



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

DATE: July 1, 1995

TO: Joseph Holonich, Chief  
High-Level Waste and Uranium Recovery Projects Branch  
Division of Waste Management  
Office of Nuclear Materials Safety and Safeguards

FROM: William Belke, Sr. On-Site Licensing Representative for  
Quality Assurance and Engineered Systems *William Belke*

Chad Glenn, Sr. On-Site Licensing Representative for  
Natural Systems and Total Systems *Chad Glenn*

SUBJECT: U. S. NUCLEAR REGULATORY COMMISSION ON-SITE  
LICENSING REPRESENTATIVES' REPORT ON YUCCA  
MOUNTAIN PROJECT FOR JUNE 1995

INTRODUCTION:

The principal purpose of the On-Site Representatives' (OR) reports is to alert NRC staff, managers and contractors to information on U. S. Department of Energy (DOE) programs for site characterization, repository design, performance assessment, and environmental studies that may be of use in fulfilling NRC's role during pre-licensing consultation. The principle focus of this and future OR reports will be on DOE's programs for the Exploratory Studies Facility (ESF), surface-based testing, performance assessment, data management systems and environmental studies. Relevant information includes new technical data, DOE's plans and schedules, and the status of activities to pursue site suitability and ESF development. In addition to communication of this information, any potential licensing concerns identified are reported, as appropriate. Observations, concerns, or opinions raised in this report represent the views of the ORs and not that of NRC headquarters' staff.

QUALITY ASSURANCE (QA)

1. Participated as an observer for the June 8-9, 1995, Office of Civilian Radioactive Waste Management limited scope audit of U.S. Geological Survey (USGS) at the Nevada Test Site (NTS). The audit was continued the following week at the USGS offices in Denver, CO. The audit was performed by a team of three auditors from the Yucca Mountain Quality Assurance Division and a technical specialist from the Civilian Radioactive Waste Management System and Operating Contractor/Woodward and Clyde. The June 8-9 portion of the audit was primarily technical in nature and evaluated the process and products resulting from the Quaternary Faulting Studies that the USGS is undertaking at the Crater Flats area.

9509010322 950701  
NMSS SUBJ  
102.7

CF

NHXP 11  
102.7

All of the auditors qualifications were reviewed in the Las Vegas Audit Qualification file and found to be in compliance with DOE Quality Assurance Procedure, 18.1 "Auditor Qualification".

The technical specialist reviewed the Stagecoach Road trenching report that had been submitted to DOE for review, and noted that this report contained inconsistencies and errors. During the audit, two of the individuals being audited indicated that they felt there was insufficient time to perform a complete investigation and that they sometimes felt pressed to meet a predetermined schedule. They also indicated that lack of complete funding prevented them from performing all the necessary segments of the scientific investigation. The Lead Auditor was aware of this and stated that this aspect would be pursued in greater detail at the Denver portion of the audit. This information was relayed to the NRC Observation Audit Team Lead for further consideration during the Denver portion of the USGS audit.

The State of Nevada was invited to this audit, but elected not to attend. However, prior to the audit, the State of Nevada submitted over 20 pages of audit observer inquiries. When these audit observer inquiries are fully responded to, the ORs will obtain copies and forward them to NRC Headquarters.

2. The May 31, 1995, ESF Pad Meeting Minutes noted that a total of 69 of the 100 steel sets were "Red Tagged" because of QC problems. The ORs, on their next visit to the ESF pad, discovered that the steel sets on the ESF Pad were flagged and placed on a Nonconformance Report (NCR) due to the flanges being rippled. Initially we were informed that a review of the ripple effect on the steel sets was performed and they were either straightened out hydraulically in a jig to meet specifications, or accepted to "use as is" with the decision that there were no structural problems associated with the ripple effect. Part of the rationale for the rippled flange problem was attributed to the nature of the Federal Procurement Regulations which require several bidders to be considered during procurement. Previously, the steel sets were procured through Commercial Pantex which has extensive manufacturing experience in this area. The rippled steel sets were procured through Energy Steel and apparently did not have as much manufacturing experience in this area to produce an acceptable product. It is our understanding that DOE has discontinued procurement through Energy Steel.

On another site visit, the ORs requested to view the jig and were informed that the jig had been moved back to the fabrication location where the steel sets are constructed.

The ORs also looked at the existing pile of steel sets stored at the ESF pad controlled area. Several of these steel sets were noticeably rippled but were supposedly dispositioned acceptable and could be "used as is."

The OR's obtained a copy of the NCR to determine what the actual disposition and technical justification criteria was for acceptability. The NCR listed 66 steel sets and May 31, 1995, ESF Pad Meeting Minutes listed 69 steel sets. On a subsequent site visit, the ORs had the opportunity to discuss this matter with the NCR originator. It was discovered that a total of three NCRs were issued not only for rippled flanges but also for being slightly twisted and irregularly shaped. The lead design engineer evaluated the NCR conditions and provided a technical justification for acceptability. For the rippled steel sets, any ripple that occurs within the outer two inches of the flange not exceeding 1/8 of an inch, could be "used as is." Anything in excess would necessitate rework by mechanical or hydraulic means (no heating or hammering). The disposition to correct the twisted type condition, was that at tunnel installation, secure the steel sets at the connection plates and space them with the correct length tie rods and spacer pipe. The ORs toured the QA hold area and observed those steel sets presently on hold awaiting rework. From the OR perspective, these dispositions appear reasonable and acceptable.

## EXPLORATORY STUDIES FACILITIES

### 1. Tunnel Mapping

Tunnel mapping is proceeding by the U. S. Bureau of Reclamation (USBR) field team. At the end of this reporting period, the Tunnel Boring Machine (TBM) advanced 3733 feet in the ESF. Detailed geologic mapping, sampling, and hydrochemistry tests are in progress. Geologic mapping has been completed to approximately 3444 feet. ESF stratigraphy encountered to date is summarized in Enclosure 1.

### 2. Alcoves 1, 2, and 3

Investigators continued radial borehole testing in Alcove 1. Alcove 2 is presently being excavated (via drill and blast) from a point approximately 558 feet into the ESF tunnel. The purpose of this Alcove is to investigate hydrochemistry and hydrologic properties of the Bow Ridge Fault. At the end of this reporting period, the excavation of Alcove 2 had advanced 122.7 feet from the centerline of ESF tunnel. Alcove 3 is currently planned to be excavated at approximately 2493 feet into the ESF tunnel. Alcove 3 will be excavated to investigate the hydrologic properties of bedded tuff below the Tiva Canyon Tuff.

