



## Department of Energy

Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352

WM DOCKET CONTROL  
CENTER

JUN 25 1985

'85 JUN 28 P4:06

Mr. Donald Provost  
State of Washington Department  
of Ecology, MS PV-11  
Olympia, WA 98504

Mr. Max S. Power  
Joint Legislative Committee on  
Science and Technology  
B14 Institutions Building (AG-12)  
Olympia, WA 98504

Mr. Roger R. Jim, Sr., Chairman -  
Yakima Tribal Council  
Yakima Indian Nation  
P. O. Box 151  
Toppenish, WA 98948

Mr. Elwood H. Patawa, Chairman  
Board of Trustees  
Umatilla Confederated Tribes  
P. O. Box 638  
Pendleton, OR 97801

Mr. Allen V. Pinkham, Chairman  
Nez Perce Tribal Executive Committee  
Box 305  
Lapwai, ID 83540

Gentlemen:

MONTHLY TRANSMITTAL OF "SCHEDULE FOR NEAR TERM BWIP SITE CHARACTERIZATION  
ACTIVITIES"

Enclosed for your use is our monthly update and schedule for Site and  
Engineered Barriers Department activities in this precharacterization phase.

As committed, we will continue to update this information on a regular basis.  
Should you have any questions relative to this transmittal, please contact  
Mr. C. Thomas Tinsley of my staff on (509) 376-8736.

Very truly yours,

ORIGINAL SIGNED BY  
O. L. OLSON

O. L. Olson, Project Manager  
Basalt Waste Isolation Project Office

BWI:CTT

Enclosure

8507110760 850625  
PDR WASTE  
WM-10 PDR

WM Record File

101.2

WM Project 10

Docket No.

PDR ✓

LPDR ✓

Distribution:

Kennedy DRM JFR

JE NEHAA HTM

(Return to WM, 623-SS)

J3

1435

bcc's for letter, Olson to States/Indian Tribes, "Monthly Transmittal of  
Schedule for Near Term BWIP Site Characterization Activities"

bcc, w/encl:

Russell Jim, Yakima Indian Nation

Ron Halfmoon, Nez Perce Tribe

Wyatt Rogers, CERT


Barry Gale, DOE-HQ

C. A. Peabody, DOE-HQ

Linda Lehman

James B. Hovis

F. R. Cook, NRC

R. J. Wright, NRC 

J. Graham, Rockwell

BWI Record Cy

# SITE AND ENGINEERED BARRIERS DEPARTMENT ACTIVITIES

Activities	Date	Rev.*
<u>Site</u>		
o Install Westbay Packer in RRL-14	09/01-09/30/85	R6
o Run and grout liner in DC-3 (to support seismic monitoring)	07/01-07/15/85	
o Remove bridge plugs from RRL-14	Complete	
o Groundwater monitoring of boreholes DC-19, DC-20, and DC-22	Daily	
o Monitoring of other boreholes	Weekly	R6
o Integrity testing, DB-14	Complete	
o Integrity testing, DB-1	Complete	
o Deepen Borehole DH-28	Complete	
o Drill cable tool start holes, RRL-2B, RRL-2C	Complete	R6
o Drill rotary hole RRL-2C	Complete	
o Surveying gravity at magnetic stations	Jan - April	
o Electronmicroprobe analysis of flow top samples	Ongoing	
o X-ray diffraction analysis of flow top samples	Ongoing	R6
o Modeling gravity, magnetic data	Ongoing	
o Collection of magnetic and gravity data	Ongoing	
o Seismic data surveillance analysis	Ongoing	
o Lab studies on sorption and chemical dissolution	Daily	R6
o Test Cohasset in RRL-2A	Complete	
o Drill rotary hole RRL-2B	05/30-07/03/85	
o Deepen borehole DH-28	Complete	
o Drill RRL-17 to top of Grande Ronde	07/15-08/15/85	R6
o Drill DC-23C	09/01-09/30/85	

