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. 300 AREA TEDF

R06-001

Lot #: F6K020280
SDG #: W05046

John Trechter

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

SEVERN TRENT LABORATORIES, INC.

Melania Harris
Project Manager

November 21, 2006

Case Narrative
LOT NUMBER: **F6K020280**
SDG: W05046

This report contains the analytical results for the sample received under chain of custody by STL St. Louis on November 2, 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.

SVOC method 625
The Method Blank exhibited poor surrogate recovery. Laboratory QC practices, based on CLP methodology, allow for one acid surrogate and/or one base surrogate recovery excursion without necessitating re-extraction/re-analysis. Sample extraction efficiency and compliance is demonstrated by the remaining acceptable surrogate recoveries. Sample results are reported with this narrative.
Affected Samples:
F6K020280 (1): TEDF1101061

Mercury method 245.2
The ICV recovery was outside the upper QC limit (greater than 105%) for Mercury indicating a potential high bias for those analytes in the samples associated with this CCV. These analytes were not detected above the reporting limit in the associated samples.
Batch: 631099
Affected Samples:
F6K020280 (1): TEDF1101061

EXECUTIVE SUMMARY - Detection Highlights

F6K020280

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
TEDF1101061 11/01/06 04:50 001				
Bromodichloromethane	0.21 J	2.2	ug/L	CFR136A 624
Chloroform	2.6 J	5.0	ug/L	CFR136A 624

METHODS SUMMARY

F6K020280

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
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

F6K020280

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
JHTMC	001	TEDF1101061	11/01/06	04:50

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: TEDF1101061

GC/MS Volatiles

Lot-Sample #...: F6K020280-001 **Work Order #...:** JHTMC1AC **Matrix.....:** WATER
Date Sampled...: 11/01/06 **Date Received..:** 11/01/06
Prep Date.....: 11/08/06 **Analysis Date..:** 11/08/06
Prep Batch #...: 6312273
Dilution Factor: 1 **Method.....:** CFR136A 624

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
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
Bromodichloromethane	**0.21 J**	**2.2**	**ug/L**	**0.14**
Chloroform	**2.6 J**	**5.0**	**ug/L**	**0.19**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	81	(70 - 123)
Toluene-d8	103	(75 - 126)
4-Bromofluorobenzene	99	(72 - 124)

NOTE(S):

J Estimated result. Result is less than RL.

Fluor Hanford Inc

TEDF1101061

GC/MS Volatiles

Lot-Sample #: F6K020280-001 **Work Order #:** JHTMC1AC **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

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

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: F6K020280 **Work Order #...:** JH61F1AA **Matrix.....:** WATER
MB Lot-Sample #: F6K080000-273

Prep Date.....: 11/08/06
Analysis Date..: 11/08/06 **Prep Batch #...:** 6312273
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
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	**0.21 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	80	(70 - 123)
Toluene-d8	103	(75 - 126)
4-Bromofluorobenzene	101	(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 #: F6K080000-273 B **Work Order #:** JH61F1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

