

See Pocket  
for end

WM-10  
PDR

FEB 26 1982

101  
~~109~~  
3426.1/LLL/82/02/23/0

- 1 -

DISTRIBUTION

✓ WMHL file 3426.1 (B 6985)

WMHL r/f

WM r/f

NMSS r/f

JB Martin

RE Browning

LL Lehman & r/f

MR Knapp

MJ Bell

HJ Miller

JO Bunting

PPB 3.5 Gresham

Trueman Seaman

PS Justus

Tim Hagan

PDR

Return to  
N Still  
697-SS

MEMORANDUM FOR: Phil Justus  
High-Level Waste Technical  
Development Branch  
Division of Waste Management

FROM: Linda Lehman  
High-Level Waste Licensing  
Management Branch  
Division of Waste Management

THRU: Malcolm R. Knapp  
High-Level Waste Licensing  
Management Branch  
Division of Waste Management

Attached is a report prepared by Ellen Quinn and myself entitled  
"Geochemical Interpretations of Groundwater Flow Systems in the Central  
Columbia Plateau." This report is an alternative interpretation of the  
hydrogeochemistry of the deep basalt aquifers in the Central Columbia  
Plateau.

As indicated in the report, the data available at this time seemed to  
support structural control of a portion of the Columbia River and also  
portions of the confined aquifers in the deep basalt sequences.

Other data, such as gravity maps, hydraulic head data and numerical  
modeling work by PNL tend to corroborate the study results. These  
results were presented to the USGS at Reston, Virginia on February 4,  
1982 and they indicated interest in pursuing the chemical composition of  
sediments on aquifers beneath the basalt which could yield a sodium  
chloride type water.

The report does not go into additional data needed to more adequately  
prove or disprove either the current BWIP interpretation or the  
interpretation in this report. Identification of what geochemical data  
and additional modeling is needed would be a logical next step. Two  
areas of immediate need are:

1. The standard geochemical analyses including temperature from all  
wells sampled on the Hanford site, with depth of sample specified.

DIST:

TICKET NO:

OFC :	:	:	:	:
NAME :	:	:	:	:
DATE : 82/02/23	:	:	:	:

(F)(H)

86100261

8204260063

00009

3426.1/LLL/82/02/23/0

- 2 -

FEB 26 1982

2. Isotope data for groundwater age determinations from all wells sampled on the Hanford site, with depth of sample specified.

Linda Lehman  
High-Level Waste Licensing  
Management Branch  
Division of Waste Management

Enclosure: As stated

DIST:

TICKET NO:

OFC	:	WMHL	:	WMHL	:	:	:	:	:
NAME	:	LLL Lehman: sb	:	MAL KAMP	:	:	:	:	:
DATE	:	82/02/23	:	2/26/82	:	:	:	:	: