



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

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

Tel: (702) 388-6125

TO: Joseph Holonich, Director, HLPD, M/S 4 H 3
FROM: Sr. On-Site Licensing Representatives Office, Las Vegas
DATE: SEPTEMBER 30, 1993
SUBJECT: OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE
WEEK ENDING SEPTEMBER 10 AND SEPTEMBER 17, 1993
and
YUCCA MOUNTAIN SITE OFFICE (YMSO) ACTIVITY REPORT FOR PERIOD
FROM SEPTEMBER 4, 1993 TO SEPTEMBER 17, 1993

Please find enclosed the above-referenced reports.

There is nothing requiring specific management attention in the reports.

cc: w/enc.: Charlotte Abrams, M/S 4 H 3
Rosetta Virgilio, M/S 3 D 23
Dean Kunihiro, Region 5

JSP:nan
Enclosure as stated

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

WBS 1.2.9.2
QA: N/A

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Lake H. Barrett, Acting Director, Civilian Radioactive Waste Management,
HQ (RW-1) FORS
THRU: Linda M. Smith, Acting Associate Director, OGD

OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE WEEK ENDING
SEPTEMBER 17, 1993 (SCP: N/A)

I. FORECAST SIGNIFICANT EVENTS

Site Characterization Activities

Exploratory Studies Facility (ESF)

Design activities will continue with preparation of the Basis for Design (BFD) for design verification of Packages 1B and 2A.

Construction activities will continue in the starter tunnel, including placement of fibercrete and installation of cement grouted pattern bolts.

Surface-Based Testing (SBT)

Drilling through the cement seal and normal drilling operations are expected to continue at UZ-14. Remediation of soil contamination will continue at C-Well Complex. Excavation to expose a bedrock pavement along a portion of the Ghost Dance Fault will continue.

Environmental Programs

Staff scientists will receive training in desert tortoise blood sampling as required by the U.S. Fish and Wildlife Service for threatened and endangered species. The samples will be used to monitor desert tortoises for upper respiratory tract disease.

II. CRITICAL ITEM STATUS - YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT (YMP)

A. Site Characterization Activities

ESF

The bench was excavated to approximate station 2+00 on September 9, 1993. Geologic mapping, sampling, and photography are complete for the starter tunnel, thereby completing this segment of the starter tunnel.

Construction

On Job Package (JP) 92-20, ESF North Portal Pad and Facilities, Reynolds Electrical & Engineering Co., Inc. (REECO) continued rework of the North ESF drainage channel; continued preparation of the 69Kv pole line right-of-way; continued hauling excavated material from the

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ESF pad; and continued concrete batch plant site work and receiving concrete aggregates. On September 13, 1993, mapping of the bench area of the starter tunnel was completed. Shotcreting is continuing behind the mappers. The face of the starter tunnel bench and the starter tunnel upper level are at 00+60 meters (2+00 feet). Muck from starter tunnel bench excavation is being removed from the box cut to the rock storage area. Rip-rap is being cleared from the pad area where the Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O) Construction Management trailers are to be located. Construction on the access road for the 69Kv power line is continuing.

The following milestone, complete Excavation of Test Alcove #1, October 29, 1993, represents the near-term plan for ESF activities.

Design

Design activities continued on Packages 1B and 2A. Both packages are being prepared for verification. The BFD Document is being updated in preparation for the verification task.

Exploratory drilling operations progress is summarized as follows:

<u>Borehole</u>	<u>Current Core Depth 9/17/93</u>	<u>Current Ream Depth 9/17/93</u>	<u>Total Planned Depth</u>
NRG-2B	329.46 feet	263.60 feet	315 feet
UZ-14	1,282 feet	1,282 feet	2,000 feet
UZ-39	59.48 feet	60.08 feet	

On NRG-2B, the hole was advanced and terminated at a depth of 329.46 feet. Core recovery was good while finishing hole in the Pah Canyon and Pah Canyon bedded tuff. The purpose of this borehole was to investigate geologic conditions and determine rock properties along the ESF alignment.

On UZ-14, sealing operations began on Monday, September 13, 1993, and continued throughout the week to grout the water-bearing zone encountered at a depth of 1,256.6 feet. Data was collected for use in hydrologic characterization of the water-bearing zone.

On UZ-16, gas testing began Tuesday, August 31, 1993, with a four packer string in place in the hole. This testing is expected to last several weeks. This week the gas in the borehole was allowed to recover from pump testing conducted two weeks ago. Gas testing data will be used to help characterize the permeability of the rock.

Soil remediation is in progress at the C-Well Complex. The excavations were sampled on September 9, 1993, to determine whether all contaminated soil had been removed. Results are expected within two weeks.

Excavation using a D-10 bulldozer began at the Ghost Dance Fault on Tuesday, September 14, 1993. The excavation is expected to expose the Ghost Dance Fault, and will be used for site characterization.

On JP 93-12, Ghost Dance Fault Road Cuts, REECO started excavation work on September 14, 1993.

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Sample Management Facility (SMF)

Continued supporting drilling on UE-25 NRG-2B. Drilling Support collected core from 254.8 feet to 329.5 feet. Total depth reached on September 14, 1993, in the Pah Canyon member of the Paintbrush Tuff.

Created 187 specimens from core samples for analysis by various Principle Investigators (PI).

Shipped 26 specimens from UE-25 NRG-2B to the Los Alamos National Laboratory (Los Alamos) PI for analysis.

Received results from survey addressing safety concerns regarding potential earthquake hazards in the overflow examination area and core processing area of Warehouse #1 of the SMF. Results are being evaluated.

The following is a listing of site characterization field activities that are currently active:

SCP ACTIVITY	TITLE	COMMENTS
8.3.1.3.2.1	Mineralogy, Petrology & Rock Chemistry of Transport Pathways	Outcrop sampling
8.3.1.3.2.2	Mineralogic & Geochemical Alteration	Outcrop sampling
8.3.1.4.2.2	Structural Features within Site Area	Surface mapping, ESF mapping
8.3.1.8.5.1	Characterization of Volcanic Features	Test pits, trenching
8.3.1.14.2	Soil & Rock Properties of Potential Location of Surface Facilities	Test pits, trenching, ramp exploration holes
8.3.1.17.4.2	Location & Recency of Faulting Near Prospective Surface Facilities	Trench mapping
8.3.1.17.4.3	Quaternary Faulting within 100 km of Yucca Mountain	Surface mapping
8.3.1.17.4.4	Quaternary Faulting in NE-Trending Fault Zones	Surface mapping
8.3.1.17.4.10	Geodetic Leveling	Traversing
8.3.1.17.4.6	Quaternary Faulting within Site Area	Trench mapping
8.3.1.2.1.1	Precipitation & Meteorological Monitoring for Regional Hydrology	Ongoing measurements
8.3.1.2.1.2	Runoff & Streamflow	Ongoing measurements
8.3.1.2.2.1	Unsaturated Zone Infiltration	Drilling/logging of neutron-access holes; ponding tests
8.3.1.2.2.2	Water Movement Tracer Tests	C1-36 measurements
8.3.1.2.2.3	Percolation in Unsaturated Zone	UZ drilling/testing Perched water testing
8.3.1.2.2.4	Characterization of YM Percolation in UZ-ESF Investigation	Perched water
8.3.1.2.2.6	Gaseous Phase Movement in Unsaturated Zone	UZ drilling/testing

SCP ACTIVITY	TITLE	COMMENTS
8.3.1.2.2.7	Unsaturated Zone Hydrochemistry	UZ drilling/testing
8.3.1.2.3.1	Site Saturated Zone Groundwater Flow System	Ongoing monitoring
8.3.1.2.3.2	Saturated Zone Hydrochemistry	Ongoing sampling
8.3.1.15.1.8	In Situ Design Verification	Construction monitoring/testing

Environmental Programs

Six environmental compliance surveillances were conducted at the Yucca Mountain (YM), Nevada, site to ensure compliance with permit and programmatic requirements.

The September 1993 small mammal trapping session for site characterization effects studies was completed.

Large Block Test (LBT)

Raytheon Services Nevada (RSN) developed a test blast procedure to ensure that site preparation activities for the LBT do not damage the block. Peak particle velocities will be measured from the test blast to calibrate the predicted model, and fractures will be observed before and after the blast to determine the peak particle velocity that could damage the rock.

Regulatory Interactions

The Site Characterization Progress Report (PR) 8 was approved by the Secretary of Energy on August 25, 1993 and is now being printed. Distribution is expected by September 24, 1993. The guidance letter for PR 9 was sent on September 13, 1993. Input is due to the Yucca Mountain Site Characterization Project Office (YMPO) by September 30, 1993.

Preparations are underway for the next Full Board Meeting of the Nuclear Waste Technical Review Board (NWTRB) scheduled for October 19-20, 1993. The topic of this meeting is the U.S. Department of Energy's (DOE) site characterization testing program. The meeting will be held at the Plaza-Suites Hotel, Las Vegas, Nevada.

Preparations for the site tour for the Advisory Committee on Nuclear Waste (ACNW) on October 28, 1993, are underway; a draft itinerary for the tour has been sent to ACNW staff. The tour will include stops at the U.S. Geological Survey's (USGS) Hydrologic Research Facility, the ESF, and a visit to new trenches.

The draft agenda for the working group on "Characterization of the Unsaturated Zone Flow and Transport Properties" (November 18, 1993) has been prepared, and is under review by the USGS and the DOE technical lead for the working group. The working group meeting is planned following the 59th ACNW meeting on November 15-17, 1993.

Site Characterization Plan/Study Plan Status

STUDY PLAN BREAKDOWN

	Initial Plans	Major Revisions
Not Submitted to YMPO	38	0
In Screening Review	0	0
In YMPO Review	0	1
Awaiting Comment Resolution	6	3
In Verification Audit	3	1
Awaiting YMPO Approval	1	0
Awaiting Submission to U.S. Nuclear Regulatory Commission (NRC)	0	0
Awaiting NRC Phase 1 Review	10	4
Accepted by NRC	46	5
Totals	<u>104</u>	<u>14</u>
Total Submitted to NRC	56	9

State of Nevada Comments Status:

Received Comments from the State of Nevada..... 19
 Responses Transmitted to the State of Nevada 18

NRC Comments Status:

Received Comments from NRC 26
 Responses Transmitted from DOE to NRC 23

B. Project Planning and Control

Completed fiscal year (FY) 1994 Planning and Control System capital equipment analysis.

Assisting Technical and Management Support Services to bring their FY 1994 environmental pre-activity surveys into line with all surface disturbing work.

C. Quality Assurance (QA) Implementation

The Sandia National Laboratories (SNL) Audit YMP-93-17 was conducted September 13-17, 1993, in Albuquerque, New Mexico.

The Science Applications International Corporation Audit YMP-93-18 will be held September 27-October 1, 1993, in Las Vegas.

Quality (Q)-List Procedure Development

Developing draft procedures for maintenance of the Q- and Management Control (MC)-Lists after the cancellation of Administrative Procedure 6.17Q.

Q-List and MC-List Implementation

Revisions to the Q-List and the MC-List to incorporate the natural barriers are continuing. The Q-List revision is in Quality Assurance Procedure 6.2 review.

Classification and Waste Isolation Evaluations Review

The Assessment Team (AT) completed review of several RSN revisions of classification analyses on SBT items. Also completed was a review of the RSN C-Well Complex classification analysis. A checklist for AT review of waste isolation evaluations was completed.

III. GENERAL INFORMATION ITEMS

Performance Assessment (PA) staff completed waste isolation evaluations for grouting the perched water zone in UZ-14, NRG-7 drill pad and access road, Alice Ridge trenching, and the drilling and testing of borehole USW SD-12. PA staff also issued revisions for three Package 1A waste isolation evaluations. These revisions were required to provide a more explicit statement concerning the conclusions and recommendations given in waste isolation evaluations and the use of nonqualified data.

Staff attended the Performance Assessment Advisory Group meeting on September 14-16, 1993, in Paris, France, and presented an overview of YMP PA activities for 1993.

Participated in Defense High-Level Waste Glass Technical Review Group meeting and Tour of Whiteshell Laboratories in Winnipeg, Canada, on September 14-17, 1993.

Provided list of references on Human Intrusion to Detlof von Winterfeldt, consultant to the National Academy of Sciences (NAS) Committee on the Technical Bases for the YM Standard.

Regarding Work Breakdown Structure 1.2.3.4.2, Geochemical Modeling, work continues on Version 8.0 of the EQ3/6 package. The new capabilities planned for Version 8.0 include:

1. Redox dose-equilibrium in reaction-path calculations (important to treating the metastable persistence of dissolved components such as sulfate, nitrate, and organics),
2. A generic ion-exchange model, and
3. Correction of supporting data, mostly thermodynamic, to pressures off the 1.013 bar-steam saturation curve.

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A 12-member Volcanism staff convened for a two-day meeting in Albuquerque. The staff discussed FY 1993 accomplishments and FY 1994 plans.

The following two papers intended for publication in the Focus '93 Proceedings were submitted to YMPO for approval:

1. A paper entitled, "Distribution of Chlorine-36 in the Unsaturated Zone at Yucca Mountain: An Indicator of Fast Transport Paths."
2. A paper entitled, "Effects of Magmatic Processes on the Potential Yucca Mountain Repository: Field and Computational Studies."

The following paper, "K/Ar Dating of Clinoptilolites, Mordenite, and Associated Clays from Yucca Mountain, Nevada," was approved by YMPO this week.

The SNL staff hosted an audit team representing the Yucca Mountain Quality Assurance Division as they performed QA Audit YMP-93-17. The audit covered a number of QA program elements, as well as the following technical activities: Soil and Rock Properties Investigation; ESF Starter Tunnel Geotechnical Investigation; and Laboratory Determination of Thermal Properties of Rock, Mechanical Properties of Fractures, and Thermal Expansion Testing of Rock.

Field Testing Facilities Support Department participated as a member of the QA audit team in support of the Office of Civilian Radioactive Waste Management (OCRWM) QA Surveillance HQ-SR-93-07 of CRWMS M&O Preparation and Flowdown of "Dispose Waste" Requirements Documents.

Safety and Health Compliance Department conducted five surveillances: 1) UZ-16 (twice); 2) C-Well Complex; 3) Ghost Dance Fault; and 4) NRG-2B.

IV. PUBLIC OUTREACH AND INSTITUTIONAL ACTIVITIES

Carl Gertz, Project Manager, gave a general project overview, and various YMP personnel gave project updates, to 21 members of the Edison Electric Institute (EEI) High-Level Waste Working Group on September 15, 1993, in Las Vegas.

Tours to YM were conducted on September 13, 1993, for 45 guests from Senior Tripsters, and on September 16, 1993, for 21 members of the EEI High-Level Waste Working Group.

Gave a presentation entitled, "Yucca Mountain versus Keeping Waste at Producing Sites," to 30 members of the Las Vegas Luncheon Optimist Club on September 14, 1993, in Las Vegas.

Demonstrated a LESSON workshop and hands-on science program to 10 teachers at Fitzgerald School in Las Vegas, on September 15, 1993.

Staff attended the Affected Units of Local Government meeting in Battle Mountain, Nevada, on September 14, 1993. Staff also attended the DOE Contract Reform public meeting on September 15, 1993, in Las Vegas.

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Set up and staffed a YMP exhibit at the Nevada League of Cities meeting in Henderson, Nevada, September 15-17, 1993. Completed a photo exhibit showing new work at YM, including progress on the ESF starter tunnel, drilling and trenching, which was displayed at this meeting.

Staff completed five new flyers, addressing the availability of Yucca Mountain Science Centers (YMSC), exhibits, speakers bureau, tours and educational programs. The purpose of these flyers is to inform the public of the YMP's outreach programs and invite groups to take advantage of program opportunities.

Staff completed development of an announcement for the September Speaker Series presentations, to be held at the YMSC September 26 and September 28, 1993, in Pahrump, Nevada, and Las Vegas, respectively.

A Cadet Girl Scout Geology Badge Workshop was held at the Las Vegas YMSC on September 11, 1993. Thirty-five cadets earned their geology merit badges.

V. UPCOMING EVENTS CALENDAR

Please note that the usage of "(P)" in the calendar indicates that the event is open to the public. Educational presentations and State and Public Interactions are coordinated by the Speakers Bureau; contact Jacqueline Brandt at (702) 794-7896 or Theresa Hirsch at (702) 794-7759 for additional information. Exhibits are coordinated by Joanna Magruder at (702) 794-7056, Public Update Meetings are coordinated by Rebecca Nick at (702) 794-7769, and Tours are coordinated by Carleen Hill at (702) 794-7375 or Kelly Doyle at (702) 794-7133.

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
A. <u>Stakeholders Meetings</u>			
No significant meetings to report.			
B. <u>DOE/Headquarters Meetings</u>			
Wednesday, September 29 (televideo)	OCRWM Director's Program Review Meeting	Washington, DC	L. Smith/ C. Gertz
C. <u>CRWMS M&O/DOE Meetings</u>			
Friday, October 1	YMPO Monthly Management Meeting	Las Vegas, NV	C. Gertz
D. <u>Internal and DOE/Nevada Operations Office Meetings</u>			
Thursday- Friday, September 23-24	YMPO Management Off-site	St. George, UT	L. Smith

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
<u>E. NRC Interactions</u>			
Tuesday - Wednesday, October 4-5	Technical Exchange - ESF	Las Vegas, NV	T. Bjerstedt
Wednesday, October 13	Technical Exchange - Radioactive Migration in the Unsaturated Zone (P)	Los Alamos, NM	T. Bjerstedt
Thursday, October 14	Technical Exchange - Near-Field Phenomena Related To Radio- nuclide Releases from the Engineered Barrier System (EBS) (P)	Los Alamos, NM	T. Bjerstedt
Friday, October 15	Los Alamos Site Visit (P)	Los Alamos, NM	T. Bjerstedt
Wednesday, November 17	Seismic Hazards Assessment Technical Meeting (P)	Washington, DC	T. Bjerstedt
Thursday, November 18	Interactions Scheduling Management Meeting (P)	Washington, DC	T. Bjerstedt
<u>F. NWTRB Interactions</u>			
Tuesday- Friday, October 19-20	NWTRB Full Board Meeting (P)	Las Vegas, NV	J. Nesbit
Monday- Tuesday, November 1-2	NWTRB Joint T&S/ EBS Panel Workshop (P)	Dallas, TX	J. Nesbit
Monday- Wednesday, January 10-12, 1994	NWTRB Full Board Meeting (P)	Arlington, VA	J. Nesbit
January or February 1994	NWTRB - SG&G Panel (P)	TBD	J. Nesbit
Monday- Wednesday, April 11-13, 1994	NWTRB Full Board Meeting (P)	Reno, NV	J. Nesbit
Monday- Wednesday, July 11-13, 1994	NWTRB Full Board Meeting (P) (Tentative)	Denver, CO	J. Nesbit