## SURFACE-BASED TESTING

### 1. Fran Ridge Large Block Experiment

The purpose of the Large Block Test (LBT) is to gather preliminary data to evaluate coupling of thermal, mechanical, hydrological, chemical processes in rock similar to the potential repository at Yucca Mountain. The results of the LBT are intended to support the design of room-scale *in situ* heater tests in the ESF. Holes continue to be cored in the large block for the emplacement of test instrumentation.

On June 29, 1995, the ORs observed coring at large block instrumentation hole UE-25 WH #1. Yucca Mountain borehole samples/specimens are collected under the procedure entitled "Field Logging, Handling, & Documenting Borehole Samples" (WI-DS-001). The ORs observed coring, removal of core from the core barrel and transfer of core custody from drillers to sample management personnel, core labeling and marking, field logging, and core packaging. Based on ORs observations, this core was collected in accord with the above procedure.

### 2. Borehole Drilling and Testing

The location of boreholes referenced in this section is provided in Enclosure 2.

#### SD-7

On March 7, 1995, water was encountered in borehole SD-7 approximately 500 feet above the regional groundwater level. The diameter of this borehole was subsequently enlarged to enable further testing of the perched water zone and permit the installation of casing. Coring is scheduled to resume (early FY 96) after perched water testing and the installation of casing. This borehole is planned to be drilled to a depth below the groundwater table.

#### UE-25 UZ-4 and UE-25 UZ-5

These two boreholes have been drilled to a depth below the Topopah Spring vitric caprock (in upper nonlithophysal zone). Instrumentation to monitor *in situ* pneumatic pressure, temperature, and humidity has been installed in UZ-5 and is currently being installed in UZ-4. Instrumentation in UZ-5 is presently recording pneumatic data, and the instrumentation in UZ-4 is expected to begin recording pneumatic data in July 1995.

#### USW SD-12

This borehole has been cored to a depth of 1400 feet. Coring operations were previously suspended to conduct air permeability

testing in the unsaturated zone. Air permeability testing was completed in June 1995. The LM-300 drilling rig is presently aligned over this borehole to resume coring to a depth below the groundwater table.

UZ-7a

In June 1995, UZ-7a was cored to a total depth of 770 feet (proposed repository horizon). This borehole was drilled to investigate the hydrologic, pneumatic and fracture characteristics of the Ghost Dance Fault. Gas chemistry, air permeability, and pneumatic testing will be conducted in the unsaturated zone. Instrumentation for pneumatic testing is expected to be installed and operating by October 1995.

WT-24

The construction of a road and drill pad for WT-24 continued during this reporting period. This borehole will be drilled to provide information on the nature and change in the hydraulic gradient north of the proposed repository block. Drilling at WT-24 is scheduled to begin by October 1995.

C-Hole Testing

UE-25 C-Hole testing is a phased effort involving three closely spaced boreholes in the saturated zone. The phases of this work include: (1) monitoring of ambient conditions in the saturated zone; (2) pump testing; and (3) cross-hole hydrologic and tracer testing. Initial monitoring of ambient conditions in the saturated zone and pump testing have been completed. Cross-hole hydrologic and tracer testing is scheduled to be conducted later this summer.

The ORs visited the C-Hole Complex and met with members of DOE's staff concerning the status of testing at the C-Hole Complex. A DOE hydrologist overseeing this work provided information on the status of testing (Enclosure 3A, 3B, 3C, 3D). Pumping was initiated at the C-hole complex in well UE-25C #3 on Wednesday, May 17, 1995. Pumping was gradually increased to a final level of 400 gallons per minute (gpm) during what was referred to as "assessment pumping" which is pumping to assess the capability of the discharge pipeline that delivers water from the C-holes to Forty-Mile Wash to handle a pumping rate of up to 400 gpm. This pumping was continued for 26 hours and terminated at 1:00 PM on Thursday, May 18, 1995.

After allowing the water in the C-wells to recover over the weekend, a 284 gpm (average) pump test in UE-25C #3 was started at 3:00 PM on Monday, May 22, 1995. Well UE-25C #3 had two ParoScientific transducers strapped to the pump discharge pipe, and contained no packers. Wells UE-25C #1 and UE-25C #2

contained 5 packers and 6 transducers each, but the packers were left uninflated in order to conduct an "open hole test". Pumping continued at a uniform rate until it was shut off at 3:00 PM Thursday, June 1, 1995. Recovery was monitored from this time to 8:30 AM on Monday, June 12, 1995. A total of 4,086,200 gallons were pumped out of UE-25C #3 during this test. A flow-through cell measured PH and Specific Conductance continuously throughout this pump test. Water samples collected will be analyzed for a suite of constituents. Total drawdown was 1.37 feet in UE-25C #1, 0.93 feet in UE-25C #2, and 25.2 feet in UE-25C #3. Investigators also monitored other wells near the C-Well Complex during this test. Nye County monitored its ONC-1 well (located approximately 2500 feet north of the C-wells) and observed a drawdown of 0.5 feet in the groundwater level. This observation suggests that the fracture system near the C-Well Complex is well connected and may serve as the primary groundwater flow pathway in the saturated zone.

A second pump test was started in well UE-25C #3 at 2:25 PM on June 12, 1995. In this test, the packers in UE-25C #1 and UE-25C #2 were inflated. Pumping in this test averaged 356 gpm and continued until approximately 3:00 PM Friday, June 16, 1995. A "spinner flow survey" and an "oxygen-activation survey" were conducted as part of this pump test.

#### OTHER ACTIVITIES

##### 1. Surface-Based Geophysical Program

The objective of DOE's surface-based program is the detection of structural and stratigraphic features in the vicinity of Yucca Mountain. DOE's 1995 geophysical work uses a variety of survey techniques including: high resolution seismic reflection, gravity, electrical, magnetic, and vertical seismic profile (VSP). Most of this work is concentrated on 12 survey lines in the vicinity of the potential repository block (Enclosure 4). High resolution seismic reflection surveys were performed on all of the lines in this enclosure with the exception of Lines 10 and 11. High resolution seismic reflection surveys were also completed on four short lines on the pad of UZ-7A to image the Ghost Dance Fault. DOE plans to extend seismic Lines 3 and 4 to the west across Line 6. Gravity surveys have been completed on all 12 lines. Magnetic surveys on these lines are nearing completion. An electrical magnetotellurics (MT) survey is planned over a portion of Line 3 that crosses the Ghost Dance Fault; two MT feasibility tests have been completed. A VSP survey is also planned at UZ-16.

