

Los Alamos
 NATIONAL LABORATORY
 EST. 1943
Environmental Programs
 Corrective Actions Project
 PO Box 1663, Mail Stop M992
 Los Alamos, New Mexico 87545
 (505) 667-0819/FAX (505) 665-4747

TA 35



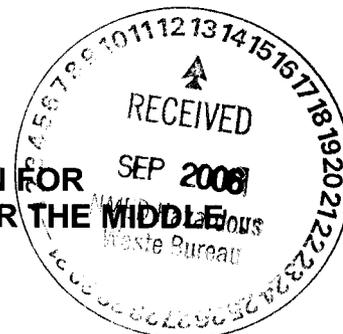
National Nuclear Security Administration
 Los Alamos Site Office, MS A316
 Environmental Restoration Program
 Los Alamos, New Mexico 87544
 (505) 667-7203/FAX (505) 665-4504

LIBRARY COPY

Date: September 8, 2006
 Refer to: EP2006-0817

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

**SUBJECT: RESPONSE TO APPROVAL OF THE TIME EXTENSION FOR
 RESUBMITTAL OF THE INVESTIGATION REPORT FOR THE MIDDLE
 MORTANDAD/TEN SITE AGGREGATE**



Dear Mr. Bearzi:

The purpose of this letter is to provide details about additional characterization sampling activities to be conducted for the Middle Mortandad/Ten Site Aggregate investigation to determine the extent of contamination at locations where specific analytical data were insufficient to define extent. In addition, this letter discusses a strategy for implementing soil removal at Solid Waste Management Units (SWMUs) 35-016(o) and 35-016(p) as a result of elevated polycyclic aromatic hydrocarbon (PAH) contamination. The results of additional sampling and proposed soil removal will be incorporated in a revised investigation report, to be submitted on May 18, 2006, as stipulated in your letter dated August 14, 2006.

The requirements for the additional sampling were identified in the investigation report and in the "Response to the Notice of Disapproval for Investigation Report for the Middle Mortandad/Ten Site Aggregate." The additional samples will assist in defining the extent of contamination where previous analytical data were missing. Four samples will be collected from the East Ten Site Slope Subarea at Consolidated Unit 05-001(a)-99 to determine the extent of inorganic chemicals. Two samples will be collected from the East Ten Site Slope Subarea at Area of Concern (AOC) 05-001(c) to determine the extent of isotopic uranium. Within Pratt Canyon, at Consolidated Unit 35-003(d)-00, four samples will be collected to determine the extent of strontium-90. Also, within Pratt Canyon at Consolidated Unit 35-016(k)-00, three locations will be resampled to determine the vertical extent of PAHs, and an additional two locations will be sampled to determine the lateral extent of PAHs. The enclosed table summarizes the locations, analytes, and sample depths for the additional sampling. Sample collection will follow the methods described in the investigation report. Field screening of samples primarily for health and safety monitoring purposes will be conducted at each location following the procedures described in the investigation work plan.

The investigation report recommended collecting additional samples at eight locations within SWMUs 35-016(o) and 35-016(p) to adequately define the vertical extent



of PAH contamination. In addition, the report recommended removing soil from these locations to reduce the cancer risk associated with the elevated PAH concentrations and to prevent the transport of contaminated soil to areas on the lower slope of these SWMUs that are more accessible to trail users. Additional samples will be collected immediately below the outfall where samples had been collected in 1995. Samples will also be collected across the lower slope below the outfalls to determine whether PAH-contaminated sediment has been transported down the steep slopes as a result of surface run-off. The proposed sample locations are included in the enclosed map.

If PAH concentrations are significantly lower than concentrations detected at the 1995 sample locations, a SWMU-specific risk assessment will be conducted to reevaluate the need to remove soil. If PAH concentrations are consistent with the levels in samples collected in 1995, the soil in these locations will be excavated and removed. The amount of soil to be removed will be determined from the 1995 analytical data and the additional proposed sampling. Sufficient material will be removed to ensure that the excess cancer risk associated with PAH contamination within these SWMUs is reduced. Confirmation samples will be collected after soil excavation is completed to ensure PAH-contaminated soil has been removed. The results of the confirmation samples may not be available in time to be included in the revised investigation report. However, a separate letter with the confirmation sampling results will be submitted to the New Mexico Environment Department as soon as data are available.

