

0074239

SAF-RC-076
100-D/DR Burial Grounds & Remaining
Sites – Aqueous Liquid Quick Turn
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Jeanette Duncan H4-21

KW 10/23/07
INITIAL/DATE

COMMENTS:

RECEIVED
OCT 29 2007

EDMC

SDG J00142

SAF-RC-076

Rad only

Chem only

Rad & Chem

Complete

Partial

Waste Site: 118-D-3, water from adjacent pipe

Analytical Data Package Prepared For
Washington Closure Hanford



Radiochemical Analysis By

TAL Richland

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

Assigned Laboratory Code: STLRL

Data Package Contains 19 Pages

Report No.: 37084

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
J00142	RC-076	J15PP1	J7J080183-1	J8GPL1AA	9J8GPL10	7281462

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

October 22, 2007

Attention: Joan Kessner

SAF Number	:	RC-076
Date SDG Closed	:	October 8, 2007
Number of Samples	:	One (1)
Sample Type	:	Water
SDG Number	:	J00142
Data Deliverable	:	15 Day / Summary

CASE NARRATIVE

I. Introduction

On October 8, 2007 one water sample was received at STL Richland (STLR) for chemistry analysis. Upon receipt, the sample was assigned the following laboratory ID number to correspond with the Washington Closure Hanford (WCH) specific ID:

<u>WCH ID#</u>	<u>STLR ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
J15PP1	J8GPL	WATER	10/08/07

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

Washington Closure Hanford
October 22, 2007

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

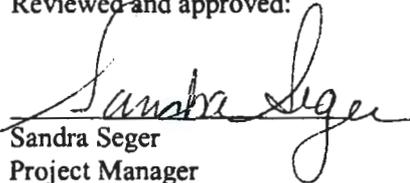
Chemical Analysis

Hexavalent Chromium by EPA method 7196A:

Preliminary results were reported on Thursday Oct 18, 2007. The LCS, batch blank, sample, sample duplicate (J15PP1), sample matrix spike (J15PP1) and sample matrix spike duplicate (J15PP1) 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

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, $R = \text{constants} * f(x,y,z,\dots)$. 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/\sqrt{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) <i>u_c - Combined Uncertainty.</i>	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, <i>u_c the combined uncertainty.</i> 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%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt} / \text{BkgndCntMin}) / \text{SCntMin})) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$. 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%. $MDC = (4.65 * \text{Sqrt}((\text{BkgndCnt} / \text{BkgndCntMin}) / \text{SCntMin}) + 2.71 / \text{SCntMin}) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$. 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 = $(S-D) / [\text{sqrt}(\text{TPUs}^2 + \text{TPUd}^2)]$ 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
TAL Richland STLRL
 Ordered by Method, Batch No., Client Sample ID.

Date: 22-Oct-07

Report No. : 37084

SDG No: J00142

Batch	Client Id Work Order	Parameter	Result +/- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
7281462	7196_CR6								
	J15PP1								
	J8GPL1AA	HEXCHROME	2.00E-03 +- 0.00E+00	U	mg/L	N/A	2.00E-03	2.00E-03	
	J15PP1 DUP								
	J8GPL1AE	HEXCHROME	2.00E-03 +- 0.00E+00	U	mg/L	N/A	2.00E-03	2.00E-03	0.0
No. of Results:		2							

TAL Richland RPD - Relative Percent Difference.
 rptSTLRchSaSummary2 V5.1.4 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.
 A2002

QC Results Summary
TAL Richland STLRL
 Ordered by Method, Batch No, QC Type..

