0067085

SEVERN TRENT 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. 200-LW-1/LW-2

F03-025

Lot #: F4K100333
SDG #: W04380

Steve Trent

Fluor Hanford Inc
MSIN A0-21
PO Box 1000
Richland, WA 99352

RECEIVED
OCT 27 2005
EDMC

SEVERN TRENT LABORATORIES, INC.

RECEIVED
JAN 10 2005

MARTI WARD
Project Manager

December 21, 2004

Case Narrative
SDG: W04380

This report contains the analytical results for the four samples received under chain of custody by STL St. Louis between November 10, 2004 and November 19, 2004. These samples are associated with your F03-025 SAF. The SDG was closed on 11/24/04.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted below.

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.

Samples were received at the laboratory after the holding time had expired for several of the requested tests.

Volatiles

The LCS recoveries for batch 4317380 are outside QC limits for less than 10% of the compounds spiked. Laboratory QC practices, based on federal guidance documents, allow for up to 10% of the spike compounds to be outside QC criteria without necessitating re-preparation/re-analysis. Sample purge efficiency and compliance is demonstrated by the remaining acceptable LCS recoveries.

The MS/MSD recoveries are outside QC limits for less than 10% of the compounds spiked. Laboratory QC practices, based on federal guidance documents, allow for up to 10% of the spike compounds to be outside QC criteria without necessitating re-preparation/re-analysis. Sample purge efficiency and compliance is demonstrated by the remaining acceptable MS/MSD recoveries.

Case Narrative
SDG: W04380

Anions

The MS recovery for Nitrite was outside the QC limits. The anion matrix spike solution contains all routine anions. Spiking technique, sample preparation and method compliance is demonstrated by the remaining acceptable MS recoveries. Poor matrix spike recovery is attributed to matrix interference.

Nitrate

The MS recovery for Nitrate is outside the established QC limits. A matrix interference is physically evident in the sample. Method performance is demonstrated by acceptable LCS and LCS-Duplicate recoveries. No further action is required.

PCB

Due to its extremely high radiation readings, sample B19189 was analyzed at an initial ten fold dilution. The reporting limit has been adjusted for the dilution. Surrogates were diluted out.

The MS/MSD sample required at least a twenty fold dilution, making recoveries for the MS/MSD unreliable. There was no reportable data for the MS/MSD. LCS recoveries were acceptable.

Continuing Calibration Checks 200, 208 and 216 all failed low for Aroclor 1016 and 1260 on the confirmation channel (A). All recoveries were acceptable on Channel B, which is where these samples were reported from.

Mercury

Analysis of the sample designated for MS/MSD resulted in a sufficiently high concentration such that the MS/MSD are above the instrument's calibration range. MS/MSD results should be considered estimated values.

Semi-Volatiles

Due to sample matrix, limited volume and RAD levels, an MS/MSD was not run for method 8270 on a sample from this SDG.

There was insufficient volume of sample B19188 provided to perform the analysis at the method specified amount due to laboratory request to limit volume due to high RAD levels. A reduced sample amount was prepared. The reporting limit has been elevated accordingly.

Case Narrative
SDG: W04380

Metals

The MS/MSD recoveries for sample B19189 for Antimony, Chromium and Nickel are outside the established QC limits. The RPD is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery. No further action is required.

The MS/MSD recovery in sample B191F1 for Chromium, Copper and Lead is outside the established QC limits. The concentration of these metals in the original sample is greater than four times the amount spiked, making percent recovery information ineffective. The MS/MSD recovery for Antimony, Nickel and Silver is outside the established QC limits. The RPD is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery. No further action is required.

STL ST. LOUIS

SAMPLE SUMMARY

W04380 : P4K100333

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GWNAE	001	B193K1	10/26/04	09:41
GWNFG	002	B19189	10/26/04	09:41

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.

(Continued on next page)

SEVERN TRENT STL

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Earth City, MO 63045

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ANALYTICAL REPORT

PROJECT NO. 200-LW-1/LW-2

F03-025

Lot #: F4K100333
SDG #: W04380

Steve Trent

Fluor Hanford Inc
MSIN A0-21
PO Box 1000
Richland, WA 99352

SEVERN TRENT LABORATORIES, INC.

RECEIVED
JAN 10 2005

MARTI WARD
Project Manager

December 21, 2004

Case Narrative
SDG: W04380

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The analytical results included in this report meet all applicable quality control procedure requirements except as noted below.

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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.

Samples were received at the laboratory after the holding time had expired for several of the requested tests.

Volatiles

The LCS recoveries for batch 4317380 are outside QC limits for less than 10% of the compounds spiked. Laboratory QC practices, based on federal guidance documents, allow for up to 10% of the spike compounds to be outside QC criteria without necessitating re-preparation/re-analysis. Sample purge efficiency and compliance is demonstrated by the remaining acceptable LCS recoveries.

The MS/MSD recoveries are outside QC limits for less than 10% of the compounds spiked. Laboratory QC practices, based on federal guidance documents, allow for up to 10% of the spike compounds to be outside QC criteria without necessitating re-preparation/re-analysis. Sample purge efficiency and compliance is demonstrated by the remaining acceptable MS/MSD recoveries.

Case Narrative
SDG: W04380

Anions

The MS recovery for Nitrite was outside the QC limits. The anion matrix spike solution contains all routine anions. Spiking technique, sample preparation and method compliance is demonstrated by the remaining acceptable MS recoveries. Poor matrix spike recovery is attributed to matrix interference.

Nitrate

The MS recovery for Nitrate is outside the established QC limits. A matrix interference is physically evident in the sample. Method performance is demonstrated by acceptable LCS and LCS-Duplicate recoveries. No further action is required.

PCB

Due to its extremely high radiation readings, sample B19189 was analyzed at an initial ten fold dilution. The reporting limit has been adjusted for the dilution. Surrogates were diluted out.

The MS/MSD sample required at least a twenty fold dilution, making recoveries for the MS/MSD unreliable. There was no reportable data for the MS/MSD. LCS recoveries were acceptable.

Continuing Calibration Checks 200, 208 and 216 all failed low for Aroclor 1016 and 1260 on the confirmation channel (A). All recoveries were acceptable on Channel B, which is where these samples were reported from.

Mercury

Analysis of the sample designated for MS/MSD resulted in a sufficiently high concentration such that the MS/MSD are above the instrument's calibration range. MS/MSD results should be considered estimated values.

Semi-Volatiles

Due to sample matrix, limited volume and RAD levels, an MS/MSD was not run for method 8270 on a sample from this SDG.

There was insufficient volume of sample B19188 provided to perform the analysis at the method specified amount due to laboratory request to limit volume due to high RAD levels. A reduced sample amount was prepared. The reporting limit has been elevated accordingly.

Case Narrative
SDG: W04380

Metals

The MS/MSD recoveries for sample B19189 for Antimony, Chromium and Nickel are outside the established QC limits. The RPD is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery. No further action is required.

The MS/MSD recovery in sample B191F1 for Chromium, Copper and Lead is outside the established QC limits. The concentration of these metals in the original sample is greater than four times the amount spiked, making percent recovery information ineffective. The MS/MSD recovery for Antimony, Nickel and Silver is outside the established QC limits. The RPD is within method acceptance criteria indicating possible matrix interference. Method performance is demonstrated by acceptable LCS recovery. No further action is required.

SAMPLE SUMMARY

W04380 : F4K100333

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GWNAE	001	B193K1	10/26/04	09:41
GWNFG	002	B19189	10/26/04	09:41

NOTE(S):

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(Continued on next page)

SAMPLE SUMMARY

W04380 : F4K120109

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GWTXX	001	B19188	10/20/04	10:40

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
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(Continued on next page)

SAMPLE SUMMARY

W04380 : F4K180368

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
GXCC5	001	B191F1	08/18/04	08:58

NOTE(S) :

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- 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.

METHODS SUMMARY

W04380

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Chloride	MCAWW 300.0A	MCAWW 300.0A
Extractable Petroleum Hydrocarbons	SW846 8015 MOD	SW846 3550
Fluoride	MCAWW 300.0A	MCAWW 300.0A
Hexavalent Chromium	SW846 7196A	SW846 3060A
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
Nitrate as N	MCAWW 300.0A	MCAWW 300.0A
Nitrate-Nitrite	MCAWW 353.1	
Nitrite as N	MCAWW 300.0A	MCAWW 300.0A
Nitrogen, Ammonia	MCAWW 350.1	MCAWW 350.1
Oil & Grease (Gravimetric)	SW846 9071A	
Percent Moisture	MCAWW 160.3 MOD	MCAWW 160.3 MOD
Phosphate as P, Ortho	MCAWW 300.0A	MCAWW 300.0A
PCBs by SW-846 8082	SW846 8082	SW846 3550B/366
Semivolatile Organic Compounds by GC/MS	SW846 8270C	SW846 3550B
Soil and Waste pH	SW846 9045C	SW846 DI-LEACHA
Sulfate	MCAWW 300.0A	MCAWW 300.0A
Sulfide	SW846 9030	
Total Cyanide	SW846 9010A	SW846 9010A
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826
Volatile Petroleum Hydrocarbons	SW846 8015 MOD	SW846 5030

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.

LOT# F4K100333

STL ST. LOUIS

FLUOR Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F03-025-125	PAGE 1 OF 1

COLLECTOR Pope/Pfister/Hughes/Wiberg	**COMPANY CONTACT** TRENT, STEVE	**TELEPHONE NO.** 373-5689	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** BN	**DATA TURNAROUND**
SAMPLING LOCATION 216-T-28; 22.5ft-25ft	**PROJECT DESIGNATION** 200-LW-1/LW-2 Characterization - Soil		**SAF NO.** F03-025	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO. GRP-04-003	**FIELD LOGBOOK NO.** HNF-N-356 1	**COA** 119143ES10	**METHOD OF SHIPMENT** Federal Express		
SHIPPED TO Severn Trent Incorporated, ~~Richland~~ ST 11/09/04	**OFFSITE PROPERTY NO.** See Shipment # DJ020		**BILL OF LADING/AIR BILL NO.** See Shipment # DJ020		

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: N/A

SPECIAL HANDLING AND/OR STORAGE: Radioactive TIL TO: B191C7

PRESERVATION	Cool 4C	None	
TYPE OF CONTAINER	aG	aG	
NO. OF CONTAINER(S)	1	1	
VOLUME	~~120mL~~ 120 mL	60mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	

~~500g, 250g, 2x120g, 60g~~ 60g, 120g

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B193K1	SOIL	10-26-04	0941	X	X							

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
JSPope/[signature]	10-26-04 1230	Site fridge	10-26-04 1230
Site Fridge	11/04/04 950	Greg Thomas [signature]	11/04/04 950
Greg Thomas [signature]	11/04/04 1135	MO-026 Frig #3	11/04/04 1135
MO-026 Frig #3	11/09/04 0820	Greg Thomas [signature]	11/09/04 0820
Greg Thomas [signature]	11/09/04 0835	Fed Ex	
		[signature]	11/10/04 0960

SPECIAL INSTRUCTIONS

(1)Chromium Hex - 7196; NO2/NO3 - 353.1; Sulfides - 9030; Oil & Grease - 413.1; (2)Nickel-63; Gamma Spec - ~~Radium (Radium-226, Radium-228)~~ Technetium-99; Isotopic Thorium {Thorium-232} Strontium-89,90 -- Total Sr; Tritium - H3; Carbon-14;

LABORATORY SECTION	**RECEIVED BY** [signature] 11/10/04 0960	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

SDG# W04380

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F03-025-057	PAGE 1 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Pope/Pfister/Wiberg/Tyra	TRENT, STEVE	373-5689	TRENT, SJ	AIR QUALITY ☐	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
216-T-28; 22.5ft-25ft	200-LW-1/LW-2 Characterization - Soil	F03-025

ICE CHEST NO.	FIELD LOGBOOK NO.	COA	METHOD OF SHIPMENT
GRP-04-003	HNF-N-356-1	119143ES10	Government Vehicle

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
~~Waste Sampling & Characterization~~ JT 11/04/04 Severn Trent	~~N/A~~ JT 11/09/04 See Shipment #DJ020	~~N/A~~ JT 11/04/04 See Shipment # DJ020

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: N/A

SPECIAL HANDLING AND/OR STORAGE: ~~Water acc~~ Radioactive fre to: RIGIC 7

PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None	None			
TYPE OF CONTAINER	Gs*	aG	aG	Gs*	P	aG	aG		250g, 3 x 120g, 6 x 40	
NO. OF CONTAINER(S)	3	1	1	3	1	1	1			
VOLUME	40mL	120mL	120mL	40mL	500mL	250mL	120mL			
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	PCBs - 8082;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	SEE ITEM (6) IN SPECIAL INSTRUCTIONS			

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B19189	SOIL	10-26-04	0941	X	X	X	X	X	X	X			

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J.S. Pope/ Pfister	10-26-04 1230	Site Fridge	10-26-04 1230
Site Fridge	11/04/04 0950	Greg Thomas Greg Thomas	11/04/04 0950
Greg Thomas Greg Thomas	11/09/04 1135	MO-026 Frig #3	11/04/04 1135
MO-026 Frig #3	11/09/04 0820	Greg Thomas Greg Thomas	11/09/04 0820
Greg Thomas Greg Thomas	11/09/04 0835	Fed Ex	
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

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

W04380

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
	[illegible] 11/10/04 0910		
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

g-6003-618(03/03)

LOT#K1K10333

SDG#W04380

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STL ST. LOUIS

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F03-025-057	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Wiberg/Tyra	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373-5689	PROJECT COORDINATOR TRENT, SJ	PRICE CODE ~~2A~~ 6N ST 11/04/04	DATA TURNAROUND
SAMPLING LOCATION 216-T-28; 22.5ft-25ft	PROJECT DESIGNATION 200-LW-1/LW-2 Characterization - Soil		SAF NO. F03-025	AIR QUALITY ☐	~~24 Hours~~ 45 days
ICE CHEST NO. GRP-04-003	FIELD LOGBOOK NO. HNF-N-356-1	COA 119143ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. ~~NA~~ ST 11/09/04 Shipment # DJ020		BILL OF LADING/AIR BILL NO. ~~NA~~ ST 11/09/04 Shipment # DJ020		

SPECIAL INSTRUCTIONS

The laboratory is to analyze pH within 24 hours of sample receipt. The laboratory is to report kerosene range organics from the WTPH-D analysis.

(1)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol}
(2)Semi-VOA - 8270A (TCL) {Phenol} Semi-VOA – 8270A (Add-On) {Tributyl phosphate} TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} TPH-Gasoline Range - WTPH-G;
(3)Alcohols, Glycols, & Ketones - 8015 {Ethylene glycol}
~~(4)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Gamma Spec - Add-on {Antimony-125, Cesium-134} Isotopic Plutonium; Isotopic Uranium; Neptunium-237; Americium-241;~~ ST 11/04/04
(5)ICP/MS - ~~200.8 (TAL)~~ {Antimony, Barium, Cadmium, Chromium, Copper, Nickel, Silver} ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Mercury, Selenium, Uranium} ICP Metals - 6010A (Add-on) {Bismuth}
(6)IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate} Cations (IC) - 300.7 {Nitrogen in ammonium} Cyanide (Total) - 335.2; pH (Soil) - 9045;

6010A (Supertrace) ST 11/04/04

IOM# F4K100333
SDG# W04380
STL ST. LOUIS
11 of 97

SEVERN TRENT **STL**

Lot No: F4K100333

Condition Upon Receipt Form
St. Louis Laboratory

Client: Hanford

Quote No: 56342

Shipper/No: FE/843085363702

Date: 11/10/04 Time: 0900

Initiated by: bd

COC/RFA Numbers: F03-025-125
F03-025-057

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

1.	Y N	Sample received in undamaged condition?	7.	Y N	Sample received with Chain of Custody?
2.	Y N	Sample received within 4-C ± 2-C* ?	8.	Y N	Chain of Custody matches sample IDs on containers?
		Record 5°	9.	Y N N/A	Custody seal received intact on cooler.?
3.	Y N N/A	Sample received with proper pH [1]?	10.	Y N N/A	Custody seal tamper evident on cooler.?
4.	Y N	If N/A – Was pH taken by original STL lab?	11.	Y N N/A	Custody seal on bottles received intact?
5.	Y N	Sample received in proper containers?	12.	Y N N/A	Custody seal tamper evident on bottles?
6.	Y N	Sample volume sufficient for analysis?	13.	Y N	Was CUR (equivalent) rec' d from original STL lab?

* Temperature Variance Does Not Affect the Following Analyses:

[1]For DOE-AL (Pantex, LANL, Sandia) sites, verify pH all containers received, except for VOA, TOX, and soils.

Notes:

Corrective Action:

☐ Client's Name: _____ Informed by: _____ By: _____

☐ Sample(s) processed "as is".

☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: MWard Date: 11-11-04

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

ADMIN-0004, Revised 2/17/04
\\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev7.doc

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Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F03-025-056	PAGE 1 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Pope/Pfister/Wiberg/Tyra	TRENT, STEVE	373-5689	TRENT, SJ	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
216-T-28; 17.5ft-20ft	200-LW-1/LW-2 Characterization - Soil		F03-025		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**COA**	**METHOD OF SHIPMENT**		
04/04-0#0037	HNF-N-356-1	119143ES10	~~Government Vehicle~~ ST 11/10/04 Fed Ex		
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
~~Waste Sampling & Characterization~~ ST 11/10/04 Seven Trent	~~N/A~~ ST 11/10/04 See Shipment # DJ021		~~N/A~~ ST 11/10/04 See Shipment # DJ021		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS
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	N/A
	SPECIAL HANDLING AND/OR STORAGE ~~N/A~~ RADIOACTIVE Tie To B19106

PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None	None
TYPE OF CONTAINER	Gs*	aG	aG	Gs*	P	aG	aG
NO. OF CONTAINER(S)	3	1	1	3	1	1	1
VOLUME	40mL	120mL	120mL	40mL	500mL	250mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS (2),(3),(5)(6)	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	PCBs - 8082;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	SEE ITEM (6) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B19188	SOIL	10-20-04	1040	X	X	X	X	X	X	X

11/04

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J.S. Pope/Pfister 10-20-04	1230	SITE RMA FRIDGE 10-20-04	1230
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Site RMA Fridge 11/10/04	0810	Greg Thomas Greg Thomas 11/10/04	0810
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Greg Thomas Greg Thomas 11/10/04	0815	Fed Ex	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
	Jill Clark 11.12.04 0940		
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

GA-6003-618(03/03)

LOT# F4X10333

SDG# BW04380

STL ST. LOUIS

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Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F03-025-056	PAGE 2 OF 2
COLLECTOR Pope/Pflster/Wiberg/Tyra	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373-5689	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 2A	DATA TURNAROUND
SAMPLING LOCATION 216-T-28; 17.5ft-20ft	PROJECT DESIGNATION 200-LW-1/LW-2 Characterization - Soil		SAF NO. F03-025	AIR QUALITY ☐	24 Hours
ICE CHEST NO. 04/04-010037	FIELD LOGBOOK NO. HNF-N-356-1	COA 119143ES10	METHOD OF SHIPMENT ~~Government Vehicle~~ SJT 11/10/04 Fed Ex		
SHIPPED TO ~~Waste Sampling & Characterization~~ SJT 11/10/04 Severn Trent	OFFSITE PROPERTY NO. ~~N/A~~ SJT 11/10/04 See Shipment # DJ021		BILL OF LADING/AIR BILL NO. ~~N/A~~ SJT 11/10/04 See Shipment # DJ021		

SPECIAL INSTRUCTIONS

The laboratory is to analyze pH within 24 hours of sample receipt. The laboratory is to report kerosene range organics from the WTPH-D analysis.

(1)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol}
(2)Semi-VOA - 8270A (TCL) {Phenol} Semi-VOA -- 8270A (Add-On) {Tributyl phosphate} TPH-Diesel Range - WTPH-D {Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range} TPH-Gasoline Range - WTPH-G;
(3)Alcohols, Glycols, & Ketones - 8015 {Ethylene glycol}
(4)Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155} Gamma.Spec - Add-on {Antimony-125, Cesium-134} Isotopic Plutonium; Isotopic Uranium; Neptunium-237; Americium-241;
(5)ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Copper, Nickel, Silver} ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Mercury, Selenium, Uranium} ICP Metals - 6010A (Add-on) {Bismuth}
(6)IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate} Cations (IC) - 300.7 {Nitrogen in ammonium} Cyanide (Total) - 335.2; pH (Soil) - 9045;

SEVERN TRENT STL

Lot No: F4K120109

Condition Upon Receipt Form
St. Louis Laboratory

Client: Hanford

Date: 11.11.04 Time: 0900

Quote No: 5392

Initiated by: Q

Shipper/No: Fed Ex 843085363474

COC/RFA Numbers: F03-025-056

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

1.	Y N	Sample received in undamaged condition?	7.	Y N	Sample received with Chain of Custody?
2.	Y N	Sample received within 4-C ± 2-C* ?	8.	Y N	Chain of Custody matches sample IDs on containers?
		Record 5	9.	Y N N/A	Custody seal received intact on cooler.?
3.	Y N N/A	Sample received with proper pH [1]?	10.	Y N N/A	Custody seal tamper evident on cooler.?
4.	Y N	If N/A - Was pH taken by original STL lab?	11.	Y N N/A	Custody seal on bottles received intact?
5.	Y N	Sample received in proper containers?	12.	Y N N/A	Custody seal tamper evident on bottles?
6.	Y N	Sample volume sufficient for analysis?	13.	Y N	Was CUR (equivalent) rec' d from original STL lab?

* Temperature Variance Does Not Affect the Following Analyses: _____

[1]For DOE-AL (Pantex, LANL, Sandia) sites, verify pH all containers received, except for VOA, TOX, and soils.

Notes:

Corrective Action:

☐ Client's Name: _____ Informed by: _____ By: _____

☐ Sample(s) processed "as is". _____

☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: MWard Date: 11-12-04

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

ADMIN-0004, Revised 2/17/04
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3893

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F03-025-094	PAGE 3 OF 5
COLLECTOR: Pope/Pfister/Wiberg/Tyra	COMPANY CONTACT: TRENT, STEVE — TELEPHONE NO.: 373-5689	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 80 — DATA TURNAROUND: 60 Days / 60 Days
SAMPLING LOCATION: 216-S-20; 29.5-32.0 ft	PROJECT DESIGNATION: 200-LW-1/LW-2 Characterization - Soil	SAF NO.: F03-025	AIR QUALITY ☐
ICE CHEST NO.: N/A	FIELD LOGBOOK NO.: — COA: 119143E510	METHOD OF SHIPMENT: Government Vehicle	
SHIPPED TO: 222-S Lab Operations	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: N/A

W04380

SPECIAL HANDLING AND/OR STORAGE: N/A

PRESERVATION	Cool 4C	Cool 4C	Cool 4C	None
TYPE OF CONTAINER	aGs*	aG	aG	G
NO. OF CONTAINER(S)	5	1	1	1
VOLUME	40mL	60mL	60mL	120mL
SAMPLE ANALYSIS	VOA - 8260A - Complete;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B191F1	SOIL	9/18/04 ①	0858 ①

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[illegible]	11-4-04 1400	[illegible]	1400
MO-026 FDJ 3	11/17/04 0846	M.F. Bauchwitz M.G. Bauchwitz	11/17/04

SPECIAL INSTRUCTIONS

The lab is to analyze pH within 24 hours of sample receipt. The lab is to report kerosene range organics from the WTPH-D analysis. FH acknowledges that the analytical holding time for Nitrate, Nitrite and Phosphate by EPA Method 300.0 will not be met.

(1)Semi-VOA - 8270A (TCL) {Phenol} Semi-VOA -- 8270A (Add-On) {Tributyl phosphate}

(2)IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphate, Sulfate} Cations (IC) - 300.7 {Nitrogen in ammonium} Total Cyanide - 9010; Sulfides - 9030; pH (Soil) - 9045;

① Sample date & time taken from original COC MAB 11/17/04

COC continued on pg 4 of 4

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

A-6003-618(03/03)

LOT# 4110333

SDG# W04380

ST. LOUIS

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F03-025-173	PAGE 4 OF 4
COLLECTOR: Pope/Pfister/Wiberg/Tyra	COMPANY CONTACT: TRENT, STEVE — TELEPHONE NO.: 373-5689	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8N — DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: 216-S-20; 29.5-32.0 ft	PROJECT DESIGNATION: 200-LW-1/LW-2 Charactertzation - Soil	SAF NO.: F03-025	AIR QUALITY ☐
ICE CHEST NO.: GRP-03-029	FIELD LOGBOOK NO.: HNF-N-356 1 — COA: 119143ES10	METHOD OF SHIPMENT: Federal Express	
SHIPPED TO: Severn Trent St. Louis	OFFSITE PROPERTY NO.: See PTR 14452	BILL OF LADING/AIR BILL NO.: See PTR 14452	

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: N/A

SPECIAL HANDLING AND/OR STORAGE: N/A

PRESERVATION	None													
TYPE OF CONTAINER	G/P													
NO. OF CONTAINER(S)	1													
VOLUME	250mL													
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS													

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME											
B191F1	SOIL	8/18/04	0858	X										

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
M.H. Buchholz / M.H. Buchholz	8/18/04 0845	Fed Ex	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
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)ICP Metals - 6010A (Supertrace) {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver} ICP Metals - 6010A (Supertrace Add-On) {Antimony, Beryllium, Bismuth, Copper, Nickel} Mercury - 7471 - (CV);

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

6003-618(03/03)

LOT# 14110333 SDG# BW04380 STL LOUIS

CUF 395

MAB 11/17/04

FLUOR Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F03-025-094	PAGE 1 OF 34
COLLECTOR: Pope/Pfister/Wiberg/Tyrs	COMPANY CONTACT: TRENT, STEVE — TELEPHONE NO.: 373-5689	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8N — DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: 216-S-20; ~~200W-94.9N~~ 89.5' -32' 8/10/04	PROJECT DESIGNATION: 200-LW-1/LW-2 Characterization - Soil	SAF NO.: F03-025	AIR QUALITY: ☐
ICE CHEST NO.: N/A	FIELD LOGBOOK NO.: HNF-N-356 1 — COA: 119143E510	METHOD OF SHIPMENT: Government Vehicle	
SHIPPED TO: ~~Waste Sampling & Characterization~~ 222-S 8/30/04	OFFSITE PROPERTY NO.: N/A	BILL OF LADING/AIR BILL NO.: N/A	

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: N/A

SPECIAL HANDLING AND/OR STORAGE: N/A

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	None	None			
				TYPE OF CONTAINER	Gr*	aG	aG	Gr*	P	aG	aG			
				NO. OF CONTAINER(S) / VOLUME	3 / 40mL	1 / 120mL	1 / 120mL	3 / 40mL	1 / 500mL	1 / 250mL	1 / 120mL			
				SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	PCBs 8082;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	SEE ITEM (6) IN SPECIAL INSTRUCTIONS			
B191F1	SOIL	8-18-04	0858		X	X	X	X	X	X	X			

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: JS Pfister/Site Lodge — DATE/TIME: 8-18-04 1200	RECEIVED BY/STORED IN: Site Lodge — DATE/TIME: 8-18-04 1200	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: Site Lodge — DATE/TIME: 8/20/04 1400	RECEIVED BY/STORED IN: JS Pfister — DATE/TIME: 8/20/04 1400	
RELINQUISHED BY/REMOVED FROM: JS Pfister — DATE/TIME: 8-30-04	RECEIVED BY/STORED IN: RD Wiberg/RL Numbers — DATE/TIME: 8-30-04	
RELINQUISHED BY/REMOVED FROM: Site Trailer S-20 — DATE/TIME: 9-13-04 0800	RECEIVED BY/STORED IN: J.S. Pfister — DATE/TIME: 9-13-04 0800	
RELINQUISHED BY/REMOVED FROM: — DATE/TIME: 9-13-04 1040	RECEIVED BY/STORED IN: MO-026 Refer # 2 — DATE/TIME: 9-13-04 1040	
RELINQUISHED BY/REMOVED FROM: MO-026 Ref 2 — DATE/TIME: 11/2/04 0630	RECEIVED BY/STORED IN: MO-026 Ref 3 — DATE/TIME: 11/2/04 0630	
RELINQUISHED BY/REMOVED FROM: MO-026 Ref. # 2 — DATE/TIME: 11-4-04 0730	RECEIVED BY/STORED IN: J.S. Pfister — DATE/TIME: 11-4-04 0730	→ continued on page 3 of 3.