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
F. <u>NWTRB Interactions</u> (Continued)			
Wednesday- Friday, October 12-14, 1994	NWTRB Full Board Meeting (P) (Tentative)	Las Vegas, NV	J. Nesbit
G. <u>ACNW Interactions</u>			
Wednesday- Thursday, September 29-30	ACNW 57th Meeting (P)	Bethesda, MD	A. Gil
Wednesday- Thursday, October 27-28	ACNW 58th Meeting (P)	Las Vegas, NV	A. Gil
Friday, October 29	ACNW Site Tour (P)	Las Vegas, NV	A. Gil
Monday- Tuesday, November 15-16	ACNW 59th Meeting (P)	Bethesda, MD	A. Gil
Thursday, November 18	ACNW Working Group on Unsaturated Zone Hydrology (P)	Bethesda, MD	A. Gil
Tuesday, December 14	ACNW Working Group on Low Level Waste PA (P)	TBD	A. Gil
Wednesday- Thursday, December 15-16	ACNW 60th Meeting (P)	TBD	A. Gil
H. <u>NAS Interactions</u>			
Tuesday- Wednesday, November 9-10	NAS Committee on YM Standards (P)	Las Vegas, NV	S. Jones
Thursday- Friday, December 16-17	NAS Committee on YM Standards (P)	Washington, DC	S. Jones
Monday- Tuesday, February 7-8, 1994	NAS Committee on YM Standards (P)	Las Vegas, NV	S. Jones
Thursday- Friday, April 28-29, 1994	NAS Committee on YM Standards (P)	Washington, DC	S. Jones

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u>			
Saturday, September 18	Pretour, Nevada League of Cities - General Overview	Las Vegas, NV	TBD
Saturday, September 18	Cadet Girl Scouts - Fieldtrip	Las Vegas, NV	Various
Tuesday, September 21	YMP Waste Package Workshop - Introduction	Las Vegas, NV	L. Smith
Tuesday, September 21	American Nuclear Society (ANS) - General Overview	Las Vegas, NV	L. Smith
Wednesday, September 22	Pretour, DOE Programmatic - General Overview	Las Vegas, NV	L. Smith A. Robison
Thursday, September 23	National Association of Retired Federal Employees - Update on YMP	Pahrump, NV	P. Carmack
Thursday, September 23	National Association of Regulatory Utility Commissioners (NARUC) - Update on YM	Annapolis, MD	C. Gertz
Sunday, September 26	Discovery Day (P) - Fossils, Hydrology, Rocks and Minerals, Volcanoes, Gold Panning, Streamtable	Beatty, NV	Various
Sunday, September 26	Children's Discovery Museum - Native American Indian Culture	Las Vegas, NV	R. Arnold G. Fasano
Sunday, September 26	YM Speaker Series (P) - "Radiation"	Pahrump, NV	M. Griffin
Monday, September 27	Emerging Technologies in Hazardous Waste Management - General Overview	Atlanta, GA	J. Peck
Tuesday, September 28	Pretour, Entergy Energy Corporation - General Overview	Las Vegas, NV	C. Gertz

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Tuesday, September 28	Pretour, Southern Nevada Chevron Retirees Association - General Overview	Las Vegas, NV	J. Peck
Tuesday, September 28	4-H Teams Exploring Careers - Yucca Mountain Johnny	Las Vegas, NV	J. Hartley
Tuesday, September 28	YM Speaker Series (P) - "Radiation"	Las Vegas, NV	M. Rose
Wednesday, September 29	A.D. Guy Boys and Girls Club - Native American Indian Culture	Las Vegas, NV	R. Arnold
Wednesday, September 29	Harriet Treem Elementary School - Make It/Take It Teacher Workshop	Henderson, NV	A. Gil
Thursday, September 30	Estes McDoniel Elementary School - Native American Indian Culture	Henderson, NV	R. Arnold
Friday, October 1	Pretour, Chubu Electric Power, Japan - General Overview	Las Vegas, NV	C. Gertz
Saturday, October 2	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Tuesday- Thursday, October 5-7	DOE/SKB Bilateral Meeting	Stockholm, Sweden	C. Gertz
Tuesday, October 5	Sun City Residents - General Overview	Las Vegas, NV	L. Smith R. Dyer A. Flint
Tuesday, October 5	East Las Vegas Library - General Overview	Las Vegas, NV	J. Peck
Wednesday, October 6	Beatty Elementary School - Native American Indian Culture	Beatty, NV	R. Arnold

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Thursday, October 7	Las Vegas Break- fasters Lions Club - General Overview	Las Vegas, NV	J. Peck
Tuesday, October 12	Wasden Elementary School - Native American Indian Culture	Las Vegas, NV	R. Arnold
Wednesday, October 13	Fay Herron Elementary School - Native American Indian Culture	Las Vegas, NV	R. Arnold
Tuesday, October 19	Community College of Southern Nevada - General Overview	Las Vegas, NV	G. Fasano
Tuesday, October 19	Marion Earl Elementary School - Geology	Las Vegas, NV	D. Merritt
Wednesday, October 20	Las Vegas Rotary Club - General Overview	Las Vegas, NV	J. Peck
Wednesday, October 20	Basset Book Shop - Native American Indian Culture	Las Vegas, NV	R. Arnold
Tuesday, October 26	YM Speaker Series (P) - "Water: Where It Comes From and Where It Goes"	Las Vegas, NV	C. Savard
Thursday, October 28	YM Speaker Series (P) - "Water: Where It Comes From and Where It Goes"	Las Vegas, NV	C. Savard
Thursday, November 4	Discover Southern Nevada - General Overview	Las Vegas, NV	TBD
Friday, November 5	International Brotherhood of Electrical Workers - General Overview	Las Vegas, NV	J. Peck
Monday, November 8	International Brotherhood of Electrical Workers - General Overview	Las Vegas, NV	J. Peck

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Wednesday, November 10	Lowman Elementary School - Native American Indian Culture	Las Vegas, NV	R. Arnold
Thursday, November 11	International Brotherhood of Electrical Workers - General Overview	Las Vegas, NV	J. Peck
Tuesday, November 16	Society for Mining, Metallurgy, and Exploration - General Overview	Pomona, CA	TBD
Tuesday, November 16	Nevada Environmental Conference	Reno, NV	L. Smith
Wednesday, November 17	Republican Women - General Overview	Boulder City, NV	TBD
Thursday, November 18	ANS - Results of In-Situ Testing at Geologic Disposal Sites	San Francisco, CA	TBD
Sunday, November 21	YM Speaker Series (P) - "Archaeology in Perspective"	Pahrump, NV	W. Johnson
Tuesday, November 23	Variety School - Native American Indian Culture	Las Vegas, NV	R. Arnold
Sunday, November 30	YM Speaker Series (P) - "Archaeology in Perspective"	Las Vegas, NV	W. Johnson
Saturday, December 11	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Tuesday, January 25, 1994	YM Speaker Series (P) - "Constructing a Tunnel to Study a Mountain"	Las Vegas, NV	D. McKenzie J. Peck
Thursday, January 27, 1994	YM Speaker Series (P) - "Constructing a Tunnel to Study a Mountain"	Beatty, NV	D. McKenzie J. Peck

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Saturday, February 12, 1994	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Sunday, February 27, 1994	Waste Management Symposia - TBD	Tucson, AZ	TBD
Sunday, March 20, 1994	Risk Management Quarterly Association - TBD	San Diego, CA	TBD
Saturday, April 2, 1994	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Saturday, June 4, 1994	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various

<u>Date</u>	<u>Event</u>	<u>Location</u>
J. <u>Exhibits Scheduled</u>		
Friday- Sunday, September 17-19	Harvest Day Festival (P)	Pahrump, NV
Sunday- Wednesday, September 19-22	American Society for Quality Control	Palm Springs, CA
Saturday, September 25	Public Open House (P)	Las Vegas, NV
Wednesday- Saturday, September 29- October 2	Nevada Library Association	Elko, NV
Friday- Sunday, October 1-10	Jaycees State Fair (P)	Las Vegas, NV
Saturday- Friday, October 9-15	Association of Engineering Geologists	San Antonio, TX
Wednesday- Friday, October 13-15	Nevada Association of Counties	Pahrump, NV

<u>Date</u>	<u>Event</u>	<u>Location</u>
J. <u>Exhibits Scheduled</u> (Continued)		
Saturday, October 23	Public Open House (P)	Las Vegas, NV
Monday- Thursday, October 25-28	Geological Society of America	Boston, MA
Monday, November 8	Public Update Meeting	Pahrump, NV
Tuesday, November 9	Public Update Meeting	Las Vegas, NV
Wednesday, November 10	Public Update Meeting	Reno, NV
Saturday, November 13	Boy Scouts Expo '93	Las Vegas, NV
Sunday- Wednesday, November 14-17	ANS	San Francisco, CA
Saturday, November 17	Public Open House (P)	Yucca Mountain, NV
Monday- Friday, December 6-10	American Geophysical Union	San Francisco, CA
Saturday, December 18	Public Open House (P)	Yucca Mountain, NV
<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled</u>		
Saturday, September 18	Nevada League of Cities	TBD
Monday, September 20	Waste Package Development Workshop	TBD
Tuesday, September 21	Western Legislative Conference	D. Bradford
Wednesday, September 22	DOE Programmatic	L. Smith
Thursday, September 23	Jewish Community Center/Detroit Club	TBD

