

H1399

0055819



Lionville Laboratory, Inc.  
HBGX ANALYTICAL DATA PACKAGE FOR  
TNUHANFORD B01-058 H1399

DATE RECEIVED: 06/22/01

LVL LOT # :0106L143

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B12682	001	S	01LE0752	06/19/01	06/26/01	07/05/01
B12682	001 REP	S	01LE0752	06/19/01	06/26/01	07/05/01
B12682	001 MS	S	01LE0752	06/19/01	06/26/01	07/05/01
B12683	002	S	01LE0752	06/19/01	06/26/01	07/05/01
B12683	002 R1	S	01LE0872	06/19/01	07/20/01	07/20/01

LAB QC:

PBLKIW	MB1	S	01LE0752	N/A	06/26/01	07/05/01
PBLKIW	MB1 BS	S	01LE0752	N/A	06/26/01	07/05/01
PBLKLN	MB1	S	01LE0872	N/A	07/20/01	07/20/01
PBLKLN	MB1 BS	S	01LE0872	N/A	07/20/01	07/24/01

*Handwritten signature*

RECEIVED  
NOV 06 2001  
EDMC



## Analytical Report

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**Client:** TNU HANFORD B01-058  
**LVL#:** 0106L143  
**SDG/SAF#:** H1399/B01-058

**W.O.#:** 11343-606-001-9999-00  
**Date Received:** 06-22-01

### HERBICIDE-TCLP

The set of samples consisted of two (2) solid samples collected on 06-19-01.

The samples and their associated QC samples were extracted on 06-26-01, re-extracted on 07-20-01, and analyzed according to Lionville Laboratory OPs based on SW846, 3rd Edition procedures on 07-05,20,24-01. The extraction and analysis procedure was based on method 8151.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. The cooler temperature has been recorded on the chain-of-custody.
2. These samples were originally extracted within their required holding time. Due to low surrogate recoveries, Sample B12683 was re-extracted outside of hold time. Both the original and the re-extracted results have been reported. A copy of the Sample Discrepancy Report (SDR) has been enclosed.
3. All method blanks were below the reporting limits for all target compounds.
4. One (1) of nine (9) surrogate recoveries was outside acceptance criteria. A copy of the SDR has been enclosed.
5. All blank spike recoveries were within acceptance criteria.
6. One (1) of eight (8) matrix spike recoveries was outside acceptance criteria. A copy of the SDR has been enclosed.
7. A replicate and matrix spike was inadvertently extracted instead of a matrix spike and matrix spike duplicate.
8. All initial calibrations associated with this data set were within acceptance criteria.

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.

9. All continuing calibration standards analyzed prior to sample extracts were within acceptance criteria, with the exception of target compounds:

Standards	Analysis Date	Analysis Time	Column
2,4-D 2,4,5-T 2,4-DB	07-20-01	19:01	Primary
2,4'-D 2,4,5-TP 2,4,5-T 2,4-DB Dichloroprop	07-24-01	20:07	Primary
2,4-DB	07-25-01	20:07	Confirmation

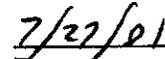
The data reflected a decrease in instrument response for the target compounds outside the acceptance criteria on the primary column analyzed on 07-20-01 and 07-24-01, therefore, all associated data was reported from the confirmation column.

The outlier on the confirmation column on 07-25-01 reflected a decrease in instrument response; no target compounds were detected in the associated samples.

Copies of the Sample Discrepancy Reports (SDR) have been enclosed.

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.

  
 Iain Daniels  
 Deputy Laboratory Manager  
 Lionville Laboratory Incorporated

  
 Date

pefr:\group\data\herb\03L-318.her

# Lionville Laboratory Sample Discrepancy Report (SDR)

SDR #: AGC 319

Initiator: Boyer Sature Batch: 0106L143 Parameter: CHBGX  
 Date: 7/25/01 Samples: B, BS, 002R1 Matrix: Soil  
 Client: TNV Method: SW846/MCAWW/CLP/ Prep Batch: 01LF0572

**1. Reason for SDR**

a. COC Discrepancy  Tech Profile Error  Client Request  Sampler Error on C-O-C  
 Transcription Error  Wrong Test Code  Other \_\_\_\_\_

b. General Discrepancy  
 Missing Sample/Extract  Container Broken  Wrong Sample Pulled  Label ID's Illegible  
 Hold Time Exceeded  Insufficient Sample  Preservation Wrong  Received Past Hold  
 Improper Bottle Type  Not Amenable to Analysis

Note: Verified by [Log-In] or [Prep Group] (circle)...signature/date: \_\_\_\_\_

c. Problem (Include all relevant specific results; attach data if necessary)  
 ① CCV on primary side before B, 002R1 low for 2,4-D, 2,4,6-T, 2,4-DB. CCV on conf side is 100  
 ② BS quantitated for 2,4-DB recovery following CCV at -17% (limit ±15%)  
 for that compound.  
 Note: sample clean of target compounds.

**2. Known or Probable Causes(s)**

**3. Discussion and Proposed Action** Other Description: \_\_\_\_\_

Re-log  
 Entire Batch  
 Following Samples: \_\_\_\_\_  
 Re-leach  
 Re-extract  
 Re-digest  
 Revise EDD  
 Change Test Code to \_\_\_\_\_  
 Place On/Take Off Hold (circle)

*report narrative*  
*John Johnson 7/25/01*

**4. Project Manager Instructions**...signature/date: \_\_\_\_\_

Concur with Proposed Action  
 Disagree with Proposed Action; See Instruction  
 Include in Case Narrative  
 Client Contacted:  
 Date/Person \_\_\_\_\_  
 Add  
 Cancel

**5. Final Action**...signature/date: John 7/25/01 Other Explanation: \_\_\_\_\_

Verified re-[log][leach][extract][digest][analysis] (circle)  
 Included in Case Narrative  
 Hard Copy COC Revised  
 Electronic COC Revised  
 EDD Corrections Completed

**When Final Action has been recorded, forward original to QA Specialist for distribution and filing.**

Route	Distribution of Completed SDR	Route	Distribution of Completed SDR
<input checked="" type="checkbox"/>	X Initiator	<input type="checkbox"/>	Metals: Beegle
<input checked="" type="checkbox"/>	X Lab General Manager: M. Taylor	<input type="checkbox"/>	Inorganic: Perrone
<input checked="" type="checkbox"/>	X Project Mgr: Stone/Johnson/Haslett	<input type="checkbox"/>	GC/LC: Kiger
<input checked="" type="checkbox"/>	X Technical Mgr: Wesson/Daniels	<input type="checkbox"/>	MS: Rychlak/Layman
<input checked="" type="checkbox"/>	X QA (file): Alberts	<input type="checkbox"/>	Log-in: Keppel
<input type="checkbox"/>	Data Management: Feldman	<input type="checkbox"/>	Admin: Soos
<input type="checkbox"/>	Sample Prep: Beegle/Kiger	<input type="checkbox"/>	Other: _____

# Lionville Laboratory Sample Discrepancy Report (SDR)

SDR #: 016C314

Initiator: Bryce Santoro Batch: 0206143 Parameter: OH60x  
 Date: 7/19/01 Samples: 002, 001 MS Matrix: Soil  
 Client: TNU Method: SW845/MCAWW/CLPI Prep Batch: ALF0752

**1. Reason for SDR**

- a. COC Discrepancy**     Tech Profile Error     Client Request     Sampler Error on C-O-C  
     Transcription Error     Wrong Test Code     Other \_\_\_\_\_
- b. General Discrepancy**
- Missing Sample/Extract     Container Broken     Wrong Sample Pulled     Label ID's Illegible  
 Hold Time Exceeded     Insufficient Sample     Preservation Wrong     Received Past Hold  
 Improper Bottle Type     Not Amenable to Analysis

Note\*: Verified by [Log-In] or [Prep Group] (circle)...signature/date: \_\_\_\_\_

**c. Problem (Include all relevant specific results; attach data if necessary)**

① Low surrogate in sample 002. Sample was re-derivitized and re-analyzed again yielding a low surrogate recovery. (original recovery = 4%, re-derivitization = 12%)

② Low Dalapon recovery in 001 MS, recovery was fine in 05.

**2. Known or Probable Causes(s)**

pH ??      make sure pH is acidic enough before extraction      J.D. 7/20/01

**3. Discussion and Proposed Action**

Other Description: \_\_\_\_\_

- Re-log  
 Entire Batch  
 Following Samples: \_\_\_\_\_  
 Re-leach  
 Re-extract 002  
 Re-digest  
 Revise EDD  
 Change Test Code to \_\_\_\_\_  
 Place On/Take Off Hold (circle)

**4. Project Manager Instructions...signature/date:** \_\_\_\_\_

- Concur with Proposed Action  
 Disagree with Proposed Action; See Instruction  
 Include in Case Narrative  
 Client Contacted:  
 Date/Person \_\_\_\_\_  
 Add  
 Cancel

**5. Final Action...signature/date:** \_\_\_\_\_

Other Explanation: \_\_\_\_\_

- Verified re-[log][leach][extract][digest][analysis] (circle)  
 Included in Case Narrative  
 Hard Copy COC Revised  
 Electronic COC Revised  
 EDD Corrections Completed

batch [0872]

When Final Action has been recorded, forward original to QA Specialist for distribution and filing.

