STL

STL St. Louis
13715 Rider Trail North
Earth City, MO 63045

Tel: 314 298 8566 Fax: 314 298 8757
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. CPP 200 AREA

F07-043

Lot #: F7H030265
SDG #: W05205

Steve Trent

Fluor Hanford Inc
1200 Jadwin Ave.
Richland, WA 99352

AUG 2007
RECEIVED

TESTAMERICA LABORATORIES, INC. (FKA STL)

Michael C. Franks
Project Manager

August 14, 2007

Case Narrative
LOT NUMBER: **F7H030265**
SDG: **W05205**

This report contains the analytical results for the two samples received under chain of custody by STL St. Louis on August 3, 2007. These samples are associated with your F07-043 project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted on the following page.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by STL St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances
Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Volatiles by SW846 8260B
The samples were received outside hold time. Sample F7H030265-001 expired July 31, 2007; sample F7H030265-002 expired August 2, 2007.

The LCS recovery is outside the lower QC limit for Acetone, indicating a potential negative bias. The LCS recovery and/or RPDs for several non-target analytes are outside QC criteria. For a large number of analytes in the LCS, it becomes statistically likely that a few will be outside the laboratory QC limits. Upper and lower marginal exceedance (ME) limits have been established to determine when corrective action is necessary. The number of allowable marginal exceedances is based on the number of analytes in the LCS. Recoveries are within marginal exceedance limits, and within the number of analytes allowed.

The MS/MSD RPD for Acetonitrile is not within method acceptance criteria. MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix.

Affected Samples:
F7H030265 (1): B1P3K7
F7H030265 (2): B1P3K8

METHODS SUMMARY

F7H030265

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Percent Moisture	MCAWW 160.3 MOD	MCAWW 160.3 MOD
Volatile Organics by GC/MS	SW846 8260B	SW846 5035

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

F7H030265

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
J364R	001	B1P3K7	07/17/07	13:50
J365T	002	B1P3K8	07/19/07	13:50

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

STL ST. LOUIS

Fluor Hanford Inc. WP5205

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F07-043-085 | PAGE 1 OF 1

COLLECTOR: Pope	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
SAMPLING LOCATION: A-21, I-002	PROJECT DESIGNATION: 216-A-2 and 216-A-21 Characterization Sampling and Analysis - Soil		SAF NO.: F07-043
ICE CHEST NO.: GRP-06-004	FIELD LOGBOOK NO.:	COA: 122868ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS
SHIPPED TO: Severn Trent St. Louis	OFFSITE PROPERTY NO.: SEE RSR G0012000		BILL OF LADING/AIR BILL NO.: SEE RSR G0012000

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

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegitation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Frozen	Cool~4C
TYPE OF CONTAINER	aGs*	aGs*
NO. OF CONTAINER(S)	5	3
VOLUME	40mL	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
31P3K7	SOIL	7/17/07	1350	X	X

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
110-745 B43 AUG 02 2007	0900	M.A. Baechler M.G. Baechler AUG 02 2007	0900
A. Baechler M.G. Baechler AUG 02 2007	0900	Fed EX	
Fed Ex		RE	8/3/07

SPECIAL INSTRUCTIONS

NOTE: ORIGINAL COC ATTACHED TO DOCUMENT CHAIN OF POSSESSION
(1)VOA - 5035/8260 (LOW LEVEL); VOA - 5035/8260 (LOW LEVEL) - (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}
(2)VOA - 5035/8260 (HIGH LEVEL); VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}

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

A-6003-618(01/06)

Fluor Hanford Inc. WP5205	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F07-043-085	PAGE 1 OF 1
COLLECTOR: Pope	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 2A
SAMPLING LOCATION: A-21, I-002 21'-22.5	PROJECT DESIGNATION: 216-A-2 and 216-A-21 Characterization Sampling and Analysis - Soil		SAF NO.: F07-043	AIR QUALITY ☐
ICE CHEST NO.	FIELD LOGBOOK NO.	COA: 122868ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	DATA TURNAROUND: 24 Hours / 15 Days
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A	

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegitation, W=Water, WI=Wipe, X=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