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

LOT# F4K100333

SDG# W04380

NBB 11/17/03

FLUOR Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSES REQUEST		F03-025-094	PAGE 2 OF 34
COLLECTOR Pope/Pfister/Wiberg/Tyra	COMPANY CONTACT TRENT, STEVE	TELEPHONE NO. 373-5889	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N AIR QUALITY ☐
SAMPLING LOCATION 216-S-20; ~~0210-34-5R~~ 29.5'-32'	PROJECT DESIGNATION 200-LW-1/LW-2 Characterization - Soil		SAF NO. F03-025	DATA TURNAROUND 45 Days
ICE CHEST NO. 870-04	FIELD LOGBOOK NO. HNF-N-356 1	COA 119143ES10	METHOD OF SHIPMENT Government Vehicle	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A	

SPECIAL INSTRUCTIONS

The lab is to analyze pH within 24 hours of sample receipt. The lab is to report kerosene range organics from the WTPH-D analysis. FH acknowledges that the analytical holding time for Nitrate, Nitrite and Phosphate by EPA Method 300.0 will not be met.

(1)VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol} AB 8/30/04
(2)Semi-VOA - 8270A (TCL) {Phenol} Semi-VOA – 8270A (Add-On) {Tributyl phosphate} ~~TPH Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range; Total petroleum hydrocarbons - kerosene range) TPH Gasoline Range - WTPH-G;~~
~~(3)Alcohols, Glycols & Ketones - 8015 (Ethylene glycol)~~ AB 8/30/04
~~(4)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Gamma Spec - Add-on (Antimony-125, Cesium-134) Isotopic Plutonium; Isotopic Uranium; Neptunium-237; American-241;~~ AB 8/30/04
~~(5)ICP/MS - 200.8 (TAL) (Antimony, Barium, Cadmium, Chromium, Copper, Nickel, Silver) ICP/MS - 200.8 (Add-on) (Arsenic, Beryllium, Lead, Mercury, Selenium, Uranium) ICP Metals - 6010A (Add-on) (Bismuth)~~ (Boron) AB 8/30/04
(6)IC Anions - 300.0 {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphate, Sulfate} Cations (IC) - 300.7 {Nitrogen in ammonium} Cyanide (Total) - 335.2; pH (Soil) - 9045; NG BI NG-Dw 1 7471

A-6003-618(03/03)

SEVERN TRENT **STL**

Lot No: F4K180368

Condition Upon Receipt Form
St. Louis Laboratory

Client: Richland

Date: 11.18.04 Time: 0900

Quote No:

Initiated by:

Shipper/No: FedX below

COC/RFA Numbers: below

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

1.	(Y) N	Sample received in undamaged condition?	7.	(Y) N	Sample received with Chain of Custody?
2.	(Y) N	Sample received within 4-C ± 2-C* ?	8.	(Y) N	Chain of Custody matches sample IDs on containers?
		Record 2°,2°,2°,2°,3°	9.	(Y) N N/A	Custody seal received intact on cooler.?
3.	(Y) N N/A	Sample received with proper pH [1]?	10.	(Y) N N/A	Custody seal tamper evident on cooler.?
4.	Y N	If N/A - Was pH taken by original STL lab?	11.	(Y) N N/A	Custody seal on bottles received intact?
5.	(Y) N	Sample received in proper containers?	12.	(Y) N N/A	Custody seal tamper evident on bottles?
6.	(Y) N ?	Sample volume sufficient for analysis?	13.	Y N	Was CUR (equivalent) rec' d from original STL lab?

see below

* Temperature Variance Does Not Affect the Following Analyses:

[1]For DOE-AL (Pantex, LANL, Sandia) sites, verify pH all containers received, except for VOA, TOX, and soils. SV 11.18.04

Notes: 7927 8069 7109 — C-O-C ~~F03-025-094~~ 181932 - bottle have no custody seals

7908 3365 5552

7908 3341 1054

7921 3949 4659 — C-O-C F03-025-094 has only 1x250G that is only about 1/4 full.

7913 9119 9071 — * Only run metals / client 11-19-04

C-O-C's 181932, S05-010-144, 148, 146, 150 / S05-011-95, 93, 94, 87, 81, / I05-005-117, S04-007-64 + FLUORATED chains.

Corrective Action:

☐ Client's Name: Informed by: By:

☐ Sample(s) processed "as is".

☐ Sample(s) on hold until: If released, notify:

Project Management Review: Mulard Date: 11-19-04

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

ADMIN-0004, Revised 2/17/04
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VOLATILE ORGANICS

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FLUOR HANFORD IC

Client Sample ID: B19189

GC/MS Volatiles

Lot-Sample #...: F4K100333-002 **Work Order #...:** GWNFG1CF **Matrix.....:** SOLID
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04
Prep Date.....: 11/11/04 **Analysis Date..:** 11/11/04
Prep Batch #...: 4317380
Dilution Factor: 1
% Moisture.....: 6.6 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Chloromethane	ND	11	ug/kg	0.25
Bromomethane	ND	11	ug/kg	0.95
Chloroethane	ND	11	ug/kg	0.60
Acetone	ND	21	ug/kg	1.4
1,1-Dichloroethene	ND	5.4	ug/kg	0.73
Acetonitrile	ND	54	ug/kg	5.7
Methylene chloride	**3.2 J**	**5.4**	**ug/kg**	**2.8**
Carbon disulfide	ND	5.4	ug/kg	0.29
1,1-Dichloroethane	ND	5.4	ug/kg	0.22
2-Butanone	ND	21	ug/kg	1.2
1,2-Dichloroethene (total)	ND	11	ug/kg	0.65
Chloroform	ND	5.4	ug/kg	0.13
1,1,1-Trichloroethane	ND	5.4	ug/kg	0.12
Carbon tetrachloride	ND	5.4	ug/kg	0.15
1,2-Dichloroethane	ND	5.4	ug/kg	0.15
Benzene	ND	5.4	ug/kg	0.12
Trichloroethene	ND	5.4	ug/kg	0.064
1,2-Dichloropropane	ND	5.4	ug/kg	0.11
Bromodichloromethane	ND	5.4	ug/kg	0.075
4-Methyl-2-pentanone	ND	21	ug/kg	0.96
cis-1,3-Dichloropropene	ND	5.4	ug/kg	0.16
Toluene	ND	5.4	ug/kg	0.63
trans-1,3-Dichloropropene	ND	5.4	ug/kg	0.57
1,1,2-Trichloroethane	ND	5.4	ug/kg	0.82
2-Hexanone	ND	21	ug/kg	1.3
Tetrachloroethene	ND	5.4	ug/kg	0.21
Dibromochloromethane	ND	5.4	ug/kg	0.63
Chlorobenzene	ND	5.4	ug/kg	0.13
Ethylbenzene	ND	5.4	ug/kg	0.41
Vinyl chloride	ND	5.4	ug/kg	0.68
Xylenes (total)	ND	11	ug/kg	0.88
Styrene	ND	5.4	ug/kg	0.21
Bromoform	ND	5.4	ug/kg	0.66
1,1,2,2-Tetrachloroethane	ND	5.4	ug/kg	0.78
1,2,4-Trimethylbenzene	ND	5.4	ug/kg	0.59
n-Hexane	ND	11	ug/kg	0.88
1-Butanol	ND	110	ug/kg	35

(Continued on next page)

FLUOR HANFORD IC

Client Sample ID: B19189

GC/MS Volatiles

Lot-Sample #...: F4K100333-002 **Work Order #...:** GWNFG1CF **Matrix.....:** SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	93	(80 - 130)
Dibromofluoromethane	83	(78 - 130)
1,2-Dichloroethane-d4	88	(72 - 134)
4-Bromofluorobenzene	75	(68 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

FLUOR HANFORD IC

B19189

GC/MS Volatiles

Lot-Sample #: F4K100333-002 **Work Order #:** GWNFG1CF **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

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

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: W04380 Work Order #...: GWNFG1EK-MS Matrix.....: SOLID
MS Lot-Sample #: F4K100333-002 GWNFG1EL-MSD
Date Sampled...: 10/26/04 Date Received..: 11/10/04
Prep Date.....: 11/11/04 Analysis Date..: 11/11/04
Prep Batch #...: 4317380
Dilution Factor: 1 % Moisture.....: 6.6

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Chloromethane	ND	53.6	58.8	ug/kg	110		SW846 8260B
	ND	53.9	55.5	ug/kg	103	5.8	SW846 8260B
Bromomethane	ND	53.6	42.7	ug/kg	80		SW846 8260B
	ND	53.9	45.7	ug/kg	85	6.7	SW846 8260B
Chloroethane	ND	53.6	57.1	ug/kg	107		SW846 8260B
	ND	53.9	59.6	ug/kg	111	4.2	SW846 8260B
Acetone	ND	53.6	69.0	ug/kg	129		SW846 8260B
	ND	53.9	76.1	ug/kg	141	9.7	SW846 8260B
1,1-Dichloroethene	ND	53.6	54.5	ug/kg	102		SW846 8260B
	ND	53.9	55.0	ug/kg	102	0.89	SW846 8260B
Methylene chloride	3.2	53.6	40.9	ug/kg	70		SW846 8260B
	3.2	53.9	45.0	ug/kg	78	9.5	SW846 8260B
Carbon disulfide	ND	53.6	72.5	ug/kg	135		SW846 8260B
	ND	53.9	74.3	ug/kg	138	2.4	SW846 8260B
1,1-Dichloroethane	ND	53.6	51.6	ug/kg	96		SW846 8260B
	ND	53.9	51.4	ug/kg	95	0.35	SW846 8260B
2-Butanone	ND	53.6	59.0	ug/kg	110		SW846 8260B
	ND	53.9	60.9	ug/kg	113	3.1	SW846 8260B
1,2-Dichloroethene (total)	ND	107	112	ug/kg	105		SW846 8260B
	ND	108	112	ug/kg	103	0.66	SW846 8260B
Chloroform	ND	53.6	50.7	ug/kg	95		SW846 8260B
	ND	53.9	51.5	ug/kg	95	1.6	SW846 8260B
1,1,1-Trichloroethane	ND	53.6	51.3	ug/kg	96		SW846 8260B
	ND	53.9	53.8	ug/kg	100	4.8	SW846 8260B
Carbon tetrachloride	ND	53.6	51.1	ug/kg	95		SW846 8260B
	ND	53.9	54.0	ug/kg	100	5.5	SW846 8260B
1,2-Dichloroethane	ND	53.6	53.2	ug/kg	99		SW846 8260B
	ND	53.9	51.8	ug/kg	96	2.6	SW846 8260B
Benzene	ND	53.6	50.1	ug/kg	93		SW846 8260B
	ND	53.9	51.7	ug/kg	96	3.3	SW846 8260B
Trichloroethene	ND	53.6	69.7	ug/kg	130		SW846 8260B
	ND	53.9	78.4	ug/kg	145	12	SW846 8260B
1,2-Dichloropropane	ND	53.6	50.9	ug/kg	95		SW846 8260B
	ND	53.9	49.0	ug/kg	91	3.9	SW846 8260B
Bromodichloromethane	ND	53.6	49.7	ug/kg	93		SW846 8260B
	ND	53.9	47.7	ug/kg	88	4.2	SW846 8260B
4-Methyl-2-pentanone	ND	53.6	42.4	ug/kg	79		SW846 8260B
	ND	53.9	41.3	ug/kg	77	2.8	SW846 8260B

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MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: W04380 **Work Order #...:** GWNFG1EK-MS **Matrix.....:** SOLID
MS Lot-Sample #: F4K100333-002 GWNFG1EL-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
cis-1,3-Dichloropropene	ND	53.6	47.9	ug/kg	89		SW846 8260B
	ND	53.9	47.3	ug/kg	88	1.2	SW846 8260B
Toluene	ND	53.6	58.7	ug/kg	109		SW846 8260B
	ND	53.9	58.9	ug/kg	109	0.34	SW846 8260B
trans-1,3-Dichloropropene	ND	53.6	66.9	ug/kg	125		SW846 8260B
	ND	53.9	62.7	ug/kg	116	6.5	SW846 8260B
1,1,2-Trichloroethane	ND	53.6	56.9	ug/kg	106		SW846 8260B
	ND	53.9	55.5	ug/kg	103	2.6	SW846 8260B
2-Hexanone	ND	53.6	55.7	ug/kg	104		SW846 8260B
	ND	53.9	53.2	ug/kg	99	4.7	SW846 8260B
Tetrachloroethene	ND	53.6	47.7	ug/kg	89		SW846 8260B
	ND	53.9	48.4	ug/kg	90	1.5	SW846 8260B
Dibromochloromethane	ND	53.6	53.1	ug/kg	99		SW846 8260B
	ND	53.9	55.1	ug/kg	102	3.7	SW846 8260B
Chlorobenzene	ND	53.6	53.3	ug/kg	100		SW846 8260B
	ND	53.9	51.0	ug/kg	95	4.4	SW846 8260B
Ethylbenzene	ND	53.6	54.0	ug/kg	101		SW846 8260B
	ND	53.9	57.6	ug/kg	107	6.4	SW846 8260B
Vinyl chloride	ND	53.6	59.4	ug/kg	111		SW846 8260B
	ND	53.9	60.9	ug/kg	113	2.6	SW846 8260B
Styrene	ND	53.6	44.0	ug/kg	82		SW846 8260B
	ND	53.9	54.9	ug/kg	102	22	SW846 8260B
Bromoform	ND	53.6	39.8	ug/kg	74		SW846 8260B
	ND	53.9	40.3	ug/kg	75	1.3	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	53.6	13.0	ug/kg	24 a		SW846 8260B
	ND	53.9	11.4	ug/kg	21 a	13	SW846 8260B
n-Hexane	ND	53.6	38.8	ug/kg	72		SW846 8260B
	ND	53.9	46.7	ug/kg	86	18	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	112	(80 - 130)
	105	(80 - 130)
Dibromofluoromethane	81	(78 - 130)
	82	(78 - 130)
1,2-Dichloroethane-d4	94	(72 - 134)
	92	(72 - 134)
4-Bromofluorobenzene	78	(68 - 150)
	79	(68 - 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.

a Spiked analyte recovery is outside stated control limits.

