H1154

0054605

Recra LabNet - Lionville Laboratory
VOA ANALYTICAL DATA PACKAGE FOR
TNUHANFORD B00-068 H1154

DATE RECEIVED: 11/21/00 RFW LOT # :0011L344

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B10Y92	001	S	00LVH517	11/20/00	N/A	11/29/00
B10Y93	002	S	00LVH517	11/20/00	N/A	11/29/00
B10Y93	002 MS	S	00LVH517	11/20/00	N/A	11/29/00
B10Y93	002 MSD	S	00LVH521	11/20/00	N/A	11/30/00
B10Y94	003	S	00LVH517	11/20/00	N/A	11/29/00
B10Y95	004	S	00LVH517	11/20/00	N/A	11/29/00
B10Y96	005	S	00LVH517	11/20/00	N/A	11/29/00
B10Y97	006	S	00LVH517	11/20/00	N/A	11/29/00

LAB QC:

VBLKDC	MB1	S	00LVH517	N/A	N/A	11/29/00
VBLKDC	MB1 BS	S	00LVH517	N/A	N/A	11/29/00
VBLKDD	MB1	S	00LVH521	N/A	N/A	11/30/00
VBLKDD	MB1 BS	S	00LVH521	N/A	N/A	11/30/00

JAN 2001 RECEIVED

RECEIVED MAR 28 2001

EDMC

RECRA
ENVIRONMENTAL
INC.

Chemical and Environmental Measurement Information

Recra LabNet Philadelphia
Analytical Report

Client: TNU-HANFORD B00-068
RFW #: 0011L344
SDG/SAF #: H1154/B00-068

W.O. #: 10985-001-001-9999-00
Date Received: 11-21-2000

GC/MS VOLATILE

Six (6) soil samples were collected on 11-20-2000.

The samples and their associated QC samples were analyzed according to criteria set forth in Recra OPs based on SW 846 Method 8260A for TCL Volatile target compounds on 11-29,30-2000.

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

1. The cooler temperature upon receipt has been recorded on the chain-of-custody.

2. The samples were analyzed within required holding time.

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

4. All surrogate recoveries were within EPA QC limits.

5. All matrix spike recoveries were within EPA QC limits.

6. All blank spike recoveries were within EPA QC limits.

7. The method blanks contained the common laboratory contaminant Methylene Chloride at levels less than 2x the CRQL.

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

9. "I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard-copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."

by J. Michael Taylor
V.P./Laboratory General Manager
Lionville Laboratory

01-09-01
Date

som\group\data\voa\tnu-hanford-11-344.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 1 9 pages.

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041

GLOSSARY OF BNA DATA

DATA QUALIFIERS

U	=	Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.
J	=	Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; or 2) when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. For example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
B	=	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.
E	=	Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
D	=	Identifies all compounds identified in an analysis at a secondary dilution factor.
I	=	Interference.
NQ	=	Result qualitatively confirmed but not able to quantify.
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.

mmz\10-94\gloss.bna

GLOSSARY OF BNA DATA

ABBREVIATIONS

BS	=	Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike solutions and carried through all the steps in the method. Spike recoveries are reported.
BSD	=	Indicates blank spike duplicate.
MS	=	Indicates matrix spike.
MSD	=	Indicates matrix spike duplicate.
DL	=	Suffix added to sample number to indicate that results are from a diluted analysis.
NA	=	Not Applicable.
DF	=	Dilution Factor.
NR	=	Not Required.
SP, Z	=	Indicates Spiked Compound.

mmz\10-94\gloss.bna

Recra LabNet - Lionville Laboratory

Volatiles by GC/MS, HSL List

Report Date: 12/15/00 09:36

RFW Batch Number: **0011L344** Client: **TNUHANFORD B00-068 H1154** Work Order: 10985001001 Page: 1a

	Cust ID:	B10Y92		B10Y93		B10Y93		B10Y93		B10Y94		B10Y95	
Sample Information	RFW#:	001		002		002 MS		002 MSD		003		004	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	1.06		1.02		1.02		1.09		1.09		1.00	
	Units:	UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
Surrogate Recovery	Toluene-d8	101	%	101	%	95	%	96	%	96	%	99	%
	Bromofluorobenzene	82	%	83	%	76	%	73	%	82	%	84	%
	1,2-Dichloroethane-d4	92	%	95	%	96	%	95	%	100	%	103	%
		fl		fl		fl		fl		fl		fl	
Chloromethane		17	U	12	U	12	U	12	U	12	U	11	U
Bromomethane		17	U	12	U	12	U	12	U	12	U	11	U
Vinyl Chloride		17	U	12	U	12	U	12	U	12	U	11	U
Chloroethane		17	U	12	U	12	U	12	U	12	U	11	U
Methylene Chloride		20	B	11	B	7	B	16	B	8	B	8	B
Acetone		17	U	12	U	12	U	12	U	12	U	11	U
Carbon Disulfide		8	U	6	U	6	U	6	U	6	U	6	U
1,1-Dichloroethene		8	U	6	U	92	%	96	%	6	U	6	U
1,1-Dichloroethane		8	U	6	U	6	U	6	U	6	U	6	U
1,2-Dichloroethene (total)		8	U	6	U	6	U	6	U	6	U	6	U
Chloroform		8	U	6	U	6	U	6	U	6	U	6	U
1,2-Dichloroethane		8	U	6	U	6	U	6	U	6	U	6	U
2-Butanone		17	U	12	U	12	U	12	U	12	U	11	U
1,1,1-Trichloroethane		8	U	6	U	6	U	6	U	6	U	6	U
Carbon Tetrachloride		8	U	6	U	6	U	6	U	6	U	6	U
Bromodichloromethane		8	U	6	U	6	U	6	U	6	U	6	U
1,2-Dichloropropane		8	U	6	U	6	U	6	U	6	U	6	U
cis-1,3-Dichloropropene		8	U	6	U	6	U	6	U	6	U	6	U
Trichloroethene		8	U	6	U	91	%	92	%	6	U	6	U
Dibromochloromethane		8	U	6	U	6	U	6	U	6	U	6	U
1,1,2-Trichloroethane		8	U	6	U	6	U	6	U	6	U	6	U
Benzene		8	U	6	U	94	%	93	%	6	U	6	U
Trans-1,3-Dichloropropene		8	U	6	U	6	U	6	U	6	U	6	U
Bromoform		8	U	6	U	6	U	6	U	6	U	6	U
4-Methyl-2-pentanone		17	U	12	U	12	U	12	U	12	U	11	U
2-Hexanone		17	U	12	U	12	U	12	U	12	U	11	U
Tetrachloroethene		8	U	6	U	6	U	6	U	6	U	6	U
1,1,2,2-Tetrachloroethane		8	U	6	U	6	U	6	U	6	U	6	U
Toluene		8	U	6	U	96	%	100	%	6	U	6	U

*= Outside of EPA CLP QC limits.

RFW Batch Number: **0011L344** Client: **TNUHANFORD B00-068 H1154** Work Order: 10985001001 Page: 1b

Cust ID:	B10Y92	B10Y93	B10Y93	B10Y93	B10Y94	B10Y95
RFW#:	001	002	002 MS	002 MSD	003	004
Chlorobenzene	8 U	6 U	94 %	96 %	6 U	6 U
Ethylbenzene	8 U	6 U	6 U	6 U	6 U	6 U
Styrene	8 U	6 U	6 U	6 U	6 U	6 U
Xylene (total)	8 U	6 U	6 U	6 U	6 U	6 U

*= Outside of EPA CLP QC limits.

Recra LabNet - Lionville Laboratory

Volatiles by GC/MS, HSL List

Report Date: 12/15/00 09:36

RFW Batch Number: **0011L344** Client: **TNUHANFORD B00-068 H1154** Work Order: 10985001001 Page: 2a

	Cust ID:	B10Y96		B10Y97		VBLKDC		VBLKDC BS		VBLKDD		VBLKDD BS	
Sample Information	RFW#:	005		006		00LVH517-MB1		00LVH517-MB1		00LVH521-MB1		00LVH521-MB1	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	D.F.:	1.11		1.09		1.00		1.00		1.00		1.00	
	Units:	UG/KG		UG/KG		UG/KG		UG/KG		UG/KG		UG/KG	
Surrogate Recovery	Toluene-d8	98	%	96	%	87	%	97	%	97	%	96	%
	Bromofluorobenzene	81	%	82	%	73	%	84	%	81	%	83	%
	1,2-Dichloroethane-d4	96	%	97	%	93	%	102	%	97	%	97	%
			fl		fl		fl		fl		fl		fl
Chloromethane		12	U	16	U	10	U	10	U	10	U	10	U
Bromomethane		12	U	16	U	10	U	10	U	10	U	10	U
Vinyl Chloride		12	U	16	U	10	U	10	U	10	U	10	U
Chloroethane		12	U	16	U	10	U	10	U	10	U	10	U
Methylene Chloride		11	B	20	B	6		7	B	9		14	B
Acetone		12	U	16	U	10	U	10	U	10	U	10	U
Carbon Disulfide		6	U	8	U	5	U	5	U	5	U	5	U
1,1-Dichloroethene		6	U	8	U	5	U	104	%	5	U	95	%
1,1-Dichloroethane		6	U	8	U	5	U	5	U	5	U	5	U
1,2-Dichloroethene (total)		6	U	8	U	5	U	5	U	5	U	5	U
Chloroform		6	U	8	U	5	U	5	U	5	U	5	U
1,2-Dichloroethane		6	U	8	U	5	U	5	U	5	U	5	U
2-Butanone		12	U	16	U	10	U	10	U	10	U	10	U
1,1,1-Trichloroethane		6	U	8	U	5	U	5	U	5	U	5	U
Carbon Tetrachloride		6	U	8	U	5	U	5	U	5	U	5	U
Bromodichloromethane		6	U	8	U	5	U	5	U	5	U	5	U
1,2-Dichloropropane		6	U	8	U	5	U	5	U	5	U	5	U
cis-1,3-Dichloropropene		6	U	8	U	5	U	5	U	5	U	5	U
Trichloroethene		6	U	8	U	5	U	100	%	5	U	98	%
Dibromochloromethane		6	U	8	U	5	U	5	U	5	U	5	U
1,1,2-Trichloroethane		6	U	8	U	5	U	5	U	5	U	5	U
Benzene		6	U	8	U	5	U	102	%	5	U	97	%
Trans-1,3-Dichloropropene		6	U	8	U	5	U	5	U	5	U	5	U
Bromoform		6	U	8	U	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone		12	U	16	U	10	U	10	U	10	U	10	U
2-Hexanone		12	U	16	U	10	U	10	U	10	U	10	U
Tetrachloroethene		6	U	8	U	5	U	5	U	5	U	5	U
1,1,2,2-Tetrachloroethane		6	U	8	U	5	U	5	U	5	U	5	U
Toluene		6	U	8	U	5	U	105	%	5	U	96	%

*= Outside of EPA CLP QC limits.

