

SAF-B05-004 100 BC Remaining Pipelines and Sewers - Soil Quick Turn FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Charlene Martinez X3-44 _____ NB- 7/22/05
INITIAL/DATE

Jeanette Duncan 1 copy clipped _____ NB- 7/22/05
INITIAL/DATE

COMMENTS:

SDG W04651 SAF-B05-004

Rad only Chem only Rad & Chem

Complete Partial

Waste Site: 100-B-14 (S) Suspect BCL Stockpiles

RECEIVED
AUG 22 2005
EDMC



STL

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

Tel: 314 298 8566 Fax: 314 298 8757
www.stl-inc.com

ANALYTICAL REPORT



PROJECT NO. 100 BC PIPELINE

B05-004

Lot #: F5G060301

SDG #: W04651

Joan Kessner

Bechtel Hanford, Inc.
3190 George Washington Way
MSIN H9-02
Richland, WA 99352

SEVERN TRENT LABORATORIES, INC.

Melania Harris
Project Manager

July 21, 2005

Leaders in Environmental Testing

Severn Trent Laboratories, Inc.

Case Narrative
LOT NUMBER: F5G060301

This report contains the analytical results for the sample received under chain of custody by STL St. Louis on July 6, 2005. This sample is associated with your B05-004 project.

The analytical results included in this report meet all applicable quality control procedure requirements.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by STL St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise.

Observations/Nonconformances

Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Metals SW846 6010B

The were no observations or nonconformances associated with this analysis.

SAMPLE SUMMARY

F5G060301

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMP TIME</u>
HE04N	001	J03JW0	07/01/05	11:30

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.

METHODS SUMMARY

F5G060301

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Percent Moisture	MCAWW 160.3 MOD	MCAWW 160.3 MOD
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

METALS

Bechtel Hanford, Inc.

Client Sample ID: J03JW0

TOTAL Metals

Lot-Sample #...: F5G060301-001

Matrix.....: SOLID

Date Sampled...: 07/01/05

Date Received...: 07/06/05

% Moisture.....: 0.79

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...:	5189064					
Arsenic	3.5	1.0	mg/kg	SW846 6010B	07/08-07/11/05	HE04N1AA
		Dilution Factor: 1		MDL.....: 0.13		
Barium	82.0	20.2	mg/kg	SW846 6010B	07/08-07/11/05	HE04N1AC
		Dilution Factor: 1		MDL.....: 0.081		
Cadmium	ND	0.50	mg/kg	SW846 6010B	07/08-07/11/05	HE04N1AD
		Dilution Factor: 1		MDL.....: 0.13		
Chromium	11.3	1.0	mg/kg	SW846 6010B	07/08-07/11/05	HE04N1AE
		Dilution Factor: 1		MDL.....: 0.19		
Lead	6.2	1.0	mg/kg	SW846 6010B	07/08-07/11/05	HE04N1AF
		Dilution Factor: 1		MDL.....: 0.051		
Selenium	0.46 B	1.5	mg/kg	SW846 6010B	07/08-07/11/05	HE04N1AG
		Dilution Factor: 1		MDL.....: 0.16		
Silver	ND	1.0	mg/kg	SW846 6010B	07/08-07/11/05	HE04N1AH
		Dilution Factor: 1		MDL.....: 0.26		

NOTE (S) :

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #....: F5G060301

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F5G080000-064 Prep Batch #....: 5189064						
Arsenic	ND	1.0	mg/kg	SW846 6010B	07/08-07/11/05	HE3C11AA
		Dilution Factor: 1				
Barium	ND	20.0	mg/kg	SW846 6010B	07/08-07/11/05	HE3C11AC
		Dilution Factor: 1				
Cadmium	ND	0.50	mg/kg	SW846 6010B	07/08-07/11/05	HE3C11AD
		Dilution Factor: 1				
Chromium	ND	1.0	mg/kg	SW846 6010B	07/08-07/11/05	HE3C11AE
		Dilution Factor: 1				
Lead	ND	1.0	mg/kg	SW846 6010B	07/08-07/11/05	HE3C11AF
		Dilution Factor: 1				
Selenium	ND	1.5	mg/kg	SW846 6010B	07/08-07/11/05	HE3C11AG
		Dilution Factor: 1				
Silver	ND	1.0	mg/kg	SW846 6010B	07/08-07/11/05	HE3C11AH
		Dilution Factor: 1				

