

# CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

---

## TRIP REPORT

**SUBJECT:** Sonic Core Sampling and Site Access Training  
(AI 06002.01.242.501)

**DATE/PLACE:** March 13–15, 2005; Las Vegas, Nevada and Nye County, Nevada

**AUTHORS:** M. Juckett and B. Werling

**DISTRIBUTION:**

CNWRA

W. Patrick  
CNWRA Directors  
CNWRA Element Mgrs  
L. Gutierrez

NRC

W. Reamer  
B. Meehan  
D. DeMarco  
E. Whitt  
W. Ford  
T. McCartin  
L. Kokajko  
E. Collins  
F. Brown  
K. Stablein  
M. Bailey  
A. Campbell  
J. Guttman  
B. Leslie  
H. Arit  
J. Bradbury  
D. Brooks  
P. Justus  
J. Pohle  
J. Trapp

SwRI

Record Copy B, IQS

# **CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES**

---

## **TRIP REPORT**

**SUBJECT:** Sonic Core Sampling and Site Access Training  
(AI 06002.02.242.501)

**DATE/PLACE:** March 13–15, 2005; Las Vegas, Nevada and Nye County, Nevada

**AUTHOR:** M. Juckett and B. Werling

### **PERSONS PRESENT:**

M. Juckett and B. Werling of the Center for Nuclear Waste Regulatory Analyses (CNWRA) collected samples from the NC–EWDP–22PC sonic core housed in the Sample Management Facility on the Nevada Test Site on March 14, 2005. M. Juckett also attended the Site Access Training course on March 15, 2005 in Summerlin, Nevada.

### **BACKGROUND AND PURPOSE OF TRIP:**

Nye County, with funding from the Department of Energy (DOE), established the Early Warning Drilling Program in fiscal year 1999 to protect the residents of Nye County against potential radionuclide contamination and to produce data regarding the geology, chemistry, and hydrology of strata located along the potential flow path of groundwater emanating from Yucca Mountain and its vicinity. Sonic cores are taken from the Yucca Mountain vicinity to study the stratigraphy of the area. Cores are typically hundreds of feet long and collected in small sections. The sonic core from the Nye County Early Warning Drilling Program Well NC–EWDP–22PC, located near Fortymile Wash, is housed in the DOE managed Sample Management Facility on the Nevada Test Site. Samples were taken from this core for study and experimentation in CNWRA laboratories.

### **SUMMARY OF PERTINENT POINTS AND ACTIVITIES:**

#### **Sample Collection:**

M. Juckett and B. Werling visited the Sample Management Facility on March 14 to collect samples of sonic core NC–EWDP–22PC. C. Lewis of the Yucca Mountain Project assisted at the facility. The samples were taken approximately every 5 feet along the core from depths 460.0 feet to 763.0 feet. A total of 59 samples were taken. Core sections were wrapped in plastic and contained in individual cardboard boxes, with some samples sealed shut with clear tape and some open to ambient air. Samples were collected by scooping about 500-gram representative sections of core, including small and large sized rocks, clay, and cobbles with a polypropylene scoop and spatula into clean Ziplock bags. The bags were labeled with the collector's name, date, and the depth of the sample. Samples were logged in a CNWRA scientific notebook and onto DOE Specimen Removal Request sheets and will be approved by the Yucca Mountain Project staff before shipment to CNWRA. Once received, these samples will be analyzed for grain size, mineralogy, lithology, and surface area.

**Site Access Training:**

M. Juckett attended Site Access training on March 15 at the Bechtel office in Summerlin, northwest of Las Vegas, Nevada. Site access training provides individuals who access the Nevada Test Site forward areas with general information, site requirements, and potential hazards. It is mandatory for all personnel who may require unescorted access into Area 25 of the Nevada Test Site. A Site Access Card will be issued to M. Juckett, allowing unescorted access to the Nevada Test Site.

**CONCLUSIONS:**

The Early Warning Drilling Program continues to be a source for important site characterization information that will impact the licensing process. Data gained from the cores will support evaluation of the radionuclide transport parameters used to predict the potential for radionuclide migration.

**PROBLEMS ENCOUNTERED:**

None.

**PENDING ACTIONS:**

Awaiting arrival of samples shipped from Sample Management Facility to CNWRA.

**RECOMMENDATIONS:**

Continued participation in the Nye County Early Warning Drilling Program, including core sample collections, is highly recommended.

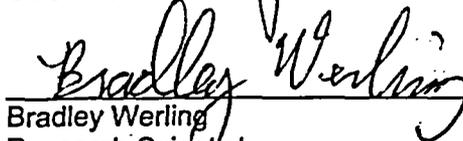
**REFERENCES:**

None.

**SIGNATURES:**

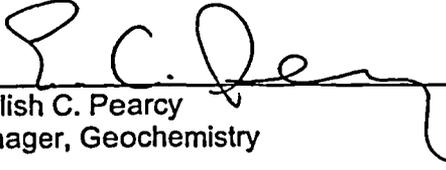
  
\_\_\_\_\_  
Miriam Juckett  
Scientist

3/29/05  
Date

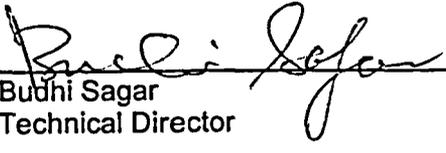
  
\_\_\_\_\_  
Bradley Werling  
Research Scientist

3-29-2005  
Date

CONCURRENCE:

  
English C. Percy  
Manager, Geochemistry

3/31/2005  
Date

  
Budhi Sagar  
Technical Director

3/31/2005  
Date