

Analytical Data Package Prepared For

Fluor Hanford, Inc.

Analysis Provided By

TestAmerica Richland
2800 George Washington Way
Richland WA, 99354
(509)375-3131
Assigned Laboratory Code: TALR

SDG Number: W05359

Data Package Contains 10 Pages

Certificate of Analysis

Fluor Hanford
1200 Jadwin Ave.
Richland, WA 99352

March 26, 2008

Attention: Steve Trent

SAF Number	:	F08-039
Date SDG Closed	:	March 20, 2008
Number of Samples	:	One (1)
Sample Type	:	Water
SDG Number	:	W05359
Data Deliverable	:	24 Hour / 15 Day

CASE NARRATIVE

I. Introduction

On March 20, 2008 one sample was received at TestAmerica Laboratories Richland (TALR) for chemical analysis. Upon receipt, the sample was assigned to lot J8C200161 and assigned the following laboratory ID number to correspond with the Fluor Hanford (FH) specific ID:

<u>FH ID#</u>	<u>STLR ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
B1TNM0	KJW6M	WATER	3/20/08

II. Sample Receipt

The sample was received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

March 26, 2008

The requested analyses were:

Chemical Analysis
Chromium by EPA method SW8466010

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

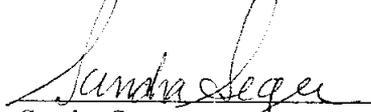
V. Comments

Chemical Analysis
Chromium by EPA method SW8466010

The LCS, batch blank, sample and duplicate sample results are within contractual requirements.

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

Reviewed and approved:


Sandra Seger
Project Manager

Analysis Date: 3/21/2008
 QC Batch #: 8080183
 Analyte: Chromium
 MDL 0.0194

Sample ID	Comment	Client ID	Instrum't Reading (mg/L)	Final Vol. (L)	Dilution Factor	Recov'd Cr (mg/L)	Results (ug/L)	Yield
KJW6M1AA	10:1 dilution	B1TNM0'	0.336	1	10	3.36	3360	
KJW6M1AC	10:1 dilution MS	B1TNM0'	1.267	1	10	12.67	12670	93.10%
KJW6M1AE	10:1 dilution MSD	B1TNM0'	1.269	1	10	12.69	12690	93.30%
KJW6M1AD	10:1 dilution - Duplicate	B1TNM0 DUP'	0.337	1	10	3.37	3370	
KJW741AA	Reagent Blank		-0.0026	0.05	1	-0.0026	<MDL	
KJW741AC	LCS		1.001	0.05	1	1.001		100.10%

**Richland Laboratory
 Data Review Check List
 Metals**

Batch Number(s) 8080183				
Lab Sample Numbers or SDG:				
Method/Test/Parameter: Metals				
Review Item	Yes (✓)	No (✓)	N/A (✓)	2 nd Level Review (✓)
A. Initial Calibration				
1. Performed at required frequency with required number of levels?	✓			✓
2. Correlation coefficient within QC limits?	✓			✓
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	✓			✓
4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters ≤ reporting limit?	✓			✓
B. Continuing Calibration				
1. CCV analyzed at required frequency and all parameters within QC limits?	✓			✓
2. CCB analyzed at required frequency and all results ≤ reporting limit?	✓			✓
C. Sample Analysis				
1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed?	✓			✓
2. Were all sample holding times met?	✓			✓
D. QC Samples				
1. All results for the preparation blank below limits?	✓			✓
2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?			✓	✓
3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?	✓			✓
4. Analytical spikes within QC limits where applicable?	✓			✓
5. ICP only: One serial dilution performed per SDG?			✓	✓
6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?			✓	✓
7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?	✓			✓

Review Item	Yes (✓)	No (✓)	N/A (✓)	2 nd Level Review (✓)
E. Other	✓			
1. Are all nonconformances included and noted?				/
2. Is the correct date and time of analysis shown?	✓			/
3. Did the analyst sign and date the front page of the analytical run?	✓			/
4. Correct methodology used?	✓			/
5. Transcriptions checked?	✓			/
6. Calculations checked at minimum frequency?	✓			/
7. Units checked?	✓			/

Comments on any "No" response

Analyst: *Thomas E. Williams*
 Second-Level Review: *Erin E. Jod*

Date 3/21/08
 Date: 3/21/08

COLLECTOR
NCO Samplers

SAMPLING LOCATION
DR-5 filtered

ICE CHEST NO.
GRF-05-010

SHIPPED TO
TestAmerica Incorporated, Richland

COMPANY CONTACT
WDRIG, DL

TELEPHONE NO.
376-2858

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE
1A

AIR QUALITY

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

PROJECT DESIGNATION
DR-5 GW Treatment Facility Regen Waste Characterization - Special Sampling

FIELD LOGBOOK NO.
HMF-N-4283

OFFSITE PROPERTY NO.
N/A

ACTUAL SAMPLE DEPTH
N/A

SAF NO.
F08-039

COA
122569ES10

BILL OF LADING/AIR BILL NO.
N/A

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	HNO3 to pH
A=Air DL=Drum L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)		<2
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	500ml
		SAMPLE ANALYSIS	ICP Metals - 16010A (TAL) (Chromium)
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1TNM0	WATER	3/20/08	0800 ✓

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
<i>[Signature]</i>	3/20/08 0900	JK WILKINS	3-20-08
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
** The field samplers are requested to filter the sample with a 0.45 micron filter and preserve with HNO3 to a pH less than 2.

J8C200161
W05359
DUE 3-21-08
KJWLM

LABORATORY SECTION

FINAL SAMPLE DISPOSITION

TITLE

DISPOSED BY

DATE/TIME



Sample Check-in List

Date/Time Received: 3-20-08 0905 GM Screen Result 0.1K

Client: FLH SDG #: W05359 NA [] SAF #: F08-039 NA []

Work Order Number: J8C200161 Chain of Custody # F08-039-082

Shipping Container ID: _____ Air Bill # _____

1. Custody Seals on shipping container intact? NA [] Yes No []

2. Custody Seals dated and signed? NA [] Yes No []

3. Chain of Custody record present? NA [] Yes No []

4. Cooler Temperature: _____ NA 5. Vermiculite/packing materials is NA Wet [] Dry []

6. Number of samples in shipping container: 1

7. Sample holding times exceeded? NA Yes [] No []

8. Samples have:
 Tape Hazard Labels
 Custody Seals Appropriate Sample Labels

9. Samples are:
 In Good Condition Leaking
 Broken Have Air Bubbles
(Only for samples requiring no head space.)

10. Sample pH taken? NA [] pH<2 pH>2 [] pH>9 [] Amount HNO₃ Added _____

11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.

12. Were any anomalies identified in sample receipt? Yes [] No

13. Description of anomalies (include sample numbers): _____

Sample Custodian: Date: 3-20-08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

3/20/2008 2:41:33 PM

Sample Preparation/Analysis

108302, Fluor Hanford Inc
Management Federal Servi

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
EA Chromium, Hexavalent (7196A)
01 STANDARD TEST SET

Waste
WO 5359

Balance Id:
Pipet #:

Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:

Batch: 8080183 WATER
SEQ Batch, Test: None

PM, Quote: SS, 29754

Prep Tech:

Work Order, Lot, Sample Date Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 KJW6M-1-AA								
J8C200161-1-SAMP								
03/20/2008 08:20								
2 KJW6M-1-AC-S								
J8C200161-1-MS								
03/20/2008 08:20								
3 KJW6M-1-AD-X								
J8C200161-1-DUP								
03/20/2008 08:20								
4 KJW6M-1-AE-S								
J8C200161-1-MS								
03/20/2008 08:20								
5 KJW74-1-AA-B								
J8C200000-183-BLK								
03/20/2008 08:20								
6 KJW74-1-AC-C								
J8C200000-183-LCS								
03/20/2008 08:20								

TAL Richland
Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2
pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

Page 1

WO Cnt: 6

ICOC v4.8.32

3/20/2008 2:41:33 PM

Sample Preparation/Analysis

Balance Id:

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

Pipet #:

EA Chromium, Hexavalent (7196A)

AnalyteDueDate: 03/21/2008

Sep1 DT/Tm Tech:

Batch: 8080183
SEQ Batch, Test: None

ug/L

Sep2 DT/Tm Tech:

Prep Tech:



Work Order, Lot, Sample Date/Time	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments:

All Clients for Batch:

108302, Fluor Hanford Inc

Waste Management Federal Servi, SS , 29754

KJW6M1AA-SAMP Constituent List:

KJW6M1AC-MS Constituent List:

KJW6M1AE-MS:

KJW741AA-BLK:

KJW741AC-LCS:

KJW6M1AA-SAMP Calc Info:

Uncert Level (#s):	Decay to SaDt:	Blk Subt.:	Sci.Not.:	ODRs:
2	Y	N	Y	B
KJW6M1AC-MS Calc Info:				
2	Y	N	Y	B
KJW6M1AE-MS:				
2	Y	N	Y	B
KJW741AA-BLK:				
2	Y	N	Y	B
KJW741AC-LCS:				
2	Y	N	Y	B

Approved By _____ Date: _____