

RELEASE / DISCHARGE NOTIFICATION
 LOS ALAMOS NATIONAL LABORATORY
 Permit Number: .

Calendar Year
2004

TA-6 Pajarito Canyon

NPDES or Operational Spill/Release Release ID Number:
 ER Spill/Release Indicate with "X" in appropriate box.
 Other Spill/Release

Responsible Facility/User Group:
 Contact Person: Pager #:
 Phone #: Cell Phone #:

Release/Discharge Location:
 TA:
 Building:
 The location of the drilling fluid release is in the bottom of Two Mile Canyon. The drilling fluid surfaced approximately 3600 feet (~0.68 mile) upstream from the Pajarito Flood Retention Structure (PFRS) to within approximately 100 feet upstream of the PFRS. The drilling fluid was also released to Unit 2 and Unit 3 of the subsurface geology. See Attachment 1 for a map of the release location.

If the release/discharge is associated with a NPDES Outfall, Potential Release Site (PRS) or Solid Waste Management Unit (SWMU), indicate the site/unit number and its relationship to the release/discharge:
 NPDES Outfall: PRS: SWMU: PRS/SWMU Number:

Relationship of the Discharge to a SWMU or PRS:
 None.

Discharge Occurred:	<input type="text" value="1/28/2004~4:30 p.m."/>	Discharge Discovered:	<input type="text" value="1/28/2003~4:30 p.m."/>	Discharge Stopped:	<input type="text" value="2/9/2004~4:30 p.m."/>
	Date & Time		Date & Time		Date & Time
Cleanup Started:	<input type="text" value="TBD"/>	Cleanup Completed:	<input type="text" value="TBD"/>		
	Date & Time		Date & Time		

Material(s) Released / Discharged:
 PARGEL 220 and MAX GEL Drilling Fluids. Drilling fluids released consist of potable water, bentonite, silica (crystalline quartz and crystalline Tridymite), and gypsum. See Attachment 2 for Material Safety Data Sheets (MSDSs).

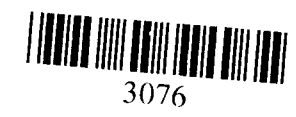
Release/Discharge Mitigation Method:
 The Stormwater Pollution Prevention Plan (SWPPP) will be modified. Residual drilling fluid will be removed from the watercourse and contours will be returned to natural state.

Weather Conditions:
 Cold, varying conditions

Duration of Release/ Discharge, in HOURS:	<input type="text" value="288"/>	Est. Volume Released/ Discharged, in GAL.	<input type="text" value="872,000"/>	Est. Volume Recovered, in GAL.	<input type="text" value="872,000"/>
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Corrective Actions Taken (ie, type of BMPs, etc):
 Site assessments were conducted. Samples were taken of the drilling fluid near the origin of the release. Laboratory personnel placed an earthen berm (~6 feet high, ~10 feet wide, and ~60 feet long) across the channel approximately 100 feet upstream of the PFRS to contain the drilling fluid. The berm will be maintained to ensure that drilling fluid does not flow beyond the berm. A 404 Dredge and Fill Application Permit was submitted to the U.S. Corps of Engineers on 1/29/2004 for the installation of the berm.

Nearest Watercourse (Canyon Name)



Release Number 125 N/A...page 2 of 2

If the release/discharge reached a watercourse, describe the estimated surface area affected, presence of release/discharge now in the watercourse, and the media the release/discharge was detected in:

The discharge originated from the bottom of Two Mile Canyon approximately 3600 feet above the PFRS and flowed downstream to within approximately 100 feet upstream of the PFRS. An estimated 140,000 gallons of drilling fluid has discharged to the surface (Two Mile Canyon). An estimated 732,000 gallons of drilling fluid has been discharged to the subsurface (within Unit 2 and Unit 3 geological strata).

Depth to Groundwater, in FT, If known: ~950

Distance to Nearest Drinking Water Well, in FT, If known: ~7,250 Well ID# PM-5

24 HOUR RELEASE / DISCHARGE NOTIFICATIONS

Table with columns: Agency, Contact Person, Phone, Fax, Date & Time (or Comment). Rows include EPA, NMED/SWQB, NMED/GWQB, NMED/HRMB, NMED/DOE-OB, RRES-WQH, DOE, and OTHER.

Comments: Mike Saladen (RRES-WQH) provided a 24-hour verbal notification to NMED-SWQB's Richard Powell and NMED-GWPP's Curt Frischkom on 1/29/04 at 2:18 p.m. and 2:48 p.m., respectively.

Form Completed By: Mark Haagenstad

7 DAY RELEASE / DISCHARGE ACTIONS

7 Day Notice [checked] 7 Day Notice Date: 2/4/2004 7 Day Notice By: Mark Haagenstad

Comments: The Laboratory is in the process of planning mitigation efforts.

15 DAY RELEASE / DISCHARGE ACTIONS

15 day Follow-up Due: 2/12/2004 15-day Follow-Up By: Mark Haagenstad

Comments: The proposed mitigation plan for the drilling fluid surface release to Two Mile Canyon is provided in the attached document.

NMED 30 DAY APPROVAL / DISAPPROVAL

NMED 30 Day Response Date: 2/27/2004

Comments:

Ralph Erickson, Director
Office of Los Alamos Site Operations
Department of Energy
Los Alamos, New Mexico 87544
(505) 667-5105

Beverly Ramsey, RRES Division Director
University of California
Los Alamos National Laboratory
P.O. Box 1863, MS K491
Los Alamos, New Mexico 87544
(505) 667-4218

Two Mile Canyon Drilling Fluid Release Mitigation Plan Los Alamos National Laboratory

Overview:

On January 28, 2004, during borehole drilling operations for the installation of an underground 100-psi gas pipeline, Laboratory personnel discovered a drilling fluid release into the watercourse in Two Mile Canyon. The drilling fluid flowed approximately 3,600 feet downstream to within 100-feet of the Pajarito Flood Retention Structure (PFRS). On January 30, 2004, a temporary berm was placed approximately 100-feet upstream of the PFRS to retain the drilling fluid as an initial mitigation (please see attached map). An estimated 140,000-gallons of drilling fluid was released to the surface of the watercourse. This mitigation plan will outline the basic activities to be completed for the removal of drilling fluid released to the surface of Two Mile Canyon.

Mitigation Activities:

Mitigation activities include removal of residual drilling fluid, removal of the earthen berm, returning canyon contours to natural conditions, and proper disposal of recovered material. Activities are planned to begin on May 10, 2004. Activities in the affected area are restricted by Threatened and Endangered Species (New Mexico Spotted Owl) limitations between February 28, 2004 and May 10, 2004. Drilling fluid will be allowed to dry out making removal more efficient and cost effective while minimizing environmental impacts. Mitigation activities will be subdivided into two primary methods of cleanup. The two primary methods include the use of heavy equipment and manual labor and hand tools for drilling fluid removal. These methods are contingent upon the canyon conditions and the minimization of environmental impacts.

- Heavy equipment will be used in areas where the canyon bottom is large enough to accommodate machinery. This will include the area immediately behind the berm to approximately 500-feet upstream from the berm. See attached map for approximate areas where heavy equipment will be used.
- Manual labor or hand tools will be used as a means for drilling fluid removal in areas of Two Mile Canyon that are inaccessible to heavy equipment. These areas are generally heavily wooded with steep sloping conditions. Residual drilling fluid will be removed with hand tools (i.e. shovels, rakes, etc.) from approximately 500-feet upstream from the berm to the discharge location (~3100-feet upstream). See attached map for approximate areas where manual labor and hand tools will be used for drilling fluid removal.

Waste Management:


The Laboratory will submit a Notice of Intent to Discharge (NOI) to NMED for land application of the recovered drilling fluid to NMED's SWQB and GWPPB. The Laboratory will collect samples in accordance with NMED requirements. All drilling fluid recovered during mitigation will be properly stored until land application or disposal permits have been approved and obtained.

**Two Mile Canyon Drilling Fluid Release Mitigation Plan
Los Alamos National Laboratory**

Mitigation Plan Approval:

I hereby certify that the information contained is consistent with the mitigation activities to be conducted. The Laboratory will allocate necessary resources to mitigate the impact of residual drilling fluid in Two Mile Canyon.

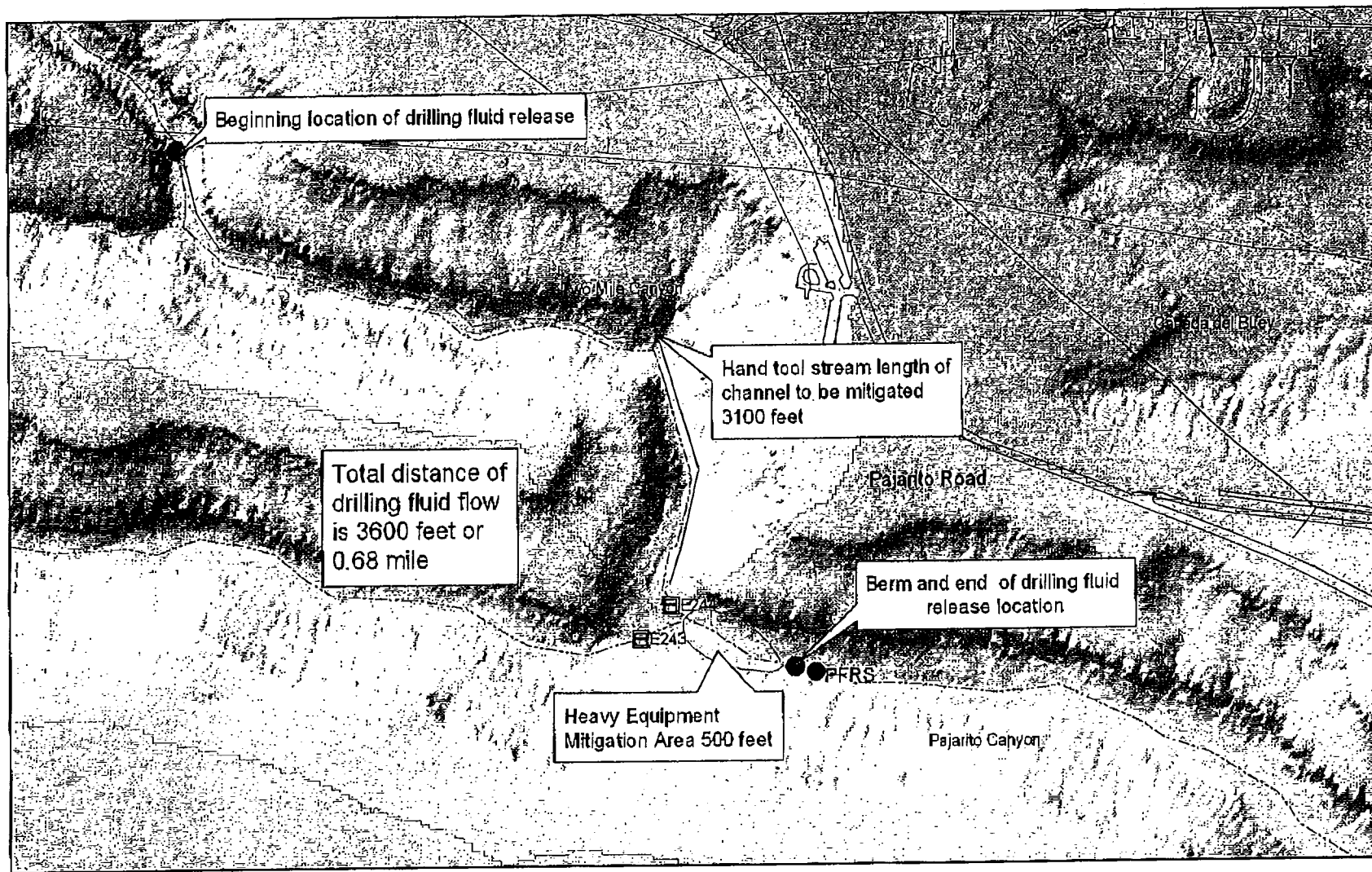
Approved:


Signature

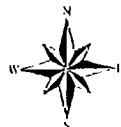
2/13/04
Date

Group Leader FWO-IP
Title:

Two Mile Canyon HDD Project Drilling Fluid Release



0 200 400 800 1,200 1,600 Feet



1:6,512

- Pajarito Flood Retention Structure
- Stormwater Monitoring Locations
- Electric Powerlines
- Paved Roads
- - - - Watercourse

Cartography by Chris McLean
1/2/04
RRES-Water Quality and Hydrology Group

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Los Alamos, New Mexico 87544

Risk Reduction & Environmental Stewardship Division
WATER QUALITY & HYDROLOGY GROUP, RRES-WQH
FAX TRANSMITTAL SHEET

FAX #: (505) 665-9344**VERIFICATION #: (505) 665-0453**

DATE:	<u>2/13/2004</u>	LOG NO:	<u>WQH-FAX-03-</u>
FROM:	<u>Mark Haagenstad</u>	PHONE#:	<u>(505) 665-2014</u>
TO:	<u>Waudelle Strickley</u>	ORG:	<u>EPA</u>
FAX #:	<u>(214) 665-2168</u>	PHONE #:	<u>(214) 665-7491</u>
TO:	<u>Jean Manger</u>	ORG:	<u>U.S. Army Corps of Eng.</u>
FAX #:	<u>(505) 342-3498</u>	PHONE #:	<u>(505) 342-3216</u>
TO:	<u>Richard Powell</u>	ORG:	<u>NMED-SWQB</u>
FAX #:	<u>(505) 827-0160</u>	PHONE #:	<u>(505) 827-2798</u>
TO:	<u>Curt Frischkorn</u>	ORG:	<u>NMED-GWQB</u>
FAX #:	<u>(505) 827-2965</u>	PHONE #:	<u>(505) 827-2918</u>
TO:	<u>John Young</u>	ORG:	<u>NMED-HWB</u>
FAX #:	<u>(505) 428-2567</u>	PHONE #:	<u>(505) 428-2538</u>
TO:	<u>Steve Yanicak</u>	ORG:	<u>NMED/DOE-OB</u>
FAX #:	<u>(505) 672-0466</u>	PHONE #:	<u>(505) 672-0448</u>
TO:	<u>Gene Turner</u>	ORG:	<u>DOE</u>
FAX #:	<u>(505) 665-4872</u>	PHONE #:	<u>(505) 667-5794</u>
TO:	<u>James Jones</u>	ORG:	<u>FWO-IP</u>

FAX #: (505) 665-0144 PHONE #: (505) 667-3989

TO: James Bell ORG: FWO-IP
FAX #: (505) 665-3154 PHONE #: (505) 665-4728

TO: David Keller ORG: RRES-ECO
FAX #: (505) 667-0731 PHONE #: (505) 667-7037

TO: Michelle Kirsch ORG: PS-7
FAX #: (505) 665-6977 PHONE #: (505) 665-8146

MESSAGE: Attached you will find the 15-Day Release / Discharge Notification of a drilling fluid release to Two Mile Canyon. A proposed mitigation plan has also been provided. Due to weather conditions and Laboratory closure on 2/12/2004, this report is one day late. Please contact Mark Haagenstad (665-2014 or 699-1733) if you have any questions on the matter. Thanks...

NUMBER OF PAGES TO FOLLOW: 5

Cy: WQH Fax File