FLUOR HANFORD IC

Client Sample ID: B19188

GC/MS Volatiles

Lot-Sample #...: F4K120109-001 **Work Order #...:** GWTXX1AC **Matrix.....:** SOLID
Date Sampled...: 10/20/04 **Date Received..:** 11/11/04
Prep Date.....: 11/22/04 **Analysis Date..:** 11/22/04
Prep Batch #...: 4329192
Dilution Factor: 1
% Moisture.....: 5.3 **Method.....:** SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Chloromethane	ND	11	ug/kg	0.24
Bromomethane	ND	11	ug/kg	0.94
Chloroethane	ND	11	ug/kg	0.59
Acetone	ND	21	ug/kg	1.4
1,1-Dichloroethene	ND	5.3	ug/kg	0.72
Acetonitrile	ND	53	ug/kg	5.6
Methylene chloride	**3.7 J**	**5.3**	**ug/kg**	**2.8**
Carbon disulfide	ND	5.3	ug/kg	0.28
1,1-Dichloroethane	ND	5.3	ug/kg	0.22
2-Butanone	ND	21	ug/kg	1.2
1,2-Dichloroethene (total)	ND	11	ug/kg	0.64
Chloroform	ND	5.3	ug/kg	0.13
1,1,1-Trichloroethane	ND	5.3	ug/kg	0.12
Carbon tetrachloride	ND	5.3	ug/kg	0.15
1,2-Dichloroethane	ND	5.3	ug/kg	0.15
Benzene	ND	5.3	ug/kg	0.12
Trichloroethene	ND	5.3	ug/kg	0.063
1,2-Dichloropropane	ND	5.3	ug/kg	0.11
Bromodichloromethane	ND	5.3	ug/kg	0.074
4-Methyl-2-pentanone	ND	21	ug/kg	0.95
cis-1,3-Dichloropropene	ND	5.3	ug/kg	0.16
Toluene	ND	5.3	ug/kg	0.62
trans-1,3-Dichloropropene	ND	5.3	ug/kg	0.56
1,1,2-Trichloroethane	ND	5.3	ug/kg	0.81
2-Hexanone	ND	21	ug/kg	1.3
Tetrachloroethene	ND	5.3	ug/kg	0.21
Dibromochloromethane	ND	5.3	ug/kg	0.62
Chlorobenzene	ND	5.3	ug/kg	0.13
Ethylbenzene	ND	5.3	ug/kg	0.40
Vinyl chloride	ND	5.3	ug/kg	0.68
Xylenes (total)	ND	11	ug/kg	0.87
Styrene	ND	5.3	ug/kg	0.21
Bromoform	ND	5.3	ug/kg	0.65
1,1,2,2-Tetrachloroethane	ND	5.3	ug/kg	0.77
1,2,4-Trimethylbenzene	ND	5.3	ug/kg	0.58
n-Hexane	ND	11	ug/kg	0.87

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FLUOR HANFORD IC

Client Sample ID: B19188

GC/MS Volatiles

Lot-Sample #...: F4K120109-001 **Work Order #...:** GWTXX1AC **Matrix.....:** SOLID

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	94	(80 - 130)
Dibromofluoromethane	99	(78 - 130)
1,2-Dichloroethane-d4	103	(72 - 134)
4-Bromofluorobenzene	92	(68 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

FLUOR HANFORD IC

B19188

GC/MS Volatiles

Lot-Sample #: F4K120109-001 **Work Order #:** GWTXX1AC **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown organic acid		26	M	24.746	ug/kg
Unknown organic acid		11	M	25.843	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 #...: W04380 **Work Order #...:** GWWKG1AA **Matrix.....:** SOLID
MB Lot-Sample #: F4K120000-380

Prep Date.....: 11/11/04
Analysis Date..: 11/11/04 **Prep Batch #...:** 4317380
Dilution Factor: 1

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

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: W04380 **Work Order #...:** GWWKG1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	110	(80 - 130)
Dibromofluoromethane	91	(78 - 130)
1,2-Dichloroethane-d4	96	(72 - 134)
4-Bromofluorobenzene	78	(68 - 150)

NOTE(S):

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

FLUOR HANFORD IC

Method Blank Report

GC/MS Volatiles

Lot-Sample #: F4K120000-380 B **Work Order #:** GWWKG1AA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown C13H28		12	M	26.649	ug/kg
Unknown C13H28		7.3	M	27.328	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 #...: W04380 **Work Order #...:** GXQTW1AA **Matrix.....:** SOLID
MB Lot-Sample #: F4K240000-192

Prep Date.....: 11/22/04
Analysis Date..: 11/22/04 **Prep Batch #...:** 4329192
Dilution Factor: 1

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

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	95	(80 - 130)

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METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: W04380 **Work Order #...:** GXQTW1AA **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Dibromofluoromethane	105	(78 - 130)		
1,2-Dichloroethane-d4	102	(72 - 134)		
4-Bromofluorobenzene	91	(68 - 150)		

NOTE(S):

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

FLUOR HANFORD IC

Method Blank Report

GC/MS Volatiles

Lot-Sample #: F4K240000-192 B **Work Order #:** GXQTW1AA **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 #...: W04380 **Work Order #...:** GWWKG1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F4K120000-380
Prep Date.....: 11/11/04 **Analysis Date..:** 11/11/04
Prep Batch #...: 4317380
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chloromethane	50.0	60.0	ug/kg	120	SW846 8260B
Bromomethane	50.0	42.6	ug/kg	85	SW846 8260B
Chloroethane	50.0	57.5	ug/kg	115	SW846 8260B
Acetone	50.0	54.6	ug/kg	109	SW846 8260B
1,1-Dichloroethene	50.0	52.6	ug/kg	105	SW846 8260B
Methylene chloride	50.0	42.9	ug/kg	86	SW846 8260B
Carbon disulfide	50.0	76.6 a	ug/kg	153	SW846 8260B
1,1-Dichloroethane	50.0	57.7	ug/kg	115	SW846 8260B
2-Butanone	50.0	55.6	ug/kg	111	SW846 8260B
1,2-Dichloroethene (total)	100	109	ug/kg	109	SW846 8260B
Chloroform	50.0	47.9	ug/kg	96	SW846 8260B
1,1,1-Trichloroethane	50.0	48.1	ug/kg	96	SW846 8260B
Carbon tetrachloride	50.0	48.6	ug/kg	97	SW846 8260B
1,2-Dichloroethane	50.0	48.8	ug/kg	98	SW846 8260B
Benzene	50.0	46.6	ug/kg	93	SW846 8260B
Trichloroethene	50.0	42.2	ug/kg	84	SW846 8260B
1,2-Dichloropropane	50.0	49.6	ug/kg	99	SW846 8260B
Bromodichloromethane	50.0	47.0	ug/kg	94	SW846 8260B
4-Methyl-2-pentanone	50.0	41.0	ug/kg	82	SW846 8260B
cis-1,3-Dichloropropene	50.0	46.3	ug/kg	93	SW846 8260B
Toluene	50.0	48.6	ug/kg	97	SW846 8260B
trans-1,3-Dichloropropene	50.0	57.0	ug/kg	114	SW846 8260B
1,1,2-Trichloroethane	50.0	48.4	ug/kg	97	SW846 8260B
2-Hexanone	50.0	47.1	ug/kg	94	SW846 8260B
Tetrachloroethene	50.0	41.8	ug/kg	84	SW846 8260B
Dibromochloromethane	50.0	49.8	ug/kg	100	SW846 8260B
Chlorobenzene	50.0	49.9	ug/kg	100	SW846 8260B
Ethylbenzene	50.0	52.2	ug/kg	104	SW846 8260B
Vinyl chloride	50.0	60.4	ug/kg	121	SW846 8260B
Styrene	50.0	38.1 a	ug/kg	76	SW846 8260B
Bromoform	50.0	35.6	ug/kg	71	SW846 8260B
1,1,2,2-Tetrachloroethane	50.0	33.2	ug/kg	66	SW846 8260B
n-Hexane	50.0	48.6	ug/kg	97	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: W04380 **Work Order #...:** GWWKG1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F4K120000-380

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	104	(88 - 115)
Dibromofluoromethane	95	(84 - 120)
1,2-Dichloroethane-d4	96	(78 - 122)
4-Bromofluorobenzene	90	(80 - 120)

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.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: W04380 Work Order #...: GXQTW1AC Matrix.....: SOLID
LCS Lot-Sample#: F4K240000-192
Prep Date.....: 11/22/04 Analysis Date..: 11/22/04
Prep Batch #...: 4329192
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chloromethane	50.0	44.5	ug/kg	89	SW846 8260B
Bromomethane	50.0	36.2	ug/kg	72	SW846 8260B
Chloroethane	50.0	49.0	ug/kg	98	SW846 8260B
Acetone	50.0	39.8	ug/kg	80	SW846 8260B
1,1-Dichloroethene	50.0	47.9	ug/kg	96	SW846 8260B
Methylene chloride	50.0	39.2	ug/kg	78	SW846 8260B
Carbon disulfide	50.0	68.3	ug/kg	137	SW846 8260B
1,1-Dichloroethane	50.0	51.8	ug/kg	104	SW846 8260B
2-Butanone	50.0	50.1	ug/kg	100	SW846 8260B
1,2-Dichloroethene (total)	100	102	ug/kg	102	SW846 8260B
Chloroform	50.0	49.1	ug/kg	98	SW846 8260B
1,1,1-Trichloroethane	50.0	50.2	ug/kg	100	SW846 8260B
Carbon tetrachloride	50.0	50.1	ug/kg	100	SW846 8260B
1,2-Dichloroethane	50.0	49.1	ug/kg	98	SW846 8260B
Benzene	50.0	47.5	ug/kg	95	SW846 8260B
Trichloroethene	50.0	48.3	ug/kg	97	SW846 8260B
1,2-Dichloropropane	50.0	50.6	ug/kg	101	SW846 8260B
Bromodichloromethane	50.0	51.6	ug/kg	103	SW846 8260B
4-Methyl-2-pentanone	50.0	54.3	ug/kg	109	SW846 8260B
cis-1,3-Dichloropropene	50.0	53.1	ug/kg	106	SW846 8260B
Toluene	50.0	48.0	ug/kg	96	SW846 8260B
trans-1,3-Dichloropropene	50.0	58.9	ug/kg	118	SW846 8260B
1,1,2-Trichloroethane	50.0	50.0	ug/kg	100	SW846 8260B
2-Hexanone	50.0	57.0	ug/kg	114	SW846 8260B
Tetrachloroethene	50.0	35.9	ug/kg	72	SW846 8260B
Dibromochloromethane	50.0	51.3	ug/kg	103	SW846 8260B
Chlorobenzene	50.0	49.9	ug/kg	100	SW846 8260B
Ethylbenzene	50.0	49.4	ug/kg	99	SW846 8260B
Vinyl chloride	50.0	45.5	ug/kg	91	SW846 8260B
Styrene	50.0	51.5	ug/kg	103	SW846 8260B
Bromoform	50.0	56.3	ug/kg	113	SW846 8260B
1,1,2,2-Tetrachloroethane	50.0	54.8	ug/kg	110	SW846 8260B
n-Hexane	50.0	41.4	ug/kg	83	SW846 8260B

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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: W04380 **Work Order #...:** GXQTW1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F4K240000-192

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Toluene-d8	96	(88 - 115)
Dibromofluoromethane	98	(84 - 120)
1,2-Dichloroethane-d4	101	(78 - 122)
4-Bromofluorobenzene	102	(80 - 120)

NOTE(S):

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

Bold print denotes control parameters

SEMI-VOLATILE ORGANICS

40 g 97

FLUOR HANFORD IC

Client Sample ID: B19189

GC/MS Semivolatiles

Lot-Sample #...: F4K100333-002 **Work Order #...:** GWNFG1CG **Matrix.....:** SOLID
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04
Prep Date.....: 11/11/04 **Analysis Date..:** 11/18/04
Prep Batch #...: 4316202
Dilution Factor: 1
% Moisture.....: 6.6 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Phenol	ND	350	ug/kg	93
Tributyl phosphate	ND	350	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	54	(40 - 103)
Phenol-d5	55	(36 - 105)
Nitrobenzene-d5	55	(45 - 114)
2-Fluorobiphenyl	56	(49 - 120)
2,4,6-Tribromophenol	48	(39 - 114)
Terphenyl-d14	50	(42 - 108)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

FLUOR HANFORD IC

Client Sample ID: B19188

GC/MS Semivolatiles

Lot-Sample #...: F4K120109-001 **Work Order #...:** GWTXX1AE **Matrix.....:** SOLID
Date Sampled...: 10/20/04 **Date Received..:** 11/11/04
Prep Date.....: 11/15/04 **Analysis Date..:** 11/17/04
Prep Batch #...: 4320242
Dilution Factor: 1
% Moisture.....: 5.3 **Method.....:** SW846 8270C

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Phenol	ND	1000	ug/kg	92
Tributyl phosphate	ND	1000	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	65	(40 - 103)
Phenol-d5	67	(36 - 105)
Nitrobenzene-d5	65	(45 - 114)
2-Fluorobiphenyl	70	(49 - 120)
2,4,6-Tribromophenol	65	(39 - 114)
Terphenyl-d14	70	(42 - 108)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: W04380 **Work Order #...:** GWP121AA **Matrix.....:** SOLID
MB Lot-Sample #: F4K110000-202
Prep Date.....: 11/11/04
Analysis Date..: 11/17/04 **Prep Batch #...:** 4316202
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Phenol	ND	330	ug/kg	SW846 8270C
Tributyl phosphate	ND	330	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	67	(40 - 103)
Phenol-d5	69	(36 - 105)
Nitrobenzene-d5	67	(45 - 114)
2-Fluorobiphenyl	71	(49 - 120)
2,4,6-Tribromophenol	59	(39 - 114)
Terphenyl-d14	63	(42 - 108)

NOTE(S):

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

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: W04380 **Work Order #...:** GW1K71AA **Matrix.....:** SOLID
MB Lot-Sample #: F4K150000-242

Prep Date.....: 11/15/04
Analysis Date..: 11/17/04 **Prep Batch #...:** 4320242
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Phenol	ND	990	ug/kg	SW846 8270C
Tributyl phosphate	ND	990	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	71	(40 - 103)
Phenol-d5	71	(36 - 105)
Nitrobenzene-d5	70	(45 - 114)
2-Fluorobiphenyl	75	(49 - 120)
2,4,6-Tribromophenol	69	(39 - 114)
Terphenyl-d14	74	(42 - 108)