<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled</u> (Continued)		
Saturday, September 25	Public Open House (P)	Various Escorts
Tuesday, September 28	Southern Nevada Chapter Chevron Retirees Association	TBD
Tuesday, September 28	Entergy Energy Group	D. Bradford
Friday, October 1	Chubu Electric Power, Japan	TBD
Monday, October 4	Logandale and Area Residents	TBD
Thursday, October 7	License Support System, Advisory Board	TBD
Tuesday, October 12	Sun City Senior Citizens	TBD
Thursday, October 14	Nevada Association of Counties	TBD
Tuesday, October 19	Lincoln County School	C. Binzer B. Bush
Wednesday, October 20	Wildland Shrub and Arid Land Restoration Symposium	TBD
Saturday, October 23	Public Open House (P)	Various Escorts
Tuesday, October 26	NARUC	TBD
Wednesday, October 27	Dadaelians	M. Voegele
Friday, October 29	ACNW	A. Gil
Wednesday, November 17	Public Open House (P)	Various Escorts
Tuesday, November 23	Sun City B'nai Brith	TBD
Monday, November 29	NAS Tunnel Technology Committee	TBD

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<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled</u> (Continued)		
Saturday, December 18	Public Open House (P)	Various Escorts
Thursday, March 31, 1994	National Council, State Garden Club Specific Region Convention	TBD

YMP:RVB-6210


for Carl P. Gertz
Project Manager



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

WBS 1.2.9.2
QA: N/A

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Lake H. Barrett, Acting Director, Civilian Radioactive Waste Management,
HQ (RW-1) FORS
THRU: Linda M. Smith, Acting Associate Director, OGD *LSM*

OFFICE OF GEOLOGIC DISPOSAL (OGD) WEEKLY HIGHLIGHTS FOR THE WEEK ENDING
SEPTEMBER 10, 1993 (SCP: N/A)

A milestone was reached with the completion of excavation work on the Tunnel Boring Machine Starter Tunnel, ahead of schedule, on September 9, 1993. Other work within the tunnel, including grouting of pattern bolts and application of fibercrete, is continuing.

I. FORECAST SIGNIFICANT EVENTS

A. Site Characterization Activities

Exploratory Studies Facility (ESF)

Design activities will continue with preparation of the Basis for Design (BFD) document for design verification of Packages 1B and 2A.

Construction activities will continue in the Starter Tunnel, including placement of fibercrete and installation of cement grouted pattern bolts.

Surface-Based Testing

Cementing (sealing) operations are tentatively scheduled to begin on September 13, 1993, at UZ-14. Drilling will continue at NRG-2B. Remediation of soil contamination will continue at the C-Well Complex. Excavation to expose a bedrock pavement along a portion of the Ghost Dance Fault is scheduled to begin.

Technical Analysis

Representatives from the Technical Analysis Branch (TAB) and Performance Assessment (PA) staff will be attending the Performance Assessment Advisory Group (PAAG) meetings September 14-16, 1993, in Paris, France, to present an overview of the Yucca Mountain Site Characterization Project (YMP) PA activities for 1993. The PAAG is part of the Nuclear Energy Agency of the Organization for Economic Cooperation and Development.

B. Public Outreach and Institutional Activities

Carl Gertz, Project Manager, will give a general YMP overview, and various YMP personnel will be giving YMP updates to 21 members of the Edison Electric Institute High-Level Waste Working Group on September 15, 1993, in Las Vegas, Nevada.

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II. CRITICAL ITEM STATUS - YMP

A. Site Characterization Activities

ESF

Construction

On Job Package (JP) 92-20, ESF North Portal Pad and Facilities, rework continues of the north drainage channel. Full bench rounds FB-020, FB-021, FB-022, and FB-023 were drilled, loaded, shot, and mucked. Split set rock bolts and welded wire fabric were installed. The face of the Starter Tunnel bench is at 00+49.4 meters.

The bench was excavated to approximate station 1+94 on September 8, 1993. Geologic mapping, sampling, and photography of the excavation between stations 0+85 and 1+94 began on September 9, 1993, and was completed on September 10, 1993. This completes geologic mapping of the Starter Tunnel excavation.

Construction is continuing on the stormwater diversion channel around the North Portal area, with application of shotcrete and placement of riprap.

The following milestone represents the near-term plan for ESF activities:

Complete Excavation of Test Alcove #1	October 29, 1993
--	------------------

Design

Design activities continued on Packages 1B and 2A. Both packages are being prepared for verification. The BFD is being updated in preparation for the verification task.

Exploratory drilling operations progress is summarized as follows:

<u>Borehole</u>	<u>Current Core Depth 9/10/93</u>	<u>Current Ream Depth 9/10/93</u>	<u>Total Planned Depth</u>
NRG-2B	254.79 feet	254.79 feet	315 feet
UZ-14	1,282 feet	1,282 feet	2,000 feet
UZ-39	59.48 feet	60.08 feet	

On JP 92-12, Quaternary Faulting, fencework was completed at the Solitario Canyon trenches.

On JP 91-9, Neutron Access Boreholes, the final neutron access borehole has been completed. The cap/chain assembly will be welded.

On NRG 2B, the hole was advanced to a depth of 244.6 feet with good core recovery. The interval from 244.6 feet to 254.79 feet was cored; however, no core was recovered. Tiva caprock was encountered at 241.5 feet. The purpose of this borehole is to investigate geologic conditions and determine rock properties along the ESF alignment.

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On JP 92-17, USW UZ-14, drilling is suspended while the water bearing zone is evaluated and sealed. The water level was measured at a depth of 1,250.99 feet on September 7, 1993, and 1,250.71 feet on September 10, 1993. Ongoing testing being conducted by the U.S. Geological Survey (USGS) was completed this week. Data was collected for use in hydrologic characterization of the water bearing zone. This zone will be grouted next week.

On UZ-16, gas testing began on August 31, 1993, with a four-packer string in place in the hole. This testing is expected to last several weeks. This week, the gas in the borehole was allowed to recover from pump testing conducted last week. Gas testing data will be used to characterize the permeability of the rock.

Soil remediation is in progress at the C-Well Complex. The excavations were sampled on September 9, 1993, to determine whether all contaminated soil had been removed.

The Site Manager has prepared the JP authorization letter for JP 93-12, Ghost Dance Fault Road Cuts; work will begin in the very near future.

The Site Manager is working to resolve the concerns expressed by the U.S. Department of Energy (DOE)/Test Operations Division relative to issuance of an operations permit for installation of portable seismic stations (University of Nevada, Reno, Nonproliferation Experiment) scheduled for September 21, 1993.

Completed Schmidt Hammer testing on NRG boreholes.

The following is a listing of site characterization field activities that are currently active:

SCP ACTIVITY	TITLE	COMMENTS
8.3.1.3.2.1	Mineralogy, Petrology & Rock Chemistry of Transport Pathways	Outcrop sampling
8.3.1.3.2.2	Mineralogic & Geochemical Alteration	Outcrop sampling
8.3.1.4.2.2	Structural Features within Site Area	Surface mapping, ESF mapping
8.3.1.8.5.1	Characterization of Volcanic Features	Test pits, trenching
8.3.1.14.2	Soil & Rock Properties of Potential Location of Surface Facilities	Test pits, trenching, ramp exploration holes
8.3.1.17.4.2	Location & Recency of Faulting Near Prospective Surface Facilities	Trench mapping
8.3.1.17.4.3	Quaternary Faulting within 100 km of Yucca Mountain	Surface mapping
8.3.1.17.4.4	Quaternary Faulting in NE-Trending Fault Zones	Surface mapping
8.3.1.17.4.10	Geodetic Leveling	Traversing
8.3.1.17.4.6	Quaternary Faulting within Site Area	Trench mapping
8.3.1.2.1.1	Precipitation & Meteorological Monitoring for Regional Hydrology	Ongoing measurements

SCP ACTIVITY	TITLE	COMMENTS
8.3.1.2.1.2	Runoff & Streamflow	Ongoing measurements
8.3.1.2.2.1	Unsaturated Zone Infiltration	Drilling/logging of neutron-access holes; ponding tests
8.3.1.2.2.2	Water Movement Tracer Tests	Cl-36 measurements
8.3.1.2.2.3	Percolation in Unsaturated Zone	UZ drilling/testing Perched water testing
8.3.1.2.2.4	Characterization of YM Percolation in UZ-ESF Investigation	Perched water
8.3.1.2.2.6	Gaseous Phase Movement in Unsaturated Zone	UZ drilling/testing
8.3.1.2.2.7	Unsaturated Zone Hydrochemistry	UZ drilling/testing
8.3.1.2.3.1	Site Saturated Zone Groundwater Flow System	Ongoing monitoring
8.3.1.2.3.2	Saturated Zone Hydrochemistry	Ongoing sampling
8.3.1.15.1.8	In Situ Design Verification	Construction monitoring/testing

Environmental Programs

Four environmental compliance surveillances were conducted at the Yucca Mountain (YM), Nevada, site to ensure compliance with permit and programmatic requirements.

Large Block Test (LBT)

Raytheon Services Nevada has completed a blasting test plan for exposing the top and east sides of the large block. The initial tests have predicted peak particle velocities at the block of less than two inches per second, less than one-fifth of "standard" damage thresholds.

