

H1544

0056941



Client: TNU-HANFORD B01-114  
LVL #: 0110L103  
SDG/SAF #: H1544/B01-114

W.O. #: 11343-606-001-9999-00  
Date Received: 10-16-2001

**RECEIVED**  
APR 19 2002

**GC/MS VOLATILE**

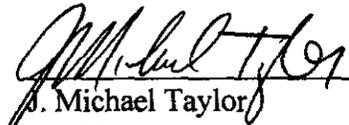
One (1) water sample was collected on 10-10-2001.

**EDMC**

The sample and its associated QC samples were analyzed according to criteria set forth in Lionville Laboratory OPs based on SW 846 Method 8260B for client specified Volatile target compounds on 10-23-2001.

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 was analyzed within required holding time.
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 Acetone at a level less than 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

11/7/01  
Date

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 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: 11/06/01 10:41

RFW Batch Number: 0110L103

Client: TNUHANFORD B01-114 H1544 Work Order: 11343606001 Page: 1a

	Cust ID:	B13509	B13509	B13509	VBLKWU	VBLKWU BS
Sample Information	RFW#:	001	001 MS	001 MSD	01LVK454-MB1	01LVK454-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	88 %	97 %	92 %	85 %	96 %
Recovery	Bromofluorobenzene	98 %	100 %	102 %	92 %	105 %
	1,2-Dichloroethane-d4	92 %	92 %	91 %	81 %	90 %
=====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		5 U	5 U	5 U	5 U	5 U
Acetone		10 U	10 U	10 U	2 J	2 BJ
Carbon Disulfide		5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene		5 U	93 %	94 %	5 U	97 %
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	101 %	100 %	5 U	105 %
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	93 %	92 %	5 U	96 %
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	97 %	94 %	5 U	93 %

\*= Outside of EPA CLP QC limits.

Cust ID: B13509 B13509 B13509 VBLKWU VBLKWU BS

RFW#: 001 001 MS 001 MSD 01LVX454-MB1 01LVX454-MB1

Chlorobenzene	5 U	95 %	100 %	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.



<b>Bechtel Hanford Inc.</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			B01-114-21	Page 1 of 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 FPF Well Installation Sampling and Analysis - Water		Sampling Location 200 West; Well 299-W15-764		SAF No. B01-114	Air Quality <input type="checkbox"/>	
Ice Chest No. ERC-99-044	Field Logbook No. EL-1562	COA T20ZP1D722	Method of Shipment Federal Express			
Shipped To TM/RECRA RECRA		Offsite Property No. A020023		Bill of Lading/Air Bill No. 42357954-8041		

POSSIBLE SAMPLE HAZARDS/REMARKS	Preservation	HCl to pH < 4 Cool 4C																		
	Type of Container	6Gs*																		
	No. of Container(s)	3																		
	Special Handling and/or Storage	Volume	40mL																	
SAMPLE ANALYSIS				VOA - 8260A (TCL); VOA - 8260A (Add- On) (n- Butylbenzene)																

Sample No.	Matrix *	Sample Date	Sample Time																		
B13509	WATER	10-10-07	1650	X																	B12X01-A

<b>CHAIN OF POSSESSION</b>		<b>Sign/Print Names</b>		<b>SPECIAL INSTRUCTIONS</b>				<b>Matrix *</b>	
Relinquished By <i>R. Nielson</i>	Date/Time 10-11-01 0430	Received By <i>R. Nielson</i>	Date/Time 10-11-01 0430	Samples stored in Ref. # 26 at the 3728 Shipping Facility on 10/12/07. Collector not available to relinquish samples on 10/15/07 for shipment.  RT 10-15-01				S=Soil SB=Soil/Sediment SO=Solid L=Liquid W=Water O=Oil A=Air DS=Dry Solids DL=Dry Liquids T=Trace WB=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By <i>Removed from Ref # 2A</i>	Date/Time 10/11/01 1645	Received By <i>R. Nielson</i>	Date/Time 10/11/01 1645						
Relinquished By <i>R. Nielson</i>	Date/Time 10/12/01 0430	Received By <i>R. Nielson</i>	Date/Time 10/12/01 0430						
Relinquished By <i>Removed from Ref # 2C</i>	Date/Time 10/15/07 0900	Received By <i>R. Thoren</i>	Date/Time 10-15-01 0900						
Relinquished By <i>R. Thoren</i>	Date/Time 10-15-01 0900	Received By <i>F. O. G.</i>	Date/Time						
Relinquished By <i>FEDEC</i>	Date/Time 10-16-01 0930	Received By <i>Carlo</i>	Date/Time 10-16-01 0930						

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