The additional characterization data will be used with existing analytical data to reevaluate the risk at individual SWMUs, AOCs, and consolidated units within the Middle Mortandad/Ten Site Aggregate. If the reevaluation of risk indicates the need for remediation at additional sites, these activities will be conducted and discussed in the revised investigation report, to be submitted on May 18, 2006.

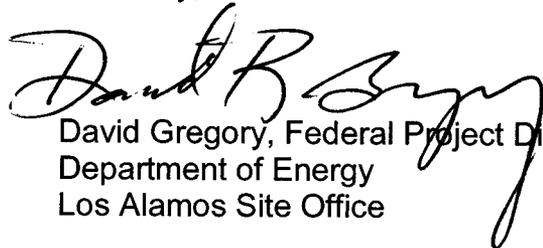
If you have any questions, please contact Kent Rich at 505-665-4272 (krich@lanl.gov) or Tony Trujillo at 505-845-5987 (ltruji@doeal.gov).

Sincerely,



Andrew Phelps, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,



David Gregory, Federal Project Director
Department of Energy
Los Alamos Site Office

AP/DG/KR/jr

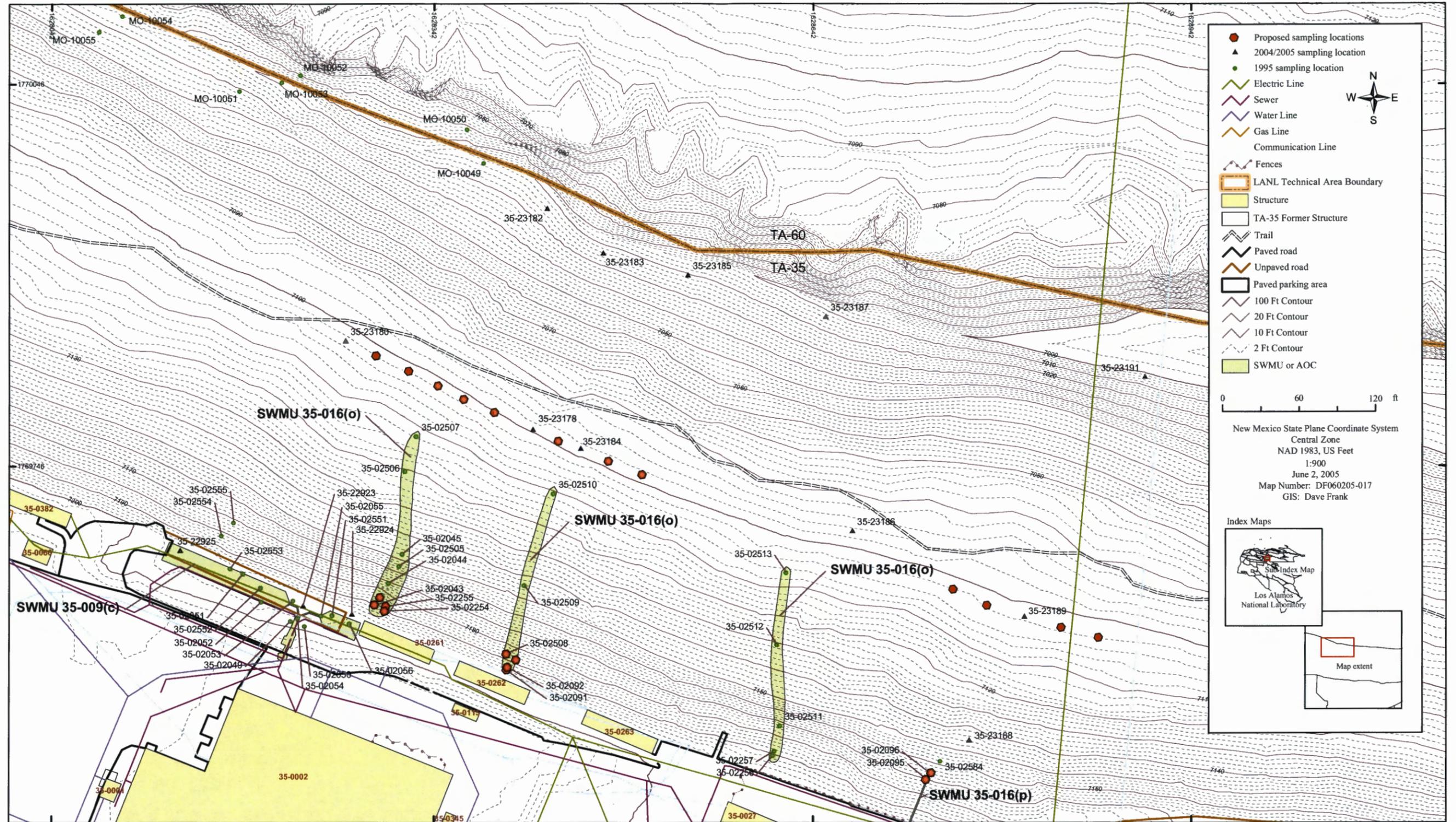
- Enclosures: 1) Table summarizing additional sample locations at Middle Mortandad/Ten Site Aggregate
2) Map of proposed sampling locations for SWMUs 35-016(o) and 35-016(p)

Cy:

A. Dorries, EP-ERSS, MS M992
G. Dover, EP-CAP, MS M992
D. McInroy, EP-CAP, MS M992
K. Rich, EP-CAP, MS M992
P. Reneau, EP-RCRA, MS M992
C. Mangeng, ADEP, MS J591
A. Phelps, ADEP, MS J591
D. Gregory, DOE LASO, MS A316
L. King, EPA Region 6
N. Dhawan, NMED-HWB
D. Cobrain, NMED-HWB
D. Pepe, NMED-OB
Corrective Actions File, MS M992
RPF, MS M707
IRM-RMMSO, MS A150

**Enclosure 1
Summary of Additional Sample Locations at Middle Mortandad/Ten Site Aggregate**

Subarea	Consolidated Unit, SWMU, or AOC	Location ID#s	Depth (ft)	Analyses
Mortandad Slope	35-016(o) 35-016(p)	35-02043 35-02255 35-02254 35-02508 35-02091 35-02092 35-02095 35-02096	0-0.5, tuff interface	PAHs
Mortandad Slope	35-016(o)	2-4 locations at top of slope below outfall	0-0.5, tuff interface	PAHs
Mortandad Slope	35-016(o)	8 locations at base of slope	0-0.5, tuff interface	PAHs
Mortandad Slope	35-016(p)	4 locations at base of slope	0-0.5, tuff interface	Inorganic chemicals (target analyte list [TAL] metals), and PAHs
Pratt Canyon	35-016(k)-00	35-02502	2.0-2.5, 3.0-3.5	PAHs
Pratt Canyon	35-016(k)-00	35-02503	2.0-2.5, 3.0-3.5	PAHs
Pratt Canyon	35-016(k)-00	35-02214	2.0-2.5, 3.0-3.5	PAHs
Pratt Canyon	35-016(k)-00	2 locations	0.0-1.0, 2.0-2.5	PAHs
Pratt Canyon	35-003(d)-00	35-24402	2.5-3.0, 4.0-4.5	Strontium-90
Pratt Canyon	35-003(d)-00	35-24405	2.5-3.0, 4.0-4.5	Strontium-90
East Ten Site Slope	05-001(c)	05-22894	~6.2-6.7, ~7.0-7.5	Isotopic uranium
East Ten Site Slope	05-001(a)-99	05-02060	1.0-1.5, 2.0-2.5	Inorganic chemicals (TAL metals)
East Ten Site Slope	05-001(a)-99	05-02056	22-22.5, 24.5-25	Inorganic chemicals (TAL metals)



Enclosure 2. Proposed additional sampling locations for SWMUs 35-016(o) and 35-016(p)