Regulatory Interactions

Mined Geologic Disposal System (MGDS) License Application (LA) Annotated Outline (AO)

Revision 3 of the AO is on schedule for initiation of the DOE review beginning September 21, 1993. The review will be conducted using the InfoSTREAMS system.

Advisory Committee on Nuclear Waste (ACNW) Interactions

The 57th ACNW meeting will be held in Bethesda, Maryland, September 29-30, 1993. Discussions will include recommendations for membership in the ACNW, the ACNW charter, and low-level waste compatibility issues.

The 58th ACNW meeting is planned in Las Vegas, October 27-29, 1993. The full committee will meet October 27-28, 1993; presentations will include the status of new work at YM. The ACNW will tour the site on October 29, 1993.

The ACNW is planning a working group on "Characterization of the Unsaturated Zone Flow and Transport Properties." The working group meeting is planned for November 18, 1993, following the 59th ACNW meeting on November 15-17, 1993.

Technical Analysis

The TAB staff held an on-site workshop at the Field Operations Center on September 7, 1993. A "draft" TAB mission statement was derived and individual staff members' present functions and assignments were discussed.

The PA staff are working with the Principle Investigators of Study Plan (SP) 8.3.1.2.2.3, "Characterization of the Percolation in the Unsaturated Zone - Surface Based Study," to obtain better data for the spatial infiltration distributions over YM. This data is needed as basic inputs to both the USGS/Lawrence Berkeley Laboratory Site Scale Three-Dimensional Flow Model and the Los Alamos National Laboratory (Los Alamos) Site Scale Three-Dimensional Transport/Retardation Model. Both of these modeling efforts become a vital part of the process level performance assessment evaluations.

Site Characterization Plan/SP Status

The Yucca Mountain Site Characterization Project Office (YMPO) approved one new SP, 8.3.1.3.5.1.2, "Dissolved Species Concentration Limits and Colloidal Behavior"; and one major revision to an SP, 8.3.1.2.2.7, Revision 1, "Hydrochemical Characterization of the Unsaturated Zone." The U.S. Nuclear Regulatory Commission (NRC) completed Phase I acceptance and review of two SPs: SP 8.3.1.17.4.3, "Quaternary Faulting within 100 Km of Yucca Mountain, including the Walker Lane," and SP 8.3.1.17.4.4, "Quaternary Faulting Proximal to the Site within NE-Trending Fault Zones."

STUDY PLAN BREAKDOWN

	Initial Plans	Major Revisions
Not Submitted to YMPO	38	0
In Screening Review	0	0
In YMPO Review	1	1
Awaiting Comment Resolution	5	3
In Verification Audit	3	1
Awaiting YMPO Approval	1	0
Awaiting Submission to NRC	1	3
Awaiting NRC Phase 1 Review	9	1
Accepted by NRC	46	5
Totals	104	14
Total Submitted to NRC	55	6

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State of Nevada Comments Status:

Received Comments from the State of Nevada.....	19
Responses Transmitted to the State of Nevada	18

NRC Comments Status:

Received Comments from NRC	24
Responses Transmitted from DOE to NRC	22

B. Project Planning and Control

Completed analysis of fiscal year 1993 Capital funding shortfalls and carryover for Work Breakdown Structure (WBS) 1.2.3, Site Investigations.

C. Quality Assurance (QA) Implementation

The Sandia National Laboratories (SNL) Audit YMP-93-17 will be held September 13-17, 1993, in Albuquerque, New Mexico.

The Science Applications International Corporation (SAIC) Audit YMP-93-18 will be held September 27-October 1, 1993, in Las Vegas.

III. GENERAL INFORMATION ITEMS

Analysis and Verification Division (AVD) initiated review of the Multi-Purpose Canister (MPC) Conceptual Design Report documents under Quality Assurance Procedure 3.1 review procedures. Reviewed revisions to the overall system and subsystem requirements documents that incorporate the MPC. Comments are due on September 13, 1993.

AVD initiated preparing a presentation on the status of the waste package materials program to be provided to the DOE Energy Materials Coordinating Committee in Germantown, Maryland, on September 13, 1993.

The MGDS staff participated in a demonstration and review on September 8, 1993, of the "Value Framework Technique" proposed by RW-30 for use in obtaining stakeholder views on various aspects of the program with a specific application in the near future to interactions with stakeholders on the system architecture study.

The staff are also coordinating a special session on the Section 801 activities at the International High-Level Radioactive Waste Management Conference in April 1994; and finalizing the final draft of the framework for integration of the Repository Program.

Regarding WBS 1.2.2.2.4 (Engineered Barrier System [EBS] Field Tests), pre-test modeling and analysis of the LBT continued. Values of bulk permeability, K_b , ranging from 280 millidarcy to 40 darcy were considered. For K_b of 1, 10, and 280 millidarcy, the vertical extent of the dry-out zone is almost identical, and the effect of buoyant, gas-phase convection is negligible (i.e., does not cause the dry-out zone to deviate from being vertically-symmetrical about the heater horizon).

For a K_b of 5 darcy, the effects of buoyant gas-phase convection begin to become noticeable, with more than 50 percent of the total steam flow being upward. For a K_b of 40 darcy, buoyant vapor flow dominates gas-phase flow, with all of the steam flowing upward, resulting in a much greater buildup of condensate above the heater horizon. The threshold K_b (where the effects of buoyant vapor convection begin to dominate gas-phase flow) is essentially the same in the LBT as in the in situ heater tests and repository-heat-driven hydrothermal flow.

Ines Triay of Los Alamos reported that the Sorption Task completed studies of neptunium (Np) sorption onto tuff as a function of pH. Their findings indicate that zeolitic tuffs exhibit higher sorption of Np at lower pH values (6.5-7), which mimic the pH of YM groundwater. The significance of these laboratory results is that they point to the possibility that zeolitic tuffs at YM will retard Np transport.

David Vaniman of Los Alamos reported that eolian dusts from YM are being analyzed by x-ray diffraction and by scanning electron microscopy. These studies are directed toward a better understanding of the "background" content of minerals that may be potential health hazards (via inhalation). The natural dust constituents will be compared with the mineral content of dusts generated by drilling and excavation at YM, particularly the dusts that may be dispersed by wind from the tailings generated as a result of ESF and potential repository construction.

David Vaniman of Los Alamos also reported that quantitative mineralogical analysis is being completed on the colluvium, Tiva, nonwelded, and upper Topopah samples from UE-25 UZ-16. Mineralogic studies of these core samples will provide information on the extent of unsaturated-zone alteration and the magnitude of ground-water transport and water-rock interaction in units above the potential repository horizon.

The following papers intended for publication in the Zeolites '93 Proceedings were submitted to YMPO for approval: "The Importance of Zeolites in the Potential High-Level Radioactive Waste Repository at Yucca Mountain," by David Vaniman; and "Distribution and Chemistry of Fracture-Lining Zeolites at Yucca Mountain," by Barbara Carlos et al.

One of the last pieces of data required for beginning the Total System Performance Assessment-II calculations, rod temperatures, was received from the Civilian Radioactive Waste Management System Management and Operating Contractor (CRWMS M&O). The data, along with information on thermal effects and the saturated zone, were incorporated into the runs. The test cases for the aqueous and gaseous flow and transport calculations were completed and the final Monte Carlo calculations have been started. The physical layout of the repository used for the volcanic disruption calculations was determined. Documentation on the definition of waste package lifetime has been completed.

The SNL staff continued design verification activities in the ESF North Ramp Starter Tunnel. In the past week, the bench blasting was completed. This completes the seismic monitoring work for the Starter Tunnel. Also, the rock quality estimates were completed based on inspection of rock exposed by the bench blasting.

As part of a separate construction monitoring effort, SNL has been monitoring the closure of the tunnel at key locations. This week, monitoring continued at two stations on the girders in the first 30 feet of tunnel, the three load cells on the high wall, and three load cells installed at 0+50 feet.

Ten surveillances were conducted: Sample Management Facility building; Fran Ridge (twice); UZ-14; UZ-16; Building 4117, Medical; Building 4222, Reynolds Electrical & Engineering Co., Inc., Maintenance; Building 4226, SAIC Meteorological Laboratory; and ESF (twice).

Updates were made by USGS to the full periphery geologic map of the ESF Starter Tunnel. Analyses of fracture families and fracture geometry from the ESF detailed line survey were transferred to Agapito by the USGS.

The USGS completed the stratigraphic measurements for the paleoseismic studies in Wall 4 of the Paintbrush Canyon Fault exposure on Busted Butte. The trench log field work in Stagecoach Road Trench 3 was completed, and photogrammetry of the natural exposure trench logs was also finished. Interim reports on YM tectonic models and detachment faulting were received by the USGS in Denver, Colorado. Maintenance was performed on the seismic sites on YM and Little Skull Mountain and seismic equipment is being prepared to collect data from the upcoming kiloton chemical explosion.

The USGS soil mapping activities are continuing. A contract between the USGS and the Desert Research Institute (DRI) has been signed to allow QA oversight of DRI's data collection activities.

IV. PUBLIC OUTREACH AND INSTITUTIONAL ACTIVITIES

Richard Arnold, a consultant, gave a Native American Indian cultural presentation to 100 students at C. P. Squires Elementary School on September 7, 1993, and September 9, 1993, in North Las Vegas, Nevada.

Carl Gertz gave a general YMP overview to 27 participants of the International Atomic Energy Course on September 7, 1993, in Argonne, Illinois. Carl Gertz also gave a general YMP overview to participants of the Radioactive Waste Management Video Conference Series, High-Level Waste Management, on September 8, 1993, in Albuquerque. This was broadcast to 80 remote sites.

April Gil, YMPO, gave a geology presentation to 40 members of the Clark County Gem Club on September 8, 1993, in Las Vegas.

A tour to YM was conducted on September 10, 1993, for four members of Nuclear Programs from China. Gregory Fasano, Technical & Management Support Services, gave a pretour briefing to the group at the YM Science Center in Las Vegas.

Institutional and External Affairs (IEA) staff attended the Lincoln County Impact Alleviation Committee meeting in Panaca, Nevada, and the Clark County Steering Committee meeting in Las Vegas on September 9, 1993.

The IEA staff completed development of a newspaper announcement publicizing public tours to YM for September 25, October 23, November 17, and December 18, 1993.

V. UPCOMING EVENTS CALENDAR

Please note that the usage of "(P)" in the calendar indicates that the event is open to the public. Educational presentations and State and Public Interactions are coordinated by the Speakers Bureau; contact Jacqueline Brandt at (702) 794-7896 or Theresa Hirsch at (702) 794-7759 for additional information. Exhibits are coordinated by Joanna Magruder at (702) 794-7056, Public Update Meetings are coordinated by Rebecca Nick at (702) 794-7769, and Tours are coordinated by Carleen Hill at (702) 794-7375 or Kelly Doyle at (702) 794-7133.

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
<u>A. Stakeholders Meetings</u>			
No significant meetings to report.			
<u>B. DOE/Headquarters Meetings</u>			
Wednesday, September 29 (televideo)	OCRWM Director's Program Review Meeting	Washington, DC	L. Smith C. Gertz
<u>C. CRWMS M&O/DOE Meetings</u>			
Friday, October 1	YMPO Monthly Management Meeting	Las Vegas, NV	C. Gertz
<u>D. Internal and DOE/Nevada Operations Office (NV) Meetings</u>			
Thursday, September 16	NV Managers Monthly Program Review	Las Vegas, NV	C. Gertz
Friday, September 17	Technical Project Officer Meeting	Las Vegas, NV	C. Gertz
Friday, September 17	Planning and Budget Meeting	Las Vegas, NV	C. Gertz
Thursday- Friday, September 23-24	YMPO Management Off-site	St. George, UT	L. Smith
<u>E. NRC Interactions</u>			
Friday, September 17	DOE/NRC Management Meeting	Rockville, MD	T. Bjerstedt
Tuesday - Wednesday, October 5-6	Technical Exchange - ESF	Las Vegas, NV	T. Bjerstedt

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
E. <u>NRC Interactions (Continued)</u>			
Wednesday, October 13	Technical Exchange - Radioactive Migration in the Unsaturated Zone (P)	Los Alamos, NM	T. Bjerstedt
Thursday, October 14	Technical Exchange - Near-Field Phenomena Related To Radio- nuclide Releases from the EBS (P)	Los Alamos, NM	T. Bjerstedt
Friday, October 15	Los Alamos Site Visit (P)	Los Alamos, NM	T. Bjerstedt
Wednesday, November 17	Seismic Hazards Assessment Technical Meeting (P)	Washington, DC	T. Bjerstedt
Thursday, November 18	Interactions Scheduling Management Meeting (P)	Washington, DC	T. Bjerstedt
F. <u>Nuclear Waste Technical Review Board (NWTRB) Interactions</u>			
Tuesday- Friday, October 19-22	NWTRB Full Board Meeting (P)	Las Vegas, NV	J. Nesbit
Monday- Tuesday, November 1-2	NWTRB Joint T&S/ EBS Panel Workshop (P)	Dallas, TX	J. Nesbit
Monday- Wednesday, January 10-12, 1994	NWTRB Full Board Meeting (P)	Arlington, VA	J. Nesbit
January or February 1994	NWTRB - SG&G Panel (P)	TBD	J. Nesbit
Monday- Wednesday, April 11-13, 1994	NWTRB Full Board Meeting (P)	Reno, NV	J. Nesbit
Monday- Wednesday, July 11-13, 1994	NWTRB Full Board Meeting (P) (Tentative)	Denver, CO	J. Nesbit
Wednesday- Friday, October 12-14, 1994	NWTRB Full Board Meeting (P) (Tentative)	Las Vegas, NV	J. Nesbit

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>YMPO Contact</u>
G. <u>ACNW Interactions</u>			
Wednesday- Thursday, September 29-30	ACNW 57th Meeting (P)	Bethesda, MD	A. Gil
Wednesday- Thursday, October 27-28	ACNW 58th Meeting (P)	Las Vegas, NV	A. Gil
Friday, October 29	ACNW Site Tour (P)	Las Vegas, NV	A. Gil
Monday- Tuesday, November 15-16	ACNW 59th Meeting (P)	TBD	A. Gil
Thursday, November 18	ACNW Working Group on Unsaturated Zone Hydrology (P)	Bethesda, MD	A. Gil
Tuesday, December 14,	ACNW Working Group on Low Level Waste Performance Assessment (P)	TBD	A. Gil
Wednesday- Thursday, December 15-16	ACNW 60th Meeting (P)	TBD	A. Gil
H. <u>National Academy of Sciences (NAS) Interactions</u>			
Tuesday- Wednesday, November 9-10	NAS Committee on YM Standards (P)	TBD	S. Jones
Thursday- Friday, December 16-17	NAS Committee on YM Standards (P)	TBD	S. Jones
Monday- Tuesday, February 7-8, 1994	NAS Committee on YM Standards (P)	TBD	S. Jones
Thursday- Friday, April 28-29, 1994	NAS Committee on YM Standards (P)	TBD	S. Jones

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u>			
Saturday, September 11	Cadet Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Monday, September 13	Pretour, Senior Tripsters - General Overview	Las Vegas, NV	J. Peck
Tuesday, September 14	Las Vegas Luncheon Optimist Club - YM vs Keep at Producing Sites	Las Vegas, NV	J. Peck
Wednesday, September 15	Fitzgerald School - LESSON Workshop	Las Vegas, NV	J. Blink
Wednesday, September 15	Edison Electric Institute - General Overview	Las Vegas, NV	C. Gertz
Saturday, September 18	Pretour, Nevada League of Cities - General Overview	Las Vegas, NV	TBD
Saturday, September 18	Cadet Girl Scouts - Fieldtrip	Las Vegas, NV	Various
Tuesday, September 21	YMP Waste Package Workshop - Introduction	Las Vegas, NV	L. Smith
Tuesday, September 21	Pretour, Western Legislative Conference Environmental & Resource Management Committees - General Overview	Las Vegas, NV	A. Robison
Tuesday, September 21	American Nuclear Society (ANS) - General Overview	Las Vegas, NV	L. Smith
Thursday, September 23	National Association of Retired Federal Employees - Update on YMP	Pahrump, NV	P. Carmack
Thursday, September 23	National Association of Regulatory Utility Commissioners (NARUC) - Update on YM	Annapolis, MD	C. Gertz

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions (Continued)</u>			
Sunday, September 26	Discovery Day (P) - Fossils, Hydrology, Rocks and Minerals, Volcanoes, Gold Panning, Streamtable	Beatty, NV	Various
Sunday, September 26	Children's Discovery Museum - Native American Indian Culture	Las Vegas, NV	R. Arnold G. Fasano
Sunday, September 26	YM Speaker Series (P) - "Radiation"	Pahrump, NV	M. Griffin
Monday, September 27	Emerging Technologies in Hazardous Waste Management - General Overview	Atlanta, GA	J. Peck
Tuesday, September 28	Pretour, Entergy Energy Corporation - General Overview	Las Vegas, NV	C. Gertz
Tuesday, September 28	Pretour, Southern Nevada Chevron Retirees Association - General Overview	Las Vegas, NV	J. Peck
Tuesday, September 28	4-H Teams Exploring Careers - Yucca Mountain Johnny	Las Vegas, NV	J. Hartley
Tuesday, September 28	YM Speaker Series (P) - "Radiation"	Las Vegas, NV	M. Rose
Wednesday, September 29	A.D. Guy Boys and Girls Club - Native American Indian Culture	Las Vegas, NV	R. Arnold
Friday, October 1	Pretour, Chubu Electric Power, Japan - General Overview	Las Vegas, NV	C. Gertz
Saturday, October 2	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Tuesday- Thursday, October 5-7	DOE/SKB Bilateral Meeting	Stockholm, Sweden	C. Gertz

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions (Continued)</u>			
Tuesday, October 5	Sun City Residents - General Overview	Las Vegas, NV	L. Smith R. Dyer A. Flint
Tuesday, October 5	East Las Vegas Library - General Overview	Las Vegas, NV	J. Peck
Wednesday, October 6	Beatty Elementary School - Native American Indian Culture	Beatty, NV	R. Arnold
Thursday, October 7	Las Vegas Break- fasters Lions Club - General Overview	Las Vegas, NV	J. Peck
Tuesday, October 19	Community College of Southern Nevada - General Overview	Las Vegas, NV	G. Fasano
Wednesday, October 20	Basset Book Shop - Native American Indian Culture	Las Vegas, NV	R. Arnold
Tuesday, October 26	YM Speaker Series (P) - "Water: Where It Comes From and Where It Goes"	Las Vegas, NV	C. Savard
Thursday, October 28	YM Speaker Series (P) - "Water: Where It Comes From and Where It Goes"	Las Vegas, NV	C. Savard
Thursday, November 4	Discover Southern Nevada - General Overview	Las Vegas, NV	TBD
Friday, November 5	International Brotherhood of Electrical Workers - General Overview	Las Vegas, NV	J. Peck
Monday, November 8	International Brotherhood of Electrical Workers - General Overview	Las Vegas, NV	J. Peck
Thursday, November 11	International Brotherhood of Electrical Workers - General Overview	Las Vegas, NV	J. Peck

