H1428

0056945

LIONVILLE LABORATORY INC.

Analytical Report

Client: TNU-HANFORD B01-103
LVL#: 0107L343
SDG/SAF#: H1428/B01-103

W.O.#: 11343-606-001-9999-00
Date Received: 07-19-01

****Revision****

RECEIVED APR 19 2002 EDMC

METALS CASE NARRATIVE

This report has been revised to include the addition of Arsenic.

1. This narrative covers the analyses of 2 soil and 2 TCLP leachate samples.

2. The samples were prepared and analyzed in accordance with methods checked on the attached glossary.

   All leachate samples were reported with six fold dilutions due to sample matrix.

3. All analyses were performed within the required holding times.

4. The cooler temperature has been recorded on the Chain of Custody.

5. All Initial and Continuing Calibration Verifications (ICV/CCVs) were within the 90-110% control limits.

6. All Initial and Continuing Calibration Blanks (ICB/CCBs) were within control limits (less than the PQL).

7. The preparation/method blanks for 1 analyte in 01L0478-MB1, 2 analytes in 01L0464-MB1, and 1 analyte in 01L0464-MB2 were outside method criteria. {less than the Practical Quantitation Limit (3X the IDL), MB value less than 5% of the RCRA limit, or samples greater than 20X MB value}. Refer to the Inorganics Method Blank Data Summary.

   a.) The MB results for Tin, Beryllium, and Zinc were greater than the Practical Quantitation Limit (PQL) {3 x the (IDL) Instrument Detection Level} and all samples read less than 20 times the MB concentration. However, no corrective action criteria for MBs were provided in SW846 method 6010B. The sample results were reported herein "uncorrected" for the levels found in the MB.

8. All ICP Interference Check Standards were within control limits.

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 20 pages.

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9. All laboratory control samples (LCS) were within the 80-120% control limits. Refer to the Inorganics Laboratory Control Standards Report.

10. The matrix spike (MS) recoveries for 3 analytes were outside the 75-125% control limits. Refer to the Inorganics Accuracy Report.

11. For analytes where the ICP MS is out-of-control, a post-digestion MS (PDS) and serial dilution are performed. A PDS was prepared at meaningful concentration levels for the following analytes:

Sample ID	Element	PDS Concentration (ppb)	PDS % Recovery
B12D77	Aluminum	20,000	94.6
	Iron	20,000	106.1
	Manganese	100	23.1

12. All soil duplicate analyses were within the 20% Relative Percent Difference (RPD) control limits. Refer to the Inorganics Precision Report.

13. The TCLP leachate duplicate analyses for 2 analytes were outside the 20% Relative Percent Difference (RPD) control limits. Refer to the Inorganics Precision Report.

14. The TCLP extract from sample B12D77 was selected for the ICP metals matrix spike (MS) and sample B12D78 for the Mercury matrix spike for this analytical batch. All MS recoveries were greater than 50% as per method criteria.

15. For the purposes of this report, the data has been reported to the Instrument Detection Limit (IDL). Values between the IDL and the Practical Quantitation Limit (PQL) are acquired in a region of less-certain quantification.

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

for Pat G

Iain Daniels
Deputy Laboratory Manager
Jonville Laboratory Incorporated

11-28-01
Date

Lionville Laboratory Sample Discrepancy Report (SDR)

SDR #: PPM093

Initiator: Q Johnson Batch: 01071343 Parameter: arsenic
Date: 11/16/01 Samples: all Matrix: soil
Client: TRW Hanford Method: SW846/MCAWW/CLP/ Prep Batch:
H1428

1. Reason for SDR

a. COC Discrepancy __ Tech Profile Error ✓ Client Request __ Sampler Error on C-O-C
__ Transcription Error __ Wrong Test Code __ Other _____

b. General Discrepancy

__ Missing Sample/Extract* __ Container Broken __ Wrong Sample Pulled __ Label ID's Illegible
__ Hold Time Exceeded __ Insufficient Sample* __ Preservation Wrong __ Received Past Hold
__ Improper Bottle Type __ Not Amenable to Analysis

Note*: Verified by [Log-In] or [Prep Group] (circle)...signature/date: _____

c. Problem (Include all relevant specific results; attach data if necessary)

2. Known or Probable Causes(s)

3. Discussion and Proposed Action

__ Re-log
__ Entire Batch
__ Following Samples: _____
__ Re-leach
__ Re-extract
__ Re-digest
__ Revise EDD
__ Change Test Code to _____
__ Place On/Take Off Hold (circle)

Other Description:

Add Arsenic, TCLP

4. Project Manager Instructions...signature/date: [illegible] 11/16/01

__ Concur with Proposed Action
__ Disagree with Proposed Action; See Instruction
✓ Include in Case Narrative
__ Client Contacted:
Date/Person _____
__ Add
__ Cancel

5. Final Action...signature/date: [illegible] 11/26/01

Other Explanation:

__ Verified re-[log][leach][extract][digest][analysis] (circle)
✓ Included in Case Narrative
✓ Hard Copy COC Revised
✓ Electronic COC Revised
__ EDD Corrections Completed

When Final Action has been recorded, forward original to QA Specialist for distribution and filing.

Route	Distribution of Completed SDR	Route	Distribution of Completed SDR
__	X Initiator	2	__ Metals: Beegle
__	X Lab General Manager: M. Taylor	__	__ Inorganic: Perrone
__	X Project Mgr: Stone/Johnson/Haslett	__	__ GC/LC: Kiger
__	X Technical Mgr: Wesson/Daniels	__	__ MS: Rychlak/Layman
__	X QA (file): Alberts	1	✓ Log-in: ~~Keppel~~ McInnis
__	__ Data Management: Feldman	__	__ Admin: Soos
__	__ Sample Prep: Beegle/Kiger	__	__ Other: _____

QA-105-A-0801

METALS METHOD GLOSSARY

The following methods are used as reference for the digestion and analysis of samples contained within this Lot#: 0107L343

Leaching Procedure: __1310 ✓1311 __1312 __Other:_____

CLP Metals __ Digestion and __ Analysis Methods: __ILM03.0 __ILM04.0

Metals Digestion Methods: __3005A ✓3010A __3015 __3020A ✓3050B __3051 __200.7 __SS17
__Other: _____

Metals Analysis Methods

	SW846		EPA		STD MTD	EPA OSWR	USATHAMA
Aluminum	✓6010B		__200.7				__99
Antimony	✓6010B	__7041 [5]	__200.7	__204.2			__99
Arsenic	✓6010B	__7060A [5]	__200.7	__206.2	__3113B		__99
Barium	✓6010B		__200.7				__99
Beryllium	✓6010B		__200.7				__99
Bismuth	✓6010B [1]		__200.7 [1]			__1620	__99
Boron	__6010B		__200.7				__99
Cadmium	✓6010B	__7131A [5]	__200.7	__213.2			__99
Calcium	✓6010B		__200.7				__99
Chromium	✓6010B	__7191 [5]	__200.7	__218.2			__SS17
Cobalt	__6010B		__200.7				__99
Copper	✓6010B	__7211 [5]	__200.7	__220.2			__99
Iron	✓6010B		__200.7				__99
Lead	✓6010B	__7421 [5]	__200.7	__239.2	__3113B		__99
Lithium	__6010B	__7430 [4]	__200.7			__1620	__99
Magnesium	✓6010B		__200.7				__99
Manganese	✓6010B		__200.7				__99
Mercury	✓7470A [3]	__7471A [3]	__245.1 [2]	__245.5 [2]			__99
Molybdenum	✓6010B		__200.7				__99
Nickel	✓6010B		__200.7				__99
Potassium	✓6010B	__7610 [4]	__200.7	__258.1 [4]			__99
Rare Earths	__6010B [1]		__200.7 [1]			__1620	__99
Selenium	✓6010B	__7740 [5]	__200.7	__270.2	__3113B		__99
Silicon	__6010B [1]		__200.7			__1620	__99
Silica	__6010B		__200.7			__1620	__99
Silver	✓6010B	__7761 [5]	__200.7	__272.2			__99
Sodium	✓6010B	__7770 [4]	__200.7	__273.1 [4]			__99
Strontium	__6010B		__200.7				__99
Thallium	✓6010B	__7841 [5]	__200.7	__279.2 __200.9			__99
Tin	✓6010B		__200.7				__99
Titanium	__6010B		__200.7				__99
Uranium	__6010B [1]		__200.7 [1]			__1620	__99
Vanadium	✓6010B		__200.7				__99
Zinc	✓6010B		__200.7				__99
Zirconium	__6010B [1]		__200.7 [1]			__1620	__99

Other:_____ Method:_____

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

B = Indicates that the parameter was between the Instrument Detection Limit (IDL) and the Contract Required Detection Limit (CRDL)

Q QUALIFIERS

E = The reported value is estimated because of the presence of interference.