PRESERVATION				Frozen	Cool 4C							
TYPE OF CONTAINER				aGs*	aGs*							
NO. OF CONTAINER(S)				5	3							
VOLUME				40mL	40mL							
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS							
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1T3K7	SOIL	7-17-07	1350	X	X							

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: J.S. Pope	DATE/TIME: 7-17-07 1500	RECEIVED BY/STORED IN: Site RCRA fridge	DATE/TIME: 7-17-07 1500
RELINQUISHED BY/REMOVED FROM: Site FKG - 8/1/7	DATE/TIME: 1600	RECEIVED BY/STORED IN: J. Mulford	DATE/TIME: 8/1/7 1600
RELINQUISHED BY/REMOVED FROM: J. Mulford	DATE/TIME: 8/1/7 1615	RECEIVED BY/STORED IN: MO745 FRF.	DATE/TIME: 8/1/7 - 1615
RELINQUISHED BY/REMOVED FROM	DATE/TIME:	RECEIVED BY/STORED IN: RE	DATE/TIME: 8/3/07
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

(1)VOA - 5035/8260 (LOW LEVEL); VOA - 5035/8260 (LOW LEVEL) - (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}
(2)VOA - 5035/8260 (HIGH LEVEL); VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}

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

A-6003-618(01/06)

LOT# E7C020 5 6

W02205 7

STL ST. LOUIS

STL ST. LOUIS

Fluor Hanford Inc. W05205	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F07-043-086	PAGE 1 OF 1

COLLECTOR: White	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
PRICE CODE: 8N	DATA TURNAROUND: 45 Days / 45 Days	AIR QUALITY: ☐	
SAMPLING LOCATION: A-21, I-005	PROJECT DESIGNATION: 216-A-2 and 216-A-21 Characterization Sampling and Analysis - Soil	SAF NO.: F07-043	
ICE CHEST NO.: GRP-06-004	FIELD LOGBOOK NO.:	COA: 122868ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS
SHIPPED TO: Severn Trent St. Louis	OFFSITE PROPERTY NO.: SEE RSR G0012000	BILL OF LADING/AIR BILL NO.: SEE RSR G0012000	

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegitation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Frozen	Cool~4C
TYPE OF CONTAINER	aGs*	aGs*
NO. OF CONTAINER(S)	3	1
VOLUME	40mL	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
31P3K8	SOIL	7/19/07	1350	X	X

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
M.A. Baechler	AUG 02 2007 0900	M.A. Baechler	AUG 02 2007 0900
M.A. Baechler	AUG 02 2007 0900	Fed Ex	
Fed Ex		PR 8/7/07	

SPECIAL INSTRUCTIONS

NOTE: ORIGINAL COC ATTACHED TO DOCUMENT CHAIN OF POSSESSION
(1)VOA - 5035/8260 (LOW LEVEL); VOA - 5035/8260 (LOW LEVEL) - (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}
(2)VOA - 5035/8260 (HIGH LEVEL); VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}

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

A-6003-618(01/06)

Fluor Hanford Inc. WP5205

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F07-043-086

COLLECTOR: Mitzi White	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
SAMPLING LOCATION: 216-A-21, I-005 25.1' - 26.6'	PROJECT DESIGNATION: 216-A-2 and 216-A-21 Characterization Sampling and Analysis - Soil		SAF NO.: F07-043
ICE CHEST NO.	FIELD LOGBOOK NO.	COA: 122868ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 2A

AIR QUALITY: ☐

DATA TURNAROUND: 24 Hours / 15 Days

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegitation, W=Water, WI=Wipe, X=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

PRESERVATION	Frozen	Cool~4C
TYPE OF CONTAINER	aGs*	aGs*
NO. OF CONTAINER(S)	3 RMA 8-1-07	3 RMA 8-1-07
VOLUME	40mL	40mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B1P3K8	SOIL	7-19-07	1350	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Mitzi White / MA White	7/19/07 510	A-2 Site Frig	7-19-07 1510
A-2 Frig	8-1-07 1600	[illegible]	8/1/7-1600
[illegible]	8/1/7-1615	No 745 RMA	8/1/7-1615
		RR	8/3/07

