



H1662

0056895

31 January 2001 *2/20*

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

**RECEIVED**  
APR 16 2002

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

**EDMC**

Dear Ms. Kessner:

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

LvLI Batch #	0201L749
SDG #	H1662
SAF #	B01-114
Date Received	1-9-02
# 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*  
Orlette S. Johnson  
Project Manager



r:\group\pm\orlette\tnu-hanford\data\bc\_itr.doc

Lionville Laboratory, Inc.  
 VOA ANALYTICAL DATA PACKAGE FOR  
 TNUHANFORD B01-114 H1662

DATE RECEIVED: 01/09/02

LVL LOT # :0201L749

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B13F34	001	W	02LVG005	01/07/02	N/A	01/10/02
B13F34	001 MS	W	02LVG005	01/07/02	N/A	01/10/02
B13F34	001 MSD	W	02LVG005	01/07/02	N/A	01/10/02

LAB QC:

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



Client: TNU-HANFORD B01-114

LVL #: 0201L749

SDG/SAF #: H1662/B01-114

W.O. #: 11343-606-001-9999-00

Date Received: 01-09-2002

### GC/MS VOLATILE

One (1) water sample was collected on 01-07-2002.

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 I's sample acceptance policy.
3. The analysis holding time was met.
4. A non-target compound was 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

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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 1 1 pages.

01-29-02  
Date

## 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.



Cust ID: B13F34 B13F34 B13F34 VBLKHI VBLKHI BS

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

Chlorobenzene	5	U	107	%	107	%	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.

1E  
VOLATILE ORGANICS ANALYSIS SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B13F34

Lab Name: Lionville Labs, Inc. Work Order: 11343606001

Client: TNUHANFORD B01-114 H1662

Matrix: WATER

Lab Sample ID: 0201L749-001

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: g011021

Level: (low/med) LOW

Date Received: 01/09/02

% Moisture: not dec.       

Date Analyzed: 01/10/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 1

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 79209	ACETIC ACID, METHYL ESTER	7.937	10	J

1E  
VOLATILE ORGANICS ANALYSIS SHEET  
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKHI

Lab Name: Lionville Labs, Inc. Work Order: 11343606001

Client: TNUHANFORD B01-114 H1662

Matrix: WATER

Lab Sample ID: 02LVG005-MB1

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: g011013

Level: (low/med) LOW

Date Received: 01/10/02

% Moisture: not dec. \_\_\_\_\_

Date Analyzed: 01/10/02

Column: (pack/cap) CAP

Dilution Factor: 1.00

Number TICs found: 0

CONCENTRATION UNITS:  
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				



Collector Renee Nielson	Company Contact Virginia Rohay	Telephone No. 372-9100	Project Coordinator TRENT, SJ	Price Code 7N	Data Turnaround 45 Days
Project Designation PFP Well Installation Sampling and Analysis - Water	Sampling Location 200 West	SAF No. B01-114	Air Quality <input type="checkbox"/>		

Ice Chest No. Sml-437	Field Logbook No. EL-1562	COA T20ZP1D722	Method of Shipment Federal Express		
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Shipped To TMA/RECRA	Offsite Property No. A020099	Bill of Lading/Air Bill No. 42357955-0096
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POSSIBLE SAMPLE HAZARDS/REMARKS  Samples did not originate in radiological controlled area. No total activity associated with sample/samples. RT-18-02  Special Handling and/or Storage	Preservation	HCl to pH < 2 Cool 4C																			
	Type of Container	4Gr*																			
	No. of Container(s)	3																			
	Volume	40mL																			

SAMPLE ANALYSIS		VQA - 8260A (TCL); VQA - 8260A (Add-On) (n-Butylbenzene)																			
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Sample No.	Matrix *	Sample Date	Sample Time																			
B13F34	WATER	1-7-02	1635	X																		

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By R. Nielson	Date/Time 0400 1/8/02	Received By Stored in Ref # 2B	Date/Time 1/8/02 0400
Relinquished By R. Nielson	Date/Time 0900 1-8-02	Received By R. Thoren	Date/Time 0900 1-8-02
Relinquished By R. Thoren	Date/Time 0400 1-8-02	Received By FED EX	Date/Time
Relinquished By Fed Ex	Date/Time 19:02/10:00	Received By D. [Signature]	Date/Time 19:02/10:00
Relinquished By	Date/Time	Received By	Date/Time

**SPECIAL INSTRUCTIONS**

SAMPLES STORED IN REF.# 2B AT THE 3728 SHIPPING FACILITY ON 1/8/02 COLLECTOR NOT AVAILABLE TO RELINQUISH SAMPLES ON 1/8/02 FOR SHIPMENT. RT-18-02

**Matrix \***

- S=Soil
- SS=Sludges
- SO=Solid
- S=Sludge
- W=Water
- O=Oil
- A=Air
- DP=Drum Solids
- DL=Drum Liquid
- T=Timex
- W=Wipe
- L=Liquid
- V=Vegetation
- X=Other

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

0201L749