0079434

RECEIVED AUGUST 15, 2008

LvLI

LIONVILLE LABORATORY INC.

Mr. Steve Trent
Fluor Hanford Inc.
825 Jadwin Ave.
Richland, WA 99352

Subject: Contract No. 630
Analytical Data Package

Dear Mr. Trent:

Enclosed are the hard copy analytical reports for the batch number/fraction indicated (marked X) in the following table:

LvLI Batch #	0806L359
SDG #	H3779
SAF #	F08-101
Date Received	6/27/08
# Samples	2
Matrix	SOIL
Volatiles	
Semivolatiles	X
Pest/PCB	
DRO/GRO/KRO	
Herbicides	
GC Alcohol	
Metals	
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
DEC 05 2008
EDMC

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

208 Welsh Pool Road • Exton, PA 19341- 1313 • (610) 280-3000 • Fax (610) 280-3041

SEMIVOLATILES

1A

Lionville Laboratory, Inc.
BNA ANALYTICAL DATA PACKAGE FOR
TNUHANFORD F08-101 H3779

DATE RECEIVED: 06/27/08 LVL LOT # :0806L359

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B1V522	001	S	08LE0322	06/25/08	07/07/08	07/25/08
B1V525	002	S	08LE0322	06/25/08	07/07/08	07/25/08
B1V525	002 MS	S	08LE0322	06/25/08	07/07/08	07/25/08
B1V525	002 MSD	S	08LE0322	06/25/08	07/07/08	07/25/08

LAB QC:

SBLKWB	MB1	S	08LE0322	N/A	07/07/08	07/25/08
SBLKWB	MB1 BS	S	08LE0322	N/A	07/07/08	07/25/08

LIONVILLE LABORATORY INC.

Case Narrative

Client: TNU-HANFORD F08-101
LVL #: 0806L359
SDG/SAF # H3779 / F08-101

W.O. #: 11343-606-001-9999-00
Date Received: 06-27-2008

SEMIVOLATILE

Two (2) soil samples were collected on 06-25-2008.

The samples and their associated QC samples were extracted according to Lionville Laboratory SOPs based on SW 846 method 3540C on 07-07-2008 and analyzed according to criteria set forth in Lionville Laboratory SOPs based on SW 846 Method 8270C for client specified target compounds on 07-25-2008.

All soil samples are reported on a wet weight basis due to matrix (client indicates matrix as other liquid). The following is a summary of QC results accompanying the sample results. Lionville Laboratory Inc (LvLI) certifies that all test results meet the requirements of NELAC except as noted below:

1. Discrepancies from the sample acceptance policy have been recorded on the Sample Receipt Checklist.

2. Samples were extracted and analyzed within holding time.

3. Non-target compounds were detected in these samples.

4. All obtainable surrogate recoveries were within acceptance criteria.

5. Six (6) of one hundred thirty (130) surrogate recoveries were outside acceptance criteria. A copy of the Sample Discrepancy Report (SDR# 08MS167) has been enclosed.

6. All blank spike recoveries were within acceptance criteria.

7. The method blank contained the common laboratory contaminant Bis(2-Ethylhexy) phthalate at a level less than the CRQL.

8. All initial calibrations associated with this data set were within acceptance criteria.

r:\group\data\2008\bna\tnu\0806-359cs2.doc

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 17 pages.

LIONVILLE LABORATORY INC.

9. All continuing calibration standards analyzed prior to sample extracts were within acceptance criteria.

10. Internal standard area and retention time criteria were not met for samples B1V525MS and B12V525MSD. The out of criteria samples were re-analyzed on 07-27-2008 with similar results and not reported. The GC/MS instrument was inspected for possible malfunction and was judged to be functioning properly and all surrogate recoveries were within QC limits.

11. Manual integrations are performed according to SOP QA-125 to produce quality data with the utmost integrity. All manual integrations are required to be technically valid and properly documented. Appropriate technical flags are defined in the Glossary ("Technical Flags For Manual Integration").

12. A spectral search was conducted for the compound Cyclohexanone; however, this compound was not identified in the samples.

13. LvLI is NELAP accredited by the State of Pennsylvania. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

14. 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
Laboratory Manager
Lionville Laboratory Incorporated

8/5/08
Date

Lionville Laboratory Sample Discrepancy Report (SDR)

SDR #: 08MS167

Initiator: Sharon Saylor
Date: 7-28-08
Client: Tri Hanford F08-101

Batch: 0F06LJ59
Samples: ms, msd
Method: SW846/MCAWW/CLP/

Parameter: 8270
Matrix: solid
Prep Batch: 0F16D722

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)

Several low spike recoveries in the ms trend but ds is ok

2. Known or Probable Causes(s) Acidic phenols are subject to erratic chromatographic behavior especially if the GC system is contaminated with high boiling material. Often sporadic. All surrogates within criteria

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)

rerun

4. Project Manager Instructions...signature/date: 7/29/08

✓ 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: 8/2/08 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 for diposition.