SPECIAL INSTRUCTIONS

(1)VOA - 5035/8260 (LOW LEVEL); VOA - 5035/8260 (LOW LEVEL) - (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}
(2)VOA - 5035/8260 (HIGH LEVEL); VOA - 5035/8260 (HIGH LEVEL) - (Add-On) {1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene}

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

A-6003-618(01/06)

ICH#F07-0065 M0205 8 of 24 SIL ST. LOUIS

STL

Lot #(s): F7H030265

- 2147 -

Condition Upon Receipt Form

Client: Hanford
Quote No: 75990
COC/RFA No: F07-043-086, F07-043-085
Initiated By: RR
Date: 8/3/07
Time: 9:20

Shipping Information

Shipper Name: FE

Shipping # (s):*
1. 7987 3273 1836
2.
3.
4.
5.
6.
7.
8.
9.
10.

Multiple Packages Y (N)

Sample Temperature (s):**
1. 4
2.
3.
4.
5.
6.
7.
8.
9.
10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y (N)	Was sample received broken?	8.	(Y) N	Sample received with Chain of Custody?
2.	Y N (N/A)	Was sample received with proper pH[1]? (If not, make note below)	9.	(Y) N	Chain of Custody matches sample ID's on container(s)?
3.	Y N	If N/A-Was pH taken by original STL Lab?	10.	Y (N)	Are there custody seals present on cooler?
4.	(Y) N	Sample received in proper containers?	11.	Y N (N/A)	Do custody seals on cooler appear to be tampered with?
5.	(Y) N	Sample volume sufficient for analysis?	12.	Y (N)	Are there custody seals present on bottles?
6.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)	13.	Y N (N/A)	Do custody seals on bottles appear to be tampered with?
7.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	14.	Y (N)	Was Internal COC/Workshare received?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:
F07-043-085

Corrective Action:
- ☐ Client Contact Name: _____ Informed by: _____
- ☐ Sample(s) processed "as is"
- ☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: [signature] Date: 08-06-07

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

VOLATILES

Fluor Hanford Inc

Client Sample ID: B1P3K7

GC/MS Volatiles

Lot-Sample #...: F7H030265-001 **Work Order #...:** J364R1AA **Matrix.....:** SOLID
Date Sampled...: 07/17/07 **Date Received..:** 08/03/07
Prep Date.....: 08/06/07 **Analysis Date..:** 08/07/07
Prep Batch #...: 7221442
Dilution Factor: 1.19
% Moisture.....: 12 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	27	ug/kg	5.1
Acetonitrile	ND	68	ug/kg	2.7
Benzene	ND	6.8	ug/kg	0.23
Bromodichloromethane	ND	6.8	ug/kg	0.45
Bromoform	ND	6.8	ug/kg	0.33
Bromomethane	ND	14	ug/kg	0.42
1-Butanol	ND	140	ug/kg	4.6
2-Butanone	ND	27	ug/kg	1.9
n-Butylbenzene	ND	6.8	ug/kg	0.72
Carbon disulfide	ND	6.8	ug/kg	0.74
Carbon tetrachloride	ND	6.8	ug/kg	1.2
Chlorobenzene	ND	6.8	ug/kg	0.17
Dibromochloromethane	ND	6.8	ug/kg	0.39
Chloroethane	ND	14	ug/kg	0.47
Chloroform	ND	6.8	ug/kg	0.19
Chloromethane	ND	14	ug/kg	0.60
Cyclohexanone	ND	140	ug/kg	18
1,1-Dichloroethane	ND	6.8	ug/kg	1.3
1,2-Dichloroethane	ND	6.8	ug/kg	0.59
1,1-Dichloroethene	ND	6.8	ug/kg	0.74
cis-1,2-Dichloroethene	ND	6.8	ug/kg	0.58
trans-1,2-Dichloroethene	ND	6.8	ug/kg	0.30
1,2-Dichloroethene (total)	ND	14	ug/kg	0.73
1,2-Dichloropropane	ND	6.8	ug/kg	0.50
cis-1,3-Dichloropropene	ND	6.8	ug/kg	0.98
trans-1,3-Dichloropropene	ND	6.8	ug/kg	0.27
Ethylbenzene	ND	6.8	ug/kg	0.25
n-Hexane	ND	14	ug/kg	0.61
2-Hexanone	ND	27	ug/kg	0.38
Methylene chloride	ND	6.8	ug/kg	3.4
4-Methyl-2-pentanone	ND	27	ug/kg	2.2
Styrene	ND	6.8	ug/kg	1.6
1,1,2,2-Tetrachloroethane	ND	6.8	ug/kg	0.19
Tetrachloroethene	ND	6.8	ug/kg	0.37
Toluene	ND	6.8	ug/kg	0.18
1,1,1-Trichloroethane	ND	6.8	ug/kg	0.20
1,1,2-Trichloroethane	ND	6.8	ug/kg	0.38

(Continued on next page)

Fluor Hanford Inc

Client Sample ID: B1P3K7

GC/MS Volatiles

Lot-Sample #...: F7H030265-001 **Work Order #...:** J364R1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Trichloroethene	ND	6.8	ug/kg	0.48
1,2,4-Trimethylbenzene	ND	6.8	ug/kg	0.29
Vinyl chloride	ND	6.8	ug/kg	0.32
Xylenes (total)	ND	14	ug/kg	1.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	92	(67 - 150)
Dibromofluoromethane	90	(59 - 133)
1,2-Dichloroethane-d4	93	(70 - 132)
4-Bromofluorobenzene	93	(57 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Fluor Hanford Inc

B1P3K7

GC/MS Volatiles

Lot-Sample #: F7H030265-001 **Work Order #:** J364R1AA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

Fluor Hanford Inc

Client Sample ID: B1P3K8

GC/MS Volatiles

Lot-Sample #...: F7H030265-002 **Work Order #...:** J365T1AA **Matrix.....:** SOLID
Date Sampled...: 07/19/07 **Date Received..:** 08/03/07
Prep Date.....: 08/06/07 **Analysis Date..:** 08/07/07
Prep Batch #...: 7221442
Dilution Factor: 1.02
% Moisture.....: 5.8 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acetone	ND	22	ug/kg	4.1
Acetonitrile	ND	54	ug/kg	2.1
Benzene	ND	5.4	ug/kg	0.18
Bromodichloromethane	ND	5.4	ug/kg	0.36
Bromoform	ND	5.4	ug/kg	0.26
Bromomethane	ND	11	ug/kg	0.34
1-Butanol	ND	110	ug/kg	3.7
2-Butanone	ND	22	ug/kg	1.5
n-Butylbenzene	ND	5.4	ug/kg	0.57
Carbon disulfide	ND	5.4	ug/kg	0.60
Carbon tetrachloride	ND	5.4	ug/kg	0.98
Chlorobenzene	ND	5.4	ug/kg	0.13
Dibromochloromethane	ND	5.4	ug/kg	0.31
Chloroethane	ND	11	ug/kg	0.38
Chloroform	ND	5.4	ug/kg	0.15
Chloromethane	ND	11	ug/kg	0.48
Cyclohexanone	ND	110	ug/kg	15
1,1-Dichloroethane	ND	5.4	ug/kg	1.0
1,2-Dichloroethane	ND	5.4	ug/kg	0.47
1,1-Dichloroethene	ND	5.4	ug/kg	0.59
cis-1,2-Dichloroethene	ND	5.4	ug/kg	0.46
trans-1,2-Dichloroethene	ND	5.4	ug/kg	0.24
1,2-Dichloroethene (total)	ND	11	ug/kg	0.59
1,2-Dichloropropane	ND	5.4	ug/kg	0.40
cis-1,3-Dichloropropene	ND	5.4	ug/kg	0.79
trans-1,3-Dichloropropene	ND	5.4	ug/kg	0.22
Ethylbenzene	ND	5.4	ug/kg	0.20
n-Hexane	ND	11	ug/kg	0.49
2-Hexanone	ND	22	ug/kg	0.30
Methylene chloride	ND	5.4	ug/kg	2.7
4-Methyl-2-pentanone	ND	22	ug/kg	1.7
Styrene	ND	5.4	ug/kg	1.3
1,1,2,2-Tetrachloroethane	ND	5.4	ug/kg	0.15
Tetrachloroethene	ND	5.4	ug/kg	0.30
Toluene	**0.56 J**	**5.4**	**ug/kg**	**0.14**
1,1,1-Trichloroethane	ND	5.4	ug/kg	0.16
1,1,2-Trichloroethane	ND	5.4	ug/kg	0.31

(Continued on next page)

Fluor Hanford Inc

Client Sample ID: B1P3K8

GC/MS Volatiles

Lot-Sample #...: F7H030265-002 **Work Order #...:** J365T1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Trichloroethene	ND	5.4	ug/kg	0.39
1,2,4-Trimethylbenzene	**0.40 J,B**	**5.4**	**ug/kg**	**0.24**
Vinyl chloride	ND	5.4	ug/kg	0.26
Xylenes (total)	ND	11	ug/kg	0.93

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	99	(67 - 150)
Dibromofluoromethane	98	(59 - 133)
1,2-Dichloroethane-d4	100	(70 - 132)
4-Bromofluorobenzene	103	(57 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Fluor Hanford Inc

B1P3K8

GC/MS Volatiles

Lot-Sample #: F7H030265-002 **Work Order #:** J365T1AA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Butane, 2-methyl-	78-78-4	5.6	M	2.667	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: F7H030265 **Work Order #...:** J4JKD1AA **Matrix.....:** SOLID
MB Lot-Sample #: F7H090000-442
Prep Date.....: 08/06/07
Analysis Date..: 08/07/07 **Prep Batch #...:** 7221442
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromoform	ND	5.0	ug/kg	SW846 8260B
Bromomethane	ND	10	ug/kg	SW846 8260B
1-Butanol	ND	100	ug/kg	SW846 8260B
2-Butanone	ND	20	ug/kg	SW846 8260B
n-Butylbenzene	ND	5.0	ug/kg	SW846 8260B
Carbon disulfide	ND	5.0	ug/kg	SW846 8260B
Carbon tetrachloride	ND	5.0	ug/kg	SW846 8260B
Chlorobenzene	ND	5.0	ug/kg	SW846 8260B
Dibromochloromethane	ND	5.0	ug/kg	SW846 8260B
Chloroethane	ND	10	ug/kg	SW846 8260B
Chloroform	ND	5.0	ug/kg	SW846 8260B
Chloromethane	ND	10	ug/kg	SW846 8260B
Cyclohexanone	ND	100	ug/kg	SW846 8260B
1,1-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	ND	10	ug/kg	SW846 8260B
1,2-Dichloropropane	ND	5.0	ug/kg	SW846 8260B
cis-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
trans-1,3-Dichloropropene	ND	5.0	ug/kg	SW846 8260B
Ethylbenzene	ND	5.0	ug/kg	SW846 8260B
n-Hexane	ND	10	ug/kg	SW846 8260B
2-Hexanone	ND	20	ug/kg	SW846 8260B
Methylene chloride	ND	5.0	ug/kg	SW846 8260B
4-Methyl-2-pentanone	ND	20	ug/kg	SW846 8260B
Styrene	ND	5.0	ug/kg	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	5.0	ug/kg	SW846 8260B
Tetrachloroethene	ND	5.0	ug/kg	SW846 8260B
Toluene	ND	5.0	ug/kg	SW846 8260B
1,1,1-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
1,1,2-Trichloroethane	ND	5.0	ug/kg	SW846 8260B
Trichloroethene	ND	5.0	ug/kg	SW846 8260B
1,2,4-Trimethylbenzene	**0.49 J**	**5.0**	**ug/kg**	**SW846 8260B**
Vinyl chloride	ND	5.0	ug/kg	SW846 8260B
Xylenes (total)	ND	10	ug/kg	SW846 8260B
Acetone	ND	20	ug/kg	SW846 8260B
Acetonitrile	ND	50	ug/kg	SW846 8260B
Benzene	ND	5.0	ug/kg	SW846 8260B

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: F7H030265 **Work Order #...:** J4JKD1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Bromodichloromethane	ND	5.0	ug/kg	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	101	(67 - 150)
Dibromofluoromethane	94	(59 - 133)
1,2-Dichloroethane-d4	96	(70 - 132)
4-Bromofluorobenzene	107	(57 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

Fluor Hanford Inc

Method Blank Report

GC/MS Volatiles

Lot-Sample #: F7H090000-442 B **Work Order #:** J4JKD1AA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT	RETENTION TIME	UNITS
None				ug/kg

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: F7H030265 **Work Order #...:** J4JKD1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F7H090000-442
Prep Date.....: 08/06/07 **Analysis Date..:** 08/07/07
Prep Batch #...: 7221442
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chlorobenzene	50.0	51.1	ug/kg	102	SW846 8260B
Bromoform	50.0	57.2	ug/kg	114	SW846 8260B
Ethylbenzene	50.0	50.2	ug/kg	100	SW846 8260B
Styrene	50.0	53.1	ug/kg	106	SW846 8260B
1,1,2,2-Tetrachloroethane	50.0	49.9	ug/kg	100	SW846 8260B
Tetrachloroethene	50.0	50.8	ug/kg	102	SW846 8260B
n-Butylbenzene	50.0	51.1	ug/kg	102	SW846 8260B
Cyclohexanone	500	391	ug/kg	78	SW846 8260B
cis-1,2-Dichloroethene	50.0	52.4	ug/kg	105	SW846 8260B
trans-1,2-Dichloroethene	50.0	52.0	ug/kg	104	SW846 8260B
n-Hexane	50.0	48.5	ug/kg	97	SW846 8260B
1-Butanol	500	521	ug/kg	104	SW846 8260B
Acetonitrile	250	170	ug/kg	68	SW846 8260B
cis-1,3-Dichloropropene	50.0	52.8	ug/kg	106	SW846 8260B
Dibromochloromethane	50.0	54.5	ug/kg	109	SW846 8260B
Chloromethane	50.0	48.6	ug/kg	97	SW846 8260B
Vinyl chloride	50.0	48.7	ug/kg	97	SW846 8260B
Bromomethane	50.0	48.3	ug/kg	97	SW846 8260B
Chloroethane	50.0	46.5	ug/kg	93	SW846 8260B
Acetone	50.0	24.2 a	ug/kg	48	SW846 8260B
1,1-Dichloroethene	50.0	51.3	ug/kg	103	SW846 8260B
Methylene chloride	50.0	54.3	ug/kg	109	SW846 8260B
Carbon disulfide	50.0	37.1	ug/kg	74	SW846 8260B
1,1-Dichloroethane	50.0	50.2	ug/kg	100	SW846 8260B
2-Butanone	50.0	35.4	ug/kg	71	SW846 8260B
1,2-Dichloroethene (total)	100	104	ug/kg	104	SW846 8260B
Chloroform	50.0	49.5	ug/kg	99	SW846 8260B
1,1,1-Trichloroethane	50.0	51.0	ug/kg	102	SW846 8260B
Carbon tetrachloride	50.0	52.0	ug/kg	104	SW846 8260B
1,2-Dichloroethane	50.0	47.6	ug/kg	95	SW846 8260B
Benzene	50.0	49.3	ug/kg	99	SW846 8260B
Trichloroethene	50.0	50.0	ug/kg	100	SW846 8260B
1,2-Dichloropropane	50.0	50.5	ug/kg	101	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: F7H030265 **Work Order #...:** J4JKD1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F7H090000-442

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Bromodichloromethane	**50.0**	**50.6**	**ug/kg**	**101**	**SW846 8260B**
1,1,2-Trichloroethane	**50.0**	**49.3**	**ug/kg**	**99**	**SW846 8260B**
trans-1,3-Dichloropropene	**50.0**	**52.4**	**ug/kg**	**105**	**SW846 8260B**
Toluene	**50.0**	**51.7**	**ug/kg**	**103**	**SW846 8260B**
2-Hexanone	**50.0**	**49.2**	**ug/kg**	**98**	**SW846 8260B**
4-Methyl-2-pentanone	**50.0**	**47.9**	**ug/kg**	**96**	**SW846 8260B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	106	(85 - 124)
Dibromofluoromethane	101	(75 - 118)
1,2-Dichloroethane-d4	94	(81 - 117)
4-Bromofluorobenzene	110	(79 - 124)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: F7H030265 **Work Order #...:** J364R1AC-MS **Matrix.....:** SOLID
MS Lot-Sample #: F7H030265-001 J364R1AD-MSD
Date Sampled...: 07/17/07 **Date Received..:** 08/03/07
Prep Date.....: 08/06/07 **Analysis Date..:** 08/07/07
Prep Batch #...: 7221442
Dilution Factor: 0.94 **% Moisture.....:** 12