## Solution Chemistry Laboratory

o Develop method for rock analysis using ICP-AES	Beginning by 06/01/85
o Upgrade anion analysis on ion chromatography	Ongoing
o Develop method for analysis of groundwater tracer using HPLC	Ongoing
o Support to Site Department database development	Ongoing
o Development of method for training analysis using AA	Ongoing
o Procedure development	Ongoing
o Analysis of aqueous solution samples from hydrothermal testing and groundwater sampling	Ongoing
o Field and field analyses of water from local springs, unconfined aquifer and other test horizons	Ongoing
o Laboratory upgrade of uv-visible spectrophotometric equipment	Complete by 05/30/85
o Study of kinetic of decomposition of hydrogen peroxide with basalt under various conditions using uv-visible spectrophotometry	Beginning by 05/30/85
o Develop method for analysis of fixed gases in water samples by gas chromatography	Ongoing
o Develop improved methods for chemical speciation measurements of arsenic and selenium for use in analysis of hydrothermal samples	Ongoing
o Development and initiation of improved methods of records retention	Beginning 05/01/85

Activities	Date	Rev.*
<u>Microcharacterization (Solids) Laboratory</u>		
Scanning Transmission Electron Microscope -		
o Analysis of flow-through run products	Ongoing	
o Analysis of well-characterized biotite and chlorite as possible standards	Complete	
o Analysis of Dickson autoclave run products	Ongoing	
o Analysis of Rocky Coulee flow top clay minerals	Complete	R6
X-Ray Diffractometer -		
o Analysis of McCoy Canyon, Umtanum and high-Mg flow tops	Ongoing	
o Analysis of flow-through run products	Ongoing	
o Analysis of Dickson autoclave run products	Ongoing	
o Analysis of Cohasset and Rocky Coulee flow tops	Complete	
o Analysis of fault gouge	Ongoing	
o Analysis of sedimentary interbed minerals	Deferred	
	Until FY 1986	
o Analysis of concrete samples	Ongoing	
Electron Microprobe -		
o Analysis of Cohasset and Rocky Coulee flow tops	Complete	R6
o Analysis of natural pyrites	Ongoing	
o Analysis of Dickson Autoclave run products	Ongoing	
o Analysis of oxide minerals in Rocky Coulee/Cohasset flow tops	Ongoing	
o Analysis of Rocky Coulee flow tops	Ongoing	R6
<u>Radioactive Hydrothermal Laboratory</u>		
o Basalt and synthetic groundwater tests inflow through autoclave	Ongoing	
o Radionuclide-doped simulated Savannah River Plant Defense glass + basalt and synthetic groundwater	Ongoing	
o Experiments are being conducted using fully radioactive waste forms in the presence of various waste package components (metal barriers and/or basalt)	October 1985	
o Experiments are being conducted on the behavior of specific radionuclides, introduced individually with groundwater, in the presence of packing material at low temperatures	Ongoing	

Activities		Date	Rev.*
<u>Non-Radioactive Hydrothermal Laboratory</u>			
o Hydrothermal tests on basalt + bentonite + groundwater		Ongoing	
o Long-term hydrothermal tests (1-5 years) on basalt + groundwater		Ongoing	
o Determine the solubility of selenium under hydrothermal conditions simulating the near-field environment		Ongoing	
o Evaluate Redox conditions in a hydrothermal experiment simulating a near-field environment		Ongoing	
o Dehydration experiments		Ongoing	
<u>Waste Package Packing Investigatory Testing</u>			
o Uniaxial compression	50 tests	Ongoing	
o Brazillian tension	50 tests	Ongoing	
o Direct shear	50 tests	Ongoing	
o 4-point flexure	40 tests	Ongoing	
o Density	100 tests	Ongoing	
<u>Concrete Testing Laboratory</u>			
o Hydraulic conductivity testing	5 tests	Complete	
o Heat gain testing	5	Complete	
o Prefabricated Packing testing - Developmental		Ongoing	
<u>Backfill Testing Laboratory</u>			
o Hydraulic conductivity tests		Ongoing	
o Start swelling, pressure permeameter tests		Mid-June	R6
o Possibility of (2) long-term flow through permeameter tests		Late-June	
o Compaction tests on bentonite/basalt mixes/specific gravity		Ongoing	

\*Changes in this schedule from that last issued are indicated by a revision bar and revision number.