0078785

SAF-RC-088
618-7 Burial Ground – Other Liquids
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Rick Kerkow	L6-06	KW 9/23/08 Initials/Date
Kathy Wendt	H4-21	KW 9/23/08 Initials/Date

COMMENTS:

SDG K1315 SAF-RC-088

Rad only X Chem only Rad & Chem

X Complete Partial

WASTE SITE: 618-7 Burial Ground (drums)

RECEIVED
SEP 29 2008
EDMC

LIONVILLE LABORATORY INC.

RECEIVED SEP 2008

16 September 2008

Joan Kessner
WC-Hanford, Inc.
2620 Fermi Avenue
MSIN H9-03
Richland, WA 99354

Subject: 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 #	0809L020
SDG #	K1315
SAF #	RC-088
Date Received	9/4/08
# Samples	3
Matrix	SOIL
Volatiles	X
Semivolatiles	X
Pest/PCB	
Glycols	
DRO/KRO/GRO	
GC Alcohols	
Herbicides	
Metals	
Inorganics	

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

RECEIVED
SEP 2008

Lionville Laboratory, Inc.
VOA ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-088 K1315

DATE RECEIVED: 09/04/08 LVL LOT # :0809L020

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J17HH1	001	SO	08LVK163	08/27/08	N/A	09/08/08
J17HH1	001 MS	SO	08LVK163	08/27/08	N/A	09/08/08
J17HH1	001 MSD	SO	08LVK163	08/27/08	N/A	09/08/08
J17HH2	002	SO	08LVK163	08/27/08	N/A	09/08/08
J17HH3	003	SO	08LVK163	08/27/08	N/A	09/08/08
LAB QC:						
VBLKFS	MB1	S	08LVK163	N/A	N/A	09/08/08
VBLKFS	MB1 BS	S	08LVK163	N/A	N/A	09/08/08

LIONVILLE LABORATORY INC.

Case Narrative

Client: WC-HANFORD RC-088
LVL #: 0809L020
SDG/SAF # K1315/RC-088

W.O. #: 60049-001-001-0001-00
Date Received: 09-04-2008

GC/MS VOLATILE

Three (3) solid samples were collected on 08-27-2008.

The samples and their associated QC samples were analyzed according to criteria set forth in Lionville Laboratory SOPs based on SW 846 Method 5035 for TCL Volatile target compounds on 09-08-2008.

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. Samples were analyzed within required holding time.
2. Non-target compounds were detected in these samples.
3. All surrogate recoveries were within acceptance criteria.
4. Four (4) of seventy (70) matrix spike recoveries were outside acceptance criteria.
5. One (1) of thirty-five (35) blank spike recoveries was outside acceptance criteria.
6. The method blank was below the reporting limit for all target compounds.

r:\group\data\2008\voa\tnu\0809-020cs2.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 18 pages.

LIONVILLE LABORATORY INC.

7. All internal standard area and retention time criteria were met.

8. The CCL analyzed on 09-08-2008 on instrument 5972K did not meet the in-house %D of 40% for the compound Bromoform. There is minimal impact on data as this compound was not detected in the samples. A copy of the Sample Discrepancy Report (SDR# 08VT046) has been included in the package.

9. Manual integrations are performed according to SOP QA-125 to produce quality data with 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").

10. 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.

11. "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

9/10/08
Date

Lionville Laboratory Sample Discrepancy Report (SDR)

SDR #: 08VT046

Initiator: Jack Glacker
Date: 9/9/08
Client: Washington Closure Hanford

Batch: 0809L020, 0808L138
Samples: all
Method: SW846/MCAWW/CLP/

Parameter: 0624H
Matrix: encore soils
Prep Batch: 08LVK163

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)

bromoform was 44% high in the daily continuing calibration check

Bromoform was not detected in these samples. 9/9/08

2. Known or Probable Causes(s)

unknown

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 + narrate

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: 9/10/08 Other Explanation:

__ Verified re-[log][leach][extract][digest][analysis] (circle)
X 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 / _____
2 MS VOA: Rubino / _____
__ MS BNA: Carden / _____
__ Other: _____

QA-139-A-0208

000000004

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.

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 resolve 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 - **Co-elution/ Background:** Peak was manually integrated to eliminate contribution from co-eluting compounds, background signal, or other interference.

PI - **Proper Integration:** A peak with poor or inconsistent integration (i.e., excessive tail) was properly integrated manually.