- Route    Distribution of Completed SDR
- Initiator  
 Lab General Manager: M. Taylor  
 Project Mgr: Stone/Johnson/Haslett  
 Technical Mgr: Wesson/Daniels  
 QA (file): Alberts  
 Data Management: Feldman  
 Sample Prep: Beegle/Kiger

- Route    Distribution of Completed SDR
- Metals: Beegle  
 Inorganic: Perrone  
 GC/LC: Kiger  
 MS: Rychlak/Layman  
 Log-in: Keppel  
 Admin: Soos  
 Other: \_\_\_\_\_

## GLOSSARY OF HERBICIDE DATA

### DATA QUALIFIERS

- U = Indicates that the compound was analyzed for but not detected. The minimum detection limit for the sample (not the method detection limit) is reported with the U (e.g., 10U).
- J = Indicates an estimated value. This flag is used in cases where a target analyte is detected at a level less than the lower quantification level. If the limit of quantification 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.
- E = Indicates that the compound was detected beyond the calibration range.
- I = Interference.

### SUFFIXES

- BS = Indicates blank spike in which reagent grade water is spiked with the matrix spiking 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.

### ABBREVIATIONS

- D = Indicates that recoveries were not obtained because the extract had to be diluted for analysis.
- NA = Not Applicable.
- DF = Dilution Factor.
- NR = Not Reported.
- SP = Indicates spiked compound.

Lionville Laboratory, Inc.  
Herbicides, Special List

Report Date: 07/25/01 13:58

RFW Batch Number: 0106L143

Client: TNUHANFORD B01-058 H1399 Work Order: 11343606001 Page: 1

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	Cust ID:	B12682	B12682	B12682	B12683	B12683	PBLKIW
Sample Information	RFW#:	001	001 REP	001 MS	002	002	01LE0752-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
						REPREP	
Surrogate:	DCAA	76 %	44 %	76 %	4 * %	70 %	75 %
		fl	fl	fl	fl	fl	fl
Dalapon		180 U	170 U	29 * %	170 U	170 U	170 U
Dicamba		70 U	70 U	71 %	69 U	69 U	67 U
Dichloroprop		180 U	170 U	81 %	170 U	170 U	170 U
2,4-D		35 U	35 U	76 %	35 U	35 U	33 U
2,4,5-TP (Silvex)		18 U	17 U	89 %	17 U	17 U	17 U
2,4,5-T		18 U	17 U	98 %	17 U	17 U	17 U
2,4-DB		180 U	170 U	90 %	170 U	170 U	170 U
Dinoseb		18 U	17 U	48 %	17 U	17 U	17 U

	Cust ID:	PBLKIW BS	PBLKLN	PBLKLN BS
Sample Information	RFW#:	01LE0752-MB1	01LE0872-MB1	01LE0872-MB1
	Matrix:	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00
	Units:	ug/kg	ug/kg	ug/kg
Surrogate:	DCAA	79 %	76 %	124 %
		fl	fl	fl
Dalapon		50 %	170 U	55 %
Dicamba		86 %	67 U	105 %
Dichloroprop		92 %	170 U	103 %
2,4-D		90 %	33 U	99 %
2,4,5-TP (Silvex)		102 %	17 U	118 %
2,4,5-T		114 %	17 U	125 %
2,4-DB		94 %	170 U	99 %
Dinoseb		77 %	17 U	99 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.  
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. \*= Outside of EPA CLP QC

*2/28/01*



Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B01-058-44		Page 1 of 1	
Collector Thomas G./Watson D.		Company Contact Todd, M.E.		Telephone No. (509) 372-9631		Project Coordinator TRENT, SJ		Price Code 8N Data Turnaround 45 Days	
Project Designation 200-TW-1 & 2 - Soil Sampling		Sampling Location T-26/200 W		SAF No. B01-058		Air Quality <input type="checkbox"/>			
Ice Chest No. ERC-01-014 (1 of 1)		Field Logbook No. EL-1518		COA B20TW1A44C		Method of Shipment Fed EX			
Shipped To EMERGENCY		Offsite Property No. A010424		Bill of Lading/Air Bill No. 42357954-5307					
POSSIBLE SAMPLE HAZARDS/REMARKS Radioactive <sup>DSW</sup> 06-19-01				Preservation Cool 4C					
Special Handling and/or Storage				Type of Container 4G					
				No. of Container(s) 1					
				Volume 250mL					
SAMPLE ANALYSIS				Chloro-Herbicides - EPA8151					
Sample No.	Matrix *	Sample Date	Sample Time						
B12682	SOIL	06/19/01	0807	X					REF TO B12623
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From DS WATSON / DS WATSON		Date/Time 06-19-01 0935		Received By/Stored In REF. 2C 3728		Date/Time 06-19-01 0935		<p>Samples stored in Ref.# 2C at the 3728 Shipping Facility on 6/19/01. Collector not available to relinquish samples on 6/21/01 for shipment.</p> <p>RT 6/21/01</p>	
Relinquished By/Removed From Ref 2C 3728		Date/Time 6/21/01 0800		Received By/Stored In R. Thoral		Date/Time 6/21/01			
Relinquished By/Removed From R. Thoral		Date/Time 6/21/01 0900		Received By/Stored In FCDEX		Date/Time			
Relinquished By/Removed From FCDEX		Date/Time 6/22/01 0900		Received By/Stored In TK...		Date/Time 6/22/01 0900			
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	

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B01-058-45		Page 1 of 1	
Collector Thomas G./Watson D.		Company Contact Todd, M.E.		Telephone No. (509) 372-9631		Project Coordinator TRENT, SJ		Price Code 8N Data Turnaround 45 Days	
Project Designation 200-TW-1 & 2 - Soil Sampling		Sampling Location T-26200-W-DSW 06-19-01 7A/200E		SAF No. B01-058		Air Quality <input type="checkbox"/>		45 Days	
Ice Chest No. ERC-01-014 (10fi)		Field Logbook No. EL-1518		COA 2 B20TWZA44C 4/12/01		Method of Shipment Fed EX			
Shipped To TRC/RECRA		Offsite Property No. A 010424		Bill of Lading/Air Bill No. 42357954 - 5307					
POSSIBLE SAMPLE HAZARDS/REMARKS Radioactive DSW 06-19-01				Preservation		Cool AC			
Special Handling and/or Storage				Type of Container		4G			
				No. of Container(s)		1			
				Volume		250mL			
SAMPLE ANALYSIS				Chloro-Herbicides - EPA8151					
Sample No.	Matrix *	Sample Date	Sample Time						
B12683	SOIL	06-19-01	0842	X					TIE TO 12624
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<p>Samples stored in Ref. #2 at the 3728 Shipping Facility on 6/19/01. Collector not available to relinquish samples on 6/19/01 for shipment.</p> <p>RT 6/19/01</p>	
DO WATSON/TOWNE		06-19-01 0935		REF. 2C 3728		06-19-01 0935			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Ref 2C 3728		6/21/01 0800		R. J. R. Thoreau		6/21/01 0800			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
R. J. Thoreau		6/21/01 0800		FED EX		6/21/01 0800			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
FED EX		6/22/01 0900		T. Kupper		6/22/01 0900			
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			

Figure 1. Sample Check-in List

Date/Time Received: 12-22-01 / 0900

SDG#: 010101143

Work Order Number: -

SAF# B01-058

Shipping Container ID: EBC-01-014

Chain of Custody # B01-058-4445

1. Custody Seals on shipping container intact? Yes  No

2. Custody Seals dated and signed? Yes  No

3. Chain-of-Custody record present? Yes  No

4. Cooler temperature 5.5°C

5. Vermiculite/packing materials is Wet  Dry

6. Number of samples in shipping container: 2

7. Sample holding times exceeded? Yes  No

8. Samples have:

tape  hazard labels

custody seals  appropriate sample labels

9. Samples are:

in good condition  leaking

broken  have air bubbles

10. Were any anomalies identified in sample receipt? Yes  No

11. Description of anomalies (include sample numbers): \_\_\_\_\_

Sample Custodian/Laboratory: Beppel / LULI Date: 12-22-01

Telephoned to: \_\_\_\_\_ On \_\_\_\_\_ By \_\_\_\_\_