

H1576



0056270

23 November 2001

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

**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 #	0111L258
SDG #	H1569/H1576
SAF #	B02-007
Date Received	11-2-01
# Samples	2
Matrix	Water
Volatiles	X
Semivolatiles	X
Pest/PCB	
DRO/GRO	
GC Scan	X
Metals	X
Inorganics	X

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

RECEIVED
JAN 24 2002
EDMC



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

H1576

Lionville Laboratory, Inc.
VOA ANALYTICAL DATA PACKAGE FOR
TNU-HANFORD B02-007

DATE RECEIVED: 11/02/01

LVL LOT # :0111L258

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B13C83	001	W	01LVX487	10/29/01	N/A	11/08/01
B13CT0	002	W	01LVX487	10/31/01	N/A	11/08/01
B13CT0	002 MS	W	01LVX487	10/31/01	N/A	11/08/01
B13CT0	002 MSD	W	01LVX487	10/31/01	N/A	11/08/01

LAB QC:

VBLKJS	MB1	W	01LVX487	N/A	N/A	11/08/01
VBLKJS	MB1 BS	W	01LVX487	N/A	N/A	11/08/01





Client: TNU-HANFORD B02-007
LVL #: 0111L258
SDG/SAF #: H1569, H1576/B02-007

W.O. #: 11343-606-001-9999-00
Date Received: 11-02-2001

GC/MS VOLATILE

Two (2) water samples were collected on 10-29,31-2001.

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 TCL Volatile target compounds on 11-08-2001.

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 contaminant Methylene Chloride at a level less than 2x the CRQL.
8. Internal standard area and retention time criteria were met.
9. A spectral search was performed for Decane; however, it was not detected in the samples.
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

11/23/01
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 10 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.

RFW Batch Number: 0111L258

Client: TMU-HANFORD B02-007

Work Order: 11343606001 Page: 1b

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Cust ID:

B13C83

B13CT0

B13CT0

B13CT0

VBLKJS

VBLKJS BS

RFW#:

001

002

002 MS

002 MSD

01LVX487-MB1

01LVX487-MB1

	001	002	002 MS	002 MSD	01LVX487-MB1	01LVX487-MB1
Chlorobenzene	5 U	5 U	99 %	100 %	5 U	93 %
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

*= Outside of EPA CLP QC limits.

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B02-007-03		Page 1 of 1	
Collector Watson, D/Bowers DL		Company Contact Conlock, CS		Telephone No. 372-9638		Project Coordinator TRENT, SJ		Price Code 7N Data Turnaround 45 Days	
Project Designation 200 Area Source Characterization 200-CS-1 OU - QC Sampling		Sampling Location 200 East & West		SAF No. B02-007		Air Quality <input type="checkbox"/>			
Ice Chest No. SEE OSPC		Field Logbook No. EL1551		COA B20CS1673C		Method of Shipment Fed Ex			
Shipped To TMA/RECRA		Offsite Property No. A020018		Bill of Lading/Air Bill No. SEE OSPC					

POSSIBLE SAMPLE HAZARDS/REMARKS Samples did not originate in radiological controlled area. No total activity associated with sample/samples. Special Handling and/or Storage <i>ET 11-1-01</i>	Preservation	HCl or H2SO4 to pH < 2	Cool 4C	HNO3 to pH < 2	H2SO4 to pH < 2 Cool 4C	Cool 4C	ZnAc+HCl to pH > 9 Cool	HNO3 to pH < 2	HCl or H2SO4 to pH < 2 Cool	
	Type of Container	aG*	aG	aG	aG	aG	aG	aG	aG	
	No. of Container(s)	3	2	1	1	1	1	2		
	Volume	40mL	1000mL	1000mL	1000mL	1000mL	500mL	1000mL	40mL	
SAMPLE ANALYSIS		VGA - R26A (TCL); VOA - R26A (Add-On) (1-Propenol, Ethanol)	Semi-VOA - R278A (Add-On) (Diethyl phosphate)	See Item (1) in Special Instructions.	NO3/NO2 - 333.1; Ammonia - 358.3	See Item (2) in Special Instructions.	Sulfides - 989	Chloro-Alkaline, Gross Beta	VGA - R26A (TCL); VOA - R26A (Add-On) (1-Propenol, Ethanol)	

