

To: John Linehan, MS 623SS W. RP

SITE AND ENGINEERED BARRIERS DEPARTMENT ACTIVITIES

From: J. Linehan
BWF

8/5/85

Activities	Date	Rev.*
<u>Site</u>		
o Install Westbay Packer in RRL-14	09/01-09/30/85	
o Run and grout liner in DC-3 (to support seismic monitoring)	Complete	17
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	
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	
o Drill rotary hole RRL-2C	Complete	
o Surveying gravity at magnetic stations	Complete	17
o Electronmicroprobe analysis of flow top samples	Ongoing	
o X-ray diffraction analysis of flow top samples	Ongoing	
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	
o Test Cohasset in RRL-2A	Complete	
o Drill rotary hole RRL-2B	Complete	17
o Deepen borehole DH-28	Complete	
o Drill RRL-17 to top of Grande Ronde	07/15-08/15/85	17

Solution Chemistry Laboratory

o Develop method for rock analysis using ICP-AES	Ongoing	17
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 methods for analysis using AA	Ongoing	17
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 05/30/85	
o Study of kinetic of decomposition of hydrogen peroxide with basalt under various conditions using uv-visible spectrophotometry	Ongoing	17
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	Ongoing	17

WM Record File
101

WM Project 10
Docket No. _____
PDR
LPDR

Distribution:
Linehan

(Return to WM, 623-SS)
cc: Knapp

Rec'd 8/7/85 *st*

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PDR WASTE
WM-10 PDR

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	
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	7
o Analysis of sedimentary interbed minerals	Deferred	
	Until FY 1986	
o Analysis of concrete samples	Ongoing	
o Analysis of corrosion water surface coatings	Ongoing	7
Electron Microprobe -		
o Analysis of Cohasset and Rocky Coulee flow tops	Complete	
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	
<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	
<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	

Activities	Date	Rev.*
<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	Late-July	
o Possibility of (2) long-term flow through permeameter tests	Late-July	
o Compaction tests on bentonite/basalt mixes/specific gravity	Ongoing	

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