

3488-SCU-084

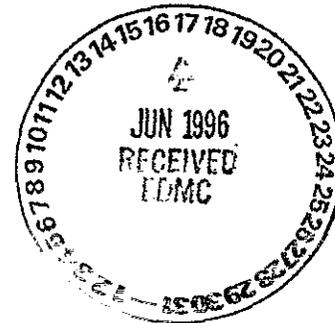
SDG Memo/Sample Summary

0044543

Client Name: WESTINGHOUSE HANFORD CO. Date: 11 Jan 1993
Project Name: ? Update No.: 0
SDG No.: 3488 Work Order No.: 32359-63
Project Manager: J. DEWALD
Mail Date:

Client Samp No.	S-Cubed Samp No.	Date Rcvd	Date Samp	Matrix	ANIONS	FURN7000	ICP6010	PH					
100N910008	3488-01	12-24-1992	12-22-1992	NAL	X	X	X	X					
100N910008MS	3488-01MS	12-24-1992	12-22-1992	NAL	X	X	X						
100N910008REP	3488-01REP	12-24-1992	12-22-1992	NAL	X	X	X	X					
100N910009	3488-02	12-24-1992	12-22-1992	NAL	X	X	X	X					

(X) = Non-Billable Sample



NARRATIVE

January 11, 1992

Narrative Project: ?
Reference No.: 32359-63
Client: WHC
SDG No.: 3488

METALS

The samples were analyzed according to EPA Method 6010 for the TCL metals (not including Hg). The samples were digested by microwave and the initial volume is converted to gram weight using the density measurement indicated on the digestion log. The Pb results are reported from the ICP data due to high levels present. The Pb result on the Form 1 for 100N910008 is reported from the serial dilution analysis since the original analysis was greater than linear range for this analyte. Also, sample 100N910009 was rerun at a dilution of 10 for Pb only and the diluted result is reported on the Form 1 for Pb. All other analytes did not require dilutions.

The quality control results were generally acceptable. The LCS recovery and several CCV recoveries were slightly high for Tl, however, the MS recovery was within criteria and there was no Tl detected in the sample. No reanalysis was performed for Tl due to ICP analysis limitations for this analyte. The Tl line is interfered with by an oxygen absorbance line which decreases the sensitivity of the ICP for Tl. The GFAA method should be used for Tl is better QC is required. The Pb ICV recovery for the diluted run was slightly low, however, a reanalysis was not performed since the Pb result from the undiluted and diluted run were within 5%. The Pb recovery for the MS and the post-digestion spike were outside criteria due to the high levels present in the sample.

ANIONS

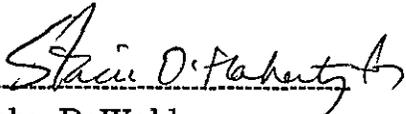
The samples were analyzed according to EPA Method 300.0 for anions by IC. Dilutions were required for F, Cl, NO₂, Br, NO₃, and PO₄ due to the high concentrations of SO₄.

The quality control results were generally acceptable. The MS recovery was outside criteria for F most likely due to background interferences. All other QC was acceptable.

NARRATIVE

pH

The pH for these samples was determined by EPA Method 150.1 for pH by electrode. There were no difficulties with the analyses. The quality control results were acceptable.



John DeWald
Project Manager

enclosures

r:\narr\n3488

32359-63

LOT # 3488

Westinghouse
Hanford
Company

CHAIN OF CUSTODY

14

Custody Form Initiator MARY ANN GREEN

Company Contact MARY ANN GREEN

Telephone 509-373-1463

Project Designation/Sampling Locations I63N Waste Pad

Collection Date 12-22-92

Ice Chest No.

Field Logbook No. #3

Bill of Lading/Airbill No.

Offsite Property No.

Method of shipment Glass bottles wrapped in plastic, placed inside a metal can with absorbent and placed inside a 12B65 box. For air shipment

Shipped to S-Cubed Laboratories, San Diego, CA

Possible Sample Hazards/Remarks Battery electrolyte fluid, field tested with a pH of 7

Sample Identification

100N910008-M 1- 250 ml amber glass bottle 100N910009-M 1- 250 ml amber glass

100N910008-A 1- 250 ml amber glass bottle 100N910009-A 1- 250 ml amber glass

Field Transfer of Custody Chain of Possession (Sign and Print Names)

Relinquished by: <i>m.a. Green</i>	Received by: <i>Amy Smith</i>	Date/Time: <i>12-24-92 1:30pm</i>
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:
Relinquished by:	Received by:	Date/Time:

Final Sample Disposition

Disposal Method:	Disposed by:	Date/Time:
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Comments:

** PRIORITY TURNAROUND **

SAMPLE ANALYSIS REQUEST
 100 AREAS FACILITIES HEALTH & SAFETY
 373-1436

32359-63

3488

REQUESTER: GREEN

PHONE: _____

FAX: 373-4030

DATE: 122292

****HEALTH PHYSICS USE ONLY****

SAMPLE NUMBER	SAMPLE DATE/TIME	SAMPLE DESCRIPTION	ANALYSIS DATE/TIME	LAB NUMBER	BETA/GAMMA/ALPHA RESULTS (pCi/gm)	ALPHA RESULTS (pCi/gm)
100N-71-0008	12/18/92 1300	Battery Electrolytes	12/21/92	692-1349	<MDA	<MDA
100N-71-0009	12/18/92 1300	" "	12/21/92	692-1350	<MDA	<MDA

ANALYSIS BY: SR/Doc

DATE: 122292

49 CFK

SHIPPING INST.	SHIP TO: S-CUBED LABORATORIES Company		HAZARDOUS MATERIAL SHIPMENT RECORD (HMSR)			
	3398 CARMEL MT. RD.					
	Address SAN DIEGO, CA 92121-1095		Originating Facility Building <u>163</u> Area <u>100-N</u>	Originator Signature <i>Mary Ann Green</i>		Date <u>12-23-92</u>
	City, State, Zip RECEIVING DOCK		OFFSITE ONLY: SHIP: <input checked="" type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT			
	Attention:		VIA: <input type="checkbox"/> Parcel Post <input type="checkbox"/> Air Parcel Post <input type="checkbox"/> Freight (Rail/Truck)	<input checked="" type="checkbox"/> Air (Passenger) <input type="checkbox"/> Air (Cargo)		Cost Code: <u>ORG:11150/ E11457</u>

CONTAINERS / PACKAGING						CONTENT DESCRIPTION
Number of Containers	Type	DOT Spec	Package Dimensions	Quantity Pkg	Gross Wt Each Pkg	See 49 CFR 172.101(c) Hazardous Material Table
2	CF	12B65	9x13x13	#1=30oz #2=32oz	13 lbs 12 lbs	Proper Ship Name: INK, LTD.QTY (Lab Samples) Hazard Class: FLAMMABLE LIQUID UN/NA No.: UN 1210 List Secondary Hazards: NONE List Labels Req'd/Applied FLAMMABLE LIQUID
1	CF	12B65	9x13x13	24oz	13lbs	Proper Ship Name: ADHESIVE, LTD.QTY (Lab Samples) Hazard Class: FLAMMABLE LIQUID UN/NA No.: UN1133 List Secondary Hazards: NONE List Labels Req'd/Applied FLAMMABLE LIQUID
1	CF	12B65	9x13x13	4 @ 8oz ea (32oz) TOTAL	13 lbs	Proper Ship Name: BATTERY FLUID, ACID, LTD.QTY. Hazard Class: CORROSIVE MATERIAL (lab samples) UN/NA No.: UN 2796 List Secondary Hazards: NONE List Labels Req'd/Applied CORROSIVE

Total No. Containers 4	Gross Wt of Shipment 51 lbs	Identify Placards Required: 1. <u>N/A</u> 3. _____ 2. _____ 4. _____	Identify Property Control or Return Order No. (if applicable)
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Material in manufacturers original container: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Describe Internal Packaging: <u>Glass sample bottles are wrapped in plastic and placed inside a metal can with absorbent. The can is placed inside a 12B65 box.</u>
Container free of deterioration or damage: <input checked="" type="checkbox"/> Yes	
Container acceptability documented: <input checked="" type="checkbox"/> Yes	
Material is packaged, sealed, marked and labelled to meet DOT requirements <input checked="" type="checkbox"/> Yes	

RADIATION RELEASE	Survey No. <u>#146520</u>	Date <u>12-23-92</u>	RM Signature <i>Ross Stephen</i>	Print Name <u>ROSS STEPHEN</u>
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CERTIFICATION	
CONTRACTORS CERTIFICATION	<p>This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transport according to the applicable regulations of the Department of Transportation:</p> <p>This shipment is within the Limitations prescribed for: <input checked="" type="checkbox"/> Passenger Aircraft <input type="checkbox"/> Cargo Aircraft <input type="checkbox"/> NA Aircraft</p> <p>Authorizing Signature: <i>Mary Ann Green</i> Print Name: <u>Mary Ann Green</u> Date: <u>12-23-92</u></p>

FOR OFFSITE SHIPMENTS - ADDITIONAL APPROVAL REQUIRED					
WHC TRAFFIC	B.L. No.	Date Shipped	ETA	Routing	Special Considerations
		<u>12/23/92</u>	<u>12/24/92</u>	<u>FED X</u>	<u>007</u>
WHC Traffic: <i>Larry J. Cole</i>			WHC Shipping: _____		

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3488-01

Lab Name: S_CUBED Contract: 32359-63

Lab Code: S3 Case No.: SAS No.: SDG No.: 3488

Matrix (soil/water): SOIL Lab Sample ID: 3488-01

Level (low/med): LOW Date Received: 12/24/92

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4.6			P
7440-36-0	Antimony	1.1			P
7440-38-2	Arsenic	0.16	U		P
7440-39-3	Barium	1.3			P
7440-41-7	Beryllium	0.002	U		P
7440-43-9	Cadmium	0.02			P
7440-70-2	Calcium	9.7	B		P
7440-47-3	Chromium	0.12			P
7440-48-4	Cobalt	0.03	U		P
7440-50-8	Copper	0.61			P
7439-89-6	Iron	1.7			P
7439-92-1	Lead	148			P
7439-95-4	Magnesium	11.9	B		P
7439-96-5	Manganese	0.03	B		P
7439-97-6	Mercury				NR
7440-02-0	Nickel	0.11			P
7440-09-7	Potassium	6.3	U		P
7782-49-2	Selenium	0.09	U		P
7440-22-4	Silver	0.14			P
7440-23-5	Sodium	844			P
7440-28-0	Thallium	0.31	U		P
7440-62-2	Vanadium	0.04	U		P
7440-66-6	Zinc	1.3			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

100N910008
PB_RESULT_FROM_SERIAL_DILUTION

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3488-02

Lab Name: S_CUBED Contract: 32359-63

Lab Code: S3 Case No.: SAS No.: SDG No.: 3488

Matrix (soil/water): SOIL Lab Sample ID: 3488-02

Level (low/med): LOW Date Received: 12/24/92

% Solids: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8.0			P
7440-36-0	Antimony	2.4			P
7440-38-2	Arsenic	0.16	U		P
7440-39-3	Barium	3.6			P
7440-41-7	Beryllium	0.002	U		P
7440-43-9	Cadmium	0.02			P
7440-70-2	Calcium	24.0			P
7440-47-3	Chromium	0.11			P
7440-48-4	Cobalt	0.03	U		P
7440-50-8	Copper	0.83			P
7439-89-6	Iron	6.0			P
7439-92-1	Lead	577			P
7439-95-4	Magnesium	12.4	B		P
7439-96-5	Manganese	0.12			P
7439-97-6	Mercury				NR
7440-02-0	Nickel	0.12			P
7440-09-7	Potassium	6.2	U		P
7782-49-2	Selenium	0.09	U		P
7440-22-4	Silver	0.27			P
7440-23-5	Sodium	744			P
7440-28-0	Thallium	0.30	U		P
7440-62-2	Vanadium	0.04	U		P
7440-66-6	Zinc	1.2			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

100N910009
PB_RESULT_FROM_DILUTED_ANALYSIS

LABORATORY: S-CUBBP
 CLIENT: WMC
 PROJECT:
 LOT #: 1488
 FILE #: ANI3488
 DISK #: ANI1123
 METHOD NO.: 300.0
 UNIT: MG/L

DATA REVIEWER: *UN 1/11/93*
 PROJECT REVIEWER:
 CHARGE #: 32359-63
 DATE SAMPLED: 12-22-92
 DATE RECEIVED: 12-24-92
 PREP DATE: 01-07-93
 DATE ANALYZED: 01-07-93
 SAMPLE TYPE: WATER

	LAB ID	F	CL	NO2	BR	NO3	PO4	SO4	
1	3488-01	1.95	8.90	< 0.2	< 0.5	< 0.5	< 0.5	814	} unit as mg/L
2	3488-02	2.40	14.8	< 0.2	< 0.5	< 0.5	< 0.5	1040	
3	3488-01	2.02	9.22	< 0.2	< 0.5	< 0.5	< 0.5	843	} unit as mg/kg
4	3488-02	2.43	15.0	< 0.2	< 0.5	< 0.5	< 0.5	1050	

All GC data were acceptable. Samples were required 5 to 10 dilutions for F, Cl, NO₂, BR, NO₃ and PO₄ due to high concentration level of SO₄.

Samples were diluted 100 to 200 x prior to SO₄ analysis.

RPD and MS recovery were within the criteria except MS recovery for F was outside the control range which probably due to background interferences.

pH ANALYSIS

LABORATORY:	S-CUBED	DATA REVIEWER:	con 115/93
CLIENT:	WHC	PROJECT REVIEWER:	
LOT #:	3488	DATE SAMPLED:	12-22-92
CHARGE #:	32359-63	DATE RECEIVED:	12-24-92
DISK #:	PH0619	ANALYSIS DATE:	01-04-93

ANALYSIS: pH
 TECHNIQUE: pH ELECTRODE
 METHOD: E150.1
 SAMPLE ALIQUOT: 50 mL
 SAMPLE TYPE: NAT.

SAMPLE ID	pH
3488-01	7.93
3488-02	7.10

All qc checks were acceptable.