



0056986



Client: TNU-HANFORD B01-114

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

LVL #: 0110L153

Date Received: 10-20-2001

SDG/SAF #: H1551/B01-114

GC/MS VOLATILE

H1554 05j 11/9/01

RECEIVED
APR 19 2002

EDMC

Two (2) water samples were collected on 10-15,18-2001.

The samples and their 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 10-23,24-2001.

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. Samples were analyzed within required holding time.
3. Non-target compounds were not detected in the samples.
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 blanks contained the common laboratory contaminants Methylene Chloride and/or Acetone at levels less than the CRQL.
8. Internal standard area criteria were not met for sample B13511. The sample was reanalyzed on 10-24-2001 and reported.
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

11/7/01
Date

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 13 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 15:24

RFW Batch Number: 0110L153

Client: TNUHANFORD B01-114 H1551, Work Order: 11343606001 Page: 1a

Sample Information	Cust ID:	B13510	B13510	B13510	B13511	B13511	VBLKWU
	RFW#:	001	001 MS	001 MSD	002	002	01LVX454-MB1
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
						REPREP	
Surrogate	Toluene-d8	97 %	89 %	91 %	92 %	102 %	85 %
Recovery	Bromofluorobenzene	102 %	103 %	108 %	104 %	111 %	92 %
	1,2-Dichloroethane-d4	96 %	96 %	99 %	110 %	114 %	81 %
=====fl=====fl=====fl=====fl=====fl=====fl=====fl=====							
Chloromethane		10 U	10 U	10 U	10 U	10 U	10 U
Bromomethane		10 U	10 U	10 U	10 U	10 U	10 U
Vinyl Chloride		10 U	10 U	10 U	10 U	10 U	10 U
Chloroethane		10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride		5 U	5 U	5 U	5 U	5 U	5 U
Acetone		10 U	10 U	10 U	10 U	10 U	2 J
Carbon Disulfide		5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene		5 U	89 %	89 %	5 U	5 U	5 U
1,1-Dichloroethane		5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethene (total)		5 U	5 U	5 U	5 U	5 U	5 U
Chloroform		5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane		5 U	5 U	5 U	5 U	5 U	5 U
2-Butanone		10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane		5 U	5 U	5 U	5 U	5 U	5 U
Carbon Tetrachloride		5 U	5 U	5 U	5 U	5 U	5 U
Bromodichloromethane		5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane		5 U	5 U	5 U	5 U	5 U	5 U
cis-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U	5 U
Trichloroethene		5 U	95 %	99 %	5 U	5 U	5 U
Dibromochloromethane		5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane		5 U	5 U	5 U	5 U	5 U	5 U
Benzene		5 U	93 %	95 %	5 U	5 U	5 U
Trans-1,3-Dichloropropene		5 U	5 U	5 U	5 U	5 U	5 U
Bromoform		5 U	5 U	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone		10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone		10 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene		5 U	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	5 U
Toluene		5 U	89 %	91 %	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

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Cust ID: B13510 B13510 *ANSS* B13510 B13511 B13511 VBLKWU

RFW#: 001 001 MS 001 MSD 002 002 01LVX454-MB1

REPREP

	001	001 MS	001 MSD	002	002	01LVX454-MB1
Chlorobenzene	5 U	95 %	96 %	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	5 U	5 U	5 U	5 U	5 U	5 U
N-butylbenzene	5 U	5 U	5 U	5 U	5 U	5 U

*= Outside of EPA CLP QC limits.

Cust ID: VBLKWU BS VBLKWW

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RFW#: 01LVX454-MB1 01LVX456-MB1

Chlorobenzene	99	%	5	U
Ethylbenzene	5	U	5	U
Styrene	5	U	5	U
Xylene (total)	5	U	5	U
N-butylbenzene	5	U	5	U

*= Outside of EPA CLP QC limits.

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; Well 299-W15-764
 SAF No.: B01-114
 Air Quality:

Ice Chest No.: ERC-96-044
 Field Logbook No.: EL-1562
 COA: T20ZP1D722
 Method of Shipment: Federal Express
 Shipped To: TMA/ECRA
 Offsite Property No.: A020021
 Bill of Lading/Air Bill No.: 92357954-8155

POSSIBLE SAMPLE HAZARDS/REMARKS Samples did not originate in radiological controlled area. No total activity associated with sample/samples. ZT10-19-01	Preservation	HCl to pH <2 Cool 4C																
	Type of Container	αGs*																
	No. of Container(s)	3																
	Volume	40mL																

SAMPLE ANALYSIS		VOA - 8160A (TCL); VOA - 8260A (Add-On) (n-Butylbenzene)																
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Sample No.	Matrix *	Sample Date	Sample Time															
B13511	WATER	10/18/01	1710	X														

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By: <i>Renee Nielson</i>	Date/Time: 10/19/01 04:30	Received By: <i>R. Thoren</i>	Date/Time: 10/19/01 04:30
Relinquished By: <i>R. Thoren</i>	Date/Time: 10/19/01 09:00	Received By: <i>R. Thoren</i>	Date/Time: 10/19/01 09:00
Relinquished By: <i>R. Thoren</i>	Date/Time: 10/19/01 10:20	Received By: <i>R. Thoren</i>	Date/Time: 10/19/01 10:20
Relinquished By: <i>R. Thoren</i>	Date/Time: 10/19/01 10:20	Received By: <i>R. Thoren</i>	Date/Time: 10/19/01 10:20
Relinquished By: <i>R. Thoren</i>	Date/Time: 10/19/01 10:20	Received By: <i>R. Thoren</i>	Date/Time: 10/19/01 10:20

