



Los Alamos National Laboratory/University of California
 Environmental Stewardship (ENV)
 Environmental Remediation & Surveillance (ERS), MS M992
 Los Alamos, New Mexico 87545
 (505) 667-0808/FAX (505) 665-4747



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

Date: October 22, 2005
 Refer To: ER2005-0744

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



SUBJECT: SEPTEMBER 2005 MONTHLY PROGRESS REPORT FOR CORRECTIVE MEASURES STUDY FOR POTENTIAL RELEASE SITE 16-021(c)-99

Dear Mr. Young:

Enclosed are two hard copies of the September 2005 Corrective Measures Study (CMS) Progress Report for Potential Release Site (PRS) 16-021(c)-99, the 260 Outfall. The report is submitted according to the approved CMS plan for PRS 16-021(c)-99.

If you have questions, please call Don Hickmott at (505) 667-8753 (dhickmott@lanl.gov) or Woody Woodworth at (505) 665-5820 (lwoodworth@doeal.gov).

Sincerely,

David McInroy, Deputy Program Director
 Environmental Remediation & Surveillance
 Los Alamos National Laboratory

Sincerely,

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

DH/jk

Enclosure: Two hard copies of the Monthly Progress Report Corrective Measures Study (CMS) for Potential Release Site (PRS) 16-021(c)-99, September 2005



Mr. John Young
ER2005-0744

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October 12, 2005

Cy:(w/enc)

P. Reneau, ENV-ECR, MS M992

D. Hickmott, ENV-ECR MS M992

D. Gregory, LASO, MS A316

B. Rich, ADO, MS A104

L. King, EPA Region 6

S-7, MS F674

ENV-ECR File, MS M992

RPF, MS M707

Cy:(w/o enclosure)

A. Dorries, ENV-ECR, MS M992

D. McInroy, ENV-ERS, MS M992

D. Pepe, NMED-OB

J. Kieling, NMED-HWB

Monthly Progress Report
Corrective Measures Study (CMS) for Potential Release Site (PRS) 16-021(c)-99
September 2005

This report summarizes Los Alamos National Laboratory (LANL) activities completed during September of fiscal year (FY) 2005 on the CMS for PRS 16-021(c)-99, the TA-16-260 Outfall. Both the activities described in the CMS plan ([LA-UR-98-3918], approved by NMED-HWB on 9/8/99), and other related activities are described herein.

Description of Activities and Contacts

High Performing Team (HPT) Activities – The HPT did not meet during September 2005. A letter describing the recent performance of the permeable reactive barrier (PRB) in Mortandad Canyon and discussing PRB at other facilities around the country was provided to NMED on September 14, 2005. This letter had been requested by NMED at the previous HPT meeting on August 25, 2005.

The next HPT meeting is tentatively scheduled for October. Topics will include a TA-16-260 update, a discussion of the intermediate-well drilling, and a discussion of the upcoming RFI Report for deep groundwater.

RCRA Facility Investigation (RFI) Phase II Report and CMS Plan– No activities this month.

Best Management Practices (BMPs) – BMPs are inspected quarterly and following significant precipitation events. BMP were inspected following precipitation events in September and repairs were not required.

CMS Hydrogeologic Investigations– Investigations include ongoing Phase II RFI sampling as well as continuing investigations outlined in the CMS plan.

The ongoing Phase II RFI sampling program, currently focused on capturing high-flow events, includes collecting stable isotope samples at Martin and Burning Ground Springs.

The hydrologic system in Cañon de Valle is wet, due to heavy monsoonal rains in August and September. Water continues to flow over the weir at SWSC spring (~125 mL/sec). Martin Spring is flowing at ~300 mL/sec and Burning Ground Spring is flowing at a rate of ~800 mL/ sec.

The 90s Line Pond, Fishladder Seep, and downgradient surface locations in Martin Spring Canyon and Cañon de Valle are wet. The alluvial wells in both Cañon de Valle and Martin Spring Canyon are wet. Water was also present at the Cañon de Valle headwaters, the Water Canyon confluence, and the Fishladder Canyon confluence.

Redrilling of the CDV-16-2(i) well was completed in July. The borehole was drilled to a total depth of 872 ft with a static water level following drilling of ~ 837 ft. A single

screen well was installed. As of September 30, the well still contained water, although pumping rates have decreased to < 1 gal./min. A pump test was completed in September. Development has been quite difficult due to low pump rates; turbidity values are low, but variable. Phosphate levels are low. Total organic carbon is low (< 1 ppm).

Ecological Risk Pilot–

The ecological risk pilot is complete; results are presented in the Phase III RFI Report.

CMS Bench and Pilot Studies– Write-up of bench and pilot studies, many of which were completed under the auspices of the Innovative Technology Remediation Demonstration (ITRD) program, have been completed. The ITRD HE program is focused on two DOE sites: LANL and Pantex. Ongoing studies include:

1. A study of the passive barrier technology of Stormwater Management, Inc., potentially useful for removing HE and barium from waters (LANL). Monitoring of barrier effectiveness has recommenced after several quarters of drought conditions during which Martin spring was dry.
2. A study of in situ anaerobic bioremediation of HE using gas-phase carbon additions (Pantex).
3. Oxidation, reduction, and in-situ bioremediation studies of groundwater contamination (Pantex).

Interim Measure (IM) –

The IM Report was approved by NMED in a letter dated January 13, 2003. No new activities occurred during this reporting period.

RFI and CMS Report –

The CMS Report was completed and submitted to NMED on November 26, 2003; the RFI Report was completed and submitted in October of 2003. A response to the NOD on the RFI Report was submitted on January 28, 2004 and an addendum to that NOD response was submitted on February 25, 2004. An approval with modifications for the RFI was received on June 23, 2004, and a response to the approval was submitted to NMED on July 23, 2004. The RFI text modifications were completed during December 2004 and submitted to NMED. An NOD on the CMS Report was received on May 16, 2005. A response to that NOD was submitted on June 15, 2005.

Public and Stakeholder Involvement – None.

Percentage of CMS Completed

LANL estimates 100% of the surface CMS has been completed (please note this percentage does not reflect either the deep or intermediate boreholes being drilled per the CMS plan addendum).

Problems Encountered/Actions to Rectify Problems

The fact that the CDV-16-2(i) well has moderate and variable turbidity is of concern. Low pumping rates have hampered the development. This condition will be monitored during upcoming sampling.

Key Personnel Issues

None.

Projected Work for October 2005

RFI Reports and CMS Report

- Discussions regarding the CMS Report with NMED personnel.

BMPs

- Continued inspection of existing BMPs following significant precipitation events.

CMS Hydrogeologic Investigations

- Site maintenance at the TA-16 trailers.
- Checking for levels and presence of water in alluvial and deep wells.
- Precipitation monitoring.
- Data analysis.
- Groundwater modeling.
- Work on groundwater RFI report.
- Installation of pump in the redrilled CdV-16-2(i).
- Sampling of CDV-R-15-3 and CDV-R-37-2.

Ecological Risk Pilot

- None

CMS Bench and Pilot Studies

- None

Public and Stakeholder Involvement

None planned.