Volatiles by GC/MS, HSL List

Report Date: 09/09/08 14:37

RFW Batch Number: 0809L020 Client: WC-HANFORD RC-088 K1315 Work Order: 60049001001 Page: 1a

	Cust ID:	J17HH1	J17HH1	J17HH1	J17HH2	J17HH3	VBLKFS
Sample Information	RFW#:	001	001 MS	001 MSD	002	003	08LVK163-MB1
	Matrix:	SOLID	SOLID	SOLID	SOLID	SOLID	SOIL
	D.F.:	1.00	0.926	0.980	0.980	0.893	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Toluene-d8	92 %	92 %	100 %	92 %	92 %	94 %
	Bromofluorobenzene	86 %	87 %	107 %	86 %	84 %	85 %
	1,2-Dichloroethane-d4	122 %	127 %	138 %	124 %	126 %	117 %
		fl	fl	fl	fl	fl	fl
Chloromethane		10 U	50 %	52 %	10 U	9 U	10 U
Bromomethane		10 U	110 %	109 %	10 U	9 U	10 U
Vinyl Chloride		10 U	71 %	74 %	10 U	9 U	10 U
Chloroethane		10 U	77 %	79 %	10 U	9 U	10 U
Methylene Chloride		3 BJ	60 %	65 %	3 BJ	3 BJ	3 J
Acetone		10 U	232 %	237 %	10 U	9 U	10 U
Carbon Disulfide		5 U	97 %	101 %	5 U	4 U	5 U
1,1-Dichloroethene		5 U	114 %	119 %	5 U	4 U	5 U
1,1-Dichloroethane		5 U	92 %	99 %	5 U	4 U	5 U
1,2-Dichloroethene (total)		5 U	105 %	109 %	5 U	4 U	5 U
Chloroform		5 U	118 %	121 %	5 U	4 U	5 U
1,2-Dichloroethane		5 U	136 %	148 * %	5 U	4 U	5 U
2-Butanone		10 U	161 %	160 %	10 U	9 U	10 U
1,1,1-Trichloroethane		5 U	125 %	129 %	5 U	4 U	5 U
Carbon Tetrachloride		5 U	127 %	137 %	5 U	4 U	5 U
Bromodichloromethane		5 U	123 %	129 %	5 U	4 U	5 U
1,2-Dichloropropane		5 U	82 %	86 %	5 U	4 U	5 U
cis-1,3-Dichloropropene		5 U	93 %	103 %	5 U	4 U	5 U
Trichloroethene		5 U	130 %	137 %	5 U	4 U	5 U
Dibromochloromethane		5 U	126 %	141 * %	5 U	4 U	5 U
1,1,2-Trichloroethane		5 U	94 %	107 %	5 U	4 U	5 U
Benzene		5 U	95 %	100 %	5 U	4 U	5 U
Trans-1,3-Dichloropropene		5 U	106 %	116 %	5 U	4 U	5 U
Bromoform		5 U	149 * %	165 * %	5 U	4 U	5 U
4-Methyl-2-pentanone		10 U	82 %	88 %	10 U	9 U	10 U
2-Hexanone		10 U	121 %	128 %	10 U	9 U	10 U
Tetrachloroethene		5 U	122 %	132 %	5 U	4 U	5 U
1,1,2,2-Tetrachloroethane		5 U	85 %	103 %	5 U	4 U	5 U
Toluene		5 U	90 %	98 %	5 U	4 U	5 U

*= Outside of EPA CLP QC limits.

00000000

Cust ID:	J17HH1		J17HH1		J17HH1		J17HH2		J17HH3		VBLKFS	
RFW#:	001		001 MS		001 MSD		002		003		08LVK163-MB1	
Chlorobenzene	5	U	105	%	113	%	5	U	4	U	5	U
Ethylbenzene	5	U	102	%	110	%	5	U	4	U	5	U
Styrene	5	U	100	%	110	%	5	U	4	U	5	U
Xylenes (total)	5	U	98	%	106	%	5	U	4	U	5	U
cis-1,2-dichloroethene	5	U	108	%	113	%	5	U	4	U	5	U
trans-1,2-dichloroethene	5	U	102	%	105	%	5	U	4	U	5	U

*= Outside of EPA CLP QC limits.

Cust ID: VBLKFS BS

Sample Information	RFW#:	08LVK163-MB1
	Matrix:	SOIL
	D.F.:	1.00
	Units:	ug/Kg

Surrogate Recovery	Toluene-d8	95	%
	Bromofluorobenzene	86	%
	1,2-Dichloroethane-d4	114	%

Chloromethane	59		%
Bromomethane	115		%
Vinyl Chloride	71		%
Chloroethane	79		%
Methylene Chloride	57		%
Acetone	159		%
Carbon Disulfide	96		%
1,1-Dichloroethene	109		%
1,1-Dichloroethane	91		%
1,2-Dichloroethene (total)	104		%
Chloroform	109		%
1,2-Dichloroethane	118		%
2-Butanone	119		%
1,1,1-Trichloroethane	115		%
Carbon Tetrachloride	121		%
Bromodichloromethane	113		%
1,2-Dichloropropane	81		%
cis-1,3-Dichloropropene	89		%
Trichloroethene	125		%
Dibromochloromethane	115		%
1,1,2-Trichloroethane	89		%
Benzene	94		%
Trans-1,3-Dichloropropene	95		%
Bromoform	131		%
4-Methyl-2-pentanone	71		%
2-Hexanone	100		%
Tetrachloroethene	126		%
1,1,2,2-Tetrachloroethane	69	*	%
Toluene	93		%

*= Outside of EPA CLP QC limits.

0100000000

Cust ID: **VBLKFS BS**

RFW#: **08LVK163-MB1**

Chlorobenzene	102	%
Ethylbenzene	101	%
Styrene	103	%
Xylenes (total)	101	%
cis-1,2-dichloroethene	104	%
trans-1,2-dichloroethene	103	%

*= Outside of EPA CLP QC limits.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J17HH1

Lab Name: Lionville Labs, Inc. Contract: 60049001001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOLID Lab Sample ID: 0809L020-001

Sample wt/vol: 5.00 (g/mL) G Lab File ID: k090809

Level: (low/med) LOW Date Received: 09/04/08

% Moisture: not dec. 0 Date Analyzed: 09/08/08

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	16.967	10	JB

FORM 1 VOA-TIC 1/87 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J17HH2

Lab Name: Lionville Labs, Inc. Contract: 60049001001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOLID Lab Sample ID: 0809L020-002

Sample wt/vol: 5.10 (g/mL) G Lab File ID: k090810

Level: (low/med) LOW Date Received: 09/04/08

% Moisture: not dec. 0 Date Analyzed: 09/08/08

Column: (pack/cap) CAP Dilution Factor: 0.980

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	16.956	10	JB

FORM 1 VOA-TIC 1/87 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J17HH3

Lab Name: Lionville Labs, Inc. Contract: 60049001001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOLID Lab Sample ID: 0809L020-003

Sample wt/vol: 5.60 (g/mL) G Lab File ID: k090811

Level: (low/med) LOW Date Received: 09/04/08

% Moisture: not dec. 0 Date Analyzed: 09/08/08

Column: (pack/cap) CAP Dilution Factor: 0.893

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	16.955	9	JB

FORM 1 VOA-TIC 1/87 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKFS

Lab Name: Lionville Labs, Inc. Contract: 60049001001

Lab Code: Lionvi Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 08LVK163-MB1

Sample wt/vol: 5.00 (g/mL) G Lab File ID: k090808

Level: (low/med) LOW Date Received: 09/08/08

% Moisture: not dec. 0 Date Analyzed: 09/08/08

Column: (pack/cap) CAP Dilution Factor: 1.00

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	16.974	10	J

FORM 1 VOA-TIC 1/87 Rev.

nville Laboratory Use Only

)8091020

Custody Transfer Record/Lab Work Request

Page 1 of

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

LVLI

000000016

nt Washington Closure Hanford RC-088

Final Proj. Sampling Date

ect# 60049-001-001-0001-00

ect Contact/Phone#

ville Laboratory Project Manager Arlette Johnson

SW846 Del STD TAT 3 Days

Rec'd 9-4-08 Date Due 9-7-08

		ABC	D
Refrigerator #		6	3
#/Type Container	Liquid		
	Solid	3gl	1gl
Volume	Solid	40	500
Preservatives		—	—
ANALYSES REQUESTED →		ORGANIC	INORG
		VOA	BNA	Pest/PCB	Herb	Metal	CN

RIX
ES:
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 (Lionville Laboratory Use Only: 06244)	BNA (Lionville Laboratory Use Only: 06254)
001	J17HH1			X	9.2.08	1305	X	X
002	J17HH2			↓	↓	1310	X	X
003	J17HH3			↓	↓	1315	X	X

ecial Instructions:

Special Instructions:

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

Relinquished by	Received by	Date	Time
Fed Ex	[signature]	9.4.08	0955

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time
ORIGINAL REWRITTEN		COMPOSITE WASTE	

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-088-083 | Page 1 of 1

ollector R. Kerkow / S. Deeter	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH
Price Code 8A	Data Turnaround ~~15~~ Days 3 DAY RK 8/27/08		
oject Designation 618-7 Burial Ground - Other	Sampling Location 618-7 Burial Ground (drums)		SAF No. RC-088
Chest No. ERC-96-511	Field Logbook No. EL-1395-13	COA RG61872600	Method of Shipment FedEx
ipped To EBERLINE SERVICES (LIONVILLE)	Offsite Property No. A080344		Bill of Lading/Air Bill No. SECOSPC

OSSIBLE SAMPLE HAZARDS/REMARKS

otential Radioactive contamination

pecial Handling and/or Storage

one

Preservation	Cool 4C	Cool 4C									
Type of Container	Gs*	aG									
No. of Container(s)	~~1~~ 3	1									
Volume	40mL	500mL									
SAMPLE ANALYSIS	VOA - 8260A (TCL)	Semi-VOA - 8270A (TCL)								RCF#	
Sample No. / Matrix * / Sample Date / Sample Time											
7HH1 / OTHER / 8/27/08 / 1305	X	X								J17TT4	1
7HH2 / OTHER / 8/27/08 / 1310	X	X								J17TT5	2
7HH3 / OTHER / 8/27/08 / 1315	X	X								NA	3

CHAIN OF POSSESSION	Sign/Print Names	
inquished By/Removed From	Date/Time 1340	Received By/Stored In	Date/Time 1340
DEETER	08/27/08	JRDeBuigne JRDeBuigne	8/27/08
inquished By/Removed From	Date/Time 1530	Received By/Stored In	Date/Time 1530
R-DeBuigne JRDeBuigne	8/27/08	1060 2B	8/27/08
inquished By/Removed From	Date/Time	Received By/Stored In	Date/Time 1040
060/2B	9/3/08 1040	mStankovich	9/3/08
inquished By/Removed From	Date/Time 1040	Received By/Stored In	Date/Time
mStankovich	9/3/08	FedEx	
inquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
FedEx	9-4-08/0955	DJ Munch	9-4-08/0955
inquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

RLV

Matrix *

S=Soil
SE=Sediment
SO=Solid
SL=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

ABORATORY SECTION	Received By	Title	Date/Time
NAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

CH-EE-011

000000017

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: W.C. Hanford

Project/SAF/SOW/Release #: RC-088

Date: 9-4-01

LvLI Batch #: 08092020

Sample Custodian: D Smith

NOTE: EXPLAIN ALL DISCREPANCIES

1. Samples Hand Delivered or Shipped?	Carrier Fed Ex		Airbill # 790077838 86
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 3.1	°C	Cooler # ERC-96-511
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	
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	
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	
16. Project Manager contacted concerning any discrepancies?	☐ Yes	☐ No	☑ N/A

Person Contacted _____ Date _____

LvLI LIONVILLE LABORATORY INC.

Lionville Laboratory, Inc.
BNA ANALYTICAL DATA PACKAGE FOR
WC-HANFORD RC-088 K1315

RECEIVED SEP 2008

DATE RECEIVED: 09/04/08 LVL LOT #:0809L020

CLIENT ID	LVL #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
J17HH1	001	SO	08LE0417	08/27/08	09/04/08	09/08/08
J17HH1	001 MS	SO	08LE0417	08/27/08	09/04/08	09/08/08
J17HH1	001 MSD	SO	08LE0417	08/27/08	09/04/08	09/08/08
J17HH2	002	SO	08LE0417	08/27/08	09/04/08	09/08/08
J17HH3	003	SO	08LE0417	08/27/08	09/04/08	09/08/08
LAB QC:						
SBLKXM	MB1	S	08LE0417	N/A	09/04/08	09/08/08
SBLKXM	MB1 BS	S	08LE0417	N/A	09/04/08	09/08/08

LIONVILLE LABORATORY INC.

Case Narrative

Client: WC-HANFORD RC-088
LVL #: 0809L020
SDG/SAF # K1315 / RC-088

W.O. #: 60049-001-001-0001-00
Date Received: 09-04-2008

SEMIVOLATILE

Three (3) solid samples were collected on 08-27-2008.

The samples and their associated QC samples were extracted according to Lionville Laboratory SOPs based on SW 846 method 3540C on 09-04-2008 and analyzed according to criteria set forth in Lionville Laboratory SOPs based on SW 846 Method 8270C for TCL Semivolatile target compounds on 09-08-2008.

All soil samples are reported on a dry weight basis unless requested by the client, required by the method, or noted otherwise. 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. All results presented in this report are derived from samples that met LvLI's sample acceptance policy.

2. The samples were extracted and analyzed within holding time.

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

4. All surrogate recoveries were within acceptance criteria.

5. Seventeen (17) of one hundred and twenty-eight (128) obtainable matrix spike recoveries were outside acceptance criteria. A copy of the Sample Discrepancy Report (SDR# 08MS198) has been enclosed.

6. Nineteen (19) of sixty-four (64) blank spike recoveries were outside acceptance criteria. A copy of the Sample Discrepancy Report (SDR# 08MS198) has been enclosed.

7. The method blank contained the common laboratory contaminant Bis (2-Ethylhexy) phthalate at a level less than 1x the CRQL.

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

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

r:\group\data\2008\bna\tnu\0809-020csol2.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 18 pages.

2 of 9/15/08

LIONVILLE LABORATORY INC.

10. Internal standard area and retention time criteria were met.

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. 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.

13. 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

9/15/08
Date

Lionville Laboratory Sample Discrepancy Report (SDR)

SDR #: 08MS198

Initiator: Sharon Saylor
Date: 9-8-08
Client: WC-Hanford RL080 K1315

Batch: OFU9L020
Samples: ms, msd, BS
Method: SW846/MCAWW/CLP/

Parameter: 8270
Matrix: SOLID
Prep Batch: OFLE0417

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)

low spike recoveries in the ms, msd + BS

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. Otherwise fine. All other spikes/surrogates within acceptance criteria

3. Discussion and Proposed Action

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

Other Description:

narrate

4. Project Manager Instructions...signature/date: 9/9/08

__ 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: J Kelly 9/13/08

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
✓ Project Mgr (circle): Johnson / Stone
__ Sample Prep (circle): Ford
__ Log-in: King

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

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.

Semivolatiles by GC/MS, HSL List

RFW Batch Number: 0809L020 Client: WC-HANFORD RC-088 K1315 Work Order: 60049001001 Report Date: 09/09/08 23:47 Page: 1a

	Cust ID:	J17HH1	J17HH1	J17HH1	J17HH2	J17HH3	SBLKXM
Sample Information	RFW#:	001	001 MS	001 MSD	002	003	08LE0417-MB1
	Matrix:	SOLID	SOLID	SOLID	SOLID	SOLID	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	67 %	67 %	54 %	61 %	49 %	61 %
	2-Fluorobiphenyl	73 %	77 %	57 %	66 %	48 %	61 %
	Terphenyl-d14	82 %	95 %	67 %	74 %	58 %	79 %
	Phenol-d5	71 %	79 %	61 %	63 %	52 %	59 %
	2-Fluorophenol	68 %	77 %	61 %	59 %	50 %	62 %
	2,4,6-Tribromophenol	61 %	83 %	58 %	49 %	31 %	33 %
Phenol		330 U	74 %	60 %	330 U	330 U	330 U
bis(2-Chloroethyl)ether		330 U	67 %	54 %	330 U	330 U	330 U
2-Chlorophenol		330 U	66 %	56 %	330 U	330 U	330 U
1,3-Dichlorobenzene		330 U	61 %	51 %	330 U	330 U	330 U
1,4-Dichlorobenzene		330 U	60 %	49 * %	330 U	330 U	330 U
1,2-Dichlorobenzene		330 U	62 %	54 %	330 U	330 U	330 U
2-Methylphenol		330 U	69 %	58 * %	330 U	330 U	330 U
2,2'-oxybis(1-Chloropropane)		330 U	65 %	55 %	330 U	330 U	330 U
3/4 Methylphenol		330 U	77 %	62 %	330 U	330 U	330 U
N-Nitroso-di-n-propylamine		330 U	74 %	61 %	330 U	330 U	330 U
Hexachloroethane		330 U	63 %	49 * %	330 U	330 U	330 U
Nitrobenzene		330 U	62 %	54 %	330 U	330 U	330 U
Isophorone		330 U	63 %	55 * %	330 U	330 U	330 U
2-Nitrophenol		330 U	63 %	53 %	330 U	330 U	330 U
2,4-Dimethylphenol		330 U	60 %	59 %	330 U	330 U	330 U
bis(2-Chloroethoxy)methane		330 U	64 %	56 %	330 U	330 U	330 U
2,4-Dichlorophenol		330 U	71 %	61 %	330 U	330 U	330 U
1,2,4-Trichlorobenzene		330 U	62 %	52 * %	330 U	330 U	330 U
Naphthalene		330 U	59 %	52 %	330 U	330 U	330 U
4-Chloroaniline		330 U	39 %	36 %	330 U	330 U	330 U
Hexachlorobutadiene		330 U	62 %	58 %	330 U	330 U	330 U
4-Chloro-3-methylphenol		330 U	78 %	62 %	330 U	330 U	330 U
2-Methylnaphthalene		330 U	61 %	52 * %	330 U	330 U	330 U
Hexachlorocyclopentadiene		330 U	50 %	31 %	330 U	330 U	330 U
2,4,6-Trichlorophenol		330 U	77 %	61 %	330 U	330 U	330 U
2,4,5-Trichlorophenol		830 U	90 %	70 %	830 U	830 U	830 U

*= Outside of EPA CLP QC limits.

000000008

Cust ID:	J17HH1		J17HH1		J17HH1		J17HH2		J17HH3		SBLKXM	
RFW#:	001		001 MS		001 MSD		002		003		08LE0417-MB1	
2-Chloronaphthalene	330	U	72	%	56	%	330	U	330	U	330	U
2-Nitroaniline	830	U	80	%	63	%	830	U	830	U	830	U
Dimethylphthalate	330	U	72	%	57	%	330	U	330	U	330	U
Acenaphthylene	330	U	70	%	56 *	%	330	U	330	U	330	U
2,6-Dinitrotoluene	330	U	75	%	58 *	%	330	U	330	U	330	U
3-Nitroaniline	830	U	61	%	50	%	830	U	830	U	830	U
Acenaphthene	330	U	69	%	55	%	330	U	330	U	330	U
2,4-Dinitrophenol	830	U	20	%	6 *	%	830	U	830	U	830	U
4-Nitrophenol	830	U	93	%	62	%	830	U	830	U	830	U
Dibenzofuran	330	U	72	%	58 *	%	330	U	330	U	330	U
2,4-Dinitrotoluene	330	U	78	%	62	%	330	U	330	U	330	U
Diethylphthalate	330	U	70	%	55	%	330	U	330	U	330	U
4-Chlorophenyl-phenylether	330	U	72	%	60	%	330	U	330	U	330	U
Fluorene	330	U	70	%	56 *	%	330	U	330	U	330	U
4-Nitroaniline	830	U	61	%	51	%	830	U	830	U	830	U
4,6-Dinitro-2-methylphenol	830	U	28 *	%	12 *	%	830	U	830	U	830	U
N-Nitrosodiphenylamine (1)	330	U	66	%	54	%	330	U	330	U	330	U
4-Bromophenyl-phenylether	330	U	66	%	57	%	330	U	330	U	330	U
Hexachlorobenzene	330	U	78	%	62	%	330	U	330	U	330	U
Pentachlorophenol	830	U	76	%	45	%	830	U	830	U	830	U
Phenanthrene	330	U	71	%	60	%	330	U	330	U	330	U
Anthracene	330	U	70	%	59 *	%	330	U	330	U	330	U
Carbazole	330	U	69	%	59 *	%	330	U	330	U	330	U
Di-n-butylphthalate	330	U	63	%	55	%	330	U	330	U	330	U
Fluoranthene	330	U	62	%	52	%	330	U	330	U	330	U
Pyrene	330	U	80	%	63	%	330	U	330	U	330	U
Butylbenzylphthalate	330	U	86	%	63	%	330	U	330	U	330	U
3,3'-Dichlorobenzidine	330	U	43	%	44	%	330	U	330	U	330	U
Benzo(a)anthracene	330	U	76	%	57	%	330	U	330	U	330	U
Chrysene	330	U	76	%	57	%	330	U	330	U	330	U
bis(2-Ethylhexyl)phthalate	220	JB	84	%	64	%	170	JB	69	JB	85	J
Di-n-octyl phthalate	330	U	116	%	58	%	330	U	330	U	330	U
Benzo(b)fluoranthene	330	U	118	%	57 *	%	330	U	330	U	330	U
Benzo(k)fluoranthene	330	U	111	%	55	%	330	U	330	U	330	U
Benzo(a)pyrene	330	U	112	%	57	%	330	U	330	U	330	U
Indeno(1,2,3-cd)pyrene	330	U	116	%	56 *	%	330	U	330	U	330	U
Dibenz(a,h)anthracene	330	U	123	%	58	%	330	U	330	U	330	U
Benzo(g,h,i)perylene	330	U	117	%	57	%	330	U	330	U	330	U

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

000000010

Cust ID: SBLKXM BS

Sample Information
RFW#: 08LE0417-MB1
Matrix: SOIL
D.F.: 1.00
Units: ug/Kg

Surrogate Recovery	Nitrobenzene-d5	57	%
	2-Fluorobiphenyl	56	%
	Terphenyl-d14	73	%
	Phenol-d5	62	%
	2-Fluorophenol	59	%
	2,4,6-Tribromophenol	37	%

Phenol	59		%
bis(2-Chloroethyl)ether	54		%
2-Chlorophenol	54		%
1,3-Dichlorobenzene	50		%
1,4-Dichlorobenzene	49	*	%
1,2-Dichlorobenzene	51		%
2-Methylphenol	57	*	%
2,2'-oxybis(1-Chloropropane)	55		%
3/4 Methylphenol	58	*	%
N-Nitroso-di-n-propylamine	58		%
Hexachloroethane	50		%
Nitrobenzene	54		%
Isophorone	53	*	%
2-Nitrophenol	55		%
2,4-Dimethylphenol	55		%
bis(2-Chloroethoxy)methane	56		%
2,4-Dichlorophenol	52		%
1,2,4-Trichlorobenzene	53	*	%
Naphthalene	50		%
4-Chloroaniline	38		%
Hexachlorobutadiene	53		%
4-Chloro-3-methylphenol	58	*	%
2-Methylnaphthalene	52	*	%
Hexachlorocyclopentadiene	56		%
2,4,6-Trichlorophenol	43		%
2,4,5-Trichlorophenol	58		%

*= Outside of EPA CLP QC limits.

Cust ID: **SBLKXM BS**

RFW#: **08LE0417-MB1**

2-Chloronaphthalene	53	%
2-Nitroaniline	62	%
Dimethylphthalate	55	%
Acenaphthylene	52 *	%
2,6-Dinitrotoluene	56 *	%
3-Nitroaniline	52	%
Acenaphthene	54	%
2,4-Dinitrophenol	28	%
4-Nitrophenol	55	%
Dibenzofuran	56 *	%
2,4-Dinitrotoluene	60	%
Diethylphthalate	57	%
4-Chlorophenyl-phenylether	57	%
Fluorene	55 *	%
4-Nitroaniline	56	%
4,6-Dinitro-2-methylphenol	39 *	%
N-Nitrosodiphenylamine (1)	47 *	%
4-Bromophenyl-phenylether	52	%
Hexachlorobenzene	59 *	%
Pentachlorophenol	35	%
Phenanthrene	57 *	%
Anthracene	55 *	%
Carbazole	56 *	%
Di-n-butylphthalate	58	%
Fluoranthene	61	%
Pyrene	64	%
Butylbenzylphthalate	57	%
3,3'-Dichlorobenzidine	43	%
Benzo(a)anthracene	57	%
Chrysene	59	%
bis(2-Ethylhexyl)phthalate	56	%
Di-n-octyl phthalate	56	%
Benzo(b)fluoranthene	57 *	%
Benzo(k)fluoranthene	59	%
Benzo(a)pyrene	56	%
Indeno(1,2,3-cd)pyrene	52 *	%
Dibenz(a,h)anthracene	55	%
Benzo(g,h,i)perylene	52	%

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

J17HH1

Lab Name: Lionville Labs, Inc. Work Order: 60049001001

Client: WC-HANFORD RC-088 K1315

Matrix: (soil/water) SOLID

Lab Sample ID: 0809L020-001

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

Lab File ID: C090807

Level: (low/med) LOW

Date Received: 09/04/08

% Moisture: 100 decanted: (Y/N)__

Date Extracted: 09/04/08

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 09/08/08

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.	ALDOL CONDENSATE	6.627	2000	JAB
2.	UNKNOWN	7.273	60000	JB
3.	TETRACHLOROBIPHENYL	22.537	800	J
4.	TETRACHLOROBIPHENYL	23.002	700	J
5.	TETRACHLOROBIPHENYL	23.372	800	J

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

J17HH2

Lab Name: Lionville Labs, Inc. Work Order: 60049001001

Client: WC-HANFORD RC-088 K1315

Matrix: (soil/water) SOLID

Lab Sample ID: 0809L020-002

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

Lab File ID: C090806

Level: (low/med) LOW

Date Received: 09/04/08

% Moisture: 100 decanted: (Y/N)__

Date Extracted: 09/04/08

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 09/08/08

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	7.265	50000	JB
2.	TETRACHLOROBIPHENYL	22.536	3000	J
3.	TETRACHLORBIPHENYL	23.002	2000	J
4.	TETRACHLOROBIPHENYL	23.312	3000	J
5.	TETRACHLOROBIPHENYL	23.381	3000	J

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

J17HH3

Lab Name: Lionville Labs, Inc. Work Order: 60049001001

Client: WC-HANFORD RC-088 K1315

Matrix: (soil/water) SOLID

Lab Sample ID: 0809L020-003

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

Lab File ID: C090805

Level: (low/med) LOW

Date Received: 09/04/08

% Moisture: 100 decanted: (Y/N)__

Date Extracted: 09/04/08

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 09/08/08

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	6.166	100	J
2.	ALDOL CONDENSATE	6.631	800	JAB
3.	UNKNOWN	7.268	50000	JB
4.	ALDOL CONDENSATE	8.793	100	JAB
5.	UNKNOWN	21.834	100	JB

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLKXM

Lab Name: Lionville Labs, Inc. Work Order: 60049001001

Client: WC-HANFORD RC-088 K1315

Matrix: (soil/water) SOIL

Lab Sample ID: 08LE0417-MB1

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

Lab File ID: C090803

Level: (low/med) LOW

Date Received: 09/04/08

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

Date Extracted: 09/04/08

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 09/08/08

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.	ALDOL CONDENSATE	3.960	100	JA
2.	ALODL CONDENSATE	6.630	700	JA
3.	UNKNOWN	7.250	40000	J
4.	ALDOL CONDENSATE	8.818	100	JA
5.	UNKNOWN	21.842	300	J

nville Laboratory Use Only

8091020

Custody Transfer Record/Lab Work Request

Page 1 of 1 SOB SRC

LVLI

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

000000016

nt Washington Closure Hanford RC-088

Final Proj. Sampling Date

act# 60049-001-001-0001-00

ect Contact/Phone#

ville Laboratory Project Manager Arlette Johnson

SW846 Del STD TAT 3 Days

Rec'd 9.4.08 Date Due 9-7-08

		ABC	D
Refrigerator #		6	3
#/Type Container	Liquid		
	Solid	3gl	1gl
Volume	Solid	40	500
Preservatives		—	—
ANALYSES REQUESTED →		ORGANIC: VOA	BNA
		ORGANIC: Pest/PCB	Herb
		INORG: Metal	CN
Lionville Laboratory Use Only		06244	06254

Soil, Sediment, Solid, Sludge, Water, Oil, Air, Drum Solids, Drum Liquids, EP/TCLP Leachate, Wipe, Other, Ash

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA
001	J17HH1			X	9.2.08	1305	X	X
002	J17HH2			↓	↓	1310	X	X
003	J17HH3			↓	↓	1315	X	X

cial Instructions:

Special Instructions:

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

Relinquished by	Received by	Date	Time
FedEx	[signature]	9.4.08	0955

Relinquished by	Received by	Date	Time

Relinquished by	Received by	Date	Time
ORIGINAL DOCUMENT			

COMPOSITE

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-088-083	Page 1 of 1
llector R. Kerkow / S. Deeter	Company Contact Joan Kessner Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code 8A Data Turnaround ~~15~~ Days 3 DAY RK 8/27/08
›ject Designation 518-7 Burial Ground - Other	Sampling Location 618-7 Burial Ground (drums)	SAF No. RC-088	
Chest No. ERC-96-511	Field Logbook No. EL-1395-13 COA RG61872600	Method of Shipment Fed Ex	
ipped To EBERLINE SERVICES (LIONVILLE	Offsite Property No. A080344	Bill of Lading/Air Bill No. SECOSPC	

OSSIBLE SAMPLE HAZARDS/REMARKS

otential Radioactive contamination

pecial Handling and/or Storage

one

Preservation	Cool 4C	Cool 4C								
Type of Container	Gs*	aG								
No. of Container(s)	~~1~~ 3	1								
Volume	40mL	500mL								
SAMPLE ANALYSIS	VOA - 8260A (TCL)	Semi-VOA - 8270A (TCL)							RCF#	
Sample No. / Matrix * / Sample Date / Sample Time										
'HH1 / OTHER / 8/27/08 / 1305	X	X							J17774	1
'HH2 / OTHER / 8/27/08 / 1310	X	X							J17775	2
'HH3 / OTHER / 8/27/08 / 1315	X	X							NA	3

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS
quished By/Removed From: SETER — Date/Time 1340 08/27/08	Received By/Stored In: JRDeBuigne JRDeBuigne — Date/Time 1340 8/27/08	
quished By/Removed From: 2DeBuigne JRDeBuigne 8/27/08	Received By/Stored In: 1060 2B — Date/Time 1530 8/27/08	
quished By/Removed From: 060/2B 9/3/08 — Date/Time 1040	Received By/Stored In: MStankovich 9/3/08 — Date/Time 1040	
quished By/Removed From: MStankovich 9/3/08 — Date/Time 1040	Received By/Stored In: FedEx — Date/Time	
quished By/Removed From: FedEx 9-4-08/0955 — Date/Time	Received By/Stored In: 9-4-08/0955 — Date/Time	
quished By/Removed From — Date/Time	Received By/Stored In — Date/Time	

Matrix *
S=Soil
SE=Sediment
SO=Solid
SL=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

BORATORY SECTION	Received By	Title	Date/Time
AL SAMPLE SPOSITION	Disposal Method	Disposed By	Date/Time

H-EE-011

000000017

Lionville Laboratory Incorporated

SAMPLE RECEIPT CHECKLIST (SRC)

CLIENT: W.C. Hanford

Project/SAF/SOW/Release #: RC-088

Date: 9-4-08

LvLI Batch #: 08092020

Sample Custodian: D Smith

NOTE: EXPLAIN ALL DISCREPANCIES

1. Samples Hand Delivered or Shipped?	Carrier Fed Ex		Airbill # 790077838 6
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 3.1	°C	Cooler # ERC-96-511
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	
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	
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	
16. Project Manager contacted concerning any discrepancies?	☐ Yes	☐ No	☑ N/A

Person Contacted _____ Date _____

LVLI LIONVILLE LABORATORY INC