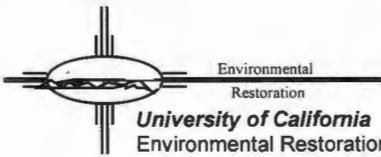


(k)



University of California
Environmental Restoration Project, MS M9926
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: June 4, 1999
Refer to: EM/ER:99-146

MSWA LANL 1/106/21

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

**SUBJECT: MODIFICATION TO THE VOLUNTARY CORRECTIVE MEASURE
PLAN FOR CONSOLIDATED POTENTIAL RELEASE SITE
21-027(d)-99**

Dear Mr. Bearzi:

This letter provides a summary of discussions between representatives of the New Mexico Environment Department Hazardous and Radioactive Materials Bureau (NMED-HRMB) and the Los Alamos National Laboratory (LANL) ER Project during the week of May 24, 1999, regarding the consolidated Potential Release Site (PRS) 21-027(d)-99. Per our discussions with Mr. John Kieling and Mr. John Young of your staff, the LANL ER Project is modifying the Voluntary Corrective Measure (VCM) Plan for the consolidated PRS 21-027(d)-99 (LANL 1999, LA-UR-99-1613). These modifications are the result of additional stained tuff exhibiting a diesel odor observed in the southwest corner of the pit excavated to sample the nontraditional in-situ vitrification (NTISV) material.

As described in the VCM Plan, residual hydrocarbons in the form of weathered diesel were discovered in the subsurface during the construction of the NTISV cold test pit. Consolidated PRS 21-027(d)-99 (consisting of AOC C-21-028 and SWMU 21-027(d)) is the approximate location of the cold test pit. It was decided by NMED at a meeting on March 4, 1999, that this site should be further evaluated as a VCM (Canepa and Taylor 1999, EM/ER:99-051). The Plan called for the NTISV cold demonstration and the characterization and confirmatory sampling of the hydrocarbon release from the consolidated PRS.

Before initiating the cold demonstration, four boreholes (NTISV-1 through NTISV-4) were drilled south, east, and southeast of the observed hydrocarbon contamination (Figure 1). One additional borehole (NTISV-5) was drilled west of the excavation. Continuous core was collected to an estimated maximum depth of 26.5 feet below



TL

ground surface (bgs). The cores were screened for TPH with an immunoassay field test kit. A minimum of two samples were collected from each borehole. Samples were analyzed for SVOCs, VOCs, metals, TPH (diesel range), gross alpha, beta, and gamma spectroscopy.

Preliminary review of analytical data collected from the boreholes drilled outside the excavation indicated the greatest concentration of TPH (diesel range) at 3,300 ppm was found in borehole NTISV-1 at the soil/tuff interface (7.5 to 8 ft bgs). The TPH concentration in the sample collected from the bottom of borehole NTISV-1 (23.5 to 24 ft bgs) was 5.7 ppm. TPH concentrations were not detected in all other samples collected from boreholes NTISV-2 through NTISV-5.

The preliminary data review indicated the presence of sec-butylbenzene, p-isopropyltoluene, 2-methylnaphthalene, isopropylbenzene, sec-butylbenzene, and n-butylbenzene in the southeast corner of the cold test pit. Preliminary review of SVOCs and VOCs indicated the presence of phenanthrene, 2-butanone, and 1,3,5-trimethylbenzene in borehole NTISV-1 (7.5 to 8 ft bgs) and benzene (1.2 ppm) in borehole in NTISV-2 (24 to 24.5 ft bgs).

Preliminary review of the inorganic data from the cold test pit excavation and the boreholes indicate that analytical results are within area background levels. Preliminary review of analytical data for radionuclides indicate that analytical results are within area background except for gross beta. However, gross beta levels were anticipated to be elevated due to historic operations and activities conducted in the vicinity of this consolidated PRS. The attached 1958 photograph shows the TA-21 laundry facility and laboratory adjacent to the former diesel tank. Sample locations from the sidewalls and bottom of the cold test excavation pit are shown on Figure 2.

Modifications to the VCM Plan include the addition of one new borehole between previous boreholes NTISV-1 and NTISV-2, and determining the lateral and vertical extent of the hydrocarbon contamination observed in the southwest corner of the cold test excavation. This will be achieved by advancing a minimum of three boreholes adjacent to the southwest corner of the excavation (see Figure 1) and the collection of confirmatory samples at the soil/tuff interface from each borehole. Continuous core will be collected from each borehole to an estimated maximum depth of approximately 20 feet below ground surface (bgs). Additional boreholes will be advanced and samples collected as necessary to ensure the lateral and vertical extent of the residual hydrocarbon contamination is defined. We anticipate collecting these confirmation samples between June 4 and 7, 1999.

