0077446

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

December 7, 2007

Steve Trent
1200 Jadwin
Richland, WA 99354

Reference: Contract 615

Dear Mr.Trent

Accompanying this letter are the Data Package(s) and Invoice(s) for the radiochemical analyses for the following Fluor Sample Delivery Groups:

SDG NUMBER	SAF NUMBER
W05255	F08-001

If you have any questions regarding this data package or require any additional information please contact Sherryl Adam at 375-3131.

Please acknowledge delivery of this data package by signing and dating this letter and returning it to TestAmerica Richland.

Name _____ Date _____

XC: File

DEC 2007
RECEIVED

RECEIVED
MAY 2 2 2008
EDMC

2800 George Washington Way Richland, WA 99354 **tel** 509.375.3131 **fax** 509.375.5590 **www.testamericainc.com**

Analytical Data Package Prepared For

Fluor Hanford Inc.

Radiochemical Analysis By

TAL Richland

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: STLRL

Data Package Contains 21 Pages

Report No.: 37685

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
W05255	F08-001	B1PYF6	J7J230261-1	J9MQF1AA	9J9MQF10	7297594
		B1PYF7	J7J240306-1	J9QK91AA	9J9QK910	7297594

DEC 2007
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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Fluor Hanford
1200 Jadwin Ave.
Richland, WA 99352

December 7, 2007

Attention: Steve Trent

SAF Number	:	F08-001
Date SDG Closed	:	October 23, 2007
Number of Samples	:	Two (2)
Sample Type	:	Soil
SDG Number	:	W05255
Data Deliverable	:	45/45 Day

CASE NARRATIVE

I. Introduction

On October 23, 2007 two samples were received at TestAmerica Laboratories Richland (TALR) for chemical analysis. Upon receipt, the samples were assigned to lots J7J230261, J7J240306 and assigned the following laboratory ID number to correspond with the Fluor Hanford (FH) specific ID:

FH ID#	STLR ID#	MATRIX	DATE OF RECEIPT
B1PYF6	J9MQF	SOIL	10/23/07
B1PYF7	J9QK9	SOIL	10/23/07

II. Sample Receipt

The samples were 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.

The requested analyses were:

Chemical Analysis
Hexavalent Chromium by EPA method 7196A

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

Hexavalent Chromium by EPA method 7196A

The LCS, batch blank, samples, sample duplicate (B1PYF6) and sample matrix spike (B1PYF6) results (B1PV93) 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

Sandra Seger
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**STL Richland's SOP number**
EPA 901.1	Cs-134, I-131	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 00-02	Gross Alpha (Coprecipitation)	RICH-RC-5021
EPA 903.0	Total Alpha Radium (Ra-226)	RICH-RC-5027
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr-89/90	RICH-RC-5006
ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007

Uncertainty Estimation

Test America Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/? n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or STL Richland.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) ***u_c - Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, ***u_c the combined uncertainty.*** The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or STL Richland "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by STL Richland upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 07-Dec-07

TAL Richland STLRL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 37685

SDG No: W05255

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
7297594	7196_CR6								
	B1PYF6								
	J9MQF1AA	HEXCHROME	3.50E-01 +- 0.00E+00	U	mg/kg	N/A	3.50E-01	3.50E-01	
	B1PYF6 DUP								
	J9MQF1AD	HEXCHROME	3.50E-01 +- 0.00E+00	U	mg/kg	N/A	3.50E-01	3.50E-01	0.0
	B1PYF7								
	J9QK91AA	HEXCHROME	3.50E-01 +- 0.00E+00	U	mg/kg	N/A	3.50E-01	3.50E-01	

No. of Results: 3

TAL Richland

rptSTLRchSaSummary2 V5.1.4
A2002

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

QC Results Summary

Date: 07-Dec-07

TAL Richland STLRL

Ordered by Method, Batch No, QC Type,.

Report No. : 37685

SDG No.: W05255

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
7196_CR6								
7297594 MATRIX SPIKE, B1PYF6 MS								
J9MQF1AC	HEXCHROME	8.74E+00 +- 0.00E+00		mg/kg	N/A	88%	-0.1	3.50E-01
7297594 LCS,								
J9QXD1AC	HEXCHROME	1.53E+01 +- 0.00E+00		mg/kg	N/A	78%	-0.2	3.50E-01
7297594 BLANK QC,								
J9QXD1AA	HEXCHROME	3.50E-01 +- 0.00E+00	U	mg/kg	N/A			3.50E-01

No. of Results: 3

TAL Richland
rptSTLRchQcSummary V5.1.4 A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Dec-07

Lab Name:	TA Richland	**SDG:**	W05255	**Collection Date:**	10/22/2007 3:21:00 PM
Lot-Sample No.:	J7J230261-1	**Report No. :**	37685	**Received Date:**	10/23/2007 10:00:00 AM
Client Sample ID:	B1PYF6	**COC No. :**	F08-001-005	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7297594	7196_CR6			Work Order: J9MQF1AA			Report DB ID: 9J9MQF10					
HEXCHROME	***3.50E-01***	U		0.0E+00	3.50E-01	mg/kg	N/A	*(1.)*	11/9/07 02:00 p		2.5	
							3.50E-01	*N/A*			G	

No. of Results: 1 Comments:

TAL Richland
rptSTLRchSample
V5.1.4 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TESTAMERICA RICHLAND

FORM I

SAMPLE RESULTS

Date: 07-Dec-07

Lab Name:	TA Richland	**SDG:**	W05255	**Collection Date:**	10/23/2007 9:30:00 AM
Lot-Sample No.:	J7J240306-1	**Report No. :**	37685	**Received Date:**	10/23/2007 2:00:00 PM
Client Sample ID:	B1PYF7	**COC No. :**	F08-001-006	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7297594	7196_CR6			**Work Order:** J9QK91AA			**Report DB ID:** 9J9QK910					
HEXCHROME	***3.50E-01***	U		0.0E+00	3.50E-01	mg/kg	N/A	*(1.)*	11/9/07 02:00 p		2.5	
							3.50E-01	*N/A*			G	

No. of Results: 1 **Comments:**

TAL Richland
rptSTLRchSample
V5.1.4 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM II

Date: 07-Dec-07

DUPLICATE RESULTS

Lab Name:	TA Richland	**SDG:**	W05255	**Collection Date:**	10/22/2007 3:21:00 PM
Lot-Sample No.:	J7J230261-1	**Report No. :**	37685	**Received Date:**	10/23/2007 10:00:00 AM
Client Sample ID:	B1PYF6 DUP	**COC No. :**	F08-001-005	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7297594	7196_CR6			**Work Order:** J9MQF1AD		**Report DB ID:** J9MQF1DR			**Orig Sa DB ID:** 9J9MQF10			
HEXCHROME	3.50E-01	U		0.0E+00	3.50E-01	mg/kg	N/A	(1.)	11/9/07 02:00 p		2.5	
	3.50E-01	U	**RPD**	**0.0**		3.50E-01		N/A			G	

No. of Results: 1 **Comments:**

RPD - Relative Percent Difference.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TESTAMERICA RICHLAND

FORM II

BLANK RESULTS

Date: 07-Dec-07

Lab Name: TA Richland

Matrix: SOIL

SDG: W05255

Report No. : 37685

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA ,	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7297594	7196_CR6			Work Order:	J9QXD1AA		Report DB ID:	J9QXD1AB				
HEXCHROME	3.50E-01	U		0.0E+00	3.50E-01	mg/kg	N/A	(1.)	11/9/07 02:00 p		2.5	
						3.50E-01		N/A			G	

No. of Results: 1 Comments:

TAL Richland
rptSTLRchBlank
V5.1.4 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

TESTAMERICA RICHLAND

FORM II

LCS RESULTS

Date: 07-Dec-07

Lab Name: TA Richland

Matrix: SOIL

SDG: W05255

Report No. : 37685

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 7297594	7196_CR6			Work Order:	J9QXD1AC		Report DB ID:	J9QXD1AS					
HEXCHROME	1.53E+01			0.0E+00	3.50E-01	mg/kg	N/A	2.00E+01		76%	11/9/07 02:00 p	2.5	
							Rec Limits:	80	120	-0.2		G	

No. of Results: 1 Comments:

12

TAL Richland Bias - (Result/Expected)-1 as defined by ANSI N13.30.

rpt3TLRchl.cs
V5.1.4 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 07-Dec-07

Lab Name: TA Richland **SDG:** W05255

Lot-Sample No.: J7J230261-1, B1PYF6 MS **Report No. :** 37685 **Matrix:** SOIL

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Exp-ected	Exp Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 7297594	Work Order: J9MQF1AC			Report DB ID: J9MQF1CW			Orig Sa DB ID:						
HEXCHROME	8.74E+00			0.0E+00	3.50E-01	mg/kg	N/A	87.66%	9.97E+00		11/9/07 02:00 p	2.5	7196_CR6
	0.00E+00											G	

Number of Results: 1

Comments:

TAL Richland
rptSTLRchMs
V5.1.4 A2002

RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
Bias - (Result/Expected)-1 as defined by ANSI N13.30.

SEVERN TRENT STL

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): **7297594**				
Lab Sample Numbers or SDG: **WO5255**				
Method/Test/Parameter: **Cr+6 in SOLID / RICH-WC-5005, Rev 8**				
Review Item	**Yes (✓)**	**No (✓)**	**N/A (✓)**	**2nd 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 (✓)	2nd 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: ~~Blank sample was above MDL. No color was present in sample, reading likely due to turbidity caused by carryover of digestion reagent.~~ SKS 12/7/07

Analyst: [signature] Date: 11/9/07

Second-Level Review: [signature] Date: JC 12/7/07 12/7/07

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-001-005 PAGE 1 OF 1

COLLECTOR: NCO Sampler PARCHEN WEBB	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
PRICE CODE: 8N	DATA TURNAROUND: 45 Days / 45 Days	SAMPLING LOCATION: C5365, I-1 57-59	PROJECT DESIGNATION: 100-KR-4 Pump & Treat Expansion - Soil
SAF NO.: F08-001	AIR QUALITY	ICE CHEST NO.	FIELD LOGBOOK NO.
COA: 122636ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	J7J230201 W05255 Due 12.07.07	SHIPPED TO: TestAmerica Incorporated, Richland
OFFSITE PROPERTY NO.: N/A	BILL OF LADING/AIR BILL NO.: N/A		

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

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	60mL
SAMPLE ANALYSIS	Chromium Hex - 7196;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B1PYF6	SOIL	10/22/07	1521	J9MQF

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: D. Parchen	DATE/TIME: 10-22-07 1700	RECEIVED BY/STORED IN: MO 745 Ref #1	DATE/TIME: 10-22-07 1700
RELINQUISHED BY/REMOVED FROM: MO 745 Ref #1	DATE/TIME: 10/23/07 0930	RECEIVED BY/STORED IN: K.J. Young	DATE/TIME: 10/23/07 0930
RELINQUISHED BY/REMOVED FROM: K.J. Young	DATE/TIME: 10-23-07 1000	RECEIVED BY/STORED IN: R.L. WLANE 7AL-R	DATE/TIME: 10-23-07 1000
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

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION — DISPOSAL METHOD — DISPOSED BY — DATE/TIME

A-6003-618(01/06)

TESTAMERICA RICHLAND

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 10-23-07 1000

Client: WCH SDG #: W05255 NA[ ] SAF #: F08-001 NA [ ]

Work Order Number: JTJ230261 Chain of Custody # F08-001-005

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
   - ✓ Custody Seals
   - ___ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - ___ Broken
   - ___ Leaking
   - ___ Have Air Bubbles
   - (Only for samples requiring no head space.)
10. Sample pH taken? SOIL NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ]
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: [signature] Date: 10-23-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

TESTAMERICA RICHLAND

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-001-006

COLLECTOR NCO Sampler POPE, WEBB	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8N
SAMPLING LOCATION C5365, I-2 61.3'	**PROJECT DESIGNATION** 100-KR-4 Pump & Treat Expansion - Soil		**SAF NO.** F08-001	**AIR QUALITY**
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**COA** 122636ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO TestAmerica Incorporated, Richland	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

DATA TURNAROUND 45 Days / 45 Days

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

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOF Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	60mL
SAMPLE ANALYSIS	Chromium Hex - 7196;

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**		
B1PYF7	SOIL	10-23-07	0930	X	J9QK9

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
SS Pope / W Pope	10-23-07 / 1410	RJ LWLANE TALK	10-23-07 1400

SPECIAL INSTRUCTIONS

~~J7J240143~~ J7J240306
~~J00144~~ SS 10/24/07 W05255
DUE 12-7-07

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

A-6003-618(01/06)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

DUE 12-7-07

Date/Time Received: 10-23-07 1400

Client: WCH SDG #: ~~J00144~~ W05255 NA[ ] SAF #: F08-001 NA [ ]

Work Order Number: J7J240~~443~~ 306 Chain of Custody # F08-001-006

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: 1-60 MLG
7. Sample holding times exceeded? NA [✓] Yes [ ] No [ ]
8. Samples have:
   - ___ Tape
   - ✓ Custody Seals
   - ___ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - ___ Broken
   - ___ Leaking
   - ___ Have Air Bubbles
   - (Only for samples requiring no head space.)
10. Sample pH taken? SOIL NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ]
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: [signature] Date: 10-23-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager _____ Date _____

10/26/2007 9:12:42 AM

Sample Preparation/Analysis

108302, Fluor Hanford Inc , Flour
Hanford Inc

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)

AnalyDueDate: 11/12/2007 100255

5I CLIENT: HANFORD

Batch: 7297594 SOIL mg/kg
SEQ Batch, Test: None All Tests: 7297594 DWEA,

PM, Quote: SA , 50639

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 J9MQF-1-AA J7J230261-1-SAMP 10/22/2007 15:21		2.5909 AmtRec: JAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
2 J9MQF-1-AC-S J7J230261-1-MS 10/22/2007 15:21		2.5222 AmtRec: JAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
3 J9MQF-1-AD-X J7J230261-1-DUP 10/22/2007 15:21		2.6566 AmtRec: JAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
4 J9MQF-1-AE-S J7J230261-1-MS 10/22/2007 15:21		2.6033 10.1mg AmtRec: JAR60MLG	#Containers: 1					Scr:	Alpha:	Beta:
5 J9QK9-1-AA J7J240306-1-SAMP 10/23/2007 09:30		2.5902 AmtRec: 60ML	#Containers: 1					Scr:	Alpha:	Beta:
6 J9QXD-1-AA-B J7J240000-594-BLK 10/22/2007 15:21		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
7 J9QXD-1-AC-C J7J240000-594-LCS 10/22/2007 15:21		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

TA Richland Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7
Richland Wa. pd - Prep Dt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added ICOC v4.8.29

TESTAMERICA RICHLAND

10/26/2007 9:12:43 AM

Sample Preparation/Analysis

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)
5I CLIENT: HANFORD

Balance Id:
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech:

AnalyDueDate: 11/12/2007

Batch: 7297594 mg/kg
SEQ Batch, Test: None

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

Comments:

All Clients for Batch:
108302, Fluor Hanford Inc Flour Hanford Inc , SA , 50639

J9MQF1AA-SAMP Constituent List:
HEXCHROME RDL:0.35 mg/kg LCL:80 UCL:120 RPD:20
J9MQF1AC-MS Constituent List:
HEXCHROME RDL:0.35 mg/kg LCL:75 UCL:125 RPD:20
J9MQF1AE-MS:
HEXCHROME RDL:0.35 mg/kg LCL:75 UCL:125 RPD:20
J9QXD1AA-BLK:
HEXCHROME RDL:0.35 mg/kg LCL: UCL: RPD:
J9QXD1AC-LCS:
HEXCHROME RDL:0.35 mg/kg LCL:80 UCL:120 RPD:20

J9MQF1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
J9MQF1AC-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
J9MQF1AE-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
J9QXD1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
J9QXD1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

Approved By _____ Date: _____