Route
__ Lab Manager: Daniels
1 Project Mgr (circle): Johnson / Stone
__ Sample Prep (circle): Ford
__ Log-in: King

Route
__ Metals: Welsh / _____
__ Inorganic: Perrone / _____
__ GC/LC: Carey / _____
__ MS VOA: Rubino / _____
2 MS BNA: Carden / _____
__ Other: _____

QA-139-A-0208

GLOSSARY

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.

A = Indicates that a TIC is a suspected aldol-condensation product.

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

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 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.

Semivolatiles by GC/MS, Appendix IX List

Report Date: 08/04/08 12:12

RFW Batch Number: 0806L359 Client: TNUHANFORD F08-101 H3779 Work Order: 11343606001 Page: 1a

	Cust ID:	B1V522	B1V525	B1V525	B1V525	SBLKWB	SBLKWB BS
Sample Information	RFW#:	001	002	002 MS	002 MSD	08LE0322-MB1	08LE0322-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
Surrogate Recovery	Nitrobenzene-d5	79 %	77 %	51 %	60 %	87 %	66 %
	2-Fluorobiphenyl	84 %	92 %	86 %	98 %	87 %	99 %
	Terphenyl-d14	115 %	83 %	84 %	96 %	123 %	116 %
	Phenol-d5	82 %	71 %	79 %	84 %	95 %	111 %
	2-Fluorophenol	90 %	68 %	80 %	87 %	96 %	107 %
	2,4,6-Tribromophenol	81 %	47 %	73 %	102 %	74 %	96 %
		fl	fl	fl	fl	fl	fl
Phenol		340 U	340 U	77 %	81 %	330 U	111 %
bis(2-Chloroethyl)ether		340 U	340 U	59 %	76 %	330 U	91 %
2-Chlorophenol		340 U	340 U	72 %	81 %	330 U	101 %
1,3-Dichlorobenzene		340 U	340 U	66 %	81 %	330 U	100 %
1,4-Dichlorobenzene		340 U	340 U	68 %	82 %	330 U	99 %
1,2-Dichlorobenzene		340 U	340 U	72 %	85 %	330 U	106 %
2-Methylphenol		340 U	340 U	78 %	85 %	330 U	101 %
2,2'-oxybis(1-Chloropropane)		340 U	340 U	70 %	78 %	330 U	106 %
3/4-Methylphenol		340 U	340 U	73 %	72 %	330 U	101 %
N-Nitroso-di-n-propylamine		340 U	340 U	80 %	80 %	330 U	114 %
Hexachloroethane		340 U	340 U	57 %	62 %	330 U	91 %
Nitrobenzene		340 U	340 U	44 * %	58 %	330 U	59 %
Isophorone		340 U	340 U	48 * %	60 %	330 U	65 %
2-Nitrophenol		340 U	340 U	53 %	66 %	330 U	69 %
2,4-Dimethylphenol		340 U	340 U	53 %	34 * %	330 U	69 %
bis(2-Chloroethoxy)methane		340 U	340 U	51 %	61 %	330 U	69 %
2,4-Dichlorophenol		340 U	340 U	51 %	66 %	330 U	66 %
1,2,4-Trichlorobenzene		340 U	340 U	52 * %	68 %	330 U	64 %
Naphthalene		340 U	340 U	51 %	65 %	330 U	65 %
4-Chloroaniline		850 U	860 U	54 %	33 %	830 U	62 %
Hexachlorobutadiene		340 U	340 U	51 %	65 %	330 U	68 %
4-Chloro-3-methylphenol		340 U	340 U	55 * %	63 %	330 U	74 %
2-Methylnaphthalene		340 U	340 U	51 * %	64 %	330 U	67 %
Hexachlorocyclopentadiene		340 U	340 U	57 %	62 %	330 U	84 %
2,4,6-Trichlorophenol		340 U	340 U	70 %	105 %	330 U	95 %
2,4,5-Trichlorophenol		340 U	340 U	77 %	102 %	330 U	105 %

*= Outside of EPA CLP QC limits.

000000008

RFW Batch Number: 0806L359 Client: TNUHANFORD F08-101 H3779 Work Order: 11343606001 Page: 1b