Regional seismic reflection and gravity data have also been collected on two other lines. One line trends northeast from Steve's Pass across Crater Flat and Yucca Mountain. A second line extends from just west of repository block to Forty Mile

Wash in Midway Valley. In addition, seismic and gravity surveys will be conducted along two lines in the Rock Valley area near Little Skull Mountain.

To date, acquisition of the above seismic and gravity data is complete - with the exception of the extension to Lines 3 and 4 and the two Rock Valley lines. This survey data is expected to be collected in August 1995. Acquisition of gravity and magnetic data is about 75 percent complete, and the collection of electrical survey data was completed in June 1995. The acquisition of VSP data at UZ-16 is expected to be completed by September 1995. Finally, DOE expects to issue an interim report on surface-based geophysics in September/October 1995, and a final report in February/March 1996.

## GENERAL

### 1. Meetings/Interactions

- Attended the regularly scheduled bi-weekly meeting with R. Dyer (Acting for W. Barnes, Yucca Mountain Site Characterization Office (YMSCO) Project Manager), various YMSCO Assistant Managers, and the YMSCO QA Director. Enclosure 5 provides the topics discussed at this meeting.
- Attended DOE/NRC June 28-29, 1995, Technical Exchange on Engineered Barrier System Release Rates and Waste Form Testing.

### 2. Appendix 7 Site Interactions

- Conducted a June 16, 1995, site visit with C. Gaskin from the NRC Licensing Branch of Fuel Cycle Safety and Safeguards. The purpose of this visit was to obtain familiarity with potential areas on the Nevada Test Site that could be considered for interim storage of spent nuclear fuel. The main interest of this visit centered on issues that may develop in the future on the physical protection aspect in order to meet the requirements of Title 10 of the Code of Federal Regulations, Part 72, Subpart H. There were no outstanding issues raised on this visit.

## Other Items

- On a part time basis, the ORs observed the OCRWM limited scope audit (YM-ARP-95-10) of Reynolds Electrical & Engineering Co., Inc. (REECo), conducted June 5-9, 1995, in Las Vegas, Nevada. The State of Nevada and other interested parties were invited but chose not to attend. The purpose of the audit was to determine the degree of

compliance to REECo's implementing procedures for program elements 15.0 (Nonconformances), 16.0 (Corrective Action), and 18.0 (Audits). A performance based aspect was conducted for those activities supporting the corrective action process which included program elements 2.0 (QA Program), 5.0 (Implementing Documents), 17.0 (QA Records). There were no CARs issued as a result of this audit.

- The ORs selected a random sample of eight closed CARs from the DOE CAR Log to determine if they were being processed in accordance with Quality Assurance Procedure 16.1, "Corrective Action." Several of the CARs were selected from the 1994 DOE audit of Design Package 2C due to their significance. Principle areas that were centered on were root cause, remedial corrective action, close out, and action to prevent recurrence. It was noticed that CAR YM-94-072 had not been signed out/verified by the originator. Although this is not a DOE procedural requirement, it may be an indication that there may be a difference of opinion in the disposition of the final corrective action involved. As was the case for this CAR, the CAR initiator documented that he did not believe the final response fully satisfied the documented concern. A brief interview with the initiator confirmed this. The concern stemmed from the finding that the vertical loading calculation for the steel sets was not adequately based and consequently, due to the difference of opinion, the CAR was signed out by another individual. The ORs discussed this difference of opinion with the DOE YMP QA Director. The DOE YMP QA Director said several meetings were held on this matter and that DOE used their best available technical experts to resolve this issue. Based on the technical expert's input, DOE believed the calculations are adequate. The OR's forwarded the CAR and accompanying information to the NRC ESF Project Manager for further consideration in determining whether the calculations are adequate for the intended application. With this one exception, and on the basis of the random number of CARs selected for the sample, the DOE CAR process appears to be acceptably implemented.
- DOE has issued procedures on "Exploratory Studies Facility Tunnel Access Approval Process" (YAP-30.39; effective date 6/21/95) and "Reportable Geologic Condition" (YAP-30.27; no effective date established).
- Preparing for the August 2, 1995, Site Visit by the NRC Commissioner and Executive Director of Operations.

One copy of the following reports was recently received and is on file in the Las Vegas office:

In-Situ Thermal Testing Program Strategy, USDOE/YMSCO (6/95)

Nevada Potential Repository Preliminary Transportation Strategy, Study 1 (B00000000-01717-4600-00023, Rev 01)  
TRW/CRWMS/M&O

Bibliography of Publications Related to Nevada-Sponsored Research of the Proposed Yucca Mountain High-Level Radioactive Waste Repository Site through 1994, (NWPO-TR-021-94), State of NV Agency for Nuclear Projects/Nuclear Waste Project Office

Center for Volcanic & Tectonic Studies, Department of Geoscience, UNLV

Effective Transmissivity of Two-Dimensional Fracture Networks, (LBL-37332, UC-814) Lawrence Berkeley Laboratory, Univ. of CA, 4/95

Ceramic Package Fabrication for YMP Nuclear Waste Disposal (UCRL-ID-118660), Keith Wilfinger, 6/95, LLNL

Corrosion of Candidate Materials in Lake Rotokawa Geothermal Exposure (UCRL-ID-119832), John C. Estill, R. D. McCright, 5/95, LLNL

Distribution of Potentially Hazardous Phases in the Subsurface at Yucca Mountain, NV, (LA-12573-MS) LANL

Plutonium Carbonate Speciation Changes as Measured in Dilute Solutions with Photoacoustic Spectroscopy, (LA-12886-MS) LANL

Status of Volcanism Studies for the Yucca Mountain Site Characterization Project (LA-12908-MS), LANL

Creep in Topopah Spring Member Welded Tuff, (SAND94-2585)

Preliminary Evaluation of Techniques for Transforming Regional Climate Model Output to the Potential Repository Site in Support of Yucca Mountain Future Climate Synthesis (SAND94-2586)

Formulation and Numerical Analysis of Nonisothermal Multi-phase Flow in Porous Media, (SAND94-0379)