Based on the analytical results from preliminary subsurface sampling prior to the cold test, the confirmatory samples will be analyzed for SVOCs and TPH (diesel range). Results will be verbally reported to Mr. Young and Mr. Kieling and presented in the subsequent VCM Completion Report.

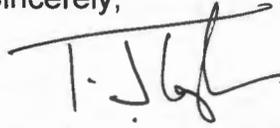
We appreciate the time and effort your staff has provided toward implementing the NTISV VCM. If you have any questions, please call Deba Daymon at (505) 667-9021 or Dave McInroy at (505) 667-0819.

Sincerely,



Julie A. Canepa, Program Manager
LANL/ER Project

Sincerely,



Theodore J. Taylor, Program Manager
DOE/LAAO

JC/TT/PB/gt

- Enclosures: 1) Figure 1: Schematic Diagram Plan View of Borehole Locations and Proposed Borehole Locations
2) Figure 2: Schematic Diagram of Sample Locations for NTISV Cold Demonstration Pit
3) MDA V Photograph

Cy (w/enc.):

M. Buksa, EM/ER, MS M992
D. Daymon, EES-13, MS M992
G. McMath, EM/ER, MS M992
J. Mose, LAAO, MS A316
T. Taylor, LAAO, MS A316
J. Kieling, NMED-HRMB
S. Yanicak, NMED-AIP, MS J993
RPF, MS M707

Cy (w/o enc.):

J. Canepa, EM/ER, MS M992
M. Kirsch, EM/ER, MS M992
D. McInroy, EM/ER, MS M992
EM/ER File, MS M992
Tracker RM 604, MS M992

FIGURE 1
SCHEMATIC DIAGRAM
PLAN VIEW OF
BOREHOLE LOCATIONS AND
PROPOSED BOREHOLE LOCATIONS

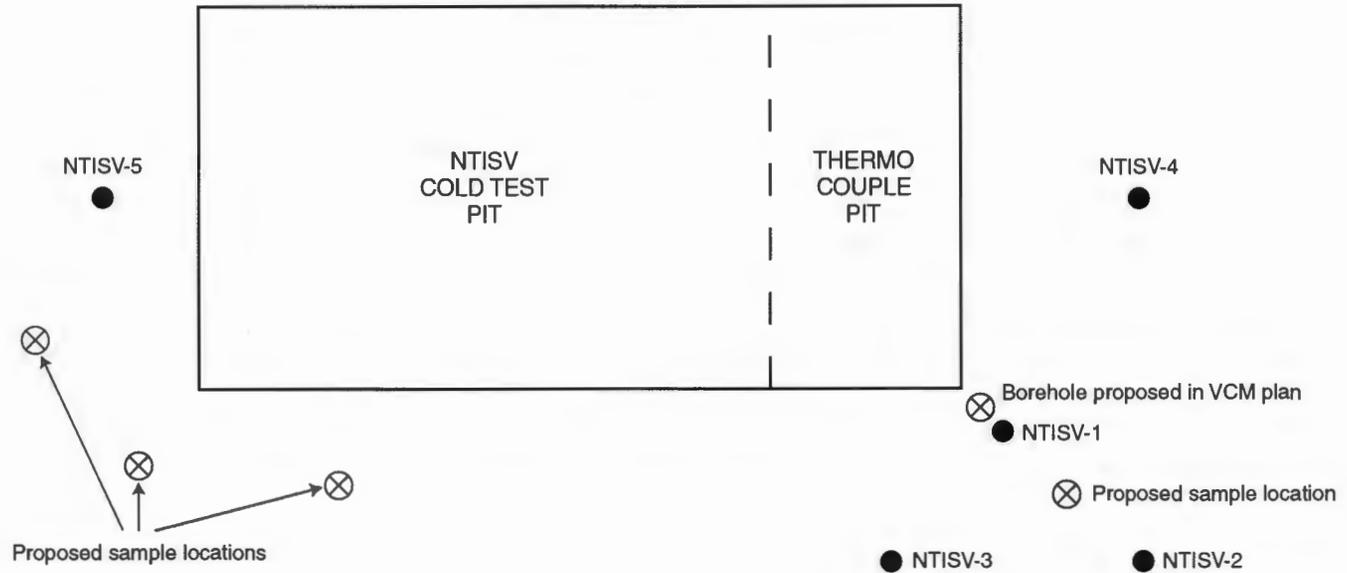
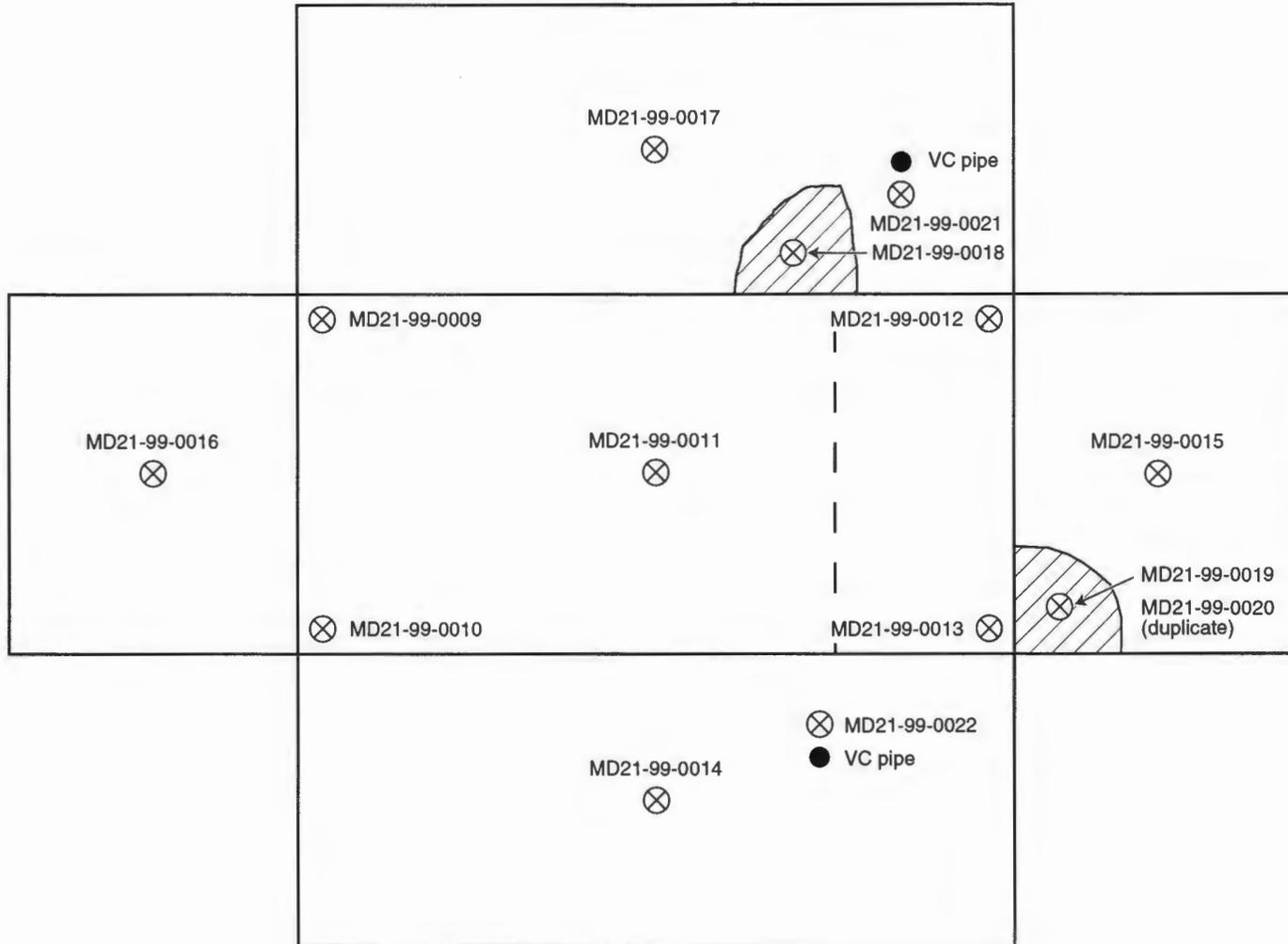




FIGURE 2
SCHEMATIC DIAGRAM OF
SAMPLE LOCATIONS FOR NTISV
COLD DEMONSTRATION PIT





MDA V

21-027(d)

LAB

LAUNDRY

DIESEL TANK C-21-028

MDA V (1958)