



QA: QA

Paul R. Dixon, Manager
Performance Assessment Project Natural Systems
Bechtel SAIC Company, LLC (BSC)
1180 Town Center Drive
Las Vegas, NV 89144

BECHTEL SAIC COMPANY, LLC (BSC) QUALITY ASSURANCE (QA) SURVEILLANCE REPORT BSCQA-02-S-20 FOR WATER SAMPLING ACTIVITIES IN ALCOVE 5/ EXPLORATORY STUDIES FACILITY IN SUPPORT OF DRIFT SCALE TEST ACTIVITIES

Enclosed is the Surveillance Report BSCQA-02-S-20, conducted by the BSC QA Organization on May 29, 2002 through June 11, 2002, at the Alcove 5/Exploratory Studies Facility at the Yucca Mountain Site Characterization Project (YMP) site.

The scope of the surveillance was to evaluate water sampling activities as documented in Scientific Notebook (SN) SN-SNL-SCI-023, *Water Sampling in Support of Thermal Testing*. The surveillance resulted in one condition adverse to quality documented in Deficiency Report BSC(B)-02-D-118 identifying a failure to make daily entries on the day, or next day, of the work being performed as required by Administrative Procedure AP-SIII.1Q, *Scientific Notebooks*.

This surveillance is considered complete and closed as of the date of this letter. A response to this surveillance report is not required.

If you have any questions, please contact either Richard L. Weeks (702) 295-0629 or John S. Martin at (702) 295-2832.

Donald T. Krishna, Manager
Quality Assurance

7/1/02

Date Signed

RLW:bw-0627023153

Enclosure:
Surveillance Report BSCQA-02-S-20

WMS507
WA-11

July 1, 2002

Page 2

cc w/encl:

G. K. Beall, BSC, Las Vegas, NV
James Blaylock, BSC, Las Vegas, NV
L. W. Bradshaw, Nye County, Pahrump, NV
David Chavez, Nye County, Tonopah, NV
Margaret Chu, DOE/HQ (RW-1) FORS
J. R. Dyer, DOE/YMSCO, Las Vegas, NV
Leonard Fiorenzi, Eureka County, Eureka, NV
Arlo Funk, Mineral County, Hawthorne, NV
Birdie Hamilton-Ray, DOE/YMSCO, Las Vegas, NV
R. F. Hartstern, BSC, Las Vegas, NV
K. G. Hess, BSC Las Vegas, NV
D. G. Horton, DOE/YMSCO, Las Vegas, NV
Alan Kalt, Churchill County, Fallon, NV
D. T. Krishna, BSC, Las Vegas, NV
Josie Larson, White Pine County, Ely, NV
Robert Latta, NRC, Las Vegas, NV
R. R. Loux, State of Nevada, Carson City, NV
S. W. Lynch, State of Nevada, Carson City, NV
George McCorkell, Esmeralda County, Goldfield, NV
S. P. Mellington, DOE/YMSCO, Las Vegas, NV
Mifflin and Associates, Las Vegas, NV
Ram Murthy, DOE/OQA, Las Vegas, NV
Irene Navis, Clark County, Las Vegas, NV
Andrew Remus, County of Inyo, Independence, CA
N. K. Stablein, NRC, Rockville, MD
Lola Stark, Lincoln County, Caliente, NV
N. H. Williams, BSC, Las Vegas, NV
B. L. Wilson, BSC, Las Vegas, NV
Mickey Yarbrow, Lander County, Battle Mountain, NV

cc w/encl:

R. W. Andrews, BSC, Las Vegas, NV
J. K. Devers, BSC, Las Vegas, NV
R. L. Jones, BSC/SNL, Las Vegas, NV
J. W. Kelly, BSC/SNL, Las Vegas, NV
J. S. Martin, BSC, Las Vegas, NV
R. L. Weeks, BSC, Las Vegas, NV

ORIGINAL
red

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
QUALITY ASSURANCE SURVEILLANCE REPORT

QA: QA

Page 1 of 2

QA Surveillance Number:
BSCQA-02-S-20

Complete only applicable items.

