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ANALYTICAL REPORT

I07-036

Lot #: F7F060289
SDG #: SL688A

RECEIVED
JAN 29 2009
EDMC

Steve Trent

Fluor Hanford Inc
PO Box 1000
MSIN E6-35
Richland, WA 99352

SEVERN TRENT LABORATORIES, INC.

Brian O'Donnell
Project Manager

June 20, 2007

STL

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13715 Rider Trail North
Earth City, MO 63045

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CASE NARRATIVE

Fluor Hanford Inc.
P.O. Box 1000
MSIN E6-135
Richland, Washington 99352
June 20, 2007
Attention: Steve Trent

SDG	:	SL688A
Number of Samples	:	1
Sample Matrix	:	Water
Data Deliverable	:	RDR-R3896
Date SDG Closed	:	June 6, 2007

II. Introduction

On June 6, 2007 data reanalysis orders were received at STL-St. Louis.

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits.

Analyses requested: see attached copy of RDR

Deviation from Request: No Deviation from requested methods.

IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:
QCBLK- Quality Control Blank, Method Blank
QCLCS- Quality Control Laboratory Control Sample, Blank Spike

V. Comments

General: The recheck request consists of RDR# 070619STLSL-R3896. A copy of the request (and the original it replaced) is included in this package for reference.

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The term "Detection Limit" used in the analytical data reports refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

ICP Metals Results: The results from the reextraction and reanalysis of this sample match up very closely with those of the original, essentially for all 18 metals. Chromium, for example, was 245 ug/L in the original analysis and 251 ug/L in the reanalysis. The most variation was noted in Calcium, Iron and Potassium. Calcium was 86700 ug/L in the original and 88200 in the reanalysis. Iron was ND with a reporting limit of 100 ug/L in the original and 37.7 (under the 100 ug/L RL) in the reanalysis. Potassium was 8090 ug/L in the original analysis and 6840 ug/L in the reanalysis.

As requested, the data from the original analysis was also rechecked and no anomalies were noted.

Analysis Comments: There were no observations or nonconformances associated with the analysis of these samples

I certify that this Summary Package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Brian O'Donnell
St. Louis Project Manager

06/06/2007
RECHECK, RECOUNT, OR REANALYSIS ORDER
CONTRACT NO MW6-SBB-A19981

Severn Trent St. Louis
13715 Rider Trail North
Earth City, MO 63045

Battelle PNNL Order Number: 070606STLSL-UNKNOWN1

Sample Delivery Group: SL688

Special Instructions Please return within 15 days.

Samples(s)

Lab Sample ID	PNNL Sample	Action	TAT	METHOD_NAME:
F7D300108001	B1N750	Reanalysis	15/15	6010_METALS_ICP

Deliver Report Results to: Dorothy L. Stewart, K6-96
c/o Secretary
3110 Port of Benton Blvd.
Richland, WA 99352

The report results must reference the Battelle PNNL-order number, SDG number, and the Battelle PNNL sample identification number shown above.

06/19/2007
RECHECK, RECOUNT, OR REANALYSIS ORDER
CONTRACT NO MW6-SBB-A19981

Severn Trent St. Louis
13715 Rider Trail North
Earth City, MO 63045

Battelle PNNL Order Number: 070619STLSL-R3896

Sample Delivery Group: SL688

Special Instructions This RDR replaces 070606STLSL-UNKNOWN1.

Samples(s)

Lab Sample ID	PNNL Sample	Action	TAT	METHOD_NAME:
F7D300108001	B1N750	Recheck	15/15	6010_METALS_ICP

Deliver Report Results to: Fluor Hanford, Inc.
1200 Jadwin Ave.
Richland, WA 99352
C/O Mr. Steve Trent

The report results must reference the Battelle PNNL-order number, SDG number, and the Battelle PNNL sample identification number shown above.

METHODS SUMMARY

SL688A

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Inductively Coupled Plasma (ICP) Metals	SW846 6010B	

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

SL688A : F7F060289

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
J0ERK	001	B1N750	04/27/07	09:20

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

ICP METALS

Fluor Hanford Inc

Client Sample ID: B1N750

DISSOLVED Metals

Lot-Sample #...: F7F060289-001 **Matrix.....:** WATER
Date Sampled...: 04/27/07 **Date Received..:** 04/28/07

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 7158231						
Antimony	ND	60.0	ug/L	SW846 6010B	06/07-06/13/07	J0ERK1AA
		Dilution Factor: 1		MDL.....: 44.8		
Barium	**65.7 B**	**200**	**ug/L**	**SW846 6010B**	**06/07-06/13/07**	**J0ERK1AC**
		Dilution Factor: 1		MDL.....: 5.0		
Beryllium	ND	5.0	ug/L	SW846 6010B	06/07-06/13/07	J0ERK1AD
		Dilution Factor: 1		MDL.....: 0.57		
Cadmium	ND	5.0	ug/L	SW846 6010B	06/07-06/13/07	J0ERK1AE
		Dilution Factor: 1		MDL.....: 3.5		
Calcium	**88200**	**5000**	**ug/L**	**SW846 6010B**	**06/07-06/13/07**	**J0ERK1AF**
		Dilution Factor: 1		MDL.....: 18.0		
Chromium	**251**	**10.0**	**ug/L**	**SW846 6010B**	**06/07-06/13/07**	**J0ERK1AG**
		Dilution Factor: 1		MDL.....: 2.5		
Cobalt	ND	50.0	ug/L	SW846 6010B	06/07-06/13/07	J0ERK1AH
		Dilution Factor: 1		MDL.....: 2.0		
Copper	**3.2 B**	**25.0**	**ug/L**	**SW846 6010B**	**06/07-06/13/07**	**J0ERK1AJ**
		Dilution Factor: 1		MDL.....: 1.8		
Iron	**37.7 B**	**100**	**ug/L**	**SW846 6010B**	**06/07-06/13/07**	**J0ERK1AK**
		Dilution Factor: 1		MDL.....: 18.6		
Magnesium	**19900**	**5000**	**ug/L**	**SW846 6010B**	**06/07-06/13/07**	**J0ERK1AL**
		Dilution Factor: 1		MDL.....: 128		
Manganese	**6.7 B**	**15.0**	**ug/L**	**SW846 6010B**	**06/07-06/13/07**	**J0ERK1AM**
		Dilution Factor: 1		MDL.....: 0.86		
Nickel	ND	40.0	ug/L	SW846 6010B	06/07-06/13/07	J0ERK1AN
		Dilution Factor: 1		MDL.....: 4.6		
Potassium	**6840**	**5000**	**ug/L**	**SW846 6010B**	**06/07-06/13/07**	**J0ERK1AP**
		Dilution Factor: 1		MDL.....: 1630		
Silver	ND	10.0	ug/L	SW846 6010B	06/07-06/13/07	J0ERK1AQ
		Dilution Factor: 1		MDL.....: 1.7		

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Fluor Hanford Inc

Client Sample ID: B1N750

DISSOLVED Metals

Lot-Sample #...: F7F060289-001 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Sodium	**15800**	**5000**	**ug/L**	**SW846 6010B**	**06/07-06/13/07**	**J0ERK1AR**
		Dilution Factor: 1		MDL.....: 78.5		
Strontium	**462**	**50.0**	**ug/L**	**SW846 6010B**	**06/07-06/13/07**	**J0ERK1AT**
		Dilution Factor: 1		MDL.....: 0.56		
Vanadium	ND	50.0	ug/L	SW846 6010B	06/07-06/13/07	J0ERK1AU
		Dilution Factor: 1		MDL.....: 6.1		
Zinc	ND	20.0	ug/L	SW846 6010B	06/07-06/13/07	J0ERK1AV
		Dilution Factor: 1		MDL.....: 9.6		

NOTE(S):

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: SL688A **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F7F070000-231 **Prep Batch #...:** 7158231						
Antimony	ND	60.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AD
		Dilution Factor: 1				
Barium	ND	200	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AE
		Dilution Factor: 1				
Beryllium	ND	5.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AF
		Dilution Factor: 1				
Cadmium	ND	5.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AG
		Dilution Factor: 1				
Calcium	ND	5000	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AH
		Dilution Factor: 1				
Chromium	ND	10.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AJ
		Dilution Factor: 1				
Cobalt	ND	50.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AK
		Dilution Factor: 1				
Copper	ND	25.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AL
		Dilution Factor: 1				
Iron	ND	100	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AM
		Dilution Factor: 1				
Magnesium	ND	5000	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AN
		Dilution Factor: 1				
Manganese	ND	15.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AP
		Dilution Factor: 1				
Nickel	ND	40.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AQ
		Dilution Factor: 1				
Potassium	ND	5000	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AR
		Dilution Factor: 1				
Silver	ND	10.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AT
		Dilution Factor: 1				
Sodium	ND	5000	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AU
		Dilution Factor: 1				

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METHOD BLANK REPORT

DISSOLVED Metals

Client Lot #...: SL688A **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Strontium	ND	50.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AV
		Dilution Factor: 1				
Vanadium	ND	50.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AW
		Dilution Factor: 1				
Zinc	ND	20.0	ug/L	SW846 6010B	06/07-06/13/07	J0G1D1AX
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: SL688A **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F7F070000-231 **Prep Batch #...:** 7158231							
Antimony	500	476	ug/L	95	SW846 6010B	06/07-06/13/07	J0G1D1A2
			Dilution Factor: 1				
Barium	500	476	ug/L	95	SW846 6010B	06/07-06/13/07	J0G1D1A3
			Dilution Factor: 1				
Beryllium	500	504	ug/L	101	SW846 6010B	06/07-06/13/07	J0G1D1A4
			Dilution Factor: 1				
Cadmium	500	493	ug/L	99	SW846 6010B	06/07-06/13/07	J0G1D1A5
			Dilution Factor: 1				
Calcium	10000	9820	ug/L	98	SW846 6010B	06/07-06/13/07	J0G1D1A6
			Dilution Factor: 1				
Chromium	500	476	ug/L	95	SW846 6010B	06/07-06/13/07	J0G1D1A7
			Dilution Factor: 1				
Cobalt	500	470	ug/L	94	SW846 6010B	06/07-06/13/07	J0G1D1A8
			Dilution Factor: 1				
Copper	500	468	ug/L	94	SW846 6010B	06/07-06/13/07	J0G1D1A9
			Dilution Factor: 1				
Iron	500	477	ug/L	95	SW846 6010B	06/07-06/13/07	J0G1D1CA
			Dilution Factor: 1				
Magnesium	10000	9850	ug/L	99	SW846 6010B	06/07-06/13/07	J0G1D1CC
			Dilution Factor: 1				
Manganese	500	481	ug/L	96	SW846 6010B	06/07-06/13/07	J0G1D1CD
			Dilution Factor: 1				
Nickel	500	470	ug/L	94	SW846 6010B	06/07-06/13/07	J0G1D1CE
			Dilution Factor: 1				
Potassium	10000	8780	ug/L	88	SW846 6010B	06/07-06/13/07	J0G1D1CF
			Dilution Factor: 1				
Silver	125	126	ug/L	101	SW846 6010B	06/07-06/13/07	J0G1D1CG
			Dilution Factor: 1				

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LABORATORY CONTROL SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: SL688A **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Sodium	10000	9680	ug/L	97	SW846 6010B	06/07-06/13/07	J0G1D1CH
			Dilution Factor: 1				
Strontium	500	490	ug/L	98	SW846 6010B	06/07-06/13/07	J0G1D1CJ
			Dilution Factor: 1				
Vanadium	500	481	ug/L	96	SW846 6010B	06/07-06/13/07	J0G1D1CK
			Dilution Factor: 1				
Zinc	500	450	ug/L	90	SW846 6010B	06/07-06/13/07	J0G1D1CL
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: SL688A **Matrix.....:** WATER
Date Sampled...: 06/05/07 **Date Received..:** 06/06/07