Cust ID:	B1V522		B1V525		B1V525		B1V525		SBLKWB		SBLKWB BS	
RFW#:	001		002		002 MS		002 MSD		08LE0322-MB1		08LE0322-MB1	
2-Chloronaphthalene	340	U	340	U	82	%	95	%	330	U	99	%
2-Nitroaniline	850	U	860	U	78	%	92	%	830	U	111	%
Dimethylphthalate	340	U	340	U	76	%	94	%	330	U	100	%
Acenaphthylene	340	U	340	U	78	%	96	%	330	U	99	%
2,6-Dinitrotoluene	340	U	340	U	77	%	99	%	330	U	100	%
3-Nitroaniline	850	U	860	U	80	%	77	%	830	U	112	%
Acenaphthene	340	U	340	U	78	%	92	%	330	U	95	%
2,4-Dinitrophenol	1700	U	1700	U	56	%	55	%	1700	U	67	%
4-Nitrophenol	850	U	860	U	67	%	115	%	830	U	114	%
Dibenzofuran	340	U	340	U	76	%	92	%	330	U	101	%
2,4-Dinitrotoluene	340	U	340	U	74	%	97	%	330	U	106	%
Diethylphthalate	340	U	340	U	71	%	90	%	330	U	100	%
4-Chlorophenyl-phenylether	340	U	340	U	75	%	91	%	330	U	97	%
Fluorene	340	U	340	U	77	%	95	%	330	U	100	%
4-Nitroaniline	850	U	860	U	69	%	76	%	830	U	102	%
4,6-Dinitro-2-methylphenol	850	U	860	U	67	%	75	%	830	U	88	%
N-Nitrosodiphenylamine (1)	340	U	340	U	65	%	74	%	330	U	85	%
4-Bromophenyl-phenylether	340	U	340	U	71	%	84	%	330	U	90	%
Hexachlorobenzene	340	U	340	U	84	%	92	%	330	U	109	%
Pentachlorophenol	850	U	860	U	86	%	92	%	830	U	104	%
Phenanthrene	340	U	340	U	80	%	96	%	330	U	106	%
Anthracene	340	U	340	U	78	%	94	%	330	U	106	%
Carbazole	340	U	340	U	77	%	100	%	330	U	108	%
Di-n-butylphthalate	38	J	41	J	69	%	92	%	330	U	101	%
Fluoranthene	340	U	340	U	76	%	108	%	330	U	106	%
Pyrene	340	U	340	U	74	%	86	%	330	U	103	%
Butylbenzylphthalate	340	U	340	U	72	%	93	%	330	U	103	%
3,3-Dichlorobenzidine	340	U	340	U	79	%	70	%	330	U	95	%
Benzo(a)anthracene	340	U	340	U	82	%	97	%	330	U	102	%
Chrysene	340	U	340	U	77	%	94	%	330	U	104	%
bis(2-Ethylhexyl)phthalate	45	JB	98	JB	78	%	102	%	40	J	109	%
Di-n-octyl phthalate	340	U	340	U	74	%	93	%	330	U	106	%
Benzo(b)fluoranthene	340	U	340	U	75	%	90	%	330	U	106	%
Benzo(k)fluoranthene	340	U	340	U	76	%	92	%	330	U	96	%
Benzo(a)pyrene	340	U	340	U	77	%	87	%	330	U	101	%
Indeno(1,2,3-cd)pyrene	340	U	340	U	91	%	99	%	330	U	104	%
Dibenz(a,h)anthracene	340	U	340	U	93	%	101	%	330	U	106	%
Benzo(g,h,i)perylene	340	U	340	U	85	%	91	%	330	U	100	%
Dimethoate	340	U	340	U	340	U	340	U	330	U	330	U
Phorate	340	U	340	U	340	U	340	U	330	U	330	U

*= Outside of EPA CLP QC limits.

00000009

Cust ID:	B1V522		B1V525		B1V525		B1V525		SBLKWB		SBLKWB BS	
RFW#:	001		002		002 MS		002 MSD		08LE0322-MB1		08LE0322-MB1	
2,3,4,6-Tetrachlorophenol	340	U	340	U	55	%	87	%	330	U	80	%
Tributylphosphate	340	U	340	U	340	U	340	U	330	U	330	U

(1) - Cannot be separated from Diphenylamine. *= Outside of EPA CLP QC limits.

000000010

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B1V522

Lab Name: Lionville Labs, Inc. Work Order: 11343606001

Client: TNUHANFORD F08-101 H3779

Matrix: (soil/water) SOIL

Lab Sample ID: 0806L359-001

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: N072516

Level: (low/med) LOW

Date Received: 06/27/08

% Moisture: 2 decanted: (Y/N)__

Date Extracted: 07/07/08

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 07/25/08

Injection Volume: 2.0(uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N

pH: _____

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.444	200	JAB
2.	ALDOL CONDENSATE	6.002	40000	JAB
3.	UNKNOWN	20.174	100	JB

FORM 1 SV-TIC RFW (v3.3)

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B1V525

Lab Name: Lionville Labs, Inc. Work Order: 11343606001

Client: TNUHANFORD F08-101 H3779

Matrix: (soil/water) SOIL

Lab Sample ID: 0806L359-002

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: N072517

Level: (low/med) LOW

Date Received: 06/27/08

% Moisture: 3 decanted: (Y/N)__

Date Extracted: 07/07/08

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 07/25/08

Injection Volume: 2.0(uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.060	100	J
2.	ALDOL CONDENSATE	5.479	200	JAB
3.	ALDOL CONDENSATE	5.993	40000	JAB
4.	UNKNOWN	21.970	200	J
5.	UNKNOWN	25.039	200	J

FORM 1 SV-TIC RFW (v3.3)

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLKWB

Lab Name: Lionville Labs, Inc. Work Order: 11343606001

Client: TNUHANFORD F08-101 H3779

Matrix: (soil/water) SOIL

Lab Sample ID: 08LE0322-MB1

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: N072515

Level: (low/med) LOW

Date Received: 07/07/08

% Moisture: _____ decanted: (Y/N)__

Date Extracted: 07/07/08

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 07/25/08

Injection Volume: 2.0(uL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N

pH: _____

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL CONDENSATE	5.438	300	JA
2.	ALDOL CONDENSATE	5.996	40000	JA
3.	ALDOL CONDENSATE	7.287	70	JA
4.	UNKNOWN	20.167	300	J

FORM 1 SV-TIC RFW (v3.3)

onville Laboratory Use Only

0806L359

Custody Transfer Record/Lab Work Request

Page 1 of 1

See SRC

LVLI

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

ient TNU Hanford SAF# F08-101

t. Final Proj. Sampling Date

oject# 11343-606-001-9999-00

oject Contact/Phone#

onville Laboratory Project Manager Arlette Johnson

: SW846 Del STD TAT 30 days

ate Rec'd 6-27-08 Date Due 7-27-08

		A								B					
Refrigerator #		2								2	—				
#/Type Container	Liquid														
	Solid	1ql								1pl	—				
Volume	Solid	250								125	—				
Preservatives		—								—	—				
ANALYSES REQUESTED →		ORGANIC							INORG						
		VOA	BNA	Pest/PCB	Herb				Metal	CN	Cr+6	NO2/NO3			
		6-27-08 use	W												
			0625								ICR6	IN3N2			

Lionville Laboratory Use Only

ATRIX ODES:
- Soil
- Sediment
- Solid
- Sludge
- Water
- Oil
- Air
- Drum Solids
- Drum Liquids
- EP/TCLP Leachate
- Wipe
- Other
- Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA	Pest/PCB	Herb	Metal	CN	Cr+6	NO2/NO3
001	BIV522			S	6-25-08	915		X					X	X
002	BIV525			↓	↓	↓		X					X	X

Special Instructions:

Special Instructions:

1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
Fed Ex	[signature]	6-27-08	0950

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time
ORIGINAL REWRITTEN		"COMPOSITE WASTE"	

000000014

OLLECTOR Kevin Patterson NCO SAMPLER Fluor Hanford	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8N AIR QUALITY ☐
AMPLING LOCATION C5989, I-103	PROJECT DESIGNATION 200-BP-5 OU Characterization for "C" Well - Soil		SAF NO. F08-101	DATA TURNAROUND 45 Days / 45 Days
CE CHEST NO. GRP-08-626	FIELD LOGBOOK NO. HNF-N-585-6	ACTUAL SAMPLE DEPTH 216.5' - 219'	COA 123513ES10	METHOD OF SHIPMENT FEDERAL EXPRESS
HIPPED TO Lionville Laboratory Incorporated	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7919 2179 8016	

MATRIX*
=Air
L=Drum
quids
S=Drum
olids
=Liquid
=Oil
=Soil
E=Sediment
=Tissue
=Vegitation
/=Water
/I=Wipe
=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To: B1V510

PRESERVATION	Cool~4C	Cool~4C											
TYPE OF CONTAINER	aG	G/P											
NO. OF CONTAINER(S)	1	1											
VOLUME	250mL	125mL											
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196; NO2/NO3 - 353.2;											

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
1V522	SOIL	6/25/08	0915	✓	✓								
				3207062									
	LOT #			2246086	027006								

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Kevin Patterson Fluor Hanford	DATE/TIME JUN 25 2008	RECEIVED BY/STORED IN Brad Patterson / [signature]	DATE/TIME 6/26/08 09:00
RELINQUISHED BY/REMOVED FROM [signature] / Brad Patterson	DATE/TIME 6/26/08 1330	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM Fed Ex	DATE/TIME 6.27.08 / 0950	RECEIVED BY/STORED IN [signature]	DATE/TIME 6.27.08 0950
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
** Analytical batch QC must be run on a sample associated with this SAF.
(1)Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) {2,3,4,6-Tetrachlorophenol, 3+4 Methylphenol (cresol, m+p), Cyclohexanone, Dimethoate, Phorate, Tributyl phosphate}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

000000015

Fluor Hanford Inc. | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F08-101-014 | PAGE 1 OF 1

OLLECTOR: Kevin Patterson NCO SAMPLER: Fluor Hanford	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: WIDRIG, DL
AMPLING LOCATION: 25989, I-103-D	PROJECT DESIGNATION: 200-BP-5 OU Characterization for "C" Well - Soil		SAF NO.: F08-101
CE CHEST NO.: GRP-08-626	FIELD LOGBOOK NO.: HNF-585-6	ACTUAL SAMPLE DEPTH: 216.5'-219'	COA: 123513ES10 12LB 21848
HIPPED TO: Lionville Laboratory Incorporated	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: SEE PTR 7919 2179 8016

PRICE CODE: 8N | AIR QUALITY: ☐ | DATA TURNAROUND: 45 Days / 45 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

000000016

MATRIX*: =Air, L=Drum quids, S=Drum olids, =Liquid, =Oil, =Soil, E=Sediment, =Tissue, =Vegitation, /=Water, /I=Wipe, =Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To: B1V510

PRESERVATION	Cool~4C	Cool~4C
TYPE OF CONTAINER	aG	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	250mL	125mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196; NO2/NO3 - 353.2;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
1V525	SOIL	6/25/08	0915	✓	✓
	LOT#			32207062	027006

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson, Fluor Hanford	06/26/08 930	Bradley Brickson	6/26/08 930
Patterson	6/26/08 13:30	FED EX	
FED EX	6.27.08/0950	[illegible]	6.27.08/0950

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
** Analytical batch QC must be run on a sample associated with this SAF.
(1)Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) {2,3,4,6-Tetrachlorophenol, 3+4 Methylphenol (cresol, m+p), Cyclohexanone, Dimethoate, Phorate, Tributyl phosphate}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: TNU Hanford

Project/SAF/SOW/Release #: F08-401

Date: 6-27-08

LvLI Batch #: 08061359

Sample Custodian: D. Smith

NOTE: EXPLAIN ALL DISCREPANCIES

1. Samples Hand Delivered or Shipped?	Carrier Fed Ex		Airbill # 7919 2179 8016
2. Custody Seals on coolers or shipping containers intact, signed & dated?	☑ Yes	☐ No	☐ No Seals
3. Outside of coolers or shipping containers are free from damage?	☑ Yes	☐ No	*Comments:*
4. All expected paperwork received (coc & other client specific information) sealed in plactic bag and easily accessible?	☑ Yes	☐ No	
5. Samples received cooled or ambient?	Temp 18.4 °C		Cooler # GRP-08-626
How was the temperature taken?	☑ IR	☐ Temp. Blank	☐ Other (Specify):
Is the Temp. Criteria met for these samples? (Hg in soils @ 4°C)	☐ Yes	☐ No	ice packs present but melted.
6. Custody seals on sample containers intact, signed and dated?	☑ Yes	☐ No	☐ No Seals
7. COC (Client & LvLI) signed & dated?	☑ Yes	☐ No	
8. Sample containers are intact?	☑ Yes	☐ No	
9. All samples on COC received?	☑ Yes	☐ No	
All samples received on COC?	☑ Yes	☐ No	
10. All sample label information matches COC?	☑ Yes	☐ No	
11. Samples properly preserved? (If #5 is no, then this is no.)	☐ Yes	☑ No temp. 18.4	
12. Samples received within hold times?	☑ Yes	☐ No	
Short holds taken to wet lab?	☐ Yes	☐ No	☑ N/A
13. VOA, TOC, TOX free of headspace?	☐ Yes	☐ No	☑ N/A
14. QC stickers placed on bottles designated by client?	☐ Yes	☐ No	☑ N/A
15. Shipment meets LvLI Sample Acceptance Policy? (Identify all bottles that do not meet the policy, which is on the reverse of this page.)	☐ Yes	☑ No temp. 18.4	
16. Project Manager contacted concerning any discrepancies?	☑ Yes	☐ No	☐ N/A
Person Contacted [signature]		Date 6-27-08	

LvLI LIONVILLE LABORATORY INC.

SR-002-B.doc

INORGANICS

Lionville Laboratory, Inc.
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNUHANFORD F08-101 H3779

DATE RECEIVED: 06/27/08 LVL LOT # :0806L359

CLIENT ID /ANALYSIS	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B1V522						
% SOLIDS	001	S	08L%S062	06/25/08	07/09/08	07/10/08
% SOLIDS	001 REP	S	08L%S062	06/25/08	07/09/08	07/10/08
CHROMIUM VI	001	S	08LVI053	06/25/08	07/21/08	07/21/08
CHROMIUM VI	001 REP	S	08LVI053	06/25/08	07/21/08	07/21/08
CHROMIUM VI	001 MS	S	08LVI053	06/25/08	07/21/08	07/21/08
CHROMIUM VI	001 MSD	S	08LVI053	06/25/08	07/21/08	07/21/08
NITRATE NITRITE	001	S	08LN3S20	06/25/08	07/02/08	07/03/08
NITRATE NITRITE	001 REP	S	08LN3S20	06/25/08	07/02/08	07/03/08
B1V525						
% SOLIDS	002	S	08L%S062	06/25/08	07/09/08	07/10/08
CHROMIUM VI	002	S	08LVI053	06/25/08	07/21/08	07/21/08
NITRATE NITRITE	002	S	08LN3S20	06/25/08	07/02/08	07/03/08
LAB QC:						
CHROMIUM VI	MB1	S	08LVI053	N/A	07/21/08	07/21/08
CHROMIUM VI	MB1 BS	S	08LVI053	N/A	07/21/08	07/21/08
CHROMIUM VI	MB1 BSD	S	08LVI053	N/A	07/21/08	07/21/08
NITRATE NITRITE	MB1	S	08LN3S20	N/A	07/02/08	07/03/08
NITRATE NITRITE	MB1 BS	S	08LN3S20	N/A	07/02/08	07/03/08

LIONVILLE LABORATORY INC.

Analytical Report

Client: TNU-HANFORD F08-101 H3779
LVL#: 0806L359

W.O.#: 11343-606-001-9999-00
Date Received: 06-27-08

INORGANIC NARRATIVE

1. This narrative covers the analysis of 2 soil samples.

2. The samples were prepared and analyzed in accordance with the method checked on the attached glossary.

   LvLI is NELAP accredited by the State of Pennsylvania. For a complete list of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager. LvLI certifies that all test results meet the requirements of NELAC with any exception noted in the following statements.

3. Sample holding time as required by the method and/or contract was met.

4. The results presented in this report are derived from samples that did not meet LvLI's sample acceptance policy as noted on the Sample Receipt Checklist.

5. The method blanks were within the method criteria.

6. The Laboratory Control Samples (LCS) were within the laboratory control limits.

7. The matrix spike recoveries were within the 75-125% control limits.

8. The replicate analyses were within the 20% Relative Percent Difference (RPD) control limit.

9. Results for soil samples are reported on a dry weight basis.

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 package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

7/29/08
Date

njp\i06-359

The results presented in this report relate to the analytical testing and conditions of the samples upon 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 12 pages.

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Lionville Laboratory Incorporated

WET CHEMISTRY

METHODS GLOSSARY FOR SOIL/SOLIDS SAMPLE ANALYSIS

	ASTM	SW846	OTHER
% Ash	__ D2216-80		
% Moisture	__ D2216-80		__ ILMO4.0 (e)
% Solids	✓ D2216-80		__ ILMO4.0 (e)
% Volatile Solids	__ D2216-80		
ASTM Extraction in Water	__ D3987-81/85		
BTU	__ D240-87		
CEC		__ 9081	__ c
Chromium VI		✓ 3060A/7196A	
Corrosivity __ by coupon __ by pH		__ 1110(mod) __ 9045C	
Cyanide, Total		__ 9010B	__ ILMO4.0 (e)
Cyanide, Reactive		__ Section 7.3/9014	
Halides, Extractable Organic		__ 9020B	__ EPA 600/4/84-008
Halides, Total		__ 9020B	__ EPA 600/4/84-008
EP Toxicity		__ 1310A	
Flash Point		__ 1010	
Ignitability		__ 1010	
Oil & Grease		__ 9071A	
Carbon, Total Organic		__ 9060	__ Lloyd Kahn (mod)
Oxygen Bomb Prep for Anions	__ D240-87(mod)	__ 5050	
Petroleum Hydrocarbons, Total Recoverable		__ 9071	__ EPA 418.1
pH, Soil		__ 9045C	
Sulfide, Reactive		__ Section 7.3/9030B	
Sulfide		__ 9030B(mod)	
Specific Gravity	__ D1429-76C/	__ D5057-90	
Sulfur, Total		__ 9056	
Synthetic Preparation Leach		__ 1312	
Paint Filter		__ 9095A	

Other: Nitrate Nitrite **Method:** EPA 353.2 (mod.)

Other: **Method**

Lionville Laboratory Incorporated

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

MB = Method or Preparation Blank.
MS = Matrix Spike.
MSD = Matrix Spike Duplicate.
REP = Sample Replicate
LC = Laboratory Control Sample.
NC = Not calculated.

A suffix of -R, -S, or -T following these codes indicate a replicate, spike or sample duplicate analysis respectively.

ANALYTICAL WET CHEMISTRY METHODS

1. ASTM Standard Methods.

2. USEPA Methods for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020).

3. Test Methods for Evaluating Solid Waste (USEPA SW-846).

a. Standard Methods for the Examination of Water and Waste, 16 ed, (1983).

b. Standard Methods for the Examination of Water and Waste, 17 ed, (1989)/18ed (1992).

c. Method of Soil Analysis, Part 1, Physical and Mineralogical Methods, 2nd ed, (1986).

d. Method of Soil Analysis, Part 2, Chemical and Microbiological Properties, Am. Soc. Agron., Madison, WI (1965).

e. USEPA Contract Laboratory Program, Statement of Work for Inorganic Analysis.

f. Code of Federal Regulations.

Lionville Laboratory, Inc.

INORGANICS DATA SUMMARY REPORT 07/28/08

CLIENT: TNUHANFORD F08-101 H3779 LVL LOT #: 0806L359
WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	B1V522	% Solids	97.6	%	0.01	1.0
		Chromium VI	0.20 u	MG/KG	0.20	1.0
		Nitrate Nitrite	6.5	MG/KG	0.19	1.0
-002	B1V525	% Solids	97.3	%	0.01	1.0
		Chromium VI	0.21 u	MG/KG	0.21	1.0
		Nitrate Nitrite	7.5	MG/KG	0.41	2.0

Lionville Laboratory, Inc.

INORGANICS METHOD BLANK DATA SUMMARY PAGE 07/28/08

CLIENT: TNUHANFORD P08-101 H3779

LVL LOT #: 0806L359

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
BLANK10	08LVI053-MB1	Chromium VI	0.20 u	MG/KG	0.20	1.0
BLANK10	08LN3S20-MB1	Nitrate Nitrite	0.19 u	MG/KG	0.19	1.0

Lionville Laboratory, Inc.

INORGANICS ACCURACY REPORT 07/28/08

CLIENT: TNUHANFORD F08-101 H3779 LVL LOT #: 0806L359

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	SPIKED SAMPLE	INITIAL RESULT	SPIKED AMOUNT	%RECOV	DILUTION FACTOR(SPK)
-001	B1V522	Soluble Chromium VI	3.8	0.20u	4.1	94.3	1.0
		Insoluble Chromium VI	1060	0.20u	990	107.0	100
BLANK10	08LVI053-MB1	Soluble Chromium VI	3.8	0.20u	4.0	93.8	1.0
		Insoluble Chromium VI	1310	0.20u	1150	114.3	100
BLANK10	08LN3S20-MB1	Nitrate Nitrite	4.6	0.19u	4.7	98.2	1.0

Lionville Laboratory, Inc.

INORGANICS PRECISION REPORT 07/28/08

CLIENT: TNUHANFORD F08-101 H3779

LVL LOT #: 0806L359

WORK ORDER: 11343-606-001-9999-00

SAMPLE	SITE ID	ANALYTE	INITIAL RESULT	REPLICATE	RPD	DILUTION FACTOR(REP)
-001REP	B1V522	% Solids	97.6	97.6	0.031	1.0
		Chromium VI	0.20u	0.20u	NC	1.0
		Nitrate Nitrite	6.5	7.0	8.1	1.0

onville Laboratory Use Only

0806L359

Custody Transfer Record/Lab Work Request

Page 1 of 1

See SRC

LVLI

27.

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

ient TNU Hanford SAF# F08-101

t. Final Proj. Sampling Date

oject# 11343-606-001-9999-00

oject Contact/Phone#

onville Laboratory Project Manager Orlette Johnson

: SW846 Del STD TAT 30 days

ate Rec'd 6-27-08 Date Due 7-27-08

		A								B					
Refrigerator #		2								2					
#/Type Container	Liquid														
	Solid	1ql								1pl					
Volume	Solid	250								125					
Preservatives		—								—					
ANALYSES REQUESTED →		ORGANIC							INORG						
		VOA	BNA	Pest/PCB	Herb				Metal	CN	Cr+6	NO2/NO3			
		6-27-08 use	N												
			0625								ICR6	IN3N2			

Lionville Laboratory Use Only

ATRIX
ODES:
Soil
Sediment
Solid
Sludge
Water
Oil
Air
Drum
Solids
Drum
Liquids
EP/TCLP
Leachate
Wipe
Other
Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA	Pest/PCB	Herb	Metal	CN	Cr+6	NO2/NO3				
001	BIV522			S	6-25-08	915		X					X	X				
002	BIV525			↓	↓	↓		X					X	X				

pecial Instructions:

Special Instructions:

1.
2.
3.
4.
5.
6.

Relinquished by	Received by	Date	Time
Fed Ex	[signature]	6-27-08	0950

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time
ORIGINAL REWRITTEN		"COMPOSITE WASTE"	

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F08-101-009	PAGE 1 OF 1
COLLECTOR Kevin Patterson NCO SAMPLER Fluor Hanford	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8N AIR QUALITY ☐	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C5989, I-103	PROJECT DESIGNATION 200-BP-5 OU Characterization for "C" Well - Soil		SAF NO. F08-101		
ICE CHEST NO. GRP-08-626	FIELD LOGBOOK NO. HNF-N-585-6	ACTUAL SAMPLE DEPTH 216.5' - 219'	COA 123513ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Lionville Laboratory Incorporated	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7919 2179 8016		

MATRIX*
=Air
L=Drum
Liquids
S=Drum
Solids
=Liquid
=Oil
=Soil
E=Sediment
=Tissue
=Vegitation
/=Water
/I=Wipe
=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To: 81V510

PRESERVATION	Cool~4C	Cool~4C											
TYPE OF CONTAINER	aG	G/P											
NO. OF CONTAINER(S)	1	1											
VOLUME	250mL	125mL											
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196; NO2/NO3 - 353.2;											

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
1V522	SOIL	6/25/08	0915	✓	✓								
				3207062									
	LOT#			2246080	027006								

