

**START**

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

7601 W. Clearwater, Suite 102 • Kennewick, Washington 99336 • (509) 546-2990

March 5, 1993

Mr. Dennis Faulk  
U. S. Environmental Protection Agency  
712 Swift Boulevard, Suite 5  
Richland, WA 99352

Dear Mr. Faulk:

Enclosed you will find a copy of the data obtained from sampling events in the Riverland Rail Wash Station, Expedited Response Action (ERA). Two samples were obtained from surface soils at the "Homestead Site" and the "Munitions Cache." These two samples were split samples taken with Westinghouse Hanford Company.

These data are also being transmitted to the Administrative Record, as agreed to by Ecology and the Environmental Protection Agency (EPA) on October 26, 1992.

Enclosed with this letter are also a Data Summary Table (Enclosure 1), a Field Log Summary (Enclosure 2), a Data Verification Summary (Enclosure 3), and the Chain-of-custody forms (Enclosure 4). Enclosure 5 is the complete analytical data package. Due to its size, Enclosure 5 will only be transmitted to the Administrative Record and EPA.

If you have any questions, please call me at 736-3008.

Sincerely,

*Billie Mauss*

Billie Mauss  
Chemist  
Nuclear and Mixed Waste Management Program

BM:sl  
Enclosures

cc: Robert Stewart, DOE  
Donna Wanek, DOE  
George Hinkle, WHC  
Administrative Record, WHC

Enclosure 1  
Samples from Homestead by Riverland Rail Wash Pits

The following data have been verified for completeness.

<u>Contaminant</u>		<u>H92077</u>	<u>Q</u>	<u>H92078</u>	<u>Q</u>
Aldrin	mg/Kg	2.6	P	27*	D
Dieldrin	mg/Kg	--		38*	D
Endrin Ketone	mg/Kg	--		3.5	D
Chloride	mg/Kg	0.2 (at MDL)		0.6	
Fluoride	mg/Kg	0.2 (at MDL)		--	
% Total Solids %		95		93	
Aluminum	mg/Kg	11000		6290	
Arsenic	mg/Kg	11.0	SN	7.2	SN
Barium	mg/Kg	155		101	
Beryllium	mg/Kg	0.60	B	0.34	B
Calcium	mg/Kg	19300		10800	
Chromium	mg/Kg	16.1		9.8	
Cobalt	mg/Kg	11.3		9.0	B
Copper	mg/Kg	24.0		14.0	
Iron	mg/Kg	20700		14100	
Lead	mg/Kg	16.1		15.7	
Magnesium	mg/Kg	8870		4760	
Manganese	mg/Kg	589		381	
Nickel	mg/Kg	13.3		9.6	
Potassium	mg/Kg	2250		1810	
Sodium	mg/Kg	470	B	77.1	B
Thallium	mg/Kg	---		1.6	B
Vanadium	mg/Kg	33.2		25.5	
Zinc	mg/Kg	57.8		38.8	

Analysis did not detect any CLP Volatiles, CLP Semivolatiles, Chlorinated Herbicides, Nitrite, Nitrate, Phosphate, TPH - gas, or TPH - diesel above the method detection levels (MDLs).

\* Also detected on Semivolatile Organics Analysis

ENCLOSURE 2  
RIVERLAND ERA ACTIVITY AND SAMPLING SUMMARY

October 28, 1992

Ecology arrived at the Riverland Rail Yard Site within the boundary of the 100-IU-1 Operable Unit as part of the Riverland Expedited Response Action (ERA). The Riverland Site, covering thirteen square miles, is west of Highway 240 and north of Highway 24, in the northwest corner of the Hanford Site. Ecology was present in the capacity as the support agency to observe the sampling events associated with the Riverland ERA.

Sampling was performed by Westinghouse Hanford Company (WHC) on October 28, 1992 to determine the extent or absence of radiological contamination. Radiological contamination was suspected within the four maintenance pits, which discharged into a common drain line. Two of the four maintenance pits were sampled on October 28, 1992 by WHC.

October 29, 1992

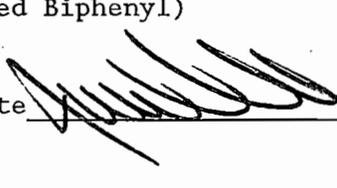
WHC completed sampling of the remaining two maintenance pits. In addition to the maintenance pit samples, one soil sample was taken from inside the common drain line prior to connecting to a main sewer line. This was possible due to some minor damage to the drain line, allowing an internal soil sample to be acquired. During all sample events, no radiological contamination was detected using field screening equipment.

After completing activities at the Riverland Rail Yard, WHC and Ecology sampled the remaining two potential waste sites identified as the Munitions Cache and Homestead Site (Pesticide/Herbicide Site). Ecology obtained split soil samples from each location in conjunction with WHC's sampling team with the exception of volatile samples, which were sampled randomly and individually. The following list summarizes the samples obtained by Ecology.

Time	Ecology/WHC Sample ID	Location	Analyses
1253	H92077/B01937	Munitions	Volatiles (VOA)
1303	H92077/B01937	Munitions	Semi-VOA's Pesticides TPH, PCB's (1)
1306	H92077/B01937	Munitions	Semi-VOA's Pesticides TPH, PCB's (1)
1308	H92077/B01937	Munitions	Metals/Anions
1405	H92078/B01939	Homestead	Volatiles (VOA)
1413	H92078/B01939	Homestead	Semi-VOA's Pesticides TPH, PCB's (1)
1415	H92078/B01939	Homestead	Semi-VOA's Pesticides TPH, PCB's (1)
1417	H92078/B01939	Homestead	Metals/Anions

Note 1: TPH (Total Petroleum Hydrocarbons),  
PCB (Polychlorinated Biphenyl)

Signature/Position/Title/Date

 Unit Manager / 3/5/93

ENCLOSURE 3  
DATA VERIFICATION SUMMARY

This report summarizes the data collected from the sampling event at the Riverland Rail Wash Station, Expedited Response Action. Ecology obtained two sample splits from Westinghouse Hanford Company; one at the Homestead Site and one at the Munitions Cache.

The samples were sealed and placed in tamper proof containers pending radiochemical analysis at the 222-S Building Annex. The samples were described as H92077, H92078, and H92089 (trip blank), by Ecology, which correspond to the Westinghouse Hanford identification numbers of BO1937 and BO1939. All samples were analyzed for radioactivity; the total activity for each was less than 50 pCi/G.

The samples were taken on October 29, 1992, and received by Pace Incorporated on November 2, 1992. Washington State Department of Ecology received the data packages on January 25, 1992 and started the verification process on March 1, 1993. The packages were complete with the exception of the raw data and calibrations for anions. A phone request was made on March 2, 1993, for the missing items. These data were received via Federal Express on March 5, 1993 and incorporated into the data package.

Verification was completed on March 5, 1993 with all laboratory data requested duly reported. Appropriate protocol was implemented and the laboratory performance rated satisfactorily.

Jerry Yokel  
Jerry Yokel  
Chemist

March 5, 1993.  
Date

9513354.1419

**ENCLOSURE 4**

Chain-of-Custody Form



T.A. # E 5946 > H42077  
E 5945

61410

T.A. # E 5947 > H42078

CHAIN-OF-CUSTODY RECORD  
Analytical Request

Client WASH. DEPT. of Ecology  
Address 7601 W. Clearwater #102  
Kennewick, WA. 99336  
Phone (509) 546-2990

Report To: Billie Mauss  
Bill To: \_\_\_\_\_  
P.O. # / Billing Reference \_\_\_\_\_  
Project Name / No. \_\_\_\_\_

Pace Client No. \_\_\_\_\_  
Pace Project Manager \_\_\_\_\_  
Pace Project No. \_\_\_\_\_  
\*Requested Due Date: \_\_\_\_\_

Sampled By (PRINT): Steven L. Arbogast  
Sampler Signature [Signature] Date Sampled 10-29-92

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PAGE NO.	NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST								REMARKS		
						UNPRESERVED	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	VOA	VOA	Semi-VOA	TAL-Metals	PCB-Pest.	Herb.	TPH	Anions				
1	H92077	2:33	Soil		4X					X	X	X	X	X	X	X	X	X	X	military <sup>Caspe</sup> <del>area</del>
2	H92089		H <sub>2</sub> O		1			X		X										TRIP BLANK
3	H92078	4:05	Soil		4X					X	X	X	X	X	X	X	X	X	X	Hunstead
4																				
5																				
6																				
7																				
8																				

9513/54.1420

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		OUT / DATE	RETURNED / DATE					
				2,3	[Signature] WDOE	[Signature] WDOE	10-29-92	14:15
				2,3	[Signature] WDOE	[Signature] WDOE	10-29-92	12:50
				2,3	[Signature] WDOE			

SEE REVERSE SIDE FOR INSTRUCTIONS