

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. 300 AREA TEDF

R06-001

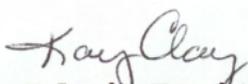
Lot #: F6G060137

SDG #: W04963

John Trechter

Fluor Hanford Inc
600 Area, MO280, MSIN S3-30
Richland, WA 99352

SEVERN TRENT LABORATORIES, INC.

FOR: 
Melania Harris
Project Manager

July 17, 2006

Case Narrative
LOT NUMBER: F6G060137
SDG W04963

This report contains the analytical results for the sample received under chain of custody by STL St. Louis on July 5, 2006. This sample is associated with your R06-001 project.

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

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

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

Observations/Nonconformances

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

Purgeable Organics by CFR136A 624

The MS/MSD recovery for 2-Chloroethylvinyl ether (0%) is outside the established QC limit (10%). The RPD is within method acceptance criteria indicating possible matrix interference in the acidic sample. Method performance is demonstrated by acceptable LCS recovery.

Affected Sample:

F6G060137 (1): TEDF0705061

SVOA by CFR136A 625

For batch 6193145, there was insufficient sample volume to perform MS/MSD analysis. An LCS/LCSD was performed to demonstrate accuracy and replicate precision.

A MECL2/Acetone mixture was used during the original extraction of these samples instead of MECL2. A huge interference peak is present causing various surrogate and spike failures. However, the spike and surrogate associated with the client target is within QC limits. But, because of skewed peak shapes due to the MECL2/Acetone mixture, the samples were re-extracted within holding time. The re-extracted run had various surrogates and spikes failing low. There is insufficient sample to extract a third time. The re-extracted results are reported.

Affected Sample:

F6G060137 (1): TEDF0705061

Nitrite by MCAWW 354.1

The MS recovery in batch 6187222 is outside the established QC limits. Matrix interference is evident in the sample. Method performance is demonstrated by acceptable LCS recovery.

Affected Sample:

F6G060137 (1): TEDF0705061

Ammonia Nitrogen by MCAWW 350.1

The MS recovery in batch 6188223 is outside the established QC limits. Matrix interference is evident in the sample. Method performance is demonstrated by acceptable LCS recovery.

Affected Sample:

F6G060137 (1): TEDF0705061

There are no anomalies to report for the following analyses:
ICP Metals by MCAWW 200.7
Mercury by MCAWW 245.1

EXECUTIVE SUMMARY - Detection Highlights

F6G060137

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
TEDF0705061 07/05/06 08:50 001				
Mercury	0.11 B	0.20	ug/L	MCAWW 245.2
Bromodichloromethane	0.51 J	2.2	ug/L	CFR136A 624
Chloroform	7.9	5.0	ug/L	CFR136A 624

METHODS SUMMARY

F6G060137

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Base/Neutrals and Acids	CFR136A 625	CFR136A 625
Mercury (Automated Cold Vapor Technique)	MCAWW 245.2	
Nitrite	MCAWW 354.1	
Nitrogen, Ammonia	MCAWW 350.1	MCAWW 350.1
Purgeables	CFR136A 624	SW846 5030B
Trace Inductively Coupled Plasma (ICP) Metals	MCAWW 200.7	MCAWW 200.7

References:

- CFR136A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
- MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SAMPLE SUMMARY

F6G060137

<u>WO #</u>	<u>SAMPLE#</u>	<u>CLIENT</u>	<u>SAMPLE ID</u>	<u>SAMPLED</u>	<u>SAMP</u>
				<u>DATE</u>	<u>TIME</u>
H8P3N	001	TEDF0705061		07/05/06	08:50

NOTE (S) :

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

Fluor Hanford Inc

Client Sample ID: TEDF0705061

GC/MS Volatiles

Lot-Sample #...: F6G060137-001 Work Order #...: H8P3N1AD Matrix.....: WATER
 Date Sampled...: 07/05/06 Date Received...: 07/06/06
 Prep Date.....: 07/10/06 Analysis Date...: 07/10/06
 Prep Batch #...: 6192231
 Dilution Factor: 1 Method.....: CFR136A 624

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Bromodichloromethane	0.51 J	2.2	ug/L	0.14
Chloroform	7.9	5.0	ug/L	0.19
1,1-Dichloroethane	ND	4.7	ug/L	0.16
Methylene chloride	ND	5.0	ug/L	0.10
Tetrachloroethene	ND	5.0	ug/L	0.19
Toluene	ND	5.0	ug/L	0.20
1,1,1-Trichloroethane	ND	5.0	ug/L	0.15
Trichloroethene	ND	1.9	ug/L	0.20

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	101	(70 - 123)
Toluene-d8	123	(75 - 126)
4-Bromofluorobenzene	103	(72 - 124)

NOTE (S) :

J Estimated result. Result is less than RL.

Fluor Hanford Inc

TEDF0705061

GC/MS Volatiles

Lot-Sample #: F6G060137-001

Work Order #: H8P3N1AD

Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: F6G060137
 MB Lot-Sample #: F6G110000-231

Work Order #...: H80KH1AA

Matrix.....: WATER

Prep Date.....: 07/10/06

Analysis Date...: 07/10/06

Prep Batch #...: 6192231

Dilution Factor: 1

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
Bromodichloromethane	ND	2.2	ug/L	CFR136A 624
Chloroform	ND	5.0	ug/L	CFR136A 624
1,1-Dichloroethane	ND	4.7	ug/L	CFR136A 624
Methylene chloride	0.39 J	5.0	ug/L	CFR136A 624
Tetrachloroethene	ND	5.0	ug/L	CFR136A 624
Toluene	ND	5.0	ug/L	CFR136A 624
1,1,1-Trichloroethane	ND	5.0	ug/L	CFR136A 624
Trichloroethene	ND	1.9	ug/L	CFR136A 624

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
1,2-Dichloroethane-d4	99	(70 - 123)
Toluene-d8	121	(75 - 126)
4-Bromofluorobenzene	96	(72 - 124)

NOTE (S) :

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

J Estimated result. Result is less than RL.

Fluor Hanford Inc
Method Blank Report
GC/MS Volatiles

Lot-Sample #: F6G110000-231 B Work Order #: H80KH1AA Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: F6G060137 Work Order #...: H80KH1AC Matrix.....: WATER
 LCS Lot-Sample#: F6G110000-231
 Prep Date.....: 07/10/06 Analysis Date...: 07/10/06
 Prep Batch #...: 6192231
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>METHOD</u>
Trichloroethene	20.0	21.5	ug/L	107	CFR136A 624
Toluene	20.0	23.2	ug/L	116	CFR136A 624
Bromodichloromethane	20.0	20.8	ug/L	104	CFR136A 624
Chloroform	20.0	20.2	ug/L	101	CFR136A 624
1,1-Dichloroethane	20.0	21.3	ug/L	106	CFR136A 624
Methylene chloride	20.0	19.6	ug/L	98	CFR136A 624
Tetrachloroethene	20.0	18.2	ug/L	91	CFR136A 624
1,1,1-Trichloroethane	20.0	22.7	ug/L	114	CFR136A 624

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
1,2-Dichloroethane-d4	101	(76 - 116)
Toluene-d8	116	(81 - 122)
4-Bromofluorobenzene	86	(75 - 123)

NOTE (S) :

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

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: F6G060137 Work Order #...: H8P3N1A1-MS Matrix.....: WATER
 MS Lot-Sample #: F6G060137-001 H8P3N1A2-MSD
 Date Sampled...: 07/05/06 Date Received...: 07/06/06
 Prep Date.....: 07/10/06 Analysis Date...: 07/10/06
 Prep Batch #...: 6192231
 Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Toluene	ND	20.0	23.5	ug/L	118		CFR136A 624
	ND	20.0	23.2	ug/L	116	1.4	CFR136A 624
Bromodichloromethane	0.51	20.0	21.8	ug/L	106		CFR136A 624
	0.51	20.0	20.6	ug/L	100	5.4	CFR136A 624
Chloroform	7.9	20.0	28.6	ug/L	104		CFR136A 624
	7.9	20.0	27.8	ug/L	99	3.0	CFR136A 624
1,1-Dichloroethane	ND	20.0	21.1	ug/L	105		CFR136A 624
	ND	20.0	20.4	ug/L	102	3.1	CFR136A 624
Methylene chloride	ND	20.0	18.6	ug/L	93		CFR136A 624
	ND	20.0	18.2	ug/L	91	2.1	CFR136A 624
Tetrachloroethene	ND	20.0	17.1	ug/L	85		CFR136A 624
	ND	20.0	16.7	ug/L	83	2.5	CFR136A 624
1,1,1-Trichloroethane	ND	20.0	21.8	ug/L	109		CFR136A 624
	ND	20.0	21.1	ug/L	106	3.0	CFR136A 624
Trichloroethene	ND	20.0	21.2	ug/L	106		CFR136A 624
	ND	20.0	21.0	ug/L	105	0.56	CFR136A 624