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

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: F6K020280 **Work Order #...:** JH61F1AC-LCS **Matrix.....:** WATER
LCS Lot-Sample#: F6K080000-273 JH61F1AD-LCSD
Prep Date.....: 11/08/06 **Analysis Date..:** 11/08/06
Prep Batch #...: 6312273
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Trichloroethene	**20.0**	**20.7**	**ug/L**	**103**		**CFR136A 624**
	20.0	**18.8**	**ug/L**	**94**	**9.6**	**CFR136A 624**
Toluene	**20.0**	**22.5**	**ug/L**	**113**		**CFR136A 624**
	20.0	**20.6**	**ug/L**	**103**	**8.8**	**CFR136A 624**
Bromodichloromethane	**20.0**	**20.1**	**ug/L**	**100**		**CFR136A 624**
	20.0	**18.5**	**ug/L**	**92**	**8.4**	**CFR136A 624**
Chloroform	**20.0**	**18.8**	**ug/L**	**94**		**CFR136A 624**
	20.0	**17.0**	**ug/L**	**85**	**10**	**CFR136A 624**
1,1-Dichloroethane	**20.0**	**18.9**	**ug/L**	**94**		**CFR136A 624**
	20.0	**17.0**	**ug/L**	**85**	**10**	**CFR136A 624**
Methylene chloride	**20.0**	**19.3**	**ug/L**	**97**		**CFR136A 624**
	20.0	**17.5**	**ug/L**	**88**	**9.6**	**CFR136A 624**
Tetrachloroethene	**20.0**	**19.2**	**ug/L**	**96**		**CFR136A 624**
	20.0	**17.8**	**ug/L**	**89**	**7.6**	**CFR136A 624**
1,1,1-Trichloroethane	**20.0**	**19.6**	**ug/L**	**98**		**CFR136A 624**
	20.0	**17.4**	**ug/L**	**87**	**12**	**CFR136A 624**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	84	(76 - 116)
	78	(76 - 116)
Toluene-d8	109	(81 - 122)
	103	(81 - 122)
4-Bromofluorobenzene	93	(75 - 123)
	91	(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 #...: F6K020280 **Work Order #...:** JHTMC1AK-MS **Matrix.....:** WATER
MS Lot-Sample #: F6K020280-001 JHTMC1AL-MSD
Date Sampled...: 11/01/06 **Date Received..:** 11/01/06
Prep Date.....: 11/08/06 **Analysis Date..:** 11/08/06
Prep Batch #...: 6312273
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Toluene	**ND**	**20.0**	**19.6**	**ug/L**	**98**		**CFR136A 624**
	ND	**20.0**	**20.7**	**ug/L**	**104**	**5.8**	**CFR136A 624**
Bromodichloromethane	**0.21**	**20.0**	**18.3**	**ug/L**	**90**		**CFR136A 624**
	0.21	**20.0**	**18.9**	**ug/L**	**94**	**3.6**	**CFR136A 624**
Chloroform	**2.6**	**20.0**	**19.5**	**ug/L**	**85**		**CFR136A 624**
	2.6	**20.0**	**20.0**	**ug/L**	**87**	**2.6**	**CFR136A 624**
1,1-Dichloroethane	**ND**	**20.0**	**17.0**	**ug/L**	**85**		**CFR136A 624**
	ND	**20.0**	**17.4**	**ug/L**	**87**	**2.1**	**CFR136A 624**
Methylene chloride	**ND**	**20.0**	**18.0**	**ug/L**	**90**		**CFR136A 624**
	ND	**20.0**	**18.4**	**ug/L**	**92**	**2.5**	**CFR136A 624**
Tetrachloroethene	**ND**	**20.0**	**16.2**	**ug/L**	**81**		**CFR136A 624**
	ND	**20.0**	**17.0**	**ug/L**	**85**	**4.9**	**CFR136A 624**
1,1,1-Trichloroethane	**ND**	**20.0**	**17.1**	**ug/L**	**85**		**CFR136A 624**
	ND	**20.0**	**17.5**	**ug/L**	**88**	**2.5**	**CFR136A 624**
Trichloroethene	**ND**	**20.0**	**18.0**	**ug/L**	**90**		**CFR136A 624**
	ND	**20.0**	**18.8**	**ug/L**	**94**	**4.6**	**CFR136A 624**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
1,2-Dichloroethane-d4	81	(70 - 123)
	80	(70 - 123)
Toluene-d8	102	(75 - 126)
	104	(75 - 126)
4-Bromofluorobenzene	89	(72 - 124)
	93	(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: TEDF1101061

GC/MS Semivolatiles

Lot-Sample #...: F6K020280-001 **Work Order #...:** JHTMC1AA **Matrix.....:** WATER
Date Sampled...: 11/01/06 **Date Received..:** 11/01/06
Prep Date.....: 11/03/06 **Analysis Date..:** 11/07/06
Prep Batch #...: 6307219
Dilution Factor: 1 **Method.....:** CFR136A 625

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
bis(2-Ethylhexyl) phthalate	ND	10	ug/L	1.0

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorobiphenyl	50	(48 - 83)
2-Fluorophenol	36	(24 - 48)
2,4,6-Tribromophenol	60	(52 - 102)
Nitrobenzene-d5	56	(54 - 86)
Phenol-d5	24	(19 - 34)
Terphenyl-d14	61	(48 - 94)

Fluor Hanford Inc

TEDF1101061

GC/MS Semivolatiles

Lot-Sample #: F6K020280-001 **Work Order #:** JHTMC1AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

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

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: F6K020280 **Work Order #...:** JHW231AA **Matrix.....:** WATER
MB Lot-Sample #: F6K030000-219

Prep Date.....: 11/03/06
Analysis Date..: 11/06/06 **Prep Batch #...:** 6307219
Dilution Factor: 1

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

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorobiphenyl	49	(48 - 83)
2-Fluorophenol	38	(24 - 48)
2,4,6-Tribromophenol	57	(52 - 102)
Nitrobenzene-d5	55	(54 - 86)
Phenol-d5	26	(19 - 34)
Terphenyl-d14	57	(48 - 94)

NOTE(S):

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

Fluor Hanford Inc

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: F6K030000-219 B **Work Order #:** JHW231AA **Matrix:** WATER

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

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

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: F6K020280 **Work Order #...:** JHW231AC **Matrix.....:** WATER
LCS Lot-Sample#: F6K030000-219
Prep Date.....: 11/03/06 **Analysis Date..:** 11/06/06
Prep Batch #...: 6307219
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
bis(2-Ethylhexyl) phthalate	**100**	**75.4**	**ug/L**	**75**	**CFR136A 625**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorobiphenyl	62	(45 - 87)
2-Fluorophenol	46	(28 - 49)
2,4,6-Tribromophenol	70	(61 - 96)
Nitrobenzene-d5	67	(55 - 85)
Phenol-d5	32	(22 - 35)
Terphenyl-d14	61	(60 - 86)

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 Semivolatiles

Client Lot #...: F6K020280 **Work Order #...:** JHTMC1AW-MS **Matrix.....:** WATER
MS Lot-Sample #: F6K020280-001 JHTMC1AX-MSD
Date Sampled...: 11/01/06 **Date Received..:** 11/01/06
Prep Date.....: 11/03/06 **Analysis Date..:** 11/07/06
Prep Batch #...: 6307219
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
bis(2-Ethylhexyl) phthalate	**ND**	**95.2**	**71.3**	**ug/L**	**75**		**CFR136A 625**
	ND	**94.8**	**79.9**	**ug/L**	**84**	**11**	**CFR136A 625**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorobiphenyl	61	(48 - 83)
	66	(48 - 83)
2-Fluorophenol	43	(24 - 48)
	44	(24 - 48)
2,4,6-Tribromophenol	68	(52 - 102)
	77	(52 - 102)
Nitrobenzene-d5	66	(54 - 86)
	70	(54 - 86)
Phenol-d5	29	(19 - 34)
	31	(19 - 34)
Terphenyl-d14	59	(48 - 94)
	65	(48 - 94)

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: TEDF1101061

TOTAL Metals

Lot-Sample #...: F6K020280-001 **Matrix.....:** WATER
Date Sampled...: 11/01/06 **Date Received..:** 11/01/06

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 6307345						
Iron	ND	100	ug/L	MCAWW 200.7	11/03-11/07/06	JHTMC1AE
		Dilution Factor: 1		MDL.....: 25.0		
Prep Batch #...: 6310099						
Mercury	ND	0.20	ug/L	MCAWW 245.2	11/15/06	JHTMC1AF
		Dilution Factor: 1		MDL.....: 0.046		

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F6K020280 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F6K030000-345 **Prep Batch #...:** 6307345						
Iron	**31.7 B**	**100**	**ug/L**	**MCAWW 200.7**	**11/03-11/07/06**	**JHWWH1AA**
		Dilution Factor: 1				
MB Lot-Sample #: F6K060000-099 **Prep Batch #...:** 6310099						
Mercury	ND	0.20	ug/L	MCAWW 245.2	11/15/06	JH19F1AA
		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 #...: F6K020280 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F6K030000-345 **Prep Batch #...:** 6307345							
Iron	500	573	ug/L	115	MCAWW 200.7	11/03-11/07/06	JHWWH1AC
			Dilution Factor: 1				
LCS Lot-Sample#: F6K060000-099 **Prep Batch #...:** 6310099							
Mercury	1.00	1.08	ug/L	108	MCAWW 245.2	11/15/06	JH19F1AC
			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 #...: F6K020280 **Matrix.....:** WATER
Date Sampled...: 11/01/06 **Date Received..:** 11/01/06

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F6K020280-001 **Prep Batch #...:** 6307345									
Iron									
	ND	500	517	ug/L	103		MCAWW 200.7	11/03-11/07/06	JHTMC1AN
	ND	500	542	ug/L	108	4.7	MCAWW 200.7	11/03-11/07/06	JHTMC1AP
			Dilution Factor: 1						
MS Lot-Sample #: F6K020280-001 **Prep Batch #...:** 6310099									
Mercury									
	ND	1.00	1.03	ug/L	103		MCAWW 245.2	11/15/06	JHTMC1AQ
	ND	1.00	1.02	ug/L	102	0.97	MCAWW 245.2	11/15/06	JHTMC1AR
			Dilution Factor: 1						

NOTE(S):

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

Fluor Hanford Inc

Client Sample ID: TEDF1101061

General Chemistry

Lot-Sample #...: F6K020280-001 **Work Order #...:** JHTMC **Matrix.....:** WATER
Date Sampled...: 11/01/06 **Date Received..:** 11/01/06

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrite as N	ND	50.0	ug/L	MCAWW 354.1	11/02/06	6307437
		Dilution Factor: 1		MDL.....: 14.3		
Nitrogen, as Ammonia	ND	50.0	ug/L	MCAWW 350.1	11/16/06	6313499
		Dilution Factor: 1		MDL.....: 5.5		

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F6K020280 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrite as N		Work Order #: JHW931AA		MB Lot-Sample #:	F6K030000-437	
	ND	50.0	ug/L	MCAWW 354.1	11/02/06	6307437
		Dilution Factor: 1				
Nitrogen, as Ammonia		Work Order #: JJDAC1AA		MB Lot-Sample #:	F6K090000-499	
	ND	50.0	ug/L	MCAWW 350.1	11/16/06	6313499
		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 #...: F6K020280 **Matrix.....:** WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrite as N			Work Order #: JHW931AC		LCS Lot-Sample#:	F6K030000-437	
	400	410	ug/L	102	MCAWW 354.1	11/02/06	6307437
			Dilution Factor: 1				
Nitrogen, as Ammonia			Work Order #: JJDAC1AC		LCS Lot-Sample#:	F6K090000-499	
	400	404	ug/L	101	MCAWW 350.1	11/16/06	6313499
			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 #...: F6K020280 **Matrix.....:** WATER
Date Sampled...: 11/01/06 **Date Received..:** 11/01/06

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrite as N			Work Order #...:		JHTMC1AT		MS Lot-Sample #:	F6K020280-001
	ND	500	551	ug/L	110	MCAWW 354.1	11/02/06	6307437
			Dilution Factor: 1					
Nitrogen, as Ammonia			Work Order #...:		JHTMC1AM		MS Lot-Sample #:	F6K020280-001
	ND	500	477	ug/L	95	MCAWW 350.1	11/16/06	6313499
			Dilution Factor: 1					

NOTE(S):

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

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F6K020280 **Work Order #...:** JHTMC-SMP **Matrix.....:** WATER
JHTMC-DUP

Date Sampled...: 11/01/06 **Date Received..:** 11/01/06

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Nitrogen, as Ammonia						SD Lot-Sample #:	F6K020280-001	
	ND	ND	ug/L	0	(0-20)	MCAWW 350.1	11/16/06	6313499
			Dilution Factor: 1					
Nitrite as N						SD Lot-Sample #:	F6K020280-001	
	ND	ND	ug/L	0	(0-20)	MCAWW 354.1	11/02/06	6307437
			Dilution Factor: 1					

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

CR 4898

C.O.C. No. N/A

Page 1 of 1

Collector: D. E. ROOHR WP5046	Contact/Requestor: DALE L. HALGREN	Telephone No.: 376-9988 MSIN: L6-05 FAX: 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.: N/A Temp.: COOL TO 4 degrees C
Shipped To (Lab): SEVERN TRENT	Method of Shipment: GOVERNMENT VEHICHLE	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
TEDF1101061	✓	W	11/1/06	0412	4/aGs 40mL	PURGEABLES EPA624	HCl pH<2
TEDF1101061	✓	W		0414	4/aGs 1L	BASE/ NEUTRALS AND ACIDS EPA625	Cool 4Deg C
TEDF1101061	✓	W		0415	1/POLY 500mL	METALS Fe EPA 200.7	HNO3 pH <2
TEDF1101061	✓	W		0416	1/aGs 250mL	NITRITE 353.1M	COOL 4DEG C
TEDF1101061	✓	W		0417	1/POLY 500mL	AMMONIA EPA350.1	H2SO4 pH <2
TEDF1101061		W		0418	1/POLY 1L	GROSS ALPHA & BETA GA GB	HNO3 pH <2
TEDF1101061		W		0419	2/POLY 1L	TOTAL RADIUM TOTAL/Ra	HNO3 pH <2
TEDF1101061	✓	W		0420	1/POLY 1L	METALS Hg EPA 245.2 (CV)	HNO3 pH <2
TEDF1101061		W		0421	1/POLY 20mL	ACTIVITY SCAN	NONE

POSSIBLE SAMPLE HAZARDS/REMARKS (List all known wastes) MSDS ○ Yes ◉ 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

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)

Hold Time

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
D. ROOHR / DE Roohr	11/1/06 - 0450	REFRIGERATOR	11/1/06 - 0450
Refrigerator	11-1-06 0840	RAWokal RAWokal	11-1-06 0840
RAWokal RAWokal	11-1-06 0900	S. Smith S. Smith	11-1-06 0900
S. Smith	11-1-06 1500	Carla Bulge	11-2-06 8:15 AM

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

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.

