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AUG 22 1984

MEMORANDUM FOR: Malcolm R. Knapp, Chief
Geotechnical Branch
Division of Waste Management

FROM: Peter Ornstein, Project Manager
Hydrology Section
Geotechnical Branch
Division of Waste Management, NMSS

SUBJECT: TRIP REPORT - TOUGH MEETING
NNWSI HYDROLOGY DATA REVIEW

During the week of July 27, 1984, I attended the NNWSI Hydrology Data Review in Denver, Colorado. An outline of the data reviewed is attached.

/s/

Peter Ornstein, Project Manager
Hydrology Section
Geotechnical Branch
Division of Waste Management, NMSS

Enclosure: As stated

WM-RES
WM Record File A-1158 SNL
WM Project 10,11,16
Docket No.
PDR ~
LPDR B,N,S
Distribution:
(Return to WM, 623-SS)

OFC	:WMGT	:WMGT	:	:	:	:	:
NAME	:POrnstein:kj	MFliegel	:	:	:	:	:
DATE	:84/08/10	:84/08/22	:	:	:	:	:

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NNWSI
HYDROLOGY DATA REVIEW

DATA REVIEWED BY NRC
JULY 24 - 27, 1984

Unsaturated Zone (Primarily Unpublished Data)

1. Test Well UZ-1

   A. Video log from surface to 1198' depth
   B. Moisture content data from cuttings
   C. Neutron Log
   D. Psychrometer Data
   E. Heat Dissipation Probe (HDP) data
   F. Blueprint: Instrumentation set-up

2. Test Well H-1

   A. Moisture content and porosity data (statistical distribution)
   B. Calculated relative permeabilities
   C. Holmes and Narver letter to Parvis Montazer (10/4/84) containing laboratory test procedures and results of helium permeability tests.

3. Test Well G-1

   A. Laboratory gas permeability curves
   B. Laboratory moisture content/matric potential data

4. Test Well G-2

   A. Laboratory gas permeability curves
   B. Laboratory moisture content/matric potential data

5. Test Well VE-25#C1

   A. Laboratory gas permeability data

6. Franklin Lake Playa

   A. Well location map
   B. Water levels
   C. Field Notes: Tensiometer set-up and data

7. Weather Data (UZ-1 Location)

   A. Temperature
   B. Rainfall
   C. Relative humidity
   D. Barometric pressure

8. General

   A. Theoretical plots (computer generated) of gas/liquid permeability/matric potential and gas/liquid permeability/saturation for fractures.

Saturated Zone

1. WT-Series Wells (unpublished data)

   A. Periodic water level measurements
   B. General design
   C. Completion design
   D. Heat flow measurements
   E. WT-2 Geophysical logs

2. Test Well UE-25#P1

   A. Field log books
   B. Working file (unpublished data)
      slug injection tests
      pumping tests
      Van der Kamp analyses

3. Test Well VH-1

   A. Working File (unpublished data)
      hydraulic tests

4. Test Well H-1

   A. Rush, F.E., Thordarson, W.E., Bruckheimer, L., 1983, Geohydrologic and drill hole data for Test Well USW H-1, adjacent to Nevada Test Site, Nye County, Nevada. USGS OFR 83-141.

B. Rush, F.E., Thordarson, W., Pyles, D.G., 1984 Geohydrology of Test Well USW H-1, Yucca Mountain, Nye County, Nevada USGS WRI 83-4032.

C. Working file (includes unpublished data)
Hydraulic tests (slug injection, pumping)

D. Field log book

E. Geophysical logs

5. Test Well H-4

A. Working file (unpublished data)
hydraulic tests

6. Test Well H-5

A. Bentley, C.B., Robison, J.H., Spengler, R.W., 1983 Geohydrologic data for Test Well USW H-5, Yucca Mountain area, Nye County, Nevada, USGS OFR 83-853

B. Working file (includes unpublished data)
hydraulic tests

7. Test Well H-6

A. Craig, R.W., Reed, R.L., and Spengler, R.W., 1983 Geohydrologic data for Test Well USW H-6, Yucca Mountain area, Nye County, Nevada USGS OFR 83-856.

B. Working File (includes unpublished data)
hydraulic tests

8. Test Well UE-25#C1

A. Working file (unpublished data)
slug injection tests
pumping tests

B. Log books

C. Geophysical logs

D. Geologic logs

E. Completion design

9. General (unpublished)

A. Water-Level Data

1) Method and frequency of measurement
2) Period of record
3) Piezometer installation (and packer installations)
4) Data points with records

B. General procedures for drilling and testing wells

C. General design of C-Well tests

Hydrochemistry

1. Computer Printout (STORET)

   Chemistry data on wells in and around Yucca Mountain area

2. Log Book (1983)

   Indicates samples taken from C1, C2, H-3, H-6 (includes field pH)

3. Regional Isotope Map

   Areal map of carbon 13, oxygen 18

4. Computer Printout

   Major element chemistries, isotopic data and some minor element chemistries (about 314 analyses). Most analyses published previously.

5. Log Books

   Precipitation data and analyses for about 11 sites. Mainly oxygen 18.

6. Franklin Lake Data

   Data from about nine sample locations, gross chemistry, Li, F and isotopes

7. Chemistry data for individual test wells

   H1, H3, H5, H6, G4, UE-25#P1, UE-25#C1, UE-29#A2, UE-16D, UE-16F, UE-25#B1.