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Kevin Patterson Fluor Hanford	DATE/TIME JUN 25 2008	RECEIVED BY/STORED IN Brad Patterson / [signature]	DATE/TIME 6/26/08 09:00
RELINQUISHED BY/REMOVED FROM [signature] / Brad Patterson	DATE/TIME 6/26/08 13:30	RECEIVED BY/STORED IN Fed Ex	DATE/TIME
RELINQUISHED BY/REMOVED FROM Fed Ex	DATE/TIME 6.27.08/0950	RECEIVED BY/STORED IN D. J. Mich	DATE/TIME 6.27.08 0950
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
** Analytical batch QC must be run on a sample associated with this SAF.
(1)Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) {2,3,4,6-Tetrachlorophenol, 3+4 Methylphenol (cresol, m+p), Cyclohexanone, Dimethoate, Phorate, Tributyl phosphate}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

00000000 28

Fluor Hanford Inc. | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F08-101-014 | PAGE 1 OF 1

COLLECTOR / NCO SAMPLER: Kevin Patterson / Fluor Hanford	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: WIDRIG, DL
PRICE CODE: 8N	AIR QUALITY: ☐	DATA TURNAROUND: 45 Days / 45 Days	
SAMPLING LOCATION: 25989, I-103-D	PROJECT DESIGNATION: 200-BP-5 OU Characterization for "C" Well - Soil	SAF NO.: F08-101	
ICE CHEST NO.: GRP-08-626	FIELD LOGBOOK NO.: HNF-585-6	ACTUAL SAMPLE DEPTH: 216.5'-219'	COA: 123513ES10 12 23 21848
METHOD OF SHIPMENT: FEDERAL EXPRESS			
SHIPPED TO: Jonville Laboratory Incorporated	OFFSITE PROPERTY NO.: SEE PTR	BILL OF LADING/AIR BILL NO.: SEE PTR 7919 2179 8016	

MATRIX*: =Air, L=Drum, quids, S=Drum, olids, =Liquid, =Oil, =Soil, E=Sediment, =Tissue, =Vegitation, =Water, /I=Wipe, =Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE: Radioactive Tie To: B1V510

PRESERVATION	Cool~4C	Cool~4C
TYPE OF CONTAINER	aG	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	250mL	125mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196; NO2/NO3 - 353.2;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
1V525	SOIL	6/25/08	0915	✓	✓
	LOT #			3207062	0270062

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson Fluor Hanford	06/26/08 9:10	Bradley Bikkes	6/26/08 9:10
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Sotheron Bikkes	6/26/08 13:30	FED EX	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FED EX	6.27.08/0950	D. Smith	6.27.08/0950
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

** Analytical batch QC must be run on a sample associated with this SAF.

(1)Semi-VOA - 8270B (TCL); Semi-VOA - 8270B (Add-On) {2,3,4,6-Tetrachlorophenol, 3+4 Methylphenol (cresol, m+p), Cyclohexanone, Dimethoate, Phorate, Tributyl phosphate}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

A-6003-618(01/06)

00000000 1 . 62

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: TNU Hanford Date: 6.27.08

Project/SAF/SOW/Release #: F08-101

LvLI Batch #: 08061359 Sample Custodian: D. Smith

NOTE: EXPLAIN ALL DISCREPANCIES

1. Samples Hand Delivered or Shipped?	Carrier Fed Ex		Airbill # 7919 2179 8016
2. Custody Seals on coolers or shipping containers intact, signed & dated?	☑ Yes	☐ No	☐ No Seals
3. Outside of coolers or shipping containers are free from damage?	☑ Yes	☐ No	*Comments:*
4. All expected paperwork received (coc & other client specific information) sealed in plactic bag and easily accessible?	☑ Yes	☐ No	
5. Samples received cooled or ambient?	Temp 18.4 °C		Cooler # GRP-08-626
How was the temperature taken?	☑ IR	☐ Temp. Blank	☐ Other (Specify):
Is the Temp. Criteria met for these samples? (Hg in soils @ 4°C)	☐ Yes	☐ No	ice packs present but melted.
6. Custody seals on sample containers intact, signed and dated?	☑ Yes	☐ No	☐ No Seals
7. COC (Client & LvLI) signed & dated?	☑ Yes	☐ No	
8. Sample containers are intact?	☑ Yes	☐ No	
9. All samples on COC received?	☑ Yes	☐ No	
All samples received on COC?	☑ Yes	☐ No	
10. All sample label information matches COC?	☑ Yes	☐ No	
11. Samples properly preserved? (If #5 is no, then this is no.)	☐ Yes	☑ No temp. 18.4	
12. Samples received within hold times?	☑ Yes	☐ No	
Short holds taken to wet lab?	☐ Yes	☐ No	☑ N/A
13. VOA, TOC, TOX free of headspace?	☐ Yes	☐ No	☑ N/A
14. QC stickers placed on bottles designated by client?	☐ Yes	☐ No	☑ N/A
15. Shipment meets LvLI Sample Acceptance Policy? (Identify all bottles that do not meet the policy, which is on the reverse of this page.)	☐ Yes	☑ No temp. 18.4	
16. Project Manager contacted concerning any discrepancies?	☑ Yes	☐ No	☐ N/A
Person Contacted _____		Date 6.27.08	

LvLI LIONVILLE LABORATORY INC.