NOTE (S) :

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

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: F5G060301

Matrix.....: SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #	
LCS Lot-Sample#: F5G080000-064 Prep Batch #...: 5189064								
Arsenic	161	170	mg/kg	106	SW846 6010B	07/08-07/11/05	HE3C11AJ	
			Dilution Factor: 1					
Barium	252	283	mg/kg	112	SW846 6010B	07/08-07/11/05	HE3C11AK	
			Dilution Factor: 1					
Cadmium	128	127	mg/kg	100	SW846 6010B	07/08-07/11/05	HE3C11AL	
			Dilution Factor: 1					
Chromium	69.5	69.0	mg/kg	99	SW846 6010B	07/08-07/11/05	HE3C11AM	
			Dilution Factor: 1					
Lead	142	143	mg/kg	100	SW846 6010B	07/08-07/11/05	HE3C11AN	
			Dilution Factor: 1					
Selenium	64.2	68.3	mg/kg	106	SW846 6010B	07/08-07/11/05	HE3C11AP	
			Dilution Factor: 1					
Silver	130	147	mg/kg	113	SW846 6010B	07/08-07/11/05	HE3C11AQ	
			Dilution Factor: 1					

NOTE(S):

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

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: F5G060301

Matrix.....: SOLID

Date Sampled...: 07/01/05

Date Received...: 07/06/05

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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MS Lot-Sample #: F5G060301-001 Prep Batch #...: 5189064

% Moisture.....: 0.79

Arsenic

3.5	202	206	mg/kg	100			SW846 6010B	07/08-07/11/05	HE04N1AL
3.5	202	205	mg/kg	100	0.42		SW846 6010B	07/08-07/11/05	HE04N1AM

Dilution Factor: 1

Barium

82.0	202	300	mg/kg	108			SW846 6010B	07/08-07/11/05	HE04N1AN
82.0	202	298	mg/kg	107	0.39		SW846 6010B	07/08-07/11/05	HE04N1AP

Dilution Factor: 1

Cadmium

ND	5.04	3.99	mg/kg	79			SW846 6010B	07/08-07/11/05	HE04N1AQ
ND	5.04	3.96	mg/kg	79	0.63		SW846 6010B	07/08-07/11/05	HE04N1AR

Dilution Factor: 1

Chromium

11.3	20.2	30.4	mg/kg	95			SW846 6010B	07/08-07/11/05	HE04N1AT
11.3	20.2	30.0	mg/kg	93	1.3		SW846 6010B	07/08-07/11/05	HE04N1AU

Dilution Factor: 1

Lead

6.2	50.4	53.0	mg/kg	93			SW846 6010B	07/08-07/11/05	HE04N1AV
6.2	50.4	53.1	mg/kg	93	0.09		SW846 6010B	07/08-07/11/05	HE04N1AW

Dilution Factor: 1

Selenium

0.46	202	203	mg/kg	100			SW846 6010B	07/08-07/11/05	HE04N1AX
0.46	202	202	mg/kg	100	0.39		SW846 6010B	07/08-07/11/05	HE04N1AO

Dilution Factor: 1

Silver

ND	5.04	5.08	mg/kg	101			SW846 6010B	07/08-07/11/05	HE04N1A1
ND	5.04	5.08	mg/kg	101	0.0		SW846 6010B	07/08-07/11/05	HE04N1A2

Dilution Factor: 1

NOTE(S):

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

Results and reporting limits have been adjusted for dry weight.

CML 125

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		B05-004-055	Page 1 of 1
Collector Charlene Martinez	Company Contact Charlene Martinez	Telephone No. 539-2816	Project Coordinator KESSNER, JH	Price Code 2E	Data Turnaround
Project Designation 100 BC Remaining Pipelines and Sewers - Soil Quick Turn	Sampling Location 100-B-14 (S) suspect BCL stockpiles		SAF No. B05-004	Air Quality <input type="checkbox"/>	17 days
Ice Chest No. AFS-04-058	Field Logbook No. EL-1585-3	COA R10B142600	Method of Shipment Fed-Ex DAB	HAND DELIVERY Govt Vehicle	
Shipped To Seyern Trent Incorporated, Richland	Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS non-rad area					
Special Handling and/or Storage none					
SAMPLE ANALYSIS					
Sample No.	Matrix *	Sample Date	Sample Time	Preservation	None
J03JW0	SOIL	07/01/05	1130	Type of Container G/P	
				No. of Container(s) 1	
				Volume 125mL	
				See item (1) in Special Instructions.	
CHAIN OF POSSESSION					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	SPECIAL INSTRUCTIONS	
C. martinez	07/01/05	3728 EB	07/01/05	(1) Metals by ICP - 6010 - Quick Turn (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver)	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Matrix *	
3728 REF 2B	0900 7/5/05	DAVID HARBINSON	0900 7/5/05	S-Soil SB-Soil/soil SO-Solid Sl-Sludge W - Water O-Oil A-Air DS-Drum Solids DL-Drum Liquids P-Petroleum W-Wipe L-Liquid V-Vegetation X-Other	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time		
JEFF JENSEN	07/05/05 1500	6-0	7/6/05 0945		
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time		
LABORATORY SECTION	Received By	Title		Date/Time	
FINAL SAMPLE DISPOSITION	DAVID HARBINSON	JEFF JENSEN		7/6/05	13:50
Disposal Method				Date/Time	
Disposed By				Date/Time	



STL

Lot No(s) F5G 06-0301

(Note all associated lot No's)

Condition Upon Receipt Form
St. Louis Laboratory

Client: STL Eckland COC/RFA No: 805-004 Date: 7/6/05
Quote No: 23144 Initiated By: BD Time: 0945

Shipping Information

Shipper Name: Fed Ex Multiple Packages: Y N N/A
Shipper No(s):* 1. 740075692253 Sample Temperature(s):** 1. 2°
2. _____ 2. _____
3. _____ 3. _____
4. _____ 4. _____
5. _____ 5. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines.

**Sample must be received at 4°C ± 2°C-If not, note contents below.
Temperature variance does NOT affect the following analysis/matrix: Metals-Liquid
Rad tests -Liquids or Solids.

Condition/Variance (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in undamaged condition?	7.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received with Chain of Custody?
2.	<input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Sample received with proper pH? (N/A for soil samples).	8.	<input checked="" type="radio"/> Y <input type="radio"/> N	Chain of Custody matches sample IDs on container(s)?
3.	<input checked="" type="radio"/> Y <input type="radio"/> N	If N/A-Was pH taken by original STL Lab?	9.	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Custody seal received intact?
4.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample received in proper containers?	10.	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Custody seal tamper evident?
5.	<input checked="" type="radio"/> Y <input type="radio"/> N	Sample volume sufficient for analysis?	11.	<input checked="" type="radio"/> Y <input type="radio"/> N <input type="radio"/> N/A	Custody seal on bottles intact?
6.	<input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Headspace in VOA or TOX liquid samples? (If yes, note sample ID's below)	12.	<input type="radio"/> Y <input checked="" type="radio"/> N <input type="radio"/> N/A	Custody seal tamper evident?
¹ For DOE-AL (Pantex, LANL, Sandia) sites, verify pH of all containers received, EXCEPT VOA, TOX, and soils.			13.	<input type="radio"/> Y <input type="radio"/> N <input checked="" type="radio"/> N/A	Was Internal COC/CUR rec'd?

Notes:

Corrective Action:

- Client's Name: _____ Informed by: _____ By: _____
- Sample(s) processed "as is". _____
- Sample(s) on hold until: _____ If released, notify: _____

Project Management Review:

[Signature]

Date: 7/6/05

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.