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# CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES QUALITY ASSURANCE SURVEILLANCE REPORT

PROJECT NO: 20-5704-06x

REPORT NO: 95-16

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SURVEILLANCE SCOPE: General Review of Natural Analogs Research Tasks for Compliance with QA Program Requirements

REFERENCE DOCUMENTS: Natural Analogs Research Project Plan; Quality Assurance Requirements Matrices; Program Manager's Periodic Report (PMPR), Period 02, FY96.

STARTING DATE: 12/20/95

ENDING DATE: 12/20/95

QA REPRESENTATIVE: R. D. Brient *LB*

PERSONS CONDUCTING TEST/EXAM/ACTIVITY: E. Percy, W. Murphy, R. Green, D. Pickett, J. Prikryl, S. Mohanty

**SATISFACTORY FINDINGS:** The most recent PMPR was consulted to identify current activities within Natural Analogs. Discussions were held with the Principal Investigators to review activities, identify personnel involved, and to re-establish the QA requirements applicable to the specific activities. Results are as follows:

5704-063—Development of Methodology and Data Acquisition: No current activity. The sample custody log was reviewed, and found to provide excellent traceability to samples, subsamples, and to Scientific Notebook entries describing the activities performed on the samples.

5704-064—Interpretation of Data and Modeling: Data from previously conducted experiments were compiled and evaluated. Scientific Notebook #75 and associated data sheets in a three-ring binder were reviewed. The notebook properly references the data sheets. A major effort involved preparation of a paper on Natural Analog Support for Unsaturated Transport Modeling Using Data from the Akrotiri Archaeological Site. This report involves many phases of activities from site visits to laboratory analysis and, most recently, transport modeling. Scientific Notebook #143, which documents the modeling, was reviewed and discussed. Data files were included in hardcopy as well as on a disk. The modeling runs are captured on a tape which is appropriately referenced in the notebook. Scientific Notebook #62 was also reviewed and was found to be acceptable.

5704-065—Semi-Annual Research Report Preparation: Another major, current activity is preparation of this report. Some modeling and analysis is being performed to support the report. The need to capture the calculations in the Scientific Notebooks was discussed with investigators, and will be done when the calculations are completed.

Personnel qualification and indoctrination records were verified for the following personnel contributing to Natural Analog activities:

E. Percy, W. Murphy, R. Green, D. Pickett, J. Prikryl, S. Mohanty, O. Lagunas

Many Scientific Notebooks have been issued to this project, so these were reviewed and several completed notebooks will be processed into QA records.

UNSATISFACTORY FINDINGS: None

NONCONFORMANCE REPORT NO: N/A

ATTACHMENTS: None

RECOMMENDATIONS/ACTIONS: The personnel qualification form for E. Percy, due for review in 1/96, should be updated to reflect his position as Element Manager of GHGC.

APPROVED: *[Signature]*  
CNWRA DIRECTOR OF QUALITY ASSURANCE

DATE: 12/21/95

DISTRIBUTION:  
ORIGINAL - CNWRA QA DIRECTOR  
ORIGINATOR  
PRINCIPAL INVESTIGATOR - R. Green, W. Murphy  
J. Prikryl, D. Pickett  
ELEMENT MANAGER - E. Percy  
B. Sagar