



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

Reply to:  
301 E. Stewart Ave., Rm. 203  
Las Vegas, NV 89101

Tel: (702) 388-6125  
FTS: 598-6125

Date: April 14, 1992

TO: Charlotte Abrams, HLPD, M/S 4 H 3  
FROM: Paul T. Prestholt, On-Site Licensing Representative  
SUBJECT: REECO March YMP Status Report; Two Preliminary Field  
Composite Borehole Log Reports completed 3/19/92 (USW  
UZN-17) and 3/30/92 (USW UZN-16)

Please find enclosed the above-referenced reports.

cc: Joseph Holonich, M/S 4 H 3 w/o encs.

9204210186 920414  
PDR WASTE PDR  
WM-11

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N403



**Department of Energy**  
Yucca Mountain Site Characterization  
Project Office  
P. O. Box 98608  
Las Vegas, NV 89193-8608

*Charlotte*  
WBS 1.2.3.5  
QA: N/A

APR 03 1992

Carl H. Johnson, State of Nevada, Carson City, NV  
Phillip Niedzielski-Eichner, Nye County, Chantilly, VA  
Dennis A. Bechtel, Clark County, Las Vegas, NV  
Albert C. Douglas, City of Las Vegas, Las Vegas, NV  
Paul T. Prestholt, NRC, Las Vegas, NV

**PRELIMINARY FIELD COMPOSITE BOREHOLE LOG**

For your information, enclosed is a copy of the Preliminary Field Composite Borehole Log for borehole USW UZN-17 which was developed by the Drilling Support and Sample Management Department of Technical and Management Support Services. Drilling of the borehole was completed on March 19, 1992.

If you need additional information regarding the log, please contact Uel S. Clanton at (702) 794-7943.

*for Robert H. Barton*  
for Carl P. Gertz  
Project Manager

RSED:USC-2696

Enclosure:  
Preliminary Field Composite  
Borehole Log

cc w/o encl:

J. H. Peck, SAIC, Las Vegas, NV  
C. L. Lugo, SAIC, Las Vegas, NV  
P. E. Seidler, SAIC, Las Vegas, NV  
J. R. Dyer, YMP, NV  
A. C. Robison, YMP, NV

# YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT PRELIMINARY FIELD COMPOSITE BOREHOLE LOG

BORE HOLE ID: USW UZ-N17

STUDY PLAN NO.: 8.3.1.2.2.1

CORE SIZE: HQ/2.25"

DRILL DATES: 3/17/92 - 3/19/92

GROUND ELEVATION: 5,085' MSL (est.)

GROUND COORDINATES: N 778,650 E 560,025 (est.)

TOTAL DEPTH: 59.9

ANGLE FROM VERT.: N/A

BEARING: N/A



ALLUVIUM



NON-WELDED



PARTIALLY WELDED



DENSELY WELDED



BEDDED TUFF



VITROPHYRE

LOG VERSION DATE  
3/19/92

geology by Drilling Support Division, Drilling Support and Sample Management Dept., T&MSS

RUNS/DATES/ RECOVERY	CORE LOSS	DRILLING RATE (ft/hr) BIT RECORD		FRAC FREQ (X/5- FT)		DEPTH STRAT COL	LITHOLOGY/REMARKS
		0	10	20	0		
		20	70	120	50	100	
3/17/92			12		NO DATA		0.0 - 2.5 Alluvium; poorly consolidated
DC 1							
DC 2			114				ALLUVIUM/TIVA CANYON CONTACT @ 2.5
1		6.1		Bit No. 21	33	5	2.5 - 16.4 Tuff; ashflow; very dusky red, moderately welded, devitrified; 5-10% phenocryst of sanidine, plagioclase, and altered biotite; tightly-spaced vertical, open fractures from 2.5 to 3.5
2			10.8		16	10	
3			15.5		33	15	
4			39.1		23	20	16.4 - 25.9 Tuff, ashflow, grayish red, moderately welded, devitrified; 5-10% phenocrysts of plagioclase, sanidine, and altered biotite
20.9/19.4 93%						20	16.4 - 25.9 clay covered core, light brown, weathered, with abundant lithophysae
3/18/92		27.3			20	25	from 20.9 - 29.8 minor calcite
5					29	30	25.9 - 59.9 (T.D.) Tuff, ashflow; grayish red, moderately welded, devitrified; 5-10% phenocrysts of sanidine, plagioclase, altered biotite; and 3-5% pumice fragments; minor lithophysae
6		25.3					

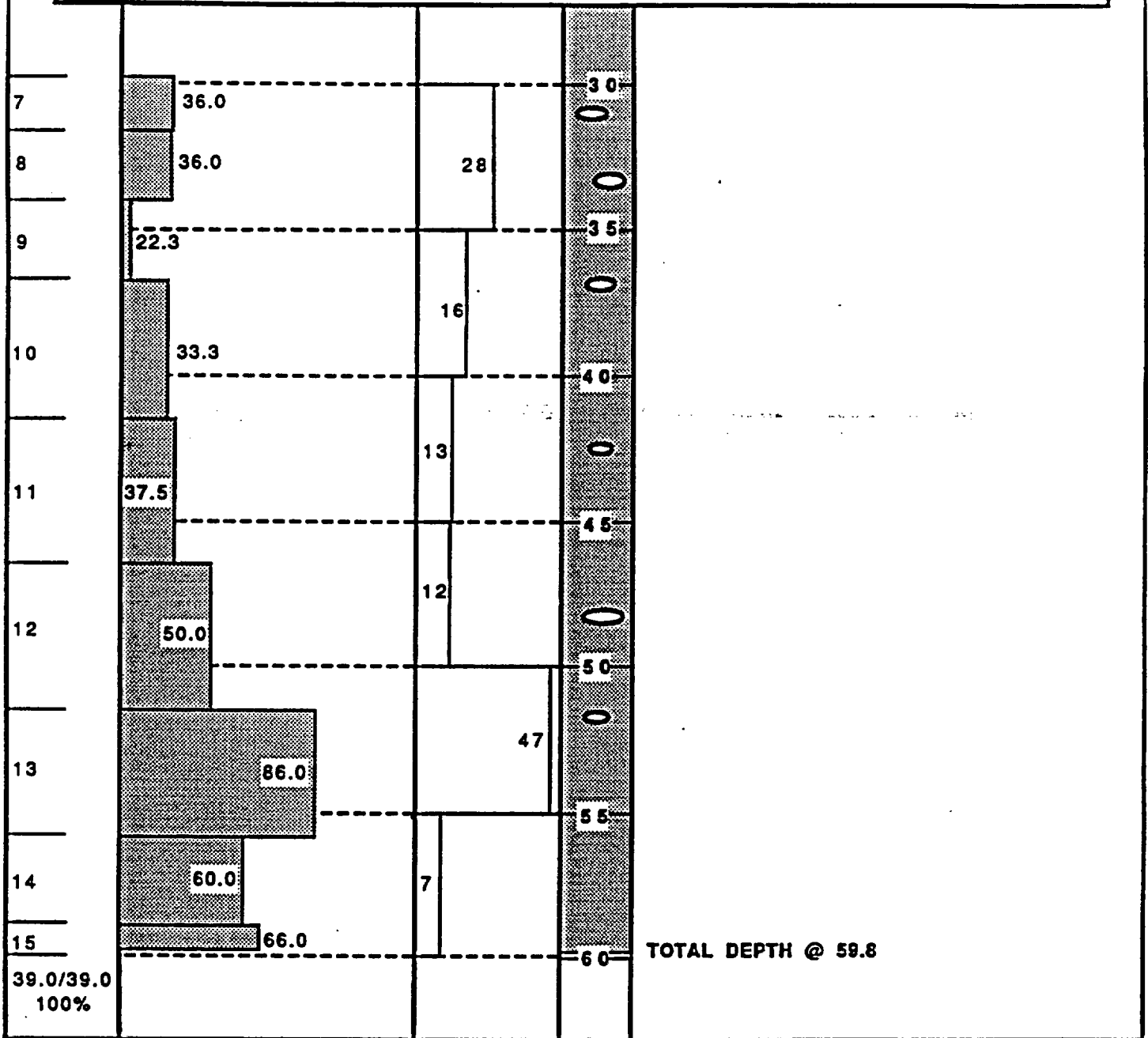
ENCLOSURE

**YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT**  
**PRELIMINARY FIELD COMPOSITE BOREHOLE LOG (cont.)**

USW UZN-17

pg 2 of 2

geology by Drilling Support Division, Drilling Support and Sample Management Dept., T&MSS



RSN Bit No. 21 Stratapak: SN 2S-022555; 15 cutters; 10 water courses 1/4" x 5/16"; diamonds - 20 stones per carat



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APR 07 1992


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Albert C. Douglas, City of Las Vegas, Las Vegas, NV  
Paul T. Prestholt, NRC, Las Vegas, NV

**PRELIMINARY FIELD COMPOSITE BOREHOLE LOG**

For your information, enclosed is a copy of the Preliminary Field Composite Borehole Log for borehole USW UZN-16 which was developed by the Drilling Support and Sample Management Department of Technical and Management Support Services. Drilling of the borehole was completed on March 30, 1992.

If you need additional information regarding the log, please contact Uel S. Clanton at (702) 794-7943.

RSED:USC-2777

*for*   
for Carl P. Gertz  
Project Manager

Enclosure:  
Preliminary Field Composite  
Borehole Log

# YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT PRELIMINARY FIELD COMPOSITE BOREHOLE LOG

BORE HOLE ID: USW UZ-N16

STUDY PLAN NO.: 8.3.1.2.2.1

CORE SIZE: HQ/2.25"

DRILL DATES: 3/25/92 - 3/30/92

GROUND ELEVATION: 5090 ft MSL (est.)

GROUND COORDINATES: N 778,500 E 560,000 (est.)

TOTAL DEPTH: 60.0 ft

ANGLE FROM VERT.: NA

BEARING: NA



ALLUVIUM



NON-WELDED



PARTIALLY WELDED



DENSELY WELDED



BEDDED TUFF



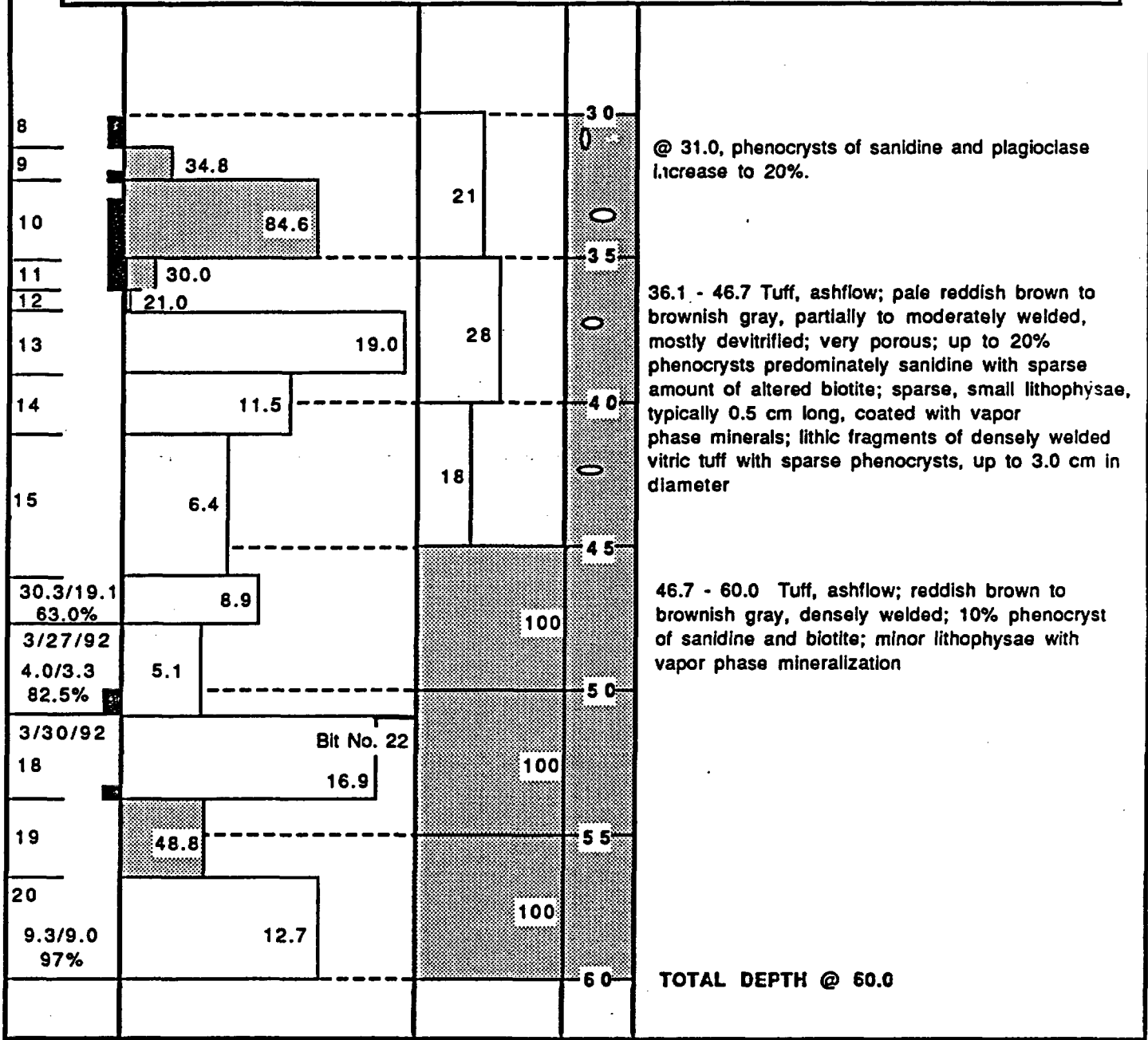
VITROPHYRE

LOG FINAL DATE  
3/30/92

geology by Drilling Support Division, Drilling Support and Sample Management Dept., T&MSS

RUNS/DATES/ RECOVERY	CORE LOSS	DRILLING RATE (ft/hr) BIT RECORD		FRAC FREQ (X/5 FT)		DEPTH STRAT COL	LITHOLOGY/REMARKS
		0	10	20	0		
		20	70	120	50	100	
3/25/92 DC-1		DRIVECORE		N/A		0.0 - 4.2	Alluvium; dark red-brown, loosely consolidated, moist, clayey
DC-2		START CORING @ 4.2				4.2	<b>ALLUVIUM/TIVA CANYON CONTACT @ 4.2</b>
1		12.9	-Bit #16			5	4.2 - 36.1 Tuff, ashflow; pale reddish brown, moderately welded, partially devitrified; very porous with scattered lithophysae; 10% phenocrysts of sanidine and plagioclase with sparse amount of altered biotite; <5% lithic fragments; 5% light porous devitrified pumice fragments; numerous fractures, most with MnO2 and yellow-orange powdery, calcium carbonate coating
2		21.5		26		10	
3		14.5		44		15	
16.4/15.7 96%						20	
3/26/92 4		6.6		13		25	
5		39.0				30	
6		17.4		32		35	
7		19.8				40	
8		50.4		NO DATA		45	

geology by Drilling Support Division, Drilling Support and Sample Management Dept., T&MSS



Bit No. 16 RR: L89739 10 airways  
 Bit No. 22: 1S18321, 6 stones per carat, 8 airways



# Reynolds Electrical & Engineering Co., Inc.

Post Office Box 98521 • Las Vegas, NV 89193-8521

IN REPLY REFER TO:

580-01-336

April 8, 1992

WBS 1.2.9.1

QA: N/A

Carl P. Gertz, Project Manager  
Yucca Mountain Site Characterization  
Project Office  
U.S. Department of Energy  
Post Office Box 98608  
Las Vegas, NV 89193-8608

## YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT (YMP) STATUS REPORT

Attached is the March YMP Status Report for Reynolds Electrical & Engineering Co., Inc.'s participation in the YMP.

If further information is required, please contact Sandra L. Hughes at 794-7192 or Rene' Knott at 794-7193.

R. F. Pritchett, Manager  
Yucca Mountain Project Division  
YMP Technical Project Officer

RFP:RRK:rm

Enclosure  
Status Report (4 pages)

cy: See page 2

**REECo**

AN  **EBC** COMPANY





REYNOLDS ELECTRICAL & ENGINEERING CO., INC.  
(REECo)

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT (YMP)

MARCH 1992 - STATUS REPORT

**SITE (1.2.3)**

**WBS 1.2.3.5**

**Task: LM-300 Drill Rig and Pipe Handling System**

The LM-300 drill rig and pipe handling system is presently rigged up at the Area 25 Subdock on display for groups touring the Yucca Mountain area. The rig is tentatively scheduled to be put into operation on the UZ-16 drillhole in early April 1992.

Received a Subcontract Release Statement from Lang Exploratory Drilling for the performance testing of the LM-300 and pipe handling system. Final payment was processed, the total Subcontract amount is \$122,835.37.

**Task: Capital Equipment to support Drilling Programs**

Procurement of the air processing and metering system, awarded to Perry Equipment Corporation (PECO), is in progress. A meeting was held at the PECO location to resolve issues associated with back pressure valves. Delivery is now scheduled for April 20, 1992.

The Mobile All-Terrain Drill Rig will be awarded in early April with delivery scheduled for May 1, 1992. Procurement is also in process for conveyor belts and two filter units to support the drilling program.

**Task: USGS Hydrological Research Facility (HRF) Holes (Job Package 91-6)**

All work in support of HRF holes has been completed.

**Task: Neutron Access Holes (Job Package 91-9)**

Completed UZ-N36, UZ-N17 and UZ-N15; presently coring at 51 feet on UZ-N16.

**Task: JF-3 Water Monitoring Well (Job Package 92-1)**

Completed 36-hour pump test on March 5, 1992. Removed the 1.6-inch tubing and USGS transducer from the well, removal of the test pump is scheduled for April 6, 1992.

**Task: Reclamation Trial Sites**

Regraded fourth and fifth (final) sites.

Task: NRG-1 (Job Package 92-2)

Initiated site preparation activities to include clearing, grubbing and topsoil removal. Cut and fill is 90 percent complete; experienced four days of delay waiting for a Field Change Notice.

Excavated, shored, and closed all 5 original soil pits in access road centerline. Excavation and study of the remaining 27 pits is in progress with one-half excavated.

Task: UZ-16 Drilling (Job Package 92-4)

Mobilized equipment, removed and stockpiled topsoil, completed cut and fill for drill pad.

Task: Midway Valley Trenching (Job Package 92-5)

Excavated and shored 20 pits and trenches.

Task: Drill Site Cleanup

Removed construction and drilling debris from identified drill pads.

**EXPLORATORY STUDIES (1.2.6)**

WBS 1.2.6.1

Task: Exploratory Studies Facility (ESF)

Continued to provide constructability support to activities to begin Tunnel Boring Machine (TBM) operations and ESF Title II design. Distributed Request for Proposal (RFP) 1-DH-92 for the Technical Support and Underground Excavation for the ESF to prospective offerors on March 30, 1992. Copies were concurrently provided to DOE/NV for review and forwarding to DOE/HQ. The RFP will not be closed until approval is obtained. A Pre-proposal conference is scheduled for April 29, 1992.

Prepared Requests for Matrix Support Services as required for upcoming site investigations job packages.

**FIELD OPERATIONS (1.2.7.4)**

Task: Administrative & Maintenance Support

Continued support to W. A. Wilson, Yucca Mountain Site Manager, to include: process purchase requisitions for Field Operations Center (FOC) Site Office requirements; provide support services to participants and maintenance to YMP utilized facilities, equipment and roads in Area 25; and provide logistical and support services to management contractor.

Provided support for the Yucca Mountain Site Office open house and public tours. Nine tours were held during this period with 375 people attending. Support included but was not limited to: arrangements for buses; registration of guests; coordination of lunches/beverages, medical service, furniture, mechanical service; and grading of access road. Continued preparations for upcoming tours.

Task: Deactivate Well VH-1

Completed site cleanup and deactivation. Performed technical inspection on leased water tanks prior to return.

Task: Class III Sanitary Landfill

Continued preparation of Title II design and surveying activities.

**PROJECT MANAGEMENT (1.2.9)**

WBS 1.2.9.1

Task: Management and Administrative Support

Continued coordination and staffing of YMP displays at meetings, exhibits, and conferences; staffed and supported the Public Reading Room of the Research and Study Center; and participated in transfer of DOE property to University of Nevada, Reno.

Distributed project-wide Programmatic Review Statusing System User Guide.

Task: Site Characterization Plan (SCP) Distribution

Distributed 12 SCP sets during this period.

Task: Hazardous Materials Coordination

Continued review and resolution of comments received on draft of the Materials Reporting and Handling Plan, Revision 3; prepared material safety data sheets; and continued developing new maps for proposed locations of Satellite Accumulation Areas.

Task: Long Range Planning (LRP)

Continued support of LRP, Planning and Control System, Independent Cost Estimate Review, Fiscal Year 1994 Work Authorization System budget exercise, and Performance Measurement Baseline activities; completed cost estimates and schedules as requested for Prototype Testing Facility at Busted Butte in Area 25, Building 4015 desert landscaping, UZ-16 mobilization and demobilization.

WBS 1.2.9.3

Task: Quality Assurance (QA)

Continued review, comment, and approval of various REECo implementing procedures, standard operating procedures, and purchase requisitions. Continued work revising existing quality procedures and replacing documents with management control (MC) procedures. Issued three MC procedures, one procedure cancellation and seven interim change notices to the Controlled Document Center for distribution. Conducted five orientation sessions on MC procedures issued since January 15, 1992.

Conducted internal audit REECo-003-92 (Operations Equipment Department); scheduled internal audits REECo-004-92 (YMP Control Department) and REECo-005-92 (Information Management Department) for April. Issued audit reports REECo-001-92 (YMP Drilling) and REECo-002-92 (Construction Department) without any findings.

Performed a mock surveillance of the Batch and Shaker Plant in Area 1 to assess their readiness to perform quality work.

General

REECo has no reportable Level I or Level II milestone activities at this time.