Sample No.	Matrix *	Sample Date	Sample Time								
B13CT0	WATER	10-31-01	1500	X	X	X	X	X	X		
B13GT1	WATER	10-31-01									

CHAIN OF POSSESSION		Sign/Print Name	
Relinquished By/Removed From <i>Doug Bowers</i>	Date/Time 10-31-01/1530	Received By/Stored In <i>Ref 2A 3728</i>	Date/Time 10-31-01/1530
Relinquished By/Removed From <i>Ref 2A 3728</i>	Date/Time 11-01-01	Received By/Stored In <i>R. Trent</i>	Date/Time 11-01-01
Relinquished By/Removed From <i>RECRA</i>	Date/Time 11-01-01	Received By/Stored In <i>F. O. G.</i>	Date/Time 11-01-01
Relinquished By/Removed From <i>F. O. G.</i>	Date/Time 11/20/01 0935	Received By/Stored In <i>V. Henry</i>	Date/Time 11/20/01 0935
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

- Laboratory is to measure pH within 24 hours of sample receipt.
- The ERC acknowledges the 48-hour holding time will not be used for Nitrate using EPA method 300.0.
- The laboratory is to report Decane as a TIC if present in detectable quantities.

(1) ICP Metals - 6010A (Supernatant) (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver);
 ICP Metals - 6010A (Supernatant Add-On) (Beryllium, Copper, Nickel, Vanadium, Zinc)
 (2) IC Anions - 300.0 (Chloride, Fluoride, Nitrate, Nitrite, Phosphate, Sulfate); pH (Water) - 9040

Samples stored in Ref. 2A at the 3728 Shipping Facility on 10/31/01.
 Collector not available to relinquish samples on 11/1/01 for shipment.

ET 11-1-01

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				B02-007-02	Page 1 of 1
Collector Thomas, G/Watson, D	Company Contact Cearlock, CS	Telephone No. 372-9638	Project Coordinator TRENT, EJ	Price Code TR	Data Turnaround 45 Days 15 Day		
Project Designation 200 Area Source Characterization 200-C8-1 OU - QC Sampling	Sampling Location 200 East & West	SAF No. B02-007	Air Quality <input type="checkbox"/>				
Ice Chest No. SEE DSPC	Field Logbook No. EL-1551	COA XL2002CHKR	Method of Shipment Fed Ex				
Shipped To REDA ^{DRY} PER ^{PER} REDA	Office Property No. A020018	Bill of Lading/Air Bill No. SEE DSPC					
POSSIBLE SAMPLE HAZARDS/REMARKS Samples did not originate in radiological controlled area. No total activity associated with sample/samples. Special handling and/or storage	Preservation	HCl or HNO ₃ to pH < 2					
	Type of Container	40L					
	No. of Container(s)	1					
	Volume	40L					
SAMPLE ANALYSIS		VOC - 200A (TCL); VOA - 200A (Add-On) (1-Program, 80min)					
Sample No.	Matrix *	Sample Date	Sample Time				
B13C83	WATER	10/29/01	2640	X			
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS			Matrix *
Relinquished By/Removed From DISANTON/STURM	Date/Time 10-30-01 0215	Received By/Stored In REF-1A 3728	Date/Time 10/30/01 1215	** Laboratory is to measure pH within 24 hours of sample receipt. ** The ERC acknowledges the 48-hour holding time will not be met for 1) Sites using EPA method 900.0. ** The laboratory is to report Decons as a TIC if present in detectable quantities. Samples stored in Ref. 1A at the 3728 Shipping Facility on 10/30/01. Collector not available to relinquish samples on 11/1/01 for shipment.			p-Hall SO-sulfate SP-silica W-Water O-Oil A-Air DS-Dissolved Solids ES-Dissolved Solids T-Tars WS-Waxes L-Lipid V-Vegetation X-Other
Relinquished By/Removed From REF-1A 3728	Date/Time 11-1-01	Received By/Stored In R. J. T. THORNTON	Date/Time 11-1-01				
Relinquished By/Removed From KILLMORE	Date/Time 11-1-01	Received By/Stored In F. O. A. W.	Date/Time				
Relinquished By/Removed From FEDER	Date/Time 11/2/01 0935	Received By/Stored In V. J. ...	Date/Time 11-2-01 0935				
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			

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-a

RT 11-1-01

RT 11-1-01