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
cis-1,3-Dichloropropene	ND	53.6	51.3	ug/kg	96		SW846 8260B
	ND	56.8	51.8	ug/kg	91	0.96	SW846 8260B
Chloromethane	ND	53.6	42.2	ug/kg	79		SW846 8260B
	ND	56.8	43.3	ug/kg	76	2.6	SW846 8260B
Vinyl chloride	ND	53.6	44.4	ug/kg	83		SW846 8260B
	ND	56.8	44.8	ug/kg	79	0.91	SW846 8260B
Bromomethane	ND	53.6	44.6	ug/kg	83		SW846 8260B
	ND	56.8	45.7	ug/kg	80	2.3	SW846 8260B
Chloroethane	ND	53.6	44.7	ug/kg	83		SW846 8260B
	ND	56.8	44.7	ug/kg	79	0.02	SW846 8260B
Acetone	ND	53.6	32.3	ug/kg	60		SW846 8260B
	ND	56.8	25.6	ug/kg	45	23	SW846 8260B
1,1-Dichloroethene	ND	53.6	50.0	ug/kg	93		SW846 8260B
	ND	56.8	48.0	ug/kg	85	4.0	SW846 8260B
Methylene chloride	ND	53.6	51.8	ug/kg	97		SW846 8260B
	ND	56.8	51.2	ug/kg	90	1.1	SW846 8260B
Carbon disulfide	ND	53.6	34.6	ug/kg	65		SW846 8260B
	ND	56.8	34.2	ug/kg	60	1.2	SW846 8260B
1,1-Dichloroethane	ND	53.6	50.2	ug/kg	94		SW846 8260B
	ND	56.8	49.1	ug/kg	86	2.2	SW846 8260B
1,2-Dichloroethene (total)	ND	107	101	ug/kg	94		SW846 8260B
	ND	114	99.2	ug/kg	87	1.9	SW846 8260B
Chloroform	ND	53.6	49.4	ug/kg	92		SW846 8260B
	ND	56.8	48.7	ug/kg	86	1.4	SW846 8260B
1,1,1-Trichloroethane	ND	53.6	51.2	ug/kg	96		SW846 8260B
	ND	56.8	48.9	ug/kg	86	4.6	SW846 8260B
Carbon tetrachloride	ND	53.6	52.0	ug/kg	97		SW846 8260B
	ND	56.8	50.1	ug/kg	88	3.8	SW846 8260B
1,2-Dichloroethane	ND	53.6	48.5	ug/kg	91		SW846 8260B
	ND	56.8	48.1	ug/kg	85	0.94	SW846 8260B
Benzene	ND	53.6	49.6	ug/kg	93		SW846 8260B
	ND	56.8	48.0	ug/kg	85	3.2	SW846 8260B
Trichloroethene	ND	53.6	51.0	ug/kg	95		SW846 8260B
	ND	56.8	50.3	ug/kg	89	1.4	SW846 8260B
1,2-Dichloropropane	ND	53.6	50.7	ug/kg	95		SW846 8260B
	ND	56.8	50.2	ug/kg	88	0.92	SW846 8260B
Bromodichloromethane	ND	53.6	51.4	ug/kg	96		SW846 8260B
	ND	56.8	50.5	ug/kg	89	1.8	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: F7H030265 **Work Order #...:** J364R1AC-MS **Matrix.....:** SOLID
MS Lot-Sample #: F7H030265-001 J364R1AD-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
1,1,2-Trichloroethane	ND	53.6	50.9	ug/kg	95		SW846 8260B
	ND	56.8	50.3	ug/kg	89	1.1	SW846 8260B
trans-1,3-Dichloropropene	ND	53.6	52.8	ug/kg	98		SW846 8260B
	ND	56.8	52.5	ug/kg	92	0.58	SW846 8260B
Toluene	ND	53.6	50.7	ug/kg	95		SW846 8260B
	ND	56.8	48.6	ug/kg	86	4.2	SW846 8260B
2-Hexanone	ND	53.6	51.5	ug/kg	96		SW846 8260B
	ND	56.8	52.8	ug/kg	93	2.6	SW846 8260B
4-Methyl-2-pentanone	ND	53.6	53.2	ug/kg	99		SW846 8260B
	ND	56.8	52.0	ug/kg	92	2.2	SW846 8260B
Chlorobenzene	ND	53.6	49.4	ug/kg	92		SW846 8260B
	ND	56.8	48.1	ug/kg	85	2.9	SW846 8260B
Bromoform	ND	53.6	58.8	ug/kg	110		SW846 8260B
	ND	56.8	58.8	ug/kg	104	0.03	SW846 8260B
Ethylbenzene	ND	53.6	49.1	ug/kg	92		SW846 8260B
	ND	56.8	47.2	ug/kg	83	3.9	SW846 8260B
Styrene	ND	53.6	51.9	ug/kg	97		SW846 8260B
	ND	56.8	50.4	ug/kg	89	3.0	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	53.6	49.3	ug/kg	92		SW846 8260B
	ND	56.8	49.1	ug/kg	86	0.36	SW846 8260B
Tetrachloroethene	ND	53.6	74.1	ug/kg	138		SW846 8260B
	ND	56.8	73.3	ug/kg	129	1.1	SW846 8260B
2-Butanone	ND	53.6	35.9	ug/kg	67		SW846 8260B
	ND	56.8	34.5	ug/kg	61	3.8	SW846 8260B
Dibromochloromethane	ND	53.6	55.0	ug/kg	103		SW846 8260B
	ND	56.8	53.9	ug/kg	95	1.9	SW846 8260B
n-Butylbenzene	ND	53.6	46.4	ug/kg	87		SW846 8260B
	ND	56.8	47.5	ug/kg	84	2.3	SW846 8260B
Cyclohexanone	ND	536	663	ug/kg	124		SW846 8260B
	ND	568	589	ug/kg	104	12	SW846 8260B
cis-1,2-Dichloroethene	ND	53.6	51.1	ug/kg	95		SW846 8260B
	ND	56.8	50.4	ug/kg	89	1.4	SW846 8260B
trans-1,2-Dichloroethene	ND	53.6	49.9	ug/kg	93		SW846 8260B
	ND	56.8	48.8	ug/kg	86	2.3	SW846 8260B
n-Hexane	ND	53.6	39.3	ug/kg	73		SW846 8260B
	ND	56.8	43.2	ug/kg	76	9.6	SW846 8260B
1-Butanol	ND	536	614	ug/kg	115		SW846 8260B
	ND	568	690	ug/kg	122	12	SW846 8260B
Acetonitrile	ND	268	237	ug/kg	88		SW846 8260B
	ND	284	191	ug/kg	67 p	21	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: F7H030265 **Work Order #...:** J364R1AC-MS **Matrix.....:** SOLID
MS Lot-Sample #: F7H030265-001 J364R1AD-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	97	(67 - 150)
	90	(67 - 150)
Dibromofluoromethane	93	(59 - 133)
	88	(59 - 133)
1,2-Dichloroethane-d4	90	(70 - 132)
	86	(70 - 132)
4-Bromofluorobenzene	95	(57 - 150)
	92	(57 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

p Relative percent difference (RPD) is outside stated control limits.

WET CHEMISTRY

Fluor Hanford Inc

Client Sample ID: B1P3K7

General Chemistry

Lot-Sample #...: F7H030265-001 **Work Order #...:** J364R **Matrix.....:** SOLID
Date Sampled...: 07/17/07 **Date Received..:** 08/03/07
% Moisture.....: 12

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	**12.0**	**0.10**	**%**	**MCAWW 160.3 MOD**	**08/07-08/09/07**	**7219083**

Dilution Factor: 1 MDL.....:

Fluor Hanford Inc

Client Sample ID: B1P3K8

General Chemistry

Lot-Sample #...: F7H030265-002 **Work Order #...:** J365T **Matrix.....:** SOLID
Date Sampled...: 07/19/07 **Date Received..:** 08/03/07
% Moisture.....: 5.8

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	**5.8**	**0.10**	**%**	**MCAWW 160.3 MOD**	**08/07-08/09/07**	**7219083**

Dilution Factor: 1 MDL.....: