0095867

SAF-RC-076
100-D/DR Burial Grounds & Remaining Sites – Water
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 4/15/11
INITIAL/DATE

RECEIVED
APR 21 2011
EDMC

COMMENTS:

SDG JP0140 SAF-RC-076

Rad only Chem only ☑ Rad & Chem

☑ Complete Partial

Waste Site: 100-D-50:6 Pipelines and Catch Basins

Analytical Data Package Prepared For

Washington Closure Hanford

Radiochemical Analysis By

TestAmerica

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

Assigned Laboratory Code: TARL

Data Package Contains 80 ***Pages***

Report No.: 46191

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
JP0140	RC-076	J1FL24	J1C240598-1	MF5X01AG	9MF5X010	1083417
		J1FL24	J1C240598-1	MF5X01AE	9MF5X010	1083454
		J1FL24	J1C240598-1	MF5X01AJ	9MF5X010	1083458
		J1FL24	J1C240598-1	MF5X02AA	9MF5X020	1083459
		J1FL24	J1C240598-1	MF5X01AC	9MF5X010	1083460
		J1FL24	J1C240598-1	MF5X01AF	9MF5X010	1083461
		J1FL24	J1C240598-1	MF5X01AD	9MF5X010	1083463
		J1FL24	J1C240598-1	MF5X01AK	9MF5X010	1083464
		J1FL24	J1C240598-1	MF5X02A2	9MF5X020	1084147

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

TestAmerica Laboratories, Inc.

April 13, 2011

Attention: Joan Kessner

SAF Number	:	RC-076
Date SDG Closed	:	March 24, 2011
Number of Samples	:	One (1)
Sample Type	:	Water
SDG Number	:	JP0140
Data Deliverable	:	7– Day / Summary

CASE NARRATIVE

I. Introduction

On March 24, 2011 one water sample was received at TestAmerica for radiochemical analysis. Upon receipt, the sample was assigned the following laboratory ID number to correspond with the Washington Closure Hanford (WCH) specific ID:

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1FL24	MF5X0	WATER	03/24/11

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.

The requested analyses were:

Gas Proportional Counting
Gross Alpha by method RL-GPC-001
Gross Beta by method RL-GPC-001
Strontium-90 by method RL-GPC-003
Gamma Spectroscopy
Gamma Spec by method RL-GAM-001

Iodine-129 (LL) by method RL-GAM-002
Liquid Scintillation Counting
Technetium-99 by method RL-LSC-013
Tritium by method RL-LSC-005
Carbon-14 by method RL-LSC-008
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

Gas Proportional Counting
Gross Alpha by method RL-GPC-001:
The LCS, batch blank, sample and sample duplicate (J1FL24) results are within contractual requirements.

Gross Beta by method RL-GPC-001 :
The achieved MDA for sample J1FL24 and the sample duplicate (J1FL24 DUP) exceeds the CRDL due to reduced aliquot sizes based on the weight screens. The detected activity exceeds the achieved MDA and CRDL. Except as noted, the LCS, batch blank, sample and sample duplicate (J1FL24) results are within contractual requirements.

Strontium-90 by method RL-GPC-003 :
In the original batch, the samples did not meet CRDL. The samples were recounted for 200 minutes, and then met CRDL. There was a switch in the lab with the blank and LCS; the samples were then switched in radcalc with good results. There was insufficient sample volume for a duplicate. Except as noted the LCS, batch blank and sample results are within contractual requirements.

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001 :
There was insufficient volume for a duplicate. Sample J1FL24 was recounted on a different detector for the duplicate (J1FL24DUP). The CRDL was not met on some analytes due to reduced count time. The count time was reduced to meet the priority turn around time. Curium-244 is not in our gamma library; no result will be reported for Curium-244. Except as noted, the LCS, batch blank, sample and sample duplicate (J1FL24) results are within contractual requirements.

Iodine-129 by method RL-GAM-002 :

There was an obvious sample switch in the batch blank/LCS. They were switched and recalculated for acceptable results. There was insufficient sample volume for a sample duplicate. Except as noted; he LCS, batch blank and sample results are within contractual requirements.

Liquid Scintillation Counting

Technetium-99 by method RL-LSC-013 :

There was insufficient sample volume to prepare a sample matrix spike. Except as noted; the LCS, batch blank, sample and sample duplicate (J1FL24) results are within contractual requirements.

Tritium by method RL-LSC-005 :

The LCS, batch blank, sample and sample duplicate (J1FL24) results are within contractual requirements.

Carbon-14 by method RL-LSC-008 :

There was insufficient sample volume for a sample duplicate. Except as noted the LCS, batch blank, and sample results are within contractual requirements.

Chemical Analysis

Hexavalent Chromium by EPA method 7196A

The LCS, batch blank, sample, sample duplicate (J1FL24) and the sample matrix spike (J1FL24) 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:

Rhonda Wagar
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica 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 TestAmerica.
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 TestAmerica "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 TestAmerica 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: 13-Apr-11

TestAmerica TARL

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

Report No. : 46191

SDG No: JP0140

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1084147 SRTOT_SEP_PRECIP_GPC									
J1FL24									
	MF5X02A2	STRONTIUM	8.64E-01 +- 1.0E+00	U	pCi/L	95%	1.90E+00		
1083454 GAMMA_GS									
J1FL24									
	MF5X01AE	AMERICIUM 241	2.40E+00 +- 6.3E+00	U	pCi/L		9.31E+00		
		CE-144	4.47E+00 +- 1.7E+01	U	pCi/L		2.90E+01		
		CO-60	-2.81E+00 +- 3.7E+00	U	pCi/L		5.99E+00	2.50E+01	
		CS-134	1.42E+00 +- 4.0E+00	U	pCi/L		7.40E+00	1.50E+01	
		CS-137	-1.16E+00 +- 3.8E+00	U	pCi/L		6.48E+00	1.50E+01	
		EU-152	6.78E-01 +- 9.9E+00	U	pCi/L		1.72E+01	5.00E+01	
		EU-154	-2.03E-01 +- 1.1E+01	U	pCi/L		2.05E+01	5.00E+01	
		EU-155	-7.10E+00 +- 7.9E+00	U	pCi/L		1.31E+01	5.00E+01	
		NB-94	2.40E+00 +- 3.5E+00	U	pCi/L		6.62E+00		
		NP-237	-4.99E+00 +- 7.3E+00	U	pCi/L		1.17E+01		
		RA-226	-7.61E+00 +- 1.1E+01	U	pCi/L		1.78E+01		
		RU-106	-2.11E+01 +- 3.3E+01	U	pCi/L		5.43E+01		
		SB-125	-8.42E+00 +- 9.1E+00	U	pCi/L		1.44E+01	5.00E+01	
		ZN-65	-7.68E+00 +- 8.4E+00	U	pCi/L		1.37E+01		
J1FL24 DUP									
	MF5X01AQ	AMERICIUM 241	3.62E+00 +- 7.3E+00	U	pCi/L		1.31E+01		40.3
		CE-144	6.32E+00 +- 1.2E+01	U	pCi/L		2.09E+01		34.4
		CO-60	5.28E-01 +- 3.3E+00	U	pCi/L		6.33E+00	2.50E+01	-292.5
		CS-134	3.12E+00 +- 3.3E+00	U	pCi/L		6.61E+00	1.50E+01	74.8
		CS-137	1.05E-01 +- 3.3E+00	U	pCi/L		5.94E+00	1.50E+01	-239.8
		EU-152	-4.91E-01 +- 7.5E+00	U	pCi/L		1.34E+01	5.00E+01	1244.5
		EU-154	-2.71E+00 +- 9.7E+00	U	pCi/L		1.74E+01	5.00E+01	-172.0
		EU-155	-3.11E+00 +- 5.2E+00	U	pCi/L		8.88E+00	5.00E+01	-78.2
		NB-94	2.66E-01 +- 2.8E+00	U	pCi/L		5.07E+00		160.1
		NP-237	-3.35E+00 +- 6.1E+00	U	pCi/L		1.00E+01		-39.5
		RA-226	8.16E+00 +- 6.6E+00	U	pCi/L		1.27E+01		5795.6
		RU-106	2.08E+01 +- 2.9E+01	U	pCi/L		5.49E+01		-33984.1
		SB-125	-1.85E+00 +- 7.5E+00	U	pCi/L		1.30E+01	5.00E+01	-128.0
		ZN-65	1.59E+00 +- 6.8E+00	U	pCi/L		1.26E+01		-304.0
1083458 I129_SEP_LEPS_GS									
J1FL24									
	MF5X01AJ	I129	5.86E-02 +- 2.3E-01	U	pCi/L	86%	4.18E-01	1.00E+00	
1083459 9310_ALPHABETA_GPC									
J1FL24									

TestAmerica

rptSTLRchSaSummary2 V5.2.12 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

Date: 13-Apr-11

TestAmerica TARL

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

Report No. : 46191

SDG No: JP0140

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1083459 9310_ALPHABETA_GPC									
J1FL24									
	MF5X02AA	ALPHA	4.55E+00 +- 2.4E+00		pCi/L	100%	2.54E+00	3.00E+00	
J1FL24 DUP									
	MF5X02AU	ALPHA	2.85E+00 +- 1.9E+00		pCi/L	100%	2.44E+00	3.00E+00	46.1
1083460 9310_ALPHABETA_GPC									
J1FL24									
	MF5X01AC	BETA	3.85E+01 +- 6.6E+00		pCi/L	100%	4.74E+00	4.00E+00	
J1FL24 DUP									
	MF5X01AV	BETA	3.83E+01 +- 6.3E+00		pCi/L	100%	4.42E+00	4.00E+00	0.6
1083417 7196_CR6									
J1FL24									
	MF5X01AG	HEXCHROME	2.00E-03 +- 0.0E+00	U	mg/L	N/A	2.00E-03	3.50E-01	
	MF5X01AP	HEXCHROME	2.00E-03 +- 0.0E+00	U	mg/L	N/A	2.00E-03	3.50E-01	0.0
1083461 TC99_SEP_LSC									
J1FL24									
	MF5X01AF	TC-99	5.90E+00 +- 6.3E+00	U	pCi/L	100%	1.01E+01	1.50E+01	
J1FL24 DUP									
	MF5X01AX	TC-99	-1.19E+00 +- 5.8E+00	U	pCi/L	100%	9.79E+00	1.50E+01	301.1
1083463 906.0_H3_LSC									
J1FL24									
	MF5X01AD	H-3	2.77E+02 +- 1.7E+02	U	pCi/L	100%	3.40E+02	4.00E+02	
J1FL24 DUP									
	MF5X01A0	H-3	2.20E+02 +- 1.6E+02	U	pCi/L	100%	3.35E+02	4.00E+02	23.0
1083464 C14_LSC									
J1FL24									
	MF5X01AK	C-14	2.65E+00 +- 5.3E+00	U	pCi/L	100%	1.11E+01	2.00E+02	

No. of Results: 41

TestAmerica

rptSTLRchSaSummary2 V5.2.12
A2002

RPD - Relative Percent Difference.