Date: 22-Oct-07

Report No. : 37084

SDG No.: J00142

Batch	Work Order	Parameter	Result +/- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC MDA	
7196_CR6										
7281462	MATRIX SPIKE, J15PP1 MS	J8GPL1AC	HEXCHROME	2.79E-01 +/- 0.00E+00		mg/L	N/A	106%	0.1	2.00E-03
7281462	MATRIX SPIKE, J15PP1 MSD	J8GPL1AD	HEXCHROME	2.78E-01 +/- 0.00E+00		mg/L	N/A	106%	0.1	2.00E-03
7281462	LCS,	J8GVT1AC	HEXCHROME	5.14E-01 +/- 0.00E+00		mg/L	N/A	103%	0.0	2.00E-03
7281462	BLANK QC,	J8GVT1AA	HEXCHROME	2.00E-03 +/- 0.00E+00	U	mg/L	N/A			2.00E-03
No. of Results: 4										

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

rptSTLRchQcSummary V5.1.4 A2002 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

Date: 22-Oct-07

SAMPLE RESULTS

Lab Name: TA Richland

SDG: J00142

Collection Date: 10/8/2007 9:51:00 AM

Lot-Sample No.: J7J080183-1

Report No.: 37084

Received Date: 10/8/2007 2:05:00 PM

Client Sample ID: J15PP1

COC No.: RC-076-024

Matrix: WATER

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/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 7281462	7196_CR6				Work Order: J8GPL1AA		Report DB ID: 9J8GPL10					
HEXCHROME	2.00E-03	U		0.0E+00	2.00E-03	mg/L	N/A	1.	10/8/07		50.0	
							2.00E-03	N/A			ML	

No. of Results: 1

Comments:

FORM II

Date: 22-Oct-07

DUPLICATE RESULTS

Lab Name: TA Richland

SDG: J00142

Collection Date: 10/8/2007 9:51:00 AM

Lot-Sample No.: J7J080183-1

Report No.: 37084

Received Date: 10/8/2007 2:05:00 PM

Client Sample ID: J15PP1 DUP

COC No.: RC-076-024

Matrix: WATER

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: 7281462	7196_CR6				Work Order: J8GPL1AE	Report DB ID: J8GPL1ER			Orig Sa DB ID: 9J8GPL10			
HEXCHROME	2.00E-03	U		0.0E+00	2.00E-03	mg/L	N/A	1.	10/8/07		50.0	
	2.00E-03	U		RPD 0.0		2.00E-03		N/A			ML	

No. of Results: 1 Comments:

TAL Richland RPD - Relative Percent Difference.

rptSTLRchDupV5.1 MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

.4 A2002 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
BLANK RESULTS

Date: 22-Oct-07

Lab Name: TA Richland

SDG: J00142

Matrix: WATER

Report No. : 37084

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: 7281462	7196_CR6				Work Order: J8GVT1AA			Report DB ID: J8GVT1AB				
HEXCHROME	2.00E-03	U		0.0E+00	2.00E-03	mg/L	N/A	1.	10/8/07		100.0	
						2.00E-03		N/A			ML	

No. of Results: 1

Comments:

FORM II
LCS RESULTS

Date: 22-Oct-07

Lab Name: TA Richland

SDG: J00142

Matrix: WATER

Report No. : 37084

Parameter	Result	Count Qual 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: 7281462	7196_CR6				Work Order: J8GVT1AC		Report DB ID: J8GVT1AS					
HEXCHROME	5.14E-01		0.0E+00	2.00E-03	mg/L	N/A	5.00E-01		103%	10/8/07	100.0	
						Rec Limits:	85	115	0.0		ML	

No. of Results: 1

Comments:

FORM II

Date: 22-Oct-07

MATRIX SPIKE RESULTS

Lab Name: TA Richland

SDG: J00142

Lot-Sample No.: J7J080183-1, J15PP1 MS

Report No.: 37084

Matrix: WATER

Parameter	SpikeResult, Orig Rst	Count Qual 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: 7281462 HEXCHROME	Work Order: J8GPL1AC 2.79E-01 2.00E-03	Report DB ID: J8GPL1CW	J8GPL1CW	0.0E+00	2.00E-03	mg/L	N/A	106.08%	2.63E-01	10/8/07	50.0 ML	7196_CR6
Batch: 7281462 HEXCHROME	Work Order: J8GPL1AD 2.78E-01 2.00E-03	Report DB ID: J8GPL1DW	J8GPL1DW	0.0E+00	2.00E-03	mg/L	N/A	105.70%	2.63E-01	10/8/07	50.0 ML	7196_CR6

Number of Results: 2

Comments:

FORM II

Date: 22-Oct-07

MATRIX SPIKE DUPLICATE RESULTS

Lab Name: TA Richland

SDG: J00142

Lot-Sample No.: J7J080183-1, J15PP1 MS

Report No.: 37084

Matrix: WATER

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	Primary Detector
Batch: 7281462	7196_CR6			Work Order: J8GPL1AC		Report DB ID: J8GPL1CW		Orig Sa DB ID: J8GPL1DW					
HEXCHROME	2.79E-01			0.0E+00	2.00E-03	mg/L	N/A	106.08%	2.63E-01		10/8/07	50.0	
	2.78E-01	RPD	0.4									ML	
Batch: 7281462	7196_CR6			Work Order: J8GPL1AD		Report DB ID: J8GPL1DW		Orig Sa DB ID: J8GPL1CW					
HEXCHROME	2.78E-01			0.0E+00	2.00E-03	mg/L	N/A	105.70%	2.63E-01		10/8/07	50.0	
	2.79E-01	RPD	0.4									ML	
No. of Results: 2	Comments:												



STL

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): 7281462				
Lab Sample Numbers or <u>J00142</u>				
Method/Test/Parameter: Cr+6 in Water / RICH-WC-5003				
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: _____

Steve E. [Signature]

Date: 10/8/2007

Second-Level Review: _____

[Signature]

Date: 10/22/07

J7J080183

J00142

due 10-22-07 ³⁵⁸⁵¹⁰¹⁹¹⁰⁷

J8G PL

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-076-024		Page 1 of 1	
Collector D.W. Shea-Subcontractor sampler		Company Contact D.W. Shea		Telephone No. 521-6014		Project Coordinator KESSNER, JH		Price Code	
Project Designation 100-D/DR Burial Grounds&Remaining Sites - Aqueous Liqu		Sampling Location 118-D-3, water from adjacent pipe		SAF No. RC-076				Data Turnaround 15 days	
Ice Chest No.		Field Logbook No. EL-1607-2		COA R118D32600		Method of Shipment company vehicle			
Shipped To Severn Trent Incorporated, Richland		Offsite Property No. NA		Bill of Lading/Air Bill No.					
POSSIBLE SAMPLE HAZARDS/REMARKS Potentially radioactive DWShea 10/8/07		Preservation		Cool 4C					
Special Handling and/or Storage		Type of Container		GP					
		No. of Container(s)		1					
		Volume		250mL					
SAMPLE ANALYSIS		Chromium Hex - 7196							
Sample No.	Matrix *	Sample Date	Sample Time						
J15PP1	WATER	10/8/07	0951	✓					
CHAIN OF POSSESSION		Sign/Print Names				SPECIAL INSTRUCTIONS			
Relinquished By Removed From DWShea (SEC) 10/8/07 0955		Received By Stored In DWShea DWShea 10/8/07 0955							
Relinquished By Removed From DWShea DWShea 10/8/07 1405		Received By Stored In R. H. W. T. AL-R 10-8-07							
Relinquished By Removed From		Received By Stored In							
Relinquished By Removed From		Received By Stored In							
Relinquished By Removed From		Received By Stored In							
Relinquished By Removed From		Received By Stored In							
LABORATORY SECTION	Received By	Title				Date Time			
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By				Date Time			

- Matrix *
- S Soil
 - Sl Sediment
 - SO Solid
 - Sl Sludge
 - W Water
 - O Oil
 - A Air
 - DS Drum Solids
 - DL Drum Liquids
 - F Fines
 - WI Waste
 - L Liquid
 - V Vegetation
 - X Other



Sample Check-in List

DUE 11-22-07

Date/Time Received: 10-8-07 1405

Client: WCH SDG #: J00142 NA [] SAF #: RC-076 NA []

Work Order Number: J7J080183 Chain of Custody # _____

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: 1-500g
- 7. Sample holding times exceeded? NA Yes [] No []
- 8. Samples have:
 - Tape
 - Custody Seals
 - _____ Hazard Labels
 - _____ Appropriate Sample Labels
- 9. Samples are:
 - In Good Condition
 - _____ Broken
 - _____ Leaking
 - _____ Have Air Bubbles
 - (Only for samples requiring no head space.)
- 10. Sample pH taken? 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: 10-8-07

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager _____ Date _____

TEST AMERICA RICHLAND

10/8/2007 4:22:51 PM

Sample Preparation/Analysis

Balance Id:

127642, Washington Closure Hanford
Bechtel Hanford, Inc.

**88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
EA Chromium, Hexavalent (7196A)**

Pipet #:

AnalyDueDate: 10/22/2007

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 7281462 WATER mg/L
SEQ Batch, Test: None All Tests: 7281462 88EA.

PM, Quote: SS , 27023

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:
1 J8GPL-1-AA J7J080183-1-SAMP [REDACTED]								
10/08/2007 09:51		AmtRec: 500G	#Containers: 1			Scr:	Alpha:	Beta:
2 J8GPL-1-AC-S J7J080183-1-MS [REDACTED]								
10/08/2007 09:51		AmtRec: 500G	#Containers: 1			Scr:	Alpha:	Beta:
3 J8GPL-1-AD-D J7J080183-1-MSD [REDACTED]								
10/08/2007 09:51		AmtRec: 500G	#Containers: 1			Scr:	Alpha:	Beta:
4 J8GPL-1-AE-X J7J080183-1-DUP [REDACTED]								
10/08/2007 09:51		AmtRec: 500G	#Containers: 1			Scr:	Alpha:	Beta:
5 J8GVT-1-AA-B J7J080000-462-BLK [REDACTED]								
10/08/2007 09:51		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 J8GVT-1-AC-C J7J080000-462-LCS [REDACTED]								
10/08/2007 09:51		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

TEST AMERICA RICHLAND

10/8/2007 4:22:53 PM

Sample Preparation/Analysis

Balance Id:

88 NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION
 EA Chromium, Hexavalent (7196A)
 5I CLIENT: HANFORD

Pipet #:

AnalyDueDate: 10/22/2007

Sep1 DT/Tm Tech:

Batch: 7281462
 SEQ Batch, Test: None

mg/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:
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Comments:

All Clients for Batch:
 127642, Washington Closure Hanford Bechtel Hanford, Inc. , SS , 27023

J8GPL1AA-SAMP Constituent List:						
HEXCHROME	RDL:0.002	mg/L	LCL:85	UCL:115	RPD:20	
J8GPL1AC-MS Constituent List:						
HEXCHROME	RDL:0.002	mg/L	LCL:85	UCL:115	RPD:20	
J8GPL1AD-MSD:						
HEXCHROME	RDL:0.002	mg/L	LCL:85	UCL:115	RPD:20	
J8GVT1AA-BLK:						
HEXCHROME	RDL:0.002	mg/L	LCL:	UCL:	RPD:	
J8GVT1AC-LCS:						
HEXCHROME	RDL:0.002	mg/L	LCL:85	UCL:115	RPD:20	
J8GPL1AA-SAMP Calc Info:						
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
J8GPL1AC-MS Calc Info:						
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
J8GPL1AD-MSD:						
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
J8GVT1AA-BLK:						
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
J8GVT1AC-LCS:						
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	

Approved By _____ Date: _____