SPECIAL INSTRUCTIONS

Samples stored in Ref. # 21 at the 3728 Shipping Facility on 10/18/01. Collector not available to relinquish samples on 10/19/01 for shipment. RT10-19-01

Matrix *

- S=Soil
- SD=Soil/Debris
- SO=Solid
- S=Sludge
- W=Water
- O=Oil
- A=Air
- DS=Drum Solids
- DL=Drum Liquids
- T=Time
- WT=Wipe
- L=Liquid
- V=Vegetation
- X=Other

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

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		B01-114-22	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 PFP Well Installation Sampling and Analysis - Water	Sampling Location 200 West, Well 299-W15-764	RT 10.18.01	SAF No. B01-114	Air Quality <input type="checkbox"/>	
Ice Chest No. ERC 96.044	Field Logbook No. EL-1562	COA T20ZP1D722	Method of Shipment Federal Express		
Shipped To TMA/RECRA	Offsite Property No. RT 10.19.01 A02 0021 A020021	Bill of Lading/Air Bill No. 42567954-8/SS			

POSSIBLE SAMPLE HAZARDS/REMARKS Samples stored in Ref.# 2 at the 3728 Shipping Facility on 10/15/01. Collector not available to relinquish samples on 10/19/01 for shipment. RT 10.19.01	Preservation	HCl to pH <2 Cool 4C								
	Type of Container	sGs*								
	No. of Container(s)	3								
	Volume	40mL								
SAMPLE ANALYSIS		VOA - 8260A (TCL); VOA - 8260A (Add-On) (n-Butylbenzene)								

Sample No.	Matrix*	Sample Date	Sample Time							
B13510	WATER	10/15/01	1655	X						

CHAIN OF POSSESSION Relinquished By: R. Nielson / R. Nielson Date/Time: 10/16/01 0345 Received By: [Signature] / [Signature] Date/Time: 10/16/01 0345 Relinquished By: [Signature] / [Signature] Date/Time: 10/17/01 1710 Received By: R. Nielson / R. Nielson Date/Time: 10/16/01 1710 Relinquished By: R. Nielson / R. Nielson Date/Time: 10/17/01 0430 Received By: [Signature] / [Signature] Date/Time: 10/17/01 0430 Relinquished By: [Signature] / [Signature] Date/Time: 10/17/01 1650 Received By: R. Nielson / R. Nielson Date/Time: 10/17/01 1650 Relinquished By: R. Nielson / R. Nielson Date/Time: 10/18/01 0435 Received By: [Signature] / [Signature] Date/Time: 10/18/01 0435 Relinquished By: [Signature] / [Signature] Date/Time: 10/18/01 0900 Received By: [Signature] / [Signature] Date/Time: 10/18/01 0900		SPECIAL INSTRUCTIONS Samples did not originate in radiological controlled area. No total activity associated with sample/samples. RT 10.19.01 See page 2 of 2 for Chain of Possession Continuation		Matrix* S=Soil SD=Soil/Dredge SO=Solid S=Sludge W=Water O=Oil A=Air DS=Dry Solid DL=Dry Liquid T=Time W=Wipe L=Liquid V=Vegetation X=Other
LABORATORY SECTION	Received By: Relg. By. P. 102001 10:20 / Rec. by D. 10.20.01 10:20	Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time	

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10-14-01 RT10-19-0

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		
Collector Renee Nielson	Company Contact Virginia Bohay	Telephone No. 372-9100	Project Coordinator TIMTSJ	Price Code NA
Project Designation PFP Well Installation	Sampling Location 200 WEST Well	299-WIS-764	SAF No. B01-114	Air Quality <input type="checkbox"/> NA
Ice Chest No. ERC 96-044	Field Logbook No. FL-1562	COA T76ZPID72Z	Method of Shipment FED EX	
Shipped To Recra	Office Property No. A020021	Bill of Lading/Air Bill No. 42857954-8155		

POSSIBLE SAMPLE HAZARDS/REMARKS	Preservation																			
	Special Handling and/or Storage	Type of Container																		
		No. of Container(s)																		
		Volume	NA																	
SAMPLE ANALYSIS																				

Sample No.	Matrix *	Sample Date	Sample Time																	
B13510	WATER	10-15-01	1655																	

CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS										Matrix *
Relinquished By/Removed From R. Nielson	Date/Time 10-19-01	Received By/Stored In FED EX	Date/Time 0900	<p>CHAIN OF POSSESSION CONTINUATION PAGE</p>										<ul style="list-style-type: none"> S=Soil SB=Soilmat SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Dryn Solids DL=Dryn Liquids T=Trace W=Wipe L=Liquid V=Vegetation X=Other
Relinquished By/Removed From D. E.	Date/Time 10-20-01	Received By/Stored In D. E.	Date/Time 10:20											
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time											
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

H1554



Lionville Laboratory, Inc.
VOA ANALYTICAL DATA PACKAGE FOR
TNUHANFORD B01-114 H1551

H1554 pg 11/9/01

DATE RECEIVED: 10/20/01

LVL LOT # :0110L153

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B13510	001	W	01LVX454	10/15/01	N/A	10/23/01
B13510	001 MS	W	01LVX454	10/15/01	N/A	10/23/01
B13510	001 MSD	W	01LVX454	10/15/01	N/A	10/23/01
B13511	002	W	01LVX454	10/18/01	N/A	10/23/01
B13511	002 R1	W	01LVX456	10/18/01	N/A	10/24/01

LAB QC:

VBLKWU	MB1	W	01LVX454	N/A	N/A	10/23/01
VBLKWU	MB1 BS	W	01LVX454	N/A	N/A	10/23/01
VBLKWW	MB1	W	01LVX456	N/A	N/A	10/24/01

aw 11-06-01