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

QC Results Summary

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Date: 13-Apr-11

Report No. : 46191

SDG No.: JP0140

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
SRTOT_SEP_PRECIP_GPC								
1084147 BLANK QC,								
MF6VG2AA	STRONTIUM	6.89E-02 +- 5.7E-01	U	pCi/L	96%			1.15E+00
1084147 LCS,								
MF6VG2AC	STRONTIUM	6.37E+01 +- 1.7E+01		pCi/L	96%	93%	-0.1	1.20E+00
GAMMA_GS								
1083454 BLANK QC,								
MF58K1AA	AMERICIUM 241	-7.59E-01 +- 2.3E+00	U	pCi/L				3.93E+00
	CE-144	-4.70E+00 +- 8.2E+00	U	pCi/L				1.36E+01
	CO-60	9.17E-01 +- 1.8E+00	U	pCi/L				3.62E+00
	CS-134	1.90E+00 +- 2.3E+00	U	pCi/L				4.33E+00
	CS-137	-1.28E+00 +- 2.1E+00	U	pCi/L				3.38E+00
	EU-152	2.00E+00 +- 5.3E+00	U	pCi/L				9.35E+00
	EU-154	1.61E+00 +- 5.9E+00	U	pCi/L				1.12E+01
	EU-155	-7.04E-01 +- 3.6E+00	U	pCi/L				6.09E+00
	NB-94	1.24E+00 +- 2.1E+00	U	pCi/L				3.89E+00
	NP-237	-2.31E+00 +- 3.8E+00	U	pCi/L				6.21E+00
	RA-226	-1.67E+00 +- 5.5E+00	U	pCi/L				9.03E+00
	RU-106	-1.35E+01 +- 1.8E+01	U	pCi/L				2.92E+01
	SB-125	-1.31E+00 +- 4.7E+00	U	pCi/L				8.11E+00
	ZN-65	-9.69E+00 +- 5.2E+00	U	pCi/L				7.26E+00
1083454 LCS,								
MF58K1AC	CO-60	3.38E+01 +- 6.9E+00		pCi/L		92%	-0.1	3.55E+00
	CS-137	4.57E+01 +- 8.1E+00		pCi/L		93%	-0.1	3.46E+00
	EU-152	6.83E+01 +- 1.6E+01		pCi/L		91%	-0.1	8.63E+00
I129_SEP_LEPS_GS								
1083458 BLANK QC,								
MF58P1AA	I129	7.02E-02 +- 2.1E-01	U	pCi/L	95%			3.82E-01
1083458 LCS,								
MF58P1AC	I129	2.23E+01 +- 2.5E+00		pCi/L	94%			4.70E-01
9310_ALPHABETA_GPC								
1083459 BLANK QC,								
MF58R2AA	ALPHA	2.08E-01 +- 2.8E-01	U	pCi/L	100%			4.83E-01
1083459 LCS,								
MF58R2AC	ALPHA	1.68E+01 +- 3.9E+00		pCi/L	100%	75%	-0.3	5.46E-01
9310_ALPHABETA_GPC								
1083460 BLANK QC,								
MF58T1AA	BETA	7.41E-01 +- 1.4E+00	U	pCi/L	100%			2.92E+00
1083460 LCS,								
MF58T1AC	BETA	2.22E+01 +- 3.9E+00		pCi/L	100%	100%	0.0	2.65E+00
7196_CR6								
1083417 MATRIX SPIKE, J1FL24								

TestAmerica **Bias** - (Result/Expected)-1 as defined by ANSI N13.30.

rptSTLRchQcSummary V5.2.12 A2002

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

QC Results Summary

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Date: 13-Apr-11

Report No. : 46191

SDG No.: JP0140

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
MF5X01AM	HEXCHROME	4.91E-01 +- 0.0E+00		mg/L	N/A	93%	-0.1	2.00E-03
MF5X01AN	HEXCHROME	5.05E-01 +- 0.0E+00		mg/L	N/A	96%	0.0	2.00E-03
1083417 LCS,								
MF5121AC	HEXCHROME	5.20E-01 +- 0.0E+00		mg/L	N/A	104%	0.0	2.00E-03
1083417 BLANK QC,								
MF5121AA	HEXCHROME	2.00E-03 +- 0.0E+00	U	mg/L	N/A			2.00E-03
TC99_SEP_LSC								
1083461 BLANK QC,								
MF58W1AA	TC-99	-2.91E+00 +- 5.6E+00	U	pCi/L	100%			9.70E+00
1083461 LCS,								
MF58W1AC	TC-99	4.75E+02 +- 3.7E+01		pCi/L	100%	88%	-0.1	1.00E+01
906.0_H3_LSC								
1083463 BLANK QC,								
MF59A1AA	H-3	1.93E+02 +- 1.6E+02	U	pCi/L	100%			3.42E+02
MF59A1AD	H-3	1.62E+02 +- 1.6E+02	U	pCi/L	100%			3.43E+02
1083463 LCS,								
MF59A1AE	H-3	2.89E+03 +- 2.5E+02		pCi/L	100%	107%	0.1	3.39E+02
MF59A1AC	H-3	2.93E+03 +- 2.6E+02		pCi/L	100%	109%	0.1	3.43E+02
C14_LSC								
1083464 BLANK QC,								
MF59D1AA	C-14	3.57E+00 +- 5.4E+00	U	pCi/L	100%			1.11E+01
1083464 LCS,								
MF59D1AC	C-14	7.66E+03 +- 5.4E+02		pCi/L	100%	101%	0.0	4.45E+02

No. of Results: 37

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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/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 13-Apr-11

Lab Name:	TestAmerica	**SDG:**	JP0140	**Collection Date:**	3/24/2011 9:15:00 AM
Lot-Sample No.:	J1C240598-1	**Report No. :**	46191	**Received Date:**	3/24/2011 12:00:00 PM
Client Sample ID:	J1FL24	**COC No. :**	RC-076-036	**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/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1083417	7196_CR6			**Work Order:**	MF5X01AG		**Report DB ID:**	9MF5X010				
HEXCHROME	***2.00E-03***	U		0.0E+00	2.00E-03	mg/L	N/A	*1.*	3/24/11 01:00 p		100.0	
							3.50E-01	*N/A*			ML	
Batch: 1083454	GAMMA_GS			**Work Order:**	MF5X01AE		**Report DB ID:**	9MF5X010				
AMERICIUM 241	***2.40E+00***	U	6.3E+00	6.3E+00	9.31E+00	pCi/L		*0.26*	3/29/11 12:59 a		1.0375	GER5$1
								0.76			L	
CE-144	***4.47E+00***	U	1.7E+01	1.7E+01	2.90E+01	pCi/L		*0.15*	3/29/11 12:59 a		1.0375	GER5$1
								0.53			L	
CO-60	***-2.81E+00***	U	3.7E+00	3.7E+00	5.99E+00	pCi/L		*-0.47*	3/29/11 12:59 a		1.0375	GER5$1
							2.50E+01	*-(1.5)*			L	
CS-134	***1.42E+00***	U	4.0E+00	4.0E+00	7.40E+00	pCi/L		*0.19*	3/29/11 12:59 a		1.0375	GER5$1
							1.50E+01	*0.71*			L	
CS-137	***-1.16E+00***	U	3.8E+00	3.8E+00	6.48E+00	pCi/L		*-0.18*	3/29/11 12:59 a		1.0375	GER5$1
							1.50E+01	*-0.61*			L	
EU-152	***6.78E-01***	U	9.9E+00	9.9E+00	1.72E+01	pCi/L		*0.04*	3/29/11 12:59 a		1.0375	GER5$1
							5.00E+01	*0.14*			L	
EU-154	***-2.03E-01***	U	1.1E+01	1.1E+01	2.05E+01	pCi/L		*-0.01*	3/29/11 12:59 a		1.0375	GER5$1
							5.00E+01	*-0.04*			L	
EU-155	***-7.10E+00***	U	7.9E+00	7.9E+00	1.31E+01	pCi/L		*-0.54*	3/29/11 12:59 a		1.0375	GER5$1
							5.00E+01	*-(1.8)*			L	
NB-94	***2.40E+00***	U	3.5E+00	3.5E+00	6.62E+00	pCi/L		*0.36*	3/29/11 12:59 a		1.0375	GER5$1
								(1.4)			L	

TestAmerica
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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/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 13-Apr-11

Lab Name:	TestAmerica	**SDG:**	JP0140	**Collection Date:**	3/24/2011 9:15:00 AM
Lot-Sample No.:	J1C240598-1	**Report No. :**	46191	**Received Date:**	3/24/2011 12:00:00 PM
Client Sample ID:	J1FL24	**COC No. :**	RC-076-036	**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/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
NP-237	***-4.99E+00***	U	7.3E+00	7.3E+00	1.17E+01	pCi/L		*-0.43*	3/29/11 12:59 a		1.0375	GER5$1
						5.87E+00		*-(1.4)*			L	
RA-226	***-7.61E+00***	U	1.1E+01	1.1E+01	1.78E+01	pCi/L		*-0.43*	3/29/11 12:59 a		1.0375	GER5$1
								-(1.4)			L	
RU-106	***-2.11E+01***	U	3.3E+01	3.3E+01	5.43E+01	pCi/L		*-0.39*	3/29/11 12:59 a		1.0375	GER5$1
								-(1.3)			L	
SB-125	***-8.42E+00***	U	9.1E+00	9.1E+00	1.44E+01	pCi/L		*-0.58*	3/29/11 12:59 a		1.0375	GER5$1
							5.00E+01	*-(1.9)*			L	
ZN-65	***-7.68E+00***	U	8.4E+00	8.4E+00	1.37E+01	pCi/L		*-0.56*	3/29/11 12:59 a		1.0375	GER5$1
								-(1.8)			L	
Batch: 1083458	I129_SEP_LEPS_GS			**Work Order:**	MF5X01AJ		**Report DB ID:**	9MF5X010				
I129	***5.86E-02***	U	2.3E-01	2.3E-01	4.18E-01	pCi/L	86%	*0.14*	3/31/11 02:07 p		2.0545	LEP4$1
						1.81E-01	1.00E+00	*0.5*			L	
Batch: 1083459	9310_ALPHABETA_GPC			**Work Order:**	MF5X02AA		**Report DB ID:**	9MF5X020				
ALPHA	***4.55E+00***		2.2E+00	2.4E+00	2.54E+00	pCi/L	100%	*(1.8)*	4/1/11 11:55 p		0.0791	GPC10D
						9.98E-01	3.00E+00	*(3.8)*			L	
Batch: 1083460	9310_ALPHABETA_GPC			**Work Order:**	MF5X01AC		**Report DB ID:**	9MF5X010				
BETA	***3.85E+01***		4.2E+00	6.6E+00	4.74E+00	pCi/L	100%	*(8.1)*	3/30/11 07:07 p		0.1322	GPC32A
						2.25E+00	4.00E+00	*(11.7)*			L	
Batch: 1083461	TC99_SEP_LSC			**Work Order:**	MF5X01AF		**Report DB ID:**	9MF5X010				

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/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 13-Apr-11

Lab Name:	TestAmerica	**SDG:**	JP0140	**Collection Date:**	3/24/2011 9:15:00 AM
Lot-Sample No.:	J1C240598-1	**Report No. :**	46191	**Received Date:**	3/24/2011 12:00:00 PM
Client Sample ID:	J1FL24	**COC No. :**	RC-076-036	**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/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
TC-99	***5.90E+00***	U	4.3E+00	6.3E+00	1.01E+01	pCi/L	100%	*0.58*	3/31/11 07:24 p		0.1259	LSC6
						4.84E+00	1.50E+01	*(1.9)*			L	
Batch: 1083463	906.0_H3_LSC			**Work Order:**	MF5X01AD		**Report DB ID:**	9MF5X010				
H-3	***2.77E+02***	U	1.5E+02	1.7E+02	3.40E+02	pCi/L	100%	*0.81*	4/3/11 10:00 a		0.00502	LSC8
						1.62E+02	4.00E+02	*(3.4)*			L	
Batch: 1083464	C14_LSC			**Work Order:**	MF5X01AK		**Report DB ID:**	9MF5X010				
C-14	***2.65E+00***	U	4.6E+00	5.3E+00	1.11E+01	pCi/L	100%	*0.24*	4/3/11 05:06 a		0.2	LSC3
						5.23E+00	2.00E+02	*0.99*			L	
Batch: 1084147	SRTOT_SEP_PRECIP_GPC			**Work Order:**	MF5X02A2		**Report DB ID:**	9MF5X020				
STRONTIUM	***8.64E-01***	U	9.8E-01	1.0E+00	1.90E+00	pCi/L	95%	*0.46*	4/6/11 05:41 p		0.1298	GPC26B
						9.15E-01		*(1.7)*			L	

No. of Results: 22 **Comments:**

TestAmerica
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V5.2.12 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/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

Date: 13-Apr-11

DUPLICATE RESULTS

Lab Name:	**TestAmerica**	**SDG:**	JP0140	**Collection Date:**	3/24/2011 9:15:00 AM
Lot-Sample No.:	**J1C240598-1**	**Report No. :**	46191	**Received Date:**	3/24/2011 12:00:00 PM
Client Sample ID:	**J1FL24**	**COC No. :**	RC-076-036	**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: 1083417	7196_CR6			**Work Order:** MF5X01AP		**Report DB ID:** MF5X01ER			**Orig Sa DB ID:** 9MF5X010			
HEXCHROME	2.00E-03	U		0.0E+00	2.00E-03	mg/L	N/A	1.	3/24/11 01:00 p		100.0	
	2.00E-03	U	**RPD**	**0.0**		3.50E-01		N/A			ML	

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

TestAmerica
rptSTLRchDupV5.2 .12 A2002

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/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

Date: 13-Apr-11

DUPLICATE RESULTS

Lab Name:	**TestAmerica**	**SDG:**	JP0140	**Collection Date:**	3/24/2011 9:15:00 AM
Lot-Sample No.:	**J1C240598-1**	**Report No. :**	46191	**Received Date:**	3/24/2011 12:00:00 PM
Client Sample ID:	**J1FL24 DUP**	**COC No. :**	RC-076-036	**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: 1083454	GAMMA_GS			**Work Order:** MF5X01AQ		**Report DB ID:** MF5X01QR			**Orig Sa DB ID:** 9MF5X010			
AMERICIUM 241	3.62E+00	U	7.3E+00	7.3E+00	1.31E+01	pCi/L		0.28	3/29/11 04:22 a		1.0375	GER7$1
	2.40E+00	U	**RPD**	**40.3**				0.99			L	
CE-144	6.32E+00	U	1.2E+01	1.2E+01	2.09E+01	pCi/L		0.3	3/29/11 04:22 a		1.0375	GER7$1
	4.47E+00	U	**RPD**	**34.4**				(1.1)			L	
CO-60	5.28E-01	U	3.3E+00	3.3E+00	6.33E+00	pCi/L		0.08	3/29/11 04:22 a		1.0375	GER7$1
	-2.81E+00	U	**RPD**	**-292.5**		2.50E+01		0.32			L	
CS-134	3.12E+00	U	3.3E+00	3.3E+00	6.61E+00	pCi/L		0.47	3/29/11 04:22 a		1.0375	GER7$1
	1.42E+00	U	**RPD**	**74.8**		1.50E+01		(1.9)			L	
CS-137	1.05E-01	U	3.3E+00	3.3E+00	5.94E+00	pCi/L		0.02	3/29/11 04:22 a		1.0375	GER7$1
	-1.16E+00	U	**RPD**	**-239.8**		1.50E+01		0.06			L	
EU-152	-4.91E-01	U	7.5E+00	7.5E+00	1.34E+01	pCi/L		-0.04	3/29/11 04:22 a		1.0375	GER7$1
	6.78E-01	U	**RPD**	**1244.5**		5.00E+01		-0.13			L	
EU-154	-2.71E+00	U	9.7E+00	9.7E+00	1.74E+01	pCi/L		-0.16	3/29/11 04:22 a		1.0375	GER7$1
	-2.03E-01	U	**RPD**	**-172.0**		5.00E+01		-0.56			L	
EU-155	-3.11E+00	U	5.2E+00	5.2E+00	8.88E+00	pCi/L		-0.35	3/29/11 04:22 a		1.0375	GER7$1
	-7.10E+00	U	**RPD**	**-78.2**		5.00E+01		-(1.2)			L	
NB-94	2.66E-01	U	2.8E+00	2.8E+00	5.07E+00	pCi/L		0.05	3/29/11 04:22 a		1.0375	GER7$1
	2.40E+00	U	**RPD**	**160.1**				0.19			L	
NP-237	-3.35E+00	U	6.1E+00	6.1E+00	1.00E+01	pCi/L		-0.33	3/29/11 04:22 a		1.0375	GER7$1
	-4.99E+00	U	**RPD**	**-39.5**				-(1.1)			L	
RA-226	8.16E+00	U	6.6E+00	6.6E+00	1.27E+01	pCi/L		0.64	3/29/11 04:22 a		1.0375	GER7$1
	-7.61E+00	U	**RPD**	**5795.6**				(2.5)			L	

TestAmerica **RPD** - Relative Percent Difference.

rptSTLRchDupV5.2 .12 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/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

Date: 13-Apr-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	JP0140	**Collection Date:**	3/24/2011 9:15:00 AM
Lot-Sample No.:	J1C240598-1	**Report No. :**	46191	**Received Date:**	3/24/2011 12:00:00 PM
Client Sample ID:	J1FL24 DUP	**COC No. :**	RC-076-036	**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
RU-106	2.08E+01	U	2.9E+01	2.9E+01	5.49E+01	pCi/L		0.38	3/29/11 04:22 a		1.0375	GER7$1
	-2.11E+01	U	**RPD**	**-33984.1**				(1.4)			L	
SB-125	-1.85E+00	U	7.5E+00	7.5E+00	1.30E+01	pCi/L		-0.14	3/29/11 04:22 a		1.0375	GER7$1
	-8.42E+00	U	**RPD**	**-128.0**		5.00E+01		-0.49			L	
ZN-65	1.59E+00	U	6.8E+00	6.8E+00	1.26E+01	pCi/L		0.13	3/29/11 04:22 a		1.0375	GER7$1
	-7.68E+00	U	**RPD**	**-304.0**				0.47			L	
Batch: 1083459	9310_ALPHABETA_GPC			**Work Order:** MF5X02AU		**Report DB ID:** MF5X02UR			**Orig Sa DB ID:** 9MF5X020			
ALPHA	2.85E+00		1.8E+00	1.9E+00	2.44E+00	pCi/L	100%	(1.2)	4/1/11 11:55 p		0.08	GPC10C
	4.55E+00		**RPD**	**46.1**		3.00E+00		(3.)			L	
Batch: 1083460	9310_ALPHABETA_GPC			**Work Order:** MF5X01AV		**Report DB ID:** MF5X01VR			**Orig Sa DB ID:** 9MF5X010			
BETA	3.83E+01		4.1E+00	6.3E+00	4.42E+00	pCi/L	100%	(8.7)	3/30/11 07:07 p		0.1355	GPC32B
	3.85E+01		**RPD**	**0.6**		4.00E+00		(12.2)			L	
Batch: 1083461	TC99_SEP_LSC			**Work Order:** MF5X01AX		**Report DB ID:** MF5X01XR			**Orig Sa DB ID:** 9MF5X010			
TC-99	-1.19E+00	U	4.0E+00	5.8E+00	9.79E+00	pCi/L	100%	-0.12	3/31/11 08:27 p		0.1256	LSC6
	5.90E+00	U	**RPD**	**301.1**		1.50E+01		-0.41			L	
Batch: 1083463	906.0_H3_LSC			**Work Order:** MF5X01A0		**Report DB ID:** MF5X010R			**Orig Sa DB ID:** 9MF5X010			
H-3	2.20E+02	U	1.5E+02	1.6E+02	3.35E+02	pCi/L	100%	0.66	4/3/11 11:22 a		0.00503	LSC8
	2.77E+02	U	**RPD**	**23.0**		4.00E+02		(2.7)			L	

TestAmerica **RPD** - Relative Percent Difference.

rptSTLRchDupV5.2 .12 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/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

Date: 13-Apr-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	JP0140	**Collection Date:**	3/24/2011 9:15:00 AM
Lot-Sample No.:	J1C240598-1	**Report No. :**	46191	**Received Date:**	3/24/2011 12:00:00 PM
Client Sample ID:	J1FL24 DUP	**COC No. :**	RC-076-036	**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

No. of Results: 18 Comments:

TestAmerica RPD - Relative Percent Difference.

rptSTLRchDupV5.2 .12 A2002 MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

FORM II

BLANK RESULTS

Date: 13-Apr-11

Lab Name: TestAmerica

Matrix: WATER

SDG: JP0140

Report No. : 46191

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: 1083417	7196_CR6			**Work Order:**	MF5121AA		**Report DB ID:**	MF5121AB				
HEXCHROME	2.00E-03	U		0.0E+00	2.00E-03	mg/L	N/A	1.	3/24/11 01:00 p		100.0	
						3.50E-01		N/A			ML	
Batch: 1083464	C14_LSC			**Work Order:**	MF59D1AA		**Report DB ID:**	MF59D1AB				
C-14	3.57E+00	U	4.7E+00	5.4E+00	1.11E+01	pCi/L	100%	0.32	4/3/11 05:29 a		0.2	LSC3
					5.22E+00			(1.3)			L	
Batch: 1083461	TC99_SEP_LSC			**Work Order:**	MF58W1AA		**Report DB ID:**	MF58W1AB				
TC-99	-2.91E+00	U	3.9E+00	5.6E+00	9.70E+00	pCi/L	100%	-0.3	3/31/11 09:29 p		0.1279	LSC6
					4.66E+00	1.50E+01		-(1.)			L	
Batch: 1083463	906.0_H3_LSC			**Work Order:**	MF59A1AA		**Report DB ID:**	MF59A1AB				
H-3	1.93E+02	U	1.5E+02	1.6E+02	3.42E+02	pCi/L	100%	0.57	4/3/11 12:43 p		0.00502	LSC8
					1.63E+02	4.00E+02		(2.4)			L	
Batch: 1083463	906.0_H3_LSC			**Work Order:**	MF59A1AD		**Report DB ID:**	MF59A1DX				
H-3	1.62E+02	U	1.4E+02	1.6E+02	3.43E+02	pCi/L	100%	0.47	4/3/11 03:27 p		0.00503	LSC8
					1.63E+02	4.00E+02		(2.)			L	
Batch: 1083454	GAMMA_GS			**Work Order:**	MF58K1AA		**Report DB ID:**	MF58K1AB				
AMERICIUM 241	-7.59E-01	U	2.3E+00	2.3E+00	3.93E+00	pCi/L		-0.19	3/29/11 12:59 a		1.9985	GER14$1
								-0.66			L	
CE-144	-4.70E+00	U	8.2E+00	8.2E+00	1.36E+01	pCi/L		-0.35	3/29/11 12:59 a		1.9985	GER14$1
								-(1.1)			L	
CO-60	9.17E-01	U	1.8E+00	1.8E+00	3.62E+00	pCi/L		0.25	3/29/11 12:59 a		1.9985	GER14$1
						2.50E+01		(1.)			L	

TestAmerica
rptSTLRchBlank
V5.2.12 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/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 13-Apr-11

Lab Name: TestAmerica

Matrix: WATER

SDG: JP0140

Report No. : 46191

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
CS-134	1.90E+00	U	2.3E+00	2.3E+00	4.33E+00	pCi/L		0.44	3/29/11 12:59 a		1.9985	GER14$1
						1.50E+01		(1.7)			L	
CS-137	-1.28E+00	U	2.1E+00	2.1E+00	3.38E+00	pCi/L		-0.38	3/29/11 12:59 a		1.9985	GER14$1
						1.50E+01		-(1.2)			L	
EU-152	2.00E+00	U	5.3E+00	5.3E+00	9.35E+00	pCi/L		0.21	3/29/11 12:59 a		1.9985	GER14$1
						5.00E+01		0.75			L	
EU-154	1.61E+00	U	5.9E+00	5.9E+00	1.12E+01	pCi/L		0.14	3/29/11 12:59 a		1.9985	GER14$1
						5.00E+01		0.54			L	
EU-155	-7.04E-01	U	3.6E+00	3.6E+00	6.09E+00	pCi/L		-0.12	3/29/11 12:59 a		1.9985	GER14$1
						5.00E+01		-0.39			L	
NB-94	1.24E+00	U	2.1E+00	2.1E+00	3.89E+00	pCi/L		0.32	3/29/11 12:59 a		1.9985	GER14$1
								(1.2)			L	
NP-237	-2.31E+00	U	3.8E+00	3.8E+00	6.21E+00	pCi/L		-0.37	3/29/11 12:59 a		1.9985	GER14$1
					3.11E+00			-(1.2)			L	
RA-226	-1.67E+00	U	5.5E+00	5.5E+00	9.03E+00	pCi/L		-0.19	3/29/11 12:59 a		1.9985	GER14$1
								-0.61			L	
RU-106	-1.35E+01	U	1.8E+01	1.8E+01	2.92E+01	pCi/L		-0.46	3/29/11 12:59 a		1.9985	GER14$1
								-(1.5)			L	
SB-125	-1.31E+00	U	4.7E+00	4.7E+00	8.11E+00	pCi/L		-0.16	3/29/11 12:59 a		1.9985	GER14$1
						5.00E+01		-0.56			L	
ZN-65	-9.69E+00	U	5.2E+00	5.2E+00	7.26E+00	pCi/L		-(1.3)	3/29/11 12:59 a		1.9985	GER14$1
								-(3.7)			L	

Batch: 1083459 9310_ALPHABETA_GPC **Work Order:** MF58R2AA **Report DB ID:** MF58R2AB

ALPHA	2.08E-01	U	2.8E-01	2.8E-01	4.83E-01	pCi/L	100%	0.43	4/1/11 11:55 p		0.1996	GPC10B
					1.71E-01	3.00E+00		(1.5)			L	

TestAmerica
rptSTLRchBlank
V5.2.12 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/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 13-Apr-11

Lab Name: TestAmerica

Matrix: WATER

SDG: JP0140

Report No. : 46191

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: 1083460	9310_ALPHABETA_GPC			**Work Order:**	MF58T1AA		**Report DB ID:**	MF58T1AB				
BETA	7.41E-01	U	1.4E+00	1.4E+00	2.92E+00	pCi/L	100%	0.25	3/30/11 07:07 p		0.2003	GPC32D
					1.39E+00	4.00E+00		(1.1)			L	
Batch: 1083458	I129_SEP_LEPS_GS			**Work Order:**	MF58P1AA		**Report DB ID:**	MF58P1AB				
I129	7.02E-02	U	2.1E-01	2.1E-01	3.82E-01	pCi/L	95%	0.18	3/31/11 06:06 p		2.0016	LEP4$1
					1.83E-01	1.00E+00		0.66			L	
Batch: 1084147	SRTOT_SEP_PRECIP_GPC			**Work Order:**	MF6VG2AA		**Report DB ID:**	MF6VG2AB				
STRONTIUM	6.89E-02	U	5.7E-01	5.7E-01	1.15E+00	pCi/L	96%	0.06	4/6/11 05:41 p		0.1999	GPC26C
					5.54E-01			0.24			L	

No. of Results: 23 **Comments:**

TestAmerica
rptSTLRchBlank
V5.2.12 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/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

LCS RESULTS

Date: 13-Apr-11

Lab Name: TestAmerica

Matrix: WATER

SDG: JP0140

Report No. : 46191

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: 1083417	7196_CR6			**Work Order:**	MF5121AC		**Report DB ID:**	MF5121AS					
HEXCHROME	5.20E-01			0.0E+00	2.00E-03	mg/L	N/A	5.00E-01		104%	3/24/11 01:00 p	100.0	
							Rec Limits:	70	130	0.0		ML	
Batch: 1083464	C14_LSC			**Work Order:**	MF59D1AC		**Report DB ID:**	MF59D1CS					
C-14	7.66E+03		4.3E+02	5.4E+02	4.45E+02	pCi/L	100%	7.54E+03	1.3E+02	101%	4/3/11 05:52 a	0.005	LSC3
							Rec Limits:	70	130	0.0		L	
Batch: 1083461	TC99_SEP_LSC			**Work Order:**	MF58W1AC		**Report DB ID:**	MF58W1CS					
TC-99	4.75E+02		1.3E+01	3.7E+01	1.00E+01	pCi/L	100%	5.41E+02	5.7E+00	88%	3/31/11 10:32 p	0.125	LSC6
							Rec Limits:	70	130	-0.1		L	
Batch: 1083463	906.0_H3_LSC			**Work Order:**	MF59A1AC		**Report DB ID:**	MF59A1CS					
H-3	2.93E+03		2.3E+02	2.6E+02	3.43E+02	pCi/L	100%	2.69E+03	8.1E+01	109%	4/3/11 02:05 p	0.00503	LSC8
							Rec Limits:	70	130	0.1		L	
Batch: 1083463	906.0_H3_LSC			**Work Order:**	MF59A1AE		**Report DB ID:**	MF59A1EM					
H-3	2.89E+03		2.3E+02	2.5E+02	3.39E+02	pCi/L	100%	2.71E+03	8.1E+01	107%	4/3/11 04:49 p	0.005	LSC8
							Rec Limits:	70	130	0.1		L	
Batch: 1083454	GAMMA_GS			**Work Order:**	MF58K1AC		**Report DB ID:**	MF58K1CS					
CO-60	3.38E+01		6.9E+00	6.9E+00	3.55E+00	pCi/L		3.66E+01	3.2E-01	92%	3/29/11 01:00 a	2.0033	GER7S1
							Rec Limits:	70	130	-0.1		L	
CS-137	4.57E+01		8.1E+00	8.1E+00	3.46E+00	pCi/L		4.93E+01	1.0E+00	93%	3/29/11 01:00 a	2.0033	GER7S1
							Rec Limits:	70	130	-0.1		L	
EU-152	6.83E+01		1.6E+01	1.6E+01	8.63E+00	pCi/L		7.53E+01	1.1E+00	91%	3/29/11 01:00 a	2.0033	GER7S1
							Rec Limits:	70	130	-0.1		L	
Batch: 1083459	9310_ALPHABETA_GPC			**Work Order:**	MF58R2AC		**Report DB ID:**	MF58R2CS					

TestAmerica **Bias** - (Result/Expected)-1 as defined by ANSI N13.30.

rptSTLRchLcs
V5.2.12 A2002

FORM II

LCS RESULTS

Date: 13-Apr-11

Lab Name: TestAmerica

Matrix: WATER

SDG: JP0140

Report No. : 46191

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
ALPHA	1.68E+01		1.9E+00	3.9E+00	5.46E-01	pCi/L	100%	2.25E+01	2.3E-01	75%	4/1/11 11:55 p	0.2016	GPC10A
							Rec Limits:	70	130	-0.3		L	
Batch: 1083460	9310_ALPHABETA_GPC			Work Order:	MF58T1AC		Report DB ID:	MF58T1CS					
BETA	2.22E+01		2.4E+00	3.9E+00	2.65E+00	pCi/L	100%	2.23E+01	8.6E-01	100%	3/30/11 07:07 p	0.2026	GPC32C
							Rec Limits:	70	130	0.0		L	
Batch: 1083458	I129_SEP_LEPS_GS			Work Order:	MF58P1AC		Report DB ID:	MF58P1CS					
I129	2.23E+01		2.5E+00	2.5E+00	4.70E-01	pCi/L	94%	0.00E+00		#Div/0!	3/31/11 02:08 p	2.0011	LEP5$1
							Rec Limits:	70	130			L	
Batch: 1084147	SRTOT_SEP_PRECIP_GPC			Work Order:	MF6VG2AC		Report DB ID:	MF6VG2CS					
STRONTIUM	6.37E+01		2.1E+00	1.7E+01	1.20E+00	pCi/L	96%	6.83E+01	7.9E-01	93%	4/6/11 05:41 p	0.1991	GPC26D
							Rec Limits:	70	130	-0.1		L	

No. of Results: 12 **Comments:**

TestAmerica **Bias** - (Result/Expected)-1 as defined by ANSI N13.30.

rptSTLRchLcs
V5.2.12 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 13-Apr-11

Lab Name: TestAmerica **SDG:** JP0140

Lot-Sample No.: J1C240598-1, J1FL24 **Report No. :** 46191 **Matrix:** WATER

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 1083417	Work Order:	MF5X01AM		Report DB ID:	MF5X01CW		Orig Sa DB ID:	9MF5X010				
HEXCHROME	4.91E-01			0.0E+00	2.00E-03	mg/L	N/A	93.29%	5.26E-01	3/24/11 01:00 p	100.0	7196_CR6
	2.00E-03										ML	
Batch: 1083417	Work Order:	MF5X01AN		Report DB ID:	MF5X01DW		Orig Sa DB ID:	MF5X01CW				
HEXCHROME	5.05E-01			0.0E+00	2.00E-03	mg/L	N/A	95.95%	5.26E-01	3/24/11 01:00 p	100.0	7196_CR6
	4.91E-01										ML	

Number of Results: 2

Comments:

TestAmerica
rptSTLRchMs
V5.2.12 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.

FORM II

Date: 13-Apr-11

MATRIX SPIKE DUPLICATE RESULTS

Lab Name: TestAmerica **SDG:** JP0140

Lot-Sample No.: J1C240598-1, J1FL24 **Report No. :** 46191 **Matrix:** WATER

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 1083417	7196_CR6			**Work Order:** MF5X01AM			**Report DB ID:** MF5X01CW			**Orig Sa DB ID:** MF5X01DW		
HEXCHROME	4.91E-01			0.0E+00	2.00E-03	mg/L	N/A	93.29%	5.26E-01	3/24/11 01:00 p	100.0	
	5.05E-01	***RPD***	2.8								ML	
Batch: 1083417	7196_CR6			**Work Order:** MF5X01AN			**Report DB ID:** MF5X01DW			**Orig Sa DB ID:** MF5X01CW		
HEXCHROME	5.05E-01			0.0E+00	2.00E-03	mg/L	N/A	95.95%	5.26E-01	3/24/11 01:00 p	100.0	
	4.91E-01	***RPD***	2.8								ML	

No. of Results: 2 **Comments:**

TestAmerica RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
rptSTLRchMsDup2 Bias - (Result/Expected)-1 as defined by ANSI N13.30.
V5.2.12 A2002

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/4/2011 12:14:20 PM

Lot No., Due Date: J1C240598; 03/31/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1083459; RALPHA-A Alpha by GPC-Am
SDG, Matrix: JP0140; WATER

1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes ✓	No	N/A
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes ✓	No	N/A
2.2 Are the QC appropriate for the analysis included in the batch?	Yes ✓	No	N/A
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes ✓	No	N/A
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes	No	N/A ✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A ✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes	No ✓	N/A
3.5 Are the sample yields and MDAs within contract limits?	Yes ✓	No	N/A
4.0 Raw Data			
4.1 Were results calculated in the correct units?	Yes ✓	No	N/A
4.2 Were analysis volumes entered correctly?	Yes ✓	No	N/A
4.3 Were Yields entered correctly?	Yes	No	N/A ✓
4.4 Were spectra reviewed/meet contractual requirements?	Yes	No	N/A ✓
4.5 Were raw counts reviewed for anomalies?	Yes ✓	No	N/A
5.0 Other			
5.1 Are all nonconformances included and noted?	Yes ✓	No	N/A
5.2 Are all required forms filled out?	Yes ✓	No	N/A
5.3 Was the correct methodology used?	Yes ✓	No	N/A
5.4 Was transcription checked?	Yes ✓	No	N/A
5.5 Were all calculations checked at a minimum frequency?	Yes ✓	No	N/A
5.6 Are worksheet entries complete and correct?	Yes ✓	No	N/A

6.0 Comments on any No response:
NCM 10-17936

Thomas D McE
First Level _____ **Date** 4/4/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1083459

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Non-conformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie Date: 4/5/11

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-17936**
NCM Initiated By: Tom Mcginnis
Date Opened: 04/04/2011
Date Closed:

Classification: **Deficiency**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Alpha by GPC-Am
Lot #'s (Sample #'s): J1C240000 (459), J1C240598 (1),
QC Batches: 1083459,

Nonconformance: Batch Result Out of Limits
Subcategory: Duplicate agreement exceeds acceptance limit

Problem Description / Root Cause

Name	Date	Description
Tom Mcginnis	04/04/2011	The duplicate agreement for sample J1C240598-1 exceeds established acceptance criteria. The samples were reflamed, reweighed and the batch was recounted with similar results. The blank activity and LCS recovery meet acceptance criteria. The PM indicated that the client was notified and will accept the results as approved.

Corrective Action

Name	Date	Corrective Action
Tom Mcginnis	04/04/2011	PM was notified of the batch deficiency and indicated that the client will accept the results.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 4/4/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

3/31/2011 10:04:19 AM

Lot No., Due Date: J1C240598; 03/31/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1083460; RBETA-SR Beta by GPC-Sr/Y
SDG, Matrix: JP0140; WATER

1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes ✓	No	N/A
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes ✓	No	N/A
2.2 Are the QC appropriate for the analysis included in the batch?	Yes ✓	No	N/A
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes ✓	No	N/A
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes	No	N/A ✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A ✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes	No ✓	N/A
3.5 Are the sample yields and MDAs within contract limits?	Yes	No ✓	N/A
4.0 Raw Data			
4.1 Were results calculated in the correct units?	Yes ✓	No	N/A
4.2 Were analysis volumes entered correctly?	Yes ✓	No	N/A
4.3 Were Yields entered correctly?	Yes	No	N/A ✓
4.4 Were spectra reviewed/meet contractual requirements?	Yes	No	N/A ✓
4.5 Were raw counts reviewed for anomalies?	Yes ✓	No	N/A
5.0 Other			
5.1 Are all nonconformances included and noted?	Yes ✓	No	N/A
5.2 Are all required forms filled out?	Yes ✓	No	N/A
5.3 Was the correct methodology used?	Yes ✓	No	N/A
5.4 Was transcription checked?	Yes ✓	No	N/A
5.5 Were all calculations checked at a minimum frequency?	Yes ✓	No	N/A
5.6 Are worksheet entries complete and correct?	Yes ✓	No	N/A

6.0 Comments on any No response:
NCM 10-17920

Thomas DMcE

First Level _____ **Date** 3/31/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 10834160

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?		✓	
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓	✓	
C. Other 1. Are all Non-conformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: CRDL = 4.0 pCi/g
See NCM #: 10-17920

Second Level Review: [signature] Date: 3/31/11

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-17920**
NCM Initiated By: Tom Mcginnis
Date Opened: 03/31/2011
Date Closed:

Classification: **Deficiency**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Beta by GPC-Sr/Y
Lot #'s (Sample #'s): J1C240000 (460), J1C240598 (1),
QC Batches: 1083460,

Nonconformance: Batch Result Out of Limits
Subcategory: MDA exceeds RDL

Problem Description / Root Cause

Name	Date	Description
Tom Mcginnis	03/31/2011	The MDA for sample J1C240598-1 and its duplicate analysis is greater than the CRDL due to aliquot reductions based on weight screening results. The activity for the sample and Dup is greater than the MDA.

Corrective Action

Name	Date	Corrective Action
Tom Mcginnis	03/31/2011	PM was notified of the batch deficiency.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 3/31/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/7/2011 9:49:52 AM

Lot No., Due Date: J1C240598; 03/31/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1084147; RSRTOT SrTot by GPC
SDG, Matrix: JP0140; WATER

1.0 COC
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples
3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data
4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other
5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response:
NCM 10-17980

First Level Lisa Anderson Date 4/7/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1084147

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?			✓
C. Other 1. Are all Non-conformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie G Date: 4/7/11

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica

NCM #:	10-17980		
NCM Initiated By:	Lisa Antonson	Classification:	Deficiency
Date Opened:	04/07/2011	Status:	PMREVIEW
Date Closed:		Production Area:	Environmental - Sep
		Tests:	SrTot by GPC
		Lot #'s (Sample #'s):	J1C240598 (1), J1C250000 (147),
		QC Batches:	1084147,
Nonconformance:	Other (describe in detail)		
Subcategory:	Other (explanation required)		

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	04/07/2011	In the original batch, the samples did not meet CRDL. The samples were recounted for 200 mins and now meet CRDL. There was an obvious blank/LCS switch in the lab. The samples were switched in radcalc with good resuls.
Lisa Antonson	04/07/2011	No dup was analyzed due to insufficient volume.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	04/07/2011	The samples were recounted with extended count time and the samples corrected in Radcalc.
Lisa Antonson	04/07/2011	

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 4/7/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/13/2011 10:50:53 AM

Lot No., Due Date: J1C240598; 03/31/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1083454; RGAMMA Gamma by GER
SDG, Matrix: JP0140; WATER

1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes ✓	No	N/A
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes ✓	No	N/A
2.2 Are the QC appropriate for the analysis included in the batch?	Yes ✓	No	N/A
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes ✓	No	N/A
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes	No	N/A ✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A ✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes ✓	No	N/A
3.5 Are the sample yields and MDAs within contract limits?	Yes ✓	No	N/A
4.0 Raw Data			
4.1 Were results calculated in the correct units?	Yes ✓	No	N/A
4.2 Were analysis volumes entered correctly?	Yes ✓	No	N/A
4.3 Were Yields entered correctly?	Yes ✓	No	N/A
4.4 Were spectra reviewed/meet contractual requirements?	Yes ✓	No	N/A
4.5 Were raw counts reviewed for anomalies?	Yes ✓	No	N/A
5.0 Other			
5.1 Are all nonconformances included and noted?	Yes ✓	No	N/A
5.2 Are all required forms filled out?	Yes ✓	No	N/A
5.3 Was the correct methodology used?	Yes ✓	No	N/A
5.4 Was transcription checked?	Yes ✓	No	N/A
5.5 Were all calculations checked at a minimum frequency?	Yes	No	N/A ✓
5.6 Are worksheet entries complete and correct?	Yes ✓	No	N/A

6.0 Comments on any No response:

First Level [signature] Date 4-13-11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1083454

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓	✓	
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: [signature] Date: 4/13/11

LS-038B, Rev. 10, 9/07

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/1/2011 1:39:34 PM

Lot No., Due Date: J1C240598; 03/31/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1083458; RGAMLEPS Gamma by LEPS
SDG, Matrix: JP0140; WATER

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes No N/A

2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes No N/A
2.2 Are the QC appropriate for the analysis included in the batch?	Yes No N/A
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes No N/A
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes No N/A

3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits?	Yes No N/A
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes No N/A
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes No N/A
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes No N/A
3.5 Are the sample yields and MDAs within contract limits?	Yes No N/A

4.0 Raw Data

4.1 Were results calculated in the correct units?	Yes No N/A
4.2 Were analysis volumes entered correctly?	Yes No N/A
4.3 Were Yields entered correctly?	Yes No N/A
4.4 Were spectra reviewed/meet contractual requirements?	Yes No N/A
4.5 Were raw counts reviewed for anomalies?	Yes No N/A

5.0 Other

5.1 Are all nonconformances included and noted?	Yes No N/A
5.2 Are all required forms filled out?	Yes No N/A
5.3 Was the correct methodology used?	Yes No N/A
5.4 Was transcription checked?	Yes No N/A
5.5 Were all calculations checked at a minimum frequency?	Yes No N/A
5.6 Are worksheet entries complete and correct?	Yes No N/A

6.0 Comments on any No response:
NCM 10-17931

First Level [signature] Date 4/1/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 10835458

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓	✓	
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	RW 4/1/11	✓	
C. Other 1. Are all Non-conformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: CRDL = 5.0pCi/L
See NCM #: 10-17931

Second Level Review: [signature] Date: 4/1/11

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-17931
NCM Initiated By: Lisa Antonson
Date Opened: 04/01/2011
Date Closed:

Classification: **Deficiency**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Gamma by LEPS
Lot #'s (Sample #'s): J1C240000 (458), J1C240598 (1),
QC Batches: 1083458,

Nonconformance: Technician Error
Subcategory: LCS/Blank Switch

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	04/01/2011	There was an obvious switch in the LCS/blank. They were switched in RadCalc with good results. There is no dup on this batch due to insufficient volume.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	04/01/2011	The blank and LCS were corrected in RadCalc

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 4/1/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/1/2011 10:22:21 AM

Lot No., Due Date: J1C240598; 03/31/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1083461; RTC99 Tc-99 by LSC
SDG, Matrix: JP0140; WATER

1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes ✓	No	N/A
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes	No ✓	N/A
2.2 Are the QC appropriate for the analysis included in the batch?	Yes ✓	No	N/A
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes ✓	No	N/A
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes	No	N/A ✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A ✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes ✓	No	N/A
3.5 Are the sample yields and MDAs within contract limits?	Yes ✓	No	N/A
4.0 Raw Data			
4.1 Were results calculated in the correct units?	Yes ✓	No	N/A
4.2 Were analysis volumes entered correctly?	Yes ✓	No	N/A
4.3 Were Yields entered correctly?	Yes	No	N/A ✓
4.4 Were spectra reviewed/meet contractual requirements?	Yes	No	N/A ✓
4.5 Were raw counts reviewed for anomalies?	Yes ✓	No	N/A
5.0 Other			
5.1 Are all nonconformances included and noted?	Yes ✓	No	N/A
5.2 Are all required forms filled out?	Yes ✓	No	N/A
5.3 Was the correct methodology used?	Yes ✓	No	N/A
5.4 Was transcription checked?	Yes ✓	No	N/A
5.5 Were all calculations checked at a minimum frequency?	Yes ✓	No	N/A
5.6 Are worksheet entries complete and correct?	Yes ✓	No	N/A

6.0 Comments on any No response:
NCM 10-17929

First Level Lisa Anderson Date 4/1/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 10834/01

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?		✓	
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Non-conformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?			

Comments on any "No" response: CRDL = 15.0 pCi/L
See NCM #: 10-17929

Second Level Review: [signature] Date: 3/4/11
LW 4/1/11

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-17929
NCM Initiated By: Lisa Antonson
Date Opened: 04/01/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Environmental - Prep
Tests: Tc-99 by LSC
Lot #'s (Sample #'s): J1C240000 (461), J1C240598 (1),
QC Batches: 1083461,

Nonconformance: Insufficient sample volume for QC
Subcategory: Insufficient sample volume to prepare MS/MSD or duplicate

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	04/01/2011	There was insufficient sample volume provided to prepare a project-specific MS.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	04/01/2011	None

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 4/1/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

4/5/2011 10:49:18 AM

Lot No., Due Date: J1C240598; 03/31/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1083463; RTRITIUM H-3 by LSC
SDG, Matrix: JP0140; WATER

1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes ✓	No	N/A
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes ✓	No	N/A
2.2 Are the QC appropriate for the analysis included in the batch?	Yes ✓	No	N/A
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes ✓	No	N/A
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes ✓	No	N/A
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A ✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes ✓	No	N/A
3.5 Are the sample yields and MDAs within contract limits?	Yes ✓	No	N/A
4.0 Raw Data			
4.1 Were results calculated in the correct units?	Yes ✓	No	N/A
4.2 Were analysis volumes entered correctly?	Yes ✓	No	N/A
4.3 Were Yields entered correctly?	Yes	No	N/A ✓
4.4 Were spectra reviewed/meet contractual requirements?	Yes	No	N/A ✓
4.5 Were raw counts reviewed for anomalies?	Yes ✓	No	N/A
5.0 Other			
5.1 Are all nonconformances included and noted?	Yes	No	N/A ✓
5.2 Are all required forms filled out?	Yes ✓	No	N/A
5.3 Was the correct methodology used?	Yes ✓	No	N/A
5.4 Was transcription checked?	Yes ✓	No	N/A
5.5 Were all calculations checked at a minimum frequency?	Yes ✓	No	N/A
5.6 Are worksheet entries complete and correct?	Yes ✓	No	N/A

6.0 Comments on any No response:

First Level [signature] **Date** 4/5/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1083463

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie Date: 4/5/11

LS-038B, Rev. 10, 9/07

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/4/2011 4:25:14 PM

Lot No., Due Date: J1C240598; 03/31/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1083464; RC14 C-14 by LSC
SDG, Matrix: JP0140; WATER

1.0 COC			
1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions?	Yes ✓	No	N/A
2.0 QC Batch			
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?	Yes	No ✓	N/A
2.2 Are the QC appropriate for the analysis included in the batch?	Yes ✓	No	N/A
2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?	Yes ✓	No	N/A
2.4 Does the Worksheets include a Tracer Vial label for each sample?	Yes	No	N/A ✓
3.0 QC & Samples			
3.1 Is the blank results, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.2 Is the LCS result, yield, and MDA within contract limits?	Yes ✓	No	N/A
3.3 Are the MS/MSD results, yields, and MDA within contract limits?	Yes	No	N/A ✓
3.4 Are the duplicate result, yields, and MDAs within contract limits?	Yes	No	N/A ✓
3.5 Are the sample yields and MDAs within contract limits?	Yes ✓	No	N/A
4.0 Raw Data			
4.1 Were results calculated in the correct units?	Yes ✓	No	N/A
4.2 Were analysis volumes entered correctly?	Yes ✓	No	N/A
4.3 Were Yields entered correctly?	Yes	No	N/A ✓
4.4 Were spectra reviewed/meet contractual requirements?	Yes	No	N/A ✓
4.5 Were raw counts reviewed for anomalies?	Yes ✓	No	N/A
5.0 Other			
5.1 Are all nonconformances included and noted?	Yes ✓	No	N/A
5.2 Are all required forms filled out?	Yes ✓	No	N/A
5.3 Was the correct methodology used?	Yes ✓	No	N/A
5.4 Was transcription checked?	Yes ✓	No	N/A
5.5 Were all calculations checked at a minimum frequency?	Yes ✓	No	N/A
5.6 Are worksheet entries complete and correct?	Yes ✓	No	N/A

6.0 Comments on any No response:
NCM 10-17947

First Level [signature] Date 4/4/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1083464

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Non-conformances included and noted?	✓		
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

Comments on any "No" response: _____

Second Level Review: Jodie C. Date: 4/5/11

LS-038B, Rev. 10, 9/07

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-17941
NCM Initiated By: Lisa Antonson
Date Opened: 04/04/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Environmental - Prep
Tests: C-14 by LSC
Lot #'s (Sample #'s): J1C240000 (464), J1C240598 (1),
QC Batches: 1083464,

Nonconformance: Analysis Not Performed
Subcategory: Insufficient sample volume to prepare MS/MSD or duplicate

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	04/04/2011	There was not enough volume to process a duplicate in this batch.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	04/04/2011	No dup was processed.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

Verified By	Due Date	Status	Notes
		This section not yet completed by QA.	

Approval History

Date Approved	Approved By	Position

Date Printed: 4/4/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): 1083417

Lab Sample Numbers or SDG: ~~Jp0140~~ JP0140 [illegible]

Method/Test/Parameter: Cr+6 in Water / RL-WC-003

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?			✓	N/A
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?			✓	N/A
6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?			✓	N/A
7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?			✓	N/A

Review Item	Yes (✓)	No (✓)	N/A (✓)	2nd Level Review (✓)
E. Other 1. Are all nonconformances included and noted?			✓	N/A
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: _____ Date: 3-24-11

Second-Level Review: _____ Date: 3/24/11

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-076-036	Page 1 of 2

Collector: M BLACKMSHED	Company Contact: D Woolery	Telephone No.: 509-431-0448	Project Coordinator: KESSNER, JH
Price Code: 7L 78	Data Turnaround: ~~24 Hours~~ 7 DAY		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Water	Sampling Location: 100-D-50:6 Pipelines and Catch Basins		SAF No.: RC-076
Ice Chest No.: N/A	Field Logbook No.: EL-1607-10	COA: R00D502000	Method of Shipment: HAND DELIVER
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage

Cool 4 degrees C

Preservation	HNO3 to pH <2	Cool 4C	Cool 4C	H2SO4 to pH <2 Cool 4C	NaOH to pH >= 12 Cool 4C	HCl or H2SO4 to pH <2 Coo	Cool 4C	Cool 4C	HCl or H2SO4 to pH <2 Coo	Cool 4C
Type of Container	G/P	G/P	P	G/P	G/P	G	G/P	P	aGs*	aG
No. of Container(s)	1	1	1	1	1	1	1	1	1	1
Volume	250mL	120mL	125mL	125mL	500mL	125mL	125mL	125mL	40mL	1000mL
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium - Hex - 7196 *	IC Anions - 300.0; NO2/NO3 - 353.2; pH (Water) - 9040	Ammonia - 350.1	Total Cyanide - 9010	TOC - 415.1	TDS - 2540C	Conductivity - 9050	VOA - 8260A (ETF)	Semi-VOA - 8270A (ETF)

Sample No.	Matrix *	Sample Date	Sample Time									
J1FL20	WATER											
J1FL21	WATER											
J1FL22	WATER											
J1FL23	WATER											
J1FL24	WATER	3/24/11	0915		X				MF5X			

3/24/11 3/17/11

J1C240598

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From	Date/Time 3-24-11 1035	Received By/Stored In	Date/Time 3/24/11 1035
Relinquished By/Removed From	Date/Time 3/24/11 1135	Received By/Stored In	Date/Time 1135 3-24-11
Relinquished By/Removed From	Date/Time 1200 3-24-11	Received By/Stored In	Date/Time 1200 3-24-11
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

(1) ICP Metals - 6010TR (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Uranium, Vanadium, Zinc}; Mercury - 7470 - (CV) {Mercury}

* 24 Hr Hold Time
AJ 3-24-11

J1C240598

REVIEWED BY
DATE 3-24-11

SDG

JP0140

Matrix *
S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-076-036	Page 2 of 2

Collector: M BLANKENSHIP	Company Contact: D Woolery	Telephone No.: 509-431-0448	Project Coordinator: KESSNER, JH
Price Code: ~~7L~~ 7B 2 3/18/11	Data Turnaround: ~~24 Hours~~ 7 DAY 2 3/17/11		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Water	Sampling Location: 100-D-50:6 Pipelines and Catch Basins		SAF No.: RC-076
Ice Chest No.: N/A	Field Logbook No.: EL-1607-10	COA: R00D502000	Method of Shipment: HAND DELIVER
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: N/A		Bill of Lading/Air Bill No.: N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

Special Handling and/or Storage
~~Cool 4 degrees C~~ AF 3-24-11
NONE

Preservation	Cool 4C	HNO3 to pH <2	HNO3 to pH <2 ~~Cool 4C~~	None AF 3-24-11	HCl to pH <2	None	None			
Type of Container	aG	G/P	G/P	G/P	G/P	G/P	G			
No. of Container(s)	1	1 LP	1	2 LP	1	1	1			
Volume	1000mL	1000mL 2	500mL	~~2000mL~~ 1000mL 2 3/18/11	250mL	250mL	120mL			
SAMPLE ANALYSIS	PCBs - 8082 2 3/17/11	See item (1) in Special Instructions. 2 3/17/11	Gross Alpha & Beta - 900.0	Iodine-129	Technetium-99	Carbon-14	Tritium - 906.0; Strontium-89,90 -- Total Sr			

Sample No.	Matrix *	Sample Date	Sample Time								
J1FL20	WATER										
J1FL21	WATER										
J1FL22	WATER										
J1FL23	WATER										
J1FL24	WATER	3/24/11	0915		X	X	X	X	X	X	MFSXO

J1C240598

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From	Date/Time 3-24-11 1035	Received By/Stored In	Date/Time 3/24/11 1035
Relinquished By/Removed From	Date/Time 3/24/11 1135	Received By/Stored In	Date/Time 1135 A. Freier 3-24-11
Relinquished By/Removed From WCH A. Freier	Date/Time 1200 3-24-11	Received By/Stored In TAR	Date/Time 1200 3.24.11
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
2 2 3/17/11
(1) Gamma Spec (Client List) {Americium-241, Antimony-125, Cerium-144, Cesium-134, Cesium-137, Cobalt-60, Curium-244, Europium-152, Europium-154, Europium-155, Neptunium-237, Niobium-94, Radium-226, Ruthenium-106, Zinc-65}

REVIEWED BY
DATE 3-24-11

J1C240598

JP0140

Matrix *
S=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
Wi=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TLR

Sample Check-in List

Date/Time Received: 3.24.11 @ 1200 GM Screen Result (out) .3 (in) .5 Initials [✓]

Client: WCH SDG #: JP0140 NA [ ] SAF #: RC-076 NA [ ]

Work Order Number: JC240598 Chain of Custody # RC-076-036

Shipping Container ID: Hand Delivery NA [✓] Air Bill # NA [✓]

Item 1 through 5 for shipping container only. Initial appropriate response.

1. Custody Seals on shipping container intact? Yes [✓] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ] No Custody Seal [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 1 @ 8 containers
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ custody seals
   - ✓ tape
   - ✓ hazard labels
   - ✓ appropriate sample labels
9. Samples:
   - ✓ are in good condition
   - ___ are broken
   - ___ are leaking
   - ___ have air bubbles (Only for samples requiring no head space)

   Sample (H2O Water)
10. Sample pH appropriate for analysis requested Yes [✓] No [ ] N/A [ ] (Note discrepancies in #13)
    (If acidification necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition)

    RPL ID # of preservative used : _____
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): NA [✓]

See other side for additional comments

Sample Custodian: [signature] Date: 3.24.11 @ 1200 TLR

Client Informed on _____ by _____ Person contacted _____

[✓] No action necessary; process as is

Project Manager: [signature] Date: 3/24/11

LS-023, Rev. 12, 10/10

3/31/2011 12:02:08 PM

Sample Preparation/Analysis

Balance Id:1117411003

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

PRIORITY

AZ Gross Alpha Prp GPC001
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/31/2011

Sep1 DT/Tm Tech:

Batch: 1083459 WATER pCi/L PM, Quote: RW2, 27023

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

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 MF5X0-1-AA J1C240598-1-SAMP 03/24/2011 09:15		79.10g,in AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8								Scr: Alpha: Beta:
2 MF5X0-1-AU-X J1C240598-1-DUP 03/24/2011 09:15		80.00g,in AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8								Scr: Alpha: Beta:
3 MF5X0-2-AA J1C240598-1-SAMP 03/24/2011 09:15		79.10 AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8		1.5	1.4401g 1.4037g 36.4mg	100	10D	0046	4/1/11	Scr: Alpha: Beta:
4 MF5X0-2-AU-X J1C240598-1-DUP 03/24/2011 09:15		80.00 AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8			1.4308g 1.3917g 39.1mg		10C			Scr: Alpha: Beta:
5 MF58R-1-AA-B J1C240000-459-BLK 03/25/2011 08:09 pd		199.60g,in AmtRec: #Containers: 1								Scr: Alpha: Beta:
6 MF58R-1-AC-C J1C240000-459-LCS 03/25/2011 08:09 pd		201.60g,in AmtRec: #Containers: 1	ASD5082 12/14/10,pd 04/04/05							Scr: Alpha: Beta:
7 MF58R-2-AA-B J1C240000-459-BLK 03/31/2011 12:01 pd		199.60 AmtRec: #Containers: 1			1.3761g 1.3760g 0.1mg	100	10B	0046	4/1/11	Scr: Alpha: Beta:

TestAmerica Laboratories, Inc.

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TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

ICOC v4.8.49

3/31/2011 12:02:08 PM

Sample Preparation/Analysis

AZ Gross Alpha Prp GPC001
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

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

AnalyDueDate: 03/31/2011

Batch: 1083459 pCi/L
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:
8 MF58R-2-AC-C		201.60	ASD 5082		1.3940 g	100	10A	0046	4/1/11 GD	
J1C240000-459-LCS			12/14/10		1.3932 g					
03/31/2011 12:01 pd		AmtRec:	#Containers: 1		0.8 mg		Scr:	Alpha:		Beta:

Comments: re-filtered + weighed for recount. JB 3-31-11

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27023

MF5X01AA-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
MF58R1AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
MF58R1AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20
MF58R2AA-BLK:					
MF58R2AC-LCS:					

MF5X01AA-SAMP Calc Info:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
MF58R1AA-BLK:					
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
MF58R1AC-LCS:					
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
MF58R2AA-BLK:					
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
MF58R2AC-LCS:					
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	

TestAmerica Laboratories, Inc.

3/26/2011 1:14:53 PM

Sample Preparation/Analysis

Balance Id:1117411003

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

AZ Gross Alpha Prp GPC001
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

PRIORITY

Pipet #: _____

AnalyDueDate: 03/31/2011

Sep1 DT/Tm Tech:

Batch: 1083459 WATER pCi/L PM, Quote: RW2, 27023

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

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 MF5X0-1-AA J1C240598-1-SAMP 03/24/2011 09:15	AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8	79.10g,in		1.5	1.44019 / 1.40379 / 36.4mg	100	10A Scr:	0454 Alpha:	3/31/11 S Beta:	
2 MF5X0-1-AU-X J1C240598-1-DUP 03/24/2011 09:15	AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8	80.00g,in			1.43189 / 1.39179 / 40.1mg		10B Scr:	Alpha:	Beta:	
3 MF58R-1-AA-B J1C240000-459-BLK 03/25/2011 08:09 pd	AmtRec: #Containers: 1	199.60g,in			1.37619 / 1.37609 / 0.1mg		10C Scr:	Alpha:	Beta:	
4 MF58R-1-AC-C J1C240000-459-LCS 03/25/2011 08:09 pd	AmtRec: #Containers: 1	201.60g,in	ASD5082 12/14/10,pd 01/04/05 r		1.39389 / 1.39329 / 0.6mg		10D Scr:	Alpha:	Beta:	

Comments: pH < 2.0. Aliquots reduced to weight screen. JB 3-26-11

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27023

MF5X01AA-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:

MF58R1AA-BLK:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:

MF58R1AC-LCS:

Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

MF5X01AA-SAMP Calc Info:

TestAmerica Laboratories, Inc.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RE-COUNT REQUEST

DUE DATE 3-31-11

CUSTOMER WCH

ANALAYSIS Gross Alpha

MATRIX WATER

LOT NUMBER

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 1083459

NEW BATCH NUMBER Same

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)		
2)		
3)	ALL	RPD Sample / Dup
4)		
5)		is > 20
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

RC-126, 12/07, Rev 5

4/4/2011 12:06:55 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/4/2010, 4/9/2011, Batch: '1083459', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1083459						
AC		Rev1C	BockJ	3/26/2011 1:11:34 PM		
SC			MaucieriS	IsBatched	3/25/2011 8:23:56 AM	ICOC_RADCALC v4.8.49
SC			BockJ	InPrep	3/26/2011 1:11:34 PM	RL-GPC-007 REVISION 1
SC			BockJ	Prep1C	3/26/2011 1:15:00 PM	RL-PRP-004 REVISION 1
SC			BockJ	InPrep2	3/30/2011 7:49:47 AM	RL-GPC-001 REVISION 1
SC			BockJ	Prep2C	3/30/2011 5:42:45 PM	RL-GPC-001 REVISION 1
SC			DawkinsO	InCnt1	3/30/2011 6:27:19 PM	RL-CI-006 REVISION 1
SC			BlackCL	CalcC	3/31/2011 9:39:18 AM	RL-CI-006 REVISION 1
SC			ClarkR	InCnt1	3/31/2011 1:49:34 PM	RL-CI-006 REVISION 1
SC			ClarkR	CalcC	4/2/2011 11:14:06 AM	RL-CI-006 REVISION 1
SC			mcginnist	Rev1C	4/4/2011 12:06:43 PM	RL-DR-001 Rev 2
AC			BockJ	3/26/2011 1:15:00 PM		
AC			BockJ	3/30/2011 7:49:47		
AC			BockJ	3/30/2011 5:42:45 PM		
AC			DawkinsO	3/30/2011 6:27:19 PM		
AC			BlackCL	3/31/2011 9:39:18		
AC			ClarkR	3/31/2011 1:49:34 PM		
AC			ClarkR	4/2/2011 11:14:06		
AC			mcginnist	4/4/2011 12:06:43 PM		

AC: Accepting Entry; SC: Status Change

3/26/2011 1:18:00 PM

Sample Preparation/Analysis

Balance Id:1117411003

127642, Washington Closure Hanford LLC , Bechtel Hanford, Inc.

BC Gross Beta Prp GPC001
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/31/2011

Sep1 DT/Tm Tech:

Batch: 1083460 WATER pCi/L PM, Quote: RW2, 27023

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

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 MF5X0-1-AC J1C240598-1-SAMP 03/24/2011 09:15	AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8	132.20g,in		1.5	1.46789 1.37379 94.1mg	100	32A Scr:	Alpha:	1957 3/30/11 OD	Beta:
2 MF5X0-1-AV-X J1C240598-1-DUP 03/24/2011 09:15	AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8	135.50g,in			1.50019 1.40429 95.9mg		32B Scr:	Alpha:		Beta:
3 MF58T-1-AA-B J1C240000-460-BLK 03/25/2011 08:09 pd	AmtRec: #Containers: 1	200.30g,in			1.38729 1.38659 0.7mg		32D Scr:	Alpha:		Beta:
4 MF58T-1-AC-C J1C240000-460-LCS 03/25/2011 08:09 pd	AmtRec: #Containers: 1	202.60g,in	BESB3668 03/01/11,pd 10/01/01,r		1.38969 1.38919 0.5mg		32C 3/30/11 OD Scr:	Alpha:		Beta:

Comments: pH < 2.0. Aliquots reduced to weight screen. JB 3-26-11

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27023

17920

MF5X01AC-SAMP Constituent List:

BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:

MF58T1AA-BLK:

BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:

MF58T1AC-LCS:

Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

MF5X01AC-SAMP Calc Info:

TestAmerica Laboratories, Inc.

3/26/2011 1:18:01 PM

Sample Preparation/Analysis

Balance Id:1117411003

BC Gross Beta Prp GPC001
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/31/2011

Sep1 DT/Tm Tech:

Batch: 1083460 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BockJ

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:

```
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MF58T1AA-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MF58T1AC-LCS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

3/31/2011 10:01:35 AM

ICOC Fraction Transfer/Status Report

ByDate: 3/31/2010, 4/5/2011, Batch: '1083460', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1083460						
AC		Rev1C	BockJ	3/26/2011 1:15:14 PM		
SC			MaucleriS	IsBatched	3/25/2011 8:24:03 AM	ICOC_RADCALC v4.8.49
SC			BockJ	InPrep	3/26/2011 1:15:14 PM	RL-GPC-007 REVISION 1
SC			BockJ	Prep1C	3/26/2011 1:18:04 PM	RL-PRP-004 REVISION 1
SC			BockJ	InPrep2	3/30/2011 7:49:52 AM	RL-GPC-001 REVISION 1
SC			BockJ	Prep2C	3/30/2011 5:42:37 PM	RL-GPC-001 REVISION 1
SC			DawkinsO	InCnt1	3/30/2011 6:26:45 PM	RL-CI-006 REVISION 1
SC			DawkinsO	CalcC	3/30/2011 8:33:46 PM	RL-CI-006 REVISION 1
SC			mcginnist	Rev1C	3/31/2011 10:01:26 AM	RL-DR-001 Rev 2
AC			BockJ	3/26/2011 1:18:04 PM		
AC			BockJ	3/30/2011 7:49:52		
AC			BockJ	3/30/2011 5:42:37 PM		
AC			DawkinsO	3/30/2011 6:26:45 PM		
AC			DawkinsO	3/30/2011 8:33:46 PM		
AC			mcginnist	3/31/2011 10:01:26		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

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Grp Rec Cnt: 7

ICOCFractions v4.8.44

4/6/2011 1:55:48 PM

Sample Preparation/Analysis

Balance Id:1120413753

127642, Washington Closure Hanford LLC , Bechtel Hanford, Inc.

CG Sr-Total Prp/Sep GPC003
TH Total Strontium by GPC
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/31/2011

Sep1 DT/Tm Tech:

Batch: 1084147 WATER pCi/L PM, Quote: RW2, 27023

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1083417 88EA, 1083454 AWTA, 1083456 CLTL, 1083458 BNTB, 1083459 AZS7, 1083460 BCS8, 1083461 AMS5, 1083463 ARS6, 1083464 5SS3, 1084147 CGTH,

Prep Tech: ,AshworthA

Work Ord, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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 MF5X0-1-A2 J1C240598-1-SAMP 03/24/2011 09:15			129.80g,in	129.80g	SRTA20746 02/25/11			2				
			AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8						Scr:	Alpha:		Beta:
2 ~~MF5X0-1-A3-X~~ INSV J1C240598-1-DUP 03/24/2011 09:15												
			AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8						Scr:	Alpha:		Beta:
3 MF5X0-2-A2 J1C240598-1-SAMP 03/24/2011 09:15			129.80g	129.80g	SRTA 20746	95.3		200		26B	1921	4/6/11 OD
			AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8						Scr:	Alpha:		Beta:
4 MF6VG-1-AA-B J1C250000-147-BLK 03/25/2011 10:41 pd			199.90g,in	199.90g	SRTA20747 02/25/11							
			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:
5 MF6VG-1-AC-C J1C250000-147-LCS 03/25/2011 10:41 pd			199.10g,in	199.10g	STSC2378 01/26/11							
			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:
6 MF6VG-2-AA-B J1C250000-147-BLK 04/06/2011 13:55 pd			199.90g	199.90g	SRTA 20747	96.4				26C	1921	4/6/11 OD
			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:
7 MF6VG-2-AC-C J1C250000-147-LCS 04/06/2011 13:55 pd			199.10g	199.10g	STSC 23378	95.6				26D		
			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:

Sample Preparation/Analysis

CG Sr-Total Prp/Sep GPC003
TH Total Strontium by GPC
5I CLIENT: HANFORD

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

AnalyDueDate: 03/31/2011

Batch: 1084147 pCi/L
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	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:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27023

MF5X01A2-SAMP Constituent List:
Sr-90 RDL:2 pCi/L LCL:70 UCL:130 RPD:20
MF6VG1AA-BLK:
Sr-90 RDL:2 pCi/L LCL: UCL: RPD:
MF6VG1AC-LCS:
Sr-90 RDL:2 pCi/L LCL:70 UCL:130 RPD:20
MF6VG2AA-BLK:

MF6VG2AC-LCS:

MF5X01A2-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF6VG1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF6VG1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF6VG2AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF6VG2AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

*** RE-COUNT REQUEST ***

DUE DATE 3/31/11

CUSTOMER WCH

ANALYSIS TSR

MATRIX water

LOT NUMBER J1C2405598

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 1084147

NEW BATCH NUMBER

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) MF5XD	A2	CRIX not met - please
2) AAUMA	4L6L11	count 200 mins.
3) MF6VG	1AA	
4) MP6VG	1A2	
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

4/7/2011 9:48:40 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/7/2010, 4/12/2011, Batch: '1084147', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1084147						
AC		Rev1C	**AshworthA**	3/28/2011 10:50:39		
SC			wagarr	IsBatched	3/25/2011 10:42:22 AM	ICOC_RADCALC v4.8.49
SC			AshworthA	Prep1C	3/28/2011 10:50:39 AM	RL-PRP-004 REVISION 1
SC			AshworthA	Sep2C	4/4/2011 3:40:07 PM	RL-GPC-003 REVISION 1
SC			DawkinsO	InCnt1	4/4/2011 4:36:05 PM	RL-CI-006 REVISION 1
SC			ClarkR	CalcC	4/5/2011 11:57:13 AM	RL-CI-006 REVISION 1
SC			ClarkR	InCnt1	4/6/2011 2:31:17 PM	RL-CI-006 REVISION 1
SC			DawkinsO	CalcC	4/6/2011 10:31:19 PM	RL-CI-006 REVISION 1
SC			antonsonl	Rev1C	4/7/2011 9:48:29 AM	RL-DR-001 Rev 2
AC			**AshworthA**	4/4/2011 3:40:07 PM		
AC			**DawkinsO**	4/4/2011 4:36:05 PM		
AC			**ClarkR**	4/5/2011 11:57:13		
AC			**ClarkR**	4/6/2011 2:31:17 PM		
AC			**DawkinsO**	4/6/2011 10:31:19 PM		
AC			**antonsonl**	4/7/2011 9:48:29 AM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

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Grp Rec Cnt: 7

ICOCFractions v4.8.44

3/25/2011 11:06:10 AM

Sample Preparation/Analysis

Balance Id:1117411003

127642, Washington Closure Hanford LLC , Bechtel Hanford, Inc.

AW Gamma Prp GAM001
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/31/2011

Sep1 DT/Tm Tech:

Batch: 1083454 WATER pCi/L PM, Quote: RW2, 27023

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MF5X0-1-AE J1C240598-1-SAMP 03/24/2011 09:15			1037.50g,in AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8	1037.50g		100	200	65	0419	3/29/11	
								Scr:	Alpha:		Beta:
2 MF5X0-1-AQ-X J1C240598-1-DUP ISV 03/24/2011 09:15			AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8					67	0422	↓	
								Scr:	Alpha:		Beta:
3 MF58K-1-AA-B J1C240000-454-BLK 03/25/2011 08:09 pd			1998.50g,in AmtRec:	1998.50g #Containers: 1				614	0419	3/29/11	
								Scr:	Alpha:		Beta:
4 MF58K-1-AC-C J1C240000-454-LCS 03/25/2011 08:09 pd			2003.30g,in AmtRec:	2003.30g #Containers: 1	QCAG1712 11/12/10,pd 04/11/05,r			67	0420	↓	
								Scr:	Alpha:		Beta:

Comments: No Dup. due to ISV. Please recount on diff. detector. Volume only poured to 1037, because that was all that was recieved. JB 3-25-11

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27023

MF5X01AE-SAMP Constituent List:

Co-58	RDL:--	pCi/L	LCL:	UCL:	RPD:	Co-60	RDL:25	pCi/L	LCL:	UCL:	RPD:
Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
Eu-152	RDL:50	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:50	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:50	pCi/L	LCL:	UCL:	RPD:	Fe-59	RDL:--	pCi/L	LCL:	UCL:	RPD:

MF58K1AA-BLK:

Co-58	RDL:--	pCi/L	LCL:	UCL:	RPD:	Co-60	RDL:25	pCi/L	LCL:	UCL:	RPD:

TestAmerica Laboratories, Inc.

3/25/2011 11:06:11 AM

Sample Preparation/Analysis

AW Gamma Prp GAM001
TA Gamma by HPGE
5I CLIENT: HANFORD

Balance Id:1117411003

Pipet #: _____

AnalyDueDate: 03/31/2011

Sep1 DT/Tm Tech:

Batch: 1083454 pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

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

Cs-137	RDL:15	pCi/L	LCL:	UCL:	RPD:	Cs-137DA	RDL:15	pCi/L	LCL:	UCL:	RPD:
Eu-152	RDL:50	pCi/L	LCL:	UCL:	RPD:	Eu-154	RDL:50	pCi/L	LCL:	UCL:	RPD:
Eu-155	RDL:50	pCi/L	LCL:	UCL:	RPD:	Fe-59	RDL:--	pCi/L	LCL:	UCL:	RPD:
MF58K1AC-LCS:											
Cs-137	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20	Cs-137DA	RDL:15	pCi/L	LCL:70	UCL:130	RPD:20
K-40	RDL:6	pCi/L	LCL:70	UCL:130	RPD:20	Ra-226	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
RA-228	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20	RA-228DA	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20
U-238	RDL:--	pCi/L	LCL:70	UCL:130	RPD:20						

MF5X01AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

MF58K1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

MF58K1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

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4/13/2011 10:45:45 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/13/2010, 4/18/2011, Batch: '1083454', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1083454						
AC		Rev1C	BockJ	3/25/2011 11:00:25		
SC			MaucleriS	IsBatched	3/25/2011 8:23:38 AM	ICOC_RADCALC v4.8.49
SC			BockJ	InPrep	3/25/2011 11:00:25 AM	RL-PRP-004 REVISION 1
SC			BockJ	Prep1C	3/25/2011 11:06:14 AM	RL-PRP-004 REVISION 1
SC			BockJ	Prep2C	3/28/2011 5:46:10 PM	RL-GAM-001 REVISION 1
SC			BlackCL	InCnt1	3/29/2011 12:06:40 AM	RL-CI-007 REVISION 1
SC			ClarkR	CalcC	3/29/2011 11:04:12 AM	RL-CI-007 REVISION 1
SC			BlackCL	CalcC	4/12/2011 9:03:42 AM	RL-CI-007 REVISION 1
SC			nortonj	Rev1C	4/13/2011 10:45:17 AM	RL-DR-001 Rev 2
AC			BockJ	3/25/2011 11:06:14		
AC			BockJ	3/28/2011 5:46:10 PM		
AC			BlackCL	3/29/2011 12:06:40		
AC			ClarkR	3/29/2011 11:04:12		
AC			BlackCL	4/12/2011 9:03:42		
AC			nortonj	4/13/2011 10:45:17		

AC: Accepting Entry; SC: Status Change

3/25/2011 10:25:44 AM

Sample Preparation/Analysis

Balance Id:1117411003

127642, Washington Closure Hanford LLC , Bechtel Hanford, Inc.

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/31/2011

Sep1 DT/Tm Tech:

Batch: 1083458 WATER pCi/L PM, Quote: RW2, 27023

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

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 MF5X0-1-AJ J1C240598-1-SAMP 03/24/2011 09:15	AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8	2054.50g,in	ITA10523 02/01/11		0.1186 0.0866 32.0	200	L4	1727	7/11/11 m	Scr: Alpha: Beta:
2 MF5X0-1-AT-X J1C240598-1-DUP 03/24/2011 09:15	AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8	ISV								Scr: Alpha: Beta:
3 MF58P-1-AA-B J1C240000-458-BLK 03/25/2011 08:09 pd	AmtRec:	2001.60g,in	ITA10524 02/01/11	#Containers: 1	~~0.1236~~ ~~0.0879~~ ~~35.7~~	0.1248 0.0856 35.2	~~L5~~ L4	~~1728~~ 2126	~~3/31/11 m~~ 3/31/11 RCBurOD	Scr: Alpha: Beta:
4 MF58P-1-AC-C J1C240000-458-LCS 03/25/2011 08:09 pd	AmtRec:	2001.10g,in	ISD1200 01/14/11	#Containers: 1	~~0.1207~~ ~~0.0856~~ ~~35.7~~	0.1236 0.0879 35.7	~~RCB 1/14~~ 3/31/11 L4	~~2126~~ 1728	~~3/31/11 m~~ 3/31/11 m	Scr: Alpha: Beta:

Comments: PH, neutral. No Dup. Paired due to insuff. volume. SJB 3-25-11
BLK, SPK switch. Sample vertical RC 4/1/11

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27023

MF5X01AJ-SAMP Constituent List:

I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

MF58P1AA-BLK:

I-129	RDL:5	pCi/L	LCL:	UCL:	RPD:

MF58P1AC-LCS:

I-129	RDL:5	pCi/L	LCL:70	UCL:130	RPD:20

MF5X01AJ-SAMP Calc Info:

TestAmerica Laboratories, Inc.

3/25/2011 10:25:44 AM

Sample Preparation/Analysis

Balance Id:1117411003

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/31/2011

Sep1 DT/Tm Tech:

Batch: 1083458 pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

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:

```
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MF58P1AA-BLK:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MF58P1AC-LCS:
    Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


TestAmerica Laboratories, Inc.

4/1/2011 1:32:03 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/1/2010, 4/6/2011, Batch: '1083458', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1083458						
AC		**Rev1C**	**BockJ**	3/25/2011 10:08:45		
SC			MaucieriS	IsBatched	3/25/2011 8:23:49 AM	ICOC_RADCALC v4.8.49
SC			BockJ	InPrep	3/25/2011 10:08:45 AM	RL-PRP-004 REVISION 1
SC			BockJ	Prep2C	3/25/2011 10:26:10 AM	RL-GAM-002 REVISION 1
SC			BockJ	Prep2C	3/31/2011 1:57:14 PM	RL-GAM-002 REVISION 1
SC			ClarkR	InCnt1	3/31/2011 2:02:23 PM	RL-CI-007 REVISION 1
SC			ClarkR	CalcC	4/1/2011 10:04:44 AM	RL-CI-007 REVISION 1
SC			antonsonl	Rev1C	4/1/2011 1:30:59 PM	RL-DR-001 Rev 2
AC			**BockJ**	3/25/2011 10:26:10		
AC			**BockJ**	3/31/2011 1:57:14 PM		
AC			**ClarkR**	3/31/2011 2:02:23 PM		
AC			**ClarkR**	4/1/2011 10:04:44		
AC			**antonsonl**	4/1/2011 1:30:59 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

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Grp Rec Cnt: 6

ICOCFractions v4.8.44

3/25/2011 10:52:33 AM

Sample Preparation/Analysis

Balance Id:1117411003

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

AM Tc-99 Prp/Sep LSC013
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 03/31/2011

Sep1 DT/Tm Tech:

Batch: 1083461 WATER pCi/L PM, Quote: RW2, 27023

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockJ

Work Order, Lot, Sample DateTime	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 MF5X0-1-AF J1C240598-1-SAMP 03/24/2011 09:15		125.90g,in AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8		60		Scr:	Alpha:	Beta:
2 MF5X0-1-AW-S J1C~~240598-1-MS~~ ISV 03/24/2011 09:15		AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8				Scr:	Alpha:	Beta:
3 MF5X0-1-AX-X J1C240598-1-DUP 03/24/2011 09:15		125.60g,in AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8				Scr:	Alpha:	Beta:
4 MF58W-1-AA-B J1C240000-461-BLK 03/25/2011 08:09 pd		127.90g,in AmtRec: #Containers: 1				Scr:	Alpha:	Beta:
5 MF58W-1-AC-C J1C240000-461-LCS 03/25/2011 08:09 pd		125.00g,in AmtRec: #Containers: 1	TCSE2486 10/01/10,pd 07/01/05 r			Scr:	Alpha:	Beta:
6 MF58W-1-AD-BN J1C240000-461-IBLK 03/25/2011 08:09 pd		AmtRec: #Containers: 1				Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

3/25/2011 10:48:10 AM

Sample Preparation/Analysis

AM Tc-99 Prp/Sep LSC013
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 03/31/2011

Batch: 1083461 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	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: pH <2.0. NO ~~Dup~~. due to ISV. (Per Rhonda W.) JB 3-25-11
MS. JB 3-29-11

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27023

MF5X01AF-SAMP Constituent List:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
MF5X01AW-MS Constituent List:

MF58W1AA-BLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:
MF58W1AC-LCS:
Tc-99 RDL:15 pCi/L LCL:70 UCL:130 RPD:20
MF58W1AD-IBLK:
Tc-99 RDL:15 pCi/L LCL: UCL: RPD:

MF5X01AF-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF5X01AW-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF58W1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF58W1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF58W1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

4/1/2011 10:21:13 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/1/2010, 4/6/2011, Batch: '1083461', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1083461						
AC		Rev1C	**BockJ**	3/25/2011 10:37:28		
SC			MaucieriS	IsBatched	3/25/2011 8:24:09 AM	ICOC_RADCALC v4.8.49
SC			BockJ	InPrep	3/25/2011 10:37:28 AM	RL-PRP-004 REVISION 1
SC			BockJ	Prep1C	3/25/2011 10:48:13 AM	RL-PRP-004 REVISION 1
SC			NyeM	Sep2C	3/30/2011 11:48:11 AM	RL-LSC-013 REVISION 1
SC			BlackCL	InCnt1	3/30/2011 11:58:09 AM	RL-CI-005 REVISION 1
SC			BlackCL	CalcC	4/1/2011 7:37:23 AM	RL-CI-005 REVISION 1
SC			antonsonl	Rev1C	4/1/2011 10:21:05 AM	RL-DR-001 Rev 2
AC			**BockJ**	3/25/2011 10:48:13		
AC			**NyeM**	3/30/2011 11:48:11		
AC			**BlackCL**	3/30/2011 11:58:09		
AC			**BlackCL**	4/1/2011 7:37:23 AM		
AC			**antonsonl**	4/1/2011 10:21:05		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions v4.8.44

96

3/25/2011 8:10:36 AM

Sample Preparation/Analysis

Balance Id:

127642, Washington Closure Hanford LLC , AR H-3 Prp/Sep LSC005

Bechtel Hanford, Inc. S6 Tritium by Liquid Scint

Pipet #:

AnalyDueDate: 03/31/2011 5I CLIENT: HANFORD PRIORITY

Sep1 DT/Tm Tech:

Batch: 1083463 WATER pCi/L PM, Quote: RW2, 27023

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

Work Order, Lot, Sample DateTime	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 MF5X0-1-AD J1C240598-1-SAMP 03/24/2011 09:15		AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8				Scr:	Alpha:	Beta:
2 MF5X0-1-A0-X J1C240598-1-DUP 03/24/2011 09:15		AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8				Scr:	Alpha:	Beta:
3 MF59A-1-AA-B J1C240000-463-BLK 03/25/2011 08:09 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
4 MF59A-1-AC-C J1C240000-463-LCS 03/25/2011 08:09 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
5 MF59A-1-AD-BX J1C240000-463-MBLK 03/25/2011 08:09 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 MF59A-1-AE-CM J1C240000-463-MLCS 03/25/2011 08:09 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
7 MF59A-1-AF-BN J1C240000-463-IBLK 03/25/2011 08:09 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

3/25/2011 8:10:37 AM

Sample Preparation/Analysis

AR H-3 Prp/Sep LSC005
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

Balance Id:

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

AnalyDueDate: 03/31/2011

Batch: 1083463 pCi/L

SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	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:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27023

MF5X01AD-SAMP Constituent List:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20
MF59A1AA-BLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:
MF59A1AC-LCS:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20
MF59A1AD-MBLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:
MF59A1AE-MLCS:
H-3 RDL:400 pCi/L LCL:70 UCL:130 RPD:20
MF59A1AF-IBLK:
H-3 RDL:400 pCi/L LCL: UCL: RPD:

MF5X01AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF59A1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF59A1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF59A1AD-MBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF59A1AE-MLCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF59A1AF-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

4/5/2011 10:48:49 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/5/2010, 4/10/2011, Batch: '1083463', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1083463						
AC		**Rev1C**	**WagnerF**	4/1/2011 7:39:50 AM		
SC			MaucieriS	IsBatched	3/25/2011 8:24:14 AM	ICOC_RADCALC v4.8.49
SC			WagnerF	Sep1C	4/1/2011 7:39:50 AM	RL-LSC-005 REVISION 1
SC			BlackCL	InCnt1	4/1/2011 8:52:58 AM	RL-CI-005 REVISION 1
SC			ClarkR	CalcC	4/4/2011 2:07:49 PM	RL-CI-005 REVISION 1
SC			WhelandS	Rev1C	4/5/2011 10:48:14 AM	RL-DR-001 Rev 2
AC			**BlackCL**	4/1/2011 8:52:58 AM		
AC			**ClarkR**	4/4/2011 2:07:49 PM		
AC			**WