

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

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TO:

John J. Linehan, Director, HLPD

Division of High-Level Waste Management, M/S 4-H-3

FROM:

Paul T. Prestholt, Sr. On-Site Licensing Representative

DATE:

October 4, 1989

SUBJECT:

WEEKLY ACTIVITY REPORT, PROTOTYPE TESTING

Please find enclosed the above-referenced report received in this office, i.e., week ending September 3, 1989.

PTP:nan Enclosure

CC:

Carl Johnson

Agency for Nuclear Projects Nuclear Waste Project Office

Capitol Complex

Carson City, Nevada 89710

WEEKLY ACTIVITY REPORT PROTOTYPE TESTING Week Ending - September 03, 1989

Participants:

Los Alamos - manage and Integrate Prototype Testing and conduct tests.

Sandia National Laboratories - manage the operations at G-Tunnel and perform tests.

U. S. Geological Survey (U. S. Bureau of Reclamation, and Lawrence Berkeley Laboratory) - perform tests.

Lawrence Livermore National Laboratory - perform tests.

Holmes and Narver - provides surveying and other support.

Fenix and Scisson of Nevada - provides plans, test networks, and cost estimates.

REECo - provides mining equipment, performs drilling and mining, and provides support labor.

Pan Am - provides photographic support.

Key Prototype Activities for the Reporting Period:

LLNL

Engineered Barrier - Overcore:

REECo personnel completed up rigging the LY38 drill and drilling commenced on hole P1. Total depth for this hole during this reporting period is 13.1 feet. A new 12 inch overcore bit was used for this hole. Again, the driller removed the bit and cut every other cutter from the bit to increase air circulation, and cuttings removal. The bit also needs to be sharpened approximately every 4 feet. The heater assembly is centered in the 12 inch core, and water is being used as a drilling medium. Core recovery is 100%.

USGS

Intact Fracture:

AF #8 Principal Investigator (PI) recovered 100% of core. Total depth of AF #8 is 7.1 feet. Recovered three 2.0 feet pieces, and one 1.1 foot

piece. Drillers are using a 10 inch over core barrel and drilling dry.

AF #9 - total depth is 3.2 feet. 100% core recovery, but the first 1.2 feet of core was not saved due to fracture of the rock. The PI saved the last 2.0 feet of core. Drillers are using a 10 inch overcore barrel and drilling dry. All pieces of core 2.0 feet and over were wrapped, waxed, and boxed for shipment to USGS, Denver. REECo personnel are moving the LY34 drill rig from the RS-14 drift to the Laser Drift for installation. Drilling should continue on Tuesday, September 5, 1989.

Optimal Rubble (CBI):

The drill round from the previous week was blasted Monday, August 28, An 8 foot round was drilled, and it pulled 4.5 feet. round used a spiral cut. 16 lbs of carvite (Ireco) powder were used in 18 perimeter holes, as a trimmer for controlled (smooth wall) blasting. Each perimeter hole was initiated by installing one stick of Iredyne (Ireco) powder with a delay. 240 lbs of Iredyne (Ireco) powder was used in the remaining 44 blast holes. Non-El millisecond primers were used as delays. Loading density for the 18 perimeter holes is .11 lbs/ft, 12 cushion holes is .4 lbs/ft, and the 32 production holes is .70 lbs/ft. Each blast hole was stemmed with 16 inches of sand. The PI had REECo miners drill out the burn and blast it. 12 burn holes were drilled 1 1/8 inch diameter by 8 feet long, loaded with Iredyne powder, and blasted August 30, 1989. The burn froze and did not pull. REECo miners cleaned the bootleg holes redrilled and reblasted. The burn pulled 7 feet. Personnel began drilling the remainder of the round (50 holes, 8 feet long by 1 7/8 Drilling was 90% complete at the end of this inch diameter). reporting period, using the drill jumbo where applicable, and the jack leg drill. Total footage for the Optimal Rubble - CBI drift is 23 feet from the centerline of the Demo Drift.

G-Tunnel Drifting:

Total advanced during this reporting period is 6 feet. Total advance is 60 feet from the centerline of the EV-6 drift. REECo mining personnel utilized the Alpine Miner to cut to a height of 9 feet in the heading. The miners then used a jack leg drill to blast out the back to a height of 13 feet. Thirty holes, 10 feet long, and 1 1/8 inches in diameter were drilled and blasted. Approximately 150 lbs of Iredyne (Ireco) powder were used. Two 1 inch diameter by 16 feet, seven 7/8 inch diameter by 10 feet, and eight 7/8 inch diameter by 8 feet resin bolts were installed with wire mesh for personnel safety.

Scheduled Activities:

- 1. Blast Effects start October 9, 1989.
- 2. Excavation Effects start October 23, 1989.
- 3. In-Situ Stress Phase II start December 4, 1989.
- 4. Thermal Stress start December 11, 1989.

TWS-EES-1-LV-09-89-63 Attachment I Page 3 of 3

EXPENDITURES:

.Prototy	pe Testing: Work Days Remain 19	Expended 92 %
.REECo:	Current Week-Prototype Testing \$ 5	4,784 Year to Date \$ 895,749
	Current Week-G-Tunnel Operation \$ 20	6,548 Year to Date \$1,024,077
.H&N:	Current Week-Prototype Testing \$ 30	0,339 Year to Date \$ 301,385
.F&S:	Current Week-Prototype Testing \$!	5,996 Year to Date \$ 163,743

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