RFW Batch Number: **0011L344** Client: **TNUHANFORD B00-068 H1154** Work Order: 10985001001 Page: 2b

Cust ID:	B10Y96		B10Y97		VBLKDC		VBLKDC BS		VBLKDD		VBLKDD BS	
RFW#:	005		006		00LVH517-MB1		00LVH517-MB1		00LVH521-MB1		00LVH521-MB1	
Chlorobenzene	6	U	8	U	5	U	103	%	5	U	98	%
Ethylbenzene	6	U	8	U	5	U	5	U	5	U	5	U
Styrene	6	U	8	U	5	U	5	U	5	U	5	U
Xylene (total)	6	U	8	U	5	U	5	U	5	U	5	U

*= Outside of EPA CLP QC limits.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y92

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: SOIL Lab Sample ID: 0011L344-001

Sample wt/vol: 4.70 (g/mL) G Lab File ID: h112912

Level: (low/med) LOW Date Received: 11/21/00

% Moisture: not dec. 37 Date Analyzed: 11/29/00

Column: (pack/cap) CAP Dilution Factor: 1.06

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	22.366	9	J

FORM 1 VOA-TIC 12/88 Rev.

9

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y93

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: SOIL Lab Sample ID: 0011L344-002

Sample wt/vol: 4.90 (g/mL) G Lab File ID: h112913

Level: (low/med) LOW Date Received: 11/21/00

% Moisture: not dec. 12 Date Analyzed: 11/29/00

Column: (pack/cap) CAP Dilution Factor: 1.02

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y94

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: SOIL Lab Sample ID: 0011L344-003

Sample wt/vol: 4.60 (g/mL) G Lab File ID: h112916

Level: (low/med) LOW Date Received: 11/21/00

% Moisture: not dec. 10 Date Analyzed: 11/29/00

Column: (pack/cap) CAP Dilution Factor: 1.09

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	SILOXANE	22.349	8	J

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y95

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: SOIL Lab Sample ID: 0011L344-004

Sample wt/vol: 5.00 (g/mL) G Lab File ID: h112917

Level: (low/med) LOW Date Received: 11/21/00

% Moisture: not dec. 8 Date Analyzed: 11/29/00

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y96

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: SOIL Lab Sample ID: 0011L344-005

Sample wt/vol: 4.50 (g/mL) G Lab File ID: h112918

Level: (low/med) LOW Date Received: 11/21/00

% Moisture: not dec. 11 Date Analyzed: 11/29/00

Column: (pack/cap) CAP Dilution Factor: 1.11

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y97

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: SOIL Lab Sample ID: 0011L344-006

Sample wt/vol: 4.60 (g/mL) G Lab File ID: h112919

Level: (low/med) LOW Date Received: 11/21/00

% Moisture: not dec. 30 Date Analyzed: 11/29/00

Column: (pack/cap) CAP Dilution Factor: 1.09

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKDC

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: SOIL Lab Sample ID: 00LVH517-MB1

Sample wt/vol: 5.00 (g/mL) G Lab File ID: h112905

Level: (low/med) LOW Date Received: 11/29/00

% Moisture: not dec. 0 Date Analyzed: 11/29/00

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC 12/88 Rev.

1E

VOLATILE ORGANICS ANALYSIS SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

VBLKDD

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: SOIL Lab Sample ID: 00LVH521-MB1

Sample wt/vol: 5.00 (g/mL) G Lab File ID: h113006

Level: (low/med) LOW Date Received: 11/30/00

% Moisture: not dec. 0 Date Analyzed: 11/30/00

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				

FORM 1 VOA-TIC 12/88 Rev.

17

RECRA LabNet Use Only
0011L344

Custody Transfer Record/Lab Work Request

Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

RECRA LabNet

Client: TNU-Hanford B00-068
Est. Final Proj. Sampling Date:
Project #: 10985-001-001-9999-00
Project Contact/Phone #:
RECRA Project Manager: OJ
QC: Spec Del: Std TAT: 21 day
Date Rec'd: 11-21-00 Date Due: 12-12-00
Account #:

		A	B
Refrigerator #		1	5
#/Type Container	Liquid		
	Solid	1 g	1 g
Volume	Liquid		
	Solid	125	125
Preservatives		—	—

ANALYSES REQUESTED →

	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC VOA	BNA	Pest/PCB	Herb	INORG Metal	CN
	001	B10Y92			S	11/20/00	0740	X	X				
	002	B10Y93					0750	X	X				
	003	B10Y94					0800	X	X				
	004	B10Y95					0810	X	X				
	005	B10Y96					0820	X	X				
	006	B10Y97					030	X	X				

RECRA LabNet Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Special Instructions: Saf B00-068
Run Matrix QC

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

RECRA LabNet Use Only

Samples were:
1) Shipped ✓ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N
Cooler Temp. 3.3 °C

Relinquished by	Received by	Date	Time
Fed Ex	D. [illegible]	11/21/00	10:15

Relinquished by	Received by	Date	Time

COMPOSITE

ORIGINAL

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:
4235 [illegible] 0728

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B00-068-95	Page 1 of 2
Collector: Thomas	Company Contact: D. Weekes — Telephone No.: 539-4747	Project Coordinator: TRENT, SJ	Price Code: 8L — Data Turnaround: 21 Days
Project Designation: 200 Area Groundwater Well Drilling Waste Designation for	Sampling Location: ~~200 W~~ 07 11/20/00 100 N Drum Pad	SAF No.: B00-068	Air Quality ☐
Ice Chest No.: ERC 99-037	Field Logbook No.: EL-1518 — COA XL100CHGR ~~JRCRA03200~~ TMD 11-17-00	Method of Shipment: FEDEX	
Shipped To: ~~FMJ/~~RECRA TMD 11-20-00	Offsite Property No.: A010032	Bill of Lading/Air Bill No.: 4235 7954 0728	

POSSIBLE SAMPLE HAZARDS/REMARKS
Radioactive

Special Handling and/or Storage

Preservation	Cool 4C	Cool 4C								
Type of Container	aG	aG								
No. of Container(s)	1	1								
Volume	250mL	250mL								
SAMPLE ANALYSIS	Semi-VOA - 8270A (TCL), Semi-VOA -- 8270A (Add-On) {m-Cresol}	VOA - 8260A (TCL)							Drum	

Sample No.	Matrix *	Sample Date	Sample Time									
B10Y92	SOIL	11/20/00	0740	X	X						200W-00-0081	
B10Y93	SOIL	11/20/00	0750	X	X						200W-00-0078	
B10Y94	SOIL	11/20/00	0800	X	X						200W-00-0110	
B10Y95	SOIL	11/20/00	0810	X	X						200W-00-0047	
B10Y96	SOIL	11/20/00	0820	X	X						200W-00-0054	

CHAIN OF POSSESSION	Sign/Print Names	SPECIAL INSTRUCTIONS	Matrix *
Relinquished By: G.S. Thomas — Date/Time: 11/20/00 1000	~~Received By~~ SJT 11/20/00 — Date/Time: Stored in Ref 2A 11/20/00 10:00		S=Soil, SE=Sediment, SO=Solid, S=Sludge, W=Water, O=Oil, A=Air, DS=Drum Solids, DL=Drum Liquids, T=Tissue, WI=Wipe, L=Liquid, V=Vegetation, X=Other
~~Relinquished By~~ Ref #2A 11-20-00 — Date/Time: 1155	Received By: [signature] — Date/Time: 11/20/00 1155		
Relinquished By: [signature] — Date/Time: 11/20/00 1200	Received By: FED EX 11-20-00 — Date/Time: 1200		
Relinquished By: Fed Ex 11.21.00/10:15 — Date/Time	Received By: [signature] 11.21.00/10:15 — Date/Time		
Relinquished By — Date/Time	Received By — Date/Time		
Relinquished By — Date/Time	Received By — Date/Time		

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

BHI-EE-011 (10/99)

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B00-068-95	Page 2 of 2

Collector: Thomas	Company Contact: D. Weekes	Telephone No.: 539-4747	Project Coordinator: TRENT, SJ
Price Code: 8L	Data Turnaround: 21 Days	Air Quality: [ ]	
Project Designation: 200 Area Groundwater Well Drilling Waste Designation for	Sampling Location: ~~200 W OT 11/20/00~~ 100 N Drum Pad	SAF No.: B00-068	
Ice Chest No.: ERC-99-037	Field Logbook No.: EL-1518	COA: XL1001CHGR ~~HRCRA03200~~ MJ 11-20-00	Method of Shipment: FEDEX
Shipped To: ~~TMA~~/RECRA TMJ 11-20-00	Offsite Property No.: A01C032		Bill of Lading/Air Bill No.: 42357954 0728

POSSIBLE SAMPLE HAZARDS/REMARKS

Radioactive

Special Handling and/or Storage

Preservation	Cool 4C	Cool 4C									
Type of Container	aG	aG									
No. of Container(s)	1	1									
Volume	250mL	250mL									
SAMPLE ANALYSIS	Semi-VOA - 8270A (TCL), Semi-VOA -- 8270A (Add-On) (m-Cresol)	VOA - 8260A (TCL)								Drum	
Sample No.	Matrix *	Sample Date	Sample Time								
B10Y97	SOIL	11/20/00	0830	X	X					200W-OD-0027	

CHAIN OF POSSESSION — Sign/Print Names 11/20/00

Relinquished By	Date/Time	Received By	Date/Time
GS Thomas GS Thomas	11/20/00 1000	Stored in Ref 2A	11/20/00 1000
Stored in Ref #2A	11-20-00 1155	[illegible]	11-20-00 1155
[illegible]	11-20-00 1200	FEDEX	11-20-00 1200
Fed Ex	11-21-00 10:15	[illegible]	11-21-00 10:15

SPECIAL INSTRUCTIONS

Matrix *

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

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

BHI-EE-011 (10/99)

Recra LabNet - Lionville Laboratory
BNA ANALYTICAL DATA PACKAGE FOR
TNUHANFORD B00-068 H1154

DATE RECEIVED: 11/21/00 RFW LOT # :0011L344

CLIENT ID	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
B10Y92	001	S	00LE1540	11/20/00	11/27/00	12/19/00
B10Y92	001 MS	S	00LE1540	11/20/00	11/27/00	12/19/00
B10Y92	001 MSD	S	00LE1540	11/20/00	11/27/00	12/19/00
B10Y93	002	S	00LE1540	11/20/00	11/27/00	12/19/00
B10Y94	003	S	00LE1540	11/20/00	11/27/00	12/19/00
B10Y95	004	S	00LE1540	11/20/00	11/27/00	12/19/00
B10Y96	005	S	00LE1540	11/20/00	11/27/00	12/20/00
B10Y97	006	S	00LE1540	11/20/00	11/27/00	12/21/00

LAB QC:

SBLKHX	MB1	S	00LE1540	N/A	11/27/00	12/19/00
SBLKHX	MB1 BS	S	00LE1540	N/A	11/27/00	12/19/00

JAN 2001
RECEIVED

RECRA
ENVIRONMENTAL
INC.

Chemical and Environmental Measurement Information

Recra LabNet Philadelphia
Analytical Report

Client: TNU-HANFORD B00-068
RFW #: 0011L344
SDG/SAF #: H1154/B00-068

W.O. #: 10985-001-001-9999-00
Date Received: 11-21-2000

SEMIVOLATILE

Six (6) soil samples were collected on 11-20-2000.

The samples and their associated QC samples were extracted on 11-27-2000 and analyzed according to criteria set forth in Recra OPs based on SW 846 Method 8270C for TCL Semivolatile target compounds on 12-19,20,21-2000.

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 upon receipt has been recorded on the chain-of-custody.

2. The samples were extracted and analyzed within required holding times.

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

4. Seven (7) of sixty (60) surrogate recoveries were outside acceptance criteria. The surrogate recovery criteria were not met for samples B10Y96 and B10Y97. The extracts went to dryness during the extraction process and samples were not re-extracted as per client instruction. A copy of the Sample Discrepancy Report (SDR) has been enclosed.

5. One (1) of eleven (11) blank spike recoveries was outside EPA QC limits.

6. Two (2) of twenty-two (22) matrix spike recoveries were outside EPA QC limits.

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

8. Internal standard area criteria were not met for sample B10Y92 MS. The analysis of associated matrix spike duplicate fulfills the reanalysis requirement.

9. "I certify that this sample data package is in compliance with SOW requirements, both technically and for completeness, other than the conditions detailed above. Release of the data contained in this hard-copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."

by

J. Michael Taylor
V.P./Laboratory General Manager
Lionville Laboratory

01-09-01
Date

som\group\data\bna\tnu-hanford-11-344.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 1 7 pages.

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610) 280-3000 • Fax (610) 280-3041

RECRA **Sample Discrepancy Report (SDR)** SDR #: COMS 395

Initiator: John W. Smith Batch: CO11 L344 Parameter: BNA
Date: 12/22/00 Samples: 005, 006 Matrix: SOIL
Client: TWU Hanford Method: SW846/MCAWW/CLP/ Prep Batch: COLE 1540
BCD-068 H1154

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

Multiple surrogates fail low. Possible blow down problem

2. Known or Probable Causes(s) (To be used for trend analysis)

___ Lack of Organization
___ Lack of Training
___ Lack of Discipline
___ Lack of Resources
___ Lack of Time
___ Lack of Management Support
___ Other (Please explain):

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:

Re extract or Narrate

4. Project Manager Instructions...signature/date: [signature] 12/24/00

__ 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: [signature] 1/08/01

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

Other Explanation:

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

Route/Distribution of SDR		Route	Distribution of Completed SDR
__	Initiator	__	Metals: Doughty
__	Lab Manager: M. Taylor	__	Inorganic: Perrone
1	Project Mgr: Stone/Carey/Johnson	__	GC/LC: Pastor
__	Section Mgr: Wesson/Daniels	2	MS: Layman/Rycklak
X	QA (file): Schrenkel	__	Log-in: Keppel
__	Data Management: Feldman	__	Admin: Soos
__	Sample Prep: Bickel/Kauffman	__	Other: _____

L-WI-006/E-08/00

GLOSSARY OF BNA DATA

DATA QUALIFIERS

U	=	Compound was analyzed for but not detected. The associated numerical value is the estimated sample quantitation limit which is included and corrected for dilution and percent moisture.
J	=	Indicates an estimated value. This flag is used under the following circumstances: 1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; or 2) when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero. For example, if the limit of detection is 10 ug/L and a concentration of 3 ug/L is calculated, it is reported as 3J.
B	=	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination. This flag is also used for a TIC as well as for a positively identified TCL compound.
E	=	Indicates that the compound was detected beyond the calibration range and was subsequently analyzed at a dilution.
D	=	Identifies all compounds identified in an analysis at a secondary dilution factor.
I	=	Interference.
NQ	=	Result qualitatively confirmed but not able to quantify.
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.

mmz\10-94\gloss.bna

GLOSSARY OF BNA DATA

ABBREVIATIONS

BS	=	Indicates blank spike in which reagent grade water is spiked with the CLP matrix spike solutions and carried through all the steps in the method. Spike recoveries are reported.
BSD	=	Indicates blank spike duplicate.
MS	=	Indicates matrix spike.
MSD	=	Indicates matrix spike duplicate.
DL	=	Suffix added to sample number to indicate that results are from a diluted analysis.
NA	=	Not Applicable.
DF	=	Dilution Factor.
NR	=	Not Required.
SP, Z	=	Indicates Spiked Compound.

mmz\10-94\gloss.bna

Recra LabNet - Lionville Laboratory

Semivolatiles by GC/MS, HSL List

Report Date: 01/08/01 13:54

RFW Batch Number: **0011L344** Client: **TNUHANFORD B00-068 H1154** Work Order: 10985001001 Page: 1a

	Cust ID:	B10Y92		B10Y92		B10Y92		B10Y93		B10Y94		B10Y95	
Sample Information	RFW#:	001		001 MS		001 MSD		002		003		004	
	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	98	%	86	%	77	%	72	%	83	%	95	%
	2-Fluorobiphenyl	101	%	103	%	86	%	80	%	81	%	119 *	%
	Terphenyl-d14	135	%	135	%	117	%	89	%	104	%	129	%
	Phenol-d5	79	%	63	%	64	%	54	%	62	%	71	%
	2-Fluorophenol	84	%	66	%	69	%	55	%	64	%	78	%
	2,4,6-Tribromophenol	58	%	104	%	86	%	51	%	58	%	77	%
			fl		fl		fl		fl		fl		fl
Phenol		530	U	62	%	65	%	380	U	370	U	360	U
bis(2-Chloroethyl)ether		530	U	530	U	530	U	380	U	370	U	360	U
2-Chlorophenol		530	U	69	%	68	%	380	U	370	U	360	U
1,3-Dichlorobenzene		530	U	530	U	530	U	380	U	370	U	360	U
1,4-Dichlorobenzene		530	U	63	%	59	%	380	U	370	U	360	U
1,2-Dichlorobenzene		530	U	530	U	530	U	380	U	370	U	360	U
2-Methylphenol		530	U	530	U	530	U	380	U	370	U	360	U
2,2'-oxybis(1-Chloropropane)		530	U	530	U	530	U	380	U	370	U	360	U
3- and/or 4-Methylphenol		530	U	530	U	530	U	380	U	370	U	360	U
N-Nitroso-di-n-propylamine		530	U	80	%	81	%	380	U	370	U	360	U
Hexachloroethane		530	U	530	U	530	U	380	U	370	U	360	U
Nitrobenzene		530	U	530	U	530	U	380	U	370	U	360	U
Isophorone		530	U	530	U	530	U	380	U	370	U	360	U
2-Nitrophenol		530	U	530	U	530	U	380	U	370	U	360	U
2,4-Dimethylphenol		530	U	530	U	530	U	380	U	370	U	360	U
bis(2-Chloroethoxy)methane		530	U	530	U	530	U	380	U	370	U	360	U
2,4-Dichlorophenol		530	U	530	U	530	U	380	U	370	U	360	U
1,2,4-Trichlorobenzene		530	U	80	%	69	%	380	U	370	U	360	U
Naphthalene		530	U	530	U	530	U	380	U	370	U	360	U
4-Chloroaniline		530	U	530	U	530	U	380	U	370	U	360	U
Hexachlorobutadiene		530	U	530	U	530	U	380	U	370	U	360	U
4-Chloro-3-methylphenol		530	U	81	%	73	%	380	U	370	U	360	U
2-Methylnaphthalene		530	U	530	U	530	U	380	U	370	U	360	U
Hexachlorocyclopentadiene		530	U	530	U	530	U	380	U	370	U	360	U
2,4,6-Trichlorophenol		530	U	530	U	530	U	380	U	370	U	360	U
2,4,5-Trichlorophenol		1300	U	1300	U	1300	U	940	U	930	U	910	U

*= Outside of EPA CLP QC limits.

RFW Batch Number: **0011L344** Client: **TNUHANFORD B00-068 H1154** Work Order: 10985001001 Page: 1b

Cust ID:	B10Y92		B10Y92		B10Y92		B10Y93		B10Y94		B10Y95	
RFW#:	001		001 MS		001 MSD		002		003		004	
2-Chloronaphthalene	530	U	530	U	530	U	380	U	370	U	360	U
2-Nitroaniline	1300	U	1300	U	1300	U	940	U	930	U	910	U
Dimethylphthalate	530	U	530	U	530	U	380	U	370	U	360	U
Acenaphthylene	530	U	530	U	530	U	380	U	370	U	360	U
2,6-Dinitrotoluene	530	U	530	U	530	U	380	U	370	U	360	U
3-Nitroaniline	1300	U	1300	U	1300	U	940	U	930	U	910	U
Acenaphthene	530	U	94	%	88	%	380	U	370	U	360	U
2,4-Dinitrophenol	1300	U	1300	U	1300	U	940	U	930	U	910	U
4-Nitrophenol	1300	U	92	%	75	%	940	U	930	U	910	U
Dibenzofuran	530	U	530	U	530	U	380	U	370	U	360	U
2,4-Dinitrotoluene	530	U	102 *	%	100 *	%	380	U	370	U	360	U
Diethylphthalate	530	U	530	U	530	U	380	U	370	U	360	U
4-Chlorophenyl-phenylether	530	U	530	U	530	U	380	U	370	U	360	U
Fluorene	530	U	530	U	530	U	380	U	370	U	360	U
4-Nitroaniline	1300	U	1300	U	1300	U	940	U	930	U	910	U
4,6-Dinitro-2-methylphenol	1300	U	1300	U	1300	U	940	U	930	U	910	U
N-Nitrosodiphenylamine (1)	530	U	530	U	530	U	380	U	370	U	360	U
4-Bromophenyl-phenylether	530	U	530	U	530	U	380	U	370	U	360	U
Hexachlorobenzene	530	U	530	U	530	U	380	U	370	U	360	U
Pentachlorophenol	1300	U	37	%	24	%	940	U	930	U	910	U
Phenanthrene	530	U	530	U	530	U	380	U	370	U	360	U
Anthracene	530	U	530	U	530	U	380	U	370	U	360	U
Carbazole	530	U	530	U	530	U	380	U	370	U	360	U
Di-n-butylphthalate	530	U	530	U	530	U	380	U	370	U	360	U
Fluoranthene	530	U	530	U	530	U	380	U	370	U	360	U
Pyrene	530	U	109	%	107	%	380	U	370	U	360	U
Butylbenzylphthalate	530	U	530	U	530	U	380	U	370	U	360	U
3,3'-Dichlorobenzidine	530	U	530	U	530	U	380	U	370	U	360	U
Benzo(a)anthracene	530	U	530	U	530	U	380	U	370	U	360	U
Chrysene	530	U	530	U	530	U	380	U	370	U	360	U
bis(2-Ethylhexyl)phthalate	73	JB	71	JB	77	JB	96	JB	47	JB	71	JB
Di-n-octyl phthalate	530	U	530	U	530	U	380	U	370	U	360	U
Benzo(b)fluoranthene	530	U	530	U	530	U	380	U	370	U	360	U
Benzo(k)fluoranthene	530	U	530	U	530	U	380	U	370	U	360	U
Benzo(a)pyrene	530	U	530	U	530	U	380	U	370	U	360	U
Indeno(1,2,3-cd)pyrene	530	U	530	U	530	U	380	U	370	U	360	U
Dibenz(a,h)anthracene	530	U	530	U	530	U	380	U	370	U	360	U
Benzo(g,h,i)perylene	530	U	530	U	530	U	380	U	370	U	360	U

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

Recra LabNet - Lionville Laboratory

Semivolatiles by GC/MS, HSL List

Report Date: 01/08/01 13:54

RFW Batch Number: **0011L344** Client: **TNUHANFORD B00-068 H1154** Work Order: 10985001001 Page: 2a

	Cust ID:	B10Y96	B10Y97	SBLKHX	SBLKHX BS
Sample Information	RFW#:	005	006	00LE1540-MB1	00LE1540-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00
	Units:	ug/Kg	ug/Kg	ug/Kg	ug/Kg
Surrogate Recovery	Nitrobenzene-d5	13 * %	8 * %	111 %	83 %
	2-Fluorobiphenyl	53 %	51 %	111 %	93 %
	Terphenyl-d14	82 %	94 %	144 * %	119 %
	Phenol-d5	33 %	16 * %	90 %	68 %
	2-Fluorophenol	8 * %	4 * %	103 %	79 %
	2,4,6-Tribromophenol	58 %	70 %	98 %	96 %
Phenol		370 U	480 U	330 U	68 %
bis(2-Chloroethyl)ether		370 U	480 U	330 U	330 U
2-Chlorophenol		370 U	480 U	330 U	77 %
1,3-Dichlorobenzene		370 U	480 U	330 U	330 U
1,4-Dichlorobenzene		370 U	480 U	330 U	80 %
1,2-Dichlorobenzene		370 U	480 U	330 U	330 U
2-Methylphenol		370 U	480 U	330 U	330 U
2,2'-oxybis(1-Chloropropane)		370 U	480 U	330 U	330 U
3- and/or 4-Methylphenol		370 U	480 U	330 U	330 U
N-Nitroso-di-n-propylamine		370 U	480 U	330 U	75 %
Hexachloroethane		370 U	480 U	330 U	330 U
Nitrobenzene		370 U	480 U	330 U	330 U
Isophorone		370 U	480 U	330 U	330 U
2-Nitrophenol		370 U	480 U	330 U	330 U
2,4-Dimethylphenol		370 U	480 U	330 U	330 U
bis(2-Chloroethoxy)methane		370 U	480 U	330 U	330 U
2,4-Dichlorophenol		370 U	480 U	330 U	330 U
1,2,4-Trichlorobenzene		370 U	480 U	330 U	83 %
Naphthalene		370 U	480 U	330 U	330 U
4-Chloroaniline		370 U	480 U	330 U	330 U
Hexachlorobutadiene		370 U	480 U	330 U	330 U
4-Chloro-3-methylphenol		370 U	480 U	330 U	76 %
2-Methylnaphthalene		370 U	480 U	330 U	330 U
Hexachlorocyclopentadiene		370 U	480 U	330 U	330 U
2,4,6-Trichlorophenol		370 U	480 U	330 U	330 U
2,4,5-Trichlorophenol		930 U	1200 U	830 U	830 U

*= Outside of EPA CLP QC limits.

Cust ID:	B10Y96		B10Y97		SBLKHX		SBLKHX BS	
RFW#:	005		006		00LE1540-MB1		00LE1540-MB1	
2-Chloronaphthalene	370	U	480	U	330	U	330	U
2-Nitroaniline	930	U	1200	U	830	U	830	U
Dimethylphthalate	370	U	480	U	330	U	330	U
Acenaphthylene	370	U	480	U	330	U	330	U
2,6-Dinitrotoluene	370	U	480	U	330	U	330	U
3-Nitroaniline	930	U	1200	U	830	U	830	U
Acenaphthene	370	U	480	U	330	U	94	%
2,4-Dinitrophenol	930	U	1200	U	830	U	830	U
4-Nitrophenol	930	U	1200	U	830	U	71	%
Dibenzofuran	370	U	480	U	330	U	330	U
2,4-Dinitrotoluene	370	U	480	U	330	U	103 *	%
Diethylphthalate	370	U	480	U	330	U	330	U
4-Chlorophenyl-phenylether	370	U	480	U	330	U	330	U
Fluorene	370	U	480	U	330	U	330	U
4-Nitroaniline	930	U	1200	U	830	U	830	U
4,6-Dinitro-2-methylphenol	930	U	1200	U	830	U	830	U
N-Nitrosodiphenylamine (1)	370	U	480	U	330	U	330	U
4-Bromophenyl-phenylether	370	U	480	U	330	U	330	U
Hexachlorobenzene	370	U	480	U	330	U	330	U
Pentachlorophenol	930	U	1200	U	830	U	44	%
Phenanthrene	370	U	480	U	330	U	330	U
Anthracene	370	U	480	U	330	U	330	U
Carbazole	370	U	480	U	330	U	330	U
Di-n-butylphthalate	370	U	30	J	330	U	330	U
Fluoranthene	370	U	480	U	330	U	330	U
Pyrene	370	U	480	U	330	U	105	%
Butylbenzylphthalate	370	U	480	U	330	U	330	U
3,3'-Dichlorobenzidine	370	U	480	U	330	U	330	U
Benzo(a)anthracene	370	U	480	U	330	U	330	U
Chrysene	370	U	480	U	330	U	330	U
bis(2-Ethylhexyl)phthalate	51	JB	230	JB	150	J	140	JB
Di-n-octyl phthalate	370	U	480	U	330	U	330	U
Benzo(b)fluoranthene	370	U	480	U	330	U	330	U
Benzo(k)fluoranthene	370	U	480	U	330	U	330	U
Benzo(a)pyrene	370	U	480	U	330	U	330	U
Indeno(1,2,3-cd)pyrene	370	U	480	U	330	U	330	U
Dibenz(a,h)anthracene	370	U	480	U	330	U	330	U
Benzo(g,h,i)perylene	370	U	480	U	330	U	330	U

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

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y92

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: (soil/water) SOIL Lab Sample ID: 0011L344-001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A121911

Level: (low/med) LOW Date Received: 11/21/00

% Moisture: 37 decanted: (Y/N)__ Date Extracted: 11/27/00

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/19/00

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.	UNKNOWN	6.244	100	J
2.	UNKNOWN	6.875	600	J
3.	UNKNOWN	11.707	300	J
4.	UNKNOWN	18.942	1000	JB

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y93

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: (soil/water) SOIL

Lab Sample ID: 0011L344-002

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

Lab File ID: A121914

Level: (low/med) LOW

Date Received: 11/21/00

% Moisture: 12 decanted: (Y/N)__

Date Extracted: 11/27/00

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 12/19/00

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	6.820	500	J
2.	UNKNOWN	18.937	300	JB
3.	ALKANE	23.607	200	J
4.	ALKANE	25.036	200	J
5.	ALKANE	25.938	200	J

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y94

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: (soil/water) SOIL Lab Sample ID: 0011L344-003

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A121915

Level: (low/med) LOW Date Received: 11/21/00

% Moisture: 10 decanted: (Y/N) __ Date Extracted: 11/27/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/19/00

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.	UNKNOWN	6.243	80	J
2.	UNKNOWN	6.841	400	J
3.	UNKNOWN	18.941	200	JB
4.	UNKNOWN	22.103	100	J

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y95

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: (soil/water) SOIL

Lab Sample ID: 0011L344-004

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

Lab File ID: A121916

Level: (low/med) LOW

Date Received: 11/21/00

% Moisture: 8 decanted: (Y/N)__

Date Extracted: 11/27/00

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 12/19/00

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	10.012	500	J
2.	UNKNOWN	18.945	400	JB
3.	UNKNOWN	23.404	300	J
4.	ALKANE	23.603	300	J
5.	UNKNOWN	32.916	500	J

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y96

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: (soil/water) SOIL Lab Sample ID: 0011L344-005

Sample wt/vol: 30.1 (g/mL) G Lab File ID: A122011

Level: (low/med) LOW Date Received: 11/21/00

% Moisture: 11 decanted: (Y/N)__ Date Extracted: 11/27/00

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/20/00

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.	ALKANE	25.787	500	J
2.	ALKANE	26.827	500	J
3.	ALKANE	28.083	800	J
4.	ALKANE	29.576	400	J
5.	ALKANE	31.411	800	J

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

B10Y97

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: (soil/water) SOIL Lab Sample ID: 0011L344-006

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A122103

Level: (low/med) LOW Date Received: 11/21/00

% Moisture: 30 decanted: (Y/N) __ Date Extracted: 11/27/00

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/21/00

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.	ALKANE	17.197	300	J
2.	ALKANE	18.323	400	J
3.	ADIPATE	22.111	700	J
4.	ALKANE	23.616	300	J
5.	ALKANE	25.784	300	J

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SBLKHX

Lab Name: Recra.LabNet Work Order: 10985001001

Client: TNUHANFORD B00-068 H1154

Matrix: (soil/water) SOIL Lab Sample ID: 00LE1540-MB1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A121904

Level: (low/med) LOW Date Received: 11/27/00

% Moisture: _____ decanted: (Y/N)__ Date Extracted: 11/27/00

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/19/00

Injection Volume: 2.0(uL) Dilution Factor: 1.00

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

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	18.929	200	J

RECRA LabNet Use Only
0011L344

Custody Transfer Record/Lab Work Request

Page 1 of 1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

RECRA LabNet

Client: TNU-Hanford B00-068
Est. Final Proj. Sampling Date:
Project #: 10985-001-001-9999-00
Project Contact/Phone #:
RECRA Project Manager: OS
QC: Spec Del: Std TAT: 21 day
Date Rec'd: 11-21-00 Date Due: 12-12-00
Account #:

		A	B
Refrigerator #		1	5
#/Type Container	Liquid		
	Solid	1 oz	1 oz
Volume	Liquid		
	Solid	125	125
Preservatives		—	—

ANALYSES REQUESTED → ORGANIC: VOA, BNA, Pest/PCB, Herb; INORG: Metal, CN

RECRA LabNet Use Only

MATRIX CODES: S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	0624H	0625H
001	B10Y92			S	11/20/00	0740	X	X
002	B10Y93					0750	X	X
003	B10Y94					0800	X	X
004	B10Y95					0810	X	X
005	B10Y96					0820	X	X
006	B10Y97					030	X	X

Special Instructions: Saf B00-068
Run Matrix QC

DATE/REVISIONS:
1.
2.
3.
4.
5.
6.

RECRA LabNet Use Only

Samples were: 1) Shipped ✓ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was: 1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N
Cooler Temp. 3.3 °C

Relinquished by	Received by	Date	Time
Fed Ex	D. [signature]	11/21/00	10:15

Relinquished by	Received by	Date	Time
COMPOSITE WASTE	ORIGINAL REWRITTEN		

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES: # 4235 7954 0728