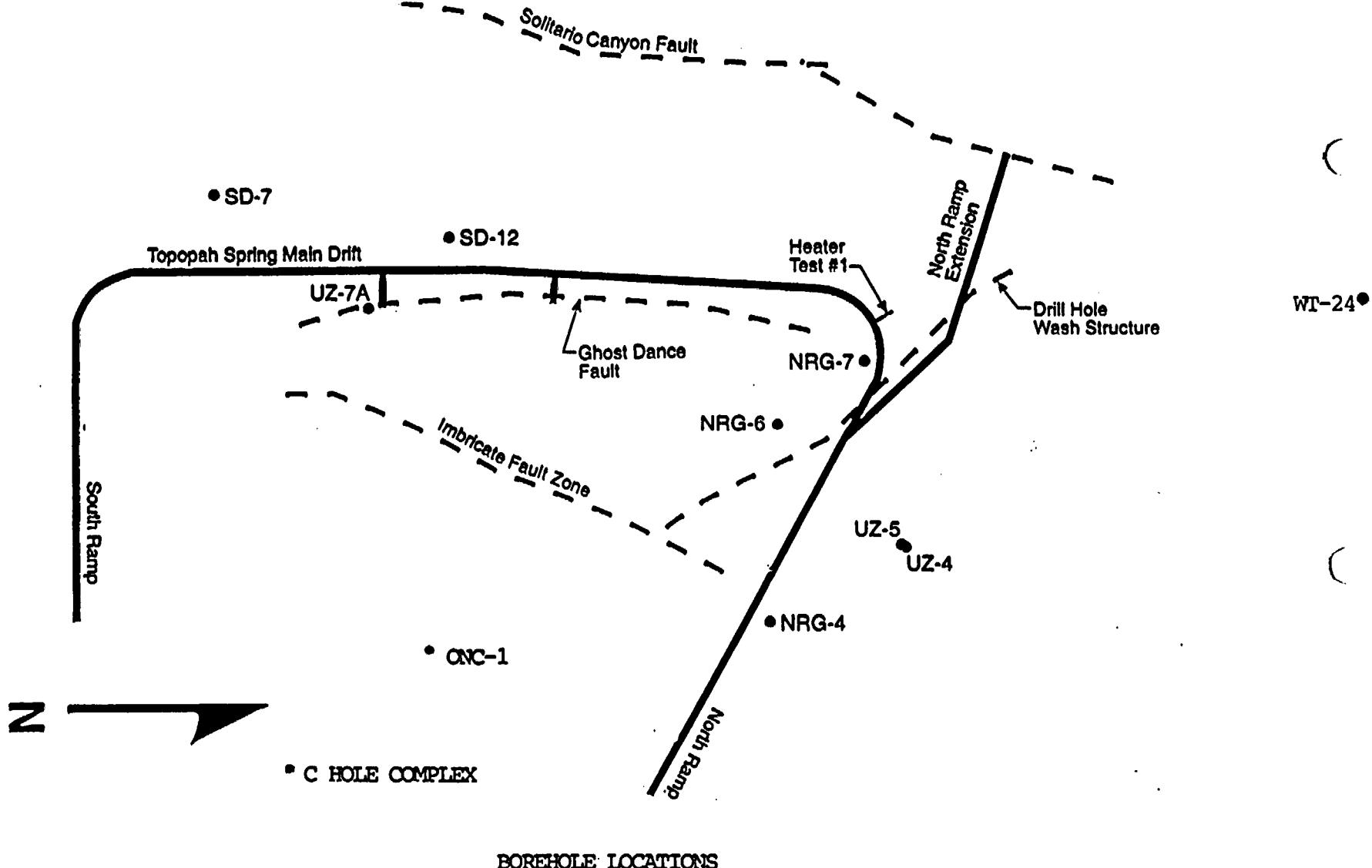
Summary Evaluation of Yucca Mountain Surface Transects with Implications for Downhole Sampling, (SAND49-2038)

cc w/encls.:  
R. Milner, DOE-OCRWM  
R. Loux, State of Nevada  
J. Meder, Nevada Legislative Counsel Bureau  
W. Barnes, YMSCO  
D. Horton, YMSCO  
N. Chappell, M&O  
R. Leonard, M&O  
M. Murphy, Nye County, NV  
M. Baughman, Lincoln County, NV  
D. Bechtel, Clark County, NV  
D. Weigel, GAO  
P. Niedzielski-Eichner, Nye County, NV  
B. Mettam, Inyo County, CA  
V. Poe, Inyo County, CA  
W. Cameron, White Pine County, NV  
R. Williams, Lander County, NV  
L. Fiorenzi, Eureka County, NV  
J. Hoffman, Esmeralda County, NV  
C. Schank, Churchill County, NV  
L. Bradshaw, Nye County, NV  
W. Barnard, NWTRB  
R. Holden, NCAI  
A. Melendez, NIEC  
R. Arnold, Pahrump, NV  
N. Stellavato, Nye County, NV  
J. Greeves, NRC WA (T7J-9)  
J. Thoma, NRC WA (T7J-9)  
M. Bell, NRC WA (T7C-6)  
M. Federline, NRC WA (T7J-9)  
J. Spraul, NRC WA (T7J-9)  
J. Buckley, NRC WA (T7J-9)  
M. Delligatti, NRC WA (T7J-9)  
A. Garcia, NRC WA (T7J-9)  
J. Austin, NRC WA (T7D-13)  
C. Paperiello, NRC WA (T8A-23)  
M. Knapp, NRC WA (T8A-23)  
W. Reamer, NRC WA (O15B-18)  
W. Patrick, CNWRA (Center)

## PRELIMINARY ESF NORTH RAMP STRATIGRAPHY

<u>STRATIGRAPHY</u>	<u>STATION</u>
Tiva Canyon crystal poor upper lithophysal zone	0+00 to 0+99.5m
Tiva Canyon crystal poor middle nonlithophysal zone	0+99.5 to 1+90m
Tiva Canyon crystal poor lower lithophysal zone	1+90 to 1+99.5m
Bow Ridge fault zone	1+99.5 to 2+02m
Ranier Mesa	None
Pre-Ranier Mesa tuff	2+02 to 2+63.5m
Tuff "X"	2+63.5 to 3+33m
Pre-Tuff "X"	3+37 to 3+49.5m
Tiva Canyon vitric zone	3+49.5 to 3+59.5m
Tiva Canyon crystal rich nonlithophysal zone	3+59.5m to 4+55.3m
Tiva Canyon crystal poor upper lithophysal zone	4+55.3m to 5+20m (?)
Tiva Canyon crystal poor middle nonlithophysal zone	5+20 to 5+87m
Tiva Canyon crystal poor lower lithophysal zone	5+87 to 6+17m
Tiva Canyon crystal poor lower nonlithophysal zone	6+17 to 7+77m
Tiva Canyon crystal poor vitric zone	7+77 to 8+69m
Non-welded tuffs (Yucca Mountain Member?)	8+69 to 9+12m
Pah Canyon Member	9+12? to 10+20m
Pre Pah Canyon Tuff	10+20 to 10+75m
Topopah Spring Tuff crystal-rich vitric zone	10+75 to ?
Topopah Spring crystal-rich nonlithophysal	? to Face

Notes: All stations given are referenced to the right springline unless otherwise noted. Stratigraphy is based on preliminary reports by United States Bureau of Reclamation mappers and is subject to revision.



L sclars. Figures are for information purposes only,  
and were obtained from a database not yet qualified  
for QAW under DOE guidelines.

**U.S. Department of Energy  
Yucca Mountain Site Characterization Project**

**Las Vegas, NV**

**CRWMS/M&O**

#### **Entertainment and Operations**

**Management and Operating Contractor  
Las Vegas, NV**

**Las Vegas, NV**

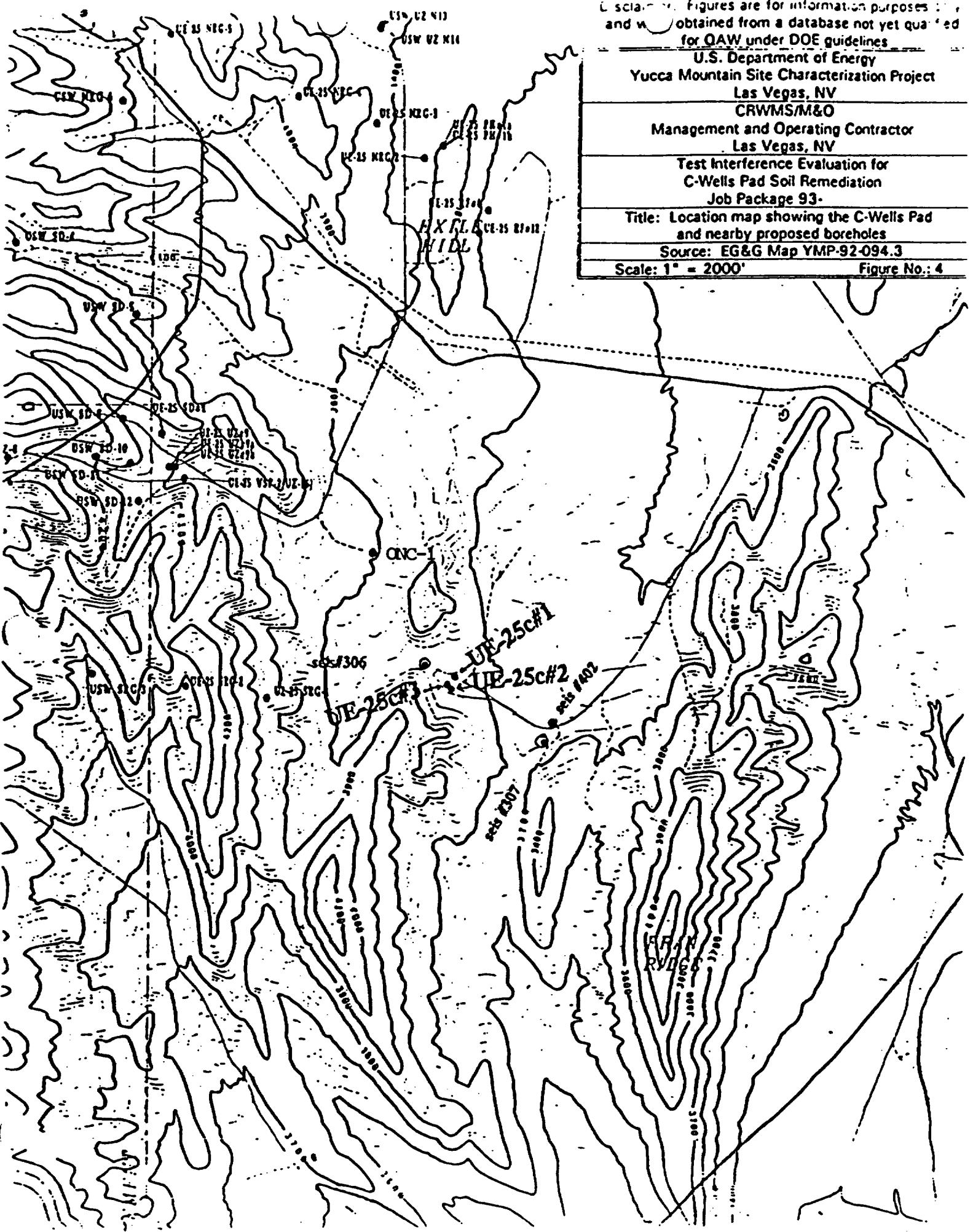
## **Test Interference Evaluation for C-Well Pad Soil Remediation Job Package 93.**

