



United States Department of Energy

Office of Civilian Radioactive Waste Management

Office of Geologic Disposal

Yucca Mountain Site Characterization Office

P.O. Box 98608

Las Vegas, NV 89193-8608

WBS 1.2.11

QA: N/A

APR 08 1994

Larry R. Hayes
Technical Project Officer
for Yucca Mountain Site
Characterization Project
U.S. Geological Survey
101 Convention Center Drive,
Suite 860
Las Vegas, NV 89109

ISSUANCE OF SURVEILLANCE RECORD YMP-SR-94-043 RESULTING FROM
YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) SURVEILLANCE OF
THE U.S. GEOLOGICAL SURVEY (USGS) (SCP: N/A)

Enclosed is the record of Surveillance YMP-SR-94-043 conducted by
the YMQAD at the USGS exploratory studies facilities at the Yucca
Mountain Site, Nevada, March 9-17, 1994.

The purpose of the surveillance was to determine that radial
boreholes were located and drilled in accordance with
programmatic and technical requirements. No Corrective Action
Requests were issued as a result of this surveillance.

This surveillance is considered completed and closed as of the
date of this letter. A response to this surveillance record and
any documented recommendations is not required.

If you have any questions, please contact either Robert B.
Constable at 794-7945 or Raul A. Hinojosa at 794-7991.

Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-2839

Enclosure:
Surveillance Record YMP-SR-94-043

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cc w/encl:

D. A. Dreyfus, HQ (RW-1) FORS
R. W. Clark, HQ (RW-3.1) FORS
J. W. Gilray, NRC, Las Vegas, NV
K. R. Hooks, NRC, Washington, DC
R. R. Loux, NWPO, Carson City, NV
Cyril Schank, Churchill County Commission, Fallon, NV
D. A. Bechtel, Clark County Comprehensive, Las Vegas, NV
J. D. Hoffman, Esmeralda County, Goldfield, NV
Eureka County Board of Commissioners,
Yucca Mountain Information Office, Eureka, NV
Lander County Board of Commissioners, Battle Mountain, NV
Jason Pitts, Lincoln County, Pioche, NV
V. E. Poe, Mineral County, Hawthorne, NV
P. A. Niedzielski-Eichner, Nye County, Chantilly, VA
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OFFICE OF
RADIOACTIVE WASTE MANAGEMENT
U.S. DEPARTMENT OF ENERGY
WASHINGTON, D.C.

QUALITY ASSURANCE SURVEILLANCE RECORD

SURVEILLANCE DATA

¹ORGANIZATION/LOCATION:
U.S. Geological Survey (USGS)
Sample Management Facility
(SMF), Raytheon Services Nevada
(RSN)/Exploratory Studies Facility
(ESF), Yucca Mountain Site (YMS)

²SUBJECT:
Radial Boreholes (Hydrochemistry Tests) in
ESF Test Alcove No. 1

³DATE: 3/9/94

⁴SURVEILLANCE OBJECTIVE:

To determine that Radial Boreholes (Hydrochemistry Tests) in the ESF were located and drilled in accordance with programmatic and technical requirements.

⁵SURVEILLANCE SCOPE:

1) To verify that Radial Boreholes (Hydrochemistry Tests) were located and drilled in accordance with Test Planning Package (TPP) 92-12 and Job Package (JP) 92-20E, and core samples were processed in accordance with procedure YLP-SII.2-SMF, Revision 2, and other technical requirements as required by the assigned Principal Investigator (PI).

⁶SURVEILLANCE TEAM:

Team Leader:

Raul A. Hinojosa

Additional Team Members:

⁷PREPARED BY:

Raul A. Hinojosa 3/4/94
Surveillance Team Leader Date

⁸CONCURRENCE:

[Signature] 3/4/94
QA Division Director Date

SURVEILLANCE RESULTS

⁹BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS:

See Page(s) 2 & 3 of 3

¹⁰SURVEILLANCE CONCLUSIONS:

See Page(s) 3 of 3

¹¹COMPLETED BY:

Raul A. Hinojosa 3/30/94
Surveillance Team Leader Date

¹²APPROVED BY:

[Signature] 4.7.94
QA Division Director Date

(Block 9 Continued) **BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS:**

Verified that RSN Survey Department had located the borehole collars, and that an as-built survey was performed on borehole UE 25 ESF HC No. 3. (RSN procedure PP-01-03, Revision 2, Paragraphs 6.4, 6.5, 6.9 and 6.12, Survey Department Work Functions).

Observed a portion of the drilling of UE 25 ESF HC No. 3, lower right borehole. RSN Field Drilling Engineer was observed maintaining borehole depth, (RSN procedure PP-10-01, Revision 1, Paragraph 6.5, Field Drilling Engineer Support Activities). Borehole Depth- 92.8 ft.

Observed the transfer of core to SMF personnel who then proceeded to process and package core in accordance with (SMF procedure YLP-SII.2Q-SMF, Revision 2, Paragraphs 5.2, 5.5 h, Field Logging, Handling, and Documenting Borehole Samples and YAP-SII.1Q, Revision 0, ICN-1, Paragraph 5.1 d, Submittal, Review, and Approval of Requests for Yucca Mountain Site Characterization Project Geologic Specimens) and Field Packaging Approval form dated 01-26-94, from USGS to SOC and, as approved by the SOC on 02-02-94 (core interval 92.8 to 95.2). SMF Borehole I.D. ESF-AL #1, RBT #2.

Sample specimen I.D.s as follows:

I.D. No. 6AA	I.D. No. 6AR	I.D. No. 6BA
I.D. No. 52	I.D. No. 53	

Verified the storage of core samples in refrigerated storage in accordance with YMP procedure ILP S.II.2/SMF-Q, Paragraphs 5.2.2 c), 5.2.2 d), 5.2.2 e) and 5.2.2 f) for the following core intervals:

FCT 235, Interval 17.7 to 24.6, ESF AL #1, RBT #2
FCT 10475, Interval 89.5 to 99.2, ESF AL #1, RBT #2
FCT 10460, Interval 27.6 to 43.7, ESF AL #1, RBT #2

Note: Sample Cooler No. 703996, Temperature 47 degrees F.

Verified the storage of core samples at ambient temperature for the following core intervals:

FCT 10234 , Interval 1.5 to 16.0, ESF AL #1, RBT #2
FCT 10211, Interval 38.8 to 44.1, ESF AL #1, RBT #1

Personnel contacted during surveillance:

Paul Burger, USGS, Acting Principal Investigator
James Blacic, LANL. Principal Investigator
Diedra Boak, LANL, TPP Project Engineer

Personnel contacted during surveillance: (Continuation)

Joe Spoenemann, LANL, ESF TCO
Don Metler, REECo, Drill Foreman
Greg Bates, RSN, Survey Group Supervisor
Mark Esp, RSN, Field Drilling Engineer
Mike Keogh, RSN, Survey Team Lead
Brian Harrison, SMF, GeoTechnician
Diane Hattler, SMF, Senior Geologist
Jack L'Homme, SMF, GeoTechnician
Chris Lewis, SMF, SMF Curator
Linda Linden, SMF, Geologist

(Block 10 Continued) SURVEILLANCE CONCLUSIONS:

All activities observed were in accordance with the applicable procedure. There were no deficiencies or discrepancies observed and the results are considered to be satisfactory.