



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: November 28, 1989

SUBJECT: WEEKLY ACTIVITY REPORT, PROTOTYPE TESTING

Please find enclosed the above-referenced report received in this office, i.e., week ending, October 22, 1989.

PTP:nan  
Enclosure

cc: Carl Johnson  
Agency for Nuclear Projects  
Nuclear Waste Project Office  
Capitol Complex  
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WEEKLY ACTIVITY REPORT  
PROTOTYPE TESTING  
Week Ending - October 22, 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 - Provide surveying and other support.

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

REEC Co - Provide mining equipment, perform drilling and mining, and provide support labor.

Pan Am - Provide photographic support.

Key Prototype Activities for the Reporting Period:

USGS

**Blast Effects:**

Demo Drift - U12G-#E - This hole is located 195 feet from the beginning of the Demo Drift on the left rib. HQ hole U12G-#E was drilled 23.9 feet to a total depth of 40.0 feet. At 26.4 feet the drill string was removed and the drill bit was sharpened. The drill string was reinserted into the hole, and drilling commenced to the total depth. The core was sealed in the lexan liner, logged, and boxed for shipment. REEC Co is demobilizing the drill rig for mobilization at a new drilling location. Core recovery was 100%.

**Excavation Effects:**

Demo Drift - U12G-Q - This hole is located 199 feet from the beginning of the Demo Drift on the left rib. The LY 34 drill rig was mobilized at this location. NQ hole U12G-#Q was advanced 24.3 feet. Core recovery was 86%. Core was sealed in the lexan liner, logged, and boxed for shipment. Drilling on this hole will continue next week.

### **In-Situ Stress:**

Blast Alcove - U12G-#C - This hole is located 15 feet from the start of the blast alcove on the left rib. The procedure for drilling this hole is as follows: 1) Using an EX closed bit, drill hole to total depth. 2) Log hole with TV camera to determine fracture or rubble zones. 3) Using a 6 inch tricone bit, drill past rubble zones to stable rock. 4) Attach 6 inch overcore bit to drill steel, and overcore through the competent rock. Hole U12G-#C was drilled 10.2 feet to a total depth of 50.2 feet. The drill string was removed, the 6 inch tricone bit was attached, and drilled to 11.0 feet. The drill string was again removed, and the overcore bit installed. Overcore drilling commenced at 11.0 feet, and went to 12.6 feet. A 0.9 foot long piece of core was removed, wrapped, waxed, and boxed for shipment. Core recovery was 100%, and the longest piece of core was 0.9 feet. The drill string was removed, the 6 inch tricone bit was reattached, and the hole was reamed to 27.5 feet. Overcoring will commence next week.

### **SNL**

### **G-Tunnel Drifting:**

Stubb Drift - No work was accomplished on this drift during this reporting period.

Demo #2 Drift - This drift is located 315 feet from the intersection of the EV-6 drift on the right rib. REECo personnel drilled and blasted an 8 foot round. Forty 8 foot x 1 7/8 inch blast holes were drilled. Fourteen perimeter holes, and 26 production holes were drilled. 175 pounds of Iredyne (Ireco) powder was used, and the blast was initiated using non-el millisecond delays. Loading density for the holes was .55 pounds/foot. The round pulled 8 feet. A jackleg drill and drill jumbo were used to drill out the round. An Eimco 913 LHD was used to muck out the round, and the Apline Miner was brought in to trim the back and the ribs. REECo personnel are currently drilling for installation of rock bolts and wire mesh in a 4 foot x 4 foot pattern. Total depth for this drift is 91 feet from the centerline of the EV-6 drift, which completes the drift advance. Rock bolting will continue next week.

### **General Comments:**

REECo personnel are continuing clean up of the yard for an environmental inspection.

### **Scheduled Activities:**

1. Thermal Stress - start December 11, 1989.
2. Prototype Air Coring, Phase II - start January 2, 1990.