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	103	(70 - 123)
	100	(70 - 123)
Toluene-d8	116	(75 - 126)
	117	(75 - 126)
4-Bromofluorobenzene	87	(72 - 124)
	89	(72 - 124)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

Fluor Hanford Inc

Client Sample ID: TEDF0705061

GC/MS Semivolatiles

Lot-Sample #...: F6G060137-001 Work Order #...: H8P3N2AC Matrix.....: WATER
 Date Sampled...: 07/05/06 Date Received...: 07/06/06
 Prep Date.....: 07/12/06 Analysis Date...: 07/13/06
 Prep Batch #...: 6193145
 Dilution Factor: 1 Method.....: CFR136A 625

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	2.6

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorobiphenyl	45 *	(48 - 83)
2-Fluorophenol	25	(24 - 48)
2,4,6-Tribromophenol	47 *	(52 - 102)
Nitrobenzene-d5	47 *	(54 - 86)
Phenol-d5	17 *	(19 - 34)
Terphenyl-d14	48	(48 - 94)

NOTE (S) :

* Surrogate recovery is outside stated control limits.

Fluor Hanford Inc

TEDF0705061

GC/MS Semivolatiles

Lot-Sample #: F6G060137-001

Work Order #: H8P3N2AC

Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: F6G060137 Work Order #...: H82VX1AA Matrix.....: WATER
MB Lot-Sample #: F6G120000-145
Prep Date.....: 07/12/06
Analysis Date...: 07/13/06 Prep Batch #...: 6193145
Dilution Factor: 1

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	CFR136A 625

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	44 *	(48 - 83)
2-Fluorophenol	29	(24 - 48)
2,4,6-Tribromophenol	51 *	(52 - 102)
Nitrobenzene-d5	48 *	(54 - 86)
Phenol-d5	20	(19 - 34)
Terphenyl-d14	54	(48 - 94)

NOTE (S) :

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

* Surrogate recovery is outside stated control limits.

Fluor Hanford Inc
Method Blank Report
GC/MS Semivolatiles

Lot-Sample #: F6G120000-145 B Work Order #: H82VX1AA Matrix: WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

<u>PARAMETER</u>	<u>CAS #</u>	<u>ESTIMATED RESULT</u>	<u>RETENTION TIME</u>	<u>UNITS</u>
None				ug/L

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: F6G060137 Work Order #...: H82VX1AC-LCS Matrix.....: WATER
 LCS Lot-Sample#: F6G120000-145 H82VX1AD-LCSD
 Prep Date.....: 07/12/06 Analysis Date...: 07/13/06
 Prep Batch #...: 6193145
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>RPD</u>	<u>METHOD</u>
bis(2-Ethylhexyl) phthalate	100	73.9	ug/L	74		CFR136A 625
	100	72.6	ug/L	73	1.8	CFR136A 625

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
2-Fluorobiphenyl	58	(45 - 87)
	60	(45 - 87)
2-Fluorophenol	33	(28 - 49)
	33	(28 - 49)
2,4,6-Tribromophenol	70	(61 - 96)
	68	(61 - 96)
Nitrobenzene-d5	54 *	(55 - 85)
	56	(55 - 85)
Phenol-d5	24	(22 - 35)
	24	(22 - 35)
Terphenyl-d14	70	(60 - 86)
	67	(60 - 86)

NOTE (S) :

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

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

Fluor Hanford Inc

Client Sample ID: TEDF0705061

TOTAL Metals

Lot-Sample #...: F6G060137-001
Date Sampled...: 07/05/06

Date Received...: 07/06/06

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u>		<u>METHOD</u>	<u>PREPARATION-</u>	<u>WORK</u>
		<u>LIMIT</u>	<u>UNITS</u>		<u>ANALYSIS DATE</u>	<u>ORDER #</u>
Prep Batch #...: 6187335 Iron	ND	100	ug/L	MCAWW 200.7	07/06-07/07/06	H8P3N1AF
		Dilution Factor: 1		MDL.....: 25.0		
Prep Batch #...: 6191074 Mercury	0.11 B	0.20	ug/L	MCAWW 245.2	07/10/06	H8P3N1AG
		Dilution Factor: 1		MDL.....: 0.046		

NOTE(S) :

B Estimated result. Result is less than RL.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F6G060137

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
MB Lot-Sample #: F6G060000-335		Prep Batch #...: 6187335				
Iron	ND	100	ug/L	MCAWW 200.7	07/06-07/07/06	H8QKP1AA
		Dilution Factor: 1				

MB Lot-Sample #: F6G100000-074		Prep Batch #...: 6191074				
Mercury	ND	0.20	ug/L	MCAWW 245.2	07/10/06	H8WNW1AA
		Dilution Factor: 1				

NOTE(S) :

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

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: F6G060137
Date Sampled...: 07/05/06

Date Received...: 07/06/06

Matrix.....: WATER

<u>PARAMETER</u>	<u>AMOUNT</u>	<u>SAMPLE SPIKE AMT</u>	<u>MEASRD AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
------------------	---------------	-------------------------	----------------------	--------------	----------------------	------------	---------------	-----------------------------------	---------------------

MS Lot-Sample #: F6G060137-001 **Prep Batch #...**: 6187335

Iron

ND	500	512	ug/L	102			MCAWW 200.7	07/06-07/07/06	H8P3N1AP
ND	500	519	ug/L	104	1.3		MCAWW 200.7	07/06-07/07/06	H8P3N1AQ

Dilution Factor: 1

MS Lot-Sample #: F6G060137-001 **Prep Batch #...**: 6191074

Mercury

0.11	1.00	1.01	ug/L	90			MCAWW 245.2	07/10/06	H8P3N1AR
0.11	1.00	0.909	ug/L	80	11		MCAWW 245.2	07/10/06	H8P3N1AT

Dilution Factor: 1

NOTE(S) :

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

Fluor Hanford Inc

Client Sample ID: TEDF0705061

General Chemistry

Lot-Sample #...: F6G060137-001
Date Sampled...: 07/05/06

Work Order #...: H8P3N
Date Received...: 07/06/06

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>RL</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Nitrite as N	ND	50.0	ug/L	MCAWW 354.1	07/06/06	6187222
		Dilution Factor: 1		MDL.....: 14.3		
Nitrogen, as Ammonia	ND	50.0	ug/L	MCAWW 350.1	07/07/06	6188223
		Dilution Factor: 1		MDL.....: 5.5		

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F6G060137

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>PREP</u> <u>BATCH #</u>
Nitrite as N	ND	Work Order #: H8P9E1AA 50.0	ug/L	MB Lot-Sample #: MCAWW 354.1	F6G060000-222 07/06/06	6187222
		Dilution Factor: 1				
Nitrogen, as Ammonia	ND	Work Order #: H8R8E1AA 50.0	ug/L	MB Lot-Sample #: MCAWW 350.1	F6G070000-223 07/07/06	6188223
		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

Lot-Sample #...: F6G060137

Matrix.....: WATER

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>RPD</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Nitrite as N								
	400	368	ug/L	92		MCAWW 354.1	07/06/06	6187222
	400	373	ug/L	93	1.4	MCAWW 354.1	07/06/06	6187222

Dilution Factor: 1

Nitrogen, as Ammonia								
	400	373	ug/L	93		MCAWW 350.1	07/07/06	6188223
	400	377	ug/L	94	1.1	MCAWW 350.1	07/07/06	6188223

Dilution Factor: 1

NOTE (S) :

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

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: F6G060137

Matrix.....: WATER

Date Sampled...: 07/05/06

Date Received...: 07/06/06

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Nitrite as N	ND	500	403 N	ug/L	81	MCAWW 354.1	07/06/06	6187222
			Work Order #...: H8P3N1AU MS Lot-Sample #: F6G060137-001					
			Dilution Factor: 1					
Nitrogen, as Ammonia	ND	500	559 N	ug/L	112	MCAWW 350.1	07/07/06	6188223
			Work Order #...: H8P3N1AN MS Lot-Sample #: F6G060137-001					
			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.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F6G060137

Work Order #...: H8P3N-SMP
H8P3N-DUP

Matrix.....: WATER

Date Sampled...: 07/05/06

Date Received...: 07/06/06

<u>PARAM</u>	<u>RESULT</u>	<u>DUPLICATE RESULT</u>	<u>UNITS</u>	<u>RPD</u>	<u>RPD LIMIT</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Nitrogen, as Ammonia	ND	ND	ug/L	0	(0-20)	SD Lot-Sample #: F6G060137-001 MCAWW 350.1	07/07/06	6188223
			Dilution Factor: 1					
Nitrite as N	ND	ND	ug/L	0	(0-20)	SD Lot-Sample #: F6G060137-001 MCAWW 354.1	07/06/06	6187222
			Dilution Factor: 1					

CEL3064

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. No. N/A
 Page 1 of 1

Collector D. F. HOLWAY	Contact/Requestor DALE L. HALGREN	Telephone No. MSIN FAX 376-9988 L6-05 376-6423
SAF No. R06-001	Sample Origin TW-V-582 310 TEDF 300 AREA	Purchase Order/Charge Code 118810 / CA40
Project Title 300 AREA TEDF NPDES COMPLIANCE SAMPLES	Logbook No. N/A	Ice Chest No. Temp. N/A COOL TO 4 degrees C.
Shipped To (Lab) SEVERN TRENT	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A
Protocol CLEAN WATER ACT	Data Turnaround 15 DAYS PRIORITY	Offsite Property No. N/A

Sample No.	Lab ID	*	Date	Time	No./Type Container	Sample Analysis	Preservative
TEDF0705061		W	07/05/06	0850	4/aGs 40mL -	PURGEABLES EPA624	HCl pH<2
TEDF0705061		W	07/05/06	0854	4/aG 1L -	BASE/ NEUTRALS AND ACIDS EPA625	Cool 4Deg C
TEDF0705061		W	07/05/06	0858	1/POLY 500mL -	METALS Fe EPA 200.7	HNO3 pH <2
TEDF0705061		W	07/05/06	0859	1/POLY 250mL -	NITRITE 353.1M	COOL 4DEG C
TEDF0705061		W	07/05/06	0900	1/POLY 500mL -	AMMONIA EPA350.1	H2SO4 pH <2
TEDF0705061		W	07/05/06	0901	1/POLY 1L	GROSS ALPHA & BETA GA GB	HNO3 pH <2
TEDF0705061		W	07/05/06	0902	1/POLY 2L	TOTAL RADIUM TOTAL/Ra	HNO3 pH <2
TEDF0705061		W	07/05/06	0905	1/POLY 1L -	METALS Hg EPA 245.2 (CV)	HNO3 pH <2
TEDF0705061		W	07/05/06	0906	1/POLY 20mL	ACTIVITY SCAN	NONE

} stayed in Richland

POSSIBLE SAMPLE HAZARDS/REMARKS (List all known wastes) MSDS <input type="radio"/> Yes <input checked="" type="radio"/> No THESE SAMPLES CONTAIN RADIOACTIVE MATERIAL AT CONCENTRATIONS THAT ARE NOT REGULATED FOR TRANSPORTATION PER 49 CFR 173.403 BUT ARE NOT RELEASABLE PER DOE ORDER 5400.5	SPECIAL INSTRUCTIONS Hold Time Enhanced detection limits agreed to by R.L. Merrell 10/18/94 required. Exception: Chloroform PQL 5 ug/L. Contact JE Trechter ASAP if sample results are =>than enhanced detection limits. 15/45 summary (CAT 4,DB)
---	--

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix* S = Soil DS = Drum Solids SE = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge WI = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
			1100 07/05/06				1100 09/05/2006	
			09/05/06 1300				1300 09/05/06	
			7/5/06 13:40				7-5-06 13:40	
			7-5-06 15:00				070606 0915	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)						Disposed By	Date/Time

All samples containing hazardous materials shall be picked up by requestor and returned to parent container or site of origin.

Packed in Ice

F6G060137

CLIENT ANALYSIS SUMMARY

Storage Loc: **1-167**
 Date Received: 2006-07-05
 Analytical Due Date: 2006-07-14
 Report Due Date: 2006-07-14
 Report Type: B Standard Report
 EDD Code: FEAD1

Project Manager: MLH Quote #: 47975 SDG: W04963
 Project: 300 AREA TEDF R06-001
 PO#: 615 Report to: John Trechter
 Client: 108302 Fluor Hanford Inc

#SMPS in LOT: 1

Sample Contorl: Log in QC Received date is date received in Richland.
 SDG should be assigned by Richland, check w/ PM.
 Nitrite has short hold time. Notify PM if exceeded. VOA: notify PM if Chloroform >= 10 ug/l. Re-inject.
 Notify PM if any parameter exceeds the CRDL. Do NOT dilute Nitrite to bring spike in control

SAMPLE #	CLIENT SAMPLE ID	Site ID	Client Matrix	DATE/TIME SAMPLED	WORKORDER	I
1	TEDF0705061			2006-07-05 / 850	H8P3N	WATER
SAMPLE COMMENTS:						
FE JI	MCAW 200.7 W	Inductively Coupled Plasma (200.7 Trace)	05 METALS, TOTAL - Waters	01 STANDARD TEST SET	PROT: A	WRK LOC 06
HG W9	MCAW 245.2 W	Mercury (245.2, Cold Vapor)	19 METALS, TOTAL (Method exclusive) - Waters	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX DP	CFR13 625 6A	Base/Neutrals and Acids (625)	0U LIQ/LIQ, SEP FUNNEL (B/W/A) - Base->Acid	01 STANDARD TEST SET	PROT: +	WRK LOC 06 TIC: Y
XX DN	CFR13 624 6A	Volatile Organics, GC/MS (624) - preserved	25 PURGE AND TRAP - 25 mL purge (Waters)	01 STANDARD TEST SET	PROT: A	WRK LOC 06 TIC: Y
XX ZV	RAD SCREEN	RAD SCREEN	RA IN-HOUSE RAD SCREEN	01 STANDARD TEST SET	PROT: A	WRK LOC 06
XX CP	MCAW 354.1 W	Nitrite (354.1)	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	51 CLIENT: HANFORD	PROT: A	WRK LOC 06
XX VM	MCAW 350.1 W	Nitrogen, Ammonia (350.1, Automated)	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A	WRK LOC 06
D FE JI	MCAW 200.7 W	Inductively Coupled Plasma (200.7 Trace)	05 METALS, TOTAL - Waters	01 STANDARD TEST SET	PROT: A	WRK LOC 06
D HG W9	MCAW 245.2 W	Mercury (245.2, Cold Vapor)	19 METALS, TOTAL (Method exclusive) - Waters	01 STANDARD TEST SET	PROT: A	WRK LOC 06
D XX DP	CFR13 625 6A	Base/Neutrals and Acids (625)	49 LIQ/LIQ, CONT (A/B/N) - Acid->Base	01 STANDARD TEST SET	PROT: A	WRK LOC 06 TIC: Y
D XX DN	CFR13 624 6A	Volatile Organics, GC/MS (624) - preserved	25 PURGE AND TRAP - 25 mL purge (Waters)	01 STANDARD TEST SET	PROT: A	WRK LOC 06 TIC: Y
S FE JI	MCAW 200.7 W	Inductively Coupled Plasma (200.7 Trace)	05 METALS, TOTAL - Waters	01 STANDARD TEST SET	PROT: A	WRK LOC 06
S HG W9	MCAW 245.2 W	Mercury (245.2, Cold Vapor)	19 METALS, TOTAL (Method exclusive) - Waters	01 STANDARD TEST SET	PROT: A	WRK LOC 06
S XX DP	CFR13 625 6A	Base/Neutrals and Acids (625)	49 LIQ/LIQ, CONT (A/B/N) - Acid->Base	01 STANDARD TEST SET	PROT: A	WRK LOC 06 TIC: Y
S XX DN	CFR13 624 6A	Volatile Organics, GC/MS (624) - preserved	25 PURGE AND TRAP - 25 mL purge (Waters)	01 STANDARD TEST SET	PROT: A	WRK LOC 06 TIC: Y
S XX CP	MCAW 354.1 W	Nitrite (354.1)	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	51 CLIENT: HANFORD	PROT: A	WRK LOC 06
S XX VM	MCAW 350.1 W	Nitrogen, Ammonia (350.1, Automated)	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A	WRK LOC 06
X XX CP	MCAW 354.1 W	Nitrite (354.1)	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	51 CLIENT: HANFORD	PROT: A	WRK LOC 06
X XX VM	MCAW 350.1 W	Nitrogen, Ammonia (350.1, Automated)	88 NO SAMPLE PREPARATION PERFORMED / DIRECT	01 STANDARD TEST SET	PROT: A	WRK LOC 06

F6G060137

CLIENT COMMENTS SUMMARY

Storage Loc: **1-167**
Date Received: 2006-07-05
Analytical Due Date: 2006-07-14
Report Due Date: 2006-07-14
Report Type: B Standard Report
EDD Code: FEAD1

Project Manager: MLH Quote #: 47975 SDG: W04963
Project: 300 AREA TEDF R06-001
PO#: 615 Report to: John Trechter
Client: 108302 Fluor Hanford Inc

#SMPS in LOT: 1

Sample Contorl:
Log in QC
Received date is date received in Richland.
SDG should be assigned by Richland, check w/ PM.

Nitrite has short hold time. Notify PM if exceeded.
VOA: notify PM if Chloroform >= 10 ug/l. Re-inject.

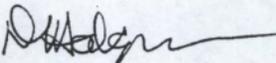
Notify PM if any parameter exceeds the CRDL.

Do NOT dilute Nitrite to bring spike in control

Hanford samples should be batched by themselves

FLUOR

Memorandum

To: J.E. Trechter
Date: November 16, 2005
Location: S3-30
From: D.L. Halgren 
Location: L6-05
Subject: 300 Area Treated Effluent Disposal Facility Activity Screen Exemption

This letter exempts process water samples from the 300 Area Treated Effluent Disposal Facility (TEDF) from radioactive screening prior to shipment to offsite laboratories for analysis. This letter shall accompany each shipment of samples in lieu of radioactive screening results.

The 300 Area TEDF is a non-nuclear industrial wastewater treatment facility. It does not accept wastewater greater than drinking water standards and is not permitted to treat or discharge radioactive wastewater to the Columbia River.

Composite samples have been taken continuously since 1995 to monitor the radioactivity of the wastewater. Over the life of the facility the average activity has been less than 2 picoCuries per liter (pCi/l) for both total alpha and beta with maximum results at 21 and 7 pCi/l respectively.

If you have any questions regarding this matter, please contact me on 376-9988.

From: Origin ID: (509)375-3131
Shipping Dept.
SEVERN TRENT LABORATORIES
2800 GEORGE WASHINGTON WAY

RICHLAND, WA 99354



CLS93298/17/22

Ship Date: 05JUL06
ActWgt: 45 LB
System#: 1033413/INET2500
Account#: S *****

REF: TEDF



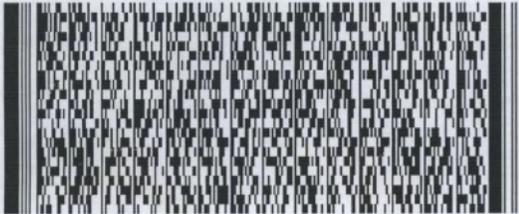
Delivery Address Bar Code

SHIP TO: (314)298-8566

BILL RECIPIENT

Sample Control
STL St. Louis
13715 N. Rider Trail

Earth City, MO 63045



PRIORITY OVERNIGHT

THU

TRK# **7921 4385 9683**

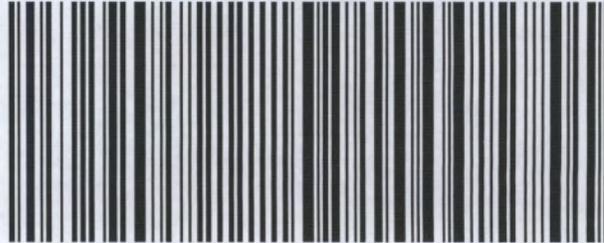
FORM
0201

Deliver By:
06JUL06

STL A1

63045 -MO-US

XX ALNA



Shipping Label: Your shipment is complete

1. Use the 'Print' feature from your browser to send this page to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.