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: W04380 **Work Order #...:** GWP121AC **Matrix.....:** SOLID
LCS Lot-Sample#: F4K110000-202
Prep Date.....: 11/11/04 **Analysis Date..:** 11/17/04
Prep Batch #...: 4316202
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Phenol	**3330**	**2050**	**ug/kg**	**62**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	64	(50 - 98)
Phenol-d5	64	(51 - 95)
Nitrobenzene-d5	65	(50 - 111)
2-Fluorobiphenyl	70	(57 - 117)
2,4,6-Tribromophenol	69	(53 - 108)
Terphenyl-d14	66	(49 - 107)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: W04380 **Work Order #...:** GW1K71AC **Matrix.....:** SOLID
LCS Lot-Sample#: F4K150000-242
Prep Date.....: 11/15/04 **Analysis Date..:** 11/17/04
Prep Batch #...: 4320242
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Phenol	**3330**	**2140**	**ug/kg**	**64**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	66	(50 - 98)
Phenol-d5	66	(51 - 95)
Nitrobenzene-d5	65	(50 - 111)
2-Fluorobiphenyl	74	(57 - 117)
2,4,6-Tribromophenol	79	(53 - 108)
Terphenyl-d14	72	(49 - 107)

NOTE(S):

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

Bold print denotes control parameters

FLUOR HANFORD IC

Client Sample ID: B19189

GC Semivolatiles

Lot-Sample #...: F4K100333-002 **Work Order #...:** GWNFG1CL **Matrix.....:** SOLID
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04
Prep Date.....: 11/11/04 **Analysis Date..:** 11/16/04
Prep Batch #...: 4316300
Dilution Factor: 10
% Moisture.....: 6.6 **Method.....:** SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	350	ug/kg	68
Aroclor 1221	ND	350	ug/kg	76
Aroclor 1232	ND	350	ug/kg	86
Aroclor 1242	ND	350	ug/kg	81
Aroclor 1248	ND	350	ug/kg	100
Aroclor 1254	ND	350	ug/kg	85
Aroclor 1260	ND	350	ug/kg	80

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	0.0 DIL,*	(10 - 150)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

FLUOR HANFORD IC

B19189

GC/MS Semivolatiles

Lot-Sample #: F4K100333-002 **Work Order #:** GWNFG1CG **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		390	M	1.792	ug/kg
Unknown aldol condensate		20000	M	2.358	ug/kg
N-hexadecanoic acid	57-10-3	180	M	12.107	ug/kg

NOTE(S):

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

REVISED Sal 4/25/05

FLUOR HANFORD IC

Client Sample ID: B19188

GC Semivolatiles

Lot-Sample #...: F4K120109-001 **Work Order #...:** GWTXX1AD **Matrix.....:** SOLID
Date Sampled...: 10/20/04 **Date Received..:** 11/11/04
Prep Date.....: 11/15/04 **Analysis Date..:** 11/16/04
Prep Batch #...: 4320270
Dilution Factor: 1
% Moisture.....: 5.3 **Method.....:** SW846 8082

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aroclor 1016	ND	170	ug/kg	6.7
Aroclor 1221	ND	170	ug/kg	7.5
Aroclor 1232	ND	170	ug/kg	8.5
Aroclor 1242	ND	170	ug/kg	8.0
Aroclor 1248	ND	170	ug/kg	10
Aroclor 1254	**240**	**170**	**ug/kg**	**8.3**
Aroclor 1260	ND	170	ug/kg	7.9

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	114	(10 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: W04380 **Work Order #...:** GWQNG1AA **Matrix.....:** SOLID
MB Lot-Sample #: F4K110000-300

Prep Date.....: 11/11/04
Analysis Date..: 11/15/04 **Prep Batch #...:** 4316300
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	33	ug/kg	SW846 8082
Aroclor 1221	ND	33	ug/kg	SW846 8082
Aroclor 1232	ND	33	ug/kg	SW846 8082
Aroclor 1242	ND	33	ug/kg	SW846 8082
Aroclor 1248	ND	33	ug/kg	SW846 8082
Aroclor 1254	ND	33	ug/kg	SW846 8082
Aroclor 1260	ND	33	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	101	(10 - 150)

NOTE(S):

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

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: W04380 **Work Order #...:** GW1NA1AA **Matrix.....:** SOLID
MB Lot-Sample #: F4K150000-270

Prep Date.....: 11/15/04
Analysis Date..: 11/16/04 **Prep Batch #...:** 4320270
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	160	ug/kg	SW846 8082
Aroclor 1221	ND	160	ug/kg	SW846 8082
Aroclor 1232	ND	160	ug/kg	SW846 8082
Aroclor 1242	ND	160	ug/kg	SW846 8082
Aroclor 1248	ND	160	ug/kg	SW846 8082
Aroclor 1254	ND	160	ug/kg	SW846 8082
Aroclor 1260	ND	160	ug/kg	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	122	(10 - 150)

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: W04380 **Work Order #...:** GWQNG1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F4K110000-300
Prep Date.....: 11/11/04 **Analysis Date..:** 11/15/04
Prep Batch #...: 4316300
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Aroclor 1016	**167**	**158**	**ug/kg**	**95**	**SW846 8082**
Aroclor 1260	**167**	**156**	**ug/kg**	**94**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	108	(68 - 150)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: W04380 **Work Order #...:** GW1NA1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F4K150000-270
Prep Date.....: 11/15/04 **Analysis Date..:** 11/16/04
Prep Batch #...: 4320270
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Aroclor 1016	**167**	**197**	**ug/kg**	**118**	**SW846 8082**
Aroclor 1260	**167**	**192**	**ug/kg**	**115**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Decachlorobiphenyl	122	(68 - 150)

NOTE(S):

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

Bold print denotes control parameters

VOLATILE ORGANICS

53 of 97

FLUOR HANFORD IC

Client Sample ID: B19188

GC Volatiles

Lot-Sample #...: F4K120109-001 **Work Order #...:** GWTXX1AF **Matrix.....:** SOLID
Date Sampled...: 10/20/04 **Date Received..:** 11/11/04
Prep Date.....: 12/10/04 **Analysis Date..:** 12/10/04
Prep Batch #...: 4348103
Dilution Factor: 1
% Moisture.....: 5.3 **Method.....:** SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Volatile Petroleum Hydrocarbons	ND	0.11	mg/kg	0.021

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Trifluorotoluene	81	(28 - 124)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

FLUOR HANFORD IC

Client Sample ID: B19189

GC Volatiles

Lot-Sample #...: F4K100333-002 **Work Order #...:** GWNFG1CK **Matrix.....:** SOLID
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04
Prep Date.....: 11/29/04 **Analysis Date..:** 11/29/04
Prep Batch #...: 4335264
Dilution Factor: 1
% Moisture.....: 6.6 **Method.....:** SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Volatile Petroleum Hydrocarbons	ND	0.11	mg/kg	0.021

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Trifluorotoluene	79	(28 - 124)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: P4K100333 **Work Order #...:** GWNFG1ET-MS **Matrix.....:** SOLID
MS Lot-Sample #: P4K100333-002 GWNFG1EU-MSD
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04
Prep Date.....: 11/29/04 **Analysis Date..:** 11/29/04
Prep Batch #...: 4335264
Dilution Factor: 1 **% Moisture.....:** 6.6

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Volatile Petroleum Hydrocarbons	**ND**	1.07	0.877	**mg/kg**	**82**		**SW846 8015 MOD**
	ND	1.07	0.991	**mg/kg**	**93**	**12**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Trifluorotoluene	91	(28 - 124)
	98	(28 - 124)

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.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: W04380 **Work Order #...:** G0WDJ1AA **Matrix.....:** SOLID
MB Lot-Sample #: F4L130000-103

Prep Date.....: 12/10/04
Analysis Date..: 12/10/04 **Prep Batch #...:** 4348103
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Volatile Petroleum Hydrocarbons	ND	0.10	mg/kg	SW846 8015 MOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Trifluorotoluene	87	(28 - 124)

NOTE(S):

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

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: F4K100333 **Work Order #...:** GXX3L1AA **Matrix.....:** SOLID
MB Lot-Sample #: F4K300000-264

Prep Date.....: 11/29/04
Analysis Date..: 11/29/04 **Prep Batch #...:** 4335264
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Volatile Petroleum Hydrocarbons	ND	0.10	mg/kg	SW846 8015 MOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Trifluorotoluene	85	(28 - 124)

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: W04380 **Work Order #...:** G0WDJ1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F4L130000-103
Prep Date.....: 12/10/04 **Analysis Date..:** 12/10/04
Prep Batch #...: 4348103
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Volatile Petroleum Hydrocarbons	**1.00**	**0.974**	**mg/kg**	**97**	**SW846 8015 MO**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Trifluorotoluene	105	(85 - 108)

NOTE(S):

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

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: F4K100333 **Work Order #...:** GXX3L1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F4K300000-264
Prep Date.....: 11/29/04 **Analysis Date..:** 11/29/04
Prep Batch #...: 4335264
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Volatile Petroleum Hydrocarbons	1.00	0.875	mg/kg	87	SW846 8015 MO

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Trifluorotoluene	98	(85 - 108)

NOTE(S):

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

Bold print denotes control parameters

SEMI-VOLATILE ORGANICS

61897

FLUOR HANFORD IC

Client Sample ID: B19189

GC Semivolatiles

Lot-Sample #...: F4K100333-002 **Work Order #...:** GWNFG1CE **Matrix.....:** SOLID
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04
Prep Date.....: 11/16/04 **Analysis Date..:** 11/16/04
Prep Batch #...: 4321201
Dilution Factor: 1
% Moisture.....: 6.6 **Method.....:** SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Kerosene	ND	27	mg/kg	27
TPH (as Diesel)	ND	27	mg/kg	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	43	(10 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: W04380 **Work Order #...:** GWNFG1EH-MS **Matrix.....:** SOLID
MS Lot-Sample #: F4K100333-002 GWNFG1EJ-MSD
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04
Prep Date.....: 11/16/04 **Analysis Date..:** 11/16/04
Prep Batch #...: 4321201
Dilution Factor: 1 **% Moisture.....:** 6.6

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
TPH - Diesel Range - WTPH	0	**88.6**	**68.4**	**mg/kg**	**77**		**SW846 8015 MOD**
	0	**102**	**82.3**	**mg/kg**	**81**	**18**	**SW846 8015 MOD**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	61	(10 - 150)
	67	(10 - 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.

FLUOR HANFORD IC

Client Sample ID: B19188

GC Semivolatiles

Lot-Sample #...: F4K120109-001 **Work Order #...:** GWTXX1AA **Matrix.....:** SOLID
Date Sampled...: 10/20/04 **Date Received..:** 11/11/04
Prep Date.:....: 11/16/04 **Analysis Date..:** 11/16/04
Prep Batch #...: 4321201
Dilution Factor: 1
% Moisture.....: 5.3 **Method.....:** SW846 8015 MOD

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Kerosene	ND	13	mg/kg	26
TPH - Diesel Range - WTPH-D	ND	13	mg/kg	2.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	45	(10 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: W04380 **Work Order #...:** GW3GW1AA **Matrix.....:** SOLID
MB Lot-Sample #: F4K160000-201

Prep Date.....: 11/16/04
Analysis Date..: 11/16/04 **Prep Batch #...:** 4321201
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Kerosene	ND	25	mg/kg	SW846 8015 MOD
TPH - Diesel Range - WTPH	ND	25	mg/kg	SW846 8015 MOD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	84	(10 - 150)

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: W04380 **Work Order #...:** GW3GW1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F4K160000-201
Prep Date.....: 11/16/04 **Analysis Date..:** 11/16/04
Prep Batch #...: 4321201
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
TPH - Diesel Range - WTPH	**83.3**	**65.9**	**mg/kg**	**79**	**SW846 8015 MO**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
o-Terphenyl	135	(78 - 150)

NOTE(S):

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

Bold print denotes control parameters

METALS

6/8/97

FLUOR HANFORD IC

Client Sample ID: B19189

TOTAL Metals

Lot-Sample #...: F4K100333-002 **Matrix.....:** SOLID
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04
% Moisture.....: 6.6

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4322056						
Bismuth	202	21.4	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1AC
		Dilution Factor: 1		MDL.....: 2.1		
Antimony	1.4	1.1	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1AH
		Dilution Factor: 1		MDL.....: 0.21		
Arsenic	1.2	1.1	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1AJ
		Dilution Factor: 1		MDL.....: 0.19		
Barium	87.3 J	21.4	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1AK
		Dilution Factor: 1		MDL.....: 0.047		
Beryllium	0.27 B	0.54	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1AL
		Dilution Factor: 1		MDL.....: 0.041		
Cadmium	ND	0.54	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1AM
		Dilution Factor: 1		MDL.....: 0.024		
Chromium	81.7	1.1	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1AP
		Dilution Factor: 1		MDL.....: 0.60		
Copper	19.7	2.7	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1AR
		Dilution Factor: 1		MDL.....: 0.40		
Lead	4.3	0.54	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1AU
		Dilution Factor: 1		MDL.....: 0.21		
Nickel	52.7	4.3	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1AX
		Dilution Factor: 1		MDL.....: 0.14		
Selenium	ND	0.54	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1A0
		Dilution Factor: 1		MDL.....: 0.32		
Silver	2.0	1.1	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1A1
		Dilution Factor: 1		MDL.....: 0.62		
Uranium	104	53.5	mg/kg	SW846 6010B	11/17-11/18/04	GWNFG1E6
		Dilution Factor: 1		MDL.....: 14.9		
Prep Batch #...: 4322095						
Mercury	5.1	0.36	mg/kg	SW846 7471A	11/17/04	GWNFG1CJ
		Dilution Factor: 10		MDL.....: 0.077		

(Continued on next page)

FLUOR HANFORD IC

Client Sample ID: B19189

TOTAL Metals

Lot-Sample #...: F4K100333-002 **Matrix.....:** SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

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

B Estimated result. Result is less than RL.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04380 **Matrix.....:** SOLID
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04

