

H1435

0055933



Lionville Laboratory, Inc.
VOA ANALYTICAL DATA PACKAGE FOR
TNUHANFORD B01-059 H1435

DATE RECEIVED: 07/14/01

LVL LOT # :0107L311

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B12BX2	001	W	01LVN149	07/13/01	N/A	07/23/01
B12BX2	001 MS	W	01LVN149	07/13/01	N/A	07/23/01
B12BX2	001 MSD	W	01LVN149	07/13/01	N/A	07/23/01

LAB QC:

VBLKID	MB1	W	01LVN149	N/A	N/A	07/23/01
VBLKID	MB1 BS	W	01LVN149	N/A	N/A	07/23/01

08-02-01

RECEIVED
NOV 15 2001
EDMC





Analytical Report

Client: TNU-HANFORD B01-059
RFW #: 0107L311
SDG/SAF #: H1435/B01-059

W.O. #: 11343-606-001-9999-00
Date Received: 07-14-01

GC/MS VOLATILE

One (1) water sample was collected on 07-13-01.

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 07-23-01.

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 upon receipt has been recorded on the chain-of-custody.
2. The sample and its matrix QC were analyzed outside required holding time. The sample was not HCL preserved. The sample was analyzed within 10 days of sample collection. A copy of the Sample Discrepancy Report (SDR) has been enclosed.
3. Non-target compounds were not detected in the sample.
4. All surrogate recoveries were within EPA QC limits.
5. All matrix spike recoveries were within EPA QC limits.
6. All blank spike recoveries were within EPA QC limits.
7. The method blank contained the common laboratory contaminant Methylene Chloride at a level less than 2x the CRQL.
8. Internal standard area and retention time criteria were met.
9. 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
pef\group\data\voa\tnu-hanford\0107-311.doc

08-09-01
Date

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 11 pages.

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.

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.

TECHNICAL FLAGS FOR MANUAL INTEGRATION

Manual quantitation 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 quantitation modifications:

- MP** - **Missed Peak:** manually added peak not found by automatic quantitation program.
- PA** - **Peak Assignment:** quantitation 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, HSL List

Report Date: 08/01/01 20:58

RFW Batch Number: 0107L311

Client: TNUHANFORD B01-059 H1435 Work Order: 11343606001 Page: 1a

07

	Cust ID:	B12BX2	B12BX2	B12BX2	VELKID	VELKID BS
Sample Information	RFW#:	001	001 MS	001 MSD	01LVN149-MB1	01LVN149-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
	Toluene-d8	109 %	103 %	107 %	100 %	108 %
Surrogate	Bromofluorobenzene	98 %	94 %	95 %	90 %	94 %
Recovery	1,2-Dichloroethane-d4	116 %	114 %	116 %	112 %	107 %
=====fl=====fl=====fl=====fl=====fl=====fl=====fl=====						
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		4 JB	6 B	4 JB	6	5 B
Acetone		12	10	10 J	10 U	2 J
Carbon Disulfide		5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene		5 U	101 %	96 %	5 U	98 %
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	107 %	109 %	5 U	104 %
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	108 %	112 %	5 U	106 %
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	116 %	118 %	5 U	117 %

*= Outside of EPA CLP QC limits.

AW
08-02-01

Cust ID:	B12BX2	B12BX2	B12BX2	VBLKID	VBLKID BS
RFW#:	001	001 MS	001 MSD	01LVN149-MB1	01LVN149-MB1

Chlorobenzene	5 U	114 %	116 %	5 U	111 %
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

*= Outside of EPA CLP QC limits.



FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

010 76311

Client <u>TNU HANFORD SAF B01-059</u>	Refrigerator # <u>1</u>
Est. Final Proj. Sampling Date	#/Type Container
Project # <u>11343-606-001-9999-00</u>	Liquid <u>1 AG</u>
Project Contact/Phone #	Solid
Lionville Laboratory Project Manager <u>01</u>	Volume
QC <u>Spec</u> Del <u>Std</u> TAT <u>30 day</u>	Liquid <u>40</u>
	Solid
	Preservatives
	ORGANIC
	INORG
	VOA BNA Pest/PCB Herb Metal CN
Date Rec'd <u>7-14-01</u> Date Due <u>8-13-01</u>	ANALYSES REQUESTED →

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 H												
			001	B12 B12				✓	✓	W	7/13/01	0610	1							

Special Instructions:

DATE/REVISIONS:

- _____
- _____
- _____
- _____
- _____
- _____

Lionville Laboratory Use Only

Samples were:
 1) Shipped or Hand Delivered _____
 Airbill # Free to Lion
 2) Ambient or Other
 3) Received in Good Condition or N
 4) Samples Property Preserved or N
 5) Received Within Holding Times or N

Tamper Resistant Seal was:
 1) Present on Outer Package or N
 2) Unbroken on Outer Package or N
 3) Present on Sample or N
 4) Unbroken on Sample or N
 COC Record Present Upon Sample Rec't or N
 Cooler Temp. 4 °C

Relinquished by	Received by	Date	Time	Relinquished by	Received by	Date	Time
<u>Fed Ex</u>	<u>Alamy</u>	<u>7/14/01</u>	<u>11</u>				

Discrepancies Between Samples Labels and COC Record? Y or N

NOTES:
1235 79545730

COMPOSITE ORIGINAL!

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			B01-059-5	Page 1 of 1
Collector Thomas, G/Watson, D.	Company Contact Todd, M.	Telephone No. (509)372-9631	Project Coordinator TRENT, SJ	Price Code 7N	Data Turnaround 45 Days	
Project Designation 200-TW-1 & 2 - QC Sampling	Sampling Location T-26/200 W	SAF No. B01-059	Air Quality <input type="checkbox"/>			
Ice Chest No.	Field Logbook No. EL-1518	COA B20TW1A44C	Method of Shipment Fed Ex			
Shipped To TMA (RECRE)	Offsite Property No.		Bill of Lading/Air Bill No.			

POSSIBLE SAMPLE HAZARDS/REMARKS Special Handling and/or Storage	Preservation	Cool 4C																		
	Type of Container	sGs*																		
	No. of Container(s)	1																		
	Volume	40mL																		
SAMPLE ANALYSIS		VOA - B260A (TCL)																		
Sample No.	Matrix *	Sample Date	Sample Time																	
B12BX2	WATER	07/13/01	0610	X																

CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From <i>Greg Thomas / Greg Thomas</i>	Date/Time 07/13/01 0756	Received By/Stored In <i>Ref IB</i>	Date/Time 07/13/01 0755	COLLECTOR UNAVAILABLE TO SIGN COL. #A 71301				S=Soil SB=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From <i>REF IB</i>	Date/Time 7/30/01 1000	Received By/Stored In <i>SJGALE</i>	Date/Time 7/30/01 1000					
Relinquished By/Removed From <i>SJGALE</i>	Date/Time 7/30/01 1000	Received By/Stored In <i>FED EX</i>	Date/Time					
Relinquished By/Removed From <i>Fed Ex</i>	Date/Time 7/14/01	Received By/Stored In <i>Todd</i>	Date/Time 7/14/01					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time					

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

