



H1648

0056894

31 January 2002

Joan Kessner
Bechtel-Hanford, Inc.
3190 Washington Way
MSIN H9-03
Richland, WA 99352

RECEIVED
APR 16 2002
EDMC



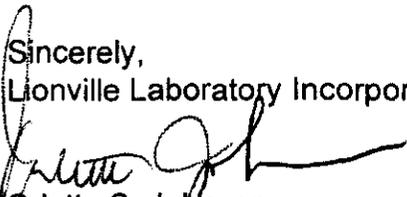
**Subject: Contract No. 630
Analytical Data Package**

Dear Ms. Kessner:

Enclosed are the hard copy analytical reports for the batch number/fraction indicated (marked X) in the following table:

LvLI Batch #	0201L727
SDG #	H1648
SAF #	B01-114
Date Received	1-8-02
# Samples	1
Matrix	Water
Volatiles	X
Semivolatiles	
Pest/PCB	
DRO/GRO	
GC Scan	
Metals	
Inorganics	

The electronic data deliverable (EDD) will be emailed shortly. If you have any questions, please don't hesitate to contact me at (610) 280-3012.

Sincerely,
Lionville Laboratory Incorporated

Orlette S. Johnson
Project Manager

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Lionville Laboratory, Inc.
VOA ANALYTICAL DATA PACKAGE FOR
TNU-HANFORD B01-114

RFW LOT # :0201L727

CLIENT ID	RFW #	MTX	PREP #	COLLECTN	DATE REC	EXT/PREP	ANALYSIS
B13F32	001	W	02LVG005	01/02/02	01/04/02	N/A	01/10/02
B13F32	001 MS	W	02LVG005	01/02/02	01/04/02	N/A	01/10/02
B13F32	001 MSD	W	02LVG005	01/02/02	01/04/02	N/A	01/10/02

LAB QC:

VBLKHI	MB1	W	02LVG005	N/A	N/A	N/A	01/10/02
VBLKHI	MB1 BS	W	02LVG005	N/A	N/A	N/A	01/10/02



Client: TNU-HANFORD B01-114
LVL #: 0201L727
SDG/SAF #: H1648/B01-114

W.O. #: 11343-606-001-9999-00
Date Received: 01-04-2002

GC/MS VOLATILE

One (1) water sample was collected on 01-02-2002.

The sample and its associated QC samples were analyzed according to criteria set forth in Lionville Laboratory OPs based on SW 846 Method 8260A for TCL Volatile target compounds on 01-10-2002.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. The cooler temperature (1° C) upon receipt has been recorded on the chain-of-custody.
2. All results presented in this report are derived from samples that met LVL's sample acceptance policy.
3. The analysis holding time was met.
4. Non-target compounds were not detected in the sample.
5. All surrogate recoveries were within EPA QC limits.
6. All matrix spike recoveries were within EPA QC limits.
7. All blank spike recoveries were within EPA QC limits.
8. The method blank contained the common laboratory contaminant Methylene Chloride at a level less than the CRQL.
9. Internal standard area and retention time criteria were met.
10. "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."


J. Michael Taylor
President
Lionville Laboratory Incorporated

01-29-02
Date

som\group\data\voa\tnu-hanford\0201-728.doc

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 9 pages.

GLOSSARY OF VOA DATA

ABBREVIATIONS

- BS** = Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike solutions and carried through all the steps in the method. Spike recoveries are reported.
- BSD** = Indicates blank spike duplicate.
- MS** = Indicates matrix spike.
- MSD** = Indicates matrix spike duplicate.
- DL** = Suffix added to sample number to indicate that results are from a diluted analysis.
- NA** = Not Applicable.
- DF** = Dilution Factor.
- NR** = Not Required.
- SP, Z** = Indicates Spiked Compound.

GLOSSARY OF VOA DATA

DATA QUALIFIERS

- U** = Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.
- J** = Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; or 2) when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. For example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
- B** = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.
- E** = Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
- D** = Identifies all compounds identified in an analysis at a secondary dilution factor.
- I** = Interference.
- NQ** = Result qualitatively confirmed but not able to quantify.
- N** = Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- X** = This flag is used for a TIC compound which is quantified relative to a response factor generated from a daily calibration standard (rather than quantified relative to the closest internal standard).
- Y** = Additional qualifiers used as required are explained in the case narrative.

TECHNICAL FLAGS FOR MANUAL INTEGRATION

Manual quan modifications or integrations are performed routinely to improve the data quality for a variety of technical reasons. Documentation of these modifications should be clear and concise. The following "flags" are used to indicate the technical reasons for quan modifications:

- MP - Missed Peak: manually added peak not found by automatic quan program.
- PA - Peak Assignment: quan report was changed to reflect correct peak assignment.
- RI - Routine Integration: routine integrations are performed for some analytes that are consistently integrated improperly by the automatic integration programs. Examples are the dichlorobenzene isomers on the VOA packed column and benzo(b)fluoranthene/benzo(k)fluoranthene which are poorly resolved on the BNA column.
- SP - Split Peak: the automatic integration improperly split the peak; a manual integration was performed to get the correct area.
- CB - Coelution/Background: peak was manually integrated to eliminate contribution from coeluting compounds, background signal, or other interference.
- PI - Proper Integration: a peak with poor or inconsistent integration (e.g., excessive tail) was properly integrated manually.

Lionville Laboratory, Inc.
 Volatiles By GC/MS, Special List

Report Date: 01/17/02 15:53

RFW Batch Number: 0201L727

Client: TNUHANFORD B01-114 H1648 Work Order: 11343606001 Page: 1a

Sample Information	Cust ID:	B13F32	B13F32	B13F32	VBLKHI	VBLKHI BS
	RFW#:	001	001 MS	001 MSD	02LVG005-MB1	02LVG005-MB1
	Matrix:	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L
Surrogate	Toluene-d8	104 %	102 %	104 %	102 %	99 %
Recovery	Bromofluorobenzene	109 %	110 %	108 %	106 %	108 %
	1,2-Dichloroethane-d4	99 %	104 %	104 %	100 %	101 %
-----f1-----f1-----f1-----f1-----f1-----f1-----f1						
Chloromethane		10 U	10 U	10 U	10 U	10 U
Bromomethane		10 U	10 U	10 U	10 U	10 U
Vinyl Chloride		10 U	10 U	10 U	10 U	10 U
Chloroethane		10 U	10 U	10 U	10 U	10 U
Methylene Chloride		5 U	5 U	6 B	1 J	5 U
Acetone		10 U	10 U	10 U	10 U	10 U
Carbon Disulfide		5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene		5 U	71 %	77 %	5 U	70 %
1,1-Dichloroethane		5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)		5 U	5 U	5 U	5 U	5 U
Chloroform		5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane		5 U	5 U	5 U	5 U	5 U
2-Butanone		10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride		5 U	5 U	5 U	5 U	5 U
Bromodichloromethane		5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane		5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U
Trichloroethene		5 U	92 %	94 %	5 U	94 %
Dibromochloromethane		5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane		5 U	5 U	5 U	5 U	5 U
Benzene		5 U	94 %	95 %	5 U	93 %
Trans-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U
Bromoform		5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone		10 U	10 U	10 U	10 U	10 U
2-Hexanone		10 U	10 U	10 U	10 U	10 U
Tetrachloroethene		5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane		5 U	5 U	5 U	5 U	5 U
Toluene		5 U	110 %	111 %	5 U	101 %

*= Outside of EPA CLP QC limits.

Cust ID: B13F32 B13F32 B13F32 VBLKHI VBLKHI BS

RFW#: 001 001 MS 001 MSD 02LVG005-MB1 02LVG005-MB1

	001	001 MS	001 MSD	02LVG005-MB1	02LVG005-MB1
Chlorobenzene	5 U	107 %	106 %	5 U	99 %
Ethylbenzene	5 U	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 U
Xylene (total)	5 U	5 U	5 U	5 U	5 U
N-butylbenzene	5 U	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.



0201L727

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

AC

Client <u>TNU-Hanford SAF 801-114</u>	Refrigerator # <u>1</u>
Est. Final Proj. Sampling Date _____	#/Type Container
Project # <u>11343-606-001-9999-00</u>	Liquid <u>30g</u>
Project Contact/Phone # _____	Solid _____
Lionville Laboratory Project Manager <u>OS</u>	Volume
QC <u>SPEC</u> Del <u>STD</u> TAT <u>30 days</u>	Liquid <u>40</u>
	Solid _____
	Preservatives <u>HCL</u>

Date Rec'd <u>1-4-02</u>	Date Due <u>2-7-02</u>	ANALYSES REQUESTED →	ORGANIC	INORG
			VOA BNA Pes/PCB Herb	Metal CN

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 (✓)		Matrix	Date Collected	Time Collected	Lionville Laboratory Use Only											
			MS	MSD				0624 X											
	<u>001</u>	<u>B13F32</u>	<u>✓</u>	<u>✓</u>	<u>W</u>	<u>1-2-02</u>	<u>X</u>												

Special Instructions: <u>SAF # 801-114</u>	DATE/REVISIONS:	Lionville Laboratory Use Only
	1. _____	Samples were: 1) Shipped <u>✓</u> or Hand Delivered _____ Airbill # <u>SEE below</u>
	2. _____	2) Ambient or <u>Chilled</u>
	3. _____	3) Received in Good Condition <u>✓</u> or N
	4. _____	4) Samples Properly Preserved <u>✓</u> or N
	5. _____	5) Received Within Holding Times <u>✓</u> or N
	6. _____	Tamper Resistant Seal was: 1) Present on Outer Package <u>✓</u> or N 2) Unbroken on Outer Package <u>✓</u> or N 3) Present on Sample <u>✓</u> or N 4) Unbroken on Sample <u>✓</u> or N COC Record Present Upon Sample Rec't <u>✓</u> or N Cooler <u>10</u> °C

Relinquished by	Received by	Date	Time
<u>FEBER</u>	<u>Cals Hanford</u>	<u>1-4-02</u>	<u>0945</u>

Relinquished by	Received by	Date	Time
COMPOSITE WASTE	ORIGINAL		
	REWRITTEN		

Discrepancies Between Samples Labels and COC Record? Y or N

NOTES:
4235 7955 0020

9

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			B01-114-36	Page 1 of 1
Collector Renee Nielson	Company Contact Virginia Rohay	Telephone No. 372-9100	Project Coordinator TRENT, SJ		Price Code 7N	Data Turnaround
Project Designation FFP Well Installation Sampling and Analysis - Water		Sampling Location 200 West	SAF No. B01-114		Air Quality <input type="checkbox"/>	45 Days
Ice Chest No. ERC-01-029	Field Logbook No. EL-1562	COA T20ZP1D722	Method of Shipment Federal Express			
Shipped To TMA/RECRA		Offsite Property No. A020087	Bill of Lading/Air Bill No. 42357955 - 0020			

POSSIBLE SAMPLE HAZARDS/REMARKS Samples did not originate in radiological controlled area. No total activity associated with sample/samples. RT 1-3-02 Special Handling and/or Storage	Preservation	HCl to pH <2 Cool 4C											
	Type of Container	αGs*											
	No. of Container(s)	3											
	Volume	40mL											

SAMPLE ANALYSIS		VQA - S260A (TCL); VOA - S260A (Add-On) (n-Butylbenzene)											
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Sample No.	Matrix *	Sample Date	Sample Time										
B13F32	WATER	1-2-02	1700	X									

CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By Renee Nielson	Date/Time 0430	Received By Stored in Ref # 2B	Date/Time 0430	Tie to B13DY5 SAMPLES STORED IN REF.# 2B AT THE 3728 SHIPPING FACILITY ON 1-3-02. COLLECTOR NOT AVAILABLE TO RELINQUISH SAMPLES ON 1-3-02 FOR SHIPMENT. RT 1-3-02				S=Soil SS=Soilmax SO=Solid S=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Times Wp=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By Removed from	Date/Time 1000	Received By R. T. Thorens	Date/Time 1000						
Relinquished By R. T. Thorens	Date/Time 1000	Received By FED EX	Date/Time						
Relinquished By FED EX	Date/Time 1-4-02 0945	Received By Caleb Henry	Date/Time 1-4-02 0945						
Relinquished By	Date/Time	Received By	Date/Time						

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time