M = Duplicate injection precision not met.

N = Spiked sample recovery not within control limits.

S = The reported value was determined by the Method of Standard Additions (MSA).

W = Post Digestion spike for Furnace AA analysis is out of control limits (85 -115 %), while sample absorbance is less than 50% of spike absorbance.

* = Duplicate analysis not within control limits.

+ = Correlation coefficient for the MSA is less than 0.995.

ABBREVIATIONS

PB = Method or Preparation Blank.
S = Matrix Spike.
T = Matrix Spike Duplicate.
R or D = Sample Replicate

ANALYTICAL METAL METHODS

1. Not included in the method element list.
2. Modified Hg: Hg1 and Hg2 require less total volume of digestate due to the autosampler analysis. Sample volumes and reagents for mercury determinations in water and soil have been proportionately scaled down to adapt to this semi-automated technique. The sample volume used for water analysis is 33 mL. For soils, 0.1 grams of sample is taken to a final volume of 50 mL (including all reagents).
3. Modified Hg: Hg1 and Hg2 require less total volume of digestate due to the autosampler analysis. Sample volumes and reagents for mercury determinations in water and soil have been proportionately scaled down to adapt to this semi-automated technique. The sample volume used for water analysis is 33 mL. For soils, three 0.1 gram of sample is taken to a final volume of 50 mL (including all reagents).
4. Flame AA.
5. Graphite Furnace AA.

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 11/28/01

CLIENT: TNUHANFORD B01-103 H1428 LVL LOT #: 0107L343

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	B12D77	Aluminum, Total	7170	MG/KG	1.3	1.0
		Bismuth, Total	0.34 u	MG/KG	0.34	1.0
		Calcium, Total	6980	MG/KG	0.81	1.0
		Copper, Total	15.1	MG/KG	0.07	1.0
		Iron, Total	24500	MG/KG	1.6	1.0
		Potassium, Total	1070	MG/KG	3.5	1.0
		Magnesium, Total	3800	MG/KG	0.88	1.0
		Manganese, Total	352	MG/KG	0.01	1.0
		Molybdenum, Total	0.75	MG/KG	0.10	1.0
		Sodium, Total	446	MG/KG	0.17	1.0
		Tin, Total	1.5	MG/KG	0.36	1.0
-002	B12D78	Aluminum, Total	3600	MG/KG	1.3	1.0
		Bismuth, Total	0.34 u	MG/KG	0.34	1.0
		Calcium, Total	3210	MG/KG	0.81	2.0
		Copper, Total	15.1	MG/KG	0.07	1.0
		Iron, Total	12500	MG/KG	1.6	1.0
		Potassium, Total	641	MG/KG	3.5	1.0
		Magnesium, Total	2370	MG/KG	0.88	1.0
		Manganese, Total	155	MG/KG	0.01	1.0
		Molybdenum, Total	1.7	MG/KG	0.10	1.0
		Sodium, Total	269	MG/KG	0.17	1.0
		Tin, Total	2.5	MG/KG	0.35	1.0

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INORGANICS DATA SUMMARY REPORT 11/28/01

CLIENT: TNUHANFORD B01-103 H1428 LVL LOT #: 0107L343

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT		UNITS	REPORTING LIMIT	DILUTION FACTOR
-003	B12D77	Silver, TCLP Leachate	6.0	u	UG/L	6.0	6.0
		Arsenic, TCLP Leachate	13.8	u	UG/L	13.8	6.0
		Barium, TCLP Leachate	321		UG/L	1.2	6.0
		Beryllium,TCLP Leachate	4.9		UG/L	1.2	6.0
		Cadmium, TCLP Leachate	1.8	u	UG/L	1.8	6.0
		Chromium, TCLP Leachate	8.1		UG/L	5.4	6.0
		Mercury, TCLP Leachate	0.39		UG/L	0.10	1.0
		Nickel, TCLP Leachate	7.2	u	UG/L	7.2	6.0
		Lead, TCLP Leachate	15.6	u	UG/L	15.6	6.0
		Antimony, TCLP Leachate	11.4	u	UG/L	11.4	6.0
		Selenium, TCLP Leachate	15.6	u	UG/L	15.6	6.0
		Vanadium, TCLP Leachate	4.2	u	UG/L	4.2	6.0
		Zinc, TCLP Leachate	19.5		UG/L	1.8	6.0
-004	B12D78	Silver, TCLP Leachate	6.0	u	UG/L	6.0	6.0
		Arsenic, TCLP Leachate	13.8	u	UG/L	13.8	6.0
		Barium, TCLP Leachate	212		UG/L	1.2	6.0
		Beryllium,TCLP Leachate	5.1		UG/L	1.2	6.0
		Cadmium, TCLP Leachate	1.8	u	UG/L	1.8	6.0
		Chromium, TCLP Leachate	10.2		UG/L	5.4	6.0
		Mercury, TCLP Leachate	0.10	u	UG/L	0.10	1.0
		Nickel, TCLP Leachate	12.3		UG/L	7.2	6.0
		Lead, TCLP Leachate	15.6	u	UG/L	15.6	6.0
		Antimony, TCLP Leachate	11.4	u	UG/L	11.4	6.0
		Selenium, TCLP Leachate	18.5		UG/L	15.6	6.0
		Vanadium, TCLP Leachate	4.2	u	UG/L	4.2	6.0
		Zinc, TCLP Leachate	34.2		UG/L	1.8	6.0

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INORGANICS METHOD BLANK DATA SUMMARY PAGE 11/28/01

CLIENT: TNUHANFORD B01-103 H1428 LVL LOT #: 0107L343

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK1	01L0478-MB1	Aluminum, Total	1.3 u	MG/KG	1.3	1.0
		Bismuth, Total	0.34 u	MG/KG	0.34	1.0
		Calcium, Total	2.0	MG/KG	0.81	1.0
		Copper, Total	0.14	MG/KG	0.07	1.0
		Iron, Total	1.6 u	MG/KG	1.6	1.0
		Potassium, Total	3.5 u	MG/KG	3.5	1.0
		Magnesium, Total	0.88 u	MG/KG	0.88	1.0
		Manganese, Total	0.02	MG/KG	0.01	1.0
		Molybdenum, Total	0.10 u	MG/KG	0.10	1.0
		Sodium, Total	5.4	MG/KG	0.17	1.0
		Tin, Total	1.5	MG/KG	0.35	1.0
BLANK1	01L0464-MB1	Silver, TCLP Leachate	1.0 u	UG/L	1.0	1.0
		Arsenic, TCLP Leachate	2.3 u	UG/L	2.3	1.0
		Barium, TCLP Leachate	0.20 u	UG/L	0.20	1.0
		Beryllium,TCLP Leachate	0.79	UG/L	0.20	1.0
		Cadmium, TCLP Leachate	0.30 u	UG/L	0.30	1.0
		Chromium, TCLP Leachate	0.90 u	UG/L	0.90	1.0
		Nickel, TCLP Leachate	1.2 u	UG/L	1.2	1.0
		Lead, TCLP Leachate	2.6 u	UG/L	2.6	1.0
		Antimony, TCLP Leachate	2.0	UG/L	1.9	1.0
		Selenium, TCLP Leachate	2.6 u	UG/L	2.6	1.0
		Vanadium, TCLP Leachate	0.70 u	UG/L	0.70	1.0
		Zinc, TCLP Leachate	1.9	UG/L	0.30	1.0
BLANK2	01L0464-MB2	Silver, TCLP Leachate	6.0 u	UG/L	6.0	6.0
		Arsenic, TCLP Leachate	13.8 u	UG/L	13.8	6.0
		Barium, TCLP Leachate	1.2 u	UG/L	1.2	6.0
		Beryllium,TCLP Leachate	4.6	UG/L	1.2	6.0
		Cadmium, TCLP Leachate	1.8 u	UG/L	1.8	6.0
		Chromium, TCLP Leachate	5.4 u	UG/L	5.4	6.0
		Nickel, TCLP Leachate	7.2 u	UG/L	7.2	6.0
		Lead, TCLP Leachate	15.6 u	UG/L	15.6	6.0
		Antimony, TCLP Leachate	11.4 u	UG/L	11.4	6.0
		Selenium, TCLP Leachate	15.6 u	UG/L	15.6	6.0
		Vanadium, TCLP Leachate	4.2 u	UG/L	4.2	6.0
		Zinc, TCLP Leachate	4.8	UG/L	1.8	6.0
BLANK1	01C0234-MB1	Mercury, Total	0.10 u	UG/L	0.10	1.0
BLANK2	01C0234-MB2	Mercury, TCLP Leachate	0.15	UG/L	0.10	1.0

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Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 11/28/01

CLIENT: TMUHANFORD B01-103 H1428

LVL LOT #: 0107L343

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-001	B12D77	Aluminum, Total	8550	7170	200	689.0*	1.0
		Bismuth, Total	4640	0.34u	5000	92.7	1.0
		Calcium, Total	10000	6980	2500	120.8	1.0
		Copper, Total	36.1	15.1	25.0	84.0	1.0
		Iron, Total	27100	24500	100	2572 *	1.0
		Potassium, Total	3830	1070	2500	110.5	1.0
		Magnesium, Total	6870	3800	2500	122.7	1.0
		Manganese, Total	464	352	50.0	222.8*	1.0
		Molybdenum, Total	93.7	0.75	100	92.9	1.0
		Sodium, Total	2930	446	2500	99.4	1.0
		Tin, Total	92.3	1.5	100	90.7	1.0
-003	B12D77	Silver, TCLP Leachate	4450	6.0 u	5000	89.0	6.0
		Arsenic, TCLP Leachate	5340	13.8 u	5000	106.8	6.0
		Barium, TCLP Leachate	96300	221	100000	96.0	6.0
		Beryllium, TCLP Leacha	1060	4.9	1000	105.1	6.0
		Cadmium, TCLP Leachate	1060	1.8 u	1000	106.2	6.0
		Chromium, TCLP Leachat	5190	8.1	5000	103.7	6.0
		Nickel, TCLP Leachate	1100	7.2 u	1000	109.8	6.0
		Lead, TCLP Leachate	5300	16.6 u	5000	106.0	6.0
		Antimony, TCLP Leachat	1070	11.4 u	1000	107.0	6.0
		Selenium, TCLP Leachat	1050	15.6 u	1000	104.8	6.0
		Vanadium, TCLP Leachat	1020	4.2 u	1000	101.8	6.0
		Zinc, TCLP Leachate	1110	19.5	1000	108.8	6.0

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INORGANICS ACCURACY REPORT 11/28/01

CLIENT: TNUHANFORD B01-103 H1428 LVL LOT #: 0107L343

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-004	B12D78	Mercury, TCLP Leachate	193	0.10u	200	96.3	50.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 11/28/01

CLIENT: TNUHANFORD B01-103 N1428 LVL LOT #: 0107L343

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-001REP	B12D77	Aluminum, Total	7170	7440	3.7	1.0
		Bismuth, Total	0.34u	0.34u	NC	1.0
		Calcium, Total	6980	6750	3.4	1.0
		Copper, Total	15.1	12.5	18.8	1.0
		Iron, Total	24500	26400	7.4	1.0
		Potassium, Total	1070	1130	5.7	1.0
		Magnesium, Total	3800	3820	0.49	1.0
		Manganese, Total	352	339	3.9	1.0
		Molybdenum, Total	0.75	0.70	8.1	1.0
		Sodium, Total	446	443	0.65	1.0
		Tin, Total	1.5	1.8	18.2	1.0
-003REP	B12D77	Silver, TCLP Leachate	6.0 u	6.0 u	NC	6.0
		Arsenic, TCLP Leachate	13.8 u	13.8 u	NC	6.0
		Barium, TCLP Leachate	321	314	2.4	6.0
		Beryllium TCLP Leachate	4.9	4.7	4.2	6.0
		Cadmium, TCLP Leachate	1.8 u	1.8 u	NC	6.0
		Chromium, TCLP Leachate	8.1	5.4 u	20 NC	6.0
		Nickel, Leachate	7.2 u	9.0	20 NC	6.0
		Lead, TCLP Leachate	15.6 u	15.6 u	NC	6.0
		Antimony, Leachate	11.4 u	11.4 u	NC	6.0
		Selenium, TCLP Leachate	15.6 u	15.6 u	NC	6.0
		Vanadium, TCLP Leachate	4.2 u	4.2 u	NC	6.0
		Zinc, Leachate	19.5	17.1	13.1	6.0

11/28/01

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 11/26/01

CLIENT: TMUHANFORD B01-103 H1428 LVL LOT #: 0107L343

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-004REP	B12D78	Mercury, TCLP Leachate	0.10u	0.10u	NC	1.0

Lionville Laboratory, Inc.

INORGANICS LABORATORY CONTROL STANDARDS REPORT 11/28/01

CLIENT: TNUHANFORD B01-103 H1428 LVL LOT #: 0107L343

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	SPIKED AMOUNT	UNITS	%RECOV
LCS1	01L0478-LC1	Aluminum, LCS	497	500	MG/KG	99.4
		Bismuth, LCS	4860	5000	MG/KG	97.2
		Calcium, LCS	2470	2500	MG/KG	98.6
		Copper, LCS	123	125	MG/KG	98.7
		Iron, LCS	500	500	MG/KG	100
		Potassium, LCS	2490	2500	MG/KG	99.6
		Magnesium, LCS	2510	2500	MG/KG	100.2
		Manganese, LCS	76.9	75.0	MG/KG	102.5
		Molybdenum, LCS	504	500	MG/KG	100.8
		Sodium, LCS	2410	2500	MG/KG	96.6
		Tin, LCS	489	500	MG/KG	97.9
LCS1	01L0464-LC1	Silver, LCS	486	500	UG/L	97.3
		Arsenic, LCS	10200	10000	UG/L	101.9
		Barium, LCS	4850	5000	UG/L	97.1
		Beryllium, LCS	261	250	UG/L	104.5
		Cadmium, LCS	262	250	UG/L	104.8
		Chromium, LCS	518	500	UG/L	103.6
		Nickel, LCS	2120	2000	UG/L	106.1
		Lead, LCS	2600	2500	UG/L	103.9
		Antimony, LCS	3110	3000	UG/L	103.7
		Selenium, LCS	9860	10000	UG/L	98.6
		Vanadium, LCS	2540	2500	UG/L	101.6
		Zinc, LCS	1040	1000	UG/L	103.7
LCS1	01C0234-LC1	Mercury, LCS	5.0	5.0	UG/L	99.2

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0107L343

Custody Transfer Record/Lab Work Request

Page 1 of 1

DLG

ALL

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

(8) From Lynn Pipe

LVLI

Client TNU - HANFORD SAF B01-103

Est. Final Proj. Sampling Date

Project # 11343-6060-001-9999-00

Project Contact/Phone #

Lionville Laboratory Project Manager OJ

QC Spec Del Std TAT 30 day

Date Rec'd 7-19-01 Date Due 8-18-01

		A	B	C		D			E		F	G	H		
Refrigerator #		1	S	S		S			S		S	S	S		leachates
#/Type Container	Liquid														
	Solid	1AG	1AG	1AG		1AG			1AG		1AG	1AG	1AG		
Volume	Liquid														
	Solid	120	500	250		120			500		500	500	60		
Preservatives		—	—	—		—			—		—	—	—		
ANALYSES REQUESTED →		ORGANIC				ALL Glycerol			INORG		Icl met	Ic Anions	Hex Chrom		
		VOA	BNA	Pest/PCB	Herb				Metal	CN					

Lionville Laboratory Use Only

MATRIX CODES: S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	0C024H	0C02SX	OPCB	OGRO ODRO OGCSC		Met(1)		ITCLP	Inorg(1)	ICR6		Met(2)	
001	B12D77			S	7/17/01	1140	1	1	1		1			1	1	1			
002	⊥ 78			⊥	⊥	1215	1	1	1		1			1	1	1			
003	B12D77 tclp of 001			L	*	-												✓	
004	⊥ 8 ⊥ 002			⊥	⊥	⊥												✓	

Special Instructions: Saf B01-103

Run Matrix QC

DATE / REVISION:

11-26-01 Add As analysis to tclp (Met 2)

DATE/REVISIONS:

Inorg(1) 1. ICN03, ICN02, INH3N, ICN70, IPH, ISFD

Met(1) 2. Al, Ca, Cu, Fe, Mg, Mn, K, Na, Bi, Mo, Sn

* 3. See lab chron

Met(2) 4. Ba, Cd, Cr, Pb, Se, Ag, Sb, Be, Ni, V

⊥ 5. Zn, Hg, + As

72601 6. OGCSC Cancelled / ODRO OGRO Added

Relinquished by	Received by	Date	Time
[signature]	[signature]	7/19/01	0930

Relinquished by	Received by	Date	Time

COMPOSITE WASTE

ORIGINAL REWRITTEN

Discrepancies Between Samples Labels and COC Record? Y or (N)

NOTES: 4235 7954 5844

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Samples were: 1) Shipped ✓ or Hand Delivered ___ Airbill # [signature]

2) Ambient or Chilled

3) Received in Good Condition (Y) or N

4) Samples Properly Preserved (Y) or N

5) Received Within Holding Times (Y) or N

Tamper Resistant Seal was: 1) Present on Outer Package (Y) or N

2) Unbroken on Outer Package (Y) or N

3) Present on Sample (Y) or N

4) Unbroken on Sample (Y) or N

COC Record Present Upon Sample Rec'd (Y) or N

Cooler Temp. 3° °C