A-6003-432 (05/02)

Packed on ice

marked samples stay in Richland

STL St. Louis

Lot #(s): FLR020280

- 4898 -

Condition Upon Receipt Form

Client: Richland
Quote No: 47915
COC/RFA No:
Initiated By: cf
Date 11-2-06
Time: 9:15AM

Shipping Information

Shipper Name: Fedex
Shipping # (s):*
1. 7995 2987 7710
2.
3.
4.
5.
6.
7.
8.
9.
10.

Multiple Packages Y N N/A
Sample Temperature (s):**
1. 3°C
2.
3.
4.
5.
6.
7.
8.
9.
10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

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

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

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

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

Notes:

Corrective Action:
- ☐ Client Contact Name:
- ☐ Sample(s) processed "as is"
- ☐ Sample(s) on hold until:

Informed by:
If released, notify:
Date: 11-02-06

Project Management Review: K.C.

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

F6K020280

CLIENT ANALYSIS SUMMARY

Storage Loc: 3-232,M,HANFORD

Date Received: 2006-11-02

Analytical Due Date: 2006-11-13

Report Due Date: 2006-11-13

Project Manager: MLH Quote #: 47975 SDG: W05046

Project: 300 AREA TEDF R06-001

PO#: 615 Report to: John Trechter

Client: 108302 Fluor Hanford Inc

#SMPS in LOT: 1

Report Type: B Standard Report

EDD Code: FEAD1

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	TEDF1101061			2006-11-01 / 450	JHTMC	WATER

SAMPLE COMMENTS:

	FE	JI	MCAW W	200.7	Inductively Coupled Plasma (200.7 Trace)	05	METALS, TOTAL - Waters	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	HG	W9	MCAW W	245.2	Mercury (245.2, Cold Vapor)	19	METALS, TOTAL (Method exclusive) - Waters	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
	XX	DP	CFR13 6A	625	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
	XX	DN	CFR13 6A	624	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	CP	MCAW W	354.1	Nitrite (354.1)	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	5I	CLIENT: HANFORD	PROT: A	WRK LOC	06	
	XX	VM	MCAW W	350.1	Nitrogen, Ammonia (350.1, Automated)	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
D	FE	JI	MCAW W	200.7	Inductively Coupled Plasma (200.7 Trace)	05	METALS, TOTAL - Waters	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
D	HG	W9	MCAW W	245.2	Mercury (245.2, Cold Vapor)	19	METALS, TOTAL (Method exclusive) - Waters	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
D	XX	DP	CFR13 6A	625	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 6A	624	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 W	200.7	Inductively Coupled Plasma (200.7 Trace)	05	METALS, TOTAL - Waters	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
S	HG	W9	MCAW W	245.2	Mercury (245.2, Cold Vapor)	19	METALS, TOTAL (Method exclusive) - Waters	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
S	XX	DP	CFR13 6A	625	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 6A	624	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 W	354.1	Nitrite (354.1)	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	5I	CLIENT: HANFORD	PROT: A	WRK LOC	06	
S	XX	VM	MCAW W	350.1	Nitrogen, Ammonia (350.1, Automated)	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	
X	XX	CP	MCAW W	354.1	Nitrite (354.1)	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	5I	CLIENT: HANFORD	PROT: A	WRK LOC	06	
X	XX	VM	MCAW W	350.1	Nitrogen, Ammonia (350.1, Automated)	88	NO SAMPLE PREPARATION PERFORMED / DIRECT	01	STANDARD TEST SET	PROT: A	WRK LOC	06	

F6K020280

CLIENT COMMENTS SUMMARY

Storage Loc: **3-232,M,HANFORD**

Date Received: 2006-11-02

Analytical Due Date: 2006-11-13

Report Due Date: 2006-11-13

Report Type: B Standard Report

EDD Code: FEAD1

Project Manager: MLH Quote #: 47975 SDG: W05046

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