100	Soil	08/16/99	100	Pad 1	F3, G2, G3	99- 1322	08/17/99
SL-B-081699-1098	Soil	08/16/99	100	Pad 10	F3, G2, G3	99- 1324	08/17/99
SL-AF-081799-0101	Soil	08/17/99	100	Pad 1	F3, G2, G3	99- 1325	08/19/99
SL-AF-081799-0102	Soil	08/17/99	100	Pad 1	F3, G2, G3	99- 1326	08/19/99
SL-AF-081899-0103	Soil	08/18/99	100	Pad 2	F3, G2, G3	99- 1328	08/23/99
SL-AF-081899-0104	Soil	08/18/99	100	Pad 2	F3, G2, G3	99- 1329	08/23/99
SL-AF-082099-0105	Soil	08/20/99	100	Pad 2	F3, G2, G3	99- 1330	08/23/99
SL-B-082499-1106	Soil	08/24/99	100	Pad 12	F1-F3,G1-G3	99- 1331	08/26/99
SL-B-082499-1107	Soil	08/24/99	100	Pad 12	G5-G7,H5-H7	99- 1332	08/26/99
SL-B-082598-1108	Soil	08/25/99	100	Pad 12	H6-H8,G8	99- 1333	08/26/99

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-082699-1109	Soil	08/26/99	100	Pad 12	H6-H8,G8	99- 1337	08/31/99
SL-AF-082799-0110	Soil	08/27/99	100	Pad 2	E2,F2,F3	99- 1338	08/31/99
SL-B-083099-1111	Soil	08/30/99	100	Pad 12	H6-H8	99- 1340	09/07/99
SL-B-083199-1112	Soil	08/31/99	100	Pad 12	F10,E9,10,H6-H8	99- 1342	09/07/99
SL-B-090199-1113	Soil	09/01/99	100	Pad 12	F10, G10	99- 1343	09/07/99
SL-B-090299-1114	Soil	09/02/99	100	Pad 12	F10, G10	99- 1344	09/07/99
SL-B-090399-1115	Soil	09/03/99	100	Pad 12	F10, G10	99- 1355	09/13/99
SL-B-090799-1116	Soil	09/07/99	100	Pad 12	F10, G10	99- 1356	09/13/99
SL-B-090899-1117	Soil	09/08/99	100	Pad 12	F9, G9	99- 1357	09/13/99
SL-B-090999-1118	Soil	09/09/99	100	Pad 12	F9, G9	99- 1358	09/13/99
SL-AF-091499-0119	Soil	09/14/99	100	Pad 4	G3,4,H4,5	99- 1360	09/22/99
SL-AF-092199-0120	Soil	09/21/99	100	Pad 4	G3,4,H4,5,G9,F9	99- 1364	09/27/99
SL-AF-092199-0122	Soil	09/21/99	100	Pad 1	G1-G3,H3 I5-b4	99- 1361	09/22/99
SL-AF-092199-0123	Soil	09/21/99	100	Pad 1	G1-G3,H3 I5-b4	99- 1362	09/22/99
SL-B-092199-1121	Soil	09/21/99	100	Pad 12	G3,4,H4,5 I5-b4	99-1363/ 1372	09/22/99
SL-AF-092299-0124	Soil	09/22/99	100	Pad 2	G1-G3,H3 I5-b4	99- 1365	09/27/99
SL-AF-092299-0125	Soil	09/22/99	100	Pad 2	H3 I5-b4	99- 1366	09/27/99
SL-AF-092499-0126	Soil	09/24/99	100	Pad 2	H3 I5-b4	99- 1373	10/04/99
SL-AF-092899-0127	Soil	09/28/99	100	Pad 4	b2,b3 W cleanup	99- 1374	10/04/99
SL-B-092899-1128	Soil	09/28/99	100	Pad 12	b2,b3 E cleanup	99- 1368	10/04/99
SL-B-092999-1129	Soil	09/29/99	100	Pad 12	b2,b3 E cleanup	99- 1369	10/04/99
SL-B-093099-1130	Soil	09/30/99	100	Pad 12	b2,b3 E cleanup	99- 1370	10/04/99
SL-B-100499-1131	Soil	10/04/99	100	Pad 12	b2,b3 E cleanup	99- 1371	10/04/99

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-100499-1132	Soil	10/04/99	100	Pad 12	H4,H5,I5 b5 lev 6	99- 1378	10/06/99
SL-B-100699-1133	Soil	10/06/99	100	Pad 12	H4,H5,I5 b5 lev 6	99- 1379	10/06/99
SL-B-100699-1134	Soil	10/06/99	100	Pad 12	H4,H5,I5 b5 lev 6	99-1381/ 1015	10/12/99
SL-B-100699-1135	Soil	10/06/99	100	Pad 12	H4,H5,I5 b5 lev 6	99- 1382	10/12/99
SL-B-100899-1136	Soil	10/08/99	100	Pad 10	H4,H5,I5 b5 lev 6	99- 1383	10/12/99
SL-AF-101299-0137	Soil	10/12/99	100	Pad 4	w lobe bench 2-5	99- 1389	10/20/99
SL-AF-101299-0138	Soil	10/12/99	100	Pad 4	w lobe bench 2-5	99-1390/ 1391	10/20/99
SL-B-101299-1139	Soil	10/12/99	100	Pad 12	w lobe bench 2-5	99- 1384	10/20/99
SL-B-101299-1140	Soil	10/12/99	100	Pad 12	w lobe bench 2-5	99- 1385	10/20/99
SL-B-101399-1141	Soil	10/13/99	100	Pad 12	w lobe bench 2-5	99- 1386	10/20/99
SL-B-101499-1142	Soil	10/14/99	100	Pad 12	w lobe bench 2-5	99-1387/ 1388	10/20/99
SL-B-101499-1143	Soil	10/14/99	100	Pad 10	w lobe bench 2-5	99- 1393	10/25/99
SL-B-101999-1144	Soil	10/19/99	100	Pad 10	H6-8,I6-8	99- 1394	10/25/99
SL-B-102099-1145	Soil	10/20/99	100	Pad 10	H6-8,I6-8	99- 1395	10/25/99
SL-B-102099-1146	Soil	10/20/99	100	Pad 10	H6-8,I6-8	99- 1396	10/25/99
SL-B-102199-1147	Soil	10/21/99	100	Pad 10	H6-8,I6-8	99- 1397	10/25/99
SL-B-102199-1148	Soil	10/21/99	100	Pad 10	H6-8,I6-8	99- 1398	10/25/99
SL-AF-102699-0151	Soil	10/26/99	100	Pad 4	H7,8,I7,8	99- 1403	11/01/99
SL-B-102699-1149	Soil	10/26/99	100	Pad 10	H7,8,I7,8	99- 1399	11/01/99
SL-B-102699-1150	Soil	10/26/99	100	Pad 10	H7,8,I7,8	99- 1400	11/01/99
SL-B-102799-1152	Soil	10/27/99	100	Pad 10	H7,8,I7,8	99- 1401	11/01/99
SL-AF-102999-0153	Soil	10/29/99	100	Pad 1	H7,8,I7,8	99- 1402	11/01/99
SL-B-102999-1154	Soil	10/29/99	100	Pad 10	H7,8,I7,8	99- 1404	11/03/99

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-110199-1155	Soil	11/01/99	100	Pad 10	H3,4,I3,4	99- 1405	11/03/99
SL-B-110299-1156	Soil	11/02/99	100	Pad 13	H3,4,I3,4	99- 1407	11/08/99
SL-B-110299-1157	Soil	11/02/99	100	Pad 13	H3,4,I3,4	99- 1408	11/08/99
SL-B-110499-1158	Soil	11/04/99	100	Pad 13	H3,4,I3,4	99- 1409	11/08/99
SL-AF-110999-0159	Soil	11/09/99	100	Pad 1	I2,3,4,5	99- 1413	11/15/99
SL-B-110999-1160	Soil	11/09/99	100	Pad 13	I2,3,4,5	99- 1410	11/15/99
SL-B-111199-1161	Soil	11/11/99	100	Pad 10	I2,3,4,5	99- 1411	11/15/99
SL-B-111199-1162	Soil	11/11/99	100	Pad 10	I2,3,4,5	99- 1412	11/15/99
SL-B-111699-1163	Soil	11/16/99	100	Pad 10	I2,3,4,5	99- 1421	11/17/99
SL-AF-111999-0165	Soil	11/19/99	100	Pad 1	I3,4,5;J3,4,5,6	99- 1428	11/23/99
SL-B-111999-1164	Soil	11/19/99	100	Pad 10	I3,4,5;J3,4,5,6	99-1426/ 1427	11/23/99
SL-AF-113099-0166	Soil	11/30/99	100	Pad 1	I3,4,5;J3,4,5,6	99- 1431	12/06/99
SL-AF-120199-0167	Soil	12/01/99	100	Pad 2	I3,4,5;J3,4,5,6	99- 1432	12/06/99
SL-AF-120299-0169	Soil	12/02/99	100	Pad 2	I3,4,5;J3,4,5,6	99- 1433	12/06/99
SL-B-120299-1168	Soil	12/02/99	100	Pad 10	I3,4,5;J3,4,5,6	99- 1430	12/06/99
SL-AF-120799-0170	Soil	12/07/99	100	Pad 2	I3,4,5;J3,4,5,6	99- 1437	12/13/99
SL-AF-120799-0175	Soil	12/07/99					
SL-AF-120999-0172	Soil	12/09/99	100	Pad 2	I3,4,5;J3,4,5,6	99- 1438	12/13/99
SL-B-120999-1171	Soil	12/09/99	100	Pad 10	I3,4,5;J3,4,5,6	99- 1439	12/13/99
SL-B-121699-1173	Soil	12/16/99	100	Pad 10	I3,4,5;J3,4,5,6	99- 1442	12/20/99
SL-B-121699-1174	Soil	12/16/99	100	Pad 10	I3,4,5;J3,4,5,6	99- 1443	12/20/99
SL-B-121799-1175	Soil	12/1799	100	Pad 10	I3,4,5;J3,4,5,6	00- 1000	01/05/00
SL-AF-122099-0176	Soil	12/20/99	100	Pad 2	I3,4,5;J3,4,5,6	99- 1441	12/20/99

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-122199-1177	Soil	12/21/99	100		I3,4,5;J3,4,5,6	00- 1002	01/05/00
SL-B-122299-1178	Soil	12/22/99	100		I3,4,5;J3,4,5,6	00- 1001	01/05/00
SL-B-010700-1179	Soil	01/07/00	100		E11,E12,E13 (Start of East Lobe)	00- 1005	01/10/00
SL-B-010700-1180	Soil	01/07/00	100		E11, E12, E13	00- 1006	01/12/00
SL-B-011100-1181	Soil	01/11/00	100		E11, E12, E13	00- 1007	01/12/00
SL-B-011800-1182	Soil	01/18/00	100		E11, E12, E13	00- 1010	11/18/00
SL-B-011800-1183	Soil	01/18/00	100		E11, E12, E13	00- 1011	11/18/00
SL-B-011800-1184	Soil	01/18/00	100		E10, E11	00- 1012	01/24/00
SL-B-011900-1185	Soil	01/19/00	100		E10, E11	00- 1013	01/24/00
SL-B-012000-1186	Soil	01/20/00	100		D11, D12, E11, E12	00- 1014	01/24/00
SL-B-012500-1187	Soil	01/25/00	100		D11, D12, E11, E12	00- 1016	01/31/00
SL-B-012700-1188	Soil	01/27/00	100		D12, D13	00- 1017	01/31/00
SL-B-013100-1189	Soil	01/31/00	100		D12, D13	00- 1018	02/07/00
SL-B-020100-1190	Soil	02/01/00	100		D12, D13	00- 1019	02/07/00
SL-B-020300-1191	Soil	02/03/00	100		D9, D10	00-1020/ 1021	02/07/00
SL-B-020700-1192	Soil	02/07/00	100		D9, D10	00- 1022	02/14/00
SL-B-021000-1193	Soil	02/10/00	100		D9, E9	00- 1023	02/14/00
SL-B-021100-1194	Soil	02/11/00	100		D9, E9	00- 1024	02/16/00
SL-B-021500-1195	Soil	02/15/00	100		D9,13,14;E9,13,14; C13,14	00- 1025	02/28/00
SL-B-021700-1196	Soil	02/17/00	100		D9,13,14;E9,13,14; C13,14	00- 1026	02/28/00
SL-B-021800-1197	Soil	02/18/00	100		D9,13,14;E9,13,14; C13,14	00- 1027	02/28/00

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-022300-1198	Soil	02/23/00	100		D9,13,14;E9,13,14; C13,14	00- 1028	03/01/00
SL-B-022800-1199	Soil	02/28/00	100		C13,14;D13,14	00- 1029	03/01/00
SL-B-022900-1200	Soil	02/29/00	100		C13,14;D13,14	00- 1031	03/06/00
SL-B-030300-1201	Soil	03/03/00	100		D11, D12, D13	00- 1032	03/06/00
SL-B-030800-1202	Soil	03/08/00	100		D11, D12, D13	00- 1033	03/08/00
SL-B-030800-1203	Soil	03/08/00	100	Pad 10	D11, D12, D13	00- 1036	03/13/00
SL-B-031000-1204	Soil	03/10/00	100	Pad 10	D11, D12, D13	00- 1037	03/15/00
SL-B-031400-1205	Soil	03/14/00	100	Pad 10	D11, D12, D13	00- 1038	03/15/00
SL-B-031600-1206	Soil	03/16/00	100	Pad 10	F10, G10, F12, G12	00- 1039	03/27/00
SL-B-032100-1207	Soil	03/24/00	100	Pad 10	F10, G10, F12, G12	00- 1040	03/27/00
SL-B-032800-1208	Soil	03/28/00	100	Pad 10	E9 - E14, F9 -F14	00- 1048	03/29/00
SL-B-032800-1209	Soil	03/28/00	100	Pad 10	E9 - E14, F9 -F14	00- 1049	03/29/00
SL-B-033100-1210	Soil	03/31/00	100	Pad 10	E9 - E14, F9 -F14	00- 1052	04/03/00
SL-B-040500-1211	Soil	04/05/00	100	Pad 10	E9 - E14, F9 -F14	00-1055/ 1056	04/10/00
SL-B-040500-1212	Soil	04/05/00	100	Pad 10	E9 - E14, F9 -F14	00- 1057	04/10/00
SL-B-040700-1213	Soil	04/07/00	100	Pad 10	E9 - E14, F9 -F14	00-1061/1074	04/17/00
SL-B-041000-1214	Soil	04/10/00	100	Pad 10	C13,14;D13,14; E13,14	00- 1062	04/17/00
SL-B- 041300-1215	Soil	04/13/00	100	Pad 10	C13,14;D13,14; E13,14	00- 1063	04/17/00
SL-B-041400-1216	Soil	04/14/00	100	Pad 10	C13,14;D13,14; E13,14	00- 1066	04/19/00
SL-B-041900-1217	Soil	04/19/00	100	Pad 10	C13,14;D13,14; E13,14	00- 1069	04/24/00
SL-B-042100-1218	Soil	04/21/00	100	Pad 10	C13,14;D13,14; E13,14	00-1070/1076	04/26/00
SL-B-042500-1219	Soil	04/25/00	100	Pad 10	C13,14;D13,14; E13,14	00- 1071	05/01/00
SL-B-042600-1220	Soil	04/26/00	100	Pad 10	C13,14;D13,14; E13,14	00- 1072	05/03/00

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-042700-1221	Soil	04/27/00	100	Pad 10	C13,14;D13,14; E13,14	00- 1073	05/03/00
SL-B-050200-1222	Soil	05/02/00	100	Pad 10	D11- 13; E11-13	00- 1079	06/07/00
SL-B-050500-1223	Soil	05/05/00	100	Pad 10	D11- 13; E11-13	00- 1080	06/07/00
SL-B-060600-1224	Soil	06/06/00	100	Pad 11	D11- 13; E11-13	00- 1081	06/21/00
SL-B-060800-1225	Soil	06/08/00	100	Pad 11	D11- 13; E11-13	00- 1082	06/21/00
SL-B-060900-1226	Soil	06/09/00	100	Pad 11	D11- 13; E11-13	00- 1083	06/21/00
SL-B-061300-1227	Soil	06/13/00	100	Pad 11	E8 - 14; F8 -14	00- 1084	06/21/00
SL-B-061500-1228	Soil	06/15/00	100	Pad 11	E8 - 14; F8 -14	00- 1085	06/21/00
SL-B-061600-1229	Soil	06/16/00	100	Pad 11	E8 - 14; F8 -14	00- 1086	06/21/00
SL-B-062000-1230	Soil	06/20/00	100	Pad 11	E8 - 14; F8 -14	00- 1087	06/27/00
SL-B-062300-1231	Soil	06/23/00	100	Pad 11	E8 - 14; F8 -14	00-1088/1089	06/27/00
SL-B-062600-1232	Soil	06/27/00	100	Pad 11	E8 - 14; F8 -14	00-1090/1119	06/27/00
SL-B-062700-1233	Soil	06/27/00	100	Pad 11	D10 - 13, E10 - 13, F10 - 13	00- 1106	07/05/00
SL-B-062800-1234	Soil	06/28/00	100	Pad 11	D10 - 13, E10 - 13, F10 - 13	00-1107/ 1133	07/05/00
SL-B-062900-1235	Soil	06/29/00	100	Pad 11	D10 - 13, E10 - 13, F10 - 13	00- 1109	07/10/00
SL-B-080200-1243	Soil	08/02/00	100	Pad 10	599, 598, 668, 631	00- 1124	08/09/00
SL-B-080300-1244	Soil	08/03/00	100	Pad 10	598,631-634, 668,667,669	00- 1125	08/09/00
SL-B-080300-1245	Soil	08/03/00	100	Pad 10	598,631-634, 668,667,669	00- 1126	08/09/00
SL-B-080700-1246	Soil	08/07/00	100	Pad 10	598,631-634, 668,667,669	00- 1127	08/09/00
SL-B-080700-1247	Soil	08/07/00	100	Pad 10	598,631-634, 668,667,669	00- 1128	08/09/00
SL-B-080800-1248	Soil	08/08/00	100	Pad 10	597,598,631-634	00- 1129	08/09/00
SL-B-080800-1249	Soil	08/08/00	100	Pad 10	597,598,631-634	00- 1130	08/14/00
SL-B-081000-1250	Soil	08/10/00	100	Pad 10	594,596,597,629,630	00- 1131	08/14/00

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-081100-1251	Soil	08/11/00	100	Pad 10	562,563,566,567,591,602,603,	00- 1132	08/14/00
SL-B-081400-1252	Soil	08/14/00	100	Pad 10	592,593,594,629,630,665,	00- 1134	08/16/00
SL-B-081400-1253	Soil	08/14/00	100	Pad 10	520-522,590,591,627,	00- 1135	08/16/00
SL-B-081500-1254	Soil	08/15/00	100	Pad 10	561,564,595,596,654,657,660,663,664,	00- 1136	08/16/00
SL-B-081500-1255	Soil	08/15/00	100	Pad 10	561,564,595,596,654,657,660,663,664,	00- 1137	08/16/00
SL-B-081500-1256	Soil	08/15/00	100	Pad 10	561,564,595,596,654,657,660,663,664,	00- 1138	08/16/00
SL-B-081700-1257	Soil	08/17/00	100	Pad 10	554,556,557,595-597,631,632,	00- 1139	08/21/00
SL-B-081700-1258	Soil	08/17/00	100	Pad 10	554,556,557,595-597,631,632,	00- 1140	08/21/00
SL-B-081700-1259	Soil	08/17/00	100	Pad 10	554,556,557,595-597,631,632,	00- 1141	08/21/00
SL-B-082100-1260	Soil	08/21/00	100	Pad 10	554,556,557,595-597,631,632,	00- 1185	09/13/00
SL-B-082100-1261	Soil	08/21/00	100	Pad 12	376, 487, 523	00- 1142	08/23/00
SL-B-082100-1262	Soil	08/21/00	100	Pad 12	376, 487, 523	00- 1143	08/23/00
SL-B-082200-1263	Soil	08/22/00	100	Pad 12	372 - 375, 408 - 410	00- 1144	08/23/00
SL-B-082200-1264	Soil	08/22/00	100	Pad 12	372 - 375, 408 - 410	00- 1145	08/23/00
SL-B-082200-1265	Soil	08/22/00	100	Pad 12	372 - 375, 408 - 410	00- 1146	08/23/00
SL-B-082200-1266	Soil	08/22/00	100	Pad 12	372 - 375, 408 - 410	00- 1147	08/28/00
SL-B-082300-1267	Soil	08/23/00	100	Pad 12	372 - 375, 408 - 410	00- 1148	08/28/00
SL-B-082300-1268	Soil	08/23/00	100	Pad 12	372 - 375, 408 - 410	00- 1149	08/28/00
SL-B-082400-1269	Soil	08/24/00	100	Pad 14	372 - 375, 408 - 410	00- 1150	08/28/00
SL-B-082400-1270	Soil	08/24/00	100	Pad 14	372 - 375, 408 - 410	00- 1151	08/28/00
SL-B-082400-1271	Soil	08/24/00	100	Pad 14	411 - 414	00- 1152	08/28/00

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-082400-1272	Soil	08/24/00	100	Pad 14	411 - 414	00- 1153	08/28/00
SL-B-082400-1273	Soil	08/24/00	100	Pad 14	411 - 414	00- 1154	08/28/00
SL-B-082500-1274	Soil	08/25/00	100	Pad 14	409	00-1155/1241	08/28/00
SL-B-082800-1275	Soil	08/28/00	100	Pad 14	409, 410, 443, 444, 445	00- 1156	08/30/00
SL-B-082800-1276	Soil	08/28/00	100	Pad 14	409, 410, 443, 444, 445	00- 1157	08/30/00
SL-B-082800-1277	Soil	08/28/00	100	Pad 14	409, 410, 443, 444, 445	00- 1158	08/30/00
SL-B-082900-1278	Soil	08/29/00	100	Pad 14	443, 444, 445	00- 1159	08/30/00
SL-B-082900-1279	Soil	08/29/00	100	Pad 14	443, 444, 445	00- 1160	08/30/00
SL-B-082900-1280	Soil	08/29/00	100	Pad 14	443, 444, 445	00- 1161	08/30/00
SL-B-082900-1281	Soil	08/29/00	100	Pad 14	443, 444, 445	00- 1162	08/30/00
SL-B-083000-1282	Soil	08/30/00	100	Pad 14	445, 446, 447	00- 1163	09/06/00
SL-B-083000-1283	Soil	08/30/00	100	Pad 14	445, 446, 447	00- 1164	09/06/00
SL-B-083000-1284	Soil	08/30/00	100	Pad 14	445, 446, 447	00- 1165	09/06/00
SL-B-083000-1285	Soil	08/30/00	100	Pad 14	445, 446, 447	00- 1166	09/06/00
SL-B-083100-1286	Soil	08/31/00	100	Pad 14	446, 447	00- 1167	09/06/00
SL-B-090500-1287	Soil	09/05/00	100	Pad 14	479, 480, 481	00- 1168	09/06/00
SL-B-090500-1288	Soil	09/05/00	100	Pad 14	479, 480, 481	00- 1169	09/06/00
SL-B-090500-1289	Soil	09/05/00	100	Pad 14	479, 480, 481	00- 1170	09/06/00
SL-B-090500-1290	Soil	09/05/00	100	Pad 14	479, 480, 481	00- 1171	09/06/00
SL-B-090600-1291	Soil	09/06/00	100	Pad 15	408 - 412	00- 1180	09/11/00
SL-B-090600-1292	Soil	09/06/00	100	Pad 15	408 - 412	00- 1179	09/11/00
SL-B-090600-1293	Soil	09/06/00	100	Pad 14	408 - 412	00- 1172	09/11/00
SL-B-090700-1294	Soil	09/07/00	100	Pad 15	408 - 412; 444 - 447	00- 1178	09/11/00

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-090700-1295	Soil	09/07/00	100	Pad 15	408 - 412; 444 - 447	00- 1177	09/11/00
SL-B-090700-1296	Soil	09/07/00	100	Pad 15	408 - 412; 444 - 447	00- 1176	09/11/00
SL-B-090700-1297	Soil	09/07/00	100	Pad 15	408 - 412; 444 - 447	00- 1175	09/11/00
SL-B-090700-1298	Soil	09/07/00	100	Pad 15	408 - 412; 444 - 447	00- 1174	09/11/00
SL-B-090700-1299	Soil	09/07/00	100	Pad 15	408 - 412; 444 - 447	00- 1173	09/11/00
SL-B-090700-1300	Soil	09/07/00	100	Pad 14	408 - 412; 444 - 447	00- 1181	09/11/00
SL-B-090700-1301	Soil	09/07/00	100	Pad 14	408 - 412; 444 - 447	00- 1182	09/11/00
SL-B-090700-1302	Soil	09/07/00	100	Pad 14	408 - 412; 444 - 447	00- 1183	09/11/00
SL-B-091100-1303	Soil	09/11/00	100	Pad 15	448, 449	00- 1184	09/13/00
SL-B-091100-1304	Soil	09/11/00	100	Pad 15	448, 449	00- 1186	09/13/00
SL-B-091200-1305	Soil	09/12/00	100	Pad 15	447 - 449, 483, 519	00- 1187	09/13/00
SL-B-091200-1306	Soil	09/12/00	100	Pad 15	447 - 449, 483, 519	00- 1188	09/13/00
SL-B-091200-1307	Soil	09/12/00	100	Pad 15	447 - 449, 483, 519	00- 1189	09/13/00
SL-B-091200-1308	Soil	09/12/00	100	Pad 15	447 - 449, 483, 519	00- 1190	09/13/00
SL-B-091200-1309	Soil	09/12/00	100	Pad 14	447 - 449, 483, 519	00- 1192	09/13/00
SL-B-091200-1310	Soil	09/12/00	100	Pad 14	447 - 449, 483, 519	00- 1193	09/13/00
SL-B-091300-1311	Soil	09/13/00	100	Pad 15	447 - 449, 483, 519	00- 1194	09/18/00
SL-B-091300-1312	Soil	09/13/00	100	Pad 15	447 - 449, 483, 519	00- 1196	09/18/00
SL-B-091300-1313	Soil	09/13/00	100	Pad 15	447 - 449, 483, 519	00- 1197	09/18/00
SL-B-091500-1314	Soil	09/15/00	100	Pad 15	447 - 449, 483, 519	00- 1195	09/18/00
SL-B-091800-1315	Soil	09/18/00	100	Pad 14	447 - 449, 483, 519	00- 1198	09/20/00
SL-B-091900-1316	Soil	09/19/00	100	Pad 15	629, 665 - 668, 704, 705	00- 1199	09/20/00
SL-B-092100-1317	Soil	09/21/00	100	Pad 15	629, 665 - 668, 704, 705	00- 1201	09/25/00

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-092100-1318	Soil	09/21/00	100	Pad 15	629, 665 - 668, 704, 705	00- 1202	09/25/00
SL-B-092200-1319	Soil	09/22/00	100	Pad 15	629, 665 - 668, 704, 705	00- 1203	09/25/00
SL-B-092200-1320	Soil	09/22/00	100	Pad 15	629, 665 - 668, 704, 705	00- 1204	09/25/00
SL-B-092500-1321	Soil	09/25/00	100	Pad 15	629, 665 - 668, 704, 705	00- 1211	09/27/00
SL-B-092600-1322	Soil	09/26/00	100	Pad 15	739 - 742	00- 1212	09/27/00
SL-B-092600-1323	Soil	09/26/00	100	Pad 15	739 - 742	00- 1213	09/27/00
SL-B-092600-1324	Soil	09/26/00	100	Pad 15	739 - 742	00- 1214	09/27/00
SL-B-092600-1325	Soil	09/26/00	100	Pad 15	739 - 742	00- 1215	09/27/00
SL-B-092700-1326	Soil	09/27/00	100	Pad 15	737, 738, 701	00- 1216	10/04/00
SL-B-092700-1327	Soil	09/27/00	100	Pad 15	737, 738, 701	00- 1217	10/04/00
SL-B-092900-1328	Soil	09/29/00	100	Pad 15	737, 738, 701	00- 1218	10/04/00
SL-B-092900-1329	Soil	09/29/00	100	Pad 15	737, 738, 701	00- 1219	10/04/00
SL-B-092900-1330	Soil	09/29/00	100	Pad 15	737, 738, 701	00- 1220	10/04/00
SL-B-100200-1331	Soil	10/02/00	100	Pad 15	450 - 451, 490, 588, 589	00- 1221	10/04/00
SL-B-100200-1332	Soil	10/02/00	100	Pad 15	450 - 451, 490, 588, 589	00- 1222	10/04/00
SL-B-100200-1333	Soil	10/02/00	100	Pad 15	450 - 451, 490, 588, 589	00- 1223	10/04/00
SL-B-100200-1334	Soil	10/02/00	100	Pad 15	551 - 553, 588	00- 1224	10/04/00
SL-B-100200-1335	Soil	10/02/00	100	Pad 15	551 - 553, 588	00-1238/0002	10/16/00
SL-B-100200-1336	Soil	10/02/00	100	Pad 15	551 - 553, 588	00- 1239	10/16/00
SL-B-100300-1337	Soil	10/03/00	100	Pad 15	450 - 451	00- 1235	10/11/00
SL-B-100300-1338	Soil	10/03/00	100	Pad 15	551 - 553, 588	00- 1225	10/04/00
SL-B-100300-1339	Soil	10/03/00	100	Pad 15	551 - 553, 588	00- 1226	10/04/00
SL-B-100400-1340	Soil	10/04/00	100	Pad 15	452, 487, 488, 524	00- 1227	10/11/00

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-100400-1341	Soil	10/04/00	100	Pad 15	531, 552, 587, 588	00- 1231	10/11/00
SL-B-100400-1342	Soil	10/04/00	100	Pad 15	531, 552, 587, 588	00- 1230	10/11/00
SL-B-100400-1343	Soil	10/04/00	100	Pad 15	531, 552, 587, 588	00- 1233	10/11/00
SL-B-100400-1344	Soil	10/04/00	100	Pad 15	531, 552, 587, 588	00- 1232	10/11/00
SL-B-100500-1345	Soil	10/05/00	100	Pad 15	550, 551, 586, 587	00- 1236	10/11/00
SL-B-100500-1346	Soil	10/05/00	100	Pad 15	550, 551, 586, 587	00- 1237	10/11/00
SL-B-100500-1347	Soil	10/05/00	100	Pad 15	550, 551, 586, 587	00- 1234	10/11/00
SL-B-100600-1348	Soil	10/06/00	100	Pad 15	550, 551, 586, 587	00- 1228	10/11/00
SL-B-100600-1349	Soil	10/06/00	100	Pad 15	550, 551, 586, 587	00- 1229	10/11/00
SL-B-101600-1350	Soil	10/16/00	100	Pad 15	550, 551, 586, 587	00- 1240	10/18/00
SL-B-103000-1351	Soil	10/30/00	100	Pad 14	419, 455, 593	00- 1242	11/01/00
SL-B-103100-1352	Soil	10/31/00	100	Pad 14	421 - 423; 456 - 459	00- 1243	11/01/00
SL-B-103100-1353	Soil	10/31/00	100	Pad 14	421 - 423; 456 - 459	00- 1244	11/01/00
SL-B-103100-1354	Soil	10/31/00	100	Pad 14	421 - 423; 456 - 459	00- 1245	11/01/00
SL-B-103100-1355	Soil	10/31/00	100	Pad 14	421 - 423; 456 - 459	00- 1246	11/01/00
SL-B-110100-1356	Soil	11/01/00	100	Pad 14	386, 387, 350, 351	00- 1253	11/06/00
SL-B-110100-1357	Soil	11/01/00	100	Pad 14	386, 387, 350, 351	00- 1254	11/06/00
SL-B-110200-1358	Soil	11/02/00	100	Pad 14	417 - 421, 381 - 383	00- 1255	11/06/00
SL-B-110200-1359	Soil	11/02/00	100	Pad 15	417 - 421, 381 - 383	00- 1247	11/06/00
SL-B-110200-1360	Soil	11/02/00	100	Pad 15	417 - 421, 381 - 383	00- 1248	11/06/00
SL-B-110200-1361	Soil	11/02/00	100	Pad 15	417 - 421, 381 - 383	00- 1249	11/06/00
SL-B-110200-1362	Soil	11/02/00	100	Pad 15	417 - 421, 381 - 383	00- 1250	11/06/00
SL-B-110200-1363	Soil	11/02/00	100	Pad 15	417 - 421, 381 - 383	00- 1251	11/06/00

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-110200-1364	Soil	11/02/00	100	Pad 15	417 - 421, 381 - 383	00- 1252	11/06/00
SL-B-110800-1365	Soil	11/08/00	100	Pad 15	417 - 421, 381 - 383	00- 1256	11/13/00
SL-B-110800-1366	Soil	11/08/00	100	Pad 15	417 - 421, 381 - 383	00- 1257	11/13/00
SL-B-110900-1367	Soil	11/09/00	100	Pad 15	413, 414, 520	00- 1258	11/13/00
SL-B-110900-1368	Soil	11/09/00	100	Pad 15	413, 414, 520	00- 1259	11/13/00
SL-B-110900-1369	Soil	11/09/00	100	Pad 15	413, 414, 520	00- 1260	11/13/00
SL-B-110900-1370	Soil	11/09/00	100	Pad 15	413, 414, 520	00- 1261	11/13/00
SL-B-111300-1371	Soil	11/13/00	100	Pad 16	520 - 522	00- 1262	11/15/00
SL-B-111300-1372	Soil	11/13/00	100	Pad 16	520 - 522	00- 1263	11/15/00
SL-B-111400-1373	Soil	11/14/00	100	Pad 16	520 - 522	00- 1264	11/15/00
SL-B-111400-1374	Soil	11/14/00	100	Pad 16	520 - 522	00- 1265	11/15/00
SL-B-111400-1375	Soil	11/14/00	100	Pad 16	520 - 522	00- 1266	11/15/00
SL-B-111400-1376	Soil	11/14/00	100	Pad 16	484 - 486	00- 1267	11/15/00
SL-B-111500-1377	Soil	11/15/00	100	Pad 16	484 - 486	00- 1275	11/28/00
SL-B-111500-1378	Soil	11/15/00	100	Pad 16	484 - 486	00- 1268	11/28/00
SL-B-111500-1379	Soil	11/15/00	100	Pad 16	484 - 486	00- 1269	11/28/00
SL-B-111600-1380	Soil	11/16/00	100	Pad 16	484 - 486	00- 1270	11/28/00
SL-B-111600-1381	Soil	11/16/00	100	Pad 16	484 - 486	00- 1271	11/28/00
SL-B-111700-1382	Soil	11/17/00	100	Pad 16	484 - 486	00- 1272	11/28/00
SL-B-112000-1383	Soil	11/20/00	100	Pad 16	484 - 486; 448 - 453	00- 1273	11/28/00
SL-B-112000-1384	Soil	11/20/00	100	Pad 16	484 - 486; 448 - 453	00- 1274	11/28/00
SL-B-112100-1385	Soil	11/21/00	100	Pad 16	484 - 486; 448 - 453	00- 1276	11/28/00
SL-B-112100-1386	Soil	11/21/00	100	Pad 16	484 - 486; 448 - 453	00- 1277	11/28/00

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-112100-1387	Soil	11/21/00	100	Pad 16	484 - 486; 448 - 453	00- 1278	11/28/00
SL-B-112700-1388	Soil	11/27/00	100	Pad 16	484 - 486; 448 - 453	00- 1279	11/29/00
SL-B-112700-1389	Soil	11/27/00	100	Pad 16	484 - 486; 448 - 453	00- 1280	11/29/00
SL-B-112800-1390	Soil	11/28/00	100	Pad 16	377, 379, 380, 413, 449	00- 1281	11/29/00
SL-B-112800-1391	Soil	11/28/00	100	Pad 16	377, 379, 380, 413, 449	00- 1282	11/29/00
SL-B-112800-1392	Soil	11/28/00	100	Pad 15	377, 379, 380, 413, 449	00- 1283	11/29/00
SL-B-112800-1393	Soil	11/28/00	100	Pad 15	377, 379, 380, 413, 449	00- 1284	11/29/00
SL-B-112900-1394	Soil	11/29/00	100	Pad 15	377, 379, 380, 413, 449	00- 1286	12/04/00
SL-B-112900-1395	Soil	11/29/00	100	Pad 15	377, 379, 380, 413, 449	00- 1287	12/04/00
SL-B-112900-1396	Soil	11/29/00	100	Pad 15	377, 379, 380, 413, 449	00- 1288	12/04/00
SL-B-113000-1397	Soil	11/30/00	100	Pad 15	378, 414 - 417, 450	00- 1289	12/04/00
SL-B-113000-1398	Soil	11/30/00	100	Pad 16	378, 414 - 417, 450	00- 1290	12/04/00
SL-B-113000-1399	Soil	11/30/00	100	Pad 16	378, 414 - 417, 450	00- 1291	12/04/00
SL-B-113000-1400	Soil	11/30/00	100	Pad 16	378, 414 - 417, 450	00- 1292	12/04/00
SL-B-113000-1401	Soil	11/30/00	100	Pad 16	378, 414 - 417, 450	00- 1293	12/04/00
SL-B-021601-1402	Soil	02/16/01	100	Pad 12	513, 514, 515	01- 0003	02/21/01
SL-B-021901-1403	Soil	02/19/01	100	Pad 12	516 - 519, 554	01- 0004	02/21/01
SL-B-030501-1404	Soil	03/05/01	100	Pad 12	222, 223, 258, 259	01- 0005	03/12/01
SL-B-030501-1405	Soil	03/05/01	100	Pad 12	222, 223, 258, 259	01- 0006	03/12/01
SL-B-030601-1406	Soil	03/06/01	100	Pad 12	260, 261	01- 0007	03/12/01
SL-B-030901-1407	Soil	03/09/01	100	Pad 12	221, 222, 257	01- 0008	03/12/01
SL-B-031401-1408	Soil	03/14/01	100	Pad 12	334 335 370 371 406 407 442 477 478 513	01- 0009	04/02/01

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-031501-1409	Soil	03/15/01	100	Pad 12	334 335 370 371 406 407 442 477 478 513	01- 0010	04/02/01
SL-B-031501-1410	Soil	03/15/01	100	Pad 12	334 335 370 371 406 407 442 477 478 513	01- 0011	04/02/01
SL-B-031501-1411	Soil	03/15/01	100	Pad 12	334, 335, 338 - 340	01- 0012	04/02/01
SL-B-032101-1412	Soil	03/21/01	100	Pad 12	334, 335, 338 - 340	01- 0013	04/02/01
SL-B-032101-1413	Soil	03/21/01	100	Pad 12	334, 335, 338 - 340	01- 0014	04/02/01
SL-B-032101-1414	Soil	03/21/01	100	Pad 12	334, 335, 338 - 340	01- 0015	04/02/01
SL-B-032201-1415	Soil	03/22/01	100	Pad 12	333, 334, 299, 370	01- 0017	04/04/01
SL-B-032201-1416	Soil	03/22/01	100	Pad 12	333, 334, 299, 370	01- 0018	04/04/01
SL-B-032601-1417	Soil	03/26/01	100	Pad 12	274, 275, 308 - 312, 340 - 348	01- 0019	04/04/01
SL-B-032601-1418	Soil	03/26/01	100	Pad 12	274, 275, 308 - 312, 340 - 348	01- 0020	04/04/01
SL-B-032601-1419	Soil	03/26/01	100	Pad 12	274, 275, 308 - 312, 340 - 348	01- 0021	04/04/01
SL-B-032601-1420	Soil	03/26/01	100	Pad 12	274, 275, 308 - 312, 340 - 348	01- 0022	04/04/01
SL-B-032601-1421	Soil	03/26/01	100	Pad 12	274, 275, 308 - 312, 340 - 348	01- 0023	04/04/01
SL-B-032801-1422	Soil	03/28/01	100	Pad 12	313 - 315 (222,221?)	01- 0024	04/04/01
SL-B-032801-1423	Soil	03/28/01	100	Pad 12	313 - 315 (222,221?)	01- 0025	04/04/01
SL-B-091401-1500	Soil	09/14/01	100	Pad 17	205, 206, 241, 242, 277, 278, 314	01- 0341	09/18/01
SL-B-091401-1501	Soil	09/14/01	100	Pad 17	205, 206, 241, 242, 277, 278, 314	01- 0342	09/18/01
SL-B-091401-1502	Soil	09/14/01	100	Pad 17	205, 206, 241, 242, 277, 278, 314	01- 0343	09/18/01
SL-B-091401-1503	Soil	09/14/01	100	Pad 17	205, 206, 241, 242, 277, 278, 314	01- 0344	09/18/01
SL-B-091401-1504	Soil	09/14/01	100	Pad 17	205, 206, 241, 242, 277, 278, 314	01- 0345	09/18/01
SL-B-091401-1505	Soil	09/14/01	100	Pad 17	205, 206, 241, 242, 277, 278, 314	01- 0346	09/18/01
SL-B-091401-1506	Soil	09/14/01	100	Pad 17	205, 206, 241, 242, 277, 278, 314	01- 0347	09/18/01

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-091401-1507	Soil	09/14/01	100	Pad 17	205, 206, 241, 242, 277, 278, 314	01- 0348	09/18/01
SL-B-091401-1508	Soil	09/14/01	100	Pad 17	205, 206, 241, 242, 277, 278, 314	01- 0349	09/18/01
SL-B-091401-1509	Soil	09/14/01	100	Pad 17	205, 206, 241, 242, 277, 278, 314	01- 0350	09/18/01
SL-B-012902-1510	Soil	01/29/02	100	Pad 17	205,206,277,278	01- 0362	11/13/01
SL-B-021802-1511	Soil	02/18/02	100	Pad 17	205,206,277,278	01- 0355	11/13/01
SL-B-021802-1512	Soil	02/18/02	100	Pad 17	205,206,277,278	01-0353/0356	11/13/01
SL-B-032002-1513	Soil	03/20/02	60	Pad 17	232,268,379,670,742	01- 0210/ 01- 0167/ 01- 0331/ 01- 0089	7/12/2001, 7/9/2001, 8/1/2001, 6/26/2001

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
DB-C-111798-0001	Concrete	11/17/98	100	Pad 3	Temp	98- 0075	11/23/98
DB-C-120198-0002	Concrete	12/01/98	100	Pad 3	Temp	98- 0076	12/03/98
DB-C-120198-0003	Concrete	12/01/98	100	Pad 3	Temp	98- 0077	12/03/98
DB-C-012999-0004	Concrete	01/29/99	100	Pad 3	D2	99- 1205	02/04/99
DB-C-020299-0005	Concrete	02/02/99	100	Pad 3	D2	99- 1201	02/03/99
DB-C-020299-0006	Concrete	02/02/99	100	Pad 3	C2	99- 1202	02/03/99
DB-C-020399-0007	Concrete	02/03/99	100	Pad 3	D2	99- 1203	02/03/99
DB-C-030899-0008	Concrete	03/08/99	100	Pad 3	D2	99- 1051	03/08/99
DB-C-033199-0009	Concrete	03/31/99	100	Pad 3	F1,F3	99- 1078	04/07/99
DB-C-041299-0010	Concrete	04/12/99	100	Pad 3	F3	99- 1085	04/14/99
DB-C-042299-0011	Concrete	04/22/99	100	Pad 3	G3	99- 1098	04/26/99
DB-C-051399-0012	Concrete	05/13/99	100	Pad 3	G5	99- 1108	05/18/99
DB-C-052099-0013	Concrete	05/20/99	100	Pad 3	G5	99- 1110	05/27/99
DB-C-060899-0014	Concrete	06/08/99	100	Pad 3	G5	99- 1131	06/08/99
DB-C-063099-0015	Concrete	06/30/99	100	Pad 3	G7	99- 1146	07/06/99
DB-C-071299-0016	Concrete	07/12/99	100	Pad 3	F1, F2	99- 1151	07/14/99
DB-C-072799-0017	Concrete	07/27/99	100	Pad 3	G8, H8	99- 1176	07/29/99
DB-C-080999-0018	Concrete	08/09/99	100	Pad 3	F1, F2, G2	99- 1181	08/11/99
DB-C-081899-0019	Concrete	08/18/99	100	Pad 4	F3, G2, G3	99- 1327	08/19/99
DB-C-082699-0020	Concrete	08/26/99	100	Pad 4	H6-H8,G8	99- 1339	08/31/99
DB-C-090999-0021	Concrete	09/09/99	100	Pad 4	F9, G9	99- 1359	09/13/99
DB-C-092499-0022	Concrete	09/24/99	100	Pad 3	H3 I5-b4	99- 1367	09/27/99
DB-C-100599-0023	Concrete	10/05/99	100	Pad 3	H4,H5,I5 b5 lev 6	99- 1380	10/06/99

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
DB-C-101999-0024	Concrete	10/19/99	100	Pad 3	H6-8,I6-8	99- 1392	10/20/99
DB-C-110399-0025	Concrete	11/03/99	100	Pad 3	H3,4,I3,4	99- 1406	11/03/99
DB-C-111699-0026	Concrete	11/16/99	100	Pad 3	I2,3,4,5	99- 1429	11/23/99
DB-C-113099-0027	Concrete	11/30/99	100	Pad 3	I3,4,5;J3,4,5,6	99- 1434	12/06/99
DB-C-122099-0028	Concrete	12/20/99	100	Pad 4	I3,4,5;J3,4,5,6	99- 1440	12/20/99
DB-C-032400-0029	Concrete	03/24/00	100	Pad 3	E9 - E14, F9 -F14	00- 1047	03/27/00
DB-C-010201-0031	Concrete	01/02/00	~150	Pad 12	Concrete pad-part of pad 12	01- 0001	01/02/01
DB-C-032101-0032	Concrete	03/21/01	~80	Pad 12	Concrete from Decon Pad	01- 0016	04/02/01

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
DB-S-112498-0001	Steel	11/24/98	100	Pad 3	Temp	98- 74	11/23/98
DB-S-020299-0002	Steel	02/02/99	100	Pad 3	C2	99- 1204	02/03/99
DB-S-032999-0003	Steel	03/29/99	100	Pad 3	E1,E3	NA	NA
DB-S-041299-0004	Steel	04/12/99	100	Pad 3	F3	NA	NA
DB-S-043099-0005	Steel	04/30/99	100	Pad 3	G5, G6	NA	NA
DB-S-063099-0008	Steel	06/30/99	100	Pad 3	G7	NA	NA
DB-S-070299-0009	Steel	07/02/99	100	Pad 3	G7, G8	NA	NA
DB-S-072199-0010	Steel	07/21/99	100	Pad 3	G5, G6, H5	NA	NA
DB-S-081099-0011	Steel	08/10/99	100	Pad 3	F1, F2, G2	NA	NA
DB-S-083099-0012	Steel	08/30/99	100	Pad 3	H6-H8	NA	NA
DB-S-091499-0013	Steel	09/14/99	100	Pad 3	G3,4,H4,5	NA	NA
DB-S-101599-0014	Steel	10/15/99	100	Pad 3	w lobe bench 2-5	NA	NA
DB-S-111999-0015	Steel	11/19/99	100	Pad 3	I2,3,4,5	NA	NA
DB-S-010600-0016	Steel	01/06/00	100	Pad 3	I3,4,5;J3,4,5,6	NA	NA
DB-S-020200-0018	Steel	02/02/00	100	Pad 3	D9, D10, E9,E10	NA	NA
DB-S-031000-0019	Steel	03/10/00	100	Pad 3	D11, D12, D13	NA	NA
DB-S-040700-0020	Steel	04/07/00	100	Pad 3	E9 - E14, F9 -F14	NA	NA
DB-S-060500-0021	Steel	06/05/00	100	Pad 11	D11- 13; E11-13	NA	
DB-S-071400-0022	Steel	07/14/00	200	Pad 3	D10 - 13, E10 - 13, F10 - 13	NA	NA

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
FRAC2-022100	Sediment	02/21/00		Frac 2	NA	00- 1030	03/01/00
FRAC1-042100	Sediment	06/05/00		Frac 1	NA	00- 1078	06/05/00
FRAC3-070500	Sediment	07/05/00		Frac 3	NA	00- 1108	07/05/00
SUMP060401	Sediment	06/04/01	~20	<i>insitu</i>	Composite from Pad No. 10 sumps	01- 26	06/04/01

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
TREN1-120998-01	Storm water	12/09/98	9,588	Tank01	NA	98- 78	12/15/98
TREN2-121598-01	Storm water	12/15/98	5,810	Tank02	NA	98- 79	12/16/98
TREN3-121698-01	Storm water	12/16/98	950	Tank03	NA	98- 80	12/16/98
FRAC1-121898-01	Water	12/18/98	14,700	Frac 1	NA	98- 81	12/18/98
FRAC2-030899-01	Water	03/08/99	18,270	Frac 2	D2	99- 1206	03/08/99
FRAC1-032999-02	Water	03/29/99	19,824	Frac 1	E1,E3	99- 1207	03/29/99
FRAC3-042399-01	Water	04/23/99	17,010	Frac 3		99- 1211	04/26/99
FRAC2-050599-02	Water	05/05/99	18,900	Frac 2	NA	99- 1212	05/06/99
FRAC1-060199-03	Water	06/01/99	18,900	Frac 1	NA	99- 1213	06/02/99
FRAC3-061899-02	Water	06/18/99	18,480	Frac 3	G6	99- 1218	06/24/99
FRAC2-071599-03	Water	07/15/99	18,691	Frac 2		99- 1220	07/15/99
FRAC1-080999-04	Water	08/09/99	19,320	Frac 1	NA	99- 1222	08/11/99
FRAC3-092199-03	Water	09/21/99	18,900	Frac 3	NA	99- 1223	09/22/99
FRAC2-112299-04	Water	11/22/99	19,530	Frac 2		99- 1229	11/22/99
FRAC1-042100-05	Water	04/21/00	17,020	Frac 1	NA	00- 1067/ 1068	04/24/00

LOT ID No.	GENERAL TYPE	DATE OPENED	SIZE	STAGED LOCATION	GRID LOCATION	LANL SAMPLE	
						ID #	DATE
SL-B-070700-1236	Soil	07/07/00	100	Pad 13	196-199,232-235, 268-271,304-307	00-1110	07/12/00
SL-B-070700-1237	Soil	07/07/00	100	Pad 13	196-199,232-235, 268-271,304-307	00-1111	07/12/00
SL-B-070700-1238	Soil	07/07/00	100	Pad 13	196-199,232-235, 268-271,304-307	00-1112	07/12/00
SL-B-070700-1239	Soil	07/07/00	100	Pad 13	196-199,232-235, 268-271,304-307	00-1113	07/12/00
SL-B-070700-1240	Soil	07/07/00	100	Pad 13	196-199,232-235, 268-271,304-307	00-1114	07/12/00
SL-B-070700-1241	Soil	07/07/00	100	Pad 13	196-199,232-235, 268-271,304-307	00-1115	07/12/00
SL-B-070700-1242	Soil	07/07/00	100	Pad 13	196-199,232-235, 268-271,304-307	00-1116	07/12/00
DB-C-070700-0030	Concrete	07/07/00	100	Pad 3	D10 - 13, E10 - 13, F10 - 13	00-1118	07/17/00

C-3.0 SUMMARY OF MISCELLANEOUS WASTES FROM MDA P EXCAVATION

Summary - Miscellaneous - Wastes Staged at MDA-P

TYPE	CONTAINER	BARCODE/ TRACKING ID	DESCRIPTION	RELEASED TO	RELEASE DATE
Gas Cylinder	5 Gal Bucket	N/A	lecture bottle size gas cylinder with valve	EM&R	07/21/00
Unknown Chem	5 Gal Bucket	UNK-051899-0025	50ml g vial, clear liquid + crystals	EM&R	06/18/99
Unknown Chem	5 Gal Bucket	UNK-092399-0029	50 ml g vial liq and crystals	EM&R	10/04/99
Unknown Metal Object	5 Gal Bucket	UNK-041699-0020	3"pipe, closed	EM&R	05/18/99
Unknown Metal Object	5 Gal Bucket	UNK-042399-0021	3/4" 1.5' steel pipe, inlet/outlet both ends	EM&R	05/18/99
Unknown Metal Object	5 Gal Bucket	UNK-042899-0022	enclosed 'pipe' 2.5' long 3" dia	EM&R	05/18/99
Explosives	55 Gal Drum	2054821	10 lbs.HE, contaminated soil,burlap bags	ESA-FM	05/27/99
Explosives	5 Gal Bucket	2054822	10 lbs.HE, contaminated soil,burlap bags	ESA-FM	05/27/99
Explosives	5 Gal Bucket	2054823	10 lbs.HE, contaminated soil,burlap bags	ESA-FM	05/27/99
Explosives	5 Gal Bucket	2054824	10 lbs.HE, contaminated soil,burlap bags	ESA-FM	05/27/99
Explosives	5 Gal Bucket	N/A	5 lbs. of HE, Boracitol	ESA-FM	06/03/99
Explosives	5 Gal Bucket	N/A	5 lbs. of HE, misc.	ESA-FM	07/26/99
Explosives	5 Gal Bucket	N/A	5 lbs. of HE, misc.	ESA-FM	07/26/99
Explosives	5 Gal Bucket	N/A	5 lbs. of HE, misc.	ESA-FM	07/26/99
Explosives	5 Gal Bucket	2054825	15 lbs. TNT,RDX/HMX,Boracitol - #1	ESA-FM	09/01/99
Explosives	5 Gal Bucket	2054825	10 lbs. TNT,RDX/HMX,Boracitol - #2	ESA-FM	09/01/99
Explosives	5 Gal Bucket	2054825	8 lbs. TNT,RDX/HMX,Boracitol, Ba - #3	ESA-FM	09/01/99
Explosives	5 Gal Bucket	2054825	15 lbs. TNT,RDX/HMX,Boracitol - #4	ESA-FM	09/01/99
Explosives	5 Gal Bucket	2054825	20 lbs. suspect HMX/RDX - #5	ESA-FM	09/01/99
Explosives	5 Gal Bucket	2054825	20 lbs. TNT,RDX/HMX, rags - #6	ESA-FM	09/01/99

TYPE	CONTAINER	BARCODE/ TRACKING ID	DESCRIPTION	RELEASED TO	RELEASE DATE
Explosives	5 Gal Bucket	2054825	10 lbs. TNT, Boracitol - #7	ESA-FM	09/01/99
Explosives	5 Gal Bucket	2054825	25 lbs. TNT, RDX/HMX, Boracitol - #8	ESA-FM	09/01/99
Explosives	5 Gal Bucket	2054826	10 lbs. RDX/HMX, TNT, Boracitol	ESA-FM	10/27/99
Explosives	5 Gal Bucket	2054827	10 lbs. RDX/HMX, TNT, boracitol	ESA-FM	10/27/99
Explosives	5 Gal Bucket	2054828	6 lbs. RDX/HMX, TNT, boracitol	ESA-FM	10/27/99
Explosives	5 Gal Bucket	2054832	10 lbs. of HE, misc.	ESA-FM	01/13/00
Explosives	5 Gal Bucket	2054845	10 lbs. of HE, misc.	ESA-FM	01/20/00
Explosives	5 Gal Bucket	2054841	10 lbs. of HE, misc.	ESA-FM	01/26/00
Explosives	5 Gal Bucket	2054849	10 lbs. of HE, misc.	ESA-FM	02/10/00
Explosives	5 Gal Bucket	2054839	10 lbs. of HE, misc.	ESA-FM	02/22/00
Explosives	5 Gal Bucket	2054843	10 lbs. of HE, misc.	ESA-FM	02/22/00
Explosives	5 Gal Bucket	2054840	10 lbs. of HE, misc.	ESA-FM	02/24/00
Explosives	5 Gal Bucket	2054836	10 lbs. of HE, misc.	ESA-FM	02/29/00
Explosives	5 Gal Bucket	2169871	10 lbs. of HE, misc.	ESA-FM	03/08/00
Explosives	5 Gal Bucket	2169898	10 lbs. of HE, misc.	ESA-FM	03/23/00
Explosives	5 Gal Bucket	2054837	10 lbs. of HE, misc.	ESA-FM	03/23/00
Explosives	5 Gal Bucket	WP 31189	20 lbs. RDX/HMX, TNT and Boracitol	ESA-FM	03/24/00
Explosives	5 Gal Bucket	2169899	10 lbs. of HE, misc.	ESA-FM	04/24/00
Explosives	5 Gal Bucket	2169873	10 lbs. of HE, misc.	ESA-FM	06/15/00
Explosives	5 Gal Bucket	2169879	10 lbs. of HE, misc.	ESA-FM	07/10/00
Explosives	5 Gal Bucket	2169881	4 lbs. of HE, misc.	ESA-FM	07/17/00
Explosives	5 Gal Bucket	2169895	4 lbs. of HE, misc.	ESA-FM	12/21/00
Ordnance Item	5 Gal Bucket	N/A	fuse or detonator	ESA-FM	03/24/00
Ordnance Item	5 Gal Bucket	N/A	155 mm empty projectile	ESA-FM	01/27/00

TYPE	CONTAINER	BARCODE/ TRACKING ID	DESCRIPTION	RELEASED TO	RELEASE DATE
Ordnance Item	5 Gal Bucket	N/A	75 mm empty projectile	ESA-FM	07/07/99
Metal Object	N/A	B006657	7 various sized metal objects	ESA-WMM	01/25/00
Metal Object	N/A	A005347	13 pieces of misc. metal	ESA-WMM	02/23/00
Metal Object	N/A	A005313 / A005348	13 misc. metal objects	ESA-WMM	03/02/00
Metal Object	N/A	A005306	1 misc. metal object	ESA-WMM	03/30/00
Metal Object	N/A	A005338 / A005340	26 misc. metal objects	ESA-WMM	03/30/00
Metal Object	N/A	B004406	12 misc. metal objects	ESA-WMM	04/25/00
Metal Object	N/A	B006664	10 misc. metal objects	ESA-WMM	06/06/00
Metal Object	N/A	B004955	10 misc. metal objects	ESA-WMM	06/29/00
PPE	Drum Liner	A014603	18 bags of used PPE	Municipal Waste	12/02/99
PPE	Drum Liner	26571	15 bags of used PPE	Municipal Waste	01/25/00
Barium Nitrate	55 Gal Drum	N/A	250 lbs. of barium nitrate +/- soil	WM	07/19/99
Barium Nitrate	55 Gal Drum	N/A	250 lbs. of barium nitrate +/- soil	WM	07/19/99
Barium Nitrate	55 Gal Drum	N/A	250 lbs. of barium nitrate +/- soil	WM	07/19/99
Barium Nitrate	55 Gal Drum	N/A	250 lbs. of barium nitrate +/- soil	WM	07/19/99
Barium Nitrate	55 Gal Drum	N/A	250 lbs. of barium nitrate +/- soil	WM	07/19/99
Barium Nitrate	55 Gal Drum	N/A	250 lbs. of barium nitrate +/- soil	WM	07/19/99
Barium Nitrate	55 Gal Drum	N/A	250 lbs. of barium nitrate +/- soil	WM	07/19/99
Barium Nitrate	55 Gal Drum	N/A	250 lbs. of barium nitrate +/- soil	WM	07/19/99
Barium Nitrate	55 Gal Drum	300899-001	250 lbs. of barium nitrate +/- soil	WM	10/19/99
Barium Nitrate	55 Gal Drum	070999-001	250 lbs. of barium nitrate +/- soil	WM	10/19/99
Barium Nitrate	55 Gal Drum	091099-001	250 lbs. of barium nitrate +/- soil	WM	10/19/99
Barium Nitrate	55 Gal Drum	2054831	250 lbs. of barium nitrate +/- soil	WM	01/13/00
Barium Nitrate	55 Gal Drum	2054844	200 lbs. of barium nitrate +/- soil	WM	01/20/00

TYPE	CONTAINER	BARCODE/ TRACKING ID	DESCRIPTION	RELEASED TO	RELEASE DATE
Barium Nitrate	55 Gal Drum	2054842	300 lbs. of barium nitrate +/- soil	WM	02/10/00
Barium Nitrate	55 Gal Drum	2054833	300 lbs. of barium nitrate +/- soil	WM	03/29/00
Barium Nitrate	55 Gal Drum	N/A	80 lbs. of barium nitrate +/- soil	WM	03/29/00
Barium Nitrate	55 Gal Drum	2054834	300 lbs. of barium nitrate +/- soil	WM	04/05/00
Barium Nitrate	55 Gal Drum	2169900	300 lbs. of barium nitrate +/- soil	WM	04/25/00
Barium Nitrate	55 Gal Drum	2169872	300 lbs. of barium nitrate +/- soil	WM	06/02/00
Barium Nitrate	55 Gal Drum	2169874	300 lbs. of barium nitrate +/- soil	WM	06/20/00
Barium Nitrate	55 Gal Drum	2169875	300 lbs. of barium nitrate +/- soil	WM	06/20/00
Barium Nitrate	55 Gal Drum	2169987	300 lbs. of barium nitrate +/- soil	WM	06/20/00
Barium Nitrate	55 Gal Drum	2169876	300 lbs. of barium nitrate +/- soil	WM	06/27/00
Barium Nitrate	55 Gal Drum	2169877	300 lbs. of barium nitrate +/- soil	WM	06/29/00
Misc. Haz Waste	55 Gal Drum	N/A	500 lbs. Lead	WM	02/09/00
Misc. Haz Waste	55 Gal Drum	N/A	500 lbs. Lead	WM	02/09/00
Misc. Haz Waste	55 Gal Drum	N/A	500 lbs. Lead	WM	02/09/00
Misc. Haz Waste	55 Gal Drum	N/A	500 lbs. Lead	WM	02/09/00
Misc. Haz Waste	55 Gal Drum	N/A	500 lbs. Lead	WM	02/09/00
Misc. Haz Waste	55 Gal Drum	N/A	200 lb. Mixed waste(Ba, soil, DU,)	WM	03/08/00
Misc. Rad Waste	B-12	B013351 / 2170065	B-12 full of metal debris, det cable, DU	WM	11/22/99
Misc. Rad Waste	B-25	2173037	Gray cable wire, pipe, plastic debris, DU	WM	07/06/00
Misc. Rad Waste	B-25	A006564	400 lbs PPE ,debris contaminated w/DU	WM	05/01/01
Misc. Rad Waste	55 Gal Drum	2175035	Plastic debris, PPE, DU	WM	07/06/00
Misc. Haz Waste	55 Gal Drum		Cotton water filters, Asbestos	WM	07/06/00

C-4.0 EXCAVATION GRID TRACKING SYSTEM TABLE

766 M-1	767 M-2	768 M-3	769 M-4	770 M-5	771 M-6	772 M-7	773 M-8	774 M-9	775 M-10	776 M-11	777 M-12	778 M-13	
730 L-1	731 L-2	732 L-3	733 L-4	734 L-5	735 L-6	736 L-7	737 L-8	738 L-9	739 L-10	740 L-11	741 L-12	742 L-13	
694 K-1	695 K-2	696 K-3	697 K-4	698 K-5	699 K-6	700 K-7	701 K-8	702 K-9	703 K-10	704 K-11	705 K-12	706 K-13	
658 J-1	659 J-2	660 J-3	661 J-4	662 J-5	663 J-6	664 J-7	665 J-8	667 J-9	668 J-10	669 J-11	670 J-12	671 J-13	
622 I-1	623 I-2	624 I-3	625 I-4	626 I-5	627 I-6	628 I-7	629 I-8	630 I-9	631 I-10	632 I-11	633 I-12	634 I-13	
586 H-1	587 H-2	588 H-3	589 H-4	590 H-5	591 H-6	592 H-7	593 H-8	594 H-9	595 H-10	596 H-11	597 H-12	598 H-13	599 H-14
550 G-1	551 G-2	552 G-3	553 G-4	554 G-5	555 G-6	556 G-7	557 G-8	558 G-9	559 G-10	560 G-11	561 G-12	562 G-13	563 G-14
514 F-1	515 F-2	516 F-3	517 F-4	518 F-5	519 F-6	520 F-7	521 F-8	522 F-9	523 F-10	524 F-11	525 F-12	526 F-13	527 F-14
478 E-1	479 E-2	480 E-3	481 E-4	482 E-5	483 E-6	484 E-7	485 E-8	486 E-9	487 E-10	488 E-11	489 E-12	490 E-13	491 E-14
442 D-1	443 D-2	444 D-3	445 D-4	446 D-5	447 D-6	448 D-7	449 D-8	450 D-9	451 D-10	452 D-11	453 D-12	454 D-13	455 D-14
406 C-1	407 C-2	408 C-3	409 C-4	410 C-5	411 C-6	412 C-7	413 C-8	414 C-9	415 C-10	416 C-11	417 C-12	418 C-13	419 C-14
370 B-1	371 B-2	372 B-3	373 B-4	374 B-5	375 B-6	376 B-7	377 B-8	378 B-9	379 B-10	380 B-11	381 B-12	382 B-13	383 B-14
334 A-1	335 A-2	336 A-3	337 A-4	338 A-5	339 A-6	340 A-7	341 A-8	342 A-9	343 A-10	344 A-11	345 A-12	346 A-13	347 A-14

C-39

###	Confirmation sample grid tracking system
X-#	Initial excavation grid tracking system

Appendix D

Sample Request Summaries

Remainder of Appendix D
to be submitted at a later date

Appendix E

Summary of Analytical Results

Remainder of Appendix E
to be submitted at a later date

Appendix F

*QA Assessment for Analysis Conducted
August 9, 2000–January 3, 2001*

Reported by Karen Schultz Paige, ER Chemist and Data Validator

Although the MDA P project has involved several years of data collection, this report will only be examining data collected after August 9, 2000 beginning with request number 7262R. After this date, all data in the ER Project went through a routine validation screening, the results of which form the basis of this data quality assessment. This report covers data up to and including sample 0816-0002, collected January 3, 2001, and request numbers up to and including 8182R. This report is organized on the basis of analytical suite. Some analytical suites are or were considered non-standard and therefore did not get any validation. This includes PETN prior to September 2000, pH, and asbestos. These data are not assessed for data quality in this report.

Dioxins: Twenty-six requests for 42 samples were analyzed for dioxins. In several dioxin analyses, the validator determined that detected results should be qualified as undetected because they were within the scope of the noise on the chromatogram. In one request for 3 samples, detected analytes were J-qualified because the required ion abundance was not met. In one request, a few analytes were UJ-qualified because an internal standard was outside the acceptable range. All remaining samples had no quality issues associated with them. In general the dioxin results had very few data quality issues associated with them.

Herbicides: Twenty-six requests for 42 samples were analyzed for herbicides. Six requests for 11 samples had no quality issues associated with them. Three requests for 5 samples had all sample results rejected because holding times were exceeded. Several requests had all analytical results rejected due to problems during analysis, which the laboratory attempted to correct with reextraction and reanalysis. Six requests for 9 samples had either the original run or re-extracted run rejected while the remaining run had all data UJ-qualified due to surrogate or spike problems or analysis outside of holding times. In 3 requests for 3 samples, only one analyte was rejected due to a very low LCS recovery. Otherwise, a few analytes in the remaining requests were qualified due to poor matrix spike recovery or LCS recovery, poor response in the calibration standards, or discrepancies between the primary and secondary column. Other than the rejected data, there were few data quality issues associated with the herbicide data.

High explosives (HE), including PETN results after September 2000: Forty requests for 169 samples were analyzed for HE and PETN. Thirteen PETN requests were not validated because they were collected prior to September 2000. Because samples from MDA-P frequently had high concentrations of HE, the samples sometimes required dilution, which makes surrogate recovery impossible. However, no qualifiers were applied to the data because of this. There were 25 requests for 80 samples total that had no data quality issues associated with them. Most qualifiers were applied to the data due to low LCS recovery of one analyte in the suite. Data for one analyte in a request of 7 samples was rejected because the LCS recovery was very low. Otherwise, results for at least one analyte were qualified J- or UJ, depending upon whether they were detected or not, in 76 samples associated with 13 requests. A few remaining samples were qualified due to high surrogate recovery, high LCS recovery, or in one case an analyte was qualified as undetected due to faulty confirmation results. Overall, the HE results had few data quality issues associated with them.

PCBs: Twenty-six requests for 42 samples were analyzed for PCBs. One analyte in one sample in one request was qualified as estimated because it was analyzed outside the acceptable hold time. In 2 requests for 2 samples there was a mistake made by the lab affecting the LCS results so the data were UJ-qualified. In one request detected results for one sample were qualified J+ because of high surrogate recovery. In four requests for 4 samples results were qualified as UJ for non-detected analytes and J- for detected analytes due to low surrogate recovery, including one case where the CCV results were also low and the samples were analyzed outside of the holding time. In one request for one sample one analyte

was J-qualified because the internal standard failed. All remaining samples had no quality issues associated with them. Overall there were very few data quality issues associated with the PCB data.

Pesticides: Twenty-five requests for 41 samples were analyzed for pesticides. Eight requests for 14 samples had no quality issues associated with them. Four requests for 5 samples had some or all results qualified due to interferences from poor cleanup by the analytical laboratory. Seven requests for 11 samples had results qualified due to low LCS recoveries, although this only affected a few analytes in 5 of the 7 requests, all analytes in 2 of the 7 requests. One request had all results qualified due to poor calibration results. Four requests for 5 samples had results qualified as UJ or J- because surrogate recovery was low, including one case where the CCV results were also low and the samples were analyzed outside of the holding time. One request for 2 samples had results qualified as UJ or J- because the associated blank broke before analysis. No pesticide results were rejected although many of the results were qualified.

Semi-volatile organic compounds (SVOCs): Twenty-eight requests for 160 samples were analyzed for SVOCs. Only 8 requests for 44 samples had no data quality problems. The most common data quality issue was data qualification due to the calibration being out of range for one or more analyte. This affected 19 requests for 113 samples. Within that group of samples, several samples were also qualified because of high or low surrogate recovery or internal standards that were outside the acceptable range. Only 5 request numbers of the 28 total had any samples that showed potential laboratory contamination of bis (2-ethylhexyl) phthalate. One request number had bis(2-ethylhexyl)phthalate in the samples but there was no evidence from the laboratory blanks that it was due to laboratory contamination. One sample was rejected because of extremely poor LCS recovery. There were few major data quality issues associated with the SVOC data although much of the data was qualified.

Volatile organic compounds (VOCs): Twenty-eight requests for 160 samples were analyzed for VOCs. Only a few samples had no quality issues associated with them. There was little evidence of common laboratory contaminants in the samples. Only 4 requests with 33 samples had evidence of laboratory contamination of acetone, 2-butanone, carbon disulfide, and methylene chloride, all of which were qualified as undetected due to contamination. In 21 requests for 125 samples, almost all of the samples had at least one analyte qualified because the calibration was not acceptable for this one analyte. In most cases the analyte was undetected. In 23 requests several samples had problems with the internal standard response or retention time, causing the analytical results to be qualified. In 10 requests almost all of the samples required qualification because these samples had surrogate recoveries that were outside of the acceptable range. Several samples in 5 requests had problems with the calibration, surrogate recovery, and the internal standards, requiring that the analytical results be qualified. One analyte was rejected in 20 samples from 3 requests because the calibration for this analyte was so poor. Acetone and/or 2-butanone were rejected in 33 samples from 6 requests because the response factor was low, indicating that the instrument might not be able to detect these analytes properly. Almost all the 160 samples had some qualified analytes, although there were few major quality issues associated with the whole VOC data set and most of the qualified results were not detected.

Inorganics: Thirty requests for 167 samples were analyzed for TCLP metals. Ten requests for 54 samples had no data quality issues associated with them although in almost all cases the duplicate results used during validation were from duplicate samples not associated with the given request. This had no impact on the data quality. In 6 requests for 29 samples some or all of the analytes were PM-qualified because the QC samples used during validation were from samples not associated with the given request. However, for almost half of the results, the QC samples were from other MDA-P requests, which minimizes any effect on the data quality. The 9 most current requests for 53 samples had some evidence of laboratory contamination in the samples. The analytes involved were lead, mercury, selenium, aluminum, zinc, arsenic, and barium and these were qualified as undetected if they were found to be present due to laboratory

contamination. Eight of the 53 samples also had problems with the matrix spike recovery of some analytes, mostly barium and mercury, which caused the results to be further qualified. Overall, problems with the matrix spike recovery affected 33 samples in 7 requests. Antimony results in one request with 6 samples were qualified due to high LCS recovery. No results were rejected. The TCLP metals data set overall has few significant data quality issues.

Reactive cyanide and sulfide: Twenty-six requests for 40 samples were analyzed for reactive cyanide and sulfide. Two requests with 3 samples had no quality issues associated with the cyanide results. Analytical results for cyanide in 13 requests with 17 samples were qualified due to low LCS results. All remaining cyanide results were rejected due to very low LCS recovery. Six requests for 8 samples had no quality issues associated with the sulfide results. In 3 requests for 6 samples sulfide results were qualified as J+ because of the presence of contamination in the blank. The remaining 17 sulfide requests for 26 samples were qualified as UJ for non-detected results and J- for detected results due to low LCS recovery. The cyanide results were strongly affected by data quality issues, with half the data being rejected. The sulfide results were less affected by data quality issues.

Isotopic uranium: Twenty-seven requests for 158 samples were analyzed for isotopic uranium. Seventeen requests for 107 samples had no quality issues associated with them. In 4 requests for 25 samples only U-235 was qualified J- for detected results and UJ for non-detected results because the LCS recovery for U-235 was low. Three requests for 14 samples were qualified J+ because the LCS recovery was high and in one request for one sample only U-235 was qualified J+ because the LCS recovery for U-235 was high. Analytical results for U-235 in six samples in one request were rejected because the sample results greatly differed from the duplicate results. One request with 5 samples showed evidence of laboratory contamination and therefore results were qualified as undetected. Overall the isotopic uranium results had few major data quality issues.

Other radionuclides: No quality issues were reported in the 27 requests for 158 samples analyzed by gamma spectroscopy.

Appendix G

Summaries of Waste Shipments

Table G-1
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
08/23/99	SL-AF-060399 -0048	118971	31127	3008345	0522862	09/10/99	09/02/99	09/24/99	20.97
08/25/99	SL-AF-060399 -0048	118972	31127	3008345	0522863	09/10/99	09/02/99	10/13/99	16.05
08/25/99	SL-AF-060399 -0048	118973	31127	3008345	0522864	09/10/99	09/03/99	10/13/99	18.54
08/27/99	SL-AF-060399 -0048	118974	31127	3008345	0522865	09/10/99	09/03/99	09/24/99	17.74
08/27/99	SL-AF-060399 -0048	118975	31127	3008345	0522866	09/10/99	09/03/99	10/13/99	20.21
08/27/99	SL-AF-060399 -0048	118976	31127	3008345	0522867	09/10/99	09/03/99	09/24/99	10.03
09/01/99	SL-B-062899 -1073	99119261	31127	3008345	2081097	09/22/99	09/13/99	10/08/99	19.31
09/01/99	SL-B-062899 -1073	99119262	31127	3008345	2081096	09/22/99	09/13/99	05/04/00	21.19
09/01/99	SL-B-062899 -1073	99119263	31127	3008345	0395536	09/22/99	09/13/99	10/08/99	20.01
09/01/99	SL-B-062899 -1073	99119264	31127	3008345	2081095	09/22/99	09/13/99	10/08/99	21.76
09/01/99	SL-B-062899 -1073	99119265	31127	3008345	2081089	09/22/99	09/10/99	05/04/00	20.47
09/03/99	SL-B-062899 -1074	99119266	31127	3008345	2081090	09/23/99	09/10/99	10/08/99	18.86
09/03/99	SL-B-062899 -1074	99119267	31127	3008345	2081094	09/23/99	09/13/99	10/08/99	20.74
09/03/99	SL-B-062899 -1074	99119268	31127	3008345	2081093	09/23/99	09/13/99	10/08/99	23.38
09/03/99	SL-B-062899 -1074	99119269	31127	3008345	2081092	09/23/99	09/13/99	10/08/99	22.73
09/03/99	SL-B-062899 -1074	99119270	31127	3008345	2081091	09/23/99	09/13/99	10/08/99	19.86
09/03/99	SL-B-070799 -1075	99119271	31127	3008345	0395543	09/23/99	09/13/99	10/08/99	20.31
09/08/99	SL-B-070799 -1075	99119272	31127	3008345	0395542	09/22/99	09/13/99	10/08/99	20.97
09/08/99	SL-B-070799 -1075	99119273	31127	3008345	0395541	09/22/99	09/13/99	10/08/99	21.09
09/08/99	SL-B-070799 -1075	99119274	31127	3008345	0395540	09/22/99	09/13/99	10/08/99	23.91
09/08/99	SL-B-070799 -1075	99119275	31127	3008345	0395539	09/23/99	09/13/99	09/27/99	20.87
09/08/99	SL-B-070799 -1078	99119276	31127	3008345	0395538	09/23/99	09/13/99	09/27/99	22.70
09/08/99	SL-B-070799 -1078	99119277	31127	3008345	0395537	09/23/99	09/13/99	09/27/99	22.27
09/10/99	SL-B-070799 -1078	99119278	31127	3008345	0395546	09/30/99	09/21/99	09/22/99	20.89
09/10/99	SL-B-070799 -1078	99119279	31127	3008345	0395535	09/30/99	09/21/99	09/22/99	20.56

June 2003

G-4

EH2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
09/10/99	SL-B-070799 -1078	99119280	31127	3008345	2081087	09/30/99	09/21/99	09/22/99	19.91
09/10/99	SL-B-070799 -1077	99119281	31127	3008345	2081086	09/30/99	09/21/99	09/22/99	20.02
09/10/99	SL-B-070799 -1077	99119282	31127	3008345	2081085	09/30/99	09/21/99	09/22/99	23.52
09/10/99	SL-B-070799 -1077	99119283	31127	3008345	2081084	09/30/99	09/21/99	09/22/99	19.46
09/13/99	SL-B-070799 -1076	99119284	31127	3008345	2081083	09/27/99	09/21/99	10/08/99	22.47
09/13/99	SL-B-070799 -1076	99119285	31127	3008345	2081082	09/27/99	09/21/99	10/07/99	21.93
09/13/99	SL-B-070799 -1076	99119286	31127	3008345	2081081	09/27/99	09/21/99	10/07/99	24.79
09/13/99	SL-B-070799 -1076	99119287	31127	3008345	0395551	09/27/99	09/21/99	10/08/99	21.20
09/13/99	SL-B-070799 -1076	99119288	31127	3008345	0395550	09/27/99	09/21/99	10/07/99	21.29
09/13/99	SL-B-070799 -1077	99119289	31127	3008345	0395549	09/27/99	09/21/99	10/08/99	20.19
09/17/99	SL-B-060899 -1051	99119290	31127	3008345	2020608	09/27/99	09/23/99	10/08/99	24.05
09/17/99	SL-B-060899 -1051	99119291	31127	3008345	2020602	09/27/99	09/23/99	10/08/99	25.69
09/17/99	SL-B-060899 -1051	99119292	31127	3008345	2020603	09/27/99	09/23/99	05/04/00	20.41
09/17/99	SL-B-060899 -1051	99119483	31127	3008346	2020595	09/27/99	09/23/99	05/04/00	22.52
09/15/99	SL-B-060899 -1050	99119484	31127	3008346	2020550	09/27/99	09/23/99	10/07/99	16.08
09/17/99	SL-B-060899 -1052	99119485	31127	3008346	2020589	09/27/99	09/23/99	05/04/00	22.47
09/17/99	SL-B-060899 -1052	99119486	31127	3008346	2020598	09/27/99	09/23/99	10/08/99	21.42
09/20/99	SL-B-060899 -1053	99119487	31127	3008346	2020604	09/27/99	09/29/99	10/08/99	23.38
09/20/99	SL-B-060899 -1053	99119488	31127	3008346	2020590	09/27/99	09/29/99	10/08/99	22.99
09/20/99	SL-B-060899 -1053	99119489	31127	3008346	2020588	09/27/99	09/29/99	10/08/99	23.06
09/20/99	SL-B-060899 -1053	99119490	31127	3008346	2020587	09/27/99	09/29/99	10/08/99	24.17
09/20/99	SL-B-060899 -1053	99119491	31127	3008346	2020591	09/27/99	09/29/99	10/08/99	22.58
09/20/99	SL-B-060899 -1054	99119492	31127	3008346	2020605	09/27/99	09/29/99	10/08/99	20.60
09/22/99	SL-B-060899 -1054	99119493	31127	3008346	2020606	09/23/99	09/29/99	10/08/99	24.40
09/22/99	SL-B-060899 -1054	99119494	31127	3008346	2020607	09/23/99	09/29/99	10/08/99	23.39

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
09/22/99	SL-B-060899 -1054	99119495	31127	3008346	2020584	09/23/99	09/29/99	10/08/99	21.90
09/24/99	SL-B-060899 -1055	99119496	31127	3008346	2020609	09/30/99	10/04/99	05/04/00	17.68
09/15/99	SL-B-060899 -1050	99119497	31127	3008346	2020563	09/27/99	09/23/99	10/08/99	24.36
09/22/99	SL-B-060899 -1054	99119498	31127	3008346	2020596	09/23/99	09/29/99	05/05/00	21.40
09/22/99	SL-B-060899 -1055	99119499	31127	3008346	2020610	09/23/99	09/29/99	05/04/00	24.28
09/22/99	SL-B-060899 -1055	99119500	31127	3008346	2020611	09/23/99	09/29/99	05/04/00	22.60
09/24/99	SL-B-060899 -1055	99119501	31127	3008346	2020612	09/30/99	10/04/99	05/04/00	23.36
09/24/99	SL-B-060899 -1056	99119502	31127	3008346	2020615	09/30/99	10/04/99	10/08/99	24.26
09/15/99	SL-B-060899 -1050	99119503	31127	3008346	2020569	09/27/99	09/23/99	10/07/99	21.33
09/24/99	SL-B-060899 -1056	99119504	31127	3008346	2020617	09/30/99	10/04/99	05/04/00	22.88
09/24/99	SL-B-060899 -1056	99119505	31127	3008346	2020618	09/30/99	10/04/99	10/08/99	23.65
09/24/99	SL-B-060899 -1056	99119506	31127	3008346	2020619	09/30/99	10/04/99	10/08/99	21.48
09/27/99	SL-AF-051899 -0047	99119507	31127	3008346	2020620	09/30/99	10/04/99	02/04/00	22.43
09/27/99	SL-AF-051899 -0047	99119508	31127	3008346	2020594	09/30/99	10/04/99	10/08/99	23.98
09/15/99	SL-B-060899 -1050	99119509	31127	3008346	2020578	09/27/99	09/23/99	10/08/99	24.31
09/15/99	SL-B-060899 -1050	99119510	31127	3008346	2020575	09/27/99	09/23/99	10/07/99	24.58
09/15/99	SL-B-060899 -1051	99119511	31127	3008346	2020577	09/27/99	09/23/99	10/08/99	21.83
09/27/99	SL-AF-051899 -0047	99119512	31127	3008346	2020593	09/30/99	10/04/99	02/04/00	23.48
09/27/99	SL-AF-051899 -0047	99119513	31127	3008346	2020592	09/30/99	10/04/99	02/04/00	23.48
09/27/99	SL-AF-051899 -0047	99119514	31127	3008346	2020621	09/30/99	10/04/99	10/08/99	23.50
09/27/99	SL-B-060899 -1057	99120088	31127	3008347	2020613	09/30/99	10/04/99	10/08/99	21.16
09/29/99	SL-B-060899 -1057	99120089	31127	3008347	2020599	10/03/99	10/04/99	10/13/99	21.22
09/29/99	SL-B-060899 -1057	99120090	31127	3008347	2020622	10/03/99	10/04/99	10/13/99	20.90
09/29/99	SL-B-060899 -1057	99120091	31127	3008347	2020626	10/03/99	10/04/99	11/16/99	22.73
09/29/99	SL-B-060899 -1058	99120092	31127	3008347	2020627	10/03/99	10/04/99	11/16/99	22.99

June 2003

G-6

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
09/29/99	SL-B-060899 -1058	99120093	31127	3008347	2020628	10/03/99	10/04/99	11/16/99	22.85
09/29/99	SL-B-060899 -1058	99120094	31127	3008347	2020629	10/03/99	10/04/99	10/13/99	21.36
10/01/99	SL-B-060899 -1058	99120095	31127	3008347	2020630	11/01/99	10/12/99	10/08/99	22.99
10/01/99	SL-B-062399 -1069	99120096	31127	3008347	2020631	11/01/99	10/12/99	10/08/99	24.92
10/01/99	SL-B-062399 -1069	99120097	31127	3008347	2020632	11/01/99	10/12/99	05/04/00	22.20
10/01/99	SL-B-062399 -1069	99120098	31127	3008347	2020633	11/01/99	10/12/99	10/08/99	24.48
10/01/99	SL-B-062399 -1069	99120099	31127	3008347	2020634	11/01/99	10/12/99	05/04/00	23.24
10/01/99	SL-B-062399 -1069	99120100	31127	3008347	2020635	11/01/99	10/12/99	05/04/00	24.45
10/04/99	SL-B-060899 -1059	99120101	31127	3008347	2020636	11/01/99	10/12/99	10/13/99	23.66
10/04/99	SL-B-060899 -1059	99120102	31127	3008347	2020637	11/01/99	10/12/99	10/20/99	25.04
10/04/99	SL-B-060899 -1059	99120103	31127	3008347	2020638	11/01/99	10/12/99	01/13/00	22.44
10/04/99	SL-B-060899 -1059	99120104	31127	3008347	2020639	11/01/99	10/12/99	10/20/99	24.50
10/04/99	SL-B-060899 -1059	99120105	31127	3008347	2020640	11/01/99	10/12/99	10/20/99	23.79
10/04/99	SL-B-060899 -1060	99120106	31127	3008347	2020641	11/01/99	10/12/99	10/13/99	20.43
10/06/99	SL-B-060899 -1060	99120107	31127	3008347	2020642	10/29/99	10/12/99	10/21/99	24.23
10/06/99	SL-B-060899 -1060	99120108	31127	3008347	2020643	10/29/99	10/12/99	11/16/99	23.61
10/06/99	SL-B-060899 -1060	99120109	31127	3008347	2020644	10/29/99	10/12/99	10/21/99	23.65
10/06/99	SL-B-060899 -1060	99120110	31127	3008347	2020645	10/29/99	10/12/99	11/16/99	22.29
10/06/99	SL-B-060899 -1061	99120111	31127	3008347	2020646	10/29/99	10/12/99	10/21/99	23.76
10/06/99	SL-B-060899 -1061	99120112	31127	3008347	2020647	10/29/99	10/12/99	11/16/99	21.27
10/08/99	SL-B-060899 -1061	99012013	31127	3008347	2020648	11/04/99	10/15/99	10/20/99	20.95
10/08/99	SL-B-060899 -1061	99120114	31127	3008347	2020649	11/04/99	10/15/99	10/20/99	18.56
10/08/99	SL-B-060899 -1061	99120115	31127	3008347	2020651	11/04/99	10/15/99	11/16/99	19.08
10/08/99	SL-B-060899 -1062	99120116	31127	3008347	2020652	11/04/99	10/15/99	11/16/99	20.00
10/08/99	SL-B-060899 -1062	99120117	31127	3008347	2020653	11/04/99	10/15/99	11/16/99	20.25

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
10/08/99	SL-B-060899 -1062	99120118	31127	3008347	2020655	11/04/99	10/15/99	10/20/99	24.62
10/11/99	SL-B-060899 -1063	99120119	31127	3008347	2020656	11/04/99	10/15/99	11/16/99	21.47
10/11/99	SL-B-060899 -1063	99120120	31127	3008347	2020657	11/04/99	10/15/99	11/16/09	21.97
10/11/99	SL-B-060899 -1063	99120121	31127	3008347	2020658	11/04/99	10/15/99	11/16/99	24.63
10/11/99	SL-B-060899 -1064	99120122	31127	3008347	2020659	11/04/99	10/15/99	11/16/99	26.24
10/11/99	SL-B-060899 -1064	99120123	31127	3008347	2020660	11/04/99	10/15/99	11/16/99	23.38
10/11/99	SL-B-060899 -1064	99120124	31127	3008347	2020661	11/04/99	10/15/99	11/16/99	22.04
10/13/99	SL-B-060899 -1065	99120125	31127	3008347	2020662	11/03/99	10/20/99	10/20/99	22.68
10/13/99	SL-B-060899 -1065	99120126	31127	3008347	2020663	11/03/99	10/20/99	10/20/99	25.65
10/13/99	SL-B-060899 -1065	99120127	31127	3008347	2020664	11/03/99	10/20/99	10/20/99	25.58
10/13/99	SL-B-060899 -1065	99120128	31127	3008347	2020665	11/03/99	10/20/99	10/20/99	24.96
10/13/99	SL-B-061499 -1067	99012129	31127	3008347	2020666	11/03/99	10/20/99	10/20/99	23.05
10/13/99	SL-B-061499 -1067	99120130	31127	3008347	2020667	11/03/99	10/20/99	10/20/99	24.54
10/15/99	SL-B-061499 -1067	99120131	31127	3008347	2020668	11/04/99	10/20/99	11/17/99	19.54
10/15/99	SL-B-061499 -1067	99120132	31127	3008347	2020669	11/04/99	10/20/99	11/17/99	20.68
10/15/99	SL-B-061499 -1068	99120133	31127	3008347	2020670	11/04/99	10/20/99	11/17/99	20.94
10/15/99	SL-B-061499 -1068	99120134	31127	3008347	2020671	11/04/99	10/20/99	11/17/99	19.59
10/15/99	SL-B-061499 -1068	99120135	31127	3008347	2020672	11/04/99	10/20/99	11/17/99	19.83
10/15/99	SL-B-061499 -1068	99121002	31127	3008561	2020675	11/04/99	10/20/99	11/17/99	20.29
10/18/99	SL-B-061499 -1068	99121003	31127	3008561	2020676	11/04/99	10/27/99	11/17/99	23.27
10/18/99	SL-B-061499 -1068	99121004	31127	3008561	2020677	11/04/99	10/27/99	11/17/99	23.66
10/18/99	SL-B-061499 -1068	99121005	31127	3008561	2020679	11/04/99	10/27/99	11/17/99	21.26
10/18/99	SL-B-061499 -1065	99121006	31127	3008561	2020680	11/04/99	10/27/99	11/17/99	21.30
10/18/99	SL-B-061499 -1064	99121007	31127	3008561	2020681	11/04/99	10/27/99	11/17/99	24.25
10/19/99	SL-B-061499 -1067	99121008	31127	3008561	2020682	11/04/99	10/27/99	11/17/99	19.86

June 2003

G-8

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
01/31/00	SL-B-101399 -1141	124322	31127	3009237	2074686	02/10/00	02/07/00	02/08/00	19.59
01/31/00	SL-B-101399 -1141	124323	31127	3009237	2074687	02/10/00	02/07/00	02/08/00	21.67
01/31/00	SL-B-101399 -1141	124324	31127	3009237	2074688	02/10/00	02/07/00	02/08/00	21.44
01/31/00	SL-B-101399 -1141	124325	31127	3009237	2074689	02/10/00	02/07/00	02/08/00	22.02
01/31/00	SL-B-101299 -1140	124326	31127	3009237	2074690	02/10/00	02/07/00	02/08/00	24.30
01/31/00	SL-B-101299 -1140	124327	31127	3009237	2074691	02/10/00	02/07/00	02/08/00	19.60
01/31/00	SL-B-101299 -1140	124328	31127	3009237	2074692	02/10/00	02/07/00	02/08/00	22.22
01/31/00	SL-B-101299 -1140	124329	31127	3009237	2074693	02/10/00	02/07/00	02/08/00	19.72
02/01/00	SL-B-100699 -1135	124330	31127	3009237	2074694	02/17/00	02/17/00	02/08/00	20.66
02/01/00	SL-B-100699 -1135	124331	31127	3009237	2074695	02/17/00	02/17/00	02/08/00	21.29
02/01/00	SL-B-100699 -1135	124332	31127	3009237	2074698	02/17/00	02/17/00	02/08/00	24.87
02/01/00	SL-B-100699 -1135	124333	31127	3009237	2074696	02/17/00	02/17/00	02/08/00	20.71
02/01/00	SL-B-100699 -1135	124334	31127	3009237	2074697	02/17/00	02/17/00	02/08/00	19.60
02/01/00	SL-B-101299 -1139	124335	31127	3009237	2074699	02/17/00	02/17/00	02/08/00	20.19
02/01/00	SL-B-101299 -1139	124336	31127	3009237	2074700	02/17/00	02/17/00	02/08/00	18.82
02/01/00	SL-B-101299 -1139	124337	31127	3009237	2146248	02/17/00	02/17/00	02/08/00	22.76
02/03/00	SL-B-101299 -1139	124338	31127	3009237	2146249	02/17/00	02/17/00	02/09/00	23.08
02/03/00	SL-B-101299 -1139	124339	31127	3009237	2146246	02/17/00	02/17/00	02/14/00	21.99
03/08/00	SL-B-111699 -1163	125846	31127	3009439	2127605	03/10/00	03/20/00	03/17/00	23.18
03/08/00	SL-B-111699 -1163	125847	31127	3009439	2127606	03/10/00	03/20/00	03/17/00	20.32
03/08/00	SL-B-111699 -1163	125848	31127	3009439	2127607	03/10/00	03/20/00	03/17/00	19.90
03/08/00	SL-B-111699 -1163	125849	31127	3009439	2127608	03/10/00	03/20/00	03/17/00	20.19
03/08/00	SL-B-111699 -1163	125850	31127	3009439	2127609	03/10/00	03/20/00	03/17/00	22.91
03/08/00	SL-B-111699 -1163	125851	31127	3009439	2127610	03/10/00	03/20/00	03/17/00	22.34
03/10/00	SL-B-111699 -1163	125852	31127	3009439	2127611	03/13/00	03/20/00	03/17/00	22.52

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
03/10/00	SL-B-011800 -1184	125853	31127	3009439	2127612	03/13/00	03/20/00	03/17/00	21.15
03/10/00	SL-B-011800 -1184	125854	31127	3009439	2127613	03/13/00	03/20/00	03/17/00	20.28
03/10/00	SL-B-011800 -1184	125855	31127	3009439	2127614	03/13/00	03/20/00	03/17/00	18.81
03/10/00	SL-B-011800 -1184	125856	31127	3009439	2127615	03/13/00	03/20/00	03/17/00	18.51
03/10/00	SL-B-011800 -1184	125857	31127	3009439	2127616	03/13/00	03/20/00	03/17/00	19.18
03/10/00	SL-B-011800 -1184	125858	31127	3009439	2127617	03/13/00	03/20/00	03/17/00	18.98
03/10/00	SL-B-011800 -1184	125859	31127	3009439	2127618	03/13/00	03/20/00	03/17/00	19.03
02/16/01	SL-B-110800 -1366	1135396	31127	3011515	2428089	02/21/01	02/23/01	02/28/01	21.54
02/16/01	SL-B-110800 -1366	1135397	31127	3011515	2428090	02/21/01	02/23/01	02/28/01	22.71
02/16/01	SL-B-110800 -1366	1135398	31127	3011515	2428091	02/21/01	02/23/01	02/28/01	24.86
02/16/01	SL-B-110800 -1366	1135399	31127	3011515	2428092	02/21/01	02/23/01	02/28/01	22.65
02/16/01	SL-B-110800 -1366	1135400	31127	3011515	2428093	02/21/01	02/23/01	02/28/01	22.23
02/16/01	SL-B-110800 -1366	1135401	31127	3011515	2428094	02/21/01	02/23/01	02/28/01	22.10
02/16/01	SL-B-110800 -1366	1135402	31127	3011515	2428095	02/21/01	02/23/01	02/28/01	21.81
02/16/01	SL-B-110800 -1366	1135403	31127	3011515	2428096	02/21/01	02/23/01	02/28/01	19.86
02/26/01	SL-B-110800 -1366	1135404	31127	3011515	2203525	02/27/01	02/28/01	03/05/01	23.64
02/26/01	SL-B-110800 -1366	1135405	31127	3011515	2203526	02/27/01	02/28/01	03/05/01	21.92
02/26/01	SL-B-110800 -1366	1135406	31127	3011515	2203527	02/27/01	02/28/01	03/05/01	23.48
02/26/01	SL-B-110800 -1366	1135407	31127	3011515	2203528	02/27/01	02/28/01	03/05/01	23.45
02/26/01	SL-B-110800 -1366	1135408	31127	3011515	2203529	02/27/01	02/28/01	03/05/01	23.69
02/26/01	SL-B-110800 -1366	1135409	31127	3011515	2203530	02/27/01	02/28/01	03/05/01	21.86
02/26/01	SL-B-110800 -1366	1135410	31127	3011515	2203531	02/27/01	02/28/01	03/05/01	20.87
02/26/01	SL-B-110800 -1366	1135411	31127	3011515	2203532	02/27/01	02/28/01	03/05/01	21.62
02/03/00	SL-B-101299 -1139	124477	31127	3009252	2146247	02/17/00	02/17/00	02/14/00	19.80
02/03/00	SL-B-101499 -1143	124478	31127	3009252	2081001	02/17/00	02/17/00	02/09/00	22.07

June 2003

G-10

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
02/03/00	SL-B-101499 -1143	124479	31127	3009252	2081002	02/17/00	02/17/00	02/14/00	20.14
02/03/00	SL-B-101499 -1143	124480	31127	3009252	2081003	02/17/00	02/17/00	02/09/00	21.84
02/03/00	SL-B-101499 -1143	124481	31127	3009252	2081004	02/17/00	02/17/00	02/09/00	21.69
02/03/00	SL-B-101499 -1143	124482	31127	3009252	2081005	02/17/00	02/17/00	02/14/00	19.63
02/04/00	SL-B-101999 -1144	124483	31127	3009252	2081006	02/17/00	02/17/00	02/11/00	21.36
02/04/00	SL-B-101999 -1144	124484	31127	3009252	2081007	02/17/00	02/17/00	02/14/00	22.94
02/04/00	SL-B-101999 -1144	124485	31127	3009252	2081008	02/17/00	02/17/00	02/11/00	21.41
02/04/00	SL-B-101999 -1144	124486	31127	3009252	2081009	02/17/00	02/17/00	02/14/00	23.79
02/04/00	SL-B-101999 -1144	124487	31127	3009252	2081010	02/17/00	02/17/00	02/11/00	22.75
02/04/00	SL-B-102099 -1145	124488	31127	3009252	2081011	02/17/00	02/17/00	02/11/00	23.61
02/04/00	SL-B-102099 -1145	124489	31127	3009252	2081012	02/17/00	02/17/00	02/11/00	24.17
02/04/00	SL-B-102099 -1145	124490	31127	3009252	2081013	02/17/00	02/17/00	02/11/00	23.62
02/07/00	SL-B-102099 -1146	124491	31127	3009252	2123501	02/17/00	02/17/00	02/18/00	23.79
02/07/00	SL-B-102099 -1146	124492	31127	3009252	2123502	02/17/00	02/17/00	02/14/00	20.97
02/07/00	SL-B-102099 -1146	124493	31127	3009252	2123503	02/17/00	02/17/00	02/18/00	20.37
02/07/00	SL-B-102099 -1146	124494	31127	3009252	2123504	02/17/00	02/17/00	02/14/00	22.86
02/07/00	SL-B-102099 -1146	124495	31127	3009252	2123505	02/17/00	02/17/00	02/14/00	22.13
02/07/00	SL-B-102199 -1147	124496	31127	3009252	2123506	02/17/00	02/17/00	02/14/00	24.94
02/07/00	SL-B-102199 -1147	124497	31127	3009252	2123507	02/17/00	02/17/00	02/18/00	23.37
02/09/00	SL-B-102199 -1147	124498	31127	3009252	2123508	02/17/00	02/17/00	02/18/00	21.99
02/09/00	SL-B-102199 -1147	124499	31127	3009252	2123509	02/17/00	02/17/00	02/18/00	23.03
02/09/00	SL-B-102199 -1147	124500	31127	3009252	2123512	02/17/00	02/17/00	02/18/00	23.37
02/09/00	SL-B-102199 -1148	124501	31127	3009252	2123513	02/17/00	02/17/00	02/18/00	24.25
02/09/00	SL-B-102199 -1148	124502	31127	3009252	2123514	02/17/00	02/17/00	02/18/00	23.92
02/09/00	SL-B-102199 -1148	124503	31127	3009252	2123515	02/17/00	02/17/00	02/18/00	23.37

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
02/09/00	SL-B-102199 -1148	124504	31127	3009252	2123516	02/17/00	02/17/00	02/18/00	19.87
02/09/00	SL-B-102199 -1148	124505	31127	3009252	2123517	02/17/00	02/17/00	02/18/00	24.04
02/09/00	SL-B-102699 -1150	124506	31127	3009252	2123518	03/01/00	02/17/00	02/18/00	21.64
02/11/00	SL-B-102699 -1150	124507	31127	3009252	2123519	02/21/00	02/17/00	02/18/00	23.54
02/11/00	SL-B-102699 -1150	124508	31127	3009252	2123520	02/21/00	02/17/00	02/18/00	23.51
02/11/00	SL-B-102699 -1150	124509	31127	3009252	2123521	02/21/00	02/17/00	02/18/00	23.62
02/11/00	SL-B-102699 -1150	124510	31127	3009252	2123522	02/21/00	02/17/00	02/18/00	22.81
02/11/00	SL-B-102699 -1149	124511	31127	3009252	2123523	02/21/00	02/17/00	02/18/00	22.20
02/11/00	SL-B-102699 -1149	124512	31127	3009252	2123524	02/21/00	02/17/00	02/18/00	21.51
02/11/00	SL-B-102699 -1149	124513	31127	3009252	2123525	02/21/00	02/17/00	02/18/00	23.57
02/11/00	SL-B-102699 -1149	124514	31127	3009252	2123526	02/21/00	02/17/00	02/18/00	22.50
02/11/00	SL-B-102699 -1149	124515	31127	3009252	2123527	02/21/00	02/17/00	02/18/00	24.52
02/14/00	SL-B-102799 -1152	124516	31127	3009252	2123528	02/21/00	02/28/00	02/18/00	23.07
02/14/00	SL-B-102799 -1152	124517	31127	3009252	2123529	02/21/00	02/28/00	02/18/00	22.90
02/14/00	SL-B-102799 -1152	124518	31127	3009252	2127551	02/21/00	02/28/00	02/18/00	21.82
02/14/00	SL-B-102799 -1152	124519	31127	3009252	2127552	02/21/00	02/28/00	02/18/00	20.17
02/14/00	SL-B-102799 -1152	124520	31127	3009252	2127553	02/21/00	02/28/00	02/18/00	22.93
02/14/00	SL-B-102999 -1154	124521	31127	3009252	2127554	02/21/00	02/28/00	02/18/00	23.71
02/14/00	SL-B-102999 -1154	124523	31127	3009252	2127556	02/21/00	02/28/00	02/18/00	24.24
02/14/00	SL-B-102999 -1154	124522	31127	3009252	2127555	02/21/00	02/28/00	02/18/00	22.76
02/14/00	SL-B-102999 -1154	124524	31127	3009252	2127557	02/21/00	02/28/00	02/18/00	24.01
02/16/00	SL-B-110199 -1155	124525	31127	3009252	2127558	02/21/00	02/28/00	03/03/00	23.59
02/16/00	SL-B-110199 -1155	124526	31127	3009252	2127559	02/21/00	02/28/00	02/22/00	24.38
02/16/00	SL-B-110199 -1155	124527	31127	3009252	2127560	02/21/00	02/28/00	03/03/00	22.85
02/16/00	SL-B-110199 -1155	124528	31127	3009252	2127561	02/21/00	02/28/00	03/03/00	24.63

June 2003

G-12

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
02/16/00	SL-B-110299 -1156	124529	31127	3009252	2127562	02/21/00	02/28/00	02/22/00	23.78
02/16/00	SL-B-110299 -1156	124530	31127	3009252	2127563	02/21/00	02/28/00	03/03/00	24.33
02/16/00	SL-B-110299 -1156	124531	31127	3009252	2127564	02/21/00	02/28/00	02/22/00	22.83
02/16/00	SL-B-110299 -1156	124532	31127	3009252	2127565	02/21/00	02/28/00	02/22/00	24.42
02/18/00	SL-B-110299 -1157	124533	31127	3009252	2127566	02/23/00	02/28/00	02/28/00	22.91
02/18/00	SL-B-110299 -1157	124534	31127	3009252	2127567	02/23/00	02/28/00	02/24/00	23.71
02/18/00	SL-B-110299 -1157	124535	31127	3009252	2127568	02/23/00	02/28/00	02/24/00	22.37
02/18/00	SL-B-110299 -1157	124536	31127	3009252	2127569	02/23/00	02/28/00	02/24/00	23.92
02/18/00	SL-B-110499 -1158	124537	31127	3009252	2127570	02/23/00	02/28/00	02/28/00	22.99
02/18/00	SL-B-110499 -1158	124538	31127	3009252	2127571	02/23/00	02/28/00	02/24/00	22.05
02/18/00	SL-B-110499 -1158	124539	31127	3009252	2127572	02/23/00	02/28/00	02/24/00	23.25
02/18/00	SL-B-110499 -1158	124540	31127	3009252	2127573	02/23/00	02/28/00	02/28/00	23.57
10/25/99	SL-B-061499 -1080	99121368	31565	3008655	2074500	11/04/99	10/27/99	11/08/99	25.19
10/25/99	SL-B-061499 -1080	99121369	31565	3008655	2074501	11/04/99	10/27/99	11/08/99	24.94
10/25/99	SL-B-061499 -1080	99121370	31565	3008655	2074502	11/04/99	10/27/99	11/08/99	25.43
10/25/99	SL-B-061499 -1080	99121371	31565	3008655	2074503	11/04/99	10/27/99	11/08/99	25.69
10/25/99	SL-B-061499 -1080	99121372	31565	3008655	2074507	11/04/99	10/27/99	11/08/99	25.35
10/25/99	SL-B-061499 -1084	99121373	31565	3008655	2074508	11/04/99	10/27/99	11/08/99	25.46
10/27/99	SL-B-061499 -1084	99121374	31565	3008655	2074509	11/04/99	11/02/99	11/08/99	23.00
10/27/99	SL-B-061499 -1084	99121375	31565	3008655	2074510	11/04/99	11/02/99	11/08/99	22.32
10/27/99	SL-B-061499 -1084	99121376	31565	3008655	2074511	11/04/99	11/02/99	11/08/99	26.99
10/27/99	SL-B-061499 -1084	99121377	31565	3008655	2074512	11/04/99	11/02/99	11/08/99	22.79
10/27/99	SL-B-061499 -1088	99121378	31565	3008655	2074513	11/04/99	11/02/99	11/08/99	18.14
10/27/99	SL-B-061499 -1088	99121379	31565	3008655	2074514	11/04/99	11/02/99	11/08/99	19.88
10/29/99	SL-B-061499 -1088	99121380	31565	3008655	2074515	11/22/99	11/18/99	12/10/99	22.44