<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Tuesday, November 16	Society for Mining, Metallurgy, and Exploration - General Overview	Pomona, CA	TBD
Tuesday, November 16	Nevada Environmental Conference	Reno, NV	L. Smith
Wednesday, November 17	Republican Women - General Overview	Boulder City, NV	TBD
Thursday, November 18	ANS - Results of In-Situ Testing at Geologic Disposal Sites	San Francisco, CA	TBD
Sunday, November 21	YM Speaker Series (P) - "Archaeology in Perspective"	Pahrump, NV	W. Johnson
Sunday, November 30	YM Speaker Series (P) - "Archaeology in Perspective"	Las Vegas, NV	W. Johnson
Saturday, December 11	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Tuesday, January 25, 1994	YM Speaker Series (P) - "Constructing a Tunnel to Study a Mountain"	Las Vegas, NV	D. McKenzie J. Peck
Thursday, January 27, 1994	YM Speaker Series (P) - "Constructing a Tunnel to Study a Mountain"	Beatty, NV	D. McKenzie J. Peck
Saturday, February 12, 1994	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
Sunday, February 27, 1994	Waste Management Symposia - TBD	Tucson, AZ	TBD
Sunday, March 20, 1994	Risk Management Quarterly Association - TBD	San Diego, CA	TBD
Saturday, April 2, 1994	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various

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Lake H. Barrett

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<u>Date</u>	<u>Event</u>	<u>Location</u>	<u>Speaker</u>
I. <u>State and Public Interactions</u> (Continued)			
Saturday, June 4, 1994	Girl Scouts - Geology Merit Badge Workshop	Las Vegas, NV	Various
<u>Date</u>	<u>Event</u>	<u>Location</u>	
J. <u>Exhibits Scheduled</u>			
Wednesday- Friday, September 15-17	Nevada League of Cities	Henderson, NV	
Friday- Sunday, September 17-19	Harvest Day Festival (P)	Pahrump, NV	
Sunday- Wednesday, September 19-22	American Society for Quality Control	Palm Springs, CA	
Saturday, September 25	Public Open House (P)	Las Vegas, NV	
Wednesday- Saturday, September 29- October 2	Nevada Library Association	Elko, NV	
Friday- Sunday, October 1-10	Jaycees State Fair (P)	Las Vegas, NV	
Saturday- Friday, October 9-15	Association of Engineering Geologists	San Antonio, TX	
Wednesday- Friday, October 13-15	Nevada Association of Counties	Pahrump, NV	
Saturday, October 23	Public Open House (P)	Las Vegas, NV	
Monday- Thursday, October 25-28	Geological Society of America	Boston, MA	
Monday, November 8	Public Update Meeting	Pahrump, NV	
Tuesday, November 9	Public Update Meeting	Las Vegas, NV	

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Lake H. Barrett

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<u>Date</u>	<u>Event</u>	<u>Location</u>
J. <u>Exhibits Scheduled</u> (Continued)		
Wednesday, November 10	Public Update Meeting	Reno, NV
Saturday, November 13	Boy Scouts Expo '93	Las Vegas, NV
Sunday- Wednesday, November 14-17	ANS	San Francisco, CA
Saturday, November 17	Public Open House (P)	Yucca Mountain, NV
Monday- Friday, December 6-10	American Geophysical Union	San Francisco, CA
Saturday, December 18	Public Open House (P)	Yucca Mountain, NV
<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled</u>		
Monday, September 13	Senior Tripsters	TBD
Thursday, September 16	Edison Electric Institute	TBD
Friday, September 17	Lincoln County School Board	C. Binzer B. Bush
Saturday, September 18	Nevada League of Cities	TBD
Monday, September 20	Waste Package Development Workshop	TBD
Tuesday, September 21	Western Legislative Conference	D. Bradford
Thursday, September 23	Jewish Community Center/Detroit Club	TBD
Thursday, September 23	DOE Programmatic	L. Smith
Saturday, September 25	Public Open House (P)	Various Escorts
Tuesday, September 28	Southern Nevada Chapter Chevron Retirees Association	TBD

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Lake H. Barrett

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<u>Date</u>	<u>Event</u>	<u>Escorts</u>
K. <u>Tours Scheduled (Continued)</u>		
Tuesday, September 28	Entergy Energy Group	D. Bradford
Friday, October 1	Chubu Electric Power, Japan	TBD
Monday, October 4	Logandale and Area Residents	TBD
Tuesday, October 12	Sun City Senior Citizens	TBD
Thursday, October 14	Nevada Association of Counties	TBD
Wednesday, October 20	Wildland Shrub and Arid Land Restoration Symposium	TBD
Saturday, October 23	Public Open House (P)	Various Escorts
Tuesday, October 26	NARUC	TBD
Wednesday, October 27	Dadaelians	M. Voegele
Friday, October 29	ACNW	A. Gil
Wednesday, November 17	Public Open House (P)	Various Escorts
Tuesday, November 23	Sun City B'nai Brith	TBD
Monday, November 29	NAS Tunnel Technology Committee	TBD
Saturday, December 18	Public Open House (P)	Various Escorts
Thursday, March 31, 1994	National Council, State Garden Club Specific Region Convention	TBD


 Carl P. Gertz
 Project Manager

YMP:RVB-6181



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

WBS: 1.2.7.4
QA: N/A

SEP 22 1993

Carl P. Gertz, Project Manager, YMP, NV

YUCCA MOUNTAIN SITE OFFICE (YMSO) ACTIVITY REPORT (SCP: N/A)

The following are the significant activities for the period from September 4, 1993 to September 17, 1993:

1. FIELD OPERATIONS CENTER

A. Management and Administration

- a. Site Manager prepared the JP authorization letter for JP 93-12, "Ghost Dance Fault Road Cuts".
- b. Provided support to the following tours: Nuclear Programs-China; Senior Tripsters; YMPO New Employees; EEI High-Level Waste; and NV League of Cities.
- c. Site Manager prepared and issued the Job Package (JP) letter for JP 93-12, "Ghost Dance Fault Roadcuts", with the required Field Operations Permit 93-017.
- d. Site Manager and select members of the FOC Staff made a review of two forthcoming work activities. These being JP 93-13, Construction of Access Road and Drill Pad for Borehole VFW SD-12 and JP 93-14, Construction of the Drill Pad for Borehole VFW-25 NRG-7.
- e. The YMP Safety and Health Officer prepared and distributed to the TPO's and YMPO Division Director's several "key" correspondence. These being: "YMP Safety and Health Officer's Initiative" and "Hantavirus Infection."
- f. Provide operations, administrative, and security support to the Yucca Mountain Site Manager and his DOE staff.
- g. Provided operational and administrative support for site characterization activities in the field.
- h. Provided logistical support for issuing vehicles, first aid kits, fire extinguisher, and other necessary equipment to personnel performing field duty.
- i. Supported three (3) tours of YMP Facilities.
- j. Prepared and transmitted daily operations reports to NORSOC, and the biweekly reports to HQ OCRWM.
- k. Prepared twenty-two (22) badge requests for visitors and field work.
- l. Continued working of YMP Emergency Management Plan and Area Evacuation Plan.

- m. Processed twenty-two (22) Work Order Requests, providing for communications, field support and building maintenance. Prepared monthly work order update for Site Manager.
- n. Processed thirty (30) photographic service/support requests.
- o. Continue to provide photographic coverage of ESF operations.
- p. Provided underground visitors training for visitors and workers requiring access.
- q. Provided building drawings to RSN for field survey project.
- r. Provided DOE with monthly ORPS report and updates thereto.
- s. Commenced conceptual design of a safety surveillance system.
- t. Prepared vacancy announcements for two FOC staff positions. Wrote position descriptions for two other FOC positions.
- u. Created high level requirements document for FY 94 budget.
- v. Commenced revision of FOI 4705, "YMP Work Site and Area Access, Controls and Facility Permits".
- w. Coordinated with REECo on out of compliance CARS on ORPS reports and what drill rig was sued on UE-25 C3 in 1984
- x. Prepared plan for renovation of Situation Room in FOC.

B. Project Safety & Health (DOE/SAIC)

- a. Attended monthly Safety and Health Advisory Committee meeting.
- b. Developed presentation for the Safety and Health Officer on project safety and health program for EEI meeting, 9/16.
- c. Met with M&O Construction Manager representative and DOE Specialists concerning ground control at ESF. M&O Representative to develop plan for communication ground control concerns.
- d. Dust samples taken on second floor of FOC.
- e. Developed inspection guidelines for upcoming AP 5.7 inspection of BOA Building and USGS.
- f. Resolved comments on ICN for YLP 1.1Q, YMPO Organization.
- g. Completed approval process for ILP 30.1, Federal Employee Safety and Health Program, submitted procedure to PPD for publication.
- h. Development of "Shogun Safety Award" continues.
- i. Roads and Traffic Enhancement Committee toured the Ranch and made recommendations for traffic control changes.

- j. Drafted policy for SHO on who has authority to change traffic controls.
- k. Inspected Bank of America, Phase II for potential vermin infestation problems.
- l. Initiated Hantavirus avoidance activity in Area 25.
- m. Conducted five surveillance: 1) 2 at UZ-16; 2) 1 at C-Well Complex; 3) 1 at Ghost Dance Fault; and 4) 1 at NRG-2B.
- n. Measured air quality and relative humidity during fibercrete operations and conducted post-blast gas sampling at ESF Starter Tunnel.
- o. Supported on going tours.
- p. OCCURRENCE REPORTS
 - 1. REECo - one outstanding: 1 awaiting Program Manager Signature.

2. Raytheon Services Nevada, (RSN)

A. Field Support

- a. Survey of Starter Tunnel is on going.
- b. Geologic survey of Ghost Dance Fault is ongoing.
- c. Topographic survey of C-Well completed.
- d. Topographic survey of Fran Ridge completed.
- e. Location of Surface Conveyor System is complete.
- f. Location of Poles for 69 kV power line is complete.
- g. Support of Fran Ridge Large Block Sawing is on-going.
- h. Survey Crew continuing work on A-25 Survey Control Net.
- i. Field Engineering continues to check Trench 14 daily.

B. Quality Control

- a. Continued verification of activities on UZ-14 borehole, utilizing the LM-300 drill rig.
- b. Completed verification of activities on NRG-2B borehole, utilizing the CME-850 drill rig.
- c. Commenced verification activities on C-Well Complex Water Pump Test.
- d. Performed weekly surveillance on trenches on Stagecoach Road (SCR-T1-T2-T3) and in Crater Flats (SCF T-2-CF-1 and Trench 8). Fences being reinstalled around trenches.
- e. Initiated RSN Nonconformance Report for REECo performing construction of 69 kV Power Line Access Road Grading using unapproved drawings. Drawings in use were stamped "Not for Construction".

3. Sample Management Facility (SMF/SAIC)

- a. Continued supporting drilling on NRG-2B, Drilling Support collected drive core. Reached T.D. (329.5 feet) 9/14.
- b. Completed processing/verification of core from UZN-39.
- c. Processed and verified core from NRG-2B.
- d. Created 187 specimens from core samples for analysis by various Principle Investigators.
- e. SMF accepted nineteen (19) water samples from UZ-14.
- f. Twenty-three (23) sample examinations were conducted by SNL, USGS, DOE, and LANL.
- g. Continued monitoring and oversight of prototype drilling tool development conducted at Colorado School of Mines.
- h. Continue converting Branch Technical Procedures to Implementing Line Procedures and revising Administrative Procedures to incorporate new QARD requirements.
- i. Shipped thirty-two (32) specimens to LANL for analysis.
- j. Completed Schmidt Hammer testing on NRG boreholes.
- k. Completed reboxing and reorganizing non-borehole sample storage area to accommodate increase sample transfers.

4. YMP Hydrologic Research Facility, (USGS)

The following activities were accomplished by USGS Staff:

Geologic Studies Program:

- a. Making stratigraphic measurements on Paintbrush Canyon Fault exposure on west side of Busted Butte.
- b. Secured geologic mapping equipment from ESF tunnel.
- c. All phases of field logging have been completed on trenches in Solitario Canyon Fault and completed unit and soil descriptions Stagecoach Road trenches SCRT-1 and started work in SCRT-3.
- d. Inspected and mapped Ghost Dance Fault excavation on Antler Ridge and determined to clear pavement instead of making cut due to hardness of Tiva Canyon Tuff.
- e. Inspected soil test sites in Midway Valley and worked on soil maps.
- f. Logging core at the SMF.
- g. Finish setting up seismic stations in Jackass Flats and on Ranier Mesa for Kiloton Chemical Explosion and the Death Valley Seismic Shot.
- h. Flagged plants on Fran Ridge, at head of Pagany Wash and in Forty Mile Wash to be removed for soil gas sampling.

Hydrologic Investigation Program:

- a. Ran levels on selected stream gaging sites in Yucca Mountain area to establish local control points for gage data. Assembled and checked equipment at new surface runoff gaging sites in upper and lower Split Wash.

Saturated Zone:

- a. Calibrated water level monitoring transducers, performed routine water level measurements and recovered data from deep boreholes in and around the Ranch.
- b. Checked monitoring well equipment at Franklin Playa and in Amargosa Desert.
- c. Brought in some equipment, inspected site trailer and viewed clean-up excavations at C-Well Complex.

Unsaturated Zone:

- a. Initiated shut-in pressure tests below packers at UZ-16.
- b. Ran natural air-flow measurement on UZ-6s on Yucca Crest.
- c. Ran prototype test of air permeability packer system in C-1.
- d. Ran tracer gas on drilling air in NRG-2b.
- e. Assisted with tracer gas measurements and shipped UZ-14 perched water samples from SMF to Denver for analysis.
- f. Worked on data acquisition programs in Calibration Lab.
- g. Ran second prototype test of air permeability packer system in UE-25 c #1.

5. Reynolds Electric and Engineering Co., Inc. (REECO)

A. Drilling

- a. JP 92-17, UZ-14, LM-300 drill rig, cored to 1,282 feet, reamed to 1282 feet. Finished monitoring water level, final level 1250.71 feet. Pumped cement into hole and cored cement to 1279.71 feet, reamed cement to 1264.60 feet.
- b. JP 93-09, NRG-2B, CME-850 drill rig, cored to 329.46 feet, drove casing to 263.60 feet. Total depth reached 9/14. Secured hole with locking cap and set surface seal. Rigged down and moved equipment off location.

B. Logistics

- a. Continued requisitioning supplies, materials, and services for YMP Field Operations Center.
- b. Supported ongoing tours, including Nevada League of cities. Making preparation of upcoming Open House Tour.
- c. Supported construction efforts in Area 25.
- d. Revised all delivery drop point listing for each facility to expedite delivery and off loading of materials and supplies.

C. Construction

- a. JP 93-010, "Engineered Barrier, Large Blocktest", REECO started and completed drilling shot holes for the test blast; cleaned off area for pre-blast mapping and photography.
- b. JP 93-011, "Soil Remediation, "C" Well Complex", REECO regraded and stabilized "C" Well access road; continued excavation of the stained soil at "C" Well Complex.
- c. JP 93-012, "Ghost Dance Fault Roadcuts", REECO continued excavation of rad cuts at the Ghost Dance Fault at Antler Ridge.
- d. JP 92-20, "ESF North Portal Pad & Facilities", REECO continued rework of North ESF drainage channel; continued cribbing and electrical hook-up for REECO construction trailers; completed removal of waste material from the north ESF pad.

6. Los Alamos National Laboratory, (LANL)

- a. Lower bench excavated to about CS 2+00. This completes mining of Starter Tunnel.
- b. Geological Mapping and Site Characterization completed to end of Starter Tunnel.
- c. Construction activities consist of shotcreting tunnel except at location of test alcove.
- d. Eleven samples were taken by USBR during geologic mapping.
- e. Load Cell readings were taken at CS 0+50 and extensometer measurements were taken at CS 0+30 and 0+60.
- f. Tracer water used total to date is 367,686 gallons.
- g. Removal of material covering lower portion of Large Block Test and removal of sump used for saw cut completed. Layout of blast hole and drilling of holes completed. Area around blast area being cleared to observe effects of blast.

7. Documents and Records Center, (CRWMS M&O)

a. Received and Issued to following Controlled Documents:

JOB PACKAGES

JP 93-12, Rev. 0, "Job Package; Ghost Dance Fault Roadcuts".

TEST PLANNING PACKAGES n/a

SPECIFICATIONS

YMP-025-9-SP11, Rev. 0, "RSN Rotary Drill Rig".

DRAWINGS n/a

WORK PROGRAMS n/a

FCRs

FCR 93-511, "References to Revised Test Planning Package".

The following FCR's were processed for "OBSOLETION":

93/302	93/303	93/308	93/396	93/095
93/166	93/208	93/167	93/214	92/215
93/220	93/122	93/105	93/136	93/228
93/215	93/218	93/137	93/164	93/189
93/211	93/142	93/168	93/219	93/170
93/192	93/212	93/140	93/138	93/217
93/221	93/144	93/146	93/213	93/135
93/092	03/169			

b. REPRODUCTION:

17,394 pages copied
399 drawings copied

c. DOCUMENTS ISSUED:

1,920 controlled documents
- 44 JP's
- 1,852 FCR's
- 24 SPEC's

22 information copies

d. DTAR logoffs: 274

e. Attended FOC Staff Meeting.

f. Completed submission of NLP-6-1, Rev. 2, and NLP-17-1, Rev. 2 (DRC Line Procedures) into records system.

8. Field Training (SAIC)

- a. ESF Visitor Training, 22 people attended.
- b. GET 1.5 Refresher Training, 15 students passed.
- c. New Underground Worker Training, 6 people attended.
- d. PACS Orientation Training, 7 people attended.
- e. Radiological Control Testing, 8 people attended.
- f. Conducted Special ESF Visitor Training, 32 people attended.

Winfred A. Wilson

Winfred A. Wilson
Site Manager

YMP:WAW-93/225

cc:

M. B. Blanchard, YMP, NV
J. R. Dyer, YMP, NV
R. B. Baumeister, YMP/YMSO, Mercury, NV
L. R. Hayes, USGS, Las Vegas, NV
R. W. Craig, USGS, Las Vegas, NV
R. F. Pritchett, REECO, Las Vegas, NV
P. S. Justus, NRC, Las Vegas, NV
R. R. Kovach, LANL/YMSO, Mercury, NV
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