**Title: Location map showing the C-Well Pad and nearby proposed boreholes**

Source: EG&G Map YMP-92-094.3

**Scale: 1" = 2000'**

Figure No.: 4

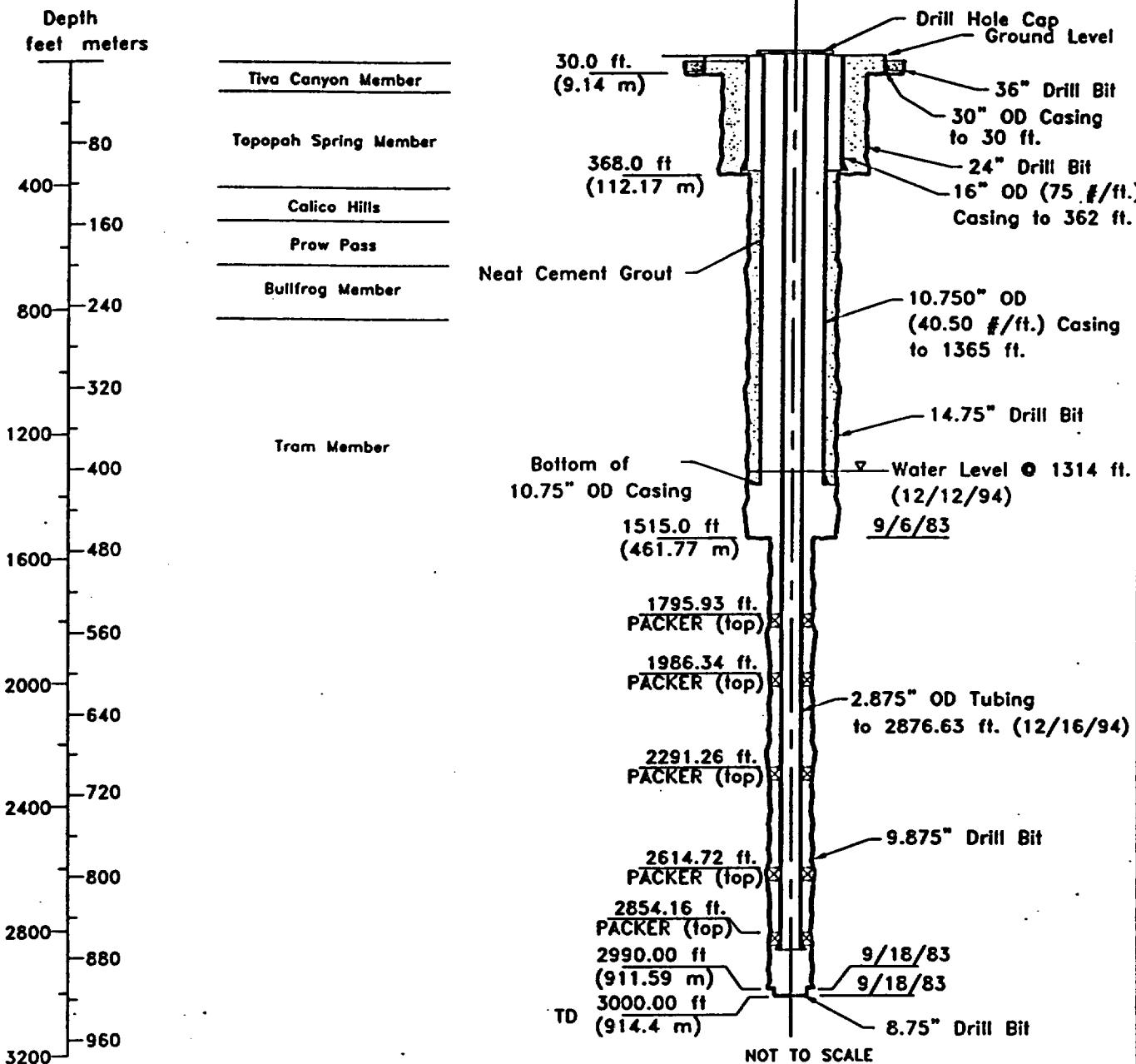


M&O/SAIC

YMP Surface Based Testing  
Drilling Engineering Section

Source of Data: NNWSI Hole Histories,  
UE-25c #1, UE-25c #2, UE-25c #3,  
DOE/NV/10322-14, November, 1986.

HOLE DESIGNATION: UE-25c #1  
SURFACE COORDINATES: N 757095.85 E 569680.44  
SURFACE ELEVATION: 3708.7'  
TOP OF CASING: 3709.56'  
BOTTOM-HOLE COORD.: N 757124.37 E 569704.05  
BOTTOM ELEVATION: 708.7'  
DRAWING DATE: June 20, 1995



UE-25c #1  
Hydrologic Test Hole

SK No. SK-94-A-DR025

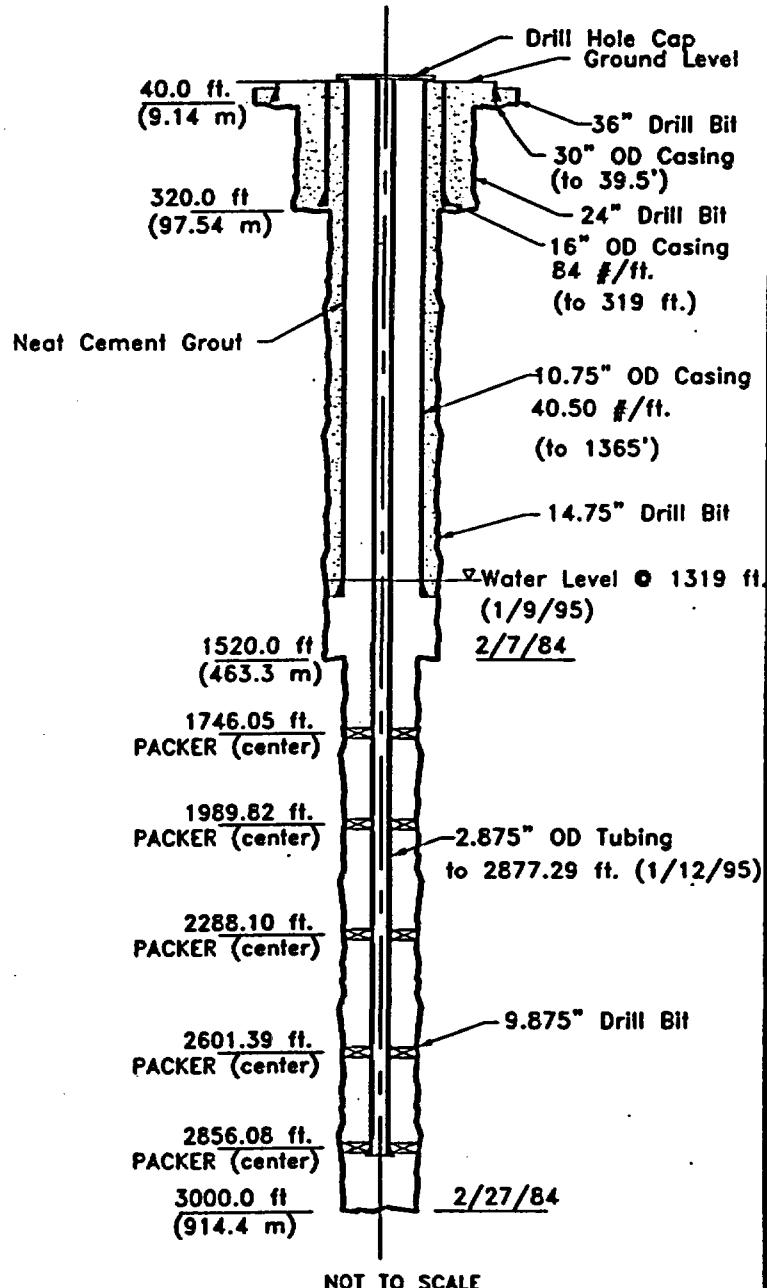
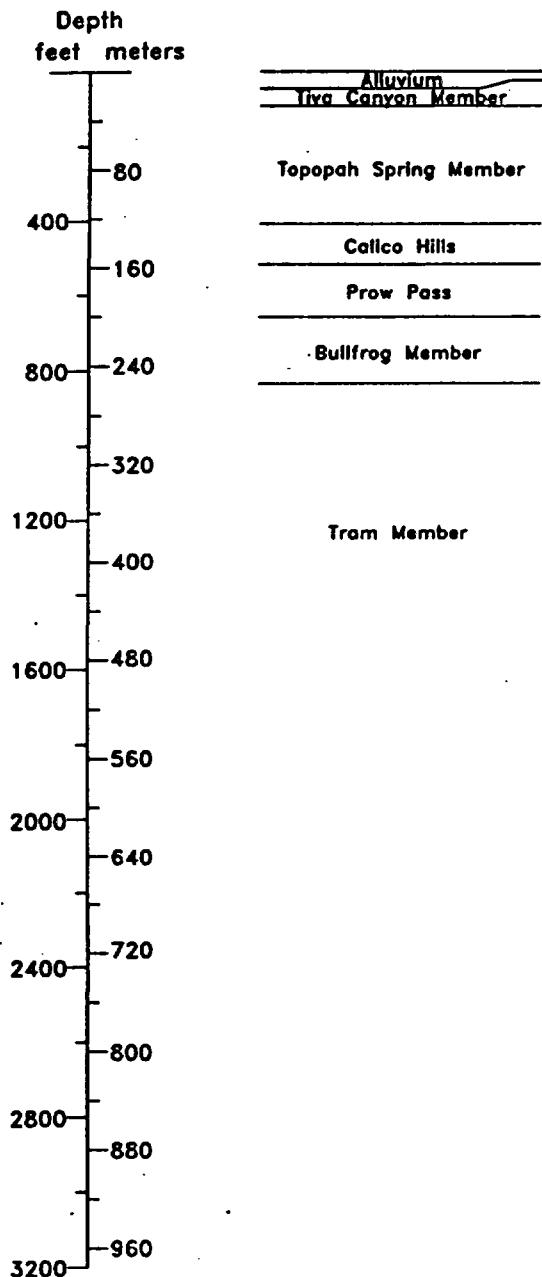
ENCLOSURE 3B

M&O/SAIC

YMP Surface Based Testing  
Drilling Engineering Section

Source of Data: NNWSI Hole Histories,  
UE-25c #1, UE-25c #2, UE-25c #3,  
DOE/NV/10322-14, November, 1986.

HOLE DESIGNATION: UE-25c #2  
SURFACE COORDINATES: N 756848.8 E 569633.8  
SURFACE ELEVATION: 3714.1'  
TOP OF CASING: 3715.24'  
BOTTOM-HOLE COORD.: N 756851.78 E 569650.17  
BOTTOM ELEVATION: 714.1'  
DRAWING DATE: June 20, 1995



UE-25c #2  
Hydrologic Test Hole

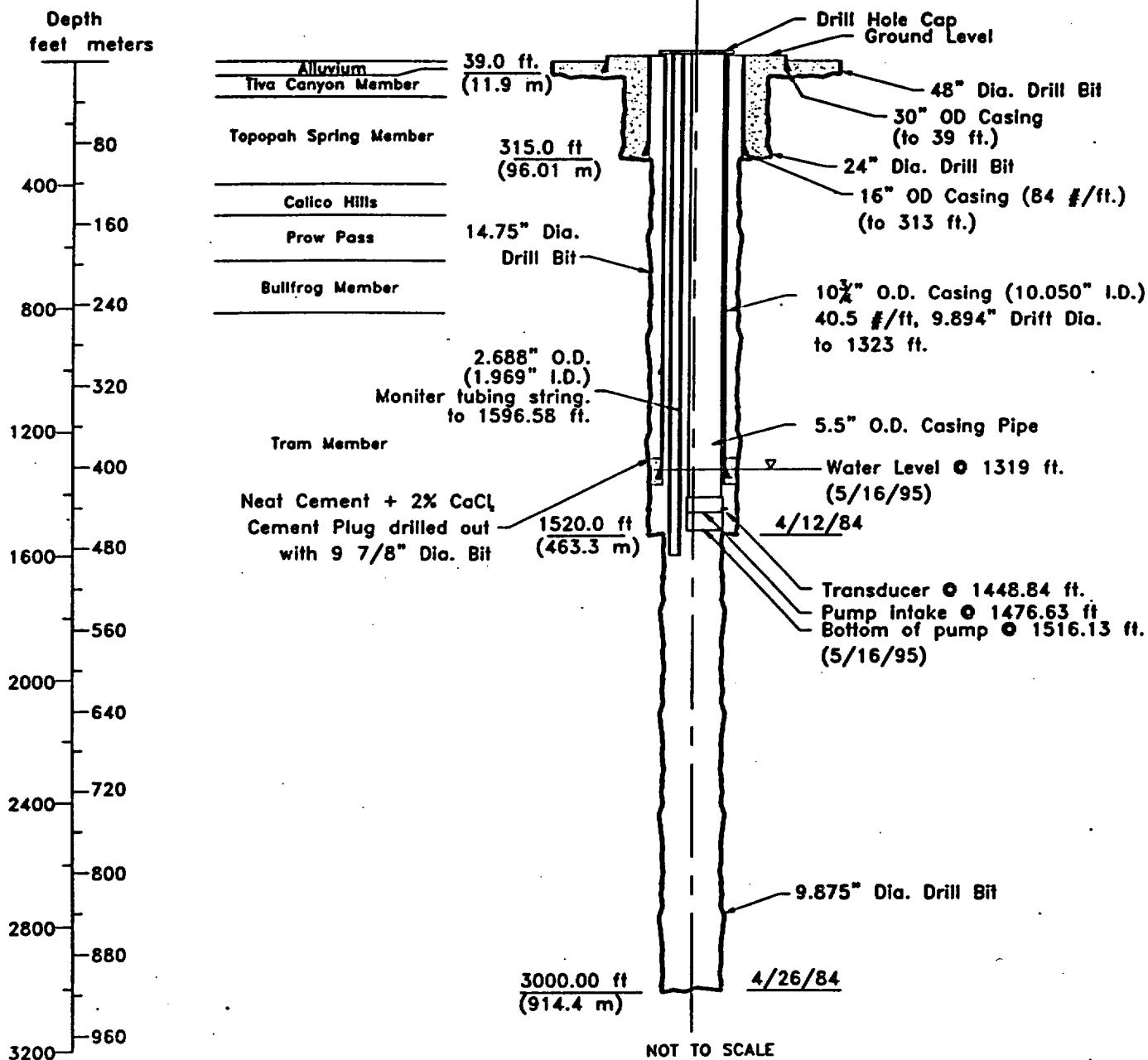
SK No. SK-94-A-DR026

**M&O/SAIC**

**YMP Surface Based Testing  
Drilling Engineering Section**

Source of Data: NNWSI Hole Histories,  
UE-25c #1, UE-25c #2, UE-25c #3,  
DOE/NV/10322-14, November, 1986.

HOLE DESIGNATION: UE-25c #3  
SURFACE COORDINATES: N 756909.9 E 569554.9  
SURFACE ELEVATION: 3714.2'  
TOP OF CASING: 3715.5'  
BOTTOM-HOLE COORD.: N 756878.8 E 569556.5  
BOTTOM ELEVATION: 714.2'  
DRAWING DATE: June 20, 1995



**UE-25c #3  
Hydrologic Test Hole**

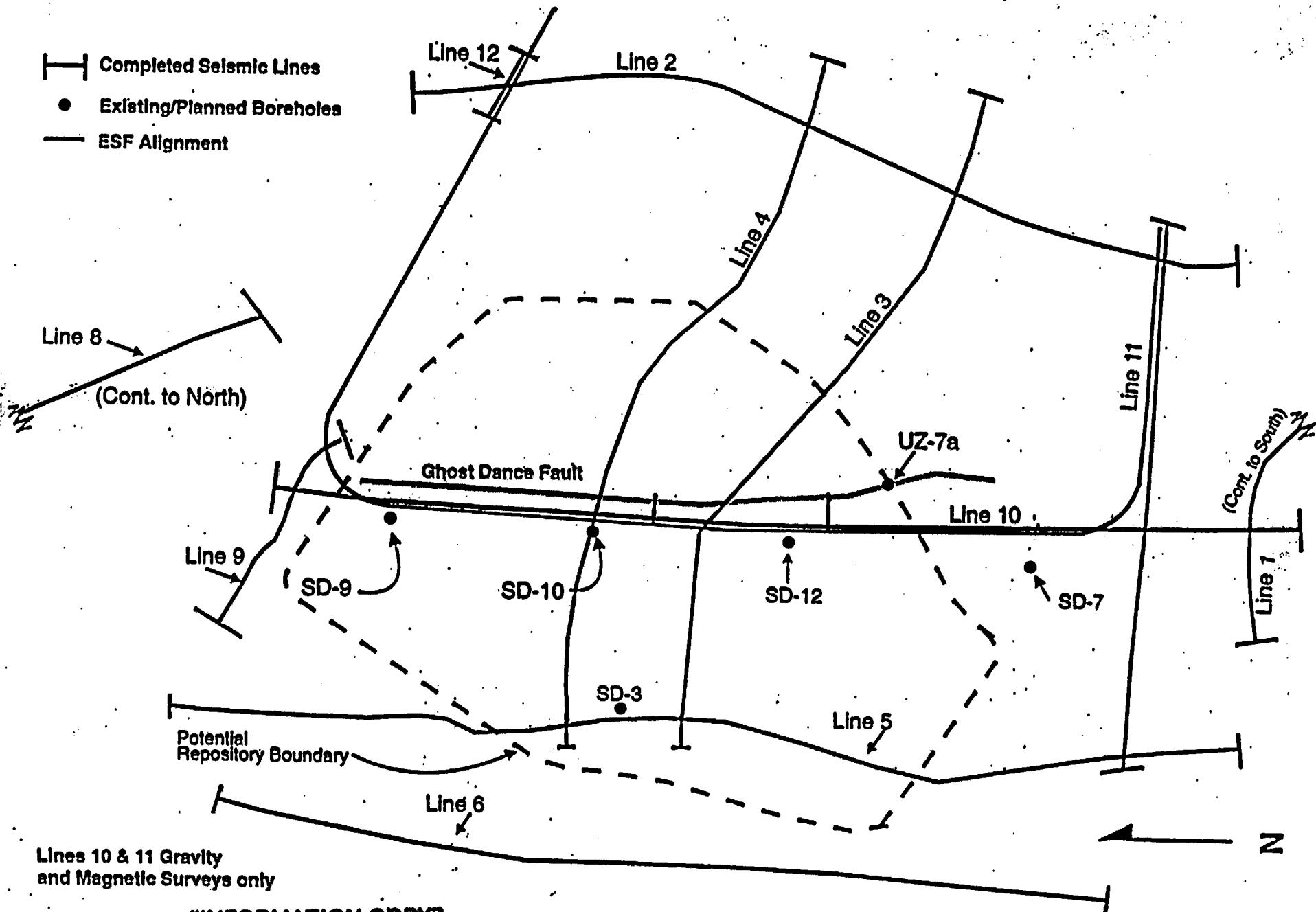
SK No. SK-94-A-DR027

ENCLOSURE 3D

**"PRELIMINARY DRAFT"**

# 1995 Repository Geophysics Program

- Completed Seismic Lines
- Existing/Planned Boreholes
- ESF Alignment



AGENDA ITEMS FOR W. BARNES 6/27/95 MEETING

- o Draft agenda for August 2, 1995, site tour by NRC  
Commissioner Shirley Jackson and Executive Director of  
Operations James Taylor
- o Status of draft procedures for:
  - Reportable Geologic Conditions
  - Tunnel Access Policy -impact on ORs and NRC personnel in general
- o Feedback from DOE on 6/9/95 visit by Congressional liaisons, and any other DOE activities
- o Status of system on flowdown of 10 CFR requirements - NRC OR report comments on ARMs vs RTN systems
- o NRC OR report comments on Quality Concerns Program
  - Not audited, surveilled, or independently assessed since 1991
  - J. Holonich recommendations
- o Potential problems with document system
  - Requested extra copy of M&O Transportation Study for C. Paperiello and received different document with same document identification number on a different subject title (1994 ESF Engineering Plan)
  - NRC OR Office on controlled distribution for select documents - have found several errors (examples provided to R. Spence)
  - ORs would like to take sample and gain confidence from a licensing perspective to check if documents are accurate, entered in system, readily retrievable etc.
- o S. Bracum, P. Bayne, and P. Karnoski responses in RJ and Sun
- o Results of OR review of technical/programmatic close out of CARs
- o Look at rock categories - Q-related, how documented, entered into document system
- o NRC April 3-6, 1995, In-Field verification letter signed and dispatched 6/23/95
- o M. Knapp, W. Olmstead, J. Hoyle, S. Schaefer, L. Scataliny, K. Kalman July/August visit to Vienna, VA/Las Vegas NV on LSS
- o C. Gaskin 6/16/95 site visit
- o Feedback on 6/8-16, 1995, audit of USGS