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
10/29/99	SL-B-061499 -1088	99121381	31565	3008655	2074517	11/22/99	11/18/99	12/10/99	22.73
10/29/99	SL-B-072799 -1089	99121382	31565	3008655	2074518	11/22/99	11/18/99	12/10/99	22.27
10/29/99	SL-B-072799 -1089	99121383	31565	3008655	2074519	11/22/99	11/18/99	12/10/99	22.72
10/29/99	SL-B-072799 -1089	99121384	31565	3008655	2074521	11/22/99	11/18/99	12/10/99	19.25
11/01/99	SL-B-072799 -1089	99121385	31565	3008655	2074522	11/22/99	11/18/99	12/10/99	19.34
11/01/99	SL-B-072799 -1089	99121386	31565	3008655	2074523	11/22/99	11/18/99	12/10/99	18.34
11/01/99	SL-B-072799 -1089	99121387	31565	3008655	2074524	11/22/99	11/18/99	12/10/99	27.83
11/10/99	SL-B-082599 -1108	99121389	31565	3008655	2074525	12/03/99	11/18/99	12/06/99	20.78
11/10/99	SL-B-082599 -1108	99121390	31565	3008655	2074526	12/03/99	11/18/99	12/06/99	18.93
11/10/99	SL-B-082599 -1108	99121388	31565	3008655	2074529	12/03/99	11/18/99	12/06/99	22.14
11/10/99	SL-B-082599 -1108	99121391	31565	3008655	2074530	12/03/99	11/18/99	12/10/99	20.95
11/10/99	SL-B-082599 -1108	99121392	31565	3008655	2074531	12/03/99	11/18/99	12/06/99	20.30
11/10/99	SL-B-082699 -1109	99121393	31565	3008655	2074532	12/03/99	11/18/99	12/10/99	20.13
11/12/99	SL-B-082699 -1109	99121394	31565	3008655	2074533	12/03/99	11/18/99	12/10/99	20.51
11/12/99	SL-B-082699 -1109	99121395	31565	3008655	2074535	12/03/99	11/18/99	12/10/99	21.77
11/12/99	SL-B-082699 -1109	99121396	31565	3008655	2074536	12/03/99	11/18/99	12/10/99	20.87
11/12/99	SL-B-082699 -1109	99121397	31565	3008655	2074537	12/03/99	11/18/99	12/10/99	20.71
11/12/99	SL-B-082499 -1106	99121398	31565	3008655	2074538	12/03/99	11/18/99	12/10/99	20.52
11/12/99	SL-B-082499 -1106	99121399	31565	3008655	2074539	12/03/99	11/18/99	12/06/99	20.51
11/10/99	SL-B-060899 -1063	99121400	31565	3008655	2074540	12/03/99	11/18/99	12/06/99	24.69
11/15/99	SL-B-082499 -1106	99121401	31565	3008655	2074541	12/03/99	11/18/99	12/06/99	18.94
11/15/99	SL-B-082499 -1106	99121402	31565	3008655	2074542	12/03/99	11/18/99	12/06/99	20.56
11/15/99	SL-B-082499 -1106	99121403	31565	3008655	2074543	12/03/99	11/18/99	12/06/99	24.90
11/15/99	SL-B-082499 -1106	99121404	31565	3008655	2074544	12/03/99	11/18/99	12/06/99	21.48
11/15/99	SL-B-081299 -1097	99121405	31565	3008655	2074545	12/03/99	11/18/99	12/06/99	20.94

June 2003

G-14

EH2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
11/15/99	SL-B-081299 -1097	99121406	31565	3008655	2074546	12/03/99	11/18/99	12/06/99	20.99
11/17/99	SL-B-081299 -1097	99121407	31565	3008655	2074547	12/03/99	12/04/99	12/10/99	19.30
11/17/99	SL-B-081299 -1097	99121408	31565	3008655	2074548	12/03/99	12/04/99	12/10/99	20.92
11/17/99	SL-B-081299 -1097	99121409	31565	3008655	2074549	12/03/99	12/04/99	12/10/99	21.19
11/17/99	SL-B-081299 -1097	99121410	31565	3008655	2074550	12/03/99	12/04/99	12/06/99	19.30
11/17/99	SL-B-072999 -1093	99121411	31565	3008655	2074551	12/03/99	12/04/99	12/06/99	24.00
11/17/99	SL-B-072999 -1093	99121412	31565	3008655	2074552	12/03/99	12/04/99	12/06/99	20.67
01/03/00	SL-B-090199 -1113	99122949	31807	3008948	2074576	01/24/00	01/18/00	01/11/00	18.97
01/03/00	SL-B-090199 -1113	99122950	31807	3008948	2074577	01/24/00	01/18/00	01/11/00	20.86
01/03/00	SL-B-090199 -1113	99122951	31807	3008948	2074578	01/24/00	01/18/00	01/11/00	22.61
01/03/00	SL-B-090299 -1114	99122952	31807	3008948	2074579	01/24/00	01/18/00	01/11/00	19.04
01/03/00	SL-B-090299 -1114	99122954	31807	3008948	2074580	01/24/00	01/18/00	01/11/00	19.82
01/03/00	SL-B-090299 -1114	99122955	31807	3008948	2074581	01/24/00	01/18/00	01/11/00	20.29
01/05/00	SL-B-090299 -1114	99122956	31807	3008948	2074582	01/24/00	01/18/00	01/11/00	22.14
01/05/00	SL-B-090299 -1114	99122958	31807	3008948	2074583	01/24/00	01/18/00	02/02/00	18.56
01/05/00	SL-B-090299 -1114	99122959	31807	3008948	2074584	01/24/00	01/18/00	02/02/00	18.14
01/05/00	SL-B-090399 -1115	99122960	31807	3008948	2074585	01/24/00	01/18/00	01/11/00	19.65
01/05/00	SL-B-090399 -1115	99122961	31807	3008948	2074586	01/24/00	01/18/00	02/02/00	18.75
01/05/00	SL-B-090399 -1115	99122965	31807	3008948	2074587	01/24/00	01/18/00	01/11/00	21.67
01/07/00	SL-B-090399 -1115	99122971	31807	3008948	2074588	01/25/00	01/18/00	01/13/00	23.58
01/07/00	SL-B-090399 -1115	99122974	31807	3008948	2074589	01/25/00	01/18/00	01/13/00	23.93
01/07/00	SL-B-090399 -1115	99122979	31807	3008948	2074590	01/25/00	01/18/00	01/13/00	22.75
01/07/00	SL-B-090799 -1116	99122983	31807	3008948	2074591	01/25/00	01/18/00	01/13/00	24.68
01/07/00	SL-B-090799 -1116	99122990	31807	3008948	2074592	01/25/00	01/18/00	01/13/00	21.62
01/07/00	SL-B-090799 -1116	99122994	31807	3008948	2074593	01/25/00	01/18/00	01/13/00	20.33

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
01/07/00	SL-B-090799 -1116	99123001	31807	3008948	2074594	01/25/00	01/18/00	01/13/00	20.07
01/07/00	SL-B-090799 -1116	99123007	31807	3008948	2074595	01/25/00	01/18/00	01/13/00	20.29
01/10/00	SL-B-090899 -1117	99123008	31807	3008948	2074596	01/25/00	01/18/00	01/13/00	21.89
01/10/00	SL-B-090899 -1117	99123009	31807	3008948	2074597	01/25/00	01/18/00	01/13/00	20.50
01/10/00	SL-B-090899 -1117	99123010	31807	3008948	2074598	01/25/00	01/18/00	01/13/00	20.27
01/19/00	SL-B-092199 -1121	99123011	31807	3008948	2074599	02/02/00	01/21/00	01/25/00	20.76
01/19/00	SL-B-092199 -1121	99123012	31807	3008948	2074634	02/02/00	01/21/00	01/25/00	21.27
01/19/00	SL-B-092199 -1121	99123013	31807	3008948	2074633	02/02/00	01/21/00	01/25/00	20.05
01/19/00	SL-B-092199 -1121	99123014	31807	3008948	2074635	02/02/00	01/21/00	01/25/00	19.67
01/19/00	SL-B-092199 -1121	99123015	31807	3008948	2074636	02/02/00	01/27/00	01/25/00	19.49
01/21/00	SL-B-090999 -1118	99123016	31807	3008948	2074638	02/10/00	01/27/00	01/26/00	20.27
01/21/00	SL-B-090999 -1118	99123018	31807	3008948	2074612	02/10/00	01/27/00	01/26/00	20.50
01/21/00	SL-B-090999 -1118	99123019	31807	3008948	2074637	02/10/00	01/27/00	01/26/00	20.55
02/23/00	SL-B-121699 -1173	99123020	31807	3008948	2074640	02/24/00	02/28/00	02/29/00	23.06
02/23/00	SL-B-121699 -1173	99123021	31807	3008948	2074639	02/24/00	02/28/00	02/29/00	22.86
02/23/00	SL-B-121699 -1173	99123073	31807	3008948	2074642	02/24/00	02/28/00	02/28/00	19.77
02/23/00	SL-B-121699 -1173	99123074	31807	3008948	2074643	02/24/00	02/28/00	02/28/00	22.78
02/23/00	SL-B-121699 -1173	99123075	31807	3008948	2074644	02/24/00	02/28/00	02/29/00	5.58
12/20/99	SL-B-083099 -1111	99122900	31807	3008948	2074560	12/21/99	01/03/00	12/28/99	22.00
12/20/99	SL-B-083099 -1111	99122901	31807	3008948	2074562	12/21/99	01/03/00	12/28/99	20.03
12/20/99	SL-B-083099 -1111	99122902	31807	3008948	2074563	12/21/99	01/03/00	12/28/99	20.72
12/20/99	SL-B-083099 -1111	99122903	31807	3008948	2074564	12/21/99	01/03/00	12/28/99	19.26
12/20/99	SL-B-083099 -1111	99122904	31807	3008948	2074565	12/21/99	01/03/00	12/28/99	22.81
12/20/99	SL-B-083199 -1112	99122905	31807	3008948	2074566	12/21/99	01/03/00	12/28/99	18.15
12/22/99	SL-B-083199 -1112	99122906	31807	3008948	2074567	01/13/00	12/30/99	12/30/99	23.64

June 2003

G-16

EH2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
12/22/99	SL-B-083199 -1112	99122907	31807	3008948	2074569	01/13/00	12/30/99	01/04/00	19.45
12/22/99	SL-B-083199 -1112	99122908	31807	3008948	2074570	01/13/00	12/30/99	01/04/00	18.64
12/22/99	SL-B-083199 -1112	99122909	31807	3008948	2074571	01/13/00	12/30/99	12/30/99	20.59
12/22/99	SL-B-090199 -1113	99122911	31807	3008948	2074572	01/13/00	12/30/99	01/04/00	20.00
12/22/99	SL-B-090199 -1113	99122915	31807	3008948	2074573	01/13/00	12/30/99	12/30/99	19.91
	SL-AF-120199 -0125	99122451	31807	3008882	2020502	12/21/99	12/17/99	12/14/99	16.83
	SL-AF-120199 -0125	99122452	31807	3008882	2020503	12/21/99	12/17/99	12/14/99	14.01
	SL-AF-120199 -0125	99122453	31807	3008882	2020504	12/21/99	12/17/99	12/14/99	13.79
	SL-AF-120199 -0125	99122454	31807	3008882	2020505	12/21/99	12/17/99	12/14/99	13.53
	SL-AF-120199 -0125	99122455	31807	3008882	2020506	12/21/99	12/17/99	12/14/99	14.85
	SL-AF-120199 -0125	99122456	31807	3008882	2020507	12/21/99	12/17/99	12/14/99	11.23
	SL-AF-120199 -0125	99122457	31807	3008882	2020508	12/21/99	12/17/99	12/14/99	13.88
02/23/00	SL-B-121699 -1174	125022	31807	3009305	2127574	02/24/00	02/28/00	02/29/00	22.36
02/23/00	SL-B-121699 -1174	125023	31807	3009305	2127575	02/24/00	02/28/00	02/28/00	23.02
02/23/00	SL-B-121699 -1174	125024	31807	3009305	2127576	02/24/00	02/28/00	02/28/00	14.16
02/25/00	SL-B-121699 -1174	125025	31807	3009305	2127577	03/01/00	03/02/00	03/03/00	23.22
02/25/00	SL-B-121699 -1174	125026	31807	3009305	2127578	03/01/00	03/02/00	03/03/00	23.40
02/25/00	SL-B-121799 -1175	125027	31807	3009305	2127579	03/01/00	03/02/00	03/03/00	21.02
02/25/00	SL-B-121799 -1175	125028	31807	3009305	2127580	03/01/00	03/02/00	03/03/00	23.51
02/25/00	SL-B-121799 -1175	125029	31807	3009305	2127581	03/01/00	03/02/00	03/03/00	20.25
02/25/00	SL-B-121799 -1175	125030	31807	3009305	2127582	03/01/00	03/02/00	03/03/00	23.08
02/25/00	SL-B-121799 -1175	125031	31807	3009305	2127583	03/01/00	03/02/00	03/03/00	22.48
02/28/00	SL-B-111999 -1162	125032	31807	3009305	2127584	03/01/00	03/02/00	03/03/00	22.67
02/28/00	SL-B-111999 -1162	125033	31807	3009305	2127585	03/01/00	03/02/00	03/03/00	23.69
02/28/00	SL-B-111999 -1162	125034	31807	3009305	2127586	03/01/00	03/02/00	03/03/00	21.28

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
02/28/00	SL-B-111999 -1162	125035	31807	3009305	2127587	03/01/00	03/02/00	03/03/00	23.62
02/28/00	SL-B-111999 -1162	125036	31807	3009305	2127588	03/01/00	03/02/00	03/03/00	20.79
02/28/00	SL-B-111999 -1161	125037	31807	3009305	2127589	03/01/00	03/02/00	03/03/00	23.30
02/28/00	SL-B-111999 -1161	125038	31807	3009305	2127590	03/01/00	03/02/00	03/03/00	6.88
02/29/00	SL-B-111999 -1161	125039	31807	3009305	2127591	03/02/00	03/20/00	03/08/00	22.03
02/28/00	SL-B-111999 -1161	125040	31807	3009305	2127592	03/01/00	03/02/00	03/03/00	23.43
03/02/00	SL-B-122199 -1178	125041	31807	3009305	2127602	03/10/00	03/20/00	03/10/00	21.59
03/02/00	SL-B-122199 -1178	125042	31807	3009305	2127603	03/10/00	03/20/00	03/10/00	20.24
03/02/00	SL-B-122199 -1178	125043	31807	3009305	2127604	03/10/00	03/20/00	03/10/00	22.85
03/01/00	SL-B-111999 -1161	125463	31807	3009382	2127593	03/02/00	03/20/00	03/08/00	23.54
03/01/00	SL-B-111999 -1164	125464	31807	3009382	2127594	03/02/00	03/20/00	03/08/00	23.91
03/01/00	SL-B-111999 -1164	125465	31807	3009382	2127595	03/02/00	03/20/00	03/08/00	20.70
03/01/00	SL-B-111999 -1164	125466	31807	3009382	2127596	03/02/00	03/20/00	03/10/00	21.52
03/01/00	SL-B-111999 -1164	125467	31807	3009382	2127597	03/02/00	03/20/00	03/08/00	22.81
03/01/00	SL-B-111999 -1164	125468	31807	3009382	2127598	03/02/00	03/20/00	03/08/00	23.37
03/01/00	SL-B-122199 -1178	125469	31807	3009382	2127599	03/02/00	03/20/00	03/10/00	22.91
03/01/00	SL-B-122199 -1178	125470	31807	3009382	2127600	03/02/00	03/20/00	03/10/00	22.88
03/02/00	SL-B-122199 -1178	125471	31807	3009382	2127601	03/10/00	03/20/00	03/20/00	20.79
01/11/00	SL-B-100599 -1133	123642	31861	3009095	2074601	01/25/00	01/18/00	01/20/00	22.44
01/11/00	SL-B-100599 -1133	123643	31861	3009095	2074602	01/25/00	01/18/00	01/20/00	23.25
01/11/00	SL-B-100599 -1133	123644	31861	3009095	2074611	01/25/00	01/18/00	01/20/00	23.08
01/12/00	SL-B-100599 -1133	123645	31861	3009095	2074603	01/25/00	01/18/00	01/20/00	19.88
01/12/00	SL-B-100599 -1133	123646	31861	3009095	2074604	01/25/00	01/18/00	01/20/00	22.10
01/12/00	SL-B-100499 -1132	123647	31861	3009095	2074605	01/25/00	01/18/00	01/20/00	20.68
01/12/00	SL-B-100499 -1132	123648	31861	3009095	2074606	01/25/00	01/18/00	01/20/00	21.26

June 2003

G-18

EH2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
01/12/00	SL-B-100499 -1132	123649	31861	3009095	2074607	01/25/00	01/18/00	01/20/00	21.92
01/12/00	SL-B-100499 -1132	123650	31861	3009095	2074608	01/25/00	01/18/00	01/20/00	19.55
01/13/00	SL-B-100499 -1132	123651	31861	3009095	2074609	01/28/00	01/21/00	01/20/00	21.69
01/13/00	SL-B-100499 -1131	123652	31861	3009095	2074610	01/28/00	01/21/00	01/20/00	19.71
01/13/00	SL-B-100499 -1131	123653	31861	3009095	2074613	01/28/00	01/21/00	01/20/00	20.95
01/14/00	SL-B-100499 -1131	123654	31861	3009095	2074614	01/28/00	01/21/00	01/20/00	20.88
01/14/00	SL-B-100499 -1131	123655	31861	3009095	2074615	01/28/00	01/21/00	01/20/00	19.18
01/14/00	SL-B-100499 -1131	123656	31861	3009095	2074616	01/28/00	01/21/00	01/20/00	21.26
01/14/00	SL-B-093099 -1130	123657	31861	3009095	2074617	01/28/00	01/21/00	01/20/00	20.00
01/14/00	SL-B-093099 -1130	123658	31861	3009095	2074619	01/28/00	01/21/00	01/20/00	18.24
01/14/00	SL-B-093099 -1130	123659	31861	3009095	2074620	01/28/00	01/21/00	01/20/00	21.52
01/18/00	SL-B-093099 -1130	123660	31861	3009095	2074621	01/28/00	01/21/00	01/24/00	19.54
01/18/00	SL-B-093099 -1130	123661	31861	3009095	2074622	01/28/00	01/21/00	01/24/00	19.45
01/18/00	SL-B-092999 -1129	123671	31861	3009095	2074623	01/28/00	01/21/00	01/28/00	18.71
01/18/00	SL-B-092999 -1129	123662	31861	3009095	2074624	01/28/00	01/21/00	01/28/00	20.47
01/18/00	SL-B-092999 -1129	123663	31861	3009095	2074625	01/28/00	01/21/00	01/24/00	21.53
01/18/00	SL-B-092999 -1129	123664	31861	3009095	2074626	02/02/00	01/21/00	01/24/00	19.05
01/18/00	SL-B-092999 -1129	123665	31861	3009095	2074627	01/28/00	01/21/00	01/24/00	20.27
01/18/00	SL-B-092899 -1128	123666	31861	3009095	2074628	01/28/00	01/21/00	01/24/00	19.93
01/19/00	SL-B-092899 -1128	123667	31861	3009095	2074629	02/02/00	01/21/00	01/25/00	20.33
01/19/00	SL-B-092899 -1128	123668	31861	3009095	2074630	02/02/00	01/21/00	01/25/00	20.49
01/21/00	SL-B-100899 -1136	123998	31989	3009204	2074645	02/10/00	01/27/00	01/26/00	20.20
01/21/00	SL-B-100899 -1136	123999	31989	3009204	2074646	01/25/00	02/02/00	01/28/00	20.40
01/21/00	SL-B-100899 -1136	124000	31989	3009204	2074647	01/25/00	02/02/00	01/28/00	20.59
01/21/00	SL-B-100899 -1136	124001	31989	3009204	2074648	02/10/00	01/27/00	01/26/00	21.28

Phase I Closure Implementation Report

ER2003-0409

G-19

June 2003

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
01/21/00	SL-B-100899 -1136	124002	31989	3009204	2074649	02/10/00	01/27/00	01/26/00	22.06
01/21/00	SL-B-101499 -1142	124003	31989	3009204	2074650	01/25/00	02/02/00	01/28/00	19.63
01/24/00	SL-B-101499 -1142	124004	31989	3009204	2074651	02/10/00	01/27/00	02/02/00	19.68
01/24/00	SL-B-101499 -1142	124005	31989	3009204	2074652	02/10/00	01/27/00	02/02/00	21.48
01/24/00	SL-B-101499 -1142	124006	31989	3009204	2074653	02/10/00	01/27/00	02/02/00	19.49
01/24/00	SL-B-101499 -1142	124007	31989	3009204	2074654	02/10/00	01/27/00	02/02/00	22.52
01/24/00	SL-B-101399 -1141	124008	31989	3009204	2074656	02/10/00	01/27/00	02/02/00	19.40
01/24/00	SL-B-101399 -1141	124009	31989	3009204	2074655	02/10/00	01/27/00	02/02/00	20.10
03/29/00	SL-B-011900 -1185	126377	32232	3009548	2104014	04/11/00	03/31/00	04/05/00	22.17
03/29/00	SL-B-011900 -1185	126378	32232	3009548	2104015	04/11/00	03/31/00	04/05/00	19.54
03/29/00	SL-B-011900 -1185	126379	32232	3009548	2104016	04/11/00	03/31/00	04/05/00	19.33
03/29/00	SL-B-011900 -1185	126380	32232	3009548	2104017	04/11/00	03/31/00	04/05/00	18.74
03/29/00	SL-B-011900 -1185	126381	32232	3009548	2104018	04/11/00	03/31/00	04/05/00	22.06
03/29/00	SL-B-011800 -1183	126382	32232	3009548	2104019	04/11/00	03/31/00	04/05/00	20.71
03/29/00	SL-B-011800 -1183	126383	32232	3009548	2104020	04/11/00	03/31/00	04/05/00	22.40
03/29/00	SL-B-011800 -1183	126384	32232	3009548	2104021	04/11/00	03/31/00	04/05/00	19.40
03/31/00	SL-B-011800 -1183	126385	32232	3009548	2104022	04/12/00	04/05/00	04/05/00	21.52
03/31/00	SL-B-011800 -1183	126386	32232	3009548	2104024	04/12/00	04/05/00	04/05/00	19.25
03/31/00	SL-B-011800 -1183	126387	32232	3009548	2104025	04/12/00	04/05/00	04/05/00	20.44
03/31/00	SL-B-122199 -1177	126388	32232	3009548	2104026	04/12/00	04/05/00	04/05/00	23.14
03/31/00	SL-B-122199 -1177	126389	32232	3009548	2104027	04/12/00	04/05/00	04/05/00	20.23
03/31/00	SL-B-122199 -1177	126390	32232	3009548	2104028	04/12/00	04/05/00	04/05/00	23.12
03/31/00	SL-B-122199 -1177	126391	32232	3009548	2104029	04/12/00	04/05/00	04/05/00	22.65
03/31/00	SL-B-122199 -1177	126392	32232	3009548	2104030	04/12/00	04/05/00	04/05/00	23.52
04/03/00	SL-B-011100 -1181	126393	32232	3009548	2104031	04/25/00	04/17/00	07/28/00	22.21

Phase I Closure Implementation Report

June 2003

G-20

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
04/03/00	SL-B-011100 -1181	126394	32232	3009548	2104032	04/25/00	04/17/00	07/28/00	19.67
04/03/00	SL-B-011100 -1181	126395	32232	3009548	2104033	04/25/00	04/17/00	07/28/00	21.79
04/03/00	SL-B-011100 -1181	126396	32232	3009548	2104034	04/25/00	04/17/00	07/28/00	19.98
04/03/00	SL-B-011100 -1181	126397	32232	3009548	2104035	04/25/00	04/17/00	07/28/00	20.82
04/03/00	SL-B-011400 -1182	126398	32232	3009548	2104036	04/25/00	04/17/00	07/28/00	21.21
04/03/00	SL-B-011400 -1182	126399	32232	3009548	2104037	04/25/00	04/17/00	07/28/00	20.17
04/03/00	SL-B-011400 -1182	126400	32232	3009548	2104038	04/25/00	04/17/00	07/28/00	19.54
04/05/00	SL-B-011400 -1182	126401	32232	3009548	2104039	04/25/00	04/17/00	07/28/00	24.62
04/05/00	SL-B-011400 -1182	126402	32232	3009548	2104040	04/25/00	04/17/00	07/28/00	24.49
04/05/00	SL-B-010700 -1179	126403	32232	3009548	2104041	04/25/00	04/17/00	07/28/00	19.00
04/05/00	SL-B-010700 -1179	126404	32232	3009548	2104042	04/25/00	04/17/00	07/28/00	19.79
04/05/00	SL-B-010700 -1179	126405	32232	3009548	2104043	04/25/00	04/17/00	07/28/00	20.47
04/05/00	SL-B-010700 -1179	126406	32232	3009548	2104044	04/25/00	04/17/00	07/28/00	20.18
04/05/00	SL-B-010700 -1179	126407	32232	3009548	2104045	04/25/00	04/17/00	07/28/00	23.40
04/26/00	SL-B-021100 -1194	126408	32232	3009548	2104046	05/11/00	05/05/00	07/30/00	19.98
04/26/00	SL-B-021100 -1194	126409	32232	3009548	2104047	05/11/00	05/05/00	07/30/00	20.47
04/28/00	SL-B-021100 -1194	126410	32232	3009548	2104048	05/11/00	05/05/00	07/30/00	21.14
04/28/00	SL-B-021100 -1194	126412	32232	3009548	2081017	05/11/00	05/05/00	07/30/00	20.88
04/28/00	SL-B-021100 -1194	126411	32232	3009548	2081018	05/11/00	05/05/00	07/30/00	20.41
05/03/00	SL-B-021800 -1197	126413	32232	3009548	2369307	05/26/00	05/17/00	07/25/00	22.66
05/05/00	SL-B-021800 -1197	126414	32232	3009548	2369314	05/25/00	05/17/00	07/25/00	22.72
05/05/00	SL-B-021800 -1197	126415	32232	3009548	2369352	05/25/00	05/17/00	07/25/00	21.13
05/05/00	SL-B-021800 -1197	126416	32232	3009548	2369353	05/25/00	05/17/00	07/25/00	22.78
05/05/00	SL-B-021800 -1197	126417	32232	3009548	2369354	05/26/00	05/17/00	07/25/00	22.69
06/07/00	SL-B-021800 -1197	126418	32232	3009548	2369321	06/13/01	06/22/00	07/30/00	23.56

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
06/07/00	SL-B-032800 -1209	126419	32232	3009548	2369322	06/13/01	06/22/00	12/06/00	22.31
06/07/00	SL-B-032800 -1209	126420	32232	3009548	2369323	06/13/01	06/22/00	12/06/00	22.83
06/09/00	SL-B-032800 -1209	126421	32232	3009548	2369324	06/28/00	06/22/00	12/13/00	23.49
06/09/00	SL-B-032800 -1209	126422	32232	3009548	2369325	06/28/00	06/22/00	12/13/00	20.64
06/09/00	SL-B-032800 -1209	126423	32232	3009548	2369326	06/28/00	06/22/00	12/13/00	22.48
06/09/00	SL-B-032800 -1209	126424	32232	3009548	2369327	06/28/00	06/22/00	12/13/00	22.96
06/09/00	SL-B-032800 -1208	126425	32232	3009548	2369328	06/28/00	06/22/00	12/13/00	20.03
06/09/00	SL-B-032800 -1208	126426	32232	3009548	2369329	06/28/00	06/22/00	12/13/00	20.75
06/09/00	SL-B-032800 -1208	126427	32232	3009548	2369330	06/28/00	06/22/00	12/13/00	23.94
06/09/00	SL-B-032800 -1208	126428	32232	3009548	2369331	06/28/00	06/22/00	12/13/00	23.31
06/12/00	SL-B-032800 -1208	126429	32232	3009548	2369332	06/28/00	06/22/00	07/30/00	20.54
06/12/00	SL-B-032800 -1208	126430	32232	3009548	2369333	06/28/00	06/22/00	07/30/00	21.94
06/12/00	SL-B-031600 -1206	126431	32232	3009548	2369334	06/28/00	06/28/00	07/30/00	19.93
06/12/00	SL-B-031600 -1206	126432	32232	3009548	2369335	06/28/00	06/28/00	07/30/00	19.71
06/12/00	SL-B-031600 -1206	126433	32232	3009548	2369336	06/28/00	06/28/00	07/30/00	22.98
06/12/00	SL-B-031600 -1206	126434	32232	3009548	2369337	06/28/00	06/28/00	07/30/00	19.56
06/12/00	SL-B-031600 -1206	126435	32232	3009548	2369338	06/28/00	06/28/00	07/30/00	18.33
06/12/00	SL-B-031400 -1205	126436	32232	3009548	2369339	06/28/00	06/22/00	07/30/00	19.24
06/14/00	SL-B-031400 -1205	126437	32232	3009548	2369340	06/13/01	06/22/00	07/25/00	22.21
06/14/00	SL-B-031400 -1205	126438	32232	3009548	2369341	06/21/00	06/22/00	07/25/00	19.78
06/14/00	SL-B-031400 -1205	126439	32232	3009548	2369342	06/21/00	06/22/00	07/25/00	20.88
06/14/00	SL-B-031400 -1205	126440	32232	3009548	2369343	06/21/00	06/22/00	07/25/00	18.87
06/14/00	SL-B-040400 -1212	127415	32232	3009750	2369344	06/21/00	06/22/00	07/25/00	23.05
06/14/00	SL-B-040400 -1212	127416	32232	3009750	2369345	06/21/00	06/22/00	07/25/00	20.44
06/14/00	SL-B-040400 -1212	127417	32232	3009750	2369346	06/21/00	06/22/00	07/25/00	21.29

June 2003

G-22

EH2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
06/16/00	SL-B-040400 -1212	127418	32232	3009750	2369347	06/21/00	06/28/00	07/28/00	20.43
06/16/00	SL-B-040500 -1211	127419	32232	3009750	2369348	06/21/00	06/28/00	07/28/00	19.92
06/16/00	SL-B-040500 -1211	127420	32232	3009750	2369349	06/21/00	06/28/00	07/28/00	19.40
06/16/00	SL-B-040500 -1211	127421	32232	3009750	2369350	06/21/00	06/28/00	07/28/00	20.08
06/16/00	SL-B-040500 -1211	127422	32232	3009750	2369351	06/21/00	06/28/00	07/28/00	20.60
06/16/00	SL-B-031000 -1204	127423	32232	3009750	2369355	06/21/00	06/28/00	07/28/00	18.30
06/16/00	SL-B-031000 -1204	127424	32232	3009750	2369358	06/21/00	06/28/00	07/28/00	22.72
06/16/00	SL-B-031000 -1204	127425	32232	3009750	2369359	06/21/00	06/28/00	07/28/00	19.99
06/16/00	SL-B-031000 -1204	127426	32232	3009750	2369360	06/21/00	06/28/00	07/28/00	22.68
06/19/00	SL-B-033100 -1210	127427	32232	3009750	2369361	06/22/00	06/28/00	07/30/00	22.51
06/19/00	SL-B-033100 -1210	127428	32232	3009750	2369362	06/22/00	06/28/00	07/30/00	20.54
06/19/00	SL-B-033100 -1210	127429	32232	3009750	2369363	06/22/00	06/28/00	07/30/00	19.65
06/19/00	SL-B-033100 -1210	127430	32232	3009750	2369364	06/22/00	06/28/00	07/30/00	19.43
06/19/00	SL-B-033100 -1210	127431	32232	3009750	2369365	06/22/00	06/28/00	07/30/00	23.44
06/19/00	SL-B-041400 -1216	127432	32232	3009750	2369366	06/22/00	06/28/00	07/30/00	19.99
06/19/00	SL-B-041400 -1216	127433	32232	3009750	2369367	06/22/00	06/28/00	07/30/00	20.21
06/19/00	SL-B-041400 -1216	127434	32232	3009750	2369368	06/22/00	06/28/00	07/30/00	18.83
06/19/00	SL-B-041400 -1216	127435	32232	3009750	2369369	06/22/00	06/28/00	07/30/00	24.42
06/20/00	SL-B-012700 -1188	127436	32232	3009750	2369370	06/27/00	06/30/00	07/30/00	21.87
06/20/00	SL-B-012700 -1188	127437	32232	3009750	2369371	06/27/00	06/30/00	07/30/00	17.84
06/20/00	SL-B-012700 -1188	127438	32232	3009750	2369372	06/22/00	06/30/00	07/30/00	21.87
06/20/00	SL-B-012700 -1188	127439	32232	3009750	2369373	06/22/00	06/30/00	07/30/00	23.23
06/20/00	SL-B-012700 -1188	127440	32232	3009750	2369374	06/22/00	06/30/00	07/30/00	23.85
06/20/00	SL-B-012700 -1188	127441	32232	3009750	2369375	06/22/00	06/30/00	07/30/00	19.51
06/22/00	SL-B-041300 -1215	127442	32232	3009750	2369376	06/22/00	06/30/00	07/30/00	23.98

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
06/22/00	SL-B-041300 -1215	127443	32232	3009750	2369377	06/22/00	06/30/00	07/30/00	25.02
06/20/00	SL-B-041300 -1215	127444	32232	3009750	2369378	06/22/00	06/30/00	07/30/00	20.47
06/20/00	SL-B-041300 -1215	127445	32232	3009750	2369379	06/27/00	06/30/00	07/28/00	21.71
06/20/00	SL-B-041300 -1215	127446	32232	3009750	2369380	06/27/00	06/30/00	07/28/00	20.74
06/22/00	SL-B-041300 -1215	127826	32232	3009870	2369381	06/27/00	06/30/00	07/28/00	21.49
06/22/00	SL-B-041000 -1214	127827	32232	3009870	2369382	06/27/00	06/30/00	10/10/00	24.05
06/22/00	SL-B-041000 -1214	127828	32232	3009870	2369383	06/27/00	06/30/00	07/28/00	22.20
06/22/00	SL-B-041000 -1214	127829	32232	3009870	2369384	06/27/00	06/30/00	07/28/00	19.81
06/22/00	SL-B-041000 -1214	127830	32232	3009870	2369385	06/27/00	06/30/00	10/10/00	21.11
06/22/00	SL-B-041000 -1214	127831	32232	3009870	2369386	06/27/00	06/30/00	10/10/00	20.10
06/22/00	SL-B-041000 -1214	127832	32232	3009870	2369387	06/27/00	06/30/00	07/28/00	19.88
06/26/00	SL-B-041900 -1217	127833	32232	3009870	2369388	06/27/00	06/30/00	07/28/00	20.02
06/26/00	SL-B-041900 -1217	127834	32232	3009870	2369389	06/27/00	06/30/00	07/28/00	20.83
06/26/00	SL-B-041900 -1217	127835	32232	3009870	2369390	06/27/00	06/30/00	07/28/00	19.86
06/26/00	SL-B-041900 -1217	127836	32232	3009870	2369391	06/27/00	06/30/00	07/28/00	19.47
06/26/00	SL-B-041900 -1217	127837	32232	3009870	2369392	06/27/00	06/30/00	07/28/00	20.41
06/26/00	SL-B-042600 -1220	127838	32232	3009870	2369393	06/27/00	06/30/00	07/28/00	21.63
06/26/00	SL-B-042600 -1220	127839	32232	3009870	2369394	06/27/00	06/30/00	07/28/00	20.10
06/26/00	SL-B-042600 -1220	127840	32232	3009870	2369395	06/27/00	06/30/00	07/28/00	21.48
06/26/00	SL-B-042600 -1220	127841	32232	3009870	2369396	06/27/00	06/30/00	07/28/00	23.98
06/27/00	SL-B-042600 -1220	127842	32232	3009870	2369397	06/19/01	06/30/00	07/28/00	23.80
06/27/00	SL-B-042100 -1218	127843	32232	3009870	2369398	07/14/00	06/30/00	07/28/00	21.78
06/27/00	SL-B-042100 -1218	127844	32232	3009870	2369399	07/14/00	06/30/00	07/28/00	21.00
06/27/00	SL-B-042100 -1218	127845	32232	3009870	2369400	07/14/00	06/30/00	07/28/00	21.20
06/27/00	SL-B-042100 -1218	127846	32232	3009870	2369401	07/14/00	06/30/00	07/28/00	25.49

June 2003

G-24

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
06/27/00	SL-B-042100 -1218	127847	32232	3009870	2369402	07/14/00	06/30/00	07/28/00	19.89
06/27/00	SL-B-042700 -1221	127848	32232	3009870	2369403	07/14/00	06/30/00	07/28/00	20.61
06/27/00	SL-B-042700 -1221	127849	32232	3009870	2369404	07/14/00	06/30/00	07/28/00	18.96
06/27/00	SL-B-042700 -1221	127850	32232	3009870	2369405	07/14/00	06/30/00	07/28/00	22.68
06/29/00	SL-B-042100 -1218	127851	32232	3009870	2369406	07/14/00	07/05/00	07/28/00	20.75
06/29/00	SL-B-042600 -1220	127852	32232	3009870	2369407	07/14/00	07/05/00	07/28/00	20.40
06/29/00	SL-B-042700 -1221	127853	32232	3009870	2286898	02/14/01	07/05/00	07/28/00	20.58
06/29/00	SL-B-042700 -1221	127854	32232	3009870	2286899	02/14/01	07/05/00	07/28/00	19.99
06/29/00	SL-B-042700 -1221	127855	32232	3009870	2286900	02/14/01	07/05/00	07/28/00	20.19
06/29/00	SL-B-041900 -1217	127856	32232	3009870	2286701	02/14/01	07/05/00	07/28/00	19.95
07/19/00	SL-B-040700 -1213	127857	32232	3009870	2286702	07/29/00	07/25/00	08/03/00	19.66
07/19/00	SL-B-040700 -1213	127858	32232	3009870	2286703	07/29/00	07/25/00	08/03/00	20.00
07/19/00	SL-B-040700 -1213	127859	32232	3009870	2286704	07/29/00	07/25/00	08/03/00	20.12
07/19/00	SL-B-040700 -1213	127860	32232	3009870	2286705	07/29/00	07/25/00	08/03/00	19.67
07/19/00	SL-B-040700 -1213	127861	32232	3009870	2286706	07/29/00	07/25/00	08/03/00	22.49
07/19/00	SL-B-040700 -1213	127862	32232	3009870	2286707	07/29/00	07/25/00	08/03/00	19.61
07/19/00	SL-B-042500 -1219	127863	32232	3009870	2286708	07/29/00	07/25/00	08/03/00	24.42
07/19/00	SL-B-042500 -1219	127864	32232	3009870	2286709	07/29/00	07/25/00	08/03/00	18.51
07/19/00	SL-B-042500 -1219	127865	32232	3009870	2286710	07/29/00	07/25/00	08/03/00	20.73
07/20/00	SL-B-042500 -1219	127866	32232	3009870	2286711	07/29/00	07/27/00	08/03/00	20.53
07/20/00	SL-B-042500 -1219	127867	32232	3009870	2286712	07/29/00	07/27/00	08/03/00	20.91
07/20/00	SL-B-042500 -1219	127868	32232	3009870	2286713	07/29/00	07/27/00	08/03/00	20.77
07/20/00	SL-B-042500 -1219	127869	32232	3009870	2286714	07/29/00	07/27/00	08/17/00	20.00
07/20/00	SL-B-050200 -1222	127870	32232	3009870	2286715	07/29/00	07/27/00	08/17/00	21.28
07/20/00	SL-B-050200 -1222	127871	32232	3009870	2286716	07/29/00	07/27/00	08/17/00	20.07

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
07/20/00	SL-B-050200 -1222	127872	32232	3009870	2286717	07/29/00	07/27/00	08/03/00	19.73
07/20/00	SL-B-050200 -1222	127873	32232	3009870	2286718	07/29/00	07/27/00	08/03/00	19.58
07/20/00	SL-B-050200 -1222	128934	32232	3010179	2286720	07/29/00	07/27/00	08/03/00	20.96
07/24/00	SL-B-042500 -1219	128935	32232	3010179	2286721	07/29/00	07/27/00	09/19/00	19.48
07/24/00	SL-B-042500 -1219	128936	32232	3010179	2286722	07/29/00	07/27/00	09/19/00	19.83
07/24/00	SL-B-050200 -1222	128937	32232	3010179	2286723	07/29/00	07/27/00	09/19/00	20.99
07/24/00	SL-B-050200 -1222	128938	32232	3010179	2286724	07/29/00	07/27/00	09/19/00	23.77
07/24/00	SL-B-040700 -1213	128939	32232	3010179	2286725	07/29/00	07/27/00	08/08/00	20.11
07/24/00	SL-B-040700 -1213	128940	32232	3010179	2286726	07/29/00	07/27/00	08/08/00	23.84
07/24/00	SL-B-040700 -1213	128941	32232	3010179	2286727	07/29/00	07/27/00	08/08/00	19.48
07/24/00	SL-B-040700 -1213	128942	32232	3010179	2286728	07/29/00	07/27/00	08/08/00	22.02
07/26/00	SL-B-050500 -1223	128943	32232	3010179	2286729	07/29/00	07/31/00	09/19/00	20.04
07/26/00	SL-B-050500 -1223	128944	32232	3010179	2286719	07/29/00	07/31/00	09/19/00	20.56
07/26/00	SL-B-050500 -1223	128945	32232	3010179	2286730	07/29/00	07/31/00	09/19/00	24.05
07/26/00	SL-B-050500 -1223	128946	32232	3010179	2286731	07/29/00	07/31/00	09/19/00	19.94
07/26/00	SL-B-050500 -1223	128947	32232	3010179	2286732	07/29/00	07/31/00	09/19/00	21.01
07/26/00	SL-B-050500 -1223	128948	32232	3010179	2286733	07/29/00	07/31/00	09/19/00	23.03
07/26/00	SL-B-050500 -1223	128949	32232	3010179	2286734	07/29/00	07/31/00	08/08/00	20.98
07/26/00	SL-B-050500 -1223	128950	32232	3010179	2286735	07/29/00	07/31/00	08/08/00	21.57
07/26/00	SL-B-050500 -1223	128951	32232	3010179	2286736	07/29/00	07/31/00	08/08/00	23.19
07/28/00	SL-B-060600 -1224	128952	32232	3010179	2286737	08/03/00	07/31/00	09/19/00	19.92
07/28/00	SL-B-060600 -1224	128953	32232	3010179	2286738	08/03/00	07/31/00	09/19/00	19.69
07/28/00	SL-B-060600 -1224	128954	32232	3010179	2286739	08/03/00	07/31/00	09/19/00	19.65
07/28/00	SL-B-060600 -1224	128955	32232	3010179	2286740	08/03/00	07/31/00	09/19/00	19.42
07/28/00	SL-B-060600 -1224	128956	32232	3010179	2286741	08/03/00	07/31/00	09/19/00	20.11

June 2003

G-26

EH2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
07/28/00	SL-B-060600 -1224	128957	32232	3010179	2286742	08/03/00	07/31/00	09/19/00	19.58
07/28/00	SL-B-060800 -1225	128958	32232	3010179	2286743	08/03/00	07/31/00	09/19/00	19.25
07/28/00	SL-B-060800 -1225	128959	32232	3010179	2286744	08/03/00	07/31/00	09/19/00	17.49
07/31/00	SL-B-060800 -1225	128960	32232	3010179	2286745	08/03/00	08/01/00	09/19/00	18.53
07/31/00	SL-B-060800 -1225	128962	32232	3010179	2286746	08/03/00	08/01/00	09/19/00	18.79
07/31/00	SL-B-060800 -1225	128963	32232	3010179	2286747	08/03/00	08/01/00	09/19/00	18.16
07/31/00	SL-B-060800 -1225	128964	32232	3010179	2286748	08/03/00	08/01/00	09/19/00	21.28
07/31/00	SL-B-060800 -1225	128965	32232	3010179	2286749	08/03/00	08/01/00	09/19/00	19.14
08/02/00	SL-B-061300 -1227	128966	32232	3010179	2286750	08/09/00	08/07/00	09/19/00	19.13
08/02/00	SL-B-060900 -1226	129220	32232	3010281	2286751	08/09/00	08/07/00	09/19/00	21.21
08/02/00	SL-B-060900 -1226	129221	32232	3010281	2286752	08/09/00	08/07/00	09/19/00	20.26
08/02/00	SL-B-060900 -1226	129222	32232	3010281	2286753	08/09/00	08/07/00	09/19/00	18.81
08/02/00	SL-B-060900 -1226	129223	32232	3010281	2286754	08/09/00	08/07/00	09/19/00	21.84
08/02/00	SL-B-060900 -1226	129224	32232	3010281	2286755	08/09/00	08/07/00	09/19/00	20.23
08/02/00	SL-B-061300 -1227	129225	32232	3010281	2286756	08/09/00	08/07/00	09/19/00	19.31
08/04/00	SL-B-061300 -1227	129226	32232	3010281	2286757	08/10/00	08/08/00	09/19/00	20.09
08/02/00	SL-B-060900 -1226	129227	32232	3010281	2286758	08/09/00	08/07/00	09/19/00	20.32
08/04/00	SL-B-061300 -1227	129228	32232	3010281	2286759	08/10/00	08/08/00	09/19/00	19.37
08/04/00	SL-B-061300 -1227	129229	32232	3010281	2286760	08/10/00	08/08/00	09/19/00	24.28
08/04/00	SL-B-061500 -1228	129230	32232	3010281	2286761	08/10/00	08/08/00	09/19/00	21.19
08/04/00	SL-B-061500 -1228	129231	32232	3010281	2286762	08/10/00	08/08/00	09/19/00	23.99
08/04/00	SL-B-061500 -1228	129232	32232	3010281	2286763	08/10/00	08/08/00	09/19/00	21.29
08/04/00	SL-B-061500 -1228	129233	32232	3010281	2286764	08/10/00	08/08/00	09/19/00	21.02
08/04/00	SL-B-061500 -1228	129234	32232	3010281	2286765	08/10/00	08/08/00	09/19/00	21.78
08/07/00	SL-B-061600 -1229	129235	32232	3010281	2286766	08/09/00	08/10/00	09/19/00	18.92

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
08/07/00	SL-B-061600 -1229	129236	32232	3010281	2286767	08/09/00	08/10/00	09/19/00	20.92
08/07/00	SL-B-061600 -1229	129237	32232	3010281	2286768	08/09/00	08/10/00	09/19/00	23.58
08/07/00	SL-B-061600 -1229	129238	32232	3010281	2286769	08/09/00	08/10/00	09/19/00	23.20
08/07/00	SL-B-061600 -1229	129239	32232	3010281	2286770	08/10/00	08/10/00	09/20/00	22.84
08/07/00	SL-B-062000 -1230	129240	32232	3010281	2286771	08/10/00	08/10/00	09/19/00	20.96
08/07/00	SL-B-062000 -1230	129241	32232	3010281	2286772	08/09/00	08/10/00	09/19/00	23.43
08/07/00	SL-B-062000 -1230	129242	32232	3010281	2286773	08/09/00	08/10/00	09/19/00	23.79
08/09/00	SL-B-062000 -1230	129243	32232	3010281	2286774	08/10/00	08/11/00	09/20/00	17.42
08/09/00	SL-B-062000 -1230	129244	32232	3010281	2286775	08/10/00	08/11/00	09/20/00	16.06
08/09/00	SL-B-062000 -1230	129245	32232	3010281	2286776	08/10/00	08/11/00	09/20/00	19.86
08/09/00	SL-B-062000 -1230	129246	32232	3010281	2286777	08/10/00	08/11/00	11/27/00	17.97
08/09/00	SL-B-062300 -1231	129247	32232	3010281	2286778	08/10/00	08/11/00	09/20/00	19.18
08/09/00	SL-B-062300 -1231	129248	32232	3010281	2286779	08/10/00	08/11/00	11/27/00	19.10
08/09/00	SL-B-062300 -1231	129249	32232	3010281	2286780	08/10/00	08/11/00	09/20/00	19.67
08/09/00	SL-B-062300 -1231	129250	32232	3010281	2286781	08/10/00	08/11/00	11/27/00	18.15
08/11/00	SL-B-062700 -1233	129251	32232	3010281	2286782	08/14/00	08/15/00	11/27/00	22.65
08/11/00	SL-B-062700 -1233	129895	32232	3010432	2286783	08/14/00	08/15/00	11/27/00	20.36
08/11/00	SL-B-062700 -1233	129896	32232	3010432	2286784	08/14/00	08/15/00	09/19/00	22.89
08/11/00	SL-B-062700 -1233	129897	32232	3010432	2286785	08/14/00	08/15/00	11/27/00	22.27
08/11/00	SL-B-062900 -1235	129898	32232	3010432	2286786	08/14/00	08/15/00	09/19/00	20.60
08/11/00	SL-B-062900 -1235	129899	32232	3010432	2286787	08/14/00	08/15/00	09/19/00	24.48
08/11/00	SL-B-062900 -1235	129900	32232	3010432	2286788	08/14/00	08/15/00	09/19/00	18.77
08/11/00	SL-B-062900 -1235	129901	32232	3010432	2286789	08/14/00	08/15/00	09/19/00	19.09
09/06/00	SL-B-062300 -1232	129902	32232	3010432	2286790	09/18/00	09/13/00	09/19/00	18.82
09/06/00	SL-B-062300 -1232	129903	32232	3010432	2286791	09/18/00	09/13/00	09/19/00	21.37

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
09/06/00	SL-B-062300 -1232	129904	32232	3010432	2286792	09/18/00	09/13/00	09/19/00	18.95
09/06/00	SL-B-062300 -1232	129905	32232	3010432	2286793	09/18/00	09/13/00	09/19/00	18.10
09/06/00	SL-B-062300 -1232	129906	32232	3010432	2286794	09/18/00	09/13/00	09/19/00	19.57
09/06/00	SL-B-062300 -1232	129907	32232	3010432	2286795	09/18/00	09/13/00	09/19/00	18.90
09/06/00	SL-B-070700 -1239	129908	32232	3010432	2286796	09/18/00	09/14/00	09/19/00	18.70
09/08/00	SL-B-070700 -1239	129909	32232	3010432	2286797	09/21/00	09/13/00	09/21/00	18.88
09/08/00	SL-B-070700 -1239	129911	32232	3010432	2286798	09/21/00	09/13/00	09/21/00	20.92
09/08/00	SL-B-070700 -1239	129912	32232	3010432	2286799	09/21/00	09/13/00	09/21/00	21.28
09/08/00	SL-B-070700 -1240	129914	32232	3010432	2286800	09/21/00	09/13/00	09/21/00	19.83
09/08/00	SL-B-070700 -1240	129915	32232	3010432	2286801	09/21/00	09/13/00	09/21/00	20.93
09/08/00	SL-B-070700 -1240	129916	32232	3010432	2286802	09/21/00	09/13/00	09/21/00	23.19
09/08/00	SL-B-070700 -1240	129917	32232	3010432	2286803	09/21/00	09/13/00	09/21/00	21.47
09/18/00	SL-B-070700 -1236	129918	32232	3010432	2286804	09/21/00	09/13/00	09/21/00	19.98
09/11/00	SL-B-070700 -1238	129919	32232	3010432	2286805	09/21/00	09/14/00	10/11/00	19.33
09/11/00	SL-B-070700 -1238	129920	32232	3010432	2286806	09/21/00	09/14/00	10/11/00	18.98
09/11/00	SL-B-070700 -1238	129921	32232	3010432	2286807	09/21/00	09/14/00	09/21/00	19.07
09/11/00	SL-B-070700 -1238	129922	32232	3010432	2286808	09/21/00	09/14/00	10/11/00	22.40
09/11/00	SL-B-070700 -1241	129923	32232	3010432	2286809	09/21/00	09/14/00	09/21/00	18.85
09/11/00	SL-B-070700 -1241	129924	32232	3010432	2286810	09/21/00	09/14/00	09/21/00	21.05
09/11/00	SL-B-070700 -1241	129925	32232	3010432	2286812	09/21/00	09/14/00	09/21/00	20.07
09/11/00	SL-B-070700 -1241	129926	32232	3010432	2286813	09/21/00	09/14/00	09/21/00	21.48
09/13/00	SL-B-070700 -1237	129927	32232	3010432	2286814	09/21/00	09/19/00	10/11/00	20.25
09/13/00	SL-B-070700 -1237	129929	32232	3010432	2286815	09/21/00	09/19/00	09/21/00	20.38
09/13/00	SL-B-070700 -1237	129930	32232	3010432	2286816	09/21/00	09/19/00	09/21/00	23.48
09/13/00	SL-B-070700 -1237	129931	32232	3010432	2286817	09/21/00	09/19/00	10/11/00	24.88

June 2003

G-28

EH2003-0409

**Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS**

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
09/13/00	SL-B-070700 -1242	129932	32232	3010432	2286818	09/21/00	09/19/00	10/11/00	20.57
09/13/00	SL-B-070700 -1242	129933	32232	3010432	2286819	09/21/00	09/19/00	10/11/00	21.53
09/13/00	SL-B-070700 -1242	129934	32232	3010432	2286820	09/21/00	09/19/00	10/11/00	22.87
09/13/00	SL-B-070700 -1242	129935	32232	3010432	2286821	09/21/00	09/19/00	09/21/00	22.64
09/15/00	SL-B-070700 -1237	129936	32232	3010432	2286823	09/21/00	09/19/00	09/21/00	19.94
09/15/00	SL-B-070700 -1237	129937	32232	3010432	2286824	09/21/00	09/19/00	10/11/00	22.52
09/15/00	SL-B-070700 -1238	129938	32232	3010432	2286825	09/21/00	09/19/00	10/11/00	21.16
09/15/00	SL-B-070700 -1241	129939	32232	3010432	2286826	09/21/00	09/19/00	10/11/00	21.39
09/20/00	SL-B-062300 -1232	129952	32232	3010432	2286837	09/29/00	09/26/00	10/12/00	22.29
09/20/00	SL-B-062300 -1232	129953	32232	3010432	2286838	09/29/00	09/26/00	10/12/00	23.11
09/20/00	SL-B-062300 -1232	129954	32232	3010432	2286839	09/29/00	09/29/00	10/12/00	23.01
09/20/00	SL-B-062300 -1232	129955	32232	3010432	2286840	09/29/00	09/26/00	10/12/00	21.57
09/20/00	SL-B-062300 -1232	129956	32232	3010432	2286841	09/29/00	09/26/00	10/12/00	23.91
09/22/00	SL-B-080300 -1245	130652	32232	3010729	2286848	09/25/00	09/26/00	10/12/00	22.31
09/22/00	SL-B-080300 -1245	130653	32232	3010729	2286849	09/25/00	09/26/00	10/12/00	19.88
09/25/00	SL-B-080300 -1245	130654	32232	3010729	2286850	10/02/00	10/03/00	10/12/00	22.53
09/25/00	SL-B-080300 -1245	130655	32232	3010729	2286851	10/02/00	09/27/00	10/12/00	22.49
09/25/00	SL-B-080300 -1245	130656	32232	3010729	2286852	10/02/00	09/27/00	10/12/00	22.60
09/25/00	SL-B-080300 -1245	130657	32232	3010729	2286853	10/02/00	09/27/00	10/12/00	23.80
09/25/00	SL-B-081000 -1250	130658	32232	3010729	2286854	10/02/00	09/27/00	10/12/00	22.08
09/25/00	SL-B-081000 -1250	130659	32232	3010729	2286855	10/02/00	09/27/00	10/12/00	23.39
09/25/00	SL-B-081000 -1250	130660	32232	3010729	2286856	10/02/00	09/27/00	10/12/00	22.38
09/25/00	SL-B-081000 -1250	130661	32232	3010729	2286857	10/02/00	09/27/00	10/12/00	19.16
09/27/00	SL-B-062800 -1234	130662	32232	3010729	2286858	10/10/00	10/03/00	10/12/00	23.58
09/27/00	SL-B-062800 -1234	130663	32232	3010729	2286859	10/10/00	10/03/00	10/12/00	19.20

June 2003

G-30

EH2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
09/27/00	SL-B-062800 -1234	130664	32232	3010729	2286861	10/10/00	10/03/00	10/12/00	19.46
09/27/00	SL-B-062800 -1234	130665	32232	3010729	2286862	10/10/00	10/03/00	10/12/00	18.77
09/27/00	SL-B-062800 -1234	130666	32232	3010729	2286863	10/10/00	10/03/00	10/12/00	24.15
09/27/00	SL-B-081000 -1250	130667	32232	3010729	2286864	10/10/00	10/03/00	10/12/00	19.77
09/27/00	SL-B-081000 -1250	130668	32232	3010729	2286865	10/10/00	10/03/00	10/12/00	22.11
09/27/00	SL-B-081000 -1250	130669	32232	3010729	2286866	10/10/00	10/03/00	10/12/00	18.77
09/27/00	SL-B-081000 -1250	130670	32232	3010729	2286867	10/10/00	10/03/00	10/12/00	18.53
09/29/00	SL-B-080200 -1243	130671	32232	3010729	2286868	10/10/00	10/03/00	10/12/00	22.09
09/29/00	SL-B-080200 -1243	130672	32232	3010729	2286869	10/10/00	10/03/00	10/12/00	23.01
09/29/00	SL-B-080200 -1243	130673	32232	3010729	2286870	10/10/00	10/03/00	10/12/00	19.00
09/29/00	SL-B-080200 -1243	130674	32232	3010729	2286871	10/10/00	10/05/00	10/12/00	21.88
09/29/00	SL-B-080200 -1243	130675	32232	3010729	2286874	10/10/00	10/05/00	10/12/00	21.47
10/04/00	SL-B-081500 -1254	130676	32232	3010729	2286875	10/17/00	10/11/00	11/03/00	18.61
10/04/00	SL-B-081500 -1254	130677	32232	3010729	2286876	10/17/00	10/11/00	11/03/00	21.09
10/04/00	SL-B-081500 -1254	130829	32232	3010847	2286883	10/17/00	10/11/00	11/03/00	18.86
10/04/00	SL-B-081500 -1254	130830	32232	3010847	2286884	10/17/00	10/11/00	11/03/00	22.96
10/04/00	SL-B-081500 -1254	130831	32232	3010847	2286887	10/17/00	10/11/00	11/03/00	17.80
10/04/00	SL-B-081400 -1253	130832	32232	3010847	2286888	10/17/00	10/11/00	11/03/00	18.96
10/04/00	SL-B-081400 -1253	130833	32232	3010847	2286889	10/17/00	10/11/00	11/03/00	16.81
10/04/00	SL-B-081400 -1253	130834	32232	3010847	2286890	10/17/00	10/11/00	11/03/00	19.29
10/06/00	SL-B-081400 -1253	130835	32232	3010847	2286891	10/16/00	10/11/00	11/03/00	18.57
10/06/00	SL-B-081400 -1253	130836	32232	3010847	2286892	10/16/00	10/11/00	11/03/00	18.95
10/06/00	SL-B-081400 -1252	130837	32232	3010847	2286893	10/16/00	10/11/00	11/03/00	25.02
10/06/00	SL-B-081400 -1252	130838	32232	3010847	2286894	10/16/00	10/11/00	11/03/00	21.33
10/06/00	SL-B-081400 -1252	130839	32232	3010847	2286895	10/16/00	10/11/00	11/03/00	18.77

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
10/06/00	SL-B-081400 -1252	130840	32232	3010847	2286896	10/16/00	10/11/00	11/03/00	20.96
10/06/00	SL-B-081400 -1252	130841	32232	3010847	2286897	10/16/00	10/11/00	11/03/00	19.08
10/06/00	SL-B-081100 -1251	130842	32232	3010847	2259447	10/16/00	10/11/00	11/03/00	18.97
10/06/00	SL-B-081100 -1251	130843	32232	3010847	2259448	10/16/00	10/11/00	11/03/00	19.65
10/11/00	SL-B-081100 -1251	130844	32232	3010847	2259449	10/16/00	10/17/00	11/02/00	18.26
10/11/00	SL-B-081100 -1251	130845	32232	3010847	2259450	10/16/00	10/17/00	11/02/00	22.41
10/11/00	SL-B-081100 -1251	130846	32232	3010847	2259451	10/16/00	10/17/00	11/02/00	21.07
10/11/00	SL-B-081100 -1251	130847	32232	3010847	2259452	10/16/00	10/17/00	11/02/00	23.13
10/11/00	SL-B-081700 -1257	130848	32232	3010847	2259453	10/16/00	10/17/00	11/02/00	23.51
10/11/00	SL-B-081700 -1257	130849	32232	3010847	2259454	10/16/00	10/17/00	11/02/00	20.13
10/11/00	SL-B-081700 -1257	130850	32232	3010847	2259455	10/16/00	10/17/00	11/02/00	20.48
10/11/00	SL-B-081700 -1257	130851	32232	3010847	2259456	10/16/00	10/17/00	11/02/00	23.12
10/11/00	SL-B-081700 -1257	130852	32232	3010847	2259457	10/16/00	10/17/00	11/02/00	18.70
10/11/00	SL-B-081700 -1257	130853	32232	3010847	2259458	10/16/00	10/17/00	11/02/00	21.82
10/13/00	SL-B-081700 -1257	130854	32232	3010847	2259460	10/24/00	10/18/00	11/03/00	18.17
10/13/00	SL-B-081700 -1257	130855	32232	3010847	2259461	10/24/00	10/18/00	11/03/00	18.58
10/13/00	SL-B-081500 -1256	130856	32232	3010847	2259463	10/24/00	10/18/00	11/03/00	23.04
10/13/00	SL-B-081500 -1256	130857	32232	3010847	2259464	10/24/00	10/18/00	11/03/00	23.58
10/13/00	SL-B-081500 -1256	130858	32232	3010847	2259465	10/24/00	10/18/00	11/03/00	19.94
10/13/00	SL-B-081500 -1256	130859	32232	3010847	2259466	10/24/00	10/18/00	11/03/00	24.57
10/13/00	SL-B-081500 -1256	130860	32232	3010847	2259467	10/24/00	10/18/00	11/03/00	22.83
10/13/00	SL-B-081500 -1256	131045	32232	3010911	2259468	10/24/00	10/18/00	11/03/00	23.80
10/13/00	SL-B-081500 -1256	131046	32232	3010911	2259469	10/24/00	10/18/00	11/03/00	24.83
10/13/00	SL-B-081500 -1256	131047	32232	3010911	2259470	10/24/00	10/18/00	11/03/00	24.02
10/16/00	SL-B-081500 -1255	131048	32232	3010911	2259471	10/24/00	10/19/00	11/02/00	21.04

June 2003

G-32

EH2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
10/16/00	SL-B-081500 -1255	131049	32232	3010911	2259472	10/24/00	10/19/00	11/02/00	17.81
10/16/00	SL-B-081500 -1255	131050	32232	3010911	2259473	10/24/00	10/19/00	11/02/00	18.19
10/16/00	SL-B-081500 -1255	131051	32232	3010911	2259474	10/24/00	10/19/00	11/02/00	24.16
10/16/00	SL-B-081500 -1255	131052	32232	3010911	2259475	10/24/00	10/19/00	11/02/00	23.66
10/16/00	SL-B-082300 -1268	131053	32232	3010911	2259476	10/24/00	10/19/00	11/02/00	22.64
10/16/00	SL-B-082300 -1268	131054	32232	3010911	2259477	10/24/00	10/19/00	11/02/00	23.42
10/16/00	SL-B-082300 -1268	131055	32232	3010911	2259478	10/24/00	10/19/00	11/02/00	23.68
10/16/00	SL-B-082300 -1268	131056	32232	3010911	2259479	10/24/00	10/19/00	11/02/00	21.76
10/16/00	SL-B-082300 -1268	131057	32232	3010911	2259480	10/24/00	10/19/00	11/02/00	23.28
10/16/00	SL-B-082300 -1268	131058	32232	3010911	2259481	10/24/00	10/19/00	11/02/00	23.46
10/16/00	SL-B-082300 -1268	131059	32232	3010911	2259482	10/24/00	10/19/00	11/02/00	21.93
10/18/00	SL-B-082300 -1267	131060	32232	3010911	2259483	10/24/00	10/25/00	11/03/00	17.39
10/18/00	SL-B-082300 -1267	131061	32232	3010911	2259484	10/24/00	10/25/00	11/03/00	19.17
10/18/00	SL-B-082300 -1267	131062	32232	3010911	2259485	10/24/00	10/25/00	11/03/00	20.18
10/18/00	SL-B-082300 -1267	131063	32232	3010911	2259486	10/24/00	10/25/00	11/03/00	15.91
10/18/00	SL-B-082300 -1267	131064	32232	3010911	2259487	10/24/00	10/25/00	11/03/00	15.57
10/18/00	SL-B-082300 -1267	131065	32232	3010911	2259488	10/24/00	10/25/00	11/03/00	15.84
10/18/00	SL-B-082300 -1267	131066	32232	3010911	2259489	10/24/00	10/25/00	11/03/00	21.69
10/18/00	SL-B-082300 -1267	131067	32232	3010911	2259490	10/24/00	10/25/00	11/03/00	22.47
10/18/00	SL-B-082300 -1267	131068	32232	3010911	2259491	10/24/00	10/25/00	11/03/00	22.57
10/18/00	SL-B-082200 -1266	131069	32232	3010911	2259492	10/24/00	10/25/00	11/03/00	21.19
10/18/00	SL-B-082200 -1266	131070	32232	3010911	2259493	10/24/00	10/25/00	11/03/00	23.00
10/18/00	SL-B-082200 -1266	131071	32232	3010911	2259494	10/24/00	10/25/00	11/03/00	23.11
10/20/00	SL-B-082200 -1266	131072	32232	3010911	2259495	10/31/00	10/26/00	11/06/00	15.92
10/20/00	SL-B-082200 -1266	131073	32232	3010911	2259496	10/31/00	10/26/00	11/06/00	17.12

Phase I Closure Implementation Report

ER2003-0409

G-33

June 2003

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
10/20/00	SL-B-082200 -1266	131074	32232	3010911	2259497	10/31/00	10/26/00	11/06/00	17.08
10/20/00	SL-B-082200 -1266	131075	32232	3010911	2259498	10/31/00	10/26/00	11/06/00	18.21
10/20/00	SL-B-082200 -1266	131076	32232	3010911	2259499	10/31/00	10/26/00	11/06/00	18.00
10/20/00	SL-B-082200 -1266	131077	32232	3010911	2259500	10/31/00	10/26/00	12/29/00	17.98
10/20/00	SL-B-082200 -1265	131078	32232	3010911	2244766	10/31/00	10/26/00	11/06/00	22.85
10/20/00	SL-B-082200 -1265	131079	32232	3010911	2244767	10/31/00	10/26/00	11/06/00	21.49
10/20/00	SL-B-082200 -1265	131080	32232	3010911	2244768	10/31/00	10/26/00	11/06/00	21.15
10/20/00	SL-B-082200 -1265	131081	32232	3010911	2244769	10/31/00	10/26/00	11/06/00	22.65
10/20/00	SL-B-082200 -1265	131082	32232	3010911	2244770	10/31/00	10/26/00	11/06/00	22.75
10/20/00	SL-B-082200 -1265	131083	32232	3010911	2244771	10/31/00	10/26/00	11/06/00	22.62
10/23/00	SL-B-082200 -1264	131084	32232	3010911	2244772	10/31/00	10/26/00	11/06/00	20.33
10/23/00	SL-B-082200 -1264	131085	32232	3010911	2244773	10/31/00	10/26/00	11/06/00	24.48
10/23/00	SL-B-082200 -1264	131086	32232	3010911	2244774	10/31/00	10/26/00	11/06/00	22.95
10/23/00	SL-B-082200 -1264	131087	32232	3010911	2244775	10/31/00	10/26/00	11/06/00	20.11
10/23/00	SL-B-082200 -1264	131088	32232	3010911	2244776	10/31/00	10/26/00	11/06/00	23.50
10/23/00	SL-B-082200 -1264	131089	32232	3010911	2244777	10/31/00	10/26/00	11/06/00	21.70
10/23/00	SL-B-082200 -1263	131090	32232	3010911	2244778	10/31/00	10/26/00	11/06/00	16.75
10/23/00	SL-B-082200 -1263	131091	32232	3010911	2244779	10/31/00	10/26/00	11/06/00	16.47
10/23/00	SL-B-082200 -1263	131092	32232	3010911	2244780	10/31/00	10/26/00	11/06/00	21.95
10/23/00	SL-B-082200 -1263	131093	32232	3010911	2244781	10/31/00	10/26/00	11/06/00	22.64
10/23/00	SL-B-082200 -1263	131094	32232	3010911	2244782	10/31/00	10/26/00	11/06/00	22.35
10/27/00	SL-B-082400 -1273	131095	32232	3010911	2244783	10/31/00	11/01/00	11/06/00	21.59
10/25/00	SL-B-082100 -1262	131096	32232	3010911	2244784	10/31/00	10/30/00	11/06/00	16.65
10/25/00	SL-B-082100 -1262	131097	32232	3010911	2244785	10/31/00	10/30/00	11/06/00	19.93
10/25/00	SL-B-082100 -1262	131098	32232	3010911	2244787	10/31/00	10/30/00	11/06/00	16.89

Phase I Closure Implementation Report

June 2003

G-34

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
10/25/00	SL-B-082100 -1262	131099	32232	3010911	2244788	10/31/00	10/30/00	11/06/00	15.74
10/25/00	SL-B-082100 -1262	131100	32232	3010911	2244789	10/31/00	10/30/00	11/06/00	20.66
10/25/00	SL-B-082100 -1262	131101	32232	3010911	2244790	10/31/00	10/30/00	11/06/00	18.05
10/25/00	SL-B-082100 -1261	131102	32232	3010911	2244791	10/31/00	10/30/00	11/06/00	18.20
10/25/00	SL-B-082100 -1261	131103	32232	3010911	2244792	10/31/00	10/30/00	11/06/00	17.72
10/25/00	SL-B-082100 -1261	131104	32232	3010911	2244793	10/31/00	10/30/00	11/06/00	16.59
10/25/00	SL-B-082100 -1261	131105	32232	3010911	2244794	10/31/00	10/30/00	11/06/00	17.43
10/25/00	SL-B-082100 -1261	131106	32232	3010911	2244795	10/31/00	10/30/00	11/06/00	20.99
10/25/00	SL-B-082100 -1261	131107	32232	3010911	2237041	10/31/00	10/30/00	11/06/00	20.13
10/27/00	SL-B-082400 -1273	131108	32232	3010911	2413901	10/31/00	11/01/00	11/15/00	24.12
10/27/00	SL-B-082400 -1273	131109	32232	3010911	2413902	10/31/00	11/01/00	11/15/00	23.10
10/27/00	SL-B-082400 -1273	131110	32232	3010911	2413903	10/31/00	11/01/00	11/15/00	20.36
10/27/00	SL-B-082400 -1273	131111	32232	3010911	2413904	10/31/00	11/01/00	11/06/00	23.30
10/27/00	SL-B-082400 -1273	131112	32232	3010911	2413905	10/31/00	11/01/00	11/06/00	21.28
10/27/00	SL-B-082400 -1269	131113	32232	3010911	2413906	10/31/00	11/01/00	11/06/00	21.11
10/27/00	SL-B-082400 -1269	131114	32232	3010911	2413907	10/31/00	11/01/00	11/06/00	21.57
10/27/00	SL-B-082400 -1269	131115	32232	3010911	2413908	10/31/00	11/01/00	11/15/00	23.91
10/27/00	SL-B-082400 -1269	131116	32232	3010911	2413909	10/31/00	11/01/00	11/15/00	24.38
10/27/00	SL-B-082400 -1269	131117	32232	3010911	2413910	10/31/00	11/01/00	11/15/00	22.70
10/27/00	SL-B-082400 -1269	131118	32232	3010911	2413911	10/31/00	11/01/00	11/06/00	26.63
10/30/00	SL-B-082900 -1278	131119	32232	3010911	2413912	10/31/00	11/01/00	11/15/00	23.06
10/30/00	SL-B-082900 -1278	131120	32232	3010911	2413913	10/31/00	11/01/00	11/06/00	20.65
10/30/00	SL-B-082900 -1278	131121	32232	3010911	2413914	10/31/00	11/01/00	11/15/00	24.00
10/30/00	SL-B-082900 -1278	131122	32232	3010911	2413915	10/31/00	11/01/00	11/06/00	22.64
10/30/00	SL-B-082900 -1278	131123	32232	3010911	2413916	10/31/00	11/01/00	11/15/00	20.98

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
10/30/00	SL-B-082900 -1278	131124	32232	3010911	2413917	10/31/00	11/01/00	11/06/00	23.18
10/30/00	SL-B-083000 -1283	131125	32232	3010911	2413918	10/31/00	11/01/00	11/15/00	22.10
10/30/00	SL-B-083000 -1283	131126	32232	3010911	2413919	10/31/00	11/01/00	11/15/00	23.14
10/30/00	SL-B-083000 -1283	131127	32232	3010911	2413920	10/31/00	11/01/00	11/15/00	21.50
10/30/00	SL-B-083000 -1283	131128	32232	3010911	2413921	10/31/00	11/01/00	11/15/00	22.51
10/30/00	SL-B-083000 -1283	131129	32232	3010911	2413922	10/31/00	11/01/00	11/15/00	22.32
10/30/00	SL-B-083000 -1283	131130	32232	3010911	2413923	10/31/00	11/01/00	11/15/00	23.05
11/01/00	SL-B-082400 -1270	131131	32232	3010911	2413924	11/07/00	11/08/00	11/15/00	23.11
11/01/00	SL-B-082400 -1270	131132	32232	3010911	2413925	11/07/00	11/08/00	11/15/00	27.68
11/01/00	SL-B-082400 -1270	131133	32232	3010911	2413926	11/07/00	11/08/00	11/15/00	24.36
11/01/00	SL-B-082400 -1270	131134	32232	3010911	2413927	11/07/00	11/08/00	11/15/00	24.24
11/01/00	SL-B-082400 -1271	131135	32232	3010911	2413928	11/07/00	11/08/00	11/15/00	23.18
11/01/00	SL-B-082400 -1271	131136	32232	3010911	2413929	11/07/00	11/08/00	11/15/00	18.86
11/01/00	SL-B-082400 -1271	131137	32232	3010911	2413930	11/07/00	11/08/00	11/15/00	23.52
11/01/00	SL-B-082400 -1271	131138	32232	3010911	2413931	11/07/00	11/08/00	11/15/00	22.96
11/01/00	SL-B-082400 -1272	131139	32232	3010911	2413932	11/07/00	11/08/00	11/15/00	22.81
11/01/00	SL-B-082400 -1272	131140	32232	3010911	2413933	11/07/00	11/08/00	11/15/00	25.04
11/01/00	SL-B-082400 -1272	131141	32232	3010911	2413935	11/07/00	11/08/00	11/15/00	21.53
11/01/00	SL-B-082400 -1272	131142	32232	3010911	2413936	11/07/00	11/08/00	11/15/00	22.29
11/03/00	SL-B-082800 -1275	131143	32232	3010911	2413937	11/07/00	11/08/00	11/15/00	24.36
11/03/00	SL-B-082800 -1275	131144	32232	3010911	2413938	11/07/00	11/08/00	11/15/00	24.51
11/03/00	SL-B-082800 -1275	131145	32232	3010911	2413939	11/07/00	11/08/00	11/15/00	25.38
11/03/00	SL-B-082800 -1275	131146	32232	3010911	2413940	11/07/00	11/08/00	11/15/00	22.25
11/03/00	SL-B-082800 -1276	131147	32232	3010911	2413941	11/07/00	11/08/00	11/15/00	20.35
11/03/00	SL-B-082800 -1276	131148	32232	3010911	2413942	11/07/00	11/08/00	11/15/00	21.43

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
11/03/00	SL-B-082800 -1276	131149	32232	3010911	2413943	11/07/00	11/08/00	11/15/00	21.39
11/03/00	SL-B-082800 -1276	131150	32232	3010911	2413944	11/07/00	11/08/00	11/15/00	23.69
11/03/00	SL-B-082800 -1277	131151	32232	3010911	2413945	11/07/00	11/08/00	11/15/00	22.56
11/03/00	SL-B-082800 -1277	131152	32232	3010911	2413946	11/07/00	11/08/00	11/15/00	23.47
11/06/00	SL-B-082800 -1277	131153	32232	3010911	2413947	11/07/00	11/08/00	11/20/00	24.23
11/06/00	SL-B-082800 -1277	131154	32232	3010911	2413948	11/07/00	11/08/00	11/20/00	21.14
11/06/00	SL-B-083000 -1282	131155	32232	3010911	2413949	11/07/00	11/08/00	11/20/00	22.82
11/06/00	SL-B-083000 -1282	131156	32232	3010911	2413950	11/07/00	11/08/00	11/20/00	24.05
11/06/00	SL-B-083000 -1282	131158	32232	3010911	2413951	11/07/00	11/08/00	11/20/00	20.98
11/06/00	SL-B-083000 -1282	131159	32232	3010911	2413952	11/07/00	11/08/00	11/20/00	23.89
11/06/00	SL-B-082900 -1281	131160	32232	3010911	2413953	11/07/00	11/08/00	11/20/00	23.58
11/06/00	SL-B-082900 -1281	131161	32232	3010911	2413954	11/07/00	11/08/00	11/20/00	23.95
11/06/00	SL-B-082900 -1281	131162	32232	3010911	2413955	11/07/00	11/08/00	11/20/00	25.16
11/06/00	SL-B-082900 -1281	131163	32232	3010911	2413956	11/07/00	11/08/00	11/20/00	25.02
11/06/00	SL-B-083100 -1286	131164	32232	3010911	2413957	11/07/00	11/08/00	11/20/00	23.62
11/06/00	SL-B-083100 -1286	131165	32232	3010911	2413958	11/07/00	11/08/00	11/20/00	22.24
11/13/00	SL-B-083100 -1286	131166	32232	3010911	2413959	11/14/00	11/15/00	11/20/00	21.94
11/13/00	SL-B-083100 -1286	131167	32232	3010911	2413960	11/14/00	11/15/00	12/19/00	21.26
11/13/00	SL-B-083000 -1285	131168	32232	3010911	2413961	11/14/00	11/15/00	11/20/00	21.25
11/13/00	SL-B-083000 -1285	131169	32232	3010911	2413962	11/14/00	11/15/00	11/20/00	22.57
11/13/00	SL-B-083000 -1285	131170	32232	3010911	2413963	11/14/00	11/15/00	11/20/00	22.38
11/13/00	SL-B-083000 -1285	131171	32232	3010911	2413964	11/14/00	11/15/00	11/20/00	23.86
11/13/00	SL-B-082100 -1260	131172	32232	3010911	2413965	11/14/00	11/15/00	12/19/00	18.53
11/13/00	SL-B-082100 -1260	131173	32232	3010911	2413966	11/14/00	11/15/00	12/19/00	18.58
11/15/00	SL-B-082100 -1260	131803	32232	3011014	2413971	11/21/00	11/17/00	11/29/00	16.71

June 2003

G-36

EH2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
11/15/00	SL-B-082100 -1260	131804	32232	3011014	2413972	11/21/00	11/17/00	11/29/00	18.64
11/15/00	SL-B-090600 -1293	131805	32232	3011014	2413973	11/21/00	11/17/00	11/29/00	18.60
11/15/00	SL-B-090600 -1293	131806	32232	3011014	2413974	11/21/00	11/17/00	11/29/00	20.17
11/15/00	SL-B-090600 -1293	131807	32232	3011014	2413975	11/21/00	11/17/00	11/29/00	21.23
11/15/00	SL-B-090600 -1293	131808	32232	3011014	2413976	11/21/00	11/17/00	11/29/00	20.03
11/15/00	SL-B-083000 -1285	131809	32232	3011014	2413977	11/21/00	11/17/00	11/29/00	22.80
11/15/00	SL-B-083000 -1285	131810	32232	3011014	2413978	11/21/00	11/17/00	11/29/00	23.37
11/15/00	SL-B-083000 -1285	131811	32232	3011014	2413979	11/21/00	11/17/00	11/29/00	21.87
11/15/00	SL-B-083000 -1285	131812	32232	3011014	2413980	11/21/00	11/17/00	11/29/00	24.15
11/15/00	SL-B-083000 -1285	131813	32232	3011014	2413981	11/21/00	11/17/00	11/29/00	21.62
11/15/00	SL-B-083000 -1285	131814	32232	3011014	2413982	11/21/00	11/17/00	11/29/00	21.16
11/20/00	SL-B-080800 -1248	131815	32232	3011014	2413983	11/21/00	11/27/00	12/15/00	25.03
11/20/00	SL-B-080800 -1248	131816	32232	3011014	2413984	11/21/00	11/27/00	12/15/00	24.45
11/20/00	SL-B-080800 -1248	131817	32232	3011014	2413985	11/21/00	11/27/00	12/15/00	23.94
11/20/00	SL-B-080800 -1248	131818	32232	3011014	2413986	11/21/00	11/27/00	12/15/00	20.94
11/20/00	SL-B-080800 -1248	131819	32232	3011014	2413987	11/21/00	11/27/00	12/15/00	23.58
11/20/00	SL-B-080800 -1248	131820	32232	3011014	2413988	11/21/00	11/27/00	12/15/00	25.02
11/20/00	SL-B-090600 -1291	131821	32232	3011014	2413989	11/21/00	11/27/00	12/15/00	22.75
11/20/00	SL-B-090600 -1291	131822	32232	3011014	2413990	11/21/00	11/27/00	12/15/00	24.09
11/20/00	SL-B-090600 -1291	131823	32232	3011014	2413991	11/21/00	11/27/00	12/15/00	21.65
11/20/00	SL-B-090600 -1291	131824	32232	3011014	2413992	11/21/00	11/27/00	12/15/00	22.19
11/20/00	SL-B-090600 -1291	131825	32232	3011014	2413993	11/21/00	11/27/00	12/15/00	22.30
11/20/00	SL-B-090600 -1291	131826	32232	3011014	2413994	11/21/00	11/27/00	12/15/00	20.91
11/21/00	SL-B-091100 -1304	131827	32232	3011014	2413995	11/27/00	11/28/00	12/15/00	20.18
11/21/00	SL-B-091100 -1304	131828	32232	3011014	2413996	11/27/00	11/28/00	12/15/00	18.07

June 2003

G-38

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
11/21/00	SL-B-091100 -1304	131829	32232	3011014	2413997	11/27/00	11/28/00	12/15/00	18.57
11/21/00	SL-B-091100 -1304	131830	32232	3011014	2413998	11/27/00	11/28/00	12/15/00	19.00
11/21/00	SL-B-090600 -1292	131831	32232	3011014	2413999	11/27/00	11/28/00	12/15/00	22.30
11/21/00	SL-B-090600 -1292	131832	32232	3011014	2414000	11/27/00	11/28/00	12/14/00	23.88
11/21/00	SL-B-090600 -1292	131833	32232	3011014	2414001	11/27/00	11/28/00	12/14/00	22.93
11/21/00	SL-B-090600 -1292	131834	32232	3011014	2414002	11/27/00	11/28/00	12/14/00	24.12
11/21/00	SL-B-090700 -1294	131835	32232	3011014	2414003	11/27/00	11/28/00	12/14/00	18.02
11/21/00	SL-B-090700 -1294	131836	32232	3011014	2414004	11/27/00	11/28/00	12/14/00	17.51
11/21/00	SL-B-090700 -1294	131837	32232	3011014	2414005	11/27/00	11/28/00	12/14/00	15.41
11/21/00	SL-B-090700 -1294	131838	32232	3011014	2414006	11/27/00	11/28/00	12/14/00	14.82
12/18/00	SL-B-090700 -1299	131839	32232	3011014	2428018	12/19/00	12/20/00	12/22/00	22.34
12/18/00	SL-B-090700 -1299	131840	32232	3011014	2428019	12/19/00	12/20/00	12/22/00	21.96
12/18/00	SL-B-090700 -1299	131841	32232	3011014	2428020	12/19/00	12/20/00	12/22/00	22.90
12/18/00	SL-B-090700 -1299	131842	32232	3011014	2428021	12/19/00	12/20/00	12/22/00	21.65
12/18/00	SL-B-090700 -1299	131843	32232	3011014	2428022	12/19/00	12/20/00	12/22/00	24.17
12/18/00	SL-B-090700 -1299	131844	32232	3011014	2428023	12/19/00	12/20/00	12/22/00	19.15
12/18/00	SL-B-082500 -1274	131845	32232	3011014	2428024	12/19/00	12/20/00	12/29/00	21.66
12/18/00	SL-B-082500 -1274	131846	32232	3011014	2428025	12/19/00	12/20/00	12/29/00	22.37
12/18/00	SL-B-082500 -1274	131847	32232	3011014	2428026	12/19/00	12/20/00	12/29/00	21.19
12/18/00	SL-B-082500 -1274	131848	32232	3011014	2428027	12/19/00	12/20/00	12/29/00	21.06
12/18/00	SL-B-082500 -1274	131849	32232	3011014	2428028	12/19/00	12/20/00	12/29/00	20.00
12/18/00	SL-B-082500 -1274	131850	32232	3011014	2428029	12/19/00	12/20/00	12/29/00	21.51
01/03/01	SL-B-082500 -1274	131851	32232	3011014	2428030	01/05/01	01/10/01	02/19/01	23.92
01/03/01	SL-B-082500 -1274	131852	32232	3011014	2428031	01/05/01	01/10/01	02/19/01	22.27
01/03/01	SL-B-082500 -1274	131853	32232	3011014	2428032	01/05/01	01/10/01	02/19/01	21.68

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
01/03/01	SL-B-082500 -1274	131854	32232	3011014	2428033	01/05/01	01/10/01	02/19/01	22.48
01/03/01	SL-B-082500 -1274	131855	32232	3011014	2428034	01/05/01	01/10/01	02/19/01	19.90
01/03/01	SL-B-082500 -1274	131856	32232	3011014	2428035	01/05/01	01/10/01	02/19/01	21.62
01/03/01	SL-B-082500 -1274	131857	32232	3011014	2428036	01/05/01	01/10/01	02/19/01	22.91
01/03/01	SL-B-082500 -1274	131858	32232	3011014	2428037	01/05/01	01/10/01	02/19/01	24.67
01/03/01	SL-B-091800 -1315	131859	32232	3011014	2428038	01/05/01	01/10/01	02/19/01	19.58
01/03/01	SL-B-091800 -1315	131860	32232	3011014	2428039	01/05/01	01/10/01	02/19/01	20.59
01/03/01	SL-B-091800 -1315	131861	32232	3011014	2428040	01/05/01	01/10/01	02/19/01	21.59
01/03/01	SL-B-091800 -1315	131862	32232	3011014	2428041	01/05/01	01/10/01	02/19/01	19.80
01/10/01	SL-B-090700 -1296	131863	32232	3011014	2428042	01/11/01	01/15/00	02/19/01	14.74
01/10/01	SL-B-090700 -1296	131864	32232	3011014	2428043	01/11/01	01/15/00	02/19/01	16.30
01/10/01	SL-B-090700 -1296	131865	32232	3011014	2428044	01/11/01	01/15/00	02/19/01	24.02
01/10/01	SL-B-090700 -1296	131866	32232	3011014	2428045	01/11/01	01/15/00	02/19/01	22.12
01/10/01	SL-B-090700 -1296	1134070	32232	3011377	2428046	01/11/01	01/15/00	02/19/01	21.11
01/10/01	SL-B-090700 -1296	1134072	32232	3011377	2428047	01/11/01	01/15/00	02/19/01	19.57
01/10/01	SL-B-091300 -1312	1134073	32232	3011377	2428048	01/11/01	01/15/00	02/19/01	20.23
01/10/01	SL-B-091300 -1312	1134074	32232	3011377	2428049	01/11/01	01/15/00	02/19/01	19.24
01/10/01	SL-B-091300 -1312	1134075	32232	3011377	2428050	01/11/01	01/15/00	02/19/01	15.42
01/10/01	SL-B-091300 -1312	1134076	32232	3011377	2428051	01/11/01	01/15/00	02/19/01	18.27
01/10/01	SL-B-091300 -1312	1134077	32232	3011377	2428052	01/11/01	01/15/00	02/19/01	16.88
01/12/01	SL-B-091300 -1312	1134078	32232	3011377	2428053	01/16/01	01/18/00	02/19/01	17.84
01/12/01	SL-B-091800 -1315	1134079	32232	3011377	2428054	01/16/01	01/18/00	02/19/01	21.38
01/12/01	SL-B-091800 -1315	1134080	32232	3011377	2428055	01/16/01	01/18/00	02/19/01	21.51
01/12/01	SL-B-091800 -1315	1134081	32232	3011377	2428056	01/16/01	01/18/00	02/19/01	22.26
01/12/01	SL-B-091900 -1316	1134082	32232	3011377	2428057	01/16/01	01/18/00	02/19/01	23.15

June 2003

G-40

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
01/12/01	SL-B-091900 -1316	1134083	32232	3011377	2428058	01/16/01	01/18/00	02/19/01	20.95
01/12/01	SL-B-091900 -1316	1134084	32232	3011377	2428059	01/16/01	01/18/00	02/19/01	20.48
01/12/01	SL-B-091900 -1316	1134085	32232	3011377	2428060	01/16/01	01/18/00	02/19/01	22.92
01/12/01	SL-B-091900 -1316	1134086	32232	3011377	2428061	01/16/01	01/18/00	02/19/01	22.19
01/12/01	SL-B-091900 -1316	1134087	32232	3011377	2428062	01/16/01	01/18/00	02/19/01	21.01
01/12/01	SL-B-091900 -1316	1134088	32232	3011377	2428063	01/16/01	01/18/00	02/19/01	18.15
01/12/01	SL-B-091900 -1316	1134089	32232	3011377	2428064	01/16/01	01/18/00	02/19/01	19.48
01/19/01	SL-B-100200 -1333	1134090	32232	3011377	2428065	01/22/01	01/26/00	02/19/01	18.86
01/19/01	SL-B-100200 -1333	1134091	32232	3011377	2428066	06/13/01	01/26/00	02/19/01	18.84
01/19/01	SL-B-100200 -1333	1134092	32232	3011377	2428067	01/22/01	01/26/00	02/19/01	20.55
01/19/01	SL-B-100200 -1333	1134093	32232	3011377	2428068	01/22/01	01/26/00	02/19/01	21.57
01/19/01	SL-B-100200 -1333	1134094	32232	3011377	2428069	01/22/01	01/26/00	02/19/01	19.80
01/19/01	SL-B-100200 -1333	1134095	32232	3011377	2428070	01/22/01	01/26/00	02/19/01	20.55
01/19/01	SL-B-100400 -1340	1134096	32232	3011377	2428071	01/22/01	01/26/00	02/19/01	17.11
01/19/01	SL-B-100400 -1340	1134097	32232	3011377	2428072	01/22/01	01/26/00	02/19/01	16.81
01/19/01	SL-B-100400 -1340	1134098	32232	3011377	2428073	01/22/01	01/26/00	02/19/01	17.03
01/19/01	SL-B-100400 -1340	1134099	32232	3011377	2428074	06/13/01	01/26/00	02/19/01	16.12
01/19/01	SL-B-100400 -1340	1134100	32232	3011377	2428075	01/22/01	01/26/00	02/19/01	15.80
01/19/01	SL-B-100400 -1340	1134101	32232	3011377	2428076	01/22/01	01/26/00	02/19/01	17.43
02/14/01	SL-B-110200 -1362	1134102	32232	3011377	2428077	02/16/01	02/19/01	03/01/01	17.50
02/14/01	SL-B-110200 -1362	1135412	32232	3011511	2428078	02/16/01	02/19/01	03/01/01	17.24
02/14/01	SL-B-110200 -1362	1135413	32232	3011511	2428079	02/16/01	02/19/01	03/01/01	18.25
02/14/01	SL-B-110200 -1362	1135414	32232	3011511	2428080	02/16/01	02/19/01	03/01/01	19.46
02/14/01	SL-B-110200 -1362	1135415	32232	3011511	2428081	02/16/01	02/19/01	03/01/01	18.42
02/14/01	SL-B-110200 -1362	1135416	32232	3011511	2428082	02/16/01	02/19/01	03/01/01	17.05

Phase I Closure Implementation Report

ER2003-0409

G-41

June 2003

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
02/14/01	SL-B-110200 -1362	1135417	32232	3011511	2428083	02/16/01	02/19/01	03/01/01	16.32
02/14/01	SL-B-110200 -1362	1135418	32232	3011511	2428084	02/16/01	02/19/01	03/01/01	16.62
02/14/01	SL-B-110200 -1362	1135419	32232	3011511	2428085	02/16/01	02/19/01	03/01/01	16.24
02/14/01	SL-B-110200 -1362	1135420	32232	3011511	2428086	02/16/01	02/19/01	03/01/01	14.66
02/14/01	SL-B-110200 -1362	1135421	32232	3011511	2428087	02/16/01	02/19/01	03/01/01	20.19
02/14/01	SL-B-110200 -1362	1135422	32232	3011511	2428088	02/16/01	02/19/01	03/01/01	17.53
02/16/01	SL-B-110900 -1368	1135423	32232	3011511	2428097	02/21/01	02/23/01	02/28/01	22.29
02/16/01	SL-B-110900 -1368	1135424	32232	3011511	2428098	02/21/01	02/23/01	02/28/01	21.29
02/16/01	SL-B-110900 -1368	1135425	32232	3011511	2428099	02/21/01	02/23/01	02/28/01	22.85
02/16/01	SL-B-110900 -1368	1135426	32232	3011511	2428100	02/21/01	02/23/01	02/28/01	22.79
02/21/01	SL-B-110900 -1368	1135427	32232	3011511	2203501	02/23/01	02/26/01	03/01/01	23.15
02/21/01	SL-B-110900 -1368	1135428	32232	3011511	2203502	02/23/01	02/26/01	03/01/01	22.41
02/21/01	SL-B-110900 -1368	1135429	32232	3011511	2203503	02/23/01	02/26/01	03/01/01	20.75
02/21/01	SL-B-110900 -1368	1135430	32232	3011511	2203504	02/23/01	02/26/01	03/01/01	22.63
02/21/01	SL-B-110900 -1367	1135431	32232	3011511	2203505	02/23/01	02/26/01	03/01/01	22.07
02/21/01	SL-B-110900 -1367	1135432	32232	3011511	2203506	02/23/01	02/26/01	03/01/01	23.02
02/21/01	SL-B-110900 -1367	1135433	32232	3011511	2203507	02/23/01	02/26/01	03/01/01	19.86
02/21/01	SL-B-110900 -1367	1135434	32232	3011511	2203508	02/23/01	02/26/01	03/01/01	20.13
02/21/01	SL-B-110900 -1367	1135435	32232	3011511	2203509	02/23/01	02/26/01	03/01/01	22.23
02/21/01	SL-B-110900 -1367	1135436	32232	3011511	2203510	02/23/01	02/26/01	03/01/01	19.73
02/21/01	SL-B-110900 -1367	1135437	32232	3011511	2203511	02/23/01	02/26/01	03/01/01	21.32
02/21/01	SL-B-110900 -1367	1135438	32232	3011511	2203512	02/23/01	02/26/01	03/01/01	22.13
02/23/01	SL-B-110200 -1364	1135439	32232	3011511	2203513	02/27/01	02/28/01	02/28/01	19.97
02/23/01	SL-B-110200 -1364	1135440	32232	3011511	2203514	02/27/01	02/28/01	02/28/01	23.69
02/23/01	SL-B-110200 -1364	1135441	32232	3011511	2203515	02/27/01	02/28/01	02/28/01	20.89

June 2003

G-42

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
02/23/01	SL-B-110200 -1364	1135442	32232	3011511	2203516	02/27/01	02/28/01	02/28/01	24.06
02/23/01	SL-B-110200 -1364	1135443	32232	3011511	2203517	02/27/01	02/28/01	02/28/01	23.43
02/23/01	SL-B-110200 -1364	1135448	32232	3011511	2203518	02/27/01	02/28/01	02/28/01	23.57
02/23/01	SL-B-110200 -1364	1135449	32232	3011511	2203519	02/27/01	02/28/01	02/28/01	19.23
02/23/01	SL-B-110200 -1364	1135450	32232	3011511	2203520	02/27/01	02/28/01	02/28/01	21.97
02/23/01	SL-B-110200 -1364	1135451	32232	3011511	2203521	02/27/01	02/28/01	02/28/01	23.36
02/23/01	SL-B-110200 -1364	1135452	32232	3011511	2203522	02/27/01	02/28/01	02/28/01	23.32
02/23/01	SL-B-110200 -1364	1135453	32232	3011511	2203523	02/27/01	02/28/01	02/28/01	20.87
02/26/01	SL-B-110200 -1364	1135454	32232	3011511	2203524	02/27/01	02/28/01	03/05/01	20.82
03/02/01	SL-B-110200 -1363	1135455	32232	3011511	2203533	03/14/01	03/08/01	03/14/01	19.95
03/02/01	SL-B-110200 -1363	1135456	32232	3011511	2203534	03/14/01	03/08/01	03/14/01	17.57
02/26/01	SL-B-110200 -1363	1135457	32232	3011511	2203535	02/27/01	02/28/01	03/05/01	17.70
02/26/01	SL-B-110200 -1363	1135458	32232	3011511	2203536	02/27/01	02/28/01	03/05/01	16.18
03/02/01	SL-B-110200 -1363	1135459	32232	3011511	2203537	03/14/01	03/08/01	03/14/01	17.76
03/02/01	SL-B-110200 -1363	1135460	32232	3011511	2203538	03/14/01	03/08/01	03/14/01	18.36
03/02/01	SL-B-110200 -1363	1135461	32232	3011511	2203539	03/14/01	03/08/01	03/14/01	22.14
03/02/01	SL-B-110200 -1363	1135462	32232	3011511	2203541	03/14/01	03/08/01	03/14/01	22.43
03/02/01	SL-B-110200 -1363	1135463	32232	3011511	2203542	03/14/01	03/08/01	03/14/01	23.34
05/31/01	SL-B-030501 -1404	137638	32232	3011944	2203543	06/14/01	06/13/01	06/19/01	24.94
05/31/01	SL-B-030501 -1404	137639	32232	3011944	2203544	06/14/01	06/13/01	06/19/01	22.89
05/31/01	SL-B-030501 -1404	137640	32232	3011944	2203545	06/14/01	06/13/01	06/19/01	22.53
05/31/01	SL-B-030501 -1404	137641	32232	3011944	2203546	06/14/01	06/13/01	06/19/01	24.86
05/31/01	SL-B-030501 -1404	137642	32232	3011944	2203548	06/14/01	06/13/01	06/19/01	22.59
05/31/01	SL-B-030501 -1405	137643	32232	3011944	2203549	06/14/01	06/13/01	06/19/01	21.10
05/31/01	SL-B-030501 -1405	137644	32232	3011944	2203550	06/14/01	06/13/01	06/19/01	22.87

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
05/31/01	SL-B-030501 -1405	137645	32232	3011944	2203551	06/14/01	06/13/01	06/19/01	22.11
05/31/01	SL-B-030501 -1405	137646	32232	3011944	2203552	06/14/01	06/13/01	06/19/01	22.54
05/31/01	SL-B-030501 -1405	137647	32232	3011944	2203553	06/14/01	06/13/01	06/19/01	18.20
05/31/01	SL-B-030501 -1405	137648	32232	3011944	2203554	06/14/01	06/13/01	06/19/01	20.56
05/31/01	SL-B-030501 -1404	137649	32232	3011944	2203555	06/14/01	06/13/01	06/19/01	21.84
04/14/00	SL-B-022800 -1199	126962	32384	3009665	2104049	05/09/00	04/27/00	07/30/00	23.60
04/14/00	SL-B-022800 -1199	126963	32384	3009665	2104050	05/09/00	04/27/00	07/30/00	24.19
04/14/00	SL-B-022800 -1199	126964	32384	3009665	2104051	05/09/00	05/09/00	07/30/00	23.93
04/14/00	SL-B-022800 -1199	126965	32384	3009665	2104052	05/09/00	04/27/00	07/30/00	20.01
04/14/00	SL-B-022800 -1199	126966	32384	3009665	2104053	05/09/00	04/27/00	07/30/00	23.62
04/14/00	SL-B-022900 -1200	126967	32384	3009665	2104054	05/09/00	04/27/00	07/30/00	22.78
04/14/00	SL-B-022900 -1200	126968	32384	3009665	2104055	05/09/00	04/27/00	07/30/00	23.13
04/14/00	SL-B-022900 -1200	126969	32384	3009665	2104056	05/09/00	04/27/00	07/30/00	23.26
04/14/00	SL-B-022900 -1200	126970	32384	3009665	2104057	05/09/00	04/27/00	07/30/00	23.66
04/17/00	SL-B-022900 -1200	126971	32384	3009665	2104061	05/09/00	05/09/00	07/30/00	24.60
04/17/00	SL-B-100699 -1134	126972	32384	3009665	2104062	05/09/00	05/09/00	07/30/00	22.42
04/17/00	SL-B-100699 -1134	126973	32384	3009665	2104063	05/09/00	05/09/00	07/30/00	19.99
04/17/00	SL-B-100699 -1134	126974	32384	3009665	2104064	05/09/00	05/09/00	07/30/00	20.26
04/17/00	SL-B-100699 -1134	126975	32384	3009665	2104065	05/09/00	05/09/00	07/30/00	20.26
04/17/00	SL-B-100699 -1134	126976	32384	3009665	2104066	05/09/00	05/09/00	07/30/00	21.09
04/17/00	SL-B-012000 -1186	126977	32384	3009665	2104067	05/09/00	05/09/00	07/30/00	23.49
04/24/00	SL-B-012000 -1186	126978	32384	3009665	2104068	05/11/00	05/05/00	07/30/00	23.68
04/24/00	SL-B-012000 -1186	126979	32384	3009665	2104069	05/11/00	05/09/00	07/30/00	23.89
04/26/00	SL-B-012000 -1186	126980	32384	3009665	2104070	05/11/00	05/09/00	07/30/00	23.34
04/26/00	SL-B-012000 -1186	126981	32384	3009665	2104071	05/11/00	05/09/00	07/30/00	22.63

June 2003

G-44

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
04/26/00	SL-B-012500 -1187	126982	32384	3009665	2104072	05/11/00	05/09/00	07/30/00	23.56
04/26/00	SL-B-012500 -1187	126983	32384	3009665	2104073	05/11/00	05/09/00	07/30/00	23.17
04/26/00	SL-B-012500 -1187	126984	32384	3009665	2104074	05/11/00	05/09/00	07/30/00	20.52
04/26/00	SL-B-012500 -1187	126985	32384	3009665	2104075	05/11/00	05/09/00	07/30/00	23.68
04/26/00	SL-B-012500 -1187	126986	32384	3009665	2104076	05/11/00	05/05/00	07/30/00	22.94
04/28/00	SL-B-021099 -1193	126987	32384	3009665	2104077	05/11/00	05/09/00	07/30/00	20.13
04/28/00	SL-B-021099 -1193	126988	32384	3009665	2104078	05/11/00	05/09/00	07/30/00	18.04
04/28/00	SL-B-021099 -1193	126989	32384	3009665	2104079	05/11/00	05/09/00	07/30/00	19.82
04/28/00	SL-B-021099 -1193	126990	32384	3009665	2081014	05/11/00	05/09/00	07/30/00	19.19
05/01/00	SL-B-021099 -1193	126991	32384	3009665	2081015	05/25/00	05/17/00	08/17/00	19.26
04/28/00	SL-B-021099 -1193	126992	32384	3009665	2081016	05/11/00	05/09/00	07/30/00	19.98
05/01/00	SL-B-020300 -1191	126993	32384	3009665	2081019	05/25/00	05/17/00	08/17/00	20.72
05/01/00	SL-B-020300 -1191	126994	32384	3009665	2081020	05/25/00	05/17/00	08/17/00	20.60
05/01/00	SL-B-020300 -1191	126995	32384	3009665	2127619	05/25/00	05/17/00	07/28/00	19.66
05/01/00	SL-B-020300 -1191	126996	32384	3009665	2127620	05/25/00	05/17/00	07/28/00	19.19
05/01/00	SL-B-020300 -1191	126997	32384	3009665	2127621	05/25/00	05/17/00	08/17/00	18.92
05/01/00	SL-B-020300 -1191	126998	32384	3009665	2127622	05/25/00	05/17/00	08/17/00	20.29
05/01/00	SL-B-020100 -1190	126999	32384	3009665	2127623	05/25/00	05/17/00	07/28/00	19.65
05/01/00	SL-B-020100 -1190	126700	32384	3009665	2127624	05/25/00	05/17/00	08/17/00	20.07
05/03/00	SL-B-020100 -1190	126701	32384	3009665	2127625	05/26/00	05/17/00	07/21/00	22.38
05/03/00	SL-B-020100 -1190	126702	32384	3009665	2127626	05/26/00	05/17/00	07/21/00	25.12
05/03/00	SL-B-020100 -1190	126703	32384	3009665	2127627	05/26/00	05/17/00	07/21/00	19.20
05/03/00	SL-B-013100 -1189	126704	32384	3009665	2127628	05/26/00	05/17/00	07/21/00	19.83
05/03/00	SL-B-013100 -1189	126705	32384	3009665	2127629	05/26/00	05/17/00	07/21/00	21.58
05/03/00	SL-B-013100 -1189	126706	32384	3009665	2127630	05/26/00	05/17/00	07/21/00	20.57

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
05/03/00	SL-B-013100 -1189	126707	32384	3009665	2369304	05/26/00	05/17/00	07/21/00	20.54
05/03/00	SL-B-013100 -1189	126708	32384	3009665	2369305	05/26/00	05/17/00	07/25/00	21.80
05/05/00	SL-B-030300 -1201	127009	32384	3009665	2369306	05/25/00	05/17/00	07/25/00	23.52
05/05/00	SL-B-030300 -1201	127010	32384	3009665	2369308	05/25/00	05/17/00	07/25/00	23.58
05/05/00	SL-B-030300 -1201	127011	32384	3009665	2369309	05/25/00	05/17/00	07/25/00	23.29
05/05/00	SL-B-030300 -1201	127012	32384	3009665	2369310	05/25/00	05/17/00	07/25/00	23.42
05/05/00	SL-B-030300 -1201	127013	32384	3009665	2369311	05/25/00	05/17/00	07/25/00	21.00
06/07/00	SL-B-030800 -1202	127014	32384	3009665	2369316	06/13/01	06/28/00	07/30/00	20.20
06/07/00	SL-B-030800 -1202	127015	32384	3009665	2369317	06/13/01	06/28/00	07/30/00	20.22
06/07/00	SL-B-030800 -1202	127016	32384	3009665	2369318	06/13/01	06/28/00	07/30/00	19.99
06/07/00	SL-B-030800 -1202	127017	32384	3009665	2369319	06/13/01	06/28/00	07/30/00	23.97
06/07/00	SL-B-030800 -1202	127018	32384	3009665	2369320	06/13/01	06/28/00	07/30/00	19.60
12/04/00	SL-B-030800 -1203	132693	32948	3011206	2414007	12/08/00	12/12/00	12/14/00	19.13
12/04/00	SL-B-030800 -1203	132694	32948	3011206	2414008	12/08/00	12/12/00	01/08/01	18.88
12/04/00	SL-B-030800 -1203	132695	32948	3011206	2414009	12/08/00	12/12/00	01/08/01	18.72
12/04/00	SL-B-030800 -1203	132696	32948	3011206	2414010	12/08/00	12/12/00	01/08/01	19.14
12/04/00	SL-B-030800 -1203	132697	32948	3011206	2414011	12/08/00	12/12/00	12/14/00	19.27
12/04/00	SL-B-032100 -1207	132698	32948	3011206	2427978	12/08/00	12/12/00	12/14/00	19.02
12/04/00	SL-B-032100 -1207	132699	32948	3011206	2427979	12/08/00	12/12/00	12/14/00	19.13
12/04/00	SL-B-032100 -1207	132700	32948	3011206	2427980	12/08/00	12/12/00	12/14/00	24.19
12/04/00	SL-B-032100 -1207	132701	32948	3011206	2427981	12/08/00	12/12/00	12/14/00	19.10
12/04/00	SL-B-032100 -1207	132702	32948	3011206	2427982	12/08/00	12/12/00	12/14/00	19.98
12/04/00	SL-B-022300 -1198	132703	32948	3011206	2427983	12/08/00	12/12/00	12/14/01	21.94
12/04/00	SL-B-022300 -1198	132704	32948	3011206	2427984	12/08/00	12/12/00	12/14/01	24.29
12/06/00	SL-B-022300 -1198	132705	32948	3011206	2427999	12/11/00	12/12/00	12/22/01	23.31

June 2003

G-46

ER2003-0409

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
12/06/00	SL-B-022300 -1198	132706	32948	3011206	2427986	12/11/00	12/12/00	12/14/01	22.29
12/06/00	SL-B-022300 -1198	132707	32948	3011206	2427987	12/11/00	12/12/00	12/14/01	20.79
12/06/00	SL-B-011100 -1180	132708	32948	3011206	2427988	12/11/00	12/12/00	12/14/00	24.56
12/06/00	SL-B-011100 -1180	132709	32948	3011206	2427989	12/11/00	12/12/00	12/14/00	23.74
12/06/00	SL-B-011100 -1180	132710	32948	3011206	2427990	12/11/00	12/12/00	12/14/00	20.33
12/06/00	SL-B-011100 -1180	132711	32948	3011206	2427991	12/11/00	12/12/00	12/14/00	23.96
12/06/00	SL-B-011100 -1180	132712	32948	3011206	2427992	12/11/00	12/12/00	12/22/00	20.41
12/06/00	SL-B-020700 -1192	132713	32948	3011206	2427993	12/11/00	12/12/00	12/22/00	20.46
12/06/00	SL-B-020700 -1192	132714	32948	3011206	2427994	12/11/00	12/12/00	12/22/00	18.70
12/06/00	SL-B-020700 -1192	132715	32948	3011206	2427995	12/11/00	12/12/00	12/22/00	20.13
12/06/00	SL-B-020700 -1192	132716	32948	3011206	2427996	12/11/00	12/12/00	12/22/00	20.67
12/08/00	SL-B-020700 -1192	132717	32948	3011206	2428000	12/13/00	12/18/00	12/22/00	22.27
12/08/00	SL-B-021500 -1195	132718	32948	3011206	2428001	12/13/00	12/18/00	12/22/00	19.96
12/08/00	SL-B-021500 -1195	132719	32948	3011206	2428002	12/13/00	12/18/00	12/22/00	20.35
12/08/00	SL-B-021500 -1195	132720	32948	3011206	2428003	12/13/00	12/18/00	12/22/00	21.97
12/08/00	SL-B-021500 -1195	132721	32948	3011206	2428004	12/13/00	12/18/00	12/22/00	24.83
12/08/00	SL-B-021500 -1195	132722	32948	3011206	2428005	12/13/00	12/18/00	12/22/00	19.19
12/08/00	SL-B-021700 -1196	132723	32948	3011206	2428006	12/13/00	12/18/00	12/22/00	22.28
12/08/00	SL-B-021700 -1196	132724	32948	3011206	2428007	12/13/00	12/18/00	12/22/00	19.09
12/08/00	SL-B-021700 -1196	132725	32948	3011206	2428008	12/13/00	12/18/00	12/22/00	20.01
12/08/00	SL-B-021700 -1196	132726	32948	3011206	2428009	12/13/00	12/18/00	01/11/01	24.48
12/08/00	SL-B-021700 -1196	132727	32948	3011206	2428010	12/13/00	12/18/00	01/11/01	19.80
12/11/00	SL-B-021700 -1196	132728	32948	3011206	2428011	12/13/00	12/18/00	12/22/00	20.50
12/11/00	SL-B-021700 -1196	132729	32948	3011206	2428013	12/13/00	12/18/00	12/22/00	22.85
12/11/00	SL-B-021500 -1195	132730	32948	3011206	2428014	12/13/00	12/18/00	12/22/00	21.04

Phase I Closure Implementation Report

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
12/11/00	SL-B-021500 -1195	132731	32948	3011206	2428015	12/13/00	12/18/00	12/22/00	19.70
12/11/00	SL-B-020700 -1192	132732	32948	3011206	2428016	12/13/00	12/18/00	12/22/00	20.39
12/11/00	SL-B-020700 -1192	132733	32948	3011206	2428017	12/13/00	12/18/00	12/22/00	19.40
09/26/01	SUMP060401	1141542			2129665				5.29
09/26/01	SUMP060401	1141543			2129666				7.08
12/18/01	SL-B-091401 -1500	1144963	32232	3013198	2129676	12/19/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	23.03
12/18/01	SL-B-091401 -1500	1144964	32232	3013198	2129677	12/19/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	22.81
12/18/01	SL-B-091401 -1500	1144965	32232	3013198	2129678	12/19/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	18.74
12/18/01	SL-B-091401 -1500	1144966	32232	3013198	2129679	12/19/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	19.63
12/18/01	SL-B-091401 -1500	1144967	32232	3013198	2129680	12/19/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	22.47
12/18/01	SL-B-091401 -1500	1144968	32232	3013198	2129681	12/19/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	20.27
12/18/01	SL-B-091401 -1501	1144969	32232	3013198	2129682	12/19/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	21.04
12/18/01	SL-B-091401 -1501	1144970	32232	3013198	2129683	12/19/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	22.43
12/18/01	SL-B-091401 -1501	1144971	32232	3013198	2129684	12/19/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	18.57
12/18/01	SL-B-091401 -1501	1144972	32232	3013198	2129685	12/19/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	21.67
12/20/01	SL-B-091401 -1501	1144973	32232	3013198	2129686	12/21/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	20.78
12/20/01	SL-B-091401 -1502	1144974	32232	3013198	2129687	12/21/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	21.20
12/20/01	SL-B-091401 -1502	1144975	32232	3013198	2129688	12/21/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	21.38

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
12/20/01	SL-B-091401 -1502	1144976	32232	3013198	2129689	12/21/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	22.61
12/20/01	SL-B-091401 -1502	1144977	32232	3013198	2129690	12/21/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	22.18
12/20/01	SL-B-091401 -1502	1144978	32232	3013198	2129691	12/21/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	22.08
12/20/01	SL-B-091401 -1503	1144979	32232	3013198	2129693	12/21/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	19.46
12/20/01	SL-B-091401 -1503	1144980	32232	3013198	2129694	12/21/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	21.93
12/20/01	SL-B-091401 -1503	1144981	32232	3013198	2129696	12/21/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	23.61
12/20/01	SL-B-091401 -1503	1144986	32232	3013198	2129695	12/21/01	01/04/02	Dec 20 & 26, 2001 & 01/19/02	22.17
01/03/02	SL-B-091401 -1504	1144982	32232	3013198	2129697	01/04/02	01/15/02	Jan 8 & 9, 2002	21.67
01/03/02	SL-B-091401 -1504	1144983	32232	3013198	2129698	01/04/02	01/15/02	Jan 8 & 9, 2002	22.32
01/03/02	SL-B-091401 -1504	1144984	32232	3013198	2129699	01/04/02	01/15/02	Jan 8 & 9, 2002	22.44
01/03/02	SL-B-091401 -1504	1144985	32232	3013198	2129700	01/04/02	01/15/02	Jan 8 & 9, 2002	24.18
01/03/02	SL-B-091401 -1504	1144987	32232	3013198	2203558	01/04/02	01/15/02	Jan 8 & 9, 2002	23.31
01/03/02	SL-B-091401 -1504	1144988	32232	3013198	2203557	01/04/02	01/15/02	Jan 8 & 9, 2002	19.78
01/03/02	SL-B-091401 -1505	1144989	32232	3013198	2203560	01/04/02	01/15/02	Jan 8 & 9, 2002	20.04
01/03/02	SL-B-091401 -1505	1144990	32232	3013198	2203561	01/04/02	01/15/02	Jan 8 & 9, 2002	19.94
01/03/02	SL-B-091401 -1505	1144991	32232	3013198	2203562	01/04/02	01/15/02	Jan 8 & 9, 2002	19.95
01/07/02	SL-B-091401 -1505	1144992	32232	3013198	2203563	01/08/02	01/17/02	Jan. 10, 11, 14 & 18, 2002	18.27
01/07/02	SL-B-091401 -1505	1144993	32232	3013198	2203564	01/08/02	01/17/02	Jan. 10, 11, 14 & 18, 2002	20.10
01/07/02	SL-B-091401 -1506	1144994	32232	3013198	2203573	01/08/02	01/17/02	Jan. 10, 11, 14 & 18, 2002	20.37
01/07/02	SL-B-091401 -1506	1144995	32232	3013198	2203574	01/08/02	01/17/02	Jan. 10, 11, 14 & 18, 2002	22.45

June 2003

G-48

EH2003-0409

ER2003-0409

G-49

June 2003

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
01/07/02	SL-B-091401 -1506	1144996	32232	3013198	2203575	01/08/02	01/17/02	Jan.10, 11, 14 & 18, 2002	16.15
01/07/02	SL-B-091401 -1506	1144997	32232	3013198	2203576	01/08/02	01/17/02	Jan.10, 11, 14 & 18, 2002	21.90
01/07/02	SL-B-091401 -1506	1144998	32232	3013198	2203577	01/08/02	01/17/02	Jan.10, 11, 14 & 18, 2002	20.09
01/07/02	SL-B-091401 -1506	1144999	32232	3013198	2203578	01/08/02	01/17/02	Jan.10, 11, 14 & 18, 2002	20.54
01/07/02	SL-B-091401 -1506	1145000	32232	3013198	2203579	01/08/02	01/17/02	Jan.10, 11, 14 & 18, 2002	23.05
01/07/02	SL-B-091401 -1507	1145001	32232	3013198	2203580	01/08/02	01/17/02	Jan.10, 11, 14 & 18, 2002	19.60
01/07/02	SL-B-091401 -1507	1145002	32232	3013198	2203581	01/08/02	01/17/02	Jan.10, 11, 14 & 18, 2002	19.90
01/09/02	SL-B-091401 -1507	1145003	32232	3013198	2203582	01/10/02	01/17/02	Jan.10, 11, 14 & 18, 2002	24.46
01/09/02	SL-B-091401 -1507	1145004	32232	3013198	2203583	01/10/02	01/17/02	Jan.10, 11, 14 & 18, 2002	22.38
01/09/02	SL-B-091401 -1507	1145005	32232	3013198	2203565	01/10/02	01/17/02	Jan.10, 11, 14 & 18, 2002	24.69
01/09/02	SL-B-091401 -1507	1145006	32232	3013198	2203566	01/10/02	01/17/02	Jan.10, 11, 14 & 18, 2002	24.60
01/09/02	SL-B-091401 -1508	1145007	32232	3013198	2203567	01/10/02	01/17/02	Jan.10, 11, 14 & 18, 2002	21.01
01/09/02	SL-B-091401 -1508	1145008	32232	3013198	2203568	01/10/02	01/17/02	Jan.10, 11, 14 & 18, 2002	20.30
01/09/02	SL-B-091401 -1508	1145009	32232	3013198	2203569	01/10/02	01/17/02	Jan.10, 11, 14 & 18, 2002	22.51
01/09/02	SL-B-091401 -1508	1145010	32232	3013198	2203570	01/10/02	01/17/02	Jan.10, 11, 14 & 18, 2002	21.64
01/09/02	SL-B-091401 -1508	1145011	32232	3013198	2203572	01/10/02	01/17/02	Jan.10, 11, 14 & 18, 2002	21.63
01/09/02	SL-B-091401 -1508	1145012	32232	3013198	2203584	01/10/02	01/17/02	Jan.10, 11, 14 & 18, 2002	21.39
01/14/02	SL-B-091401 -1509	1145013	32232	3013198	2203585	01/15/02	01/28/02	Jan. 17 & 18, 2002	22.33

Table G-1 (continued)
Summary of Hazardous Soil Shipments to WCS

Date Shipped	Lot Number	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
01/14/02	SL-B-091401 -1509	1145014	32232	3013198	2203587	01/15/02	01/28/02	Jan. 17 & 18, 2002	21.90
01/14/02	SL-B-091401 -1509	1145015	32232	3013198	2203588	01/15/02	01/28/02	Jan. 17 & 18, 2002	20.66
01/14/02	SL-B-091401 -1509	1145016	32232	3013198	2203590	01/15/02	01/28/02	Jan. 17 & 18, 2002	18.65
01/29/02	SL-B-012902 -1510	1145017	32232	3013198	2203591	01/30/02	02/01/02	02/01/02	21.18
01/29/02	SL-B-012902 -1510	1145018	32232	3013198	2203593	01/30/02	02/01/02	02/01/02	21.11
01/29/02	SL-B-012902 -1510	1145019	32232	3013198	2203598	01/30/02	02/01/02	02/01/02	20.29
01/29/02	SL-B-012902 -1510	1145020	32232	3013198	2203597	01/30/02	02/01/02	02/01/02	21.69
01/29/02	SL-B-012902 -1510	1145021	32232	3013198	2203596	01/30/02	02/01/02	02/01/02	19.93
02/19/02	SL-B-021802 -1511	1145022	32232	3013198	2203595	02/20/02	02/21/02	02/27/02	20.17
02/19/02	SL-B-021802 -1511	1145023	32232	3013198	2203602	02/20/02	02/21/02	02/27/02	20.86
02/19/02	SL-B-021802 -1511	1145024	32232	3013198	2203599	02/20/02	02/21/02	02/27/02	19.27
02/19/02	SL-B-021802 -1511	1145025	32232	3013198	2203601	02/20/02	02/21/02	02/27/02	20.83
02/19/02	SL-B-021802 -1511	1145026	32232	3013198	2203600	02/20/02	02/21/02	02/27/02	20.04
02/21/02	SL-B-021802 -1511	1145027	32232	3013198	2203604	02/20/02	02/21/02	02/27/02	20.05
02/21/02	SL-B-022102 -1512	1145028	32232	3013198	2203605	02/21/02	02/27/02	02/28/02	22.31
02/21/02	SL-B-022102 -1512	1145029	32232	3013198	2203606	02/22/02	02/27/02	02/28/02	23.87
02/21/02	SL-B-022102 -1512	1145030	32232	3013198	2203607	02/22/02	02/27/02	02/28/02	23.64
02/21/02	SL-B-022102 -1512	1145031	32232	3013198	2203608	02/21/02	02/27/02	02/28/02	21.33
03/20/02	SL-B-032002 -1513	1145034	32232	3013198	2203612	03/27/02	04/03/02	04/01/02	23.13
03/20/02	SL-B-032002 -1513	1145035	32232	3013198	2203613	03/27/02	04/03/02	04/01/02	21.49
03/20/02	SL-B-032002 -1513	1145036	32232	3013198	2203614	03/27/02	04/03/02	04/01/02	18.14
					2203610	Did NOT Use			
					2203611				
					2203615				

Table G-2
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
04/12/99	SL-SC-012999-0001	30528	3007723	C99115336	99061
04/12/99	SL-SC-012999-0001	30528	3007723	C99115337	99062
04/13/99	SL-SC-012999-0001	30528	3007723	C99115338	99063
04/13/99	SL-SC-012999-0001	30528	3007723	C99115339	99064
04/13/99	SL-SC-020299-0002	30528	3007723	C99115340	99065
04/13/99	SL-SC-020299-0002	30528	3007723	C99115341	99066
04/13/99	SL-SC-020299-0002	30528	3007723	C99115342	99067
04/14/99	SL-SC-020399-0004	30528	3007723	C99115343	99068
04/14/99	SL-SC-020399-0003	30528	3007723	C99115344	99069
04/14/99	SL-SC-020399-0003	30528	3007723	C99115345	99070
04/14/99	SL-SC-020499-0005	30528	3007723	C99115346	99071
04/15/99	SL-SC-020499-0005	30528	3007723	C99115347	99072
04/15/99	SL-AF-030499-0011	30528	3007723	C99115348	99073
04/16/99	SL-AF-030499-0011	30528	3007723	C99115349	99074
04/16/99	SL-AF-030499-0011	30528	3007723	C99115350	99075
04/16/99	SL-AF-030499-0011	30528	3007723	C99115351	99076
04/16/99	SL-AF-030599-0012	30528	3007723	C99115352	99077
04/16/99	SL-AF-030599-0012	30528	3007723	C99115353	99078
04/16/99	SL-AF-030599-0012	30528	3007723	C99115354	99079
04/19/99	SL-AF-030599-0012	30528	3007723	C99115355	99080
04/19/99	SL-AF-022699-0007	30528	3007723	C99115356	99081
04/19/99	SL-AF-022699-0007	30528	3007723	C99115357	99082
04/19/99	SL-AF-022699-0008	30528	3007723	C99115358	99083
04/19/99	SL-AF-022699-0007	30528	3007723	C99115359	99084
04/19/99	SL-AF-022699-0007	30528	3007723	C99115360	99085
04/20/99	SL-AF-022699-0008	30528	3007723	C99115361	99086
04/20/99	SL-AF-022699-0008	30528	3007723	C99115362	99087
04/20/99	SL-AF-022699-0008	30528	3007723	C99115363	99088
04/20/99	SL-AF-022699-0009	30528	3007723	C99115364	99089
04/20/99	SL-AF-022699-0009	30528	3007723	C99115365	99090
04/20/99	SL-AF-022699-0009	30528	3007723	C99115366	99091
04/21/99	SL-AF-022699-0009	30528	3007723	C99115367	99092

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
04/21/99	SL-AF-030399-0010	30528	3007786	C99115487	99106
04/21/99	SL-AF-030399-0010	30528	3007786	C99115488	99107
04/21/99	SL-AF-030399-0010	30528	3007786	C99115489	99108
04/21/99	SL-AF-030399-0010	30528	3007786	C99115490	99109
04/21/99	SL-AF-021999-0004	30528	3007786	C99115491	99110
04/22/99	SL-AF-021999-0004	30528	3007786	C99115492	99111
04/22/99	SL-AF-022399-0005	30528	3007786	C99115493	99112
04/22/99	SL-AF-022399-0005	30528	3007786	C99115494	99113
04/22/99	SL-AF-022399-0006	30528	3007786	C99115495	99114
04/22/99	SL-AF-022399-0006	30528	3007786	C99115496	99115
04/22/99	SL-AF-021999-0001	30528	3007786	C99115497	99116
04/23/99	SL-AF-021999-0001	30528	3007786	C99115498	99117
04/23/99	SL-AF-021999-0002	30528	3007786	C99115499	99118
04/23/99	SL-AF-021999-0002	30528	3007786	C99115500	99119
04/23/99	SL-AF-021999-0003	30528	3007786	C99115501	99120
04/23/99	SL-AF-021999-0003	30528	3007786	C99115502	99121
04/23/99	SL-AF-021999-0003	30528	3007786	C99115503	99122
04/26/99	SL-AF-021999-0004	30528	3007786	C99115504	99123
04/26/99	SL-AF-022399-0005	30528	3007786	C99115505	99124
04/26/99	SL-AF-022399-0006	30528	3007786	C99115506	99125
04/26/99	SL-AF-031699-0015	30528	3007786	C99115507	99126
04/26/99	SL-AF-031699-0015	30528	3007786	C99115508	99127
04/27/99	SL-AF-031699-0016	30528	3007786	C99115509	99128
04/27/99	SL-AF-031699-0016	30528	3007786	C99115510	99129
04/27/99	SL-AF-031699-0016	30528	3007786	C99115511	99130
04/27/99	SL-AF-031699-0015	30528	3007786	C99115512	99131
04/27/99	SL-AF-030999-0013	30528	3007786	C99115513	99132
04/27/99	SL-AF-031699-0015	30528	3007786	C99115514	99133
04/28/99	SL-AF-021999-0002	30528	3007786	C99115515	99134
04/28/99	SL-AF-030999-0013	30528	3007786	C99115516	99135
04/28/99	SL-AF-021999-0001	30528	3007786	C99115517	99136
04/28/99	SL-AF-030999-0013	30528	3007786	C99115518	99137
04/28/99	SL-AF-030999-0013	30528	3007786	C99115519	99138
04/28/99	SL-AF-031699-0014	30528	3007786	C99115520	99139

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
04/29/99	SL-AF-031699-0014	30528	3007786	C99115521	99140
04/29/99	SL-AF-031699-0014	30528	3007786	C99115522	99141
04/29/99	SL-AF-031699-0016	30528	3007786	C99115523	99142
04/29/99	SL-AF-031799-0017	30528	3007786	C99115524	99143
04/29/99	SL-AF-031799-0017	30528	3007786	C99115525	99144
04/29/99	SL-AF-031699-0014	30528	3007786	C99115526	99145
04/30/99	SL-AF-031799-0017	30528	3007786	C99115527	99146
04/30/99	SL-AF-032299-0018	30528	3007786	C99115528	99147
04/30/99	SL-AF-031799-0017	30528	3007786	C99115529	99148
04/30/99	SL-AF-032299-0018	30528	3007786	C99115530	99149
04/30/99	SL-AF-032299-0018	30528	3007786	C99115531	99150
04/30/99	SL-AF-032299-0018	30528	3007786	C99115532	99151
05/03/99	SL-AF-032399-0019	30528	3007786	C99115533	99152
05/03/99	SL-AF-032399-0019	30528	3007815	C99115698	99157
05/03/99	SL-AF-032399-0019	30528	3007815	C99115707	99158
05/03/99	SL-AF-032399-0019	30528	3007815	C99115713	99159
05/03/99	SL-AF-032499-0020	30528	3007815	C99115715	99160
05/03/99	SL-AF-032499-0020	30528	3007815	C99115716	99161
05/04/99	SL-AF-032499-0020	30528	3007815	C99115717	99162
05/04/99	SL-AF-032499-0020	30528	3007815	C99115718	99163
05/04/99	SL-AF-032499-0020	30528	3007815	C99115719	99164
05/04/99	SL-SC-021999-0006	30528	3007815	C99115720	99165
05/04/99	SL-SC-021999-0006	30528	3007815	C99115721	99166
05/04/99	SL-SC-021999-0006	30528	3007815	C99115722	99167
05/05/99	SL-AF-032299-0018	30528	3007815	C99115724	99168
05/05/99	SL-AF-031799-0017	30528	3007815	C99115725	99169
05/05/99	SL-AF-032399-0019	30528	3007815	C99115727	99170
05/05/99	SL-AF-032699-0021	30528	3007815	C99115728	99171
05/05/99	SL-AF-032699-0021	30528	3007815	C99115729	99172
05/05/99	SL-AF-032699-0021	30528	3007820	C99115845	99173
05/06/99	SL-AF-032999-0022	30528	3007820	C99115846	99174
05/06/99	SL-AF-032999-0022	30528	3007820	C99115847	99175
05/06/99	SL-AF-032999-0022	30528	3007820	C99115848	99176
05/07/99	SL-AF-032999-0022	30528	3007820	C99115849	99177

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
05/07/99	SL-AF-032699-0021	30528	3007820	C99115850	99178
05/07/99	SL-AF-032999-0022	30528	3007820	C99115851	99179
05/07/99	SL-SC-021999-0006	30528	3007820	C99115852	99180
05/07/99	SL-AF-032699-0021	30528	3007820	C99115853	99181
05/07/99	SL-AF-033099-0023	30528	3007820	C99115854	99182
05/10/99	SL-AF-033099-0023	30528	3007820	C99115855	99183
05/10/99	SL-AF-033099-0023	30528	3007820	C99115856	99184
05/10/99	SL-AF-033099-0023	30528	3007820	C99115857	99185
05/10/99	SL-AF-033099-0023	30528	3007820	C99115858	99186
05/10/99	SL-AF-033099-0024	30528	3007820	C99115859	99187
05/10/99	SL-AF-033099-0024	30528	3007820	C99115860	99188
05/11/99	SL-AF-033099-0024	30528	3007869	C99116232	99190
05/11/99	SL-AF-033099-0024	30528	3007869	C99116233	99191
05/11/99	SL-AF-033099-0024	30528	3007869	C99116234	99192
05/11/99	SL-AF-033099-0025	30528	3007869	C99116235	99193
05/11/99	SL-AF-033099-0025	30528	3007869	C99116236	99194
05/11/99	SL-AF-033099-0025	30528	3007869	C99116237	99195
05/12/99	SL-AF-033099-0025	30528	3007869	C99116238	99196
05/12/99	SL-AF-033099-0025	30528	3007869	C99116239	99197
05/12/99	SL-AF-033199-0026	30528	3007869	C99116240	99198
05/12/99	SL-AF-033199-0026	30528	3007869	C99116241	99199
05/12/99	SL-AF-033199-0026	30528	3007869	C99116242	99200
05/12/99	SL-AF-033199-0026	30528	3007869	C99116243	99201
05/13/99	SL-AF-033199-0026	30528	3007869	C99116244	99202
05/13/99	SL-AF-040199-0027	30528	3007869	C99116245	99203
05/13/99	SL-AF-040199-0027	30528	3007869	C99116246	99204
05/13/99	SL-AF-040199-0027	30528	3007869	C99116247	99205
05/13/99	SL-AF-040199-0027	30528	3007869	C99116248	99206
05/13/99	SL-AF-040199-0027	30528	3007869	C99116249	99207
05/14/99	SL-AF-040699-0028	30528	3007869	C99116250	99208
05/14/99	SL-AF-040699-0028	30528	3007869	C99116251	99209
05/14/99	SL-AF-040699-0028	30528	3007869	C99116252	99210
05/14/99	SL-AF-040699-0028	30528	3007869	C99116253	99211
05/17/99	SL-AF-040699-0028	30528	3007869	C99116254	99212

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
05/17/99	SL-SC-021999-0006	30528	3007869	C99116255	99213
05/17/99	SL-SC-021999-0006	30528	3007869	C99116256	99214
05/17/99	SL-AF-040699-0028	30528	3007869	C99116257	99215
05/17/99	SL-AF-040699-0028	30528	3007869	C99116258	99216
05/18/99	SL-AF-040699-0029	30528	3007869	C99116259	99217
05/18/99	SL-AF-040699-0029	30528	3007869	C99116260	99218
05/18/99	SL-AF-040699-0029	30528	3007869	C99116261	99219
05/18/99	SL-AF-040699-0029	30528	3007869	C99116262	99220
05/18/99	SL-AF-040699-0029	30528	3007869	C99116263	99221
05/18/99	SL-AF-040699-0029	30528	3007920	C99116551	99225
05/19/99	SL-AF-032299-0018	30528	3007920	C99116552	99226
05/19/99	SL-AF-031799-0017	30528	3007920	C99116553	99227
05/19/99	SL-AF-032399-0019	30528	3007920	C99116554	99228
05/19/99	SL-AF-031699-0014	30528	3007920	C99116555	99229
05/19/99	SL-AF-031699-0015	30528	3007920	C99116556	99230
05/19/99	SL-AF-031699-0016	30528	3007920	C99116557	99231
05/21/99	SL-AF-041299-0030	30528	3007920	C99116558	99232
05/21/99	SL-AF-041299-0030	30528	3007920	C99116559	99233
05/21/99	SL-AF-041299-0030	30528	3007920	C99116560	99234
05/21/99	SL-AF-041299-0031	30528	3007920	C99116561	99235
05/21/99	SL-AF-041299-0030	30528	3007920	C99116562	99236
05/21/99	SL-AF-041299-0030	30528	3007920	C99116563	99237
05/20/99	SL-AF-041399-0033	30528	3007920	C99116564	99238
05/20/99	SL-AF-041399-0033	30528	3007920	C99116565	99239
05/20/99	SL-AF-041399-0033	30528	3007920	C99116566	99240
05/20/99	SL-AF-041399-0033	30528	3007920	C99116567	99241
05/20/99	SL-AF-041399-0033	30528	3007920	C99116568	99242
05/20/99	SL-AF-041399-0033	30528	3007920	C99116569	99243
05/27/99	SL-AF-041299-0031	30528	3007920	C99116570	99244
05/27/99	SL-AF-041299-0031	30528	3007920	C99116571	99245
05/28/99	SL-AF-041299-0031	30528	3007920	C99116572	99246
05/28/99	SL-AF-041299-0031	30528	3007920	C99116573	99247
06/01/99	SL-AF-041399-0032	30528	3007920	C99116574	99248
06/01/99	SL-AF-041399-0032	30528	3007920	C99116575	99249

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
06/01/99	SL-AF-041399-0032	30528	3007920	C99116576	99250
06/01/99	SL-AF-041399-0032	30528	3007920	C99116577	99251
06/01/99	SL-AF-041399-0032	30528	3007920	C99116578	99252
06/01/99	SL-AF-041599-0034	30528	3007920	C99116579	99253
06/02/99	SL-AF-041599-0034	30528	3007920	C99116580	99254
06/02/99	SL-AF-041599-0034	30528	3007920	C99116581	99255
06/02/99	SL-AF-041599-0034	30528	3007920	C99116582	99256
06/02/99	SL-AF-041699-0035	30528	3007920	C99116583	99257
06/02/99	SL-AF-041599-0034	30528	3007920	C99116584	99258
06/02/99	SL-AF-041699-0035	30528	3007920	C99116585	99259
06/03/99	SL-AF-050499-0042	30528	3007920	C99116586	99260
06/03/99	SL-AF-050499-0042	30528	3007920	C99116587	99261
06/03/99	SL-AF-050499-0042	30528	3007920	C99116588	99262
06/03/99	SL-AF-050499-0042	30528	3007920	C99116589	99263
06/03/99	SL-AF-050499-0042	30528	3007920	C99116590	99264
06/03/99	SL-AF-050499-0042	30528	3007920	C99116591	99265
06/04/99	SL-AF-041599-0034	30528	3007920	C99116592	99266
06/04/99	SL-AF-041699-0035	30528	3007920	C99116593	99267
06/04/99	SL-AF-041399-0032	30528	3007920	C99116594	99268
06/04/99	SL-AF-041699-0035	30528	3007920	C99116595	99269
06/04/99	SL-AF-041699-0035	30528	3007920	C99116596	99270
06/04/99	SL-AF-041699-0035	30528	3007920	C99116597	99271
06/07/99	SL-AF-041699-0036	30528	3007920	C99116598	99272
06/07/99	SL-AF-041699-0036	30528	3007953	C99116658	99285
06/07/99	SL-AF-041699-0036	30528	3007953	C99116659	99286
06/07/99	SL-AF-041699-0036	30528	3007953	C99116660	99287
06/07/99	SL-AF-041699-0036	30528	3007953	C99116661	99288
06/07/99	SL-AF-041699-0036	30528	3007953	C99116662	99289
06/08/99	SL-AF-042399-0039	30528	3007953	C99116663	99290
06/08/99	SL-AF-042399-0039	30528	3007953	C99116664	99291
06/08/99	SL-AF-042399-0039	30528	3007953	C99116665	99292
06/08/99	SL-AF-042399-0039	30528	3007953	C99116666	99293
06/08/99	SL-AF-042399-0039	30528	3007953	C99116667	99294
06/08/99	SL-AF-042399-0039	30528	3007953	C99116668	99295

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
06/09/99	SL-AF-050399-0040	30528	3007953	C99116669	99296
06/09/99	SL-AF-050399-0040	30528	3007953	C99116670	99297
06/09/99	SL-AF-050399-0040	30528	3007953	C99116671	99298
06/09/99	SL-AF-041299-0030	30528	3007953	C99116672	99299
06/09/99	SL-AF-041299-0031	30528	3007953	C99116673	99300
06/09/99	SL-AF-041299-0030	30528	3007953	C99116674	99301
06/10/99	SL-AF-050399-0040	30528	3007953	C99116675	99302
06/10/99	SL-AF-050399-0040	30528	3007953	C99116676	99303
06/10/99	SL-AF-050399-0040	30528	3007953	C99116677	99304
06/10/99	SL-AF-050399-0041	30528	3007953	C99116678	99305
06/10/99	SL-AF-050399-0041	30528	3007953	C99116679	99306
06/10/99	SL-AF-050399-0041	30528	3007953	C99116680	99307
06/11/99	SL-AF-050399-0041	30528	3007953	C99116681	99308
06/11/99	SL-AF-050399-0041	30528	3007953	C99116682	99309
06/11/99	SL-AF-050399-0041	30528	3007953	C99116683	99310
06/11/99	SL-AF-050599-0043	30528	3007953	C99116684	99311
06/11/99	SL-AF-050599-0043	30528	3007953	C99116685	99312
06/11/99	SL-AF-050599-0043	30528	3007953	C99116686	99313
06/14/99	SL-AF-050599-0043	30528	3007953	C99116687	99314
06/14/99	SL-AF-050599-0043	30528	3007953	C99116688	99315
06/14/99	SL-AF-050599-0043	30528	3007953	C99116689	99316
06/14/99	SL-AF-050399-0041	30528	3007953	C99116690	99317
06/14/99	SL-AF-050599-0043	30528	3007953	C99116691	99318
06/14/99	SL-AF-050399-0040	30528	3007953	C99116692	99319
11/28/00	SL-B-090700-1301	31494	3011159	C00132431	2188292
11/28/00	SL-B-090700-1301	31494	3011159	C00132432	2188293
11/28/00	SL-B-090700-1301	31494	3011159	C00132433	2188294
11/28/00	SL-B-090700-1301	31494	3011159	C00132434	2188295
11/28/00	SL-B-090700-1301	31494	3011159	C00132435	2188296
11/28/00	SL-B-090700-1301	31494	3011159	C00132436	2188297
11/28/00	SL-B-082100-1258	31494	3011159	C00132437	2188298
11/28/00	SL-B-082100-1258	31494	3011159	C00132438	2188299
11/28/00	SL-B-082100-1258	31494	3011159	C00132439	2188300
11/28/00	SL-B-082100-1258	31494	3011159	C00132440	2188301

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
11/28/00	SL-B-082100-1258	31494	3011159	C00132441	2188302
11/28/00	SL-B-082100-1258	31494	3011159	C00132442	2188303
11/28/00	SL-B-082100-1258	31494	3011159	C00132443	2188304
11/28/00	SL-B-082100-1258	31494	3011159	C00132444	2188305
11/28/00	SL-B-082100-1258	31494	3011159	C00132445	2188306
11/28/00	SL-B-080300-1244	31494	3011159	C00132446	2188307
11/28/00	SL-B-080300-1244	31494	3011159	C00132447	2188308
11/29/00	SL-B-080300-1244	31494	3011159	C00132448	2188309
11/29/00	SL-B-080300-1244	31494	3011159	C00132449	2188310
11/29/00	SL-B-080300-1244	31494	3011159	C00132450	2188311
11/29/00	SL-B-080300-1244	31494	3011159	C00132451	2188312
11/29/00	SL-B-080300-1244	31494	3011159	C00132452	2188313
11/29/00	SL-B-080300-1244	31494	3011159	C00132453	2188314
11/29/00	SL-B-080300-1244	31494	3011159	C00132454	2188315
11/29/00	SL-B-080300-1244	31494	3011159	C00132455	2188316
11/29/00	SL-B-080300-1244	31494	3011159	C00132456	2188317
11/29/00	SL-B-080700-1247	31494	3011159	C00132457	2188318
11/29/00	SL-B-080700-1247	31494	3011159	C00132458	2188319
11/29/00	SL-B-080700-1247	31494	3011159	C00132459	2188320
11/29/00	SL-B-080700-1247	31494	3011159	C00132460	2188321
11/29/00	SL-B-080700-1247	31494	3011159	C00132461	2188322
11/29/00	SL-B-080700-1247	31494	3011159	C00132462	2188323
11/29/00	SL-B-080700-1247	31494	3011159	C00132463	2188324
11/29/00	SL-B-080700-1247	31494	3011159	C00132464	2188325
11/29/00	SL-B-082900-1279	31494	3011159	C00132465	2188326
11/29/00	SL-B-082900-1279	31494	3011159	C00132466	2188327
11/29/00	SL-AF-101299-0137	31494	3011159	C00132467	2188328
11/29/00	SL-AF-101299-0137	31494	3011159	C00132468	2188329
11/30/00	SL-B-082900-1279	31494	3011159	C00132469	2188330
11/30/00	SL-B-082900-1279	31494	3011159	C00132470	2188331
11/30/00	SL-B-082900-1279	31494	3011159	C00132471	2188332
11/30/00	SL-B-082900-1280	31494	3011159	C00132472	2188333
11/30/00	SL-B-082900-1280	31494	3011159	C00132473	2188334
11/30/00	SL-B-082900-1280	31494	3011159	C00132474	2188335

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
11/30/00	SL-B-082900-1280	31494	3011159	C00132475	2188336
11/30/00	SL-B-082900-1280	31494	3011159	C00132476	2188337
11/30/00	SL-B-083000-1284	31494	3011159	C00132477	2188338
11/30/00	SL-B-083000-1284	31494	3011159	C00132478	2188339
11/30/00	SL-AF-101299-0137	31494	3011159	C00132479	2188340
11/30/00	SL-AF-101299-0137	31494	3011159	C00132480	2188341
11/30/00	SL-AF-101299-0138	31494	3011159	C00132481	2188342
11/30/00	SL-AF-101299-0138	31494	3011159	C00132482	2188343
11/30/00	SL-B-083000-1284	31494	3011159	C00132483	2188344
11/30/00	SL-B-083000-1284	31494	3011159	C00132484	2188345
11/30/00	SL-B-083000-1284	31494	3011159	C00132485	2188346
11/30/00	SL-B-090500-1289	31494	3011159	C00132486	2188347
11/30/00	SL-B-090500-1289	31494	3011159	C00132487	2188348
11/30/00	SL-B-090500-1289	31494	3011159	C00132488	2188349
11/30/00	SL-B-090500-1289	31494	3011159	C00132489	2188350
11/30/00	SL-B-090500-1289	31494	3011159	C00132490	2188351
11/30/00	SL-B-090500-1289	31494	3011159	C00132491	2188352
12/01/00	SL-B-090500-1290	31494	3011159	C00132492	2188353
12/01/00	SL-B-090500-1290	31494	3011159	C00132493	2188354
12/01/00	SL-B-090500-1290	31494	3011159	C00132494	2188355
12/01/00	SL-B-090500-1290	31494	3011159	C00132495	2188356
12/01/00	SL-B-090500-1290	31494	3011159	C00132496	2188357
12/01/00	SL-B-090500-1290	31494	3011159	C00132497	2188358
12/01/00	SL-B-090500-1290	31494	3011159	C00132498	2188359
12/01/00	SL-B-090500-1290	31494	3011159	C00132499	2188360
12/01/00	SL-B-090500-1290	31494	3011159	C00132500	2188361
12/05/00	SL-B-090500-1290	31494	3011159	C00132501	2188362
11/30/00	SL-AF-101299-0138	31494	3011159	C00132502	2188363
11/30/00	SL-AF-101299-0138	31494	3011159	C00132503	2188364
12/01/00	SL-AF-101299-0138	31494	3011159	C00132504	2188365
12/01/00	SL-AF-102699-0151	31494	3011159	C00132505	2188366
12/01/00	SL-AF-102699-0151	31494	3011159	C00132506	2188367
12/01/00	SL-AF-102699-0151	31494	3011159	C00132507	2188368
12/05/00	SL-B-090500-1290	31494	3011159	C00132508	2188369

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
12/05/00	SL-B-090500-1290	31494	3011159	C00132509	2188370
12/05/00	SL-B-090500-1290	31494	3011159	C00132510	2188371
12/12/00	SL-B-091200-1309	31494	3011264	C00133110	2188952
12/12/00	SL-B-091200-1309	31494	3011264	C00133111	2188953
12/12/00	SL-B-091200-1309	31494	3011264	C00133112	2188954
12/12/00	SL-B-091200-1309	31494	3011264	C00133113	2188955
12/12/00	SL-B-091200-1309	31494	3011264	C00133114	2188956
12/12/00	SL-B-091200-1309	31494	3011264	C00133115	2188957
12/12/00	SL-B-091200-1310	31494	3011264	C00133116	2188958
12/12/00	SL-B-091200-1310	31494	3011264	C00133117	2188959
12/12/00	SL-B-091200-1310	31494	3011264	C00133118	2188960
12/12/00	SL-B-091200-1310	31494	3011264	C00133119	2188961
12/12/00	SL-B-091200-1310	31494	3011264	C00133120	2188962
12/12/00	SL-B-091300-1311	31494	3011264	C00133121	2188963
12/12/00	SL-B-091300-1311	31494	3011264	C00133122	2188964
12/12/00	SL-B-091300-1311	31494	3011264	C00133123	2188965
12/12/00	SL-B-091300-1311	31494	3011264	C00133124	2188966
12/13/00	SL-B-091300-1311	31494	3011264	C00133125	2188967
12/13/00	SL-B-090700-1298	31494	3011264	C00133126	2188968
12/13/00	SL-B-090700-1298	31494	3011264	C00133127	2188969
12/13/00	SL-B-090700-1298	31494	3011264	C00133128	2188970
12/13/00	SL-B-090700-1298	31494	3011264	C00133129	2188971
12/13/00	SL-B-090700-1298	31494	3011264	C00133130	2188972
12/14/00	SL-B-090700-1297	31494	3011264	C00133131	2188973
12/14/00	SL-B-090700-1297	31494	3011264	C00133132	2188974
12/14/00	SL-B-090700-1297	31494	3011264	C00133133	2188975
12/14/00	SL-B-090700-1297	31494	3011264	C00133134	2188976
12/14/00	SL-B-090700-1297	31494	3011264	C00133135	2188977
12/14/00	SL-B-090700-1297	31494	3011264	C00133136	2188978
12/14/00	SL-B-090700-1297	31494	3011264	C00133137	2188979
12/14/00	SL-B-090700-1297	31494	3011264	C00133138	2188980
12/14/00	SL-B-090700-1297	31494	3011264	C00133139	2188981
12/14/00	SL-B-090700-1297	31494	3011264	C00133140	2188982
12/14/00	SL-B-090700-1297	31494	3011264	C00133141	2188983

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
12/14/00	SL-B-090700-1297	31494	3011264	C00133142	2188984
12/19/00	SL-AF-102699-0151	31494	3011264	C00133143	2188985
12/19/00	SL-AF-101299-0138	31494	3011264	C00133144	2188986
12/20/00	SL-AF-101299-0137	31494	3011264	C00133145	2188987
12/19/00	SL-B-091200-1308	31494	3011264	C00133146	2188988
12/19/00	SL-B-091200-1308	31494	3011264	C00133147	2188989
12/19/00	SL-B-091200-1308	31494	3011264	C00133148	2188999
12/19/00	SL-B-091200-1308	31494	3011264	C00133149	2189000
12/19/00	SL-B-091200-1308	31494	3011264	C00133150	2189001
12/19/00	SL-B-091200-1308	31494	3011264	C00133151	2189002
12/19/00	SL-B-091200-1307	31494	3011264	C00133152	2189003
12/19/00	SL-B-091200-1307	31494	3011264	C00133153	2189004
12/19/00	SL-B-091200-1307	31494	3011264	C00133154	2189005
12/19/00	SL-B-091200-1307	31494	3011264	C00133155	2189006
12/19/00	SL-B-091200-1307	31494	3011264	C00133156	2189007
12/19/00	SL-B-091200-1307	31494	3011264	C00133157	2189008
12/20/00	SL-B-091300-1313	31494	3011264	C00133158	2189009
12/20/00	SL-B-091300-1313	31494	3011264	C00133159	2189010
12/20/00	SL-B-091300-1313	31494	3011264	C00133160	2189011
12/20/00	SL-B-091300-1313	31494	3011264	C00133161	2189012
12/20/00	SL-B-091300-1313	31494	3011264	C00133162	2189013
12/20/00	SL-B-091300-1313	31494	3011264	C00133163	2189014
12/20/00	SL-B-091300-1313	31494	3011264	C00133164	2189015
12/20/00	SL-B-090700-1295	31494	3011264	C00133165	2189016
12/20/00	SL-B-090700-1295	31494	3011264	C00133166	2189017
12/20/00	SL-B-091200-1308	31494	3011264	C00133167	2189018
12/20/00	SL-B-091200-1308	31494	3011264	C00133168	2189019
12/20/00	SL-B-091200-1308	31494	3011264	C00133169	2189020
12/20/00	SL-AF-101299-0137	31494	3011264	C00133170	2189021
12/20/00	SL-B-090700-1295	31494	3011264	C00133171	2189022
12/20/00	SL-AF-101299-0137	31494	3011264	C00133172	2189023
12/20/00	SL-B-090700-1295	31494	3011264	C00133173	2189024
12/20/00	SL-B-090700-1295	31494	3011264	C00133174	2189025
01/08/01	SL-AF-101299-0137	31494	3011264	C00133175	2189026

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
01/08/01	SL-AF-101299-0137	31494	3011264	C00133176	2189027
01/08/01	SL-AF-101299-0137	31494	3011264	C00133177	2189028
01/08/01	SL-AF-101299-0137	31494	3011264	C00133178	2189029
01/11/01	SL-B-092100-1317	31494	3011264	C00133179	2189030
01/11/01	SL-B-092100-1317	31494	3011264	C00133180	2189031
01/11/01	SL-B-092100-1317	31494	3011264	C00133181	2188990
01/11/01	SL-B-092100-1317	31494	3011264	C00133182	2188991
01/11/01	SL-B-092100-1317	31494	3011264	C00133183	2188992
01/11/01	SL-B-092100-1317	31494	3011264	C00133184	2188993
01/11/01	SL-AF-101299-0137	31494	3011264	C00133185	2188994
01/11/01	SL-AF-101299-0137	31494	3011264	C00133186	2188995
01/11/01	SL-AF-101299-0137	31494	3011264	C00133187	2188996
01/11/01	SL-B-092100-1318	31494	3011264	C00133188	2188997
01/11/01	SL-B-092100-1318	31494	3011264	C00133189	2188998
01/09/01	SL-AF-101299-0137	31494	3011361	C00133821	2189138
01/09/01	SL-AF-101299-0137	31494	3011361	C00133822	2189139
01/09/01	SL-AF-101299-0137	31494	3011361	C00133823	2189140
01/09/01	SL-AF-101299-0137	31494	3011361	C00133824	2189141
01/09/01	SL-AF-101299-0137	31494	3011361	C00133825	2189142
01/09/01	SL-AF-101299-0137	31494	3011361	C00133826	2189143
01/09/01	SL-AF-101299-0137	31494	3011361	C00133827	2189144
01/09/01	SL-AF-101299-0137	31494	3011361	C00133828	2189145
01/09/01	SL-AF-101299-0137	31494	3011361	C00133829	2189146
01/09/01	SL-AF-101299-0137	31494	3011361	C00133830	2189147
01/09/01	SL-AF-101299-0137	31494	3011361	C00133831	2189148
01/09/01	SL-AF-101299-0137	31494	3011361	C00133832	2189149
01/09/01	SL-AF-101299-0137	31494	3011361	C00133833	2189150
01/09/01	SL-AF-101299-0137	31494	3011361	C00133834	2189151
01/09/01	SL-AF-101299-0137	31494	3011361	C00133835	2189152
01/09/01	SL-AF-101299-0137	31494	3011361	C00133836	2189153
01/11/01	SL-B-092100-1318	31494	3011361	C00133837	2189154
01/11/01	SL-AF-101299-0137	31494	3011361	C00133838	2189155
01/11/01	SL-AF-101299-0137	31494	3011361	C00133839	2189156
01/11/01	SL-AF-101299-0137	31494	3011361	C00133840	2189157

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
01/11/01	SL-B-092100-1318	31494	3011361	C00133841	2189158
01/16/01	SL-B-092200-1319	31494	3011361	C00133842	2189159
01/16/01	SL-B-092200-1319	31494	3011361	C00133843	2189160
01/16/01	SL-B-092200-1319	31494	3011361	C00133844	2189161
01/16/01	SL-B-092200-1319	31494	3011361	C00133845	2189162
01/16/01	SL-B-092200-1319	31494	3011361	C00133846	2189163
01/16/01	SL-B-092200-1320	31494	3011361	C00133847	2189164
01/16/01	SL-B-092200-1320	31494	3011361	C00133848	2189165
01/16/01	SL-B-092200-1320	31494	3011361	C00133849	2189166
01/16/01	SL-B-092200-1320	31494	3011361	C00133850	2189167
01/16/01	SL-B-092200-1320	31494	3011361	C00133851	2189168
01/18/01	SL-B-092500-1321	31494	3011361	C00133852	2189169
01/18/01	SL-B-092500-1321	31494	3011361	C00133853	2189170
01/18/01	SL-B-092500-1321	31494	3011361	C00133854	2189171
01/18/01	SL-B-092500-1321	31494	3011361	C00133855	2189172
01/18/01	SL-B-092500-1321	31494	3011361	C00133856	2189173
01/18/01	SL-B-092600-1322	31494	3011361	C00133857	2189174
01/18/01	SL-B-092600-1322	31494	3011361	C00133858	2189175
01/18/01	SL-B-092600-1322	31494	3011361	C00133859	2189176
01/18/01	SL-B-092600-1322	31494	3011361	C00133860	2189177
01/18/01	SL-B-092600-1322	31494	3011361	C00133861	2189178
01/18/01	SL-B-092600-1323	31494	3011361	C00133862	2189179
01/18/01	SL-B-092600-1323	31494	3011361	C00133863	2189180
01/18/01	SL-B-092600-1323	31494	3011361	C00133864	2189181
01/18/01	SL-B-092600-1323	31494	3011361	C00133865	2189182
01/18/01	SL-B-092600-1323	31494	3011361	C00133866	2189183
01/18/01	SL-B-092600-1324	31494	3011361	C00133867	2189184
01/18/01	SL-B-092600-1324	31494	3011361	C00133868	2189185
01/18/01	SL-B-092600-1324	31494	3011361	C00133869	2189186
01/18/01	SL-B-092600-1324	31494	3011361	C00133870	2189187
01/18/01	SL-B-092600-1324	31494	3011361	C00133871	2189188
01/22/01	SL-B-092600-1325	31494	3011361	C00133872	2189189
01/22/01	SL-B-092600-1325	31494	3011361	C00133873	2189190
01/22/01	SL-B-092600-1325	31494	3011361	C00133874	2189191

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
01/22/01	SL-B-092600-1325	31494	3011361	C00133875	2189192
01/22/01	SL-B-092600-1325	31494	3011361	C00133876	2189193
01/22/01	SL-B-100300-1338	31494	3011361	C00133877	2189194
01/22/01	SL-B-100300-1338	31494	3011361	C00133878	2189195
01/22/01	SL-B-100300-1338	31494	3011361	C00133879	2189196
01/22/01	SL-B-100300-1338	31494	3011361	C00133880	2189197
01/22/01	SL-B-100300-1338	31494	3011361	C00133881	2189198
01/22/01	SL-B-091200-1305	31494	3011361	C00133882	2189199
01/22/01	SL-B-091200-1305	31494	3011361	C00133883	2189200
01/22/01	SL-B-091200-1305	31494	3011361	C00133884	2189201
01/22/01	SL-B-091200-1305	31494	3011361	C00133885	2189202
01/22/01	SL-B-091200-1305	31494	3011361	C00133886	2189203
01/22/01	SL-B-091200-1306	31494	3011361	C00133887	2189204
01/22/01	SL-B-091200-1306	31494	3011361	C00133888	2189205
01/22/01	SL-B-091200-1306	31494	3011361	C00133889	2189206
01/22/01	SL-B-091200-1306	31494	3011361	C00133890	2189207
01/22/01	SL-B-091200-1306	31494	3011361	C00133891	2189208
01/23/01	SL-B-100300-1339	31494	3011361	C00133892	2189209
01/23/01	SL-B-100300-1339	31494	3011361	C00133893	2189210
01/23/01	SL-B-100300-1339	31494	3011361	C00133894	2189211
01/23/01	SL-B-100300-1339	31494	3011361	C00133895	2189212
01/23/01	SL-B-100300-1339	31494	3011361	C00133896	2189213
01/23/01	SL-B-100400-1341	31494	3011361	C00133897	2189214
01/23/01	SL-B-100400-1341	31494	3011361	C00133898	2189215
01/23/01	SL-B-100400-1341	31494	3011361	C00133899	2189216
01/23/01	SL-B-100400-1341	31494	3011361	C00133900	2189217
01/23/01	SL-B-100400-1341	31494	3011361	C00133901	2189218
01/23/01	SL-B-100400-1342	31494	3011361	C00133902	2189219
01/23/01	SL-B-100400-1342	31494	3011361	C00133903	2189220
01/23/01	SL-B-100400-1342	31494	3011361	C00133904	2189221
01/23/01	SL-B-100400-1342	31494	3011361	C00133905	2189222
01/23/01	SL-B-100400-1342	31494	3011361	C00133906	2189223
01/23/01	SL-B-100400-1343	31494	3011361	C00133907	2189224
01/23/01	SL-B-100400-1343	31494	3011361	C00133908	2189225

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
01/23/01	SL-B-100400-1343	31494	3011361	C00133909	2189226
01/23/01	SL-B-100400-1343	31494	3011361	C00133910	2189227
01/23/01	SL-B-100400-1343	31494	3011361	C00133911	2189228
01/23/01	SL-AF-101299-0137	31494	3011361	C00133912	2189229
01/23/01	SL-AF-101299-0137	31494	3011361	C00133913	2189230
01/23/01	SL-B-100400-1343	31494	3011361	C00133914	2189231
01/23/01	SL-B-100400-1343	31494	3011361	C00133915	2189232
01/24/01	SL-B-100400-1344	31494	3011361	C00133916	2189233
01/24/01	SL-B-100400-1344	31494	3011361	C00133917	2189234
01/24/01	SL-B-100400-1344	31494	3011361	C00133918	2189235
01/24/01	SL-B-100400-1344	31494	3011361	C00133919	2189236
01/24/01	SL-B-100500-1347	31494	3011361	C00133920	2189237
01/24/01	SL-B-100500-1347	31494	3011361	C00133921	2189238
01/24/01	SL-B-100500-1347	31494	3011361	C00133922	2189239
01/24/01	SL-B-100500-1347	31494	3011361	C00133923	2189240
01/24/01	SL-B-092900-1330	31494	3011361	C00133924	2189241
01/24/01	SL-B-092900-1330	31494	3011361	C00133925	2189242
01/24/01	SL-B-092900-1330	31494	3011361	C00133926	2189243
01/24/01	SL-B-092900-1330	31494	3011361	C00133927	2189244
01/24/01	SL-B-100200-1331	31494	3011361	C00133928	2189245
01/24/01	SL-B-100200-1331	31494	3011361	C00133929	2189246
01/24/01	SL-B-100200-1331	31494	3011361	C00133930	2189247
01/24/01	SL-B-100200-1331	31494	3011361	C00133931	2189248
01/26/01	SL-B-092900-1329	31494	3011361	C00133932	2189249
01/26/01	SL-B-092900-1329	31494	3011475	C01134821	2191153
01/26/01	SL-B-092900-1329	31494	3011475	C01134822	2191154
01/26/01	SL-B-092900-1329	31494	3011475	C01134823	2191155
01/26/01	SL-B-092900-1329	31494	3011475	C01134824	2191156
01/26/01	SL-B-092900-1328	31494	3011475	C01134825	2191157
01/26/01	SL-B-092900-1328	31494	3011475	C01134826	2191158
01/26/01	SL-B-092900-1328	31494	3011475	C01134827	2191159
01/26/01	SL-B-092900-1328	31494	3011475	C01134828	2191160
01/26/01	SL-B-092900-1328	31494	3011475	C01134829	2191161
01/30/01	SL-B-092800-1326	31494	3011475	C01134830	2191162

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number		LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
01/30/01	SL-B-092800-	1326	31494	3011475	C01134831	2191163
01/30/01	SL-B-092800-	1326	31494	3011475	C01134832	2191164
01/30/01	SL-B-092800-	1326	31494	3011475	C01134833	2191165
01/30/01	SL-B-092800-	1326	31494	3011475	C01134834	2191166
01/30/01	SL-B-092800-	1326	31494	3011475	C01134835	2191167
01/30/01	SL-B-092800-	1327	31494	3011475	C01134836	2191168
01/30/01	SL-B-092800-	1327	31494	3011475	C01134837	2191169
01/30/01	SL-B-092800-	1327	31494	3011475	C01134838	2191170
01/30/01	SL-B-092800-	1327	31494	3011475	C01134839	2191171
01/30/01	SL-B-092800-	1327	31494	3011475	C01134840	2191172
01/30/01	SL-B-092800-	1327	31494	3011475	C01134841	2191173
02/01/01	SL-B-103100-	1353	31494	3011475	C01134842	2191174
02/01/01	SL-B-103100-	1353	31494	3011475	C01134843	2191175
02/01/01	SL-B-103100-	1353	31494	3011475	C01134844	2191176
02/01/01	SL-B-103100-	1353	31494	3011475	C01134845	2191177
02/01/01	SL-B-103100-	1353	31494	3011475	C01134846	2191178
02/01/01	SL-B-103100-	1352	31494	3011475	C01134847	2191179
02/01/01	SL-B-103100-	1352	31494	3011475	C01134848	2191180
02/01/01	SL-B-103100-	1352	31494	3011475	C01134849	2191181
02/01/01	SL-B-103100-	1352	31494	3011475	C01134850	2191182
02/02/01	SL-B-103100-	1352	31494	3011475	C01134851	2191183
02/02/01	SL-B-103000-	1351	31494	3011475	C01134852	2191184
02/02/01	SL-B-103000-	1351	31494	3011475	C01134853	2191185
02/02/01	SL-B-103000-	1351	31494	3011475	C01134854	2191186
02/02/01	SL-B-103000-	1351	31494	3011475	C01134855	2191187
02/02/01	SL-B-103000-	1351	31494	3011475	C01134856	2191188
02/02/01	SL-B-103100-	1354	31494	3011475	C01134857	2191189
02/02/01	SL-B-103100-	1354	31494	3011475	C01134858	2191190
02/02/01	SL-B-103100-	1354	31494	3011475	C01134859	2191191
02/02/01	SL-B-103100-	1354	31494	3011475	C01134860	2191192
02/02/01	SL-B-103100-	1354	31494	3011475	C01134861	2191193
02/02/01	SL-B-103100-	1355	31494	3011475	C01134862	2191194
02/02/01	SL-B-103100-	1355	31494	3011475	C01134863	2191195
02/02/01	SL-B-103100-	1355	31494	3011475	C01134864	2191196

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
02/02/01	SL-B-103100-1355	31494	3011475	C01134865	2191197
02/02/01	SL-B-103100-1355	31494	3011475	C01134866	2191198
02/02/01	SL-B-110200-1358	31494	3011475	C01134867	2191199
02/02/01	SL-B-110200-1358	31494	3011475	C01134868	2191200
02/02/01	SL-B-110200-1358	31494	3011475	C01134869	2191201
02/02/01	SL-B-110200-1358	31494	3011475	C01134870	2191202
02/02/01	SL-B-110200-1358	31494	3011475	C01134871	2191203
02/02/01	SL-B-110200-1358	31494	3011475	C01134872	2191204
02/05/01	SL-B-110100-1356	31494	3011475	C01134873	2191205
02/05/01	SL-B-110100-1356	31494	3011475	C01134874	2191206
02/05/01	SL-B-110100-1356	31494	3011475	C01134875	2191207
02/05/01	SL-B-110100-1356	31494	3011475	C01134876	2191208
02/05/01	SL-B-110100-1356	31494	3011475	C01134877	2191209
02/05/01	SL-B-110100-1356	31494	3011475	C01134878	2191210
02/05/01	SL-B-110100-1356	31494	3011475	C01134879	2191211
02/05/01	SL-B-110100-1356	31494	3011475	C01134880	2191212
02/05/01	SL-B-110100-1356	31494	3011475	C01134881	2191213
02/05/01	SL-B-110100-1356	31494	3011475	C01134882	2191214
02/05/01	SL-B-110100-1357	31494	3011475	C01134883	2191215
02/05/01	SL-B-110100-1357	31494	3011475	C01134884	2191216
02/05/01	SL-B-110100-1357	31494	3011475	C01134885	2191217
02/05/01	SL-B-110100-1357	31494	3011475	C01134886	2191218
02/05/01	SL-B-110100-1357	31494	3011475	C01134887	2191219
02/05/01	SL-B-110100-1357	31494	3011475	C01134888	2191220
02/05/01	SL-B-110100-1357	31494	3011475	C01134889	2191221
02/05/01	SL-B-110100-1357	31494	3011475	C01134890	2191222
02/05/01	SL-B-110100-1357	31494	3011475	C01134891	2191223
02/05/01	SL-B-110100-1357	31494	3011475	C01134892	2191224
02/06/01	SL-B-103000-1351	31494	3011475	C01134893	2191225
02/06/01	SL-B-103000-1351	31494	3011475	C01134894	2191226
02/06/01	SL-B-103000-1351	31494	3011475	C01134895	2191227
02/06/01	SL-B-103000-1351	31494	3011475	C01134896	2191228
02/06/01	SL-B-103000-1351	31494	3011475	C01134897	2191229
02/06/01	SL-B-103000-1355	31494	3011475	C01134898	2191230

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
02/06/01	SL-B-103000-1355	31494	3011475	C01134899	2191231
02/06/01	SL-B-103000-1355	31494	3011475	C01134900	2191232
02/06/01	SL-B-103000-1355	31494	3011475	C01134901	2191233
02/06/01	SL-B-103000-1355	31494	3011475	C01134902	2191234
02/06/01	SL-B-110800-1365	31494	3011475	C01134903	2191235
02/06/01	SL-B-110800-1365	31494	3011475	C01134904	2191236
02/06/01	SL-B-110800-1365	31494	3011475	C01134905	2191237
02/06/01	SL-B-110800-1365	31494	3011475	C01134906	2191238
02/06/01	SL-B-110800-1365	31494	3011475	C01134907	2191239
02/06/01	SL-AF-101299-0137	31494	3011475	C01134908	2191240
02/06/01	SL-AF-101299-0137	31494	3011475	C01134909	2191241
02/06/01	SL-AF-101299-0137	31494	3011475	C01134910	2191242
02/06/01	SL-AF-101299-0137	31494	3011475	C01134911	2191243
02/06/01	SL-AF-101299-0137	31494	3011475	C01134912	2191244
02/07/01	SL-B-110900-1369	31494	3011475	C01134913	2191245
02/07/01	SL-B-110900-1369	31494	3011475	C01134914	2191246
02/07/01	SL-B-110900-1369	31494	3011475	C01134915	2191247
02/07/01	SL-B-110900-1369	31494	3011475	C01134916	2191248
02/07/01	SL-B-110900-1369	31494	3011475	C01134917	2191249
02/07/01	SL-B-110900-1370	31494	3011475	C01134918	2191250
02/07/01	SL-B-110900-1370	31494	3011475	C01134919	2191251
02/07/01	SL-B-110900-1370	31494	3011475	C01134920	2191252
02/07/01	SL-B-110900-1370	31494	3011475	C01134921	2191253
02/07/01	SL-B-110900-1370	31494	3011475	C01134922	2191254
02/07/01	SL-B-110200-1361	31494	3011475	C01134923	2191255
02/07/01	SL-B-110200-1361	31494	3011475	C01134924	2191256
02/07/01	SL-B-110200-1361	31494	3011475	C01134925	2191257
02/07/01	SL-B-110200-1361	31494	3011475	C01134926	2191258
02/07/01	SL-B-110200-1361	31494	3011475	C01134927	2191259
02/07/01	SL-B-110200-1361	31494	3011475	C01134928	2191260
02/07/01	SL-AF-101299-0137	31494	3011475	C01134929	2191261
02/07/01	SL-AF-101299-0137	31494	3011475	C01134930	2191262
02/07/01	SL-AF-101299-0137	31494	3011475	C01134931	2191263
02/07/01	SL-AF-101299-0137	31494	3011475	C01134932	2191264

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
02/07/01	SL-AF-101299-0137	31494	3011475	C01134933	2191265
02/07/01	SL-B-110200-1361	31494	3011475	C01134934	2191266
02/08/01	SL-B-110200-1360	31494	3011475	C01134935	2191267
02/08/01	SL-B-110200-1360	31494	3011475	C01134936	2191268
02/08/01	SL-B-110200-1360	31494	3011475	C01134937	2191269
02/08/01	SL-B-110200-1360	31494	3011475	C01134938	2191270
02/08/01	SL-B-110200-1360	31494	3011475	C01134939	2191271
02/08/01	SL-B-110200-1360	31494	3011475	C01134940	2191272
02/08/01	SL-B-110200-1360	31494	3011475	C01134941	2191273
02/08/01	SL-B-110200-1360	31494	3011475	C01134942	2191274
02/08/01	SL-B-110200-1360	31494	3011475	C01134943	2191275
02/08/01	SL-B-110200-1360	31494	3011475	C01134944	2191276
02/08/01	SL-B-100200-1334	31494	3011475	C01134945	2191278
02/08/01	SL-B-100200-1334	31494	3011475	C01134946	2191279
02/08/01	SL-B-100200-1334	31494	3011475	C01134947	2191280
02/08/01	SL-B-100200-1334	31494	3011475	C01134948	2191281
02/08/01	SL-B-100200-1334	31494	3011475	C01134949	2191282
02/08/01	SL-B-100200-1334	31494	3011475	C01134950	2191283
02/08/01	SL-B-100200-1334	31494	3011475	C01134951	2191284
02/08/01	SL-B-100200-1334	31494	3011475	C01134952	2191285
02/08/01	SL-B-100200-1334	31494	3011475	C01134953	2191286
02/09/01	SL-B-100200-1334	31494	3011475	C01134954	2191287
02/09/01	SL-B-102000-1335	31494	3011475	C01134955	2191288
02/09/01	SL-B-102000-1335	31494	3011475	C01134956	2191289
02/09/01	SL-B-102000-1335	31494	3011475	C01134957	2191290
02/09/01	SL-B-102000-1335	31494	3011475	C01134958	2191291
02/09/01	SL-B-102000-1335	31494	3011475	C01134959	2191292
02/09/01	SL-B-102000-1336	31494	3011475	C01134960	2191293
02/09/01	SL-B-102000-1335	31494	3011475	C01134961	2191294
02/09/01	SL-B-102000-1335	31494	3011475	C01134962	2191295
02/09/01	SL-B-102000-1336	31494	3011475	C01134963	2191296
02/09/01	SL-B-102000-1336	31494	3011475	C01134964	2191297
02/09/01	SL-B-102000-1336	31494	3011475	C01134965	2191298
02/12/01	SL-AF-101299-0137	31494	3011475	C01134966	2191299

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
02/12/01	SL-AF-101299-0137	31494	3011475	C01134967	2191300
02/12/01	SL-AF-101299-0137	31494	3011475	C01134968	2191301
02/12/01	SL-AF-101299-0137	31494	3011475	C01134969	2191302
02/12/01	SL-AF-101299-0137	31494	3011475	C01134970	2191303
02/12/01	SL-AF-101299-0137	31494	3011475	C01134971	2191304
02/12/01	SL-AF-101299-0137	31494	3011475	C01134972	2191305
02/12/01	SL-AF-101299-0137	31494	3011475	C01134973	2191306
02/12/01	SL-AF-101299-0137	31494	3011475	C01134974	2191307
02/12/01	SL-AF-101299-0137	31494	3011475	C01134975	2191308
02/12/01	SL-AF-101299-0137	31494	3011475	C01134976	2191309
02/13/01	SL-B-100300-1337	31494	3011475	C01134977	2191310
02/13/01	SL-B-100300-1337	31494	3011475	C01134978	2191312
02/13/01	SL-B-100300-1337	31494	3011475	C01134979	2191313
02/13/01	SL-B-100300-1337	31494	3011475	C01134980	2191314
02/13/01	SL-B-100300-1337	31494	3011475	C01134981	2191315
02/13/01	SL-B-100300-1337	31494	3011475	C01134982	2191316
02/13/01	SL-B-100300-1337	31494	3011475	C01134983	2191317
02/13/01	SL-B-100300-1337	31494	3011475	C01134984	2191318
02/13/01	SL-B-100300-1337	31494	3011475	C01134985	2191319
02/13/01	SL-B-100300-1337	31494	3011475	C01134986	2191320
02/13/01	SL-B-110200-1359	31494	3011475	C01134987	2191321
02/13/01	SL-B-110200-1359	31494	3011475	C01134988	2191322
02/13/01	SL-B-110200-1359	31494	3011475	C01134989	2191323
02/13/01	SL-B-110200-1359	31494	3011475	C01134990	2191324
02/13/01	SL-B-110200-1359	31494	3011475	C01134991	2191325
02/13/01	SL-B-110200-1359	31494	3011475	C01134992	2191326
02/13/01	SL-B-110200-1359	31494	3011475	C01134993	2191327
02/13/01	SL-B-110200-1359	31494	3011475	C01134994	2191328
02/13/01	SL-B-110200-1359	31494	3011475	C01134995	2191277
02/13/01	SL-B-110200-1359	31494	3011475	C01134996	2191311
03/06/01	SL-B-080800-1249	31494	3011509	C01135544	2191770
03/06/01	SL-B-080800-1249	31494	3011509	C01135545	2191771
03/06/01	SL-B-080800-1249	31494	3011509	C01135546	2191772
03/06/01	SL-B-080800-1249	31494	3011509	C01135547	2191773

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number		LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
03/06/01	SL-B-080800-	1249	31494	3011509	C01135548	2191774
03/06/01	SL-B-080800-	1249	31494	3011509	C01135549	2191775
03/06/01	SL-B-080800-	1249	31494	3011509	C01135550	2191776
03/06/01	SL-B-091500-	1314	31494	3011509	C01135551	2191777
03/06/01	SL-B-091500-	1314	31494	3011509	C01135552	2191778
03/06/01	SL-B-091500-	1314	31494	3011509	C01135553	2191779
03/06/01	SL-B-091500-	1314	31494	3011509	C01135554	2191780
03/06/01	SL-B-091500-	1314	31494	3011509	C01135555	2191781
03/06/01	SL-B-091500-	1314	31494	3011509	C01135556	2191782
03/06/01	SL-B-091500-	1314	31494	3011509	C01135557	2191783
03/06/01	SL-B-100200-	1332	31494	3011509	C01135558	2191784
03/06/01	SL-B-100200-	1332	31494	3011509	C01135559	2191785
03/06/01	SL-B-100200-	1332	31494	3011509	C01135560	2191786
03/06/01	SL-B-100200-	1332	31494	3011509	C01135561	2191787
03/06/01	SL-B-100200-	1332	31494	3011509	C01135562	2191788
03/06/01	SL-B-100200-	1332	31494	3011509	C01135563	2191789
03/07/01	SL-B-100500-	1345	31494	3011509	C01135564	2191790
03/07/01	SL-B-100500-	1345	31494	3011509	C01135565	2191791
03/07/01	SL-B-100500-	1345	31494	3011509	C01135566	2191792
03/07/01	SL-B-100500-	1345	31494	3011509	C01135567	2191793
03/07/01	SL-B-100500-	1345	31494	3011509	C01135568	2191794
03/07/01	SL-B-100500-	1345	31494	3011509	C01135569	2191795
03/07/01	SL-B-100500-	1345	31494	3011509	C01135570	2191796
03/07/01	SL-B-100500-	1345	31494	3011509	C01135571	2191797
03/07/01	SL-B-100500-	1345	31494	3011509	C01135572	2191798
03/07/01	SL-B-100500-	1345	31494	3011509	C01135573	2191799
03/07/01	SL-B-100500-	1346	31494	3011509	C01135574	2191800
03/07/01	SL-B-100500-	1346	31494	3011509	C01135575	2191801
03/07/01	SL-B-100500-	1346	31494	3011509	C01135576	2191802
03/07/01	SL-B-100500-	1346	31494	3011509	C01135577	2191803
03/07/01	SL-B-100500-	1346	31494	3011509	C01135578	2191804
03/07/01	SL-B-100500-	1346	31494	3011509	C01135579	2191805
03/07/01	SL-B-100500-	1346	31494	3011509	C01135580	2191806
03/07/01	SL-B-100500-	1346	31494	3011509	C01135581	2191807

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number		LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
03/07/01	SL-B-100500-	1346	31494	3011509	C01135582	2191808
03/07/01	SL-B-100500-	1346	31494	3011509	C01135583	2191809
03/08/01	SL-B-112800-	1392	31494	3011509	C01135584	2191810
03/08/01	SL-B-112800-	1392	31494	3011509	C01135585	2191811
03/08/01	SL-B-112800-	1392	31494	3011509	C01135587	2191813
03/08/01	SL-B-112800-	1392	31494	3011509	C01135588	2191814
03/08/01	SL-B-112800-	1392	31494	3011509	C01135589	2191815
03/08/01	SL-B-112800-	1392	31494	3011509	C01135590	2191816
03/08/01	SL-B-112800-	1393	31494	3011509	C01135591	2191817
03/08/01	SL-B-112800-	1393	31494	3011509	C01135592	2191818
03/08/01	SL-B-112800-	1393	31494	3011509	C01135593	2191819
03/08/01	SL-B-112800-	1393	31494	3011509	C01135594	2191820
03/09/01	SL-B-112800-	1393	31494	3011509	C01135595	2191821
03/09/01	SL-B-112800-	1393	31494	3011509	C01135596	2191822
03/09/01	SL-B-112800-	1393	31494	3011509	C01135597	2191823
03/09/01	SL-B-101600-	1350	31494	3011509	C01135598	2191824
03/09/01	SL-B-101600-	1350	31494	3011509	C01135599	2191825
03/09/01	SL-B-101600-	1350	31494	3011509	C01135600	2191826
03/09/01	SL-B-101600-	1350	31494	3011509	C01135601	2191827
03/09/01	SL-B-101600-	1350	31494	3011509	C01135602	2191828
03/09/01	SL-B-101600-	1350	31494	3011509	C01135603	2191829
03/09/01	SL-B-112800-	1392	31494	3011509	C01135604	2191830
03/09/01	SL-B-100600-	1349	31494	3011509	C01135605	2191831
03/09/01	SL-B-100600-	1349	31494	3011509	C01135606	2191832
03/09/01	SL-B-100600-	1349	31494	3011509	C01135607	2191833
03/09/01	SL-B-100600-	1349	31494	3011509	C01135608	2191834
03/09/01	SL-B-100600-	1349	31494	3011509	C01135609	2191835
03/09/01	SL-B-100600-	1348	31494	3011509	C01135610	2191836
03/09/01	SL-B-100600-	1348	31494	3011509	C01135611	2191837
03/09/01	SL-B-100600-	1348	31494	3011509	C01135612	2191838
03/09/01	SL-B-100600-	1348	31494	3011509	C01135613	2191839
03/09/01	SL-B-100600-	1348	31494	3011509	C01135614	2191840
03/12/01	SL-B-113000-	1397	31494	3011509	C01135615	2191841
03/12/01	SL-B-113000-	1397	31494	3011509	C01135616	2191842

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
03/12/01	SL-B-113000-1397	31494	3011509	C01135617	2191843
03/12/01	SL-B-113000-1397	31494	3011509	C01135618	2191844
03/12/01	SL-B-113000-1397	31494	3011509	C01135619	2191845
03/12/01	SL-B-113000-1397	31494	3011509	C01135620	2191846
03/12/01	SL-B-113000-1397	31494	3011509	C01135621	2191847
03/12/01	SL-B-113000-1397	31494	3011509	C01135622	2191848
03/12/01	SL-B-113000-1397	31494	3011509	C01135623	2191849
03/12/01	SL-B-113000-1397	31494	3011509	C01135624	2191850
03/12/01	SL-B-112900-1396	31494	3011509	C01135625	2191851
03/12/01	SL-B-112900-1396	31494	3011509	C01135626	2191852
03/12/01	SL-B-112900-1396	31494	3011509	C01135627	2191853
03/12/01	SL-B-112900-1396	31494	3011509	C01135628	2191854
03/12/01	SL-B-112900-1396	31494	3011509	C01135629	2191855
03/12/01	SL-B-112900-1396	31494	3011509	C01135630	2191856
03/12/01	SL-B-112900-1396	31494	3011509	C01135631	2191857
03/12/01	SL-B-112900-1396	31494	3011509	C01135632	2191858
03/12/01	SL-B-112900-1396	31494	3011509	C01135633	2191859
03/12/01	SL-B-112900-1396	31494	3011509	C01135634	2191860
03/13/01	SL-B-112900-1394	31494	3011509	C01135635	2191861
03/13/01	SL-B-112900-1394	31494	3011509	C01135636	2191862
03/13/01	SL-B-112900-1394	31494	3011509	C01135637	2191863
03/13/01	SL-B-112900-1394	31494	3011509	C01135638	2191864
03/13/01	SL-B-112900-1394	31494	3011509	C01135639	2191865
03/13/01	SL-B-112900-1394	31494	3011509	C01135640	2191866
03/13/01	SL-B-112900-1394	31494	3011509	C01135641	2191867
03/13/01	SL-B-112900-1394	31494	3011509	C01135642	2191868
03/13/01	SL-B-112900-1394	31494	3011509	C01135643	2191869
03/13/01	SL-B-112900-1394	31494	3011509	C01135644	2191870
03/13/01	SL-B-112900-1395	31494	3011509	C01135645	2191871
03/13/01	SL-B-112900-1395	31494	3011509	C01135646	2191872
03/13/01	SL-B-112900-1395	31494	3011509	C01135647	2191873
03/13/01	SL-B-112900-1395	31494	3011509	C01135648	2191874
03/13/01	SL-B-112900-1395	31494	3011509	C01135649	2191875
03/13/01	SL-B-112900-1395	31494	3011509	C01135650	2191876

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
03/13/01	SL-B-112900-1395	31494	3011509	C01135651	2191877
03/13/01	SL-B-112900-1395	31494	3011509	C01135652	2191878
03/13/01	SL-B-112900-1395	31494	3011509	C01135653	2191879
03/13/01	SL-B-112900-1395	31494	3011509	C01135654	2191880
03/14/01	SL-B-112900-1394	31494	3011509	C01135655	2191881
03/14/01	SL-B-112900-1394	31494	3011509	C01135656	2191882
03/14/01	SL-B-112900-1394	31494	3011509	C01135657	2191883
03/14/01	SL-B-112900-1394	31494	3011509	C01135658	2191884
03/14/01	SL-B-112900-1394	31494	3011509	C01135659	2191885
03/14/01	SL-B-112900-1395	31494	3011509	C01135660	2191886
03/14/01	SL-B-112900-1395	31494	3011509	C01135661	2191887
03/14/01	SL-B-112900-1395	31494	3011509	C01135662	2191888
03/14/01	SL-B-112900-1395	31494	3011509	C01135663	2191889
03/14/01	SL-B-112900-1395	31494	3011509	C01135664	2191890
03/14/01	SL-B-112900-1396	31494	3011509	C01135665	2191891
03/14/01	SL-B-112900-1396	31494	3011509	C01135666	2191892
03/14/01	SL-B-112900-1396	31494	3011509	C01135667	2191893
03/14/01	SL-B-112900-1396	31494	3011509	C01135668	2191894
03/14/01	SL-B-112900-1396	31494	3011509	C01135669	2191895
03/14/01	SL-B-113000-1397	31494	3011509	C01135670	2191896
03/14/01	SL-B-113000-1397	31494	3011509	C01135671	2191897
03/14/01	SL-B-113000-1397	31494	3011509	C01135672	2191898
03/14/01	SL-B-113000-1397	31494	3011509	C01135673	2191899
03/14/01	SL-B-113000-1397	31494	3011509	C01135674	2191900
04/02/01	SL-AF-101299-0137	31494	3011509	C01135675	2191901
04/02/01	SL-AF-101299-0137	31494	3011509	C01135676	2191902
04/02/01	SL-AF-101299-0137	31494	3011509	C01135677	2191903
04/02/01	SL-AF-101299-0137	31494	3011509	C01135678	2191904
04/02/01	SL-AF-101299-0137	31494	3011509	C01135679	2191905
04/02/01	SL-AF-101299-0137	31494	3011509	C01135680	2191906
04/02/01	SL-AF-101299-0137	31494	3011509	C01135681	2191907
04/02/01	SL-AF-101299-0137	31494	3011509	C01135682	2191908
04/02/01	SL-AF-101299-0137	31494	3011509	C01135683	2191909
04/02/01	SL-AF-101299-0137	31494	3011509	C01135684	2191910

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
04/02/01	SL-AF-101299-0137	31494	3011509	C01135685	2191911
04/02/01	SL-AF-101299-0137	31494	3011509	C01135686	2191912
04/02/01	SL-AF-101299-0137	31494	3011509	C01135687	2191913
04/02/01	SL-AF-101299-0137	31494	3011509	C01135688	2191914
04/02/01	SL-AF-101299-0137	31494	3011509	C01135689	2191915
04/02/01	SL-AF-101299-0137	31494	3011509	C01135690	2191916
04/03/01	SL-AF-101299-0137	31494	3011509	C01135691	2191917
04/03/01	SL-AF-101299-0137	31494	3011509	C01135692	2191918
04/03/01	SL-AF-101299-0137	31494	3011509	C01135693	2191919
04/03/01	SL-AF-101299-0137	31494	3011509	C01135694	2191920
04/03/01	SL-AF-101299-0137	31494	3011509	C01135695	2191921
04/03/01	SL-AF-101299-0137	31494	3011509	C01135696	2191922
04/03/01	SL-AF-101299-0137	31494	3011509	C01135697	2191923
04/03/01	SL-AF-101299-0137	31494	3011509	C01135698	2191924
04/03/01	SL-AF-101299-0137	31494	3011509	C01135699	2191925
04/03/01	SL-AF-101299-0137	31494	3011509	C01135700	2191926
04/03/01	SL-AF-101299-0137	31494	3011509	C01135701	2191927
04/03/01	SL-AF-101299-0137	31494	3011509	C01135702	2191928
04/03/01	SL-AF-101299-0137	31494	3011509	C01135703	2191929
04/03/01	SL-AF-101299-0137	31494	3011509	C01135704	2191930
04/03/01	SL-AF-101299-0137	31494	3011509	C01135705	2191931
04/03/01	SL-AF-101299-0137	31494	3011509	C01135706	2191932
04/03/01	SL-AF-101299-0137	31494	3011509	C01135707	2191933
04/03/01	SL-AF-101299-0137	31494	3011509	C01135708	2191934
04/03/01	SL-AF-101299-0137	31494	3011509	C01135709	2191935
04/03/01	SL-AF-101299-0137	31494	3011509	C01135710	2191936
04/04/01	SL-AF-101299-0137	31494	3011509	C01135711	2191937
04/04/01	SL-AF-101299-0137	31494	3011509	C01135712	2191938
04/04/01	SL-AF-101299-0137	31494	3011509	C01135713	2191939
04/04/01	SL-AF-101299-0137	31494	3011509	C01135714	2191940
04/04/01	SL-AF-101299-0137	31494	3011509	C01135715	2191941
04/04/01	SL-AF-101299-0137	31494	3011509	C01135716	2191942
04/04/01	SL-AF-101299-0137	31494	3011509	C01135717	2191943
04/04/01	SL-AF-101299-0137	31494	3011509	C01135718	2191944

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
04/04/01	SL-AF-101299-0137	31494	3011509	C01135719	2191945
04/04/01	SL-AF-101299-0137	31494	3011509	C01135720	2191946
04/04/01	SL-AF-101299-0137	31494	3011509	C01135721	2191947
04/04/01	SL-AF-101299-0137	31494	3011509	C01135722	2191948
04/04/01	SL-AF-101299-0137	31494	3011509	C01135723	2191949
04/04/01	SL-AF-101299-0137	31494	3011509	C01135724	2191950
04/04/01	SL-AF-101299-0137	31494	3011509	C01135725	2191951
04/04/01	SL-AF-101299-0137	31494	3011509	C01135726	2191952
04/04/01	SL-AF-101299-0137	31494	3011509	C01135727	2191953
04/04/01	SL-AF-101299-0137	31494	3011509	C01135728	2191954
04/04/01	SL-AF-101299-0137	31494	3011509	C01135730	2191956
04/04/01	SL-B-112700-1389	31494	3011509	C01135731	2191957
04/05/01	SL-B-112700-1389	31494	3011509	C01135732	2191958
04/05/01	SL-B-112700-1389	31494	3011509	C01135733	2191959
04/05/01	SL-B-112700-1389	31494	3011509	C01135734	2191960
04/05/01	SL-B-112700-1389	31494	3011509	C01135735	2191961
04/05/01	SL-B-112700-1389	31494	3011509	C01135736	2191962
04/05/01	SL-B-112700-1389	31494	3011509	C01135737	2191963
04/05/01	SL-B-112800-1390	31494	3011509	C01135738	2191964
04/05/01	SL-B-112800-1390	31494	3011509	C01135739	2191965
04/05/01	SL-B-112800-1390	31494	3011509	C01135740	2191966
04/05/01	SL-B-112800-1390	31494	3011509	C01135741	2191967
04/05/01	SL-B-112800-1390	31494	3011509	C01135742	2191968
04/05/01	SL-B-112800-1390	31494	3011509	C01135743	2191969
04/05/01	SL-B-112800-1390	31494	3011509	C01135744	2191970
04/05/01	SL-B-112800-1391	31494	3011509	C01135745	2191971
04/05/01	SL-B-112800-1391	31494	3011509	C01135746	2191972
04/05/01	SL-B-112800-1391	31494	3011509	C01135747	2191973
04/05/01	SL-B-112800-1391	31494	3011509	C01135748	2191974
04/05/01	SL-B-112800-1391	31494	3011509	C01135749	2191975
04/05/01	SL-B-112800-1391	31494	3011509	C01135750	2191976
04/11/01	SL-B-113000-1400	31494	3011509	C01135751	2191977
04/06/01	SL-B-111500-1377	31494	3011649	C01136333	2191980
04/06/01	SL-B-111500-1377	31494	3011649	C01136334	2191981

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
04/06/01	SL-B-111500-1377	31494	3011649	C01136335	2191982
04/06/01	SL-B-111500-1377	31494	3011649	C01136336	2191983
04/06/01	SL-B-111500-1377	31494	3011649	C01136337	2191984
04/06/01	SL-B-111500-1377	31494	3011649	C01136338	2191985
04/06/01	SL-B-111500-1377	31494	3011649	C01136339	2191986
04/06/01	SL-B-112000-1384	31494	3011649	C01136340	2191987
04/06/01	SL-B-112000-1384	31494	3011649	C01136341	2191988
04/06/01	SL-B-112000-1384	31494	3011649	C01136342	2191989
04/06/01	SL-B-112000-1384	31494	3011649	C01136343	2191990
04/06/01	SL-B-112000-1384	31494	3011649	C01136344	2191991
04/06/01	SL-B-112000-1384	31494	3011649	C01136345	2191992
04/06/01	SL-B-112000-1384	31494	3011649	C01136346	2191993
04/06/01	SL-B-112700-1388	31494	3011649	C01136347	2191994
04/06/01	SL-B-112700-1388	31494	3011649	C01136348	2191995
04/06/01	SL-B-112700-1388	31494	3011649	C01136349	2191996
04/06/01	SL-B-112700-1388	31494	3011649	C01136350	2191997
04/06/01	SL-B-112700-1388	31494	3011649	C01136351	2191998
04/06/01	SL-B-112700-1388	31494	3011649	C01136352	2191999
04/09/01	SL-B-111400-1376	31494	3011649	C01136353	2192000
04/09/01	SL-B-111400-1376	31494	3011649	C01136354	2192001
04/09/01	SL-B-111400-1376	31494	3011649	C01136355	2192002
04/09/01	SL-B-111400-1376	31494	3011649	C01136356	2192003
04/09/01	SL-B-111400-1376	31494	3011649	C01136357	2192004
04/09/01	SL-B-112000-1383	31494	3011649	C01136358	2192005
04/09/01	SL-B-112000-1383	31494	3011649	C01136359	2192006
04/09/01	SL-B-112000-1383	31494	3011649	C01136360	2192007
04/09/01	SL-B-112000-1383	31494	3011649	C01136361	2192008
04/09/01	SL-B-112000-1383	31494	3011649	C01136362	2192009
04/09/01	SL-B-112100-1387	31494	3011649	C01136363	2192010
04/09/01	SL-B-112100-1387	31494	3011649	C01136364	2192011
04/09/01	SL-B-112100-1387	31494	3011649	C01136365	2192012
04/09/01	SL-B-112100-1387	31494	3011649	C01136366	2192013
04/09/01	SL-B-112100-1387	31494	3011649	C01136367	2192014
04/09/01	SL-B-111300-1401	31494	3011649	C01136368	2192015

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
04/09/01	SL-B-111300-1401	31494	3011649	C01136369	2192016
04/09/01	SL-B-111300-1401	31494	3011649	C01136370	2192017
04/09/01	SL-B-111300-1401	31494	3011649	C01136371	2192018
04/09/01	SL-B-111300-1401	31494	3011649	C01136372	2192019
04/10/01	SL-B-111400-1375	31494	3011649	C01136373	2192020
04/10/01	SL-B-111400-1375	31494	3011649	C01136374	2192021
04/10/01	SL-B-111400-1375	31494	3011649	C01136375	2192022
04/10/01	SL-B-111400-1375	31494	3011649	C01136376	2192023
04/10/01	SL-B-111400-1375	31494	3011649	C01136377	2192024
04/10/01	SL-B-111700-1382	31494	3011649	C01136378	2192025
04/10/01	SL-B-111700-1382	31494	3011649	C01136379	2192026
04/10/01	SL-B-111700-1382	31494	3011649	C01136380	2192027
04/10/01	SL-B-111700-1382	31494	3011649	C01136381	2192028
04/10/01	SL-B-111700-1382	31494	3011649	C01136382	2192029
04/10/01	SL-B-112100-1386	31494	3011649	C01136383	2192030
04/10/01	SL-B-112100-1386	31494	3011649	C01136384	2192031
04/10/01	SL-B-112100-1386	31494	3011649	C01136385	2192032
04/10/01	SL-B-112100-1386	31494	3011649	C01136386	2192033
04/10/01	SL-B-112100-1386	31494	3011649	C01136387	2192034
04/10/01	SL-B-113000-1400	31494	3011649	C01136388	2192035
04/10/01	SL-B-113000-1400	31494	3011649	C01136389	2192036
04/10/01	SL-B-113000-1400	31494	3011649	C01136390	2192037
04/11/01	SL-B-113000-1400	31494	3011649	C01136391	2192038
04/11/01	SL-B-113000-1400	31494	3011649	C01136392	2192039
04/11/01	SL-B-113000-1400	31494	3011649	C01136393	2192040
04/11/01	SL-B-111400-1374	31494	3011649	C01136394	2192041
04/11/01	SL-B-111400-1374	31494	3011649	C01136395	2192042
04/11/01	SL-B-111400-1374	31494	3011649	C01136396	2192043
04/11/01	SL-B-111400-1374	31494	3011649	C01136397	2192044
04/11/01	SL-B-111400-1374	31494	3011649	C01136398	2192045
04/11/01	SL-B-111400-1374	31494	3011649	C01136399	2192046
04/11/01	SL-B-111400-1374	31494	3011649	C01136400	2192047
04/11/01	SL-B-111400-1374	31494	3011649	C01136401	2192048
04/11/01	SL-B-111400-1374	31494	3011649	C01136402	2192049

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
04/11/01	SL-B-111400-1374	31494	3011649	C01136403	2192050
04/11/01	SL-B-111600-1381	31494	3011649	C01136404	2192051
04/11/01	SL-B-111600-1381	31494	3011649	C01136405	2192052
04/11/01	SL-B-111600-1381	31494	3011649	C01136406	2192053
04/11/01	SL-B-111600-1381	31494	3011649	C01136407	2192054
04/11/01	SL-B-111600-1381	31494	3011649	C01136408	2192055
04/11/01	SL-B-111600-1381	31494	3011649	C01136409	2192056
04/11/01	SL-B-111600-1381	31494	3011649	C01136410	2192057
04/11/01	SL-B-111600-1381	31494	3011649	C01136411	2192058
04/11/01	SL-B-111600-1381	31494	3011649	C01136412	2192059
04/11/01	SL-B-111600-1381	31494	3011649	C01136413	2192060
04/12/01	SL-B-112100-1385	31494	3011649	C01136414	2192061
04/12/01	SL-B-112100-1385	31494	3011649	C01136415	2192062
04/12/01	SL-B-112100-1385	31494	3011649	C01136416	2192063
04/12/01	SL-B-112100-1385	31494	3011649	C01136417	2192064
04/12/01	SL-B-112100-1385	31494	3011649	C01136418	2192065
04/12/01	SL-B-112100-1385	31494	3011649	C01136419	2192066
04/12/01	SL-B-112100-1385	31494	3011649	C01136420	2192067
04/12/01	SL-B-112100-1385	31494	3011649	C01136421	2192068
04/12/01	SL-B-112100-1385	31494	3011649	C01136422	2192069
04/12/01	SL-B-112100-1385	31494	3011649	C01136423	2192070
04/12/01	SL-B-112100-1385	31494	3011649	C01136424	2192071
04/12/01	SL-B-112100-1385	31494	3011649	C01136425	2192072
04/12/01	SL-B-113000-1399	31494	3011649	C01136426	2192073
04/12/01	SL-B-113000-1399	31494	3011649	C01136427	2192074
04/12/01	SL-B-113000-1399	31494	3011649	C01136428	2192075
04/12/01	SL-B-113000-1399	31494	3011782	C01136923	2192100
04/12/01	SL-B-113000-1399	31494	3011782	C01136924	2192101
04/12/01	SL-B-113000-1399	31494	3011782	C01136925	2192102
04/12/01	SL-B-113000-1399	31494	3011782	C01136926	2192103
04/12/01	SL-B-113000-1399	31494	3011782	C01136927	2192104
04/12/01	SL-B-113000-1399	31494	3011782	C01136928	2192105
04/12/01	SL-B-113000-1399	31494	3011782	C01136929	2192106
04/12/01	SL-B-113000-1399	31494	3011782	C01136930	2192107

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
04/12/01	SL-B-113000-1399	31494	3011782	C01136931	2192108
04/13/01	SL-B-111600-1380	31494	3011782	C01136932	2192109
04/13/01	SL-B-111600-1380	31494	3011782	C01136933	2192110
04/13/01	SL-B-111600-1380	31494	3011782	C01136934	2192111
04/13/01	SL-B-111600-1380	31494	3011782	C01136935	2192112
04/13/01	SL-B-111600-1380	31494	3011782	C01136936	2192113
04/13/01	SL-B-111600-1380	31494	3011782	C01136937	2192114
04/13/01	SL-B-111600-1380	31494	3011782	C01136938	2192115
04/13/01	SL-B-111600-1380	31494	3011782	C01136939	2192116
04/13/01	SL-B-111600-1380	31494	3011782	C01136940	2192117
04/13/01	SL-B-111600-1380	31494	3011782	C01136941	2192118
04/13/01	SL-B-113000-1398	31494	3011782	C01136942	2192119
04/13/01	SL-B-113000-1398	31494	3011782	C01136943	2192120
04/13/01	SL-B-113000-1398	31494	3011782	C01136944	2192121
04/13/01	SL-B-113000-1398	31494	3011782	C01136945	2192122
04/13/01	SL-B-113000-1398	31494	3011782	C01136946	2192123
04/13/01	SL-B-113000-1398	31494	3011782	C01136947	2192124
04/13/01	SL-B-113000-1398	31494	3011782	C01136948	2192125
04/13/01	SL-B-113000-1398	31494	3011782	C01136949	2192126
04/13/01	SL-B-113000-1398	31494	3011782	C01136950	2192127
04/16/01	SL-B-113000-1398	31494	3011782	C01136951	2192128
04/16/01	SL-B-111300-1372	31494	3011782	C01136952	2192129
04/16/01	SL-B-111300-1372	31494	3011782	C01136953	2192130
04/16/01	SL-B-111300-1372	31494	3011782	C01136954	2192131
04/16/01	SL-B-111300-1372	31494	3011782	C01136955	2192132
04/16/01	SL-B-111300-1372	31494	3011782	C01136956	2192133
04/16/01	SL-B-111300-1372	31494	3011782	C01136957	2192134
04/16/01	SL-B-111300-1372	31494	3011782	C01136958	2192135
04/16/01	SL-B-111300-1372	31494	3011782	C01136959	2192136
04/16/01	SL-B-111300-1372	31494	3011782	C01136960	2192137
04/16/01	SL-B-111300-1372	31494	3011782	C01136961	2192138
04/16/01	SL-B-111400-1373	31494	3011782	C01136962	2192139
04/16/01	SL-B-111400-1373	31494	3011782	C01136963	2192140
04/16/01	SL-B-111400-1373	31494	3011782	C01136964	2192141

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
04/16/01	SL-B-111400-1373	31494	3011782	C01136965	2192142
04/16/01	SL-B-111400-1373	31494	3011782	C01136966	2192143
04/16/01	SL-B-111400-1373	31494	3011782	C01136967	2192144
04/16/01	SL-B-111400-1373	31494	3011782	C01136968	2192145
04/17/01	SL-B-111400-1373	31494	3011782	C01136969	2192146
04/17/01	SL-B-111400-1373	31494	3011782	C01136970	2192147
04/17/01	SL-B-111400-1373	31494	3011782	C01136971	2192148
04/17/01	SL-B-111500-1379	31494	3011782	C01136972	2192149
04/17/01	SL-B-111500-1379	31494	3011782	C01136973	2192150
04/17/01	SL-B-111500-1379	31494	3011782	C01136974	2192151
04/17/01	SL-B-111500-1379	31494	3011782	C01136975	2192152
04/17/01	SL-B-111500-1379	31494	3011782	C01136976	2192153
04/17/01	SL-B-111500-1379	31494	3011782	C01136977	2192154
04/17/01	SL-B-111500-1379	31494	3011782	C01136978	2192155
04/17/01	SL-B-111500-1379	31494	3011782	C01136979	2192156
04/17/01	SL-B-111500-1379	31494	3011782	C01136980	2192157
04/17/01	SL-B-111500-1379	31494	3011782	C01136981	2192158
04/17/01	SL-B-111500-1379	31494	3011782	C01136982	2192159
04/17/01	SL-B-111500-1379	31494	3011782	C01136983	2192160
04/17/01	SL-B-111500-1379	31494	3011782	C01136984	2192161
04/17/01	SL-B-111500-1379	31494	3011782	C01136985	2192162
04/17/01	SL-B-111500-1379	31494	3011782	C01136986	2192163
06/04/01	SL-B-111300-1371	31494	3011943	C01137494	2197314
06/04/01	SL-B-111300-1371	31494	3011943	C01137495	2197315
06/04/01	SL-B-111300-1371	31494	3011943	C01137496	2197316
06/04/01	SL-B-111300-1371	31494	3011943	C01137497	2197317
06/04/01	SL-B-111300-1371	31494	3011943	C01137498	2197318
06/04/01	SL-B-111300-1371	31494	3011943	C01137499	2197319
06/04/01	SL-B-111300-1371	31494	3011943	C01137500	2197320
06/04/01	SL-B-111300-1371	31494	3011943	C01137501	2197321
06/04/01	SL-B-111300-1371	31494	3011943	C01137502	2197322
06/04/01	SL-B-111300-1371	31494	3011943	C01137503	2197323
06/04/01	SL-B-111500-1378	31494	3011943	C01137504	2197324
06/04/01	SL-B-111500-1378	31494	3011943	C01137505	2197325

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
06/04/01	SL-B-111500-1378	31494	3011943	C01137506	2197326
06/04/01	SL-B-111500-1378	31494	3011943	C01137507	2197327
06/04/01	SL-B-111500-1378	31494	3011943	C01137508	2197328
06/04/01	SL-B-111500-1378	31494	3011943	C01137509	2197329
06/04/01	SL-B-111500-1378	31494	3011943	C01137510	2197330
06/04/01	SL-B-111500-1378	31494	3011943	C01137511	2197331
06/05/01	SL-B-032801-1422	31494	3011943	C01137512	2197332
06/05/01	SL-B-032801-1422	31494	3011943	C01137513	2197333
06/05/01	SL-B-032801-1422	31494	3011943	C01137514	2197334
06/05/01	SL-B-032801-1422	31494	3011943	C01137515	2197335
06/05/01	SL-B-032801-1422	31494	3011943	C01137516	2197336
06/05/01	SL-B-032801-1422	31494	3011943	C01137517	2197337
06/05/01	SL-B-032801-1422	31494	3011943	C01137518	2197338
06/05/01	SL-B-032601-1421	31494	3011943	C01137519	2197339
06/05/01	SL-B-032601-1421	31494	3011943	C01137520	2197340
06/05/01	SL-B-032601-1421	31494	3011943	C01137521	2197341
06/06/01	SL-B-032601-1421	31494	3011943	C01137522	2197342
06/06/01	SL-B-032601-1421	31494	3011943	C01137523	2197343
06/06/01	SL-B-032601-1421	31494	3011943	C01137524	2197344
06/06/01	SL-B-032601-1421	31494	3011943	C01137525	2197345
06/06/01	SL-B-032101-1413	31494	3011943	C01137526	2197346
06/06/01	SL-B-032101-1413	31494	3011943	C01137527	2197347
06/06/01	SL-B-032101-1413	31494	3011943	C01137528	2197348
06/06/01	SL-B-032101-1413	31494	3011943	C01137529	2197349
06/06/01	SL-B-032101-1413	31494	3011943	C01137530	2197350
06/06/01	SL-B-032101-1413	31494	3011943	C01137531	2197351
06/06/01	SL-B-032601-1420	31494	3011943	C01137532	2197352
06/06/01	SL-B-032601-1420	31494	3011943	C01137533	2197353
06/06/01	SL-B-032601-1420	31494	3011943	C01137534	2197354
06/06/01	SL-B-032601-1420	31494	3011943	C01137535	2197355
06/06/01	SL-B-032601-1420	31494	3011943	C01137536	2197356
06/06/01	SL-B-032601-1419	31494	3011943	C01137537	2197357
06/06/01	SL-B-032601-1419	31494	3011943	C01137538	2197358
06/06/01	SL-B-032601-1419	31494	3011943	C01137539	2197359

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
06/06/01	SL-B-032601-1419	31494	3011943	C01137540	2197360
06/06/01	SL-B-032601-1419	31494	3011943	C01137541	2197361
06/07/01	SL-B-032601-1420	31494	3011943	C01137542	2197362
06/07/01	SL-B-032601-1420	31494	3011943	C01137543	2197363
06/07/01	SL-B-032601-1420	31494	3011943	C01137544	2197364
06/07/01	SL-B-032601-1420	31494	3011943	C01137545	2197365
06/07/01	SL-B-032601-1420	31494	3011943	C01137546	2197366
06/07/01	SL-B-032601-1419	31494	3011943	C01137547	2197367
06/07/01	SL-B-032601-1419	31494	3011943	C01137548	2197368
06/07/01	SL-B-032601-1419	31494	3011943	C01137549	2197369
06/07/01	SL-B-032601-1419	31494	3011943	C01137550	2197370
06/07/01	SL-B-032601-1419	31494	3011943	C01137551	2197371
06/07/01	SL-B-032801-1423	31494	3011943	C01137552	2197372
06/07/01	SL-B-032801-1423	31494	3011943	C01137553	2197373
06/07/01	SL-B-032801-1423	31494	3011943	C01137554	2197374
06/07/01	SL-B-032801-1423	31494	3011943	C01137555	2197375
06/07/01	SL-B-032801-1423	31494	3011943	C01137556	2197376
06/07/01	SL-B-032801-1423	31494	3011943	C01137557	2197377
06/07/01	SL-B-032801-1423	31494	3011943	C01137558	2197378
06/07/01	SL-B-032801-1423	31494	3011943	C01137559	2197379
06/07/01	SL-B-032801-1423	31494	3011943	C01137560	2197380
06/07/01	SL-B-032801-1423	31494	3011943	C01137561	2197381
06/08/01	SL-B-032601-1417	31494	3011943	C01137562	2197382
06/08/01	SL-B-032601-1417	31494	3011943	C01137563	2197383
06/08/01	SL-B-032601-1417	31494	3011943	C01137564	2197384
06/08/01	SL-B-032601-1417	31494	3011943	C01137565	2197385
06/08/01	SL-B-032601-1417	31494	3011943	C01137566	2197386
06/08/01	SL-B-032601-1417	31494	3011943	C01137567	2197387
06/08/01	SL-B-032601-1417	31494	3011943	C01137568	2197388
06/08/01	SL-B-032601-1418	31494	3011943	C01137569	2197389
06/08/01	SL-B-032601-1418	31494	3011943	C01137570	2197390
06/08/01	SL-B-032601-1418	31494	3011943	C01137571	2197391
06/08/01	SL-B-032201-1416	31494	3011943	C01137572	2197392
06/08/01	SL-B-032601-1418	31494	3011943	C01137573	2197393

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
06/08/01	SL-B-032601-1418	31494	3011943	C01137574	2197394
06/08/01	SL-B-032601-1418	31494	3011943	C01137575	2197395
06/08/01	SL-B-032601-1418	31494	3011943	C01137576	2197396
06/08/01	SL-B-032201-1416	31494	3011943	C01137577	2197397
06/08/01	SL-B-032201-1416	31494	3011943	C01137578	2194398
06/08/01	SL-B-032201-1416	31494	3011943	C01137579	2191399
06/08/01	SL-B-032201-1416	31494	3011943	C01137580	2197400
06/11/01	SL-B-032201-1415	31494	3011943	C01137581	2197401
06/11/01	SL-B-032201-1415	31494	3011943	C01137582	2197402
06/11/01	SL-B-032201-1415	31494	3011943	C01137583	2197403
06/11/01	SL-B-032201-1415	31494	3011943	C01137584	2197404
06/11/01	SL-B-032201-1415	31494	3011943	C01137585	2197405
06/11/01	SL-B-032101-1414	31494	3011943	C01137586	2197406
06/11/01	SL-B-032101-1414	31494	3011943	C01137587	2197407
06/11/01	SL-B-032101-1414	31494	3011943	C01137588	2197408
06/11/01	SL-B-032101-1414	31494	3011943	C01137589	2197409
06/11/01	SL-B-032101-1414	31494	3011943	C01137590	2197410
06/11/01	SL-B-021601-1402	31494	3011943	C01137591	2197411
06/11/01	SL-B-021601-1402	31494	3011943	C01137592	2197412
06/11/01	SL-B-021601-1402	31494	3011943	C01137593	2197413
06/11/01	SL-B-021601-1402	31494	3011943	C01137594	2197414
06/11/01	SL-B-021601-1402	31494	3011943	C01137595	2197415
06/11/01	SL-B-030901-1407	31494	3011943	C01137596	2197416
06/11/01	SL-B-030901-1407	31494	3011943	C01137597	2197417
06/11/01	SL-B-030901-1407	31494	3011943	C01137598	2197418
06/12/01	SL-B-030901-1407	31494	3011943	C01137599	2197419
06/12/01	SL-B-030901-1407	31494	3011943	C01137600	2197420
06/12/01	SL-B-030901-1407	31494	3011943	C01137601	2197421
06/12/01	SL-B-030901-1407	31494	3011943	C01137602	2197422
06/12/01	SL-B-030901-1407	31494	3011943	C01137603	2197423
06/12/01	SL-B-030901-1407	31494	3011943	C01137604	2197424
06/12/01	SL-B-021901-1403	31494	3011943	C01137605	2197425
06/12/01	SL-B-021901-1403	31494	3011943	C01137606	2197426
06/12/01	SL-B-021901-1403	31494	3011943	C01137607	2197427

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
06/12/01	SL-B-021901-1403	31494	3011943	C01137608	2197428
06/12/01	SL-B-021901-1403	31494	3011943	C01137609	2197429
06/12/01	SL-B-021901-1403	31494	3011943	C01137610	2197430
06/12/01	SL-B-021901-1403	31494	3011943	C01137611	2197431
06/12/01	SL-B-032101-1412	31494	3011943	C01137612	2197432
06/12/01	SL-B-032101-1412	31494	3011943	C01137613	2197433
06/12/01	SL-B-032101-1412	31494	3011943	C01137614	2197434
06/12/01	SL-B-032101-1412	31494	3011943	C01137615	2197435
06/12/01	SL-B-032101-1412	31494	3011943	C01137616	2197436
06/12/01	SL-B-032101-1412	31494	3011943	C01137617	2197437
06/12/01	SL-B-032101-1412	31494	3011943	C01137618	2197438
06/13/01	SL-B-030601-1406	31494	3011943	C01137619	2197439
06/13/01	SL-B-030601-1406	31494	3011943	C01137620	2197440
06/13/01	SL-B-030601-1406	31494	3011943	C01137621	2197441
06/13/01	SL-B-030601-1406	31494	3011943	C01137622	2197442
06/13/01	SL-B-030601-1406	31494	3011943	C01137623	2197443
06/13/01	SL-B-030601-1406	31494	3011943	C01137624	2197444
06/13/01	SL-B-030601-1406	31494	3011943	C01137625	2197445
06/13/01	SL-B-030601-1406	31494	3011943	C01137626	2197446
06/13/01	SL-B-030601-1406	31494	3011943	C01137627	2197447
06/13/01	SL-B-031501-1409	31494	3011943	C01137628	2197448
06/13/01	SL-B-031501-1409	31494	3011943	C01137629	2197449
06/13/01	SL-B-031501-1409	31494	3011943	C01137630	2197450
06/13/01	SL-B-031501-1409	31494	3011943	C01137631	2197451
06/13/01	SL-B-031501-1409	31494	3011943	C01137632	2197452
06/13/01	SL-B-031501-1409	31494	3011943	C01137633	2197453
06/13/01	SL-B-031501-1409	31494	3011943	C01137634	2197454
06/13/01	SL-B-031501-1409	31494	3011943	C01137635	2197455
06/13/01	SL-B-031501-1409	31494	3011943	C01137636	2197456
06/13/01	SL-B-031401-1408	31494	3011943	C01137637	2197457
06/14/01	SL-B-031401-1408	31494	3012100	C01138696	2197494
06/14/01	SL-B-031401-1408	31494	3012100	C01138697	2197495
06/14/01	SL-B-031401-1408	31494	3012100	C01138698	2197496
06/14/01	SL-B-031401-1408	31494	3012100	C01138699	2197497

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
06/14/01	SL-B-031401-1408	31494	3012100	C01138700	2197498
06/14/01	SL-B-031401-1408	31494	3012100	C01138701	2197499
06/14/01	SL-B-031401-1408	31494	3012100	C01138702	2197500
06/14/01	SL-B-031401-1408	31494	3012100	C01138703	2197501
06/14/01	SL-B-031401-1408	31494	3012100	C01138704	2197502
06/14/01	SL-B-031501-1410	31494	3012100	C01138705	2197503
06/14/01	SL-B-031501-1410	31494	3012100	C01138706	2197504
06/14/01	SL-B-031501-1410	31494	3012100	C01138707	2197505
06/14/01	SL-B-031501-1410	31494	3012100	C01138708	2197506
06/14/01	SL-B-031501-1410	31494	3012100	C01138709	2197507
06/14/01	SL-B-031501-1410	31494	3012100	C01138710	2197508
06/14/01	SL-B-031501-1410	31494	3012100	C01138711	2197509
06/14/01	SL-B-031501-1410	31494	3012100	C01138712	2197510
06/14/01	SL-B-031501-1410	31494	3012100	C01138713	2197511
06/14/01	SL-B-031501-1410	31494	3012100	C01138714	2197512
06/15/01	SL-B-031501-1411	31494	3012100	C01138715	2197513
06/15/01	SL-B-031501-1411	31494	3012100	C01138716	2197514
06/15/01	SL-B-031501-1411	31494	3012100	C01138717	2197515
06/15/01	SL-B-031501-1411	31494	3012100	C01138718	2197516
06/15/01	SL-B-031501-1411	31494	3012100	C01138719	2197517
06/15/01	SL-B-031501-1411	31494	3012100	C01138720	2197518
06/15/01	SL-B-031501-1411	31494	3012100	C01138721	2197519
06/15/01	SL-B-031501-1411	31494	3012100	C01138722	2197520
06/15/01	SL-B-031501-1411	31494	3012100	C01138723	2197521
06/15/01	SL-B-031501-1411	31494	3012100	C01138724	2197522
06/15/01	SL-B-031501-1411	31494	3012100	C01138725	2197523
06/15/01	SL-B-031501-1411	31494	3012100	C01138726	2197524
06/15/01	SL-B-031501-1411	31494	3012100	C01138727	2197525
10/31/00	SL-B-090500-1287	31820	3009625	C00126911	2177164
10/31/00	SL-B-090500-1287	31820	3009625	C00126912	2177165
10/31/00	SL-B-090500-1287	31820	3009625	C00126913	2177166
10/31/00	SL-B-090500-1287	31820	3009625	C00126914	2177167
10/31/00	SL-B-090500-1287	31820	3009625	C00126915	2177168
11/01/00	SL-B-090500-1288	31820	3009625	C00126916	2177169

Table G-2 (continued)
Summary of Industrial Soil Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
11/01/00	SL-B-090500-1288	31820	3009625	C00126917	2177170
11/01/00	SL-B-090500-1288	31820	3009625	C00126918	2177171
11/01/00	SL-B-090500-1288	31820	3009625	C00126919	2177172
11/02/00	SL-B-090500-1288	31820	3009625	C00126920	2177173
11/02/00	SL-B-090500-1288	31820	3009625	C00126921	2177174
11/02/00	SL-B-082100-1259	31820	3009625	C00126922	2177175
11/02/00	SL-B-082100-1259	31820	3009625	C00126923	2177176
11/03/00	SL-B-082100-1259	31820	3009625	C00126924	2177177
11/03/00	SL-B-082100-1259	31820	3009625	C00126925	2177178
11/06/00	SL-B-082100-1259	31820	3009625	C00126926	2177179
11/06/00	SL-B-082100-1259	31820	3009625	C00126927	2177180
10/31/00	SL-B-090500-1287	31820	3009625	C00126911	2177164
10/31/00	SL-B-090500-1287	31820	3009625	C00126912	2177165
10/31/00	SL-B-090500-1287	31820	3009625	C00126913	2177166
10/31/00	SL-B-090500-1287	31820	3009625	C00126914	2177167
10/31/00	SL-B-090500-1287	31820	3009625	C00126915	2177168
11/01/00	SL-B-090500-1288	31820	3009625	C00126916	2177169
11/01/00	SL-B-090500-1288	31820	3009625	C00126917	2177170
11/01/00	SL-B-090500-1288	31820	3009625	C00126918	2177171
11/01/00	SL-B-090500-1288	31820	3009625	C00126919	2177172
11/02/00	SL-B-090500-1288	31820	3009625	C00126920	2177173
11/02/00	SL-B-090500-1288	31820	3009625	C00126921	2177174
11/02/00	SL-B-082100-1259	31820	3009625	C00126922	2177175
11/02/00	SL-B-082100-1259	31820	3009625	C00126923	2177176
11/03/00	SL-B-082100-1259	31820	3009625	C00126924	2177177
11/03/00	SL-B-082100-1259	31820	3009625	C00126925	2177178
11/06/00	SL-B-082100-1259	31820	3009625	C00126926	2177179
11/06/00	SL-B-082100-1259	31820	3009625	C00126927	2177180

Table G-3
Summary of Industrial Soil Shipments to Area J

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item ID Number	Container Number
10/07/99	SL-B-071999- 1079	31494	3008461	2171059	99119982
10/07/99	SL-B-072699- 1087	31494	3008461	2171060	99119983
10/07/99	SL-AF-042099- 0037	31494	3008461	2171061	99119984
10/07/99	SL-AF-042099- 0037	31494	3008461	2171062	99119985
		31494	3008461	2171063	99119986
10/07/99	SL-AF-042099- 0037	31494	3008461	2171064	99119987
10/07/99	SL-AF-042099- 0037	31494	3008461	2171065	99119988
10/07/99	SL-AF-042099- 0037	31494	3008461	2171066	99119989
10/07/99	SL-AF-042199- 0038	31494	3008461	2171067	99119990
10/07/99	SL-AF-042199- 0038	31494	3008461	2171068	99119991
10/07/99	SL-AF-042199- 0038	31494	3008461	2171069	99119992
10/07/99	SL-AF-042199- 0038	31494	3008461	2171070	99119993
10/12/99	SL-AF-050799- 0044	31494	3008461	2171071	99119994
10/07/99	SL-AF-042199- 0038	31494	3008461	2171072	99119995
10/07/99	SL-AF-050799- 0044	31494	3008461	2171073	99119996
10/07/99	SL-AF-050799- 0044	31494	3008461	2171074	99119997
10/07/99	SL-AF-050799- 0044	31494	3008461	2171075	99119998
10/07/99	SL-AF-050799- 0044	31494	3008461	2171076	99119999
10/07/99	SL-AF-050799- 0044	31494	3008461	2171077	99120000
10/07/99	SL-AF-051199- 0045	31494	3008461	2171078	99120001
10/07/99	SL-AF-051199- 0045	31494	3008461	2171079	99120002
10/12/99	SL-AF-051199- 0045	31494	3008461	2171080	99120003
10/12/99	SL-AF-051199- 0045	31494	3008461	2171081	99120004
10/12/99	SL-AF-051199- 0045	31494	3008461	2171082	99120005
10/12/99	SL-AF-051299- 0046	31494	3008461	2171083	99120006
10/12/99	SL-AF-042099- 0037	31494	3008461	2171084	99120007
10/12/99	SL-AF-042099- 0037	31494	3008461	2171085	99120008
10/12/99	SL-AF-042099- 0037	31494	3008461	2171086	99120009
10/12/99	SL-AF-042099- 0037	31494	3008461	2171087	99120010
10/12/99	SL-AF-042199- 0038	31494	3008461	2171088	99120011
10/12/99	SL-AF-042199- 0038	31494	3008461	2171089	99120012
10/12/99	SL-AF-042199- 0038	31494	3008461	2171090	99120013

Table G-3 (continued)
Summary of Industrial Soil Shipments to Area J

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item ID Number	Container Number
10/12/99	SL-AF-042199- 0038	31494	3008461	2171091	99120014
10/12/99	SL-AF-051199- 0045	31494	3008461	2171092	99120015
10/12/99	SL-AF-051299- 0046	31494	3008461	2171093	99120016
10/12/99	SL-AF-051299- 0046	31494	3008461	2171094	99120017
10/12/99	SL-AF-051299- 0046	31494	3008461	2171095	99120018
10/12/99	SL-AF-060799- 0049	31494	3008461	2171096	99120019
10/12/99	SL-AF-060799- 0049	31494	3008461	2171097	99120020
10/12/99	SL-AF-060799- 0049	31494	3008461	2171098	99120021
		31494	3008461	2171099	99120022
10/14/99	SL-AF-060799- 0049	31494	3008461	2171100	99120023
10/14/99	SL-AF-071999- 0082	31494	3008461	2171101	99120024
10/14/99	SL-AF-071999- 0082	31494	3008461	2171102	99120025
10/14/99	SL-AF-071999- 0082	31494	3008461	2171103	99120026
10/14/99	SL-AF-071999- 0082	31494	3008461	2171104	99120027
10/14/99	SL-AF-071999- 0082	31494	3008461	2171105	99120028
10/14/99	SL-AF-071999- 0082	31494	3008461	2171106	99120029
09/28/99	SL-AF-071999- 0081	31494	3008486	2171011	99120040
09/28/99	SL-AF-071999- 0081	31494	3008486	2171012	99120041
09/28/99	SL-AF-071999- 0081	31494	3008486	2171013	99120042
09/28/99	SL-AF-071999- 0083	31494	3008486	2171014	99120043
09/28/99	SL-B-071999- 1079	31494	3008486	2171015	99120044
09/28/99	SL-B-071999- 1079	31494	3008486	2171016	99120045
09/28/99	SL-AF-071999- 0083	31494	3008486	2171017	99120046
09/28/99	SL-AF-071999- 0081	31494	3008486	2171018	99120047
09/28/99	SL-AF-071999- 0083	31494	3008486	2171019	99120048
09/28/99	SL-B-071999- 1079	31494	3008486	2171020	99120049
09/28/99	SL-B-071999- 1079	31494	3008486	2171021	99120050
09/28/99	SL-B-072699- 1087	31494	3008486	2171022	99120051
09/28/99	SL-B-072699- 1087	31494	3008486	2171023	99120052
09/28/99	SL-B-072699- 1087	31494	3008486	2171024	99120053
09/28/99	SL-B-072699- 1087	31494	3008486	2171025	99120054
09/28/99	SL-AF-071999- 0083	31494	3008486	2171026	99120055
09/30/99	SL-B-062899- 1072	31494	3008486	2171027	99120056
09/30/99	SL-B-062899- 1072	31494	3008486	2171028	99120057

Table G-3 (continued)
Summary of Industrial Soil Shipments to Area J

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item ID Number	Container Number
09/30/99	SL-B-062899- 1072	31494	3008486	2171029	99120058
09/30/99	SL-B-062899- 1072	31494	3008486	2171030	99120059
09/30/99	SL-AF-072199- 0085	31494	3008486	2171031	99120060
09/30/99	SL-AF-072199- 0085	31494	3008486	2171032	99120061
09/30/99	SL-AF-072199- 0085	31494	3008486	2171033	99120062
09/30/99	SL-AF-072199- 0085	31494	3008486	2171034	99120063
09/30/99	SL-B-061499- 1066	31494	3008486	2171035	99120064
09/30/99	SL-B-061499- 1066	31494	3008486	2171036	99120065
09/30/99	SL-B-061499- 1066	31494	3008486	2171037	99120066
09/30/99	SL-B-061499- 1066	31494	3008486	2171038	99120067
09/30/99	SL-B-072199- 1086	31494	3008486	2171039	99120068
09/30/99	SL-B-072199- 1086	31494	3008486	2171040	99120069
09/30/99	SL-B-072199- 1086	31494	3008486	2171041	99120070
09/30/99	SL-B-072199- 1086	31494	3008486	2171042	99120071
09/30/99	SL-B-072199- 1086	31494	3008486	2171043	99120072
09/30/99	SL-B-062399- 1070	31494	3008486	2171044	99120073
09/30/99	SL-B-062399- 1070	31494	3008486	2171045	99120074
09/30/99	SL-B-062399- 1070	31494	3008486	2171046	99120075
09/30/99	SL-B-062399- 1070	31494	3008486	2171047	99120076
09/30/99	SL-B-062899- 1072	31494	3008486	2171048	99120077
09/30/99	SL-AF-072199- 0085	31494	3008486	2171049	99120078
09/30/99	SL-B-061499- 1066	31494	3008486	2171050	99120079
10/07/99	SL-AF-071999- 0081	31494	3008486	2171051	99120080
10/07/99	SL-AF-071999- 0083	31494	3008486	2171052	99120081
10/12/99	SL-AF-050799- 0044	31494	3008486	2171053	99120082
10/12/99	SL-AF-050799- 0044	31494	3008486	2171054	99120083
10/12/99	SL-AF-042199- 0038	31494	3008486	2171055	99120084
10/12/99	SL-AF-051199- 0045	31494	3008486	2171056	99120085
10/12/99	SL-AF-051199- 0045	31494	3008486	2171057	99120086
10/12/99	SL-AF-051199- 0045	31494	3008486	2171058	99120087
10/14/99	SL-AF-071999- 0082	31494	3008562	2169751	99121025
10/14/99	SL-AF-071999- 0082	31494	3008562	2169752	99121026
10/14/99	SL-AF-071999- 0082	31494	3008562	2169753	99121027
10/14/99	SL-AF-072799- 0090	31494	3008562	2169754	99121028

Table G-3 (continued)
Summary of Industrial Soil Shipments to Area J

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item ID Number	Container Number
10/14/99	SL-AF-072799- 0090	31494	3008562	2169755	99121029
10/14/99	SL-AF-072799- 0090	31494	3008562	2169756	99121030
10/14/99	SL-AF-072799- 0090	31494	3008562	2169757	99121031
10/14/99	SL-AF-072799- 0090	31494	3008562	2169758	99121032
10/14/99	SL-AF-072799- 0090	31494	3008562	2169759	99121033
10/14/99	SL-AF-072799- 0090	31494	3008562	2169760	99121034
10/14/99	SL-AF-072799- 0090	31494	3008562	2169761	99121035
10/14/99	SL-AF-072799- 0090	31494	3008562	2169762	99121036
10/14/99	SL-AF-081099- 0095	31494	3008562	2169763	99121037
11/02/99	SL-AF-072799- 0090	31494	3008733	2169860	99121718
11/02/99	SL-AF-072799- 0090	31494	3008733	2169861	99121719
11/02/99	SL-AF-081099- 0095	31494	3008733	2169862	99121720
11/02/99	SL-AF-081099- 0095	31494	3008733	2169863	99121721
12/14/99	SL-AF-081799- 0101	31736	3008915	2172926	99122798
12/14/99	SL-AF-081799- 0102	31736	3008915	2172927	99122799
12/14/99	SL-AF-081799- 0102	31736	3008915	2172928	99122800
12/14/99	SL-AF-081799- 0102	31736	3008915	2172929	99122801
12/14/99	SL-AF-081799- 0102	31736	3008915	2172930	99122802
12/14/99	SL-AF-081199- 0096	31736	3008915	2172931	99122803
12/14/99	SL-AF-081199- 0096	31736	3008915	2172932	99122804
12/14/99	SL-AF-081199- 0096	31736	3008915	2172933	99122805
12/14/99	SL-AF-081199- 0096	31736	3008915	2172934	99122806
12/14/99	SL-AF-081699- 0100	31736	3008915	2172935	99122807
12/14/99	SL-AF-081699- 0100	31736	3008915	2172936	99122808
12/14/99	SL-AF-081699- 0100	31736	3008915	2172937	99122809
12/14/99	SL-AF-081699- 0100	31736	3008915	2172938	99122810
12/14/99	SL-AF-081199- 0096	31736	3008915	2172939	99122811
12/14/99	SL-AF-081199- 0096	31736	3008915	2172940	99122812
12/14/99	SL-AF-081699- 0100	31736	3008915	2172941	99122813
12/14/99	SL-AF-081699- 0100	31736	3008915	2172942	99122814
12/16/99	SL-AF-081799- 0102	31736	3008915	2172943	99122815
12/16/99	SL-AF-081799- 0102	31736	3008915	2172944	99122816
12/16/99	SL-AF-081799- 0101	31736	3008915	2172945	99122817
12/16/99	SL-AF-081799- 0101	31736	3008915	2172946	99122818

Table G-3 (continued)
Summary of Industrial Soil Shipments to Area J

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item ID Number	Container Number
12/21/99	SL-AF-081699- 0099	31736	3008915	2172947	99122819
12/21/99	SL-AF-081699- 0099	31736	3008915	2172948	99122820
12/21/99	SL-B-081699- 1098	31736	3008915	2172949	99122821
12/21/99	SL-B-081699- 1098	31736	3008915	2172950	99122822
12/21/99	SL-B-082499- 1107	31736	3008915	2172951	99122823
12/21/99	SL-B-082499- 1107	31736	3008915	2172952	99122824
12/21/99	SL-B-080999- 1094	31736	3008915	2172953	99122825
12/21/99	SL-B-080999- 1094	31736	3008915	2172954	99122826
12/21/99	SL-AF-082099- 0105	31736	3008915	2172955	99122827
12/21/99	SL-AF-082099- 0105	31736	3008915	2172956	99122828
12/21/99	SL-AF-082099- 0105	31736	3008915	2172957	99122829
12/21/99	SL-AF-082099- 0105	31736	3008915	2172958	99122830
12/21/99	SL-AF-082099- 0105	31736	3008915	2172959	99122831
12/21/99	SL-AF-082799- 0110	31736	3008915	2172960	99122832
12/21/99	SL-AF-082799- 0110	31736	3008915	2172961	99122833
12/21/99	SL-AF-082799- 0110	31736	3008915	2172962	99122834
12/21/99	SL-AF-082799- 0110	31736	3008915	2172963	99122835
12/21/99	SL-AF-082799- 0110	31736	3008915	2172964	99122836
01/06/00	SL-AF-082099- 0105	31736	3008915	2172965	99122837
01/06/00	SL-AF-082099- 0105	31736	3008915	2172966	99122838
01/06/00	SL-AF-082799- 0110	31736	3008915	2172967	99122839
01/06/00	SL-AF-082799- 0110	31736	3008915	2172968	99122840
01/06/00	SL-AF-082099- 0105	31736	3008915	2172969	99122841
12/13/99	SL-B-072999- 1091	31736	3008915	2172975	99122847
12/13/99	SL-B-072999- 1091	31736	3008915	2172976	99122848
12/13/99	SL-B-072999- 1091	31736	3008915	2172977	99122849
12/13/99	SL-B-072999- 1091	31736	3008915	2172978	99122850
12/13/99	SL-B-072999- 1091	31736	3008915	2172979	99122851
12/13/99	SL-B-072999- 1091	31736	3008915	2172980	99122852
12/13/99	SL-B-072999- 1092	31736	3008915	2172981	99122853
12/13/99	SL-B-072999- 1092	31736	3008915	2172982	99122854
12/13/99	SL-B-072999- 1092	31736	3008915	2172983	99122855
12/13/99	SL-B-072999- 1092	31736	3008915	2172984	99122856
12/13/99	SL-B-072999- 1092	31736	3008915	2172985	99122857

Table G-3 (continued)
Summary of Industrial Soil Shipments to Area J

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item ID Number	Container Number
12/13/99	SL-B-072999- 1092	31736	3008915	2172986	99122858
12/13/99	SL-B-080999- 1094	31736	3008915	2172987	99122859
12/13/99	SL-B-080999- 1094	31736	3008915	2172988	99122860
12/13/99	SL-B-080999- 1094	31736	3008915	2172989	99122861
12/13/99	SL-B-080999- 1094	31736	3008915	2172990	99122862
12/13/99	SL-B-081699- 1098	31736	3008915	2172991	99122863
12/13/99	SL-B-081699- 1098	31736	3008915	2172992	99122864
12/13/99	SL-B-081699- 1098	31736	3008915	2172993	99122865
12/13/99	SL-B-081699- 1098	31736	3008915	2172994	99122866
12/13/99	SL-B-082499- 1107	31736	3008915	2172995	99122867
12/13/99	SL-B-082499- 1107	31736	3008915	2172996	99122868
12/13/99	SL-B-082499- 1107	31736	3008915	2172997	99122869
12/13/99	SL-B-082499- 1107	31736	3008915	2172998	99122870
12/14/99	SL-AF-081699- 0099	31736	3008915	2172999	99122871
12/14/99	SL-AF-081699- 0099	31736	3008915	2173000	99122872
12/14/99	SL-AF-081699- 0099	31736	3008915	2173001	99122873
12/14/99	SL-AF-081699- 0099	31736	3008915	2173002	99122874
12/14/99	SL-AF-081799- 0101	31736	3008915	2173003	99122875
12/14/99	SL-AF-081799- 0101	31736	3008915	2173004	99122876
12/14/99	SL-AF-081799- 0101	31736	3008915	2173005	99122877
01/11/00	SL-AF-092199- 0122	31820	3009101	2173006	00123672
01/11/00	SL-AF-092199- 0122	31820	3009101	2173007	00123673
01/11/00	SL-AF-092199- 0122	31820	3009101	2173008	00123674
01/11/00	SL-AF-092199- 0122	31820	3009101	2173009	00123675
01/11/00	SL-AF-092199- 0122	31820	3009101	2173010	00123676
01/11/00	SL-AF-092199- 0123	31820	3009101	2173011	00123677
01/11/00	SL-AF-092199- 0123	31820	3009101	2173012	00123678
01/11/00	SL-AF-092199- 0123	31820	3009101	2173013	00123679
01/11/00	SL-AF-092199- 0123	31820	3009101	2173014	00123680
01/11/00	SL-AF-092199- 0123	31820	3009101	2173015	00123721
01/11/00	SL-AF-092499- 0126	31820	3009101	2173016	00123681
01/11/00	SL-AF-092499- 0126	31820	3009101	2173017	00123682
01/11/00	SL-AF-092499- 0126	31820	3009101	2173018	00123683
01/11/00	SL-AF-092499- 0126	31820	3009101	2173019	00123684

Table G-3 (continued)
Summary of Industrial Soil Shipments to Area J

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item ID Number	Container Number
01/11/00	SL-AF-092499- 0126	31820	3009101	2173020	00123685
01/11/00	SL-AF-092299- 0124	31820	3009101	2173021	00123686
01/11/00	SL-AF-092299- 0124	31820	3009101	2173022	00123687
01/11/00	SL-AF-092299- 0124	31820	3009101	2173023	00123688
01/11/00	SL-AF-092299- 0124	31820	3009101	2173024	00123689
01/11/00	SL-AF-092299- 0124	31820	3009101	2173025	00123690
01/11/00	SL-AF-092199- 0120	31820	3009101	2173026	00123691
01/11/00	SL-AF-092199- 0120	31820	3009101	2173027	00123692
01/11/00	SL-AF-092199- 0120	31820	3009101	2173028	00123693
01/11/00	SL-AF-092199- 0120	31820	3009101	2173029	00123694
01/11/00	SL-AF-092199- 0120	31820	3009101	2173030	00123695
01/11/00	SL-AF-091499- 0119	31820	3009101	2173031	00123696
01/11/00	SL-AF-091499- 0119	31820	3009101	2173032	00123697
01/11/00	SL-AF-091499- 0119	31820	3009101	2173033	00123698
01/11/00	SL-AF-091499- 0119	31820	3009101	2173034	00123699
01/11/00	SL-AF-091499- 0119	31820	3009101	2173035	00123700
01/11/00	SL-AF-092199- 0122	31820	3009101	2173036	00123701
01/11/00	SL-AF-092199- 0123	31820	3009101	2173037	00123702
01/11/00	SL-AF-092299- 0124	31820	3009101	2173038	00123703
01/11/00	SL-AF-092499- 0126	31820	3009101	2173039	00123704
03/09/00	SL-AF-081899- 0104	31820	3009101	2173040	00123705
03/09/00	SL-AF-081899- 0104	31820	3009101	2173041	00123706
03/09/00	SL-AF-081899- 0104	31820	3009101	2173042	00123707
03/09/00	SL-AF-081899- 0103	31820	3009101	2173043	00123708
03/09/00	SL-AF-081899- 0103	31820	3009101	2173044	00123709
03/09/00	SL-AF-081899- 0103	31820	3009101	2173045	00123710
03/09/00	SL-AF-081899- 0103	31820	3009101	2173046	00123711
03/09/00	SL-AF-081899- 0103	31820	3009101	2173047	00123712
03/09/00	SL-B-110999- 1160	31820	3009101	2173048	00123713
03/09/00	SL-B-110999- 1160	31820	3009101	2173049	00123714
03/09/00	SL-AF-120999- 0172	31820	3009101	2173050	00123715
03/09/00	SL-AF-120999- 0172	31820	3009101	2173051	00123716
03/09/00	SL-B-110999- 1160	31820	3009101	2173052	00123717
03/09/00	SL-AF-120999- 0172	31820	3009101	2173053	00123718

Table G-3 (continued)
Summary of Industrial Soil Shipments to Area J

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item ID Number	Container Number
03/09/00	SL-AF-120999- 0172	31820	3009101	2171390	00123719
03/09/00	SL-AF-120999- 0172	31820	3009101	2171391	00123720
02/29/00	SL-B-120299- 1168	31820	3009344	2174802	00125414
02/29/00	SL-B-120299- 1168	31820	3009344	2174803	00125415
02/29/00	SL-B-120299- 1168	31820	3009344	2174804	00125416
02/29/00	SL-B-120299- 1168	31820	3009344	2174805	00125417
02/29/00	SL-B-120299- 1168	31820	3009344	2174806	00125418
02/29/00	SL-B-120999- 1171	31820	3009344	2174807	00125419
02/29/00	SL-B-120999- 1171	31820	3009344	2174808	00125420
02/29/00	SL-B-120999- 1171	31820	3009344	2174809	00125421
03/02/00	SL-B-110999- 1160	31820	3009344	2174810	00125422
03/02/00	SL-B-110999- 1160	31820	3009344	2174811	00125423
03/02/00	SL-B-110999- 1160	31820	3009344	2174812	00125424
03/02/00	SL-B-120999- 1171	31820	3009344	2174813	00125425
03/02/00	SL-B-120999- 1171	31820	3009344	2174814	00125426
03/14/00	SL-AF-122099- 0176	31820	3009344	2174815	00125427
03/07/00	SL-AF-081899- 0104	31820	3009344	2174816	00125428
03/07/00	SL-AF-081899- 0104	31820	3009344	2174817	00125429
03/07/00	SL-B-120999- 1171	31820	3009344	2174818	00125430
03/07/00	SL-B-120999- 1171	31820	3009344	2174819	00125431
03/07/00	SL-B-120299- 1168	31820	3009344	2174820	00125432
03/14/00	SL-AF-122099- 0176	31820	3009344	2174821	00125433
03/14/00	SL-AF-122099- 0176	31820	3009344	2174822	00125434
03/14/00	SL-AF-122099- 0176	31820	3009344	2174823	00125435
03/14/00	SL-AF-122099- 0176	31820	3009344	2174824	00125436
03/14/00	SL-AF-120299- 0169	31820	3009344	2174825	00125437
03/14/00	SL-AF-120299- 0169	31820	3009344	2174826	00125438
03/14/00	SL-AF-120299- 0169	31820	3009344	2174827	00125439
03/14/00	SL-AF-120299- 0169	31820	3009344	2174828	00125440
03/14/00	SL-AF-120299- 0169	31820	3009344	2174829	00125441
03/14/00	SL-AF-120799- 0170	31820	3009344	2174830	00125442
03/14/00	SL-AF-120799- 0170	31820	3009344	2174831	00125443
03/14/00	SL-AF-120799- 0170	31820	3009344	2174832	00125444
03/14/00	SL-AF-120799- 0170	31820	3009344	2174833	00125445

Table G-3 (continued)
Summary of Industrial Soil Shipments to Area J

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item ID Number	Container Number
03/14/00	SL-AF-120799- 0170	31820	3009344	2174834	00125446
03/14/00	SL-AF-120199- 0167	31820	3009344	2174835	00125447
03/14/00	SL-AF-120199- 0167	31820	3009344	2174836	00125448
03/14/00	SL-AF-120199- 0167	31820	3009344	2174837	00125449
03/14/00	SL-AF-120199- 0167	31820	3009344	2174838	00125450
03/14/00	SL-AF-120199- 0167	31820	3009344	2174839	00125451
03/16/00	SL-AF-120799- 0175	31820	3009344	2174840	00125452
03/16/99	SL-AF-120199- 0167	31820	3009344	2174841	00125453
03/16/00	SL-AF-111999- 0165	31820	3009344	2174842	00125454
03/16/00	SL-AF-111999- 0165	31820	3009344	2174843	00125455
03/16/00	SL-AF-113099- 0166	31820	3009344	2174844	00125456
03/16/00	SL-AF-113099- 0166	31820	3009344	2174845	00125457
03/16/00	SL-AF-120799- 0175	31820	3009344	2174846	00125458
03/16/00	SL-AF-111999- 0165	31820	3009344	2174847	00125459
03/16/00	SL-AF-111999- 0165	31820	3009344	2174848	00125460
03/16/00	SL-AF-111999- 0165	31820	3009344	2174849	00125461
03/16/00	SL-AF-113099- 0166	31820	3009489	2177067	00126243
03/16/00	SL-AF-113099- 0166	31820	3009489	2177068	00126244
03/16/00	SL-AF-113099- 0166	31820	3009489	2177069	00126245
03/16/00	SL-AF-113099- 0166	31820	3009489	2177070	00126246
03/16/00	SL-AF-102999- 0153	31820	3009489	2177071	00126247
03/16/00	SL-AF-102999- 0153	31820	3009489	2177072	00126248
03/16/00	SL-AF-102999- 0153	31820	3009489	2177073	00126249
03/16/00	SL-AF-102999- 0153	31820	3009489	2177074	00126250
03/16/00	SL-AF-110999- 0159	31820	3009489	2177075	00126251
03/16/00	SL-AF-110999- 0159	31820	3009489	2177076	00126252
03/16/00	SL-AF-110999- 0159	31820	3009489	2177077	00126253
03/16/00	SL-AF-110999- 0159	31820	3009489	2177078	00126254
03/28/00	SL-AF-101299- 0138	31820	3009489	2177079	00126255
03/28/00	SL-AF-101299- 0138	31820	3009489	2177080	00126256
03/28/00	SL-AF-101299- 0138	31820	3009489	2177081	00126257
03/28/00	SL-AF-101299- 0138	31820	3009489	2177082	00126258
03/28/00	SL-AF-101299- 0138	31820	3009489	2177083	00126259
03/28/00	SL-AF-102699- 0151	31820	3009489	2177084	00126260

Table G-3 (continued)
Summary of Industrial Soil Shipments to Area J

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item ID Number	Container Number
03/28/00	SL-AF-102699- 0151	31820	3009489	2177085	00126261
03/28/00	SL-AF-102699- 0151	31820	3009489	2177086	00126262
03/28/00	SL-AF-102699- 0151	31820	3009489	2177087	00126263
03/28/00	SL-AF-101299- 0137	31820	3009489	2177088	00126264
03/28/00	SL-AF-102699- 0151	31820	3009489	2177089	00126265
03/28/00	SL-AF-101299- 0137	31820	3009489	2177090	00126266
03/28/00	SL-AF-101299- 0137	31820	3009489	2177091	00126267
03/28/00	SL-AF-101299- 0137	31820	3009489	2177092	00126268
03/28/00	SL-AF-101299- 0137	31820	3009489	2177093	00126269
03/28/00	SL-AF-092899- 0127	31820	3009489	2177094	00126270
03/28/00	SL-AF-092899- 0127	31820	3009489	2177095	00126271
03/28/00	SL-AF-092899- 0127	31820	3009489	2177096	00126272
03/28/00	SL-AF-092899- 0127	31820	3009489	2177097	00126273
11/15/00	SL-B-091100- 1303	31820	3009489	2177098	00126274
11/14/00	SL-B-090700- 1300	31820	3009625	2177181	00126928
11/14/00	SL-B-090700- 1300	31820	3009625	2177182	00126929
11/14/00	SL-B-090700- 1302	31820	3009625	2177183	00126930
11/14/00	SL-B-090700- 1302	31820	3009625	2177184	00126931
11/14/00	SL-B-090700- 1302	31820	3009625	2177185	00126932
11/14/00	SL-B-090700- 1302	31820	3009625	2177186	00126933
11/14/00	SL-B-090700- 1302	31820	3009625	2177187	00126934
11/14/00	SL-B-091100- 1303	31820	3009625	2177188	00126935
11/15/00	SL-B-091100- 1303	31820	3009625	2177189	00126936
11/15/00	SL-B-091100- 1303	31820	3009625	2177190	00126937
11/15/00	SL-B-091100- 1303	31820	3009625	2177191	00126938
11/15/00	SL-B-090700- 1300	31820	3009625	2177192	00126939
11/15/00	SL-B-090700- 1300	31820	3009625	2177193	00126940
11/15/00	SL-B-090700- 1300	31820	3009625	2177194	00126941
11/15/00	SL-B-090700- 1300	31820	3009625	2177195	00126942

Table G-4
Summary of Metal Debris Shipments to Recycle

OT ID #	General Type	Generation Date	LANL Sample		Shipped To
			ID #	Date	
DB-S-112498 -0001	Steel	11/24/98	0074	11/24/98	recycle
DB-S-020299 -0002	Steel	02/02/99	1204	02/03/99	recycle
DB-S-032999 -0003	Steel	03/29/99	NA	NA	recycle
DB-S-041299 -0004	Steel	04/12/99	NA	NA	recycle
DB-S-042999 -0005	Steel	04/29/99	NA	NA	recycle
DB-S-052599 -0006	Steel	05/25/99			recycle
DB-S-061199 -0007	Steel	06/11/99			recycle
DB-S-070299 -0008	Steel	07/02/99	NA	NA	recycle
DB-S-070299 -0009	Steel	07/02/99	NA	NA	recycle
DB-S-072199 -0010	Steel	07/21/99	NA	NA	recycle
DB-S-081099 -0011	Steel	08/10/99	NA	NA	recycle
DB-S-083099 -0012	Steel	08/30/99	NA	NA	recycle
DB-S-091499 -0013	Steel	09/14/99	NA	NA	recycle
DB-S-101599 -0014	Steel	10/15/99	NA	NA	recycle
DB-S-111999 -0015	Steel	11/19/99	NA	NA	recycle
DB-S-010600 -0016	Steel	01/06/00	NA	NA	recycle
DB-S-012100 -0017	Steel	01/21/00			recycle
DB-S-020200 -0018	Steel	02/02/00	NA	NA	recycle
DB-S-031000 -0019	Steel	03/10/00	NA	NA	recycle
DB-S-040700 -0020	Steel	04/07/00	NA	NA	recycle
DB-S-060500 -0021	Steel	06/05/00	NA		recycle
DB-S-071400 -0022	Steel	07/14/00	NA	NA	Disposal
DB-S-071400 -0023	Steel	07/14/00	NA	NA	recycle

Table G-5
Summary of Metal Debris Shipments to Rio Rancho

Ship Date	Truck No.	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
11/28/00	1800	DB-S-071400- 0022	32969	3011013	C00131771	2185993
11/28/00	5500	DB-S-071400- 0022	32969	3011013	C00131772	2185994
11/28/00	2800	DB-S-071400- 0022	32969	3011013	C00131773	2185995
11/28/00	1200	DB-S-071400- 0022	32969	3011013	C00131774	2185996
11/28/00	5500	DB-S-071400- 0022	32969	3011013	C00131775	2185997
11/28/00	1800	DB-S-071400- 0022	32969	3011013	C00131776	2185998
11/28/00	2800	DB-S-071400- 0022	32969	3011013	C00131777	2185999
11/28/00	1200	DB-S-071400- 0022	32969	3011013	C00131778	2186000
11/29/00	2800	DB-S-071400- 0022	32969	3011013	C00131779	2186001
11/29/00	5500	DB-S-071400- 0022	32969	3011013	C00131780	2186002
11/29/00	1800	DB-S-071400- 0022	32969	3011013	C00131781	2186003
11/29/00	1200	DB-S-071400- 0022	32969	3011013	C00131782	2186004
11/29/00	2800	DB-S-071400- 0022	32969	3011013	C00131783	2186005
11/29/00	5500	DB-S-071400- 0022	32969	3011013	C00131784	2186006

Table G-6
Summary of Concrete Debris Shipments to Recycle

Ship Date	Lot/ Shipper's Number	LANL WPF Number
04/07/99	DB-C111798- 0001	30527
04/07/99	DB-C-120198- 0002	30527
04/07/99	DB-C-120198- 0003	30527
04/07/99	DB-C-012999- 0004	30527
04/07/99	DB-C-020299- 0005	30527
04/07/99	DB-C-020299- 0006	30527
04/07/99	DB-C-020399- 0007	30527
04/07/99	DB-C-030899- 0008	30527
05/12/99	DB-C-033199- 0009	30527
04/27/99	DB-C-041298- 0010	30527
05/24/99	DB-C-042299- 0011	30527

Table G-7
Summary of Concrete Debris Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item Number	Container Number
11/02/99	DB-C-072799-0017	31455	3008760	2171311	99121842
11/02/99	DB-C-072799-0017	31455	3008760	2171312	99121843
11/02/99	DB-C-072799-0017	31455	3008760	2171313	99121844
11/02/99	DB-C-072799-0017	31455	3008760	2171314	99121845
11/02/99	DB-C-072799-0017	31455	3008760	2171315	99121846
11/02/99	DB-C-071299-0016	31455	3008760	2171316	99121847
11/02/99	DB-C-071299-0016	31455	3008760	2171317	99121848
11/02/99	DB-C-071299-0016	31455	3008760	2171318	99121849
11/02/99	DB-C-071299-0016	31455	3008760	2171319	99121850
11/02/99	DB-C-071299-0016	31455	3008760	2171320	99121851
11/02/99	DB-C-063099-0015	31455	3008760	2171321	99121852
11/02/99	DB-C-063099-0015	31455	3008760	2171322	99121853
11/02/99	DB-C-063099-0015	31455	3008760	2171323	99121854
11/02/99	DB-C-063099-0015	31455	3008760	2171324	99121855
11/02/99	DB-C-063099-0015	31455	3008760	2171325	99121856
11/02/99	DB-C-060899-0014	31455	3008760	2171326	99121857
11/04/99	DB-C-060899-0014	31455	3008760	2171327	99121858
11/04/99	DB-C-060899-0014	31455	3008760	2171328	99121859
11/04/99	DB-C-060899-0014	31455	3008760	2171329	99121860
11/04/99	DB-C-060899-0014	31455	3008760	2171330	99121861
11/04/99	DB-C-072799-0017	31455	3008760	2171331	99121862
11/04/99	DB-C-072799-0017	31455	3008760	2171332	99121863
11/04/99	DB-C-072799-0017	31455	3008760	2171333	99121864
11/04/99	DB-C-072799-0017	31455	3008760	2171334	99121865
11/04/99	DB-C-072799-0017	31455	3008760	2171335	99121866
11/04/99	DB-C-071299-0016	31455	3008760	2171336	99121867
11/04/99	DB-C-071299-0016	31455	3008760	2171337	99121868
11/04/99	DB-C-071299-0016	31455	3008760	2171338	99121869
11/04/99	DB-C-071299-0016	31455	3008760	2171339	99121870
11/04/99	DB-C-071299-0016	31455	3008760	2171340	99121871
11/04/99	DB-C-063099-0015	31455	3008760	2171341	99121872
11/04/99	DB-C-063099-0015	31455	3008760	2171342	99121873

Table G-7 (continued)
Summary of Concrete Debris Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item Number	Container Number
11/04/99	DB-C-063099-0015	31455	3008760	2171343	99121874
11/04/99	DB-C-063099-0015	31455	3008760	2171344	99121875
11/04/99	DB-C-063099-0015	31455	3008760	2171345	99121876
11/04/99	DB-C-060899-0014	31455	3008760	2171346	99121877
11/04/99	DB-C-060899-0014	31455	3008760	2171347	99121878
11/04/99	DB-C-060899-0014	31455	3008760	2171348	99121879
11/04/99	DB-C-060899-0014	31455	3008760	2171349	99121880
11/04/99	DB-C-060899-0014	31455	3008760	2171350	99121881
11/16/99	DB-C-052099-0013	31455	3008760	2171351	99121882
11/16/99	DB-C-080999-0018	31455	3008760	2171352	99121883
11/16/99	DB-C-080999-0018	31455	3008760	2171353	99121884
11/16/99	DB-C-080999-0018	31455	3008760	2171354	99121885
11/16/99	DB-C-080999-0018	31455	3008760	2171355	99121886
11/16/99	DB-C-080999-0018	31455	3008760	2171356	99121887
11/16/99	DB-C-080999-0018	31455	3008760	2171357	99121888
11/16/99	DB-C-080999-0018	31455	3008760	2171358	99121889
11/16/99	DB-C-052099-0013	31455	3008760	2171359	99121890
11/16/99	DB-C-052099-0013	31455	3008760	2171360	99121891
11/16/99	DB-C-052099-0013	31455	3008760	2171361	99121892
11/16/99	DB-C-052099-0013	31455	3008760	2171362	99121893
11/18/99	DB-C-051399-0012	31455	3008760	2171363	99121894
11/18/99	DB-C-051399-0012	31455	3008760	2171364	99121895
11/18/99	DB-C-051399-0012	31455	3008760	2171365	99121896
11/18/99	DB-C-051399-0012	31455	3008760	2171366	99121897
11/18/99	DB-C-051399-0012	31455	3008760	2171367	99121898
11/18/99	DB-C-051399-0012	31455	3008760	2171368	99121899
11/18/99	DB-C-042999-0011	31455	3008760	2171369	99121900
11/18/99	DB-C-042999-0011	31455	3008760	2171370	99121901
11/18/99	DB-C-042999-0011	31455	3008760	2171371	99121902
11/18/99	DB-C-042999-0011	31455	3008760	2171372	99121903
11/18/99	DB-C-042999-0011	31455	3008760	2171373	99121904
11/18/99	DB-C-042999-0011	31455	3008760	2171374	99121905
12/01/99	DB-C-080999-0018	31455	3008829	2171395	99122373
12/01/99	DB-C-080999-0018	31455	3008829	2171396	99122374

Table G-7 (continued)
Summary of Concrete Debris Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item Number	Container Number
12/01/99	DB-C-081999-0019	31455	3008829	2171397	99122375
12/01/99	DB-C-081999-0019	31455	3008829	2171398	99122376
12/01/99	DB-C-081999-0019	31455	3008829	2171399	99122377
12/01/99	DB-C-081999-0019	31455	3008829	2171400	99122378
12/01/99	DB-C-081999-0019	31455	3008829	2171401	99122379
12/01/99	DB-C-081999-0019	31455	3008829	2171402	99122380
12/01/99	DB-C-081999-0019	31455	3008829	2171403	99122381
12/01/99	DB-C-082699-0020	31455	3008829	2171404	99122382
12/01/99	DB-C-082699-0020	31455	3008829	2171405	99122383
12/01/99	DB-C-082699-0020	31455	3008829	2171406	99122384
12/01/99	DB-C-082699-0020	31455	3008829	2171407	99122385
12/01/99	DB-C-082699-0020	31455	3008829	2171408	99122386
12/01/99	DB-C-082699-0020	31455	3008829	2171409	99122387
12/01/99	DB-C-090999-0021	31455	3008829	2171410	99122388
12/01/99	DB-C-090999-0021	31455	3008829	2171411	99122389
12/01/99	DB-C-090999-0021	31455	3008829	2171412	99122390
12/02/99	DB-C-090999-0021	31455	3008829	2171413	99122391
12/02/99	DB-C-090999-0021	31455	3008829	2171414	99122392
12/02/99	DB-C-092499-0022	31455	3008829	2171415	99122393
12/02/99	DB-C-092499-0022	31455	3008829	2171416	99122394
12/02/99	DB-C-092499-0022	31455	3008829	2171417	99122395
12/02/99	DB-C-092499-0022	31455	3008829	2171418	99122396
12/02/99	DB-C-092499-0022	31455	3008829	2171419	99122397
12/02/99	DB-C-092499-0022	31455	3008829	2171420	99122398
12/02/99	DB-C-100599-0023	31455	3008829	2171421	99122399
12/02/99	DB-C-100599-0023	31455	3008829	2171422	99122400
12/02/99	DB-C-100599-0023	31455	3008829	2171423	99122401
12/02/99	DB-C-100599-0023	31455	3008829	2171424	99122402
12/02/99	DB-C-100599-0023	31455	3008829	2171425	99122403
12/02/99	DB-C-100599-0023	31455	3008829	2171426	99122404
12/02/99	DB-C-090999-0021	31455	3008829	2171427	99122405
12/02/99	DB-C-092499-0022	31455	3008829	2171428	99122406
12/02/99	DB-C-100599-0023	31455	3008829	2171429	99122407
		31455	3008829	2171430	99122408

Table G-7 (continued)
Summary of Concrete Debris Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item Number	Container Number
01/13/00	DB-C-110399-0025	31455	3008947	2173115	99123087
01/13/00	DB-C-110399-0025	31455	3008947	2173116	99123088
01/13/00	DB-C-110399-0025	31455	3008947	2173117	99123089
01/13/00	DB-C-110399-0025	31455	3008947	2173118	99123090
01/13/00	DB-C-110399-0025	31455	3008947	2173119	99123091
01/13/00	DB-C-110399-0025	31455	3008947	2173120	99123092
01/13/00	DB-C-110399-0025	31455	3008947	2173121	99123093
01/13/00	DB-C-110399-0025	31455	3008947	2173122	99123094
01/13/00	DB-C-111699-0026	31455	3008947	2173123	99123095
01/13/00	DB-C-111699-0026	31455	3008947	2173124	99123096
01/13/00	DB-C-111699-0026	31455	3008947	2173125	99123097
01/13/00	DB-C-111699-0026	31455	3008947	2173126	99123098
01/20/00	DB-C-111699-0026	31455	3008947	2173127	99123099
01/20/00	DB-C-111699-0026	31455	3008947	2173128	99123100
01/20/00	DB-C-111699-0026	31455	3008947	2173129	99123101
01/20/00	DB-C-111699-0026	31455	3008947	2173130	99123102
01/20/00	DB-C-111699-0026	31455	3008947	2173131	99123103
01/20/00	DB-C-111699-0026	31455	3008947	2173132	99123104
01/20/00	DB-C-111699-0026	31455	3008947	2173133	99123105
01/20/00	DB-C-111699-0026	31455	3008947	2173134	99123106
02/29/00	DB-C-101499-0024	31455	3009340	2174786	99125006
02/29/00	DB-C-101499-0024	31455	3009340	2174787	99125007
02/29/00	DB-C-101499-0024	31455	3009340	2174788	99125008
02/29/00	DB-C-101499-0024	31455	3009340	2174789	99125009
02/29/00	DB-C-101499-0024	31455	3009340	2174790	99125010
02/29/00	DB-C-101499-0024	31455	3009340	2174791	99125011
02/29/00	DB-C-101499-0024	31455	3009340	2174792	99125012
02/29/00	DB-C-101499-0024	31455	3009340	2174793	99125013
02/29/00	DB-C-101499-0024	31455	3009340	2174794	99125014
03/02/00	DB-C-101999-0024	31455	3009340	2174795	99125015
03/02/00	DB-C-101999-0024	31455	3009340	2174796	99125016
03/02/00	DB-C-113099-0027	31455	3009340	2174797	00125017
03/02/00	DB-C-113099-0027	31455	3009340	2174798	00125018
03/02/00	DB-C-113099-0027	31455	3009340	2174799	00125019

Table G-7 (continued)
Summary of Concrete Debris Shipments to Rio Rancho

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Item Number	Container Number
03/02/00	DB-C-113099-0027	31455	3009340	2174800	00125020
03/07/00	DB-C-113099-0027	31455	3009340	2174801	00125021
03/21/00	DB-C-122099-0028	31455	3009448	2177035	00125813
03/21/00	DB-C-122099-0028	31455	3009448	2177036	00125814
03/16/99	DB-C-122099-0028	31455	3009448	2177037	00125815
03/16/99	DB-C-122099-0028	31455	3009448	2177038	00125816
03/21/00	DB-C-122099-0028	31455	3009448	2177039	00125817
03/21/00	DB-C-122099-0028	31455	3009448	2177040	00125818
03/21/00	DB-C-122099-0028	31455	3009448	2177041	00125819
03/21/00	DB-C-122099-0028	31455	3009448	2177042	00125820
03/21/00	DB-C-122099-0028	31455	3009448	2177043	00125821
03/21/00	DB-C-122099-0028	31455	3009448	2177044	00125822

Table G-8
Summary of Concrete Debris Shipments to Area J

Ship Date	Lot Number	LANL WPF Number	LANL WDR Number	Container Number	Shipper's Number
12/12/00	DB-C-032400-0029	31455	3011257	C00133078	2188375
03/21/00	DB-C-122099-0028	31455	3009448	2177040	00125818
12/12/00	DB-C-032400-0029	31455	3011257	C00133079	2188376
12/12/00	DB-C-032400-0029	31455	3011257	C00133080	2188377
12/12/00	DB-C-032400-0029	31455	3011257	C00133081	2188378
12/13/00	DB-C-032400-0029	31455	3011257	C00133082	2188379
12/13/00	DB-C-032400-0029	31455	3011257	C00133083	2188380
12/14/00	DB-C-032400-0029	31455	3011257	C00133086	2188383
12/14/00	DB-C-032400-0029	31455	3011257	C00133087	2188384
12/19/00	DB-C-032400-0029	31455	3011257	C00133088	2188385
12/19/00	DB-C-032400-0029	31455	3011257	C00133089	2188386
12/14/00	DB-C-070700-0030	31455	3011257	C00133084	2188381
12/14/00	DB-C-070700-0030	31455	3011257	C00133085	2188382
06/06/01	DB-C-010201-0031			Per Gary Stoores Logbook #565 (pages 88, 89 & 90) these lots were added to soil lots that were being shipped to Rio Rancho (see Memo)	
06/04/01 06/05/01	DB-C-032101-0032				

**Table G-9
Summary of Disposition of Water Generated at MDA P**

Lot ID #	General Type	Generation Date	Gal.	LANL Sample		Disposition	Date	Waste Profile No.
				ID #	Date			
FRAC1-121898-01	Decon Water	12/18/98	14,700	0816-98-0081	12/17/98	Dust Control	03/03/99	30311
FRAC1-032999-02	Decon Water	03/29/99	19,824	0819-99-1207	03/29/99	Dust Control	05/15/99	30311
FRAC1-060199-03	Decon Water	06/01/99	18,900	0816-99-1213	06/02/99	Dust Control	06/30/99	30990
FRAC1-080999-04	Decon Water	08/09/99	19,320	0816-99-1222	08/11/99	Dust Control	09/08/99	No WPF #
FRAC1-042100-05	Decon Water	04/21/00	17,020	0816-00-1067	04/24/00	HEWTF	09/15/00	32055
FRAC2-030899-01	Decon Water	03/08/99	18,270	0816-99-1206	03/08/99	HEWTF	04/16/99	30607
FRAC2-050599-02	Decon Water	05/05/99	18,900	0816-99-1212	05/06/99	Dust Control	05/25/99	No WPF #
FRAC2-071599-03	Decon Water	07/15/99	18,691	0816-99-1220	07/15/99	HEWTF	08/26/99	31454
FRAC2-112299-04	Decon Water	11/22/99	19,530	0816-99-1229	11/09/99	HEWTF	02/21/00	32055
FRAC3-042399-01	Decon Water	04/23/99	17,010	0816-99-1211	04/26/99	Dust Control	05/18/99	No WPF #
FRAC3-061899-02	Decon Water	06/18/99	18,480	0816-99-1218	06/24/99	HEWTF	07/22/99	31150
FRAC3-092199-03	Decon Water	09/21/99	18,900	0816-99-1223	09/22/99	HEWTF	11/29/99	31816
TREN1-120998-01	Storm water	12/09/98	9,588	0816-98-0078	12/15/98	Dust Control	04/16/99	30536
TREN2-121598-01	Storm water	12/15/98	5,810	0816-98-0079	12/15/98	Dust Control	04/16/99	30537
TREN3-121698-01	Storm water	12/16/98	950	0816-98-0080	12/16/98	Dust Control	04/16/99	30530
FRAC2-022100-01	Sediment	02/21/00		1030	03/01/00			
BTANK#1-01	Rinse Water	06/02/99		0816-99-1214	06/02/99	NA		30990
BTANK#2-02	Rinse Water	06/08/99		1217	06/08/99	NA		
FRAC2 RINSATE	Rinse Water	04/19/00		1065	04/19/00	NA		
FRAC3-070500-04	Rinse Water	07/05/00		1191	09/29/00	NA		
StormTank -03	Rinse Water	07/17/00		1117	07/17/00	NA		
FRAC TANK # 5	Rinse Water	09/25/00		1285	12/18/00	NA		

June 2003

Table G-9 (continued)
Summary of Disposition of Water Generated at MDA P

Lot ID #	General Type	Generation Date	Gal.	LANL Sample		Disposition	Date	Waste Profile No.
				ID #	Date			
	Rinse Water	09/25/00		1200	09/25/00	NA		
FRAC TANK # 1	Rinse Water	12/12/00		1294	12/12/00	NA		
FRAC2-022100-01	Sediment	02/21/00		1030	03/01/00			
FRAC3-070500-04	Sediment	07/05/00		1108	07/05/00			
FRAC1-042100-05	Sediment	06/05/00		1078	06/05/00			
NA - Not applicable			146,129	Gallons Total Decontamination water				
HEWTF - HE Wastewater Treatment Facility			16,318	Gallons Total Storm water				
			124,972	Gallons re-applied as dust control				
			110,891	Gallons pumped for treatment at HEWTF				

G-106

EH2003-0409

Phase I Closure Implementation Report

Table G-10
Summary of Shipments of Miscellaneous Wastes

Waste Stream	WPF	CWDR	Volume	Weight
Authorized Limits Soils	32948	3011206	820 cu/yds	
		3011502	50 gal.	300 lbs.
Asbestos	24286	3007986	9.259 cu/yds	1357 lbs.
		3007607	2 cu/yds	565 lbs.
		3007133	55 gal.	80 lbs.
	30667	3009018	5.8 cu/yds	1285 lbs.
		3008456	3.05 cu/yds	660 lbs.
Barium Nitrate Chunks	31548	3008091	5 gal.	40 lbs.
		3008654	440 gal.	4121 lbs.
		3009048	141 gal.	550 lbs.
		3009250	90 gal.	600 lbs.
		3009483	48 gal.	300 lbs.
		3009735	144 gal.	900 lbs.
		3012270	30 gal.	195 lbs.
Ash from HE and HE Debris	32163	3009458	55 gal.	85 lbs.
Ash from HE and Fiberglass	32042	3009205	55 gal.	500 lbs.
HE Chunks and Debris	31189	NA	32 gal.	321 lbs.
	31193	NA	8.5 gal.	85 lbs.
	31247	NA	9 gal.	35 lbs.
HE contaminated soil	31383	NA	55 gal.	250 lbs.
Acetone	30445	3008129	5 gal.	30 lbs.
		3009306	5 gal.	40 lbs.
		3009549	5 gal.	40 lbs.
		3010162	5 gal.	40 lbs.
		3011376	10 gal.	90 lbs.
		3014434	7 gal.	60 lbs.
Lead Pieces	32947	3011015	250 gal.	4389 lbs.
PPE (non-Haz, Non-Rad)	31788	NA	33 bags	NA
Waste aerosols	32283	3009688	30 gal.	45 lbs.
	33443	3011024	3 gal.	25 lbs.
Transmission oil spill	31586	3008614	50 gal.	250 lbs.
Lab trash from SAA 1908	30444	3007913	30 gal.	70 lbs.
Mixed waste	31493; 31789	3008560	32 cu/ft	1000 lbs.
LLW	33389	3011486	87 cu/ft	2000 lbs.
PPE	31789	3009660	45 gal.	120 lbs.
Filter elements	32195	3009660	45 gal.	120 lbs.
Cable, pipe, plastic	32337	3009660	90 cu/ft	1000 lbs.

Notes: a WPF waste profile form
b Chemical Waste disposal request

Appendix H

*Summary of Observation Wells
in the Vicinity of MDA P Site*

Table H-1
QA Summary of Observation Wells in Vicinity of MDA P Site

Name	Depth (ft)	Boring Type	Type Completion	Elevation ft (msl)	Easting	Northing	Installation Date	Comment	Abandon Date	Abandon Method
P1	35	Observation Well	2-in. Teflon	7344	1616000	1764707	07/29/87	GW monitoring well (dry)		Undisturbed
P2	10	Observation Well	NA	7341	1615952	1764679	07/23/87	GW monitoring well (dry)	7/1987?	Surface casing only
P3	9	Observation Well	2-in. Teflon	7342	1615920	1764658	07/23/87	GW monitoring well (dry)	07/28/00	3/8-in. bentonite pellets filling 2-in. casing
P4	10	Observation Well	2-in. Teflon	7348	1615832	1764624	07/28/87	GW monitoring well (dry)	11/09/99	3/8-in. bentonite pellets filling 2-in. casing
P5	35	Observation Well	2-in. Teflon	7353	1615764	1764595	07/29/87	GW monitoring well (dry)	11/09/99	3/8-in. bentonite pellets filling 2-in. casing
P6	10	Observation Well	2-in. Teflon	7352	1615711	1764576	07/28/87	GW monitoring well (dry)	11/15/99	Casings excavated
P7	35	Observation Well	2-in. Teflon	7356	1615625	1764553	07/29/87	GW monitoring well (dry)	11/08/99	3/8-in. bentonite pellets filling 2-in. casing
P8	10	Observation Well	2-in. Teflon	7370	1515501	1764467	07/28/87	GW monitoring well (dry)	08/27/98	Well casing removed; remaining borehole was filled with 3/8-in. bentonite pellets
P9	35	Observation Well	2-in. Teflon	7376	1615427	1764443	08/31/98	GW monitoring well (dry)	08/31/98	3/8-in. bentonite pellets filling 2-in. casing
P13	103	Test Hole	2-in. aluminum	7445	1615964	1764306	10/03/87	neutron logging	08/18/98	3/8-in. bentonite pellets filling 2-in. casing
P14	85	Test Hole	2-in. aluminum	7437	1615609	1764313	09/28/87	neutron logging	08/18/98	3/8-in. bentonite pellets filling 2-in. casing

Table H-1 (continued)
QA Summary of Observation Wells in Vicinity of MDA P Site

Name	Depth (ft)	Boring Type	Type Completion	Elevation ft. (msl)	Easting	Northing	Installation Date	Comment	Abandon Date	Abandon Method
P16	105	Test Hole	2-in. aluminum	7452	1615794	1764262	09/04/87	neutron logging	08/19/98	3/8-in. bentonite pellets filling 2-in. casing
P17	30	Moisture-Access	2-in. aluminum	7433	1615994	1764462	09/06/88	neutron logging	02/15/00	Casings excavated
P18	30	Moisture-Access	2-in. aluminum	7438	1615919	1764437	09/08/88	neutron logging	02/15/00	Casings excavated, bentonite pellets
P19	30	Moisture-Access	2-in. aluminum	7448	1615794	1764412	09/14/88	neutron logging	12/15/98	Casings excavated
P20	30	Moisture-Access	2-in. aluminum	7446	1615719	1764387	09/15/88	neutron logging	12/15/98	Casings excavated
L-17	19	Lysimeter Hole	NA	7433	1615994	1764462	09/06/88	Vadose Zone Monitor	02/15/00	Casings excavated
L-18	19	Lysimeter Hole	NA	7438	1615919	1764437	09/08/88	Vadose Zone Monitor	02/15/00	Casings excavated
L-19	14	Lysimeter Hole	NA	7448	1615794	1764412	09/14/88	Vadose Zone Monitor	12/15/98	Casings excavated
L-20	29	Lysimeter Hole	NA	7446	1615719	1764387	09/15/88	Vadose Zone Monitor	12/15/98	Casings excavated

June 2003

H-4

ER2003-0409

Appendix I

*Summaries of Waste Analyses and Shipments
from Flash Pad 387*

Table I-1
Summary Table of Wastes from Flash Pad 387 Excavation

Lot ID No.	General Type	Date Opened	Size	Staged Location	Grid Location	LANL Sample	
						ID #	Date
SL-B-070700-1236	Soil	07/07/00	100	Pad 13	196-199,232-235,268-271,304-307	00-1110	07/12/00
SL-B-070700-1237	Soil	07/07/00	100	Pad 13	196-199,232-235,268-271,304-307	00-1111	07/12/00
SL-B-070700-1238	Soil	07/07/00	100	Pad 13	196-199,232-235,268-271,304-307	00-1112	07/12/00
SL-B-070700-1239	Soil	07/07/00	100	Pad 13	196-199,232-235,268-271,304-307	00-1113	07/12/00
SL-B-070700-1240	Soil	07/07/00	100	Pad 13	196-199,232-235,268-271,304-307	00-1114	07/12/00
SL-B-070700-1241	Soil	07/07/00	100	Pad 13	196-199,232-235,268-271,304-307	00-1115	07/12/00
SL-B-070700-1242	Soil	07/07/00	100	Pad 13	196-199,232-235,268-271,304-307	00-1116	07/12/00
DB-C-070700-0030	Concrete	07/07/00	100	Pad 3	D10 - 13, E10 - 13, F10 - 13	00-1118	07/17/00

Table I-2
Summary of Sample Requests for Wastes from Flash Pad 387

Date Sampled	Sample ID	Sample Type	Analytical Suite	Request Number	Comments
11/23/98	0816-98-0075	Concrete Debris Rinsate	SVOC	4988R	
11/23/98	0816-98-0075	Concrete Debris Rinsate	VOC	4988R	
11/23/98	0816-98-0074	Metal Debris Rinsate	Dioxin	4988R	
11/23/98	0816-98-0074	Metal Debris Rinsate	Herb	4988R	
11/23/98	0816-98-0074	Metal Debris Rinsate	PestPCB	4988R	
11/23/98	0816-98-0074	Metal Debris Rinsate	SVOC	4988R	
11/23/98	0816-98-0074	Metal Debris; Concrete Debris	VOC	4988R	
11/23/98	0816-98-0075	Concrete Debris Rinsate	Metal+PH+TCN	4989R	
11/23/98	0816-98-0075	Concrete Debris Rinsate	Asbestos	4990R	
11/23/98	0816-98-0074	Metal Debris; Concrete Debris	Asbestos	4990R	
11/23/98	0816-98-0075	Concrete Debris Rinsate	Gscan	4991R	
11/23/98	0816-98-0074	Metal Debris; Concrete Debris	Gscan	4991R	
11/23/98	0816-98-0075	Concrete Debris Rinsate	HEXP+PETN	4992R	
11/23/98	0816-98-0074	Metal Debris; Concrete Debris	HEXP+PETN	4992R	
11/23/98	0816-99-1429	Concrete Debris	Metals (TCLP)	6215R	
12/03/98	0816-98-0076; 0077	Concrete Debris Rinsate	SVOC	5019R	
12/03/98	0816-98-0076; 0077	Concrete Debris Rinsate	VOC	5019R	
12/03/98	0816-98-0076; 0077	Concrete Debris Rinsate	Metal+PH+TCN	5020R	
12/03/98	0816-98-0076; 0077	Concrete Debris Rinsate	Asbestos	5021R	
12/03/98	0816-98-0076; 0077	Concrete Debris Rinsate	Gscan	5022R	
12/03/98	0816-98-0076; 0077	Concrete Debris Rinsate	HEXP+PETN	5023R	
02/03/99	0816-99-1201; 1202; 1203	Concrete Debris Rinsate	Herb	5154R	
02/03/99	0816-99-1201; 1202; 1203	Concrete Debris Rinsate	PestPCB	5154R	
02/03/99	0816-99-1201; 1202; 1203	Concrete Debris Rinsate	SVOC	5154R	

June 2003

I-4

EH2003-0409

Table I-2 (continued)
Summary of Sample Requests for Wastes from Flash Pad 387

Date Sampled	Sample ID	Sample Type	Analytical Suite	Request Number	Comments
02/03/99	0816-99-1201; 1202; 1203	Concrete Debris Rinsate	VOC	5154R	
02/03/99	0816-99-1204	Metal Debris Rinsate	Herb	5154R	
02/03/99	0816-99-1204	Metal Debris Rinsate	PestPCB	5154R	
02/03/99	0816-99-1204	Metal Debris Rinsate	SVOC	5154R	
02/03/99	0816-99-1204	Metal Debris Rinsate	VOC	5154R	
02/03/99	0816-99-1201; 1202; 1203	Concrete Debris Rinsate	Metal+PH+TCN	5155R	
02/03/99	0816-99-1204	Metal Debris Rinsate	Metal+PH+TCN	5155R	
02/03/99	0816-99-1201; 1202; 1203	Concrete Debris Rinsate	Asbestos	5156R	
02/03/99	0816-99-1204	Metal Debris Rinsate	Asbestos	5156R	
02/03/99	0816-99-1201; 1202; 1203	Concrete Debris Rinsate	Gscan	5157R	
02/03/99	0816-99-1204	Metal Debris Rinsate	Gscan	5157R	
02/03/99	0816-99-1202; 1203	Concrete Debris Rinsate	HEXP+PETN	5162R	
02/03/99	0816-99-1204	Metal Debris Rinsate	HEXP+PETN	5162R	
02/03/99	0816-99-1201	Concrete Debris Rinsate	Dioxin	5163R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	SVOC	5167R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	VOC	5167R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	TCLP Metals	5168R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	Asbestos	5169R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	Gscan	5170R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	HEXP+PETN	5183R	
03/02/99	0816-99-1039; 1040; 1041; 1042; 1043; 1044; 1045	Concrete Debris	TCLP Metals	5299R	
03/08/99	0816-99-1051	Concrete Debris	SVOC	5317R	
03/08/99	0816-99-1051	Concrete Debris	VOC	5317R	
03/08/99	0816-99-1051	Concrete Debris	Herb	5317R	
03/08/99	0816-99-1051	Concrete Debris	PestPCB	5317R	

Table I-2 (continued)
Summary of Sample Requests for Wastes from Flash Pad 387

Date Sampled	Sample ID	Sample Type	Analytical Suite	Request Number	Comments
02/03/99	0816-99-1201; 1202; 1203	Concrete Debris Rinsate	VOC	5154R	
02/03/99	0816-99-1204	Metal Debris Rinsate	Herb	5154R	
02/03/99	0816-99-1204	Metal Debris Rinsate	PestPCB	5154R	
02/03/99	0816-99-1204	Metal Debris Rinsate	SVOC	5154R	
02/03/99	0816-99-1204	Metal Debris Rinsate	VOC	5154R	
02/03/99	0816-99-1201; 1202; 1203	Concrete Debris Rinsate	Metal+PH+TCN	5155R	
02/03/99	0816-99-1204	Metal Debris Rinsate	Metal+PH+TCN	5155R	
02/03/99	0816-99-1201; 1202; 1203	Concrete Debris Rinsate	Asbestos	5156R	
02/03/99	0816-99-1204	Metal Debris Rinsate	Asbestos	5156R	
02/03/99	0816-99-1201; 1202; 1203	Concrete Debris Rinsate	Gscan	5157R	
02/03/99	0816-99-1204	Metal Debris Rinsate	Gscan	5157R	
02/03/99	0816-99-1202; 1203	Concrete Debris Rinsate	HEXP+PETN	5162R	
02/03/99	0816-99-1204	Metal Debris Rinsate	HEXP+PETN	5162R	
02/03/99	0816-99-1201	Concrete Debris Rinsate	Dioxin	5163R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	SVOC	5167R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	VOC	5167R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	TCLP Metals	5168R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	Asbestos	5169R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	Gscan	5170R	
02/04/99	0816-99-1205	Concrete Debris Rinsate	HEXP+PETN	5183R	
03/02/99	0816-99-1039; 1040; 1041; 1042; 1043; 1044; 1045	Concrete Debris	TCLP Metals	5299R	
03/08/99	0816-99-1051	Concrete Debris	SVOC	5317R	
03/08/99	0816-99-1051	Concrete Debris	VOC	5317R	
03/08/99	0816-99-1051	Concrete Debris	Herb	5317R	
03/08/99	0816-99-1051	Concrete Debris	PestPCB	5317R	

June 2003

I-6

ER2003-0409

**Table I-2 (continued)
Summary of Sample Requests for Wastes from Flash Pad 387**

Date Sampled	Sample ID	Sample Type	Analytical Suite	Request Number	Comments
03/08/99	0816-99-1051	Concrete Debris	Reactive CN/Sulfide	5317R	
03/08/99	0816-99-1051	Concrete Debris	TCLP Metals+PH	5318R	
03/08/99	0816-99-1051	Concrete Debris	Asbestos	5319R	
03/08/99	0816-99-1051	Concrete Debris	HEXP+PETN	5320R	
03/08/99	0816-99-1051	Concrete Debris	Dioxin	5320R	
03/08/99	0816-99-1051	Concrete Debris	Gscan	5321R	
04/07/99	0816-99-1078	Concrete Debris	Metals (TCLP)	5442R	
04/14/99	0816-99-1085	Concrete Debris	Metals (TCLP)	5455R	
04/26/99	0816-99-1098	Concrete Debris	Metals (TCLP)	5505R	
05/18/99	0816-99-1108	Concrete Debris	Herb	5584R	
05/18/99	0816-99-1108	Concrete Debris	PestPCB	5584R	
05/18/99	0816-99-1108	Concrete Debris	Reactive CN/Sulfide	5584R	
05/18/99	0816-99-1108	Concrete Debris	SVOC	5584R	
05/18/99	0816-99-1108	Concrete Debris	VOC	5584R	
05/18/99	0816-99-1108	Concrete Debris	TCLP Metals+PH	5585R	
05/18/99	0816-99-1108	Concrete Debris	HEXP+PETN	5586R	
05/18/99	0816-99-1108	Concrete Debris	Dioxin	5586R	
05/18/99	0816-99-1108	Concrete Debris	Asbestos	5587R	
05/18/99	0816-99-1108	Concrete Debris	Gamma Spec	5588R	
05/27/99	0816-99-1110	Concrete Debris	Metals (TCLP)	5613R	
06/08/99	0816-99-1131	Concrete Debris	Metals (TCLP)	5665R	
07/06/99	0816-99-1146	Concrete Debris	Metals (TCLP)	5776R	
07/14/99	0816-99-1151	Concrete Debris	Herb	5807R	
07/14/99	0816-99-1151	Concrete Debris	PestPCB	5807R	
07/14/99	0816-99-1151	Concrete Debris	Reactive CN/Sulfide	5807R	
07/14/99	0816-99-1151	Concrete Debris	SVOC	5807R	

Table I-2 (continued)
Summary of Sample Requests for Wastes from Flash Pad 387

Date Sampled	Sample ID	Sample Type	Analytical Suite	Request Number	Comments
07/14/99	0816-99-1151	Concrete Debris	VOC	5807R	
07/14/99	0816-99-1151	Concrete Debris	TCLP Metals+PH	5808R	
07/14/99	0816-99-1151	Concrete Debris	Asbestos	5809R	
07/14/99	0816-99-1151	Concrete Debris	HEXP+PETN	5810R	
07/14/99	0816-99-1151	Concrete Debris	Dioxin	5810R	
07/14/99	0816-99-1151	Concrete Debris	Gamma Spec	5811R	
07/29/99	0816-99-1176	Concrete Debris	Metals (TCLP)	5914R	
08/11/99	0816-99-1181	Concrete Debris	Metals (TCLP)	5966R	
08/19/99	0816-99-1327	Concrete Debris	Metals (TCLP)	5993R	
08/31/99	0816-99-1339	Concrete Debris	Herb	6027R	
08/31/99	0816-99-1339	Concrete Debris	PestPCB	6027R	
08/31/99	0816-99-1339	Concrete Debris	Reactive CN/Sulfide	6027R	
08/31/99	0816-99-1339	Concrete Debris	SVOC	6027R	
08/31/99	0816-99-1339	Concrete Debris	VOC	6027R	
08/31/99	0816-99-1339	Concrete Debris	TCLP Metals+PH	6028R	
08/31/99	0816-99-1339	Concrete Debris	Dioxin	6029R	
08/31/99	0816-99-1339	Concrete Debris	HEXP+PETN	6029R	
08/31/99	0816-99-1339	Concrete Debris	Asbestos	6030R	
08/31/99	0816-99-1339	Concrete Debris	Gamma Spec+IsoU	6031R	
09/13/99	0816-99-1359	Concrete Debris	Metals (TCLP)	6061R	
09/27/99	0816-99-1367	Concrete Debris	Metals (TCLP)	6096R	
10/06/99	0816-99-1380	Concrete Debris	Metals (TCLP)	6121R	
10/20/99	0816-99-1392	Concrete Debris	Herb	6143R	
10/20/99	0816-99-1392	Concrete Debris	PestPCB	6143R	
10/20/99	0816-99-1392	Concrete Debris	Reactive CN/Sulfide	6143R	
10/20/99	0816-99-1392	Concrete Debris	SVOC	6143R	

June 2003

I-8

ER2003-0409

ER2003-0409

1-9

June 2003

Table I-2 (continued)
Summary of Sample Requests for Wastes from Flash Pad 387

Date Sampled	Sample ID	Sample Type	Analytical Suite	Request Number	Comments
10/20/99	0816-99-1392	Concrete Debris	VOC	6143R	
10/20/99	0816-99-1392	Concrete Debris	Metals (TCLP)	6144R	
10/20/99	0816-99-1392	Concrete Debris	TCLP Metals+PH	6144R	
10/20/99	0816-99-1392	Concrete Debris	Dioxin	6145R	
10/20/99	0816-99-1392	Concrete Debris	HEXP+PETN	6145R	
10/20/99	0816-99-1392	Concrete Debris	Asbestos	6146R	
10/20/99	0816-99-1392	Concrete Debris	Gamma Spec+IsoU	6147R	
11/03/99	0816-99-1406	Concrete Debris	Metals (TCLP)	6161R	
11/23/99	0816-98-0074	Metal Debris; Concrete Debris	Metal+PH+TCN	4989R	
12/06/99	0816-99-1434	Concrete Debris	Metals (TCLP)	6226R	
12/20/99	0816-99-1440	Concrete Debris	Herb	6282R	
12/20/99	0816-99-1440	Concrete Debris	PestPCB	6282R	
12/20/99	0816-99-1440	Concrete Debris	Reactive CN/Sulfide	6282R	
12/20/99	0816-99-1440	Concrete Debris	SEMIN	6282R	
12/20/99	0816-99-1440	Concrete Debris	VOAN	6282R	
12/20/99	0816-99-1440	Concrete Debris	TCLP Metals+PH	6283R	
12/20/99	0816-99-1440	Concrete Debris	Dioxin	6284R	
12/20/99	0816-99-1440	Concrete Debris	HEXP+PETN	6284R	
12/20/99	0816-99-1440	Concrete Debris	Asbestos	6285R	
12/20/99	0816-99-1440	Concrete Debris	Gamma Spec+IsoU	6286R	
01/18/00	0816-00-1008; 1009	Concrete Debris	IsoTh+IsoU	6364R	RS of 1440
01/18/00	0816-00-1008; 1009	Concrete Debris	TU	6382R	RS of 1440
03/27/00	0816-00-1047	Concrete Debris	Metals (TCLP)	6614R	
01/02/01	0816-01-0001	Concrete	Herb	8178R	Concrete Staging Pad
01/02/01	0816-01-0001	Concrete	PestPCB	8178R	Concrete Staging Pad
01/02/01	0816-01-0001	Concrete	SEMIN	8178R	Concrete Staging Pad

Phase I Closure Implementation Report

Table I-2 (continued)
Summary of Sample Requests for Wastes from Flash Pad 387

Date Sampled	Sample ID	Sample Type	Analytical Suite	Request Number	Comments
01/02/01	0816-01-0001	Concrete	VOAGCMSN	8178R	Concrete Staging Pad
01/02/01	0816-01-0001	Concrete	Dioxin	8179R	Concrete Staging Pad
01/02/01	0816-01-0001	Concrete	HEXP+PETN	8179R	Concrete Staging Pad
01/02/01	0816-01-0001	Concrete	Reactive CN/Sulfide	8180R	Concrete Staging Pad
01/02/01	0816-01-0001	Concrete	TCLP Metals+PH	8180R	Concrete Staging Pad
01/02/01	0816-01-0001	Concrete	Asbestos	8181R	Concrete Staging Pad
01/02/01	0816-01-0001	Concrete	Gamma Spec+IsoU	8182R	Concrete Staging Pad
04/02/01	0816-01-0016	Concrete	SEMIN	8582R	Concrete Decon Pad
04/02/01	0816-01-0016	Concrete	VOAGCMSN	8582R	Concrete Decon Pad
04/02/01	0816-01-0016	Concrete	Herb	8582R	Concrete Decon Pad
04/02/01	0816-01-0016	Concrete	PestPCB	8582R	Concrete Decon Pad
04/02/01	0816-01-0016	Concrete	Dioxin	8584R	Concrete Decon Pad
04/02/01	0816-01-0016	Concrete	HEXP+PETN	8584R	Concrete Decon Pad
04/02/01	0816-01-0016	Concrete	TCLP Metals+PH	8585R	Concrete Decon Pad
04/02/01	0816-01-0016	Concrete	Reactive CN/Sulfide	8585R	Concrete Decon Pad
04/02/01	0816-01-0016	Concrete	Asbestos	8586R	Concrete Decon Pad
04/02/01	0816-01-0016	Concrete	Gamma Spec+IsoU	8587R	Concrete Decon Pad

June 2003

I-10

EH2003-0409

**Table I-3
Summary of Sample Results for Wastes from Flash Pad 387**

Sample_ID	Analyte_Name	Analyte Method	Result	RESULT_UNIT
0816-00-1110	Barium	SW-846:6010B	304000	UG/L
0816-00-1110	U-235	EPA:901.1	-0.25	pCi/g
0816-00-1110	U-238	EPA:901.1	-0.06	pCi/g
0816-00-1110	Uranium-234	HASL-300:ISOU	0.6	pCi/g
0816-00-1110	Uranium-238	HASL-300:ISOU	0.73	pCi/g
0816-00-1110	Pentaerythritol tetranitrate	SW-846:8330	985	UG/KG
0816-00-1110	RDX	SW-846:8330	4100	UG/KG
0816-00-1110	Amino DNT's	SW-846:8330	420	UG/KG
0816-00-1110	HMX	SW-846:8330	5100	UG/KG
0816-00-1111	Barium	SW-846:6010B	187000	UG/L
0816-00-1111	U-235	EPA:901.1	-0.37	pCi/g
0816-00-1111	U-238	EPA:901.1	0.4	pCi/g
0816-00-1111	Uranium-234	HASL-300:ISOU	0.63	pCi/g
0816-00-1111	Uranium-238	HASL-300:ISOU	0.82	pCi/g
0816-00-1111	Pentaerythritol tetranitrate	SW-846:8330	995	UG/KG
0816-00-1111	RDX	SW-846:8330	7900	UG/KG
0816-00-1111	Amino DNT's	SW-846:8330	500	UG/KG
0816-00-1111	HMX	SW-846:8330	8200	UG/KG
0816-00-1112	Barium	SW-846:6010B	177000	UG/L
0816-00-1112	U-235	EPA:901.1	-0.41	pCi/g
0816-00-1112	U-238	EPA:901.1	-0.41	pCi/g
0816-00-1112	Uranium-234	HASL-300:ISOU	0.64	pCi/g
0816-00-1112	Uranium-238	HASL-300:ISOU	0.85	pCi/g
0816-00-1112	Pentaerythritol tetranitrate	SW-846:8330	985	UG/KG
0816-00-1112	RDX	SW-846:8330	7100	UG/KG
0816-00-1112	Amino DNT's	SW-846:8330	560	UG/KG
0816-00-1112	HMX	SW-846:8330	5900	UG/KG
0816-00-1113	Barium	SW-846:6010B	155000	UG/L
0816-00-1113	Uranium-234	HASL-300:ISOU	0.76	pCi/g
0816-00-1113	Uranium-238	HASL-300:ISOU	1.87	pCi/g
0816-00-1113	Pentaerythritol tetranitrate	SW-846:8330	966	UG/KG
0816-00-1113	RDX	SW-846:8330	8300	UG/KG
0816-00-1113	Amino DNT's	SW-846:8330	350	UG/KG
0816-00-1113	HMX	SW-846:8330	5700	UG/KG
0816-00-1114	Barium	SW-846:6010B	158000	UG/L
0816-00-1114	Uranium-234	HASL-300:ISOU	0.8	pCi/g
0816-00-1114	Uranium-238	HASL-300:ISOU	0.78	pCi/g
0816-00-1114	Pentaerythritol tetranitrate	SW-846:8330	995	UG/KG
0816-00-1114	RDX	SW-846:8330	18000	UG/KG
0816-00-1114	Amino DNT's	SW-846:8330	490	UG/KG
0816-00-1114	HMX	SW-846:8330	6100	UG/KG
0816-00-1115	Barium	SW-846:6010B	355000	UG/L
0816-00-1115	Uranium-234	HASL-300:ISOU	0.63	pCi/g
0816-00-1115	Uranium-238	HASL-300:ISOU	0.7	pCi/g

**Table I-4
Summary of Waste Shipments from Flash Pad 387**

Date	Lot #	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
09/06/00	SL-B-070700 -1239	129908	32232	3010432	2286796	09/18/00	09/14/00	09/19/00	18.70
09/08/00	SL-B-070700 -1239	129909	32232	3010432	2286797	09/21/00	09/13/00	09/21/00	18.88
09/08/00	SL-B-070700 -1239	129911	32232	3010432	2286798	09/21/00	09/13/00	09/21/00	20.92
09/08/00	SL-B-070700 -1239	129912	32232	3010432	2286799	09/21/00	09/13/00	09/21/00	21.28
09/08/00	SL-B-070700 -1240	129914	32232	3010432	2286800	09/21/00	09/13/00	09/21/00	19.83
09/08/00	SL-B-070700 -1240	129915	32232	3010432	2286801	09/21/00	09/13/00	09/21/00	20.93
09/08/00	SL-B-070700 -1240	129916	32232	3010432	2286802	09/21/00	09/13/00	09/21/00	23.19
09/08/00	SL-B-070700 -1240	129917	32232	3010432	2286803	09/21/00	09/13/00	09/21/00	21.47
09/18/00	SL-B-070700 -1236	129918	32232	3010432	2286804	09/21/00	09/13/00	09/21/00	19.98
09/11/00	SL-B-070700 -1238	129919	32232	3010432	2286805	09/21/00	09/14/00	10/11/00	19.33
09/11/00	SL-B-070700 -1238	129920	32232	3010432	2286806	09/21/00	09/14/00	10/11/00	18.98
09/11/00	SL-B-070700 -1238	129921	32232	3010432	2286807	09/21/00	09/14/00	09/21/00	19.07
09/11/00	SL-B-070700 -1238	129922	32232	3010432	2286808	09/21/00	09/14/00	10/11/00	22.40
09/11/00	SL-B-070700 -1241	129923	32232	3010432	2286809	09/21/00	09/14/00	09/21/00	18.85
09/11/00	SL-B-070700 -1241	129924	32232	3010432	2286810	09/21/00	09/14/00	09/21/00	21.05
09/11/00	SL-B-070700 -1241	129925	32232	3010432	2286812	09/21/00	09/14/00	09/21/00	20.07
09/11/00	SL-B-070700 -1241	129926	32232	3010432	2286813	09/21/00	09/14/00	09/21/00	21.48
09/13/00	SL-B-070700 -1237	129927	32232	3010432	2286814	09/21/00	09/19/00	10/11/00	20.25
09/13/00	SL-B-070700 -1237	129929	32232	3010432	2286815	09/21/00	09/19/00	09/21/00	20.38
09/13/00	SL-B-070700 -1237	129930	32232	3010432	2286816	09/21/00	09/19/00	09/21/00	23.48
09/13/00	SL-B-070700 -1237	129931	32232	3010432	2286817	09/21/00	09/19/00	10/11/00	24.88
09/13/00	SL-B-070700 -1242	129932	32232	3010432	2286818	09/21/00	09/19/00	10/11/00	20.57
09/13/00	SL-B-070700 -1242	129933	32232	3010432	2286819	09/21/00	09/19/00	10/11/00	21.53

June 2003

I-12

ER2003-0409

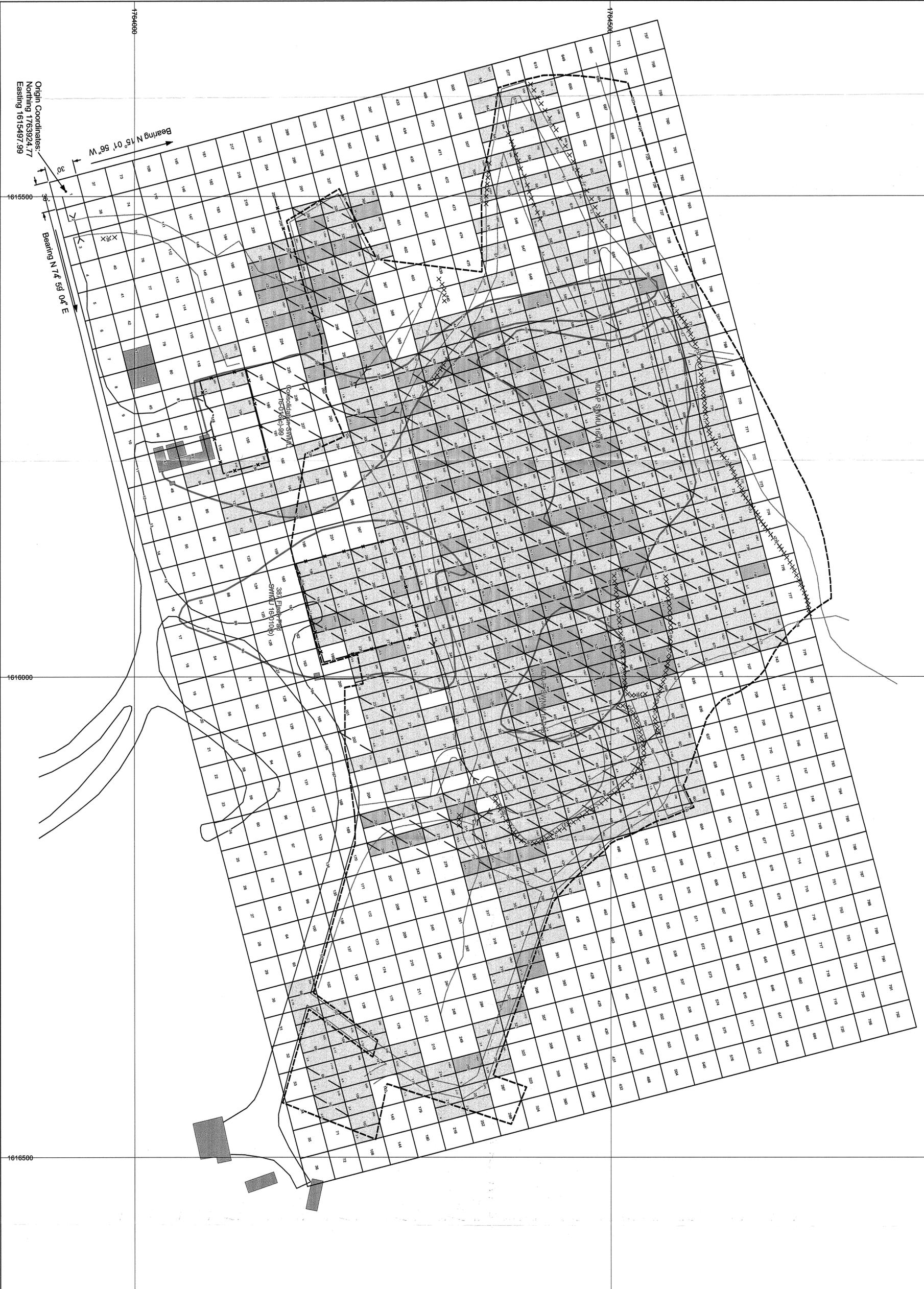
Table I-4 (continued)
Summary of Waste Shipments from Flash Pad 387

Date	Lot #	Container Number	LANL WPF Number	LANL WDR Number	State Manifest Number	WCS Certificate of Receipt	WCS Invoice Dates	WCS Certificate of Disposal	Weight in Tons
09/13/00	SL-B-070700 -1242	129934	32232	3010432	2286820	09/21/00	09/19/00	10/11/00	22.87
09/13/00	SL-B-070700 -1242	129935	32232	3010432	2286821	09/21/00	09/19/00	09/21/00	22.64
09/15/00	SL-B-070700 -1237	129936	32232	3010432	2286823	09/21/00	09/19/00	09/21/00	19.94
09/15/00	SL-B-070700 -1237	129937	32232	3010432	2286824	09/21/00	09/19/00	10/11/00	22.52
09/15/00	SL-B-070700 -1238	129938	32232	3010432	2286825	09/21/00	09/19/00	10/11/00	21.16
09/15/00	SL-B-070700 -1241	129939	32232	3010432	2286826	09/21/00	09/19/00	10/11/00	21.39
09/15/00	SL-B-070700 -1241	129940	32232	3010432	2286827	09/21/00	09/19/00	09/21/00	23.66
09/15/00	SL-B-070700 -1241	129941	32232	3010432	2286828	09/21/00	09/19/00	10/11/00	22.61
09/15/00	SL-B-070700 -1242	129942	32232	3010432	2286829	09/21/00	09/19/00	10/11/00	22.16
09/15/00	SL-B-070700 -1242	129943	32232	3010432	2286830	09/21/00	09/19/00	10/11/00	19.18
09/18/00	SL-B-070700 -1236	129944	32232	3010432	2286822	09/21/00	09/20/00	10/03/00	18.57
09/18/00	SL-B-070700 -1236	129945	32232	3010432	2286831	09/21/00	09/20/00	10/03/00	19.12
09/18/00	SL-B-070700 -1236	129946	32232	3010432	2286832	09/21/00	09/20/00	10/03/00	19.33
09/18/00	SL-B-070700 -1236	129947	32232	3010432	2286833	09/21/00	09/20/00	10/03/00	19.12
09/18/00	SL-B-070700 -1236	129948	32232	3010432	2286834	09/21/00	09/20/00	10/03/00	19.83
09/18/00	SL-B-070700 -1239	129949	32232	3010432	2286835	09/21/00	09/20/00	10/03/00	20.50
09/18/00	SL-B-070700 -1240	129951	32232	3010432	2286836	09/21/00	09/20/00	10/03/00	20.32

MDA P Results of Release Surveys - PLATE 2

- Culvert
- Drainage
- Exclusion Zone (Area of Contamination)
- Fence
- Road, Dirt
- Road, Paved
- Solid Waste Management Unit (SWMU) Boundary
- Survey Grid with Grid Number
- Unknown Structure
- Structure
- Strawbales
- Barium Concentration < 2000 Field Measurements X-Ray Fluorescence mg/kg
- Barium Concentration > 2000 Field Measurements mg/kg
- RDx Concentration Field Measurements EPA Method 8510 mg/kg < 16
- RDx Concentration Field Measurements EPA Method 8510 mg/kg > 16
- Excavated to Bedrock
- Surface

6421-B



Origin Coordinates:
 Northing 1763924.77
 Easting 1615497.99

Bearing N 15° 01' 56" W

Bearing N 74° 59' 04" E

DISCLAIMER OF LIABILITY: Information from the University of California, or any of their employees, makes no warranty, express or implied, including the warranties of merchantability and fitness for a particular purpose, or appearance, product, or process depicted, or represents that its use would infringe privacy owned rights. Work performed on behalf of RRES-R, Los Alamos National Laboratory, Los Alamos, NM, 87545.

1:800

0 50 100 150 200

North Arrow

State Plane Coordinate System, New Mexico Central Zone,
 1983 North American Datum, Units Feet.
 Grid displays New Mexico State Plane coordinates in feet.

GISLAB
 Los Alamos National Laboratory

RRES

Cartography by: Doug Walther
 Date: January 24, 2003
 M#: 200577

DATA SOURCES FOR MDT - 20027
 Title: On-site Public Health Lead (PH) (RSL-01)
 Client: Los Alamos National Laboratory (LANL)
 Contract: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Drawing: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Date: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Edition: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Project: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Revision: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Scale: 1:8000
 Author: Doug Walther
 Date: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Title: On-site Public Health Lead (PH) (RSL-01)
 Client: Los Alamos National Laboratory (LANL)
 Contract: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Drawing: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Date: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Edition: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Project: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Revision: 20020202, client supplied; Los Alamos National Laboratory (LANL)
 Scale: 1:8000
 Author: Doug Walther
 Date: 20020202, client supplied; Los Alamos National Laboratory (LANL)

Sample XRF Field Measure for Barium



ID	Barium	Barium (NLog)	ID	Barium	Barium (NLog)
500	21.0	3.04	500	21.0	3.04
501	343.0	5.84	501	343.0	5.84
502	426.0	6.05	502	426.0	6.05
503	666.0	6.50	503	666.0	6.50
504	776.0	6.65	504	776.0	6.65
505	472.0	6.16	505	472.0	6.16
506	841.0	6.73	506	841.0	6.73
507	1154.0	7.05	507	1154.0	7.05
508	1121.0	7.02	508	1121.0	7.02
513	2564.0	7.85	513	2564.0	7.85
514	423.0	6.05	514	423.0	6.05
515	597.0	6.39	515	597.0	6.39
516	475.0	6.16	516	475.0	6.16
517	622.0	6.43	517	622.0	6.43
518	356.0	5.87	518	356.0	5.87
519	341.0	5.83	519	341.0	5.83
520	748.0	6.62	520	748.0	6.62
526	565.0	6.34	526	565.0	6.34
527	592.0	6.38	527	592.0	6.38
528	614.0	6.42	528	614.0	6.42
529	373.0	5.92	529	373.0	5.92
530	917.0	6.82	530	917.0	6.82
531	3043.0	8.02	531	3043.0	8.02
532	808.0	6.69	532	808.0	6.69
533	925.0	6.83	533	925.0	6.83
534	1620.0	7.39	534	1620.0	7.39
535	2278.0	7.73	535	2278.0	7.73
536	810.0	6.70	536	810.0	6.70
537	3610.0	8.19	537	3610.0	8.19
539	553.0	6.32	539	553.0	6.32
540	596.0	6.39	540	596.0	6.39
541	505.0	6.22	541	505.0	6.22
542	469.0	6.15	542	469.0	6.15
543	422.0	6.05	543	422.0	6.05
544	1514.0	7.32	544	1514.0	7.32
545	436.0	6.08	545	436.0	6.08
546	1154.0	7.05	546	1154.0	7.05
547	24902.0	10.12	547	24902.0	10.12
548	3105.0	8.04	548	3105.0	8.04
549	14701.0	9.60	549	14701.0	9.60
550	2781.0	7.93	550	2781.0	7.93
552	455.0	6.12	552	455.0	6.12
553	880.0	6.78	553	880.0	6.78
554	530.0	6.27	554	530.0	6.27
555	562.0	6.33	555	562.0	6.33

6421-D

State Plane Coordinate System, New Mexico Central Zone
1983 North American Datum

Grid provides NM State Plane coordinates in feet



NOTICE: The information on this map is provisional. Feature locations are dependent on scale and symbology and their accuracy may not have been confirmed. Los Alamos National Laboratory boundary is based on legal description established in 1995. Other boundary, structure and utility data are from Los Alamos National Laboratory Engineering Division and Los Alamos County Utility and Engineering Departments. Contour data are from Los Alamos National Laboratory Environmental Restoration Project aerial survey, September 1991.

University of California
Los Alamos National Laboratory
Earth and Environmental Sciences Division

FIMAD Facility for Information Management, Analysis and Display
Fimad is the electronic data repository for the Environmental Restoration Project at Los Alamos National Laboratory.

Produced by: Jan Benson
Date: 22 July 1996

FIMAD Plot Id: C104941

- Barium
- 21 - 423
- 423 - 505
- 505 - 598
- 598 - 748
- 748 - 917
- 917 - 1154
- 1154 - 2278
- 2278 - 24902
- Barium Contour - 1000 interval
- Fence, Industrial
- ▨ Roads - Paved
- ▨ Parking, Paved
- ▨ Material Disposal Area P
- ▨ Pads, Client