MS Lot-Sample #: F4K100333-002 **Prep Batch #...:** 4322056
% Moisture.....: 6.6

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Bismuth									
	202	214	372	mg/kg	79		SW846 6010B	11/17-11/18/04	GWNFG1C5
	202	214	377	mg/kg	82	1.4	SW846 6010B	11/17-11/18/04	GWNFG1C6
			Dilution Factor: 1						
Antimony									
	1.4	53.5	31.8 N	mg/kg	57		SW846 6010B	11/17-11/18/04	GWNFG1DG
	1.4	53.5	30.8 N	mg/kg	55	3.3	SW846 6010B	11/17-11/18/04	GWNFG1DH
			Dilution Factor: 1						
Arsenic									
	1.2	214	210	mg/kg	97		SW846 6010B	11/17-11/18/04	GWNFG1DJ
	1.2	214	211	mg/kg	98	0.61	SW846 6010B	11/17-11/18/04	GWNFG1DK
			Dilution Factor: 1						
Barium									
	87.3	214	301	mg/kg	100		SW846 6010B	11/17-11/18/04	GWNFG1DL
	87.3	214	325	mg/kg	111	7.9	SW846 6010B	11/17-11/18/04	GWNFG1DM
			Dilution Factor: 1						
Beryllium									
	0.27	5.35	5.64	mg/kg	100		SW846 6010B	11/17-11/18/04	GWNFG1DN
	0.27	5.35	5.70	mg/kg	101	0.98	SW846 6010B	11/17-11/18/04	GWNFG1DP
			Dilution Factor: 1						
Cadmium									
	ND	5.35	4.10	mg/kg	77		SW846 6010B	11/17-11/18/04	GWNFG1DQ
	ND	5.35	4.11	mg/kg	77	0.36	SW846 6010B	11/17-11/18/04	GWNFG1DR
			Dilution Factor: 1						
Chromium									
	81.7	21.4	38.5 N	mg/kg	0.0		SW846 6010B	11/17-11/18/04	GWNFG1DV
	81.7	21.4	34.0 N	mg/kg	0.0	0.0	SW846 6010B	11/17-11/18/04	GWNFG1DW
			Dilution Factor: 1						
Copper									
	19.7	26.8	45.5	mg/kg	96		SW846 6010B	11/17-11/18/04	GWNFG1D1
	19.7	26.8	47.4	mg/kg	104	4.1	SW846 6010B	11/17-11/18/04	GWNFG1D2
			Dilution Factor: 1						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04380 **Matrix.....:** SOLID
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Lead									
	4.3	53.5	56.6	mg/kg	98		SW846 6010B	11/17-11/18/04	GWNFG1D5
	4.3	53.5	57.4	mg/kg	99	1.6	SW846 6010B	11/17-11/18/04	GWNFG1D6
			Dilution Factor: 1						
Nickel									
	52.7	53.5	67.7 N	mg/kg	28		SW846 6010B	11/17-11/18/04	GWNFG1EC
	52.7	53.5	65.7 N	mg/kg	24	3.0	SW846 6010B	11/17-11/18/04	GWNFG1ED
			Dilution Factor: 1						
Selenium									
	ND	214	208	mg/kg	97		SW846 6010B	11/17-11/18/04	GWNFG1CM
	ND	214	209	mg/kg	97	0.33	SW846 6010B	11/17-11/18/04	GWNFG1CN
			Dilution Factor: 1						
Silver									
	2.0	5.35	7.20	mg/kg	98		SW846 6010B	11/17-11/18/04	GWNFG1CP
	2.0	5.35	7.58	mg/kg	105	5.2	SW846 6010B	11/17-11/18/04	GWNFG1CQ
			Dilution Factor: 1						
Uranium									
	104	214	314	mg/kg	98		SW846 6010B	11/17-11/18/04	GWNFG1E7
	104	214	325	mg/kg	103	3.6	SW846 6010B	11/17-11/18/04	GWNFG1E8
			Dilution Factor: 1						

MS Lot-Sample #: F4K100333-002 **Prep Batch #...:** 4322095
% Moisture.....: 6.6

Mercury									
	5.1	0.178	5.35	mg/kg	140		SW846 7471A	11/17/04	GWNFG1EQ
	5.1	0.178	4.23 N	mg/kg	0.0	0.0	SW846 7471A	11/17/04	GWNFG1ER
			Dilution Factor: 1						

NOTE(S):

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

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

FLUOR HANFORD IC

Client Sample ID: B19188

TOTAL Metals

Lot-Sample #...: F4K120109-001 **Matrix.....:** SOLID
Date Sampled...: 10/20/04 **Date Received..:** 11/11/04
% Moisture.....: 5.3

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4322056						
Bismuth	156	21.1	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1AH
		Dilution Factor: 1		MDL.....: 2.1		
Antimony	0.60 B	1.1	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1AN
		Dilution Factor: 1		MDL.....: 0.21		
Arsenic	0.74 B	1.1	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1AP
		Dilution Factor: 1		MDL.....: 0.19		
Barium	98.4 J	21.1	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1AQ
		Dilution Factor: 1		MDL.....: 0.046		
Beryllium	0.23 B	0.53	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1AR
		Dilution Factor: 1		MDL.....: 0.040		
Cadmium	ND	0.53	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1AT
		Dilution Factor: 1		MDL.....: 0.023		
Chromium	6.1	1.1	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1AV
		Dilution Factor: 1		MDL.....: 0.59		
Copper	15.1	2.6	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1AX
		Dilution Factor: 1		MDL.....: 0.39		
Lead	16.7	0.53	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1A1
		Dilution Factor: 1		MDL.....: 0.21		
Nickel	8.9	4.2	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1A4
		Dilution Factor: 1		MDL.....: 0.14		
Selenium	ND	0.53	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1A5
		Dilution Factor: 1		MDL.....: 0.32		
Silver	1.3	1.1	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1A6
		Dilution Factor: 1		MDL.....: 0.61		
Uranium	34.7 B	52.8	mg/kg	SW846 6010B	11/17-11/18/04	GWTXX1CM
		Dilution Factor: 1		MDL.....: 14.7		
Prep Batch #...: 4322095						
Mercury	6.5	0.35	mg/kg	SW846 7471A	11/17/04	GWTXX1AG
		Dilution Factor: 10		MDL.....: 0.076		

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FLUOR HANFORD IC

Client Sample ID: B19188

TOTAL Metals

Lot-Sample #...: F4K120109-001 **Matrix.....:** SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

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

FLUOR HANFORD IC

Client Sample ID: B191F1

TOTAL Metals

Lot-Sample #...: F4K180368-001 **Matrix.....:** SOLID
Date Sampled...: 08/18/04 **Date Received..:** 11/18/04
% Moisture.....: 6.9

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 4336050						
Antimony	2.9	1.1	mg/kg	SW846 6010B	12/01/04	GXCC51AD
		Dilution Factor: 1		MDL.....: 0.21		
Arsenic	1.2	1.1	mg/kg	SW846 6010B	12/01/04	GXCC51AE
		Dilution Factor: 1		MDL.....: 0.19		
Barium	127 J	21.5	mg/kg	SW846 6010B	12/01/04	GXCC51AF
		Dilution Factor: 1		MDL.....: 0.047		
Beryllium	0.27 B	0.54	mg/kg	SW846 6010B	12/01/04	GXCC51AG
		Dilution Factor: 1		MDL.....: 0.041		
Cadmium	0.28 B	0.54	mg/kg	SW846 6010B	12/01/04	GXCC51AH
		Dilution Factor: 1		MDL.....: 0.024		
Chromium	259	1.1	mg/kg	SW846 6010B	12/01/04	GXCC51AJ
		Dilution Factor: 1		MDL.....: 0.60		
Copper	122	2.7	mg/kg	SW846 6010B	12/01/04	GXCC51AK
		Dilution Factor: 1		MDL.....: 0.40		
Lead	489	0.54	mg/kg	SW846 6010B	12/01/04	GXCC51AL
		Dilution Factor: 1		MDL.....: 0.21		
Nickel	55.0	4.3	mg/kg	SW846 6010B	12/01/04	GXCC51AM
		Dilution Factor: 1		MDL.....: 0.14		
Selenium	ND	0.54	mg/kg	SW846 6010B	12/01/04	GXCC51AN
		Dilution Factor: 1		MDL.....: 0.32		
Silver	6.0	1.1	mg/kg	SW846 6010B	12/01/04	GXCC51AP
		Dilution Factor: 1		MDL.....: 0.62		
Bismuth	202	21.5	mg/kg	SW846 6010B	12/01/04	GXCC51AQ
		Dilution Factor: 1		MDL.....: 2.2		
Prep Batch #...: 4348439						
Mercury	69.2	1.8	mg/kg	SW846 7471A	12/13-12/14/04	GXCC51AC
		Dilution Factor: 50		MDL.....: 0.39		

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FLUOR HANFORD IC

Client Sample ID: B191F1

TOTAL Metals

Lot-Sample #...: F4K180368-001 **Matrix.....:** SOLID

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

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

B Estimated result. Result is less than RL.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04380 **Matrix.....:** SOLID
Date Sampled...: 08/18/04 **Date Received..:** 11/18/04

MS Lot-Sample #: F4K180368-001 **Prep Batch #...:** 4336050
% Moisture.....: 6.9

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Antimony									
	2.9	53.7	29.1 N	mg/kg	49		SW846 6010B	12/01/04	GXCC51AU
	2.9	53.7	29.8 N	mg/kg	50	2.3	SW846 6010B	12/01/04	GXCC51AV
			Dilution Factor: 1						
Arsenic									
	1.2	215	209	mg/kg	97		SW846 6010B	12/01/04	GXCC51AW
	1.2	215	209	mg/kg	97	0.01	SW846 6010B	12/01/04	GXCC51AX
			Dilution Factor: 1						
Barium									
	127	215	336	mg/kg	97		SW846 6010B	12/01/04	GXCC51A0
	127	215	364	mg/kg	110	8.0	SW846 6010B	12/01/04	GXCC51A1
			Dilution Factor: 1						
Beryllium									
	0.27	5.37	5.67	mg/kg	100		SW846 6010B	12/01/04	GXCC51A2
	0.27	5.37	5.67	mg/kg	101	0.01	SW846 6010B	12/01/04	GXCC51A3
			Dilution Factor: 1						
Cadmium									
	0.28	5.37	5.84	mg/kg	103		SW846 6010B	12/01/04	GXCC51A4
	0.28	5.37	5.70	mg/kg	101	2.4	SW846 6010B	12/01/04	GXCC51A5
			Dilution Factor: 1						
Chromium									
	259	21.5	308 N	mg/kg	227		SW846 6010B	12/01/04	GXCC51A6
	259	21.5	273 N	mg/kg	66	12	SW846 6010B	12/01/04	GXCC51A7
			Dilution Factor: 1						
Copper									
	122	26.9	174 N	mg/kg	195		SW846 6010B	12/01/04	GXCC51A8
	122	26.9	161 N	mg/kg	146	7.8	SW846 6010B	12/01/04	GXCC51A9
			Dilution Factor: 1						
Lead									
	489	53.7	773 N	mg/kg	527		SW846 6010B	12/01/04	GXCC51CA
	489	53.7	715 N	mg/kg	420	7.8	SW846 6010B	12/01/04	GXCC51CC
			Dilution Factor: 1						

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MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04380 **Matrix.....:** SOLID
Date Sampled...: 08/18/04 **Date Received..:** 11/18/04

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Nickel									
	55.0	53.7	92.7 N	mg/kg	70		SW846 6010B	12/01/04	GXCC51CD
	55.0	53.7	88.4 N	mg/kg	62	4.7	SW846 6010B	12/01/04	GXCC51CE
			Dilution Factor: 1						
Selenium									
	ND	215	207	mg/kg	97		SW846 6010B	12/01/04	GXCC51CF
	ND	215	206	mg/kg	96	0.47	SW846 6010B	12/01/04	GXCC51CG
			Dilution Factor: 1						
Silver									
	6.0	5.37	13.2 N	mg/kg	134		SW846 6010B	12/01/04	GXCC51CH
	6.0	5.37	13.1 N	mg/kg	131	0.99	SW846 6010B	12/01/04	GXCC51CJ
			Dilution Factor: 1						
Bismuth									
	202	215	383	mg/kg	84		SW846 6010B	12/01/04	GXCC51CK
	202	215	396	mg/kg	90	3.4	SW846 6010B	12/01/04	GXCC51CL
			Dilution Factor: 1						

MS Lot-Sample #: F4K180368-001 **Prep Batch #...:** 4348439
% Moisture.....: 6.9

Mercury									
	69.2	0.179	27.6 N	mg/kg	0.0		SW846 7471A	12/13-12/14/04	GXCC51CM
	69.2	0.179	28.3 N	mg/kg	0.0	0.0	SW846 7471A	12/13-12/14/04	GXCC51CN
			Dilution Factor: 1						

NOTE(S):

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

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: W04380 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F4K170000-056 Prep Batch #...: 4322056						
Bismuth	ND	20.0	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AA
		Dilution Factor: 1				
Antimony	ND	1.0	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AC
		Dilution Factor: 1				
Arsenic	ND	1.0	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AD
		Dilution Factor: 1				
Barium	**0.050 B**	**20.0**	**mg/kg**	**SW846 6010B**	**11/17-11/18/04**	**GW5CF1AE**
		Dilution Factor: 1				
Beryllium	ND	0.50	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AF
		Dilution Factor: 1				
Cadmium	ND	0.50	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AG
		Dilution Factor: 1				
Chromium	ND	1.0	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AH
		Dilution Factor: 1				
Copper	ND	2.5	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AJ
		Dilution Factor: 1				
Lead	ND	0.50	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AK
		Dilution Factor: 1				
Nickel	ND	4.0	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AL
		Dilution Factor: 1				
Selenium	ND	0.50	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AM
		Dilution Factor: 1				
Silver	ND	1.0	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AN
		Dilution Factor: 1				
Uranium	ND	50.0	mg/kg	SW846 6010B	11/17-11/18/04	GW5CF1AP
		Dilution Factor: 1				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: W04380 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F4K170000-095 **Prep Batch #...:** 4322095						
Mercury	ND	0.033	mg/kg	SW846 7471A	11/17/04	GW5E61AA
		Dilution Factor: 1				
MB Lot-Sample #: F4L010000-050 **Prep Batch #...:** 4336050						
Antimony	ND	1.0	mg/kg	SW846 6010B	12/01/04	GX1K01AA
		Dilution Factor: 1				
Arsenic	ND	1.0	mg/kg	SW846 6010B	12/01/04	GX1K01AC
		Dilution Factor: 1				
Barium	**0.079 B**	**20.0**	**mg/kg**	**SW846 6010B**	**12/01/04**	**GX1K01AD**
		Dilution Factor: 1				
Beryllium	ND	0.50	mg/kg	SW846 6010B	12/01/04	GX1K01AE
		Dilution Factor: 1				
Cadmium	ND	0.50	mg/kg	SW846 6010B	12/01/04	GX1K01AF
		Dilution Factor: 1				
Chromium	ND	1.0	mg/kg	SW846 6010B	12/01/04	GX1K01AG
		Dilution Factor: 1				
Copper	ND	2.5	mg/kg	SW846 6010B	12/01/04	GX1K01AH
		Dilution Factor: 1				
Lead	ND	0.50	mg/kg	SW846 6010B	12/01/04	GX1K01AJ
		Dilution Factor: 1				
Nickel	ND	4.0	mg/kg	SW846 6010B	12/01/04	GX1K01AK
		Dilution Factor: 1				
Selenium	ND	0.50	mg/kg	SW846 6010B	12/01/04	GX1K01AL
		Dilution Factor: 1				
Silver	ND	1.0	mg/kg	SW846 6010B	12/01/04	GX1K01AM
		Dilution Factor: 1				
Bismuth	ND	20.0	mg/kg	SW846 6010B	12/01/04	GX1K01AN
		Dilution Factor: 1				

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METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: W04380 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F4L130000-439 **Prep Batch #...:** 4348439						
Mercury	ND	0.033	mg/kg	SW846 7471A	12/13-12/14/04	G0XJW1AA
		Dilution Factor: 1				

NOTE(S):

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

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04380 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F4K170000-056 **Prep Batch #...:** 4322056							
Bismuth	200	197	mg/kg	99	SW846 6010B	11/17-11/18/04	GW5CF1AQ
			Dilution Factor: 1				
Antimony	60.9	43.6	mg/kg	72	SW846 6010B	11/17-11/18/04	GW5CF1AR
			Dilution Factor: 1				
Arsenic	161	168	mg/kg	104	SW846 6010B	11/17-11/18/04	GW5CF1AT
			Dilution Factor: 1				
Barium	252	258	mg/kg	102	SW846 6010B	11/17-11/18/04	GW5CF1AU
			Dilution Factor: 1				
Beryllium	94.4	98.8	mg/kg	105	SW846 6010B	11/17-11/18/04	GW5CF1AV
			Dilution Factor: 1				
Cadmium	128	132	mg/kg	103	SW846 6010B	11/17-11/18/04	GW5CF1AW
			Dilution Factor: 1				
Chromium	69.5	70.1	mg/kg	101	SW846 6010B	11/17-11/18/04	GW5CF1AX
			Dilution Factor: 1				
Copper	148	162	mg/kg	110	SW846 6010B	11/17-11/18/04	GW5CF1A0
			Dilution Factor: 1				
Lead	142	146	mg/kg	103	SW846 6010B	11/17-11/18/04	GW5CF1A1
			Dilution Factor: 1				
Nickel	147	157	mg/kg	107	SW846 6010B	11/17-11/18/04	GW5CF1A2
			Dilution Factor: 1				
Selenium	64.2	66.1	mg/kg	103	SW846 6010B	11/17-11/18/04	GW5CF1A3
			Dilution Factor: 1				
Silver	130	148	mg/kg	114	SW846 6010B	11/17-11/18/04	GW5CF1A4
			Dilution Factor: 1				
Uranium	200	193	mg/kg	96	SW846 6010B	11/17-11/18/04	GW5CF1A5
			Dilution Factor: 1				

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LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04380 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F4K170000-095 **Prep Batch #...:** 4322095							
Mercury	4.04	4.12	mg/kg	102	SW846 7471A	11/17/04	GW5E61AC
			Dilution Factor: 5				
LCS Lot-Sample#: F4L010000-050 **Prep Batch #...:** 4336050							
Antimony	60.9	51.3	mg/kg	84	SW846 6010B	12/01/04	GX1K01AP
			Dilution Factor: 1				
Arsenic	161	171	mg/kg	106	SW846 6010B	12/01/04	GX1K01AQ
			Dilution Factor: 1				
Barium	252	267	mg/kg	106	SW846 6010B	12/01/04	GX1K01AR
			Dilution Factor: 1				
Beryllium	94.4	99.8	mg/kg	106	SW846 6010B	12/01/04	GX1K01AT
			Dilution Factor: 1				
Cadmium	128	133	mg/kg	104	SW846 6010B	12/01/04	GX1K01AU
			Dilution Factor: 1				
Chromium	69.5	72.2	mg/kg	104	SW846 6010B	12/01/04	GX1K01AV
			Dilution Factor: 1				
Copper	148	159	mg/kg	108	SW846 6010B	12/01/04	GX1K01AW
			Dilution Factor: 1				
Lead	142	155	mg/kg	109	SW846 6010B	12/01/04	GX1K01AX
			Dilution Factor: 1				
Nickel	147	157	mg/kg	107	SW846 6010B	12/01/04	GX1K01A0
			Dilution Factor: 1				
Selenium	64.2	68.0	mg/kg	106	SW846 6010B	12/01/04	GX1K01A1
			Dilution Factor: 1				
Silver	130	153	mg/kg	117	SW846 6010B	12/01/04	GX1K01A2
			Dilution Factor: 1				
Bismuth	200	199	mg/kg	100	SW846 6010B	12/01/04	GX1K01A3
			Dilution Factor: 1				

(Continued on next page)

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: W04380 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F4L130000-439 Prep Batch #...: 4348439							
Mercury	4.04	4.05	mg/kg	100	SW846 7471A	12/13-12/14/04	G0XJW1AC

Dilution Factor: 5

NOTE(S):

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

WET CHEMISTRY

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FLUOR HANFORD IC

Client Sample ID: B193K1

General Chemistry

Lot-Sample #...: F4K100333-001 **Work Order #...:** GWNAE **Matrix.....:** SOLID
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04
% Moisture.....: 4.5

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Hexavalent Chromium	ND	0.40	mg/kg	SW846 7196A	11/11/04	4317200
		Dilution Factor: 1		MDL.....: 0.25		
Nitrate/Nitrite as N	**24.9**	**0.50**	**mg/kg**	**MCAWW 353.1**	**11/15/04**	**4320217**
		Dilution Factor: 1		MDL.....: 0.036		
Oil and Grease (Gravimetric)	ND	419	mg/kg	SW846 9071A	11/23-11/24/04	4328355
		Dilution Factor: 2		MDL.....: 173		
Percent Moisture	**4.5**	**0.10**	**%**	**MCAWW 160.3 MOD**	**11/17-11/18/04**	**4322080**
		Dilution Factor: 1		MDL.....:		
Total Sulfide	ND	10.5	mg/kg	SW846 9030	11/24/04	4334155
		Dilution Factor: 1		MDL.....: 7.6		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

FLUOR HANFORD IC

Client Sample ID: B19189

General Chemistry

Lot-Sample #...: F4K100333-002 **Work Order #...:** GWNFG **Matrix.....:** SOLID
Date Sampled...: 10/26/04 **Date Received..:** 11/10/04
% Moisture.....: 6.6

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Phosphate as P, Ortho	36.6	5.4	mg/kg	MCAWW 300.0A	11/10/04	4316163
		Dilution Factor: 1		MDL.....: 0.54		
pH (solid)	10.2	0.10	No Units	SW846 9045C	11/16/04	4321162
		Dilution Factor: 1		MDL.....:		
Chloride	1.8 B,J	2.1	mg/kg	MCAWW 300.0A	11/10/04	4316165
		Dilution Factor: 1		MDL.....: 0.47		
Fluoride	3.4 J	1.1	mg/kg	MCAWW 300.0A	11/10/04	4316160
		Dilution Factor: 1		MDL.....: 0.11		
Nitrate	7.8	0.21	mg/kg	MCAWW 300.0A	11/10/04	4316161
		Dilution Factor: 1		MDL.....: 0.042		
Nitrite	0.44	0.21	mg/kg	MCAWW 300.0A	11/10/04	4316162
		Dilution Factor: 1		MDL.....: 0.043		
Nitrogen, as Ammonia	ND	0.54	mg/kg	MCAWW 350.1	11/11/04	4316531
		Dilution Factor: 1		MDL.....: 0.23		
Percent Moisture	6.6	0.10	%	MCAWW 160.3 MOD	11/17-11/18/04	4322080
		Dilution Factor: 1		MDL.....:		
Sulfate	12.6	5.4	mg/kg	MCAWW 300.0A	11/10/04	4316164
		Dilution Factor: 1		MDL.....: 0.40		
Total Cyanide	ND	0.54	mg/kg	SW846 9010A	11/22/04	4327472
		Dilution Factor: 1		MDL.....: 0.13		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

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

FLUOR HANFORD IC

Client Sample ID: B19188

General Chemistry

Lot-Sample #...: F4K120109-001 **Work Order #...:** GWTXX **Matrix.....:** SOLID
Date Sampled...: 10/20/04 **Date Received..:** 11/11/04
% Moisture.....: 5.3

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Phosphate as P, Ortho	25.2	5.3	mg/kg	MCAWW 300.0A	11/16/04	4322164
		Dilution Factor: 1		MDL.....: 0.53		
pH (solid)	10.1	0.10	No Units	SW846 9045C	11/16/04	4321162
		Dilution Factor: 1		MDL.....:		
Chloride	2.5 J	2.1	mg/kg	MCAWW 300.0A	11/16/04	4322160
		Dilution Factor: 1		MDL.....: 0.46		
Fluoride	2.3	1.1	mg/kg	MCAWW 300.0A	11/16/04	4322161
		Dilution Factor: 1		MDL.....: 0.11		
Nitrate	3.8	0.21	mg/kg	MCAWW 300.0A	11/16/04	4322162
		Dilution Factor: 1		MDL.....: 0.042		
Nitrite	0.77	0.21	mg/kg	MCAWW 300.0A	11/16/04	4322163
		Dilution Factor: 1		MDL.....: 0.042		
Nitrogen, as Ammonia	ND	0.53	mg/kg	MCAWW 350.1	11/16/04	4321483
		Dilution Factor: 1		MDL.....: 0.061		
Percent Moisture	5.3	0.10	%	MCAWW 160.3 MOD	11/17-11/18/04	4322080
		Dilution Factor: 1		MDL.....:		
Sulfate	9.6	5.3	mg/kg	MCAWW 300.0A	11/16/04	4322165
		Dilution Factor: 1		MDL.....: 0.39		
Total Cyanide	ND	0.53	mg/kg	SW846 9010A	11/22/04	4327472
		Dilution Factor: 1		MDL.....: 0.13		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

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

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: W04380 **Matrix.....:** SOLID
Date Sampled...: 11/10/04 **Date Received..:** 11/12/04

Percnt Moisture: 3.4

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride			Work Order #...:		GWNFG1FD		MS Lot-Sample #:	F4K100333-002
	1.8	21.4	22.0	mg/kg	95	MCAWW 300.0A	11/10/04	4316165
			Dilution Factor: 1					
Fluoride			Work Order #...:		GWNFG1C1		MS Lot-Sample #:	F4K100333-002
	3.4	21.4	25.0	mg/kg	101	MCAWW 300.0A	11/10/04	4316160
			Dilution Factor: 1					
Hexavalent Chromium			Work Order #...:		GWNAE1AH		MS Lot-Sample #:	F4K100333-001
	ND	40.0	35.8	mg/kg	89	SW846 7196A	11/11-11/12/04	4317200
			Dilution Factor: 1					
Nitrate			Work Order #...:		GWNFG1C2		MS Lot-Sample #:	F4K100333-002
	7.8	42.8	48.2	mg/kg	95	MCAWW 300.0A	11/10/04	4316161
			Dilution Factor: 10					
Nitrate/Nitrite as N			Work Order #...:		GWNAE1AG		MS Lot-Sample #:	F4K100333-001
	24.9	25.0	43.8 N	mg/kg	76	MCAWW 353.1	11/15/04	4320217
			Dilution Factor: 1					
Nitrate/Nitrite as N			Work Order #...:		GWVD81AK		MS Lot-Sample #:	F4K120155-001
	22.6	25.0	44.6 N	mg/kg	88	MCAWW 353.1	11/15/04	4320217
			Dilution Factor: 1					
Nitrite			Work Order #...:		GWNFG1C3		MS Lot-Sample #:	F4K100333-002
	0.44	1.07	1.91 N	mg/kg	137	MCAWW 300.0A	11/10/04	4316162
			Dilution Factor: 1					
Nitrogen, as Ammonia			Work Order #...:		GWNFG1EF		MS Lot-Sample #:	F4K100333-002
	ND	2.14	1.94	mg/kg	90	MCAWW 350.1	11/11/04	4316531
			Dilution Factor: 1					
Oil and Grease (Gravimetric)			Work Order #...:		GWNAE1AK		MS Lot-Sample #:	F4K100333-001
	ND	6980	6080	mg/kg	87	SW846 9071A	11/23-11/24/04	4328355
			Dilution Factor: 2					
Phosphate as P, Ortho			Work Order #...:		GWNFG1C4		MS Lot-Sample #:	F4K100333-002
	36.6	42.8	73.1	mg/kg	85	MCAWW 300.0A	11/10/04	4316163
			Dilution Factor: 1					

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MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: W04380 **Matrix.....:** SOLID
Date Sampled...: 11/10/04 **Date Received..:** 11/12/04

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Sulfate			Work Order #...:		GWNFG1EE	MS Lot-Sample #:		F4K100333-002
	12.6	42.8	50.6	mg/kg	89	MCAWW 300.0A	11/10/04	4316164
			Dilution Factor: 1					
Total Cyanide			Work Order #...:		GWNFG1EG	MS Lot-Sample #:		F4K100333-002
	ND	5.35	5.32	mg/kg	99	SW846 9010A	11/22/04	4327472
			Dilution Factor: 1					
Total Sulfide			Work Order #...:		GWVD81AQ	MS Lot-Sample #:		F4K120155-001
	ND	100	94.0	mg/kg	94	SW846 9030	11/24/04	4334155
			Dilution Factor: 1					

NOTE(S):

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

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F4K100333 **Work Order #...:** GWNFG-SMP GWNFG-DUP **Matrix.....:** SOLID

Date Sampled...: 10/26/04 **Date Received..:** 11/10/04

% Moisture.....: 6.6

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride						SD Lot-Sample #:	F4K100333-002	
	1.8 B,J	1.3 B	mg/kg	31	(0-30)	MCAWW 300.0A	11/10/04	4316165
			Dilution Factor: 1					
Fluoride						SD Lot-Sample #:	F4K100333-002	
	3.4 J	3.1	mg/kg	10	(0-30)	MCAWW 300.0A	11/10/04	4316160
			Dilution Factor: 1					
Nitrate						SD Lot-Sample #:	F4K100333-002	
	7.8	7.1	mg/kg	9.3	(0-30)	MCAWW 300.0A	11/10/04	4316161
			Dilution Factor: 1					
Nitrite						SD Lot-Sample #:	F4K100333-002	
	0.44	0.39	mg/kg	12	(0-30)	MCAWW 300.0A	11/10/04	4316162
			Dilution Factor: 1					
Phosphate as P, Ortho						SD Lot-Sample #:	F4K100333-002	
	36.6	35.8	mg/kg	2.1	(0-30)	MCAWW 300.0A	11/10/04	4316163
			Dilution Factor: 1					
Sulfate						SD Lot-Sample #:	F4K100333-002	
	12.6	11.3	mg/kg	10	(0-30)	MCAWW 300.0A	11/10/04	4316164
			Dilution Factor: 1					
Nitrogen, as Ammonia						SD Lot-Sample #:	F4K100333-002	
	ND	ND	mg/kg	0	(0-30)	MCAWW 350.1	11/11/04	4316531
			Dilution Factor: 1					
Total Cyanide						SD Lot-Sample #:	F4K100333-002	
	ND	ND	mg/kg	0	(0-30)	SW846 9010A	11/22/04	4327472
			Dilution Factor: 1					
pH (solid)						SD Lot-Sample #:	F4K100333-002	
	10.2	10.3	No Units	0.098	(0-15)	SW846 9045C	11/16/04	4321162
			Dilution Factor: 1					

NOTE(S):

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

Results and reporting limits have been adjusted for dry weight.

B Estimated result. Result is less than RL.

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

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F4K100333 **Work Order #...:** GWNAE-SMP GWNAE-DUP **Matrix.....:** SOLID

Date Sampled...: 10/26/04 **Date Received..:** 11/10/04

% Moisture.....: 4.5

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrate/Nitrite as N						SD Lot-Sample #:	F4K100333-001	
	24.9	24.6	mg/kg	1.2	(0-30)	MCAWW 353.1	11/15/04	4320217
			Dilution Factor: 1					
Hexavalent Chromium						SD Lot-Sample #:	F4K100333-001	
	ND	ND	mg/kg	0	(0-30)	SW846 7196A	11/11/04	4317200
			Dilution Factor: 1					
Oil and Grease (Gravimetric)						SD Lot-Sample #:	F4K100333-001	
	ND	ND	mg/kg	0	(0-35)	SW846 9071A	11/23-11/24/04	4328355
			Dilution Factor: 2					

METHOD BLANK REPORT

General Chemistry

Client Lot #...: W04380 **Matrix.....: SOLID**

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride		Work Order #: GWP6J1AA		MB Lot-Sample #:	F4K110000-165	
	0.59 B	**2.0**	**mg/kg**	**MCAWW 300.0A**	**11/10/04**	**4316165**
		Dilution Factor: 1				
Chloride		Work Order #: GW5J01AA		MB Lot-Sample #:	F4K170000-160	
	0.61 B	**2.0**	**mg/kg**	**MCAWW 300.0A**	**11/16/04**	**4322160**
		Dilution Factor: 1				
Fluoride		Work Order #: GWP5W1AA		MB Lot-Sample #:	F4K110000-160	
	0.20 B	**1.0**	**mg/kg**	**MCAWW 300.0A**	**11/10/04**	**4316160**
		Dilution Factor: 1				
Fluoride		Work Order #: GW5J41AA		MB Lot-Sample #:	F4K170000-161	
	ND	1.0	mg/kg	MCAWW 300.0A	11/16/04	4322161
		Dilution Factor: 1				
Hexavalent Chromium		Work Order #: GWVQJ1AA		MB Lot-Sample #:	F4K120000-200	
	ND	0.40	mg/kg	SW846 7196A	11/11/04	4317200
		Dilution Factor: 1				
Nitrate		Work Order #: GWP531AA		MB Lot-Sample #:	F4K110000-161	
	ND	0.20	mg/kg	MCAWW 300.0A	11/10/04	4316161
		Dilution Factor: 1				
Nitrate		Work Order #: GW5J81AA		MB Lot-Sample #:	F4K170000-162	
	ND	0.20	mg/kg	MCAWW 300.0A	11/16/04	4322162
		Dilution Factor: 1				
Nitrate/Nitrite as N		Work Order #: GW1GX1AA		MB Lot-Sample #:	F4K150000-217	
	ND	0.50	mg/kg	MCAWW 353.1	11/15/04	4320217
		Dilution Factor: 1				
Nitrite		Work Order #: GWP541AA		MB Lot-Sample #:	F4K110000-162	
	ND	0.20	mg/kg	MCAWW 300.0A	11/10/04	4316162
		Dilution Factor: 1				
Nitrite		Work Order #: GW5KG1AA		MB Lot-Sample #:	F4K170000-163	
	ND	0.20	mg/kg	MCAWW 300.0A	11/16/04	4322163
		Dilution Factor: 1				
Nitrogen, as Ammonia		Work Order #: GWR6M1AA		MB Lot-Sample #:	F4K110000-531	
	ND	0.50	mg/kg	MCAWW 350.1	11/11/04	4316531
		Dilution Factor: 1				

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METHOD BLANK REPORT

General Chemistry

Client Lot #...: W04380 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrogen, as Ammonia		Work Order #: GW4L41AA		MB Lot-Sample #:	F4K160000-483	
	ND	0.50	mg/kg	MCAWW 350.1	11/16/04	4321483
		Dilution Factor: 1				
Oil and Grease (Gravimetric)		Work Order #: GXQET1AA		MB Lot-Sample #:	F4K230000-355	
	ND	200	mg/kg	SW846 9071A	11/23-11/24/04	4328355
		Dilution Factor: 1				
Phosphate as P, Ortho		Work Order #: GWP561AA		MB Lot-Sample #:	F4K110000-163	
	ND	5.0	mg/kg	MCAWW 300.0A	11/10/04	4316163
		Dilution Factor: 1				
Phosphate as P, Ortho		Work Order #: GW5KN1AA		MB Lot-Sample #:	F4K170000-164	
	ND	5.0	mg/kg	MCAWW 300.0A	11/16/04	4322164
		Dilution Factor: 1				
Sulfate		Work Order #: GWP6E1AA		MB Lot-Sample #:	F4K110000-164	
	ND	5.0	mg/kg	MCAWW 300.0A	11/10/04	4316164
		Dilution Factor: 1				
Sulfate		Work Order #: GW5KW1AA		MB Lot-Sample #:	F4K170000-165	
	ND	5.0	mg/kg	MCAWW 300.0A	11/16/04	4322165
		Dilution Factor: 1				
Total Cyanide		Work Order #: GXLDD1AA		MB Lot-Sample #:	F4K220000-472	
	ND	0.50	mg/kg	SW846 9010A	11/22/04	4327472
		Dilution Factor: 1				
Total Sulfide		Work Order #: GXV791AA		MB Lot-Sample #:	F4K290000-155	
	ND	10.0	mg/kg	SW846 9030	11/24/04	4334155
		Dilution Factor: 1				

NOTE(S):

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

B Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: W04380 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Chloride			WO#:GWP6J1AC-LCS/GWP6J1AD-LCSD			LCS Lot-Sample#: F4K110000-165		
	10.0	9.04	mg/kg	90		MCAWW 300.0A	11/10/04	4316165
	10.0	9.69	mg/kg	97	6.9	MCAWW 300.0A	11/10/04	4316165
			Dilution Factor: 1					
Chloride			WO#:GW5J01AC-LCS/GW5J01AD-LCSD			LCS Lot-Sample#: F4K170000-160		
	10.0	9.63	mg/kg	96		MCAWW 300.0A	11/16/04	4322160
	10.0	9.70	mg/kg	97	0.69	MCAWW 300.0A	11/16/04	4322160
			Dilution Factor: 1					
Fluoride			WO#:GWP5W1AC-LCS/GWP5W1AD-LCSD			LCS Lot-Sample#: F4K110000-160		
	5.00	5.18	mg/kg	104		MCAWW 300.0A	11/10/04	4316160
	5.00	5.19	mg/kg	104	0.14	MCAWW 300.0A	11/10/04	4316160
			Dilution Factor: 1					
Fluoride			WO#:GW5J41AC-LCS/GW5J41AD-LCSD			LCS Lot-Sample#: F4K170000-161		
	5.00	4.79	mg/kg	96		MCAWW 300.0A	11/16/04	4322161
	5.00	4.72	mg/kg	94	1.5	MCAWW 300.0A	11/16/04	4322161
			Dilution Factor: 1					
Nitrate			WO#:GWP531AC-LCS/GWP531AD-LCSD			LCS Lot-Sample#: F4K110000-161		
	1.60	1.85	mg/kg	116		MCAWW 300.0A	11/10/04	4316161
	1.60	1.87	mg/kg	117	0.94	MCAWW 300.0A	11/10/04	4316161
			Dilution Factor: 1					
Nitrate			WO#:GW5J81AC-LCS/GW5J81AD-LCSD			LCS Lot-Sample#: F4K170000-162		
	2.00	1.85	mg/kg	92		MCAWW 300.0A	11/16/04	4322162
	2.00	1.83	mg/kg	91	1.0	MCAWW 300.0A	11/16/04	4322162
			Dilution Factor: 1					
Nitrate/Nitrite as N			WO#:GW1GX1AC-LCS/GW1GX1AD-LCSD			LCS Lot-Sample#: F4K150000-217		
	4.00	3.90	mg/kg	98		MCAWW 353.1	11/15/04	4320217
	4.00	3.89	mg/kg	97	0.25	MCAWW 353.1	11/15/04	4320217
			Dilution Factor: 1					
Nitrite			WO#:GWP541AC-LCS/GWP541AD-LCSD			LCS Lot-Sample#: F4K110000-162		
	0.800	0.871	mg/kg	109		MCAWW 300.0A	11/10/04	4316162
	0.800	0.871	mg/kg	109	0.05	MCAWW 300.0A	11/10/04	4316162
			Dilution Factor: 1					

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LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: W04380 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrite		WO#:GW5KG1AC-LCS/GW5KG1AD-LCSD				LCS Lot-Sample#: F4K170000-163		
	0.800	0.866	mg/kg	108		MCAWW 300.0A	11/16/04	4322163
	0.800	0.860	mg/kg	107	0.70	MCAWW 300.0A	11/16/04	4322163
		Dilution Factor: 1						
Nitrogen, as Ammonia		WO#:GWR6M1AC-LCS/GWR6M1AD-LCSD				LCS Lot-Sample#: F4K110000-531		
	40.0	39.0	mg/kg	98		MCAWW 350.1	11/11/04	4316531
	40.0	40.9	mg/kg	102	4.8	MCAWW 350.1	11/11/04	4316531
		Dilution Factor: 1						
Nitrogen, as Ammonia		WO#:GW4L41AC-LCS/GW4L41AD-LCSD				LCS Lot-Sample#: F4K160000-483		
	4.00	3.70	mg/kg	92		MCAWW 350.1	11/16/04	4321483
	4.00	3.72	mg/kg	93	0.53	MCAWW 350.1	11/16/04	4321483
		Dilution Factor: 1						
Oil and Grease (Gravimetric)		WO#:GXQET1AC-LCS/GXQET1AD-LCSD				LCS Lot-Sample#: F4K230000-355		
	3330	2700	mg/kg	81		SW846 9071A	11/23-11/24/04	4328355
	3330	2700	mg/kg	81	0.0	SW846 9071A	11/23-11/24/04	4328355
		Dilution Factor: 1						
Phosphate as P, Ortho		WO#:GWP561AC-LCS/GWP561AD-LCSD				LCS Lot-Sample#: F4K110000-163		
	40.0	38.5	mg/kg	96		MCAWW 300.0A	11/10/04	4316163
	40.0	38.7	mg/kg	97	0.72	MCAWW 300.0A	11/10/04	4316163
		Dilution Factor: 1						
Phosphate as P, Ortho		WO#:GW5KN1AC-LCS/GW5KN1AD-LCSD				LCS Lot-Sample#: F4K170000-164		
	40.0	39.0	mg/kg	98		MCAWW 300.0A	11/16/04	4322164
	40.0	39.5	mg/kg	99	1.3	MCAWW 300.0A	11/16/04	4322164
		Dilution Factor: 1						
Sulfate		WO#:GWP6E1AC-LCS/GWP6E1AD-LCSD				LCS Lot-Sample#: F4K110000-164		
	40.0	37.0	mg/kg	92		MCAWW 300.0A	11/10/04	4316164
	40.0	37.0	mg/kg	93	0.18	MCAWW 300.0A	11/10/04	4316164
		Dilution Factor: 1						

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LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Lot-Sample #...: W04380 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Sulfate		WO#:GW5KW1AC-LCS/GW5KW1AD-LCSD LCS Lot-Sample#: F4K170000-165						
	40.0	36.5	mg/kg	91		MCAWW 300.0A	11/16/04	4322165
	40.0	36.9	mg/kg	92	1.2	MCAWW 300.0A	11/16/04	4322165

Dilution Factor: 1

NOTE(S):

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

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: W04380 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
pH (solid)			Work Order #:	GW3HW1AA	LCS Lot-Sample#:	F4K160000-162	
	7.00	7.01	No Units	100	SW846 9045C	11/16/04	4321162
			Dilution Factor: 1				
Hexavalent Chromium			Work Order #:	GWVQJ1AC	LCS Lot-Sample#:	F4K120000-200	
	2.00	1.87	mg/kg	94	SW846 7196A	11/11/04	4317200
			Dilution Factor: 1				
Total Cyanide			Work Order #:	GXLDD1AC	LCS Lot-Sample#:	F4K220000-472	
	5.00	5.20	mg/kg	104	SW846 9010A	11/22/04	4327472
			Dilution Factor: 1				
Total Sulfide			Work Order #:	GXV791AC	LCS Lot-Sample#:	F4K290000-155	
	100	96.0	mg/kg	96	SW846 9030	11/24/04	4334155
			Dilution Factor: 1				

NOTE(S):

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