1. Organization/Location Sandia National Laboratory (SNL) / Alcove 5/ESF	2. Subject Water Sampling Activities in Alcove 5/ESF in Support of Drift Scale Test (DST) Activities	3. Date(s) Performed 05/29/2002 through 06/11/2002
4. Surveillance Scope Evaluate water sampling activities as documented in Scientific Notebook (SN) SN-SNL-SCI-023, "Water Sampling in Support of Thermal Testing"		
5. Requirement(s) (Procedure, Specification, Drawing, etc.) a. AP-SIII.1Q, Revision 1, ICN 1, "Scientific Notebooks", Sections 5.1.1, 5.1.2, 5.1.3, 5.1.6, 5.1.7, 5.1.10, and 5.4 b. TIP-NF-33, Revision 0, "Collection and Field Analysis of Water Samples from Boreholes in the Exploratory Studies Facility", Section 2.2.1.2 c. AP-12.1Q, Revision 0, ICN 2, "Control of Measuring and Test Equipment and Calibration Standards", Sections 5.1.1, 5.1.2, 5.3.1, 5.3.4, and 5.6 (Continued on Page 2)		6. Originator <u>Richard L. Weeks</u> Team Members <u>John K. Devers</u>

SURVEILLANCE RESULTS

7. Description/Details
The purpose of this surveillance was to evaluate the implementation of selected procedures for water sampling activities in the DST. This activity is described in Scientific Investigation Test Plan (SITP) SITP-02-UZ-012, Revision 00, "Drift Scale Test", and performed in accordance with procedures identified in Block 5 above. Additional requirements and work controls are described in Field Work Plan (FWP) FWP-ESF-96-003, Revision 3, "Thermal Testing in the Exploratory Studies Facility - Phase I", and Work Instruction (WI) TCO-WI-CAL-0085r01, "Water Sampling for Thermal Testing in the ESF."

A visit was made to Alcove 5, located in the Exploratory Studies Facility (ESF), on 05/29/2002 for the purpose of evaluating implementation of selected requirements for collection of water samples. The purpose for gathering the water samples is to obtain an understanding of the changes in water chemistry due to heating and cooling. The activity evaluated was documented in SN-SNL-SCI-023, Volume 3, "Water Sampling in Support of Thermal Testing at the ESF."

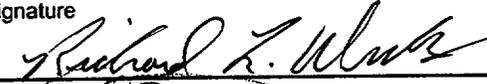
a. SN-SNL-SCI-023, Volume 3, was evaluated during this surveillance. The SN was pre-bound and paginated, taped-in materials were signed across the boundary and all entries were signed and dated by personnel making entry, and the Table of Contents was up-to-date. In-process entries included description of work, Measuring and Test Equipment (M&TE) utilized and a list of samples collected. Deficiency Report BSC(B)-02-D-118 was issued regarding SN entries and is discussed in BLOCK 10.
(Continued on Page 2)

8. Persons (and their organizations) Contacted John Kelly, SNL, Technician Robert Jones, SNL, Principal Investigator Brenda McGonigle, BSC, Office Assistant Gene Griego, LANL, Field Representative Bruce Reinert, LANL, Field Representative	9. CAQ/NCR/TE Issued <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Recommendation Issued <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	CAQ/NCR/TE Number(s): <u>DR BSC(B)-02-D-118</u> CIRS Number(s): <u>N/A</u>
---	---	---

10. Surveillance Conclusions SAT UNSAT

Except as identified in Deficiency Report (DR) BSC(B)-02-D-118, procedural requirements were being effectively implemented. The SN was on location and up-to-date. M&TE utilized for the sampling activities were properly labeled and calibration was current. Documentation associated with the collection and transfer of custody of samples collected during this surveillance were complete.

Discussion regarding DR BSC(B)-02-D-118 (previously USGS(B)-02-D-118):
(Continued on Page 2)

11. Completed By (Originator) (Print Name) Richard L. Weeks	Signature 	Date 6-27-02
12. Reviewed By (Appropriate QA Manager) (Print Name) John S. Martin	Signature 	Date 6-27-02
13. Approved By (QVM) (Print Name) Robert F. Hartstern	Signature 	Date 6-27-02

ORIGINAL
red

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
QUALITY ASSURANCE SURVEILLANCE REPORT

QA: QA

Page 2 of 2

QA Surveillance Number:
BSCQA-02-S-20

Complete only applicable items.

1. Organization/Location Sandia National Laboratory (SNL) / Alcove 5/ESF	2. Subject Water Sampling Activities in Alcove 5/ESF in Support of Drift Scale Test (DST) Activities	3. Date(s) Performed 05/29/2002 through 06/11/2002
--	--	--

BLOCK 5 Requirement(s) (Procedure, Specification, Drawing, etc.) (Continued):

- d. YAP-SIL4Q, Revision 2, ICN 1, "Collection, Submission, and Documentation of Non-Core and Non-Cuttings Samples to the Sample Management Facility", Sections 5.1.1 and 5.2.1

BLOCK 7 Description/Details (Continued):

b. The method for water collection is performed in accordance with Technical Implementing Procedure (TIP) TIP-NF-33 and SN SN-SNL-SCI-023. TIP-NF-33 describes the general method for collecting the water samples with variations from the TIP documented in the SN. A current copy of the TIP was available at the work location.

c. One piece of M&TE is utilized for the test activity examined. Myron L. Company, pH meter, Model Ultrameter 6P, serial number 606098 was in use during this surveillance. The pH meter's calibration was current and the calibration label attached to the meter contained the instrument identification, date of calibration, date of recalibration, and initials of person applying label. A copy of the Bechtel Nevada Calibration Report, Report Number 1000025428 was taped into the SN. The technician performed a performance check for pH and conductivity in accordance with the Ultrameter Operating Manual. The results were acceptable. A copy of the Operating Manual was at the work location. The lot numbers for the conductivity standards that were used are as follows:

Lot #	Concentration	Expiration Date	Manufacturer
2598	6.84 ppm	09/14/2002	Fisher Scientific
2614	67.3 ppm	10/17/2002	Fisher Scientific
2616	663 ppm	10/17/2002	Fisher Scientific

d. The Sample Collection Reports for the specimens (SPC) identified below were examined and complete and included required information. Labels containing the specimen number, which is also the bar code number, were attached to the Sample Collection Reports. Additionally, a visit was made to the Sample Management Facility (SMF) to verify that Sample Collection Reports were submitted. Copies of the Sample Collection Reports were on file at the SMF. The following list of samples were collected during this surveillance:

SPC #	Borehole #	Zone Within the Borehole
SPC01016640	76	4
SPC01016641	59	4
SPC01016642	59	4
SPC01016643	75	2
SPC01016644	77	3

Transfer of Custody and Receipt form, dated 06/06/2002 for samples collected on the date of this surveillance, was completed. A copy of this form is taped into SN-SNL-SCI-023, Volume 3, and the original copy was submitted to the SMF.

BLOCK 10 Surveillance Conclusions (Continued):

While examining the SN it was determined that entries were not made in a timely manner as required in AP-SIII.1Q, Revision 1, ICN 1, Section 5.1.6, which states: "Entries shall be recorded in the scientific notebook, preferably on the date the work is performed, but no later than the next business day or workday. All scientific notebook entries will be made prior to beginning the next workday's activities. Each entry that is not entered into the scientific notebook on the date the work is performed will display the date on which the work was done, and the date of its entry into the notebook."

Contrary to the above requirement, it was determined that entries made to SN-SNL-SCI-023-V3 did not meet the stated requirement. Summaries of water sampling activities performed and documented on 04/04/2002 and 04/25/2002 were entered into the SN on 05/02/2002 and 05/09/2002, respectively. This Condition Adverse to Quality (CAQ) will be addressed in DR BSC(B)-02-D-118 that was previously designated USGS(B)-02-D-118. The CAQ identified during this surveillance is identical to the condition identified in DR USGS(B)-02-D-118. Management of the DR by BSC will allow a Project-wide evaluation of the CAQ to determine the extent of condition.

The activities evaluated by this surveillance are considered satisfactory overall; however, an unsatisfactory condition was identified. Although the SN entries were not made in a timely manner as required by the procedure, the information provided in the late entries is complete and represents the work that is performed. There is no impact to the quality of the work performed. Other work activities that were observed as a part of this surveillance were performed as specified in the requirements. Documentation that was generated for this work activity was complete.