MS Lot-Sample #: F7F060267-001 **Prep Batch #...:** 7158231

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony									
	ND	250	255	ug/L	102		SW846 6010B	06/07-06/13/07	J0ELE1CG
	ND	250	255	ug/L	102	0.12	SW846 6010B	06/07-06/13/07	J0ELE1CH
			Dilution Factor: 1						
Barium									
	22.1	1000	1060	ug/L	103		SW846 6010B	06/07-06/13/07	J0ELE1CJ
	22.1	1000	1050	ug/L	103	0.75	SW846 6010B	06/07-06/13/07	J0ELE1CK
			Dilution Factor: 1						
Beryllium									
	ND	25.0	27.5	ug/L	110		SW846 6010B	06/07-06/13/07	J0ELE1CL
	ND	25.0	27.1	ug/L	109	1.3	SW846 6010B	06/07-06/13/07	J0ELE1CM
			Dilution Factor: 1						
Cadmium									
	ND	25.0	25.8	ug/L	103		SW846 6010B	06/07-06/13/07	J0ELE1CN
	ND	25.0	25.8	ug/L	103	0.11	SW846 6010B	06/07-06/13/07	J0ELE1CP
			Dilution Factor: 1						
Calcium									
	22200	25000	49700	ug/L	110		SW846 6010B	06/07-06/13/07	J0ELE1CQ
	22200	25000	49400	ug/L	109	0.66	SW846 6010B	06/07-06/13/07	J0ELE1CR
			Dilution Factor: 1						
Chromium									
	30.6	100	136	ug/L	105		SW846 6010B	06/07-06/13/07	J0ELE1CT
	30.6	100	135	ug/L	104	0.90	SW846 6010B	06/07-06/13/07	J0ELE1CU
			Dilution Factor: 1						
Cobalt									
	ND	250	251	ug/L	100		SW846 6010B	06/07-06/13/07	J0ELE1CV
	ND	250	248	ug/L	99	1.2	SW846 6010B	06/07-06/13/07	J0ELE1CW
			Dilution Factor: 1						
Copper									
	ND	125	130	ug/L	104		SW846 6010B	06/07-06/13/07	J0ELE1CX
	ND	125	129	ug/L	103	0.64	SW846 6010B	06/07-06/13/07	J0ELE1C0
			Dilution Factor: 1						

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: SL688A **Matrix.....:** WATER
Date Sampled...: 06/05/07 **Date Received..:** 06/06/07

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Iron									
	ND	500	536	ug/L	107		SW846 6010B	06/07-06/13/07	J0ELE1C1
	ND	500	536	ug/L	107	0.13	SW846 6010B	06/07-06/13/07	J0ELE1C2
			Dilution Factor: 1						
Magnesium									
	7450	25000	34300	ug/L	107		SW846 6010B	06/07-06/13/07	J0ELE1C3
	7450	25000	34000	ug/L	106	1.0	SW846 6010B	06/07-06/13/07	J0ELE1C4
			Dilution Factor: 1						
Manganese									
	ND	250	257	ug/L	103		SW846 6010B	06/07-06/13/07	J0ELE1C5
	ND	250	255	ug/L	102	0.97	SW846 6010B	06/07-06/13/07	J0ELE1C6
			Dilution Factor: 1						
Nickel									
	ND	250	248	ug/L	99		SW846 6010B	06/07-06/13/07	J0ELE1C7
	ND	250	246	ug/L	98	0.81	SW846 6010B	06/07-06/13/07	J0ELE1C8
			Dilution Factor: 1						
Potassium									
	3210	25000	28800	ug/L	102		SW846 6010B	06/07-06/13/07	J0ELE1C9
	3210	25000	28200	ug/L	100	2.0	SW846 6010B	06/07-06/13/07	J0ELE1DA
			Dilution Factor: 1						
Silver									
	ND	25.0	25.8	ug/L	103		SW846 6010B	06/07-06/13/07	J0ELE1DC
	ND	25.0	26.2	ug/L	105	1.8	SW846 6010B	06/07-06/13/07	J0ELE1DD
			Dilution Factor: 1						
Sodium									
	23200	25000	49200	ug/L	104		SW846 6010B	06/07-06/13/07	J0ELE1DE
	23200	25000	49300	ug/L	104	0.10	SW846 6010B	06/07-06/13/07	J0ELE1DF
			Dilution Factor: 1						
Strontium									
	89.4	500	628	ug/L	108		SW846 6010B	06/07-06/13/07	J0ELE1DG
	89.4	500	624	ug/L	107	0.68	SW846 6010B	06/07-06/13/07	J0ELE1DH
			Dilution Factor: 1						
Vanadium									
	30.4	250	292	ug/L	104		SW846 6010B	06/07-06/13/07	J0ELE1DJ
	30.4	250	289	ug/L	104	0.79	SW846 6010B	06/07-06/13/07	J0ELE1DK
			Dilution Factor: 1						

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MATRIX SPIKE SAMPLE DATA REPORT

DISSOLVED Metals

Client Lot #...: SL688A **Matrix.....:** WATER
Date Sampled...: 06/05/07 **Date Received..:** 06/06/07

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Zinc									
	ND	250	245	ug/L	98		SW846 6010B	06/07-06/13/07	J0ELE1A3
	ND	250	243	ug/L	97	0.84	SW846 6010B	06/07-06/13/07	J0ELE1A4

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.