



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

WBS 9.1.2  
 QA: N/A

MAY 18 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-94-046 RESULTING FROM  
 YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) SURVEILLANCE OF  
 U.S. GEOLOGICAL SURVEY (USGS) (SCP: N/A)

Enclosed is the record of Surveillance YMP-SR-94-046 conducted by  
 the YMQAD at the University of Nevada, Reno facilities in Reno,  
 Nevada, April 26-28, 1994.

The purpose of the surveillance was to determine the status of  
 audits performed by USGS personnel on participants performing  
 work to quality-related procedures in support of the Yucca  
 Mountain Site Characterization Project.

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 Robert B. Constable  
 at 794-7945.

Richard E. Spence, Director  
 Yucca Mountain Quality Assurance Division

YMQAD:RBC-3475

Enclosure:  
 Surveillance Record  
 YMP-SR-94-046

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MAY 18 1994

Larry R. Hayes

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cc w/encl:

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R. W. Clark, HQ (RW-3.1) FORS  
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S. L. Bolivar, LANL, Los Alamos, NM  
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Eureka County Board of Commissioners,  
Yucca Mountain Information Office, Eureka, NV  
Lander County Board of Commissioners, Battle Mountain, NV  
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OFFICE OF  
RADIOACTIVE WASTE MANAGEMENT  
U.S. DEPARTMENT OF ENERGY  
WASHINGTON, D.C.

QUALITY ASSURANCE SURVEILLANCE RECORD

SURVEILLANCE DATA

<sup>1</sup>ORGANIZATION/LOCATION:  
U.S. Geological Survey (USGS) at  
University of Nevada Reno (UNR)

<sup>2</sup>SUBJECT: USGS Internal Audit of UNR  
Seismicity Studies of Yucca Mountain Site,  
Nevada.

<sup>3</sup>DATE: 4/26 - 28, 1994

<sup>4</sup>SURVEILLANCE OBJECTIVE:

To determine the status of audits performed by USGS personnel on participants performing subcontract work to quality related procedures in support of Yucca Mountain site characterization.

<sup>5</sup>SURVEILLANCE SCOPE:

To verify the adequacy of USGS personnel and USGS support personnel to perform meaningful audits on participants working to USGS procedures enforced by USGS contracts 1434-93-C-45070 and 1434-94-C-40104, governing studies of earthquakes and other ground motion at Yucca Mountain, Nevada.

<sup>6</sup>SURVEILLANCE TEAM:

Team Leader:

R. B. Constable

Additional Team Members:

None

<sup>7</sup>PREPARED BY:

R. B. Constable *RBC* 4/25/94  
Surveillance Team Leader Date

<sup>8</sup>CONCURRENCE:

*[Signature]* 4/25/94  
QA Division Director Date

SURVEILLANCE RESULTS

<sup>9</sup>BASIS OF EVALUATION/DESCRIPTION OF OBSERVATIONS:

See Page(s) 2

<sup>10</sup>SURVEILLANCE CONCLUSIONS:

See Page(s) 3

<sup>11</sup>COMPLETED BY:

*RBC* 4-29-94  
Surveillance Team Leader Date

<sup>12</sup>APPROVED BY:

*[Signature]* 5/17/94  
QA Division Director Date

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

During the surveillance, it was observed that the following formalities took place:

- a. A definitive audit checklist was utilized.
- b. A pre-audit meeting was held.
- c. An audit closure meeting was held.

The following areas were reviewed by the auditors during the course of the audit:

- a. Actual contract
- b. Organization
- c. Personnel Qualification
- d. Position Description
- e. Training
- f. Procedures
- g. Measuring and Test Equipment Qualification
- h. Software Interface
- i. Procurement Control
- j. Data technical Review
- k. Data Management
- l. Procurement Control
- m. Document Control
- n. Records Control
- o. Equipment Maintenance
- p. Control of Non-conforming Equipment

Personnel contacted during the surveillance:

- T. Mendez-Vigo, Lead Quality Implementation Specialist, Science Applications International Corporation (SAIC)
- P. Sheaffer, Quality Implementation Specialist, SAIC
- J. Ziemba, Quality Assurance Specialist/Lead Auditor, SAIC
- J. Brune, Director, Seismic Laboratory, UNR
- D. DePolo, Seismologist, UNR
- C. Middlebrooks, Assistant Software Analyst, UNR
- W. Nicks, Research and Design Engineer, UNR
- D. Von Seggern, Seismic Network Manager, UNR
- T. Chaney, Quality Assurance Manager, USGS
- B. Parks, Associate Chief of Sociological Studies Program USGS

(Block 10 Continued) **SURVEILLANCE CONCLUSIONS:**

It was not the intent of this surveillance to determine the validity of data presented nor the adequacy of UNR to fulfill contractual requirements as identified by contract, but only to determine if USGS can and does perform meaningful audits on participants performing quality related work to USGS procedures. It was felt that the questions represented during the audit, both in scope and in depth were adequate to determine and support the lead auditors conclusions and final summary that UNR meets all contract requirements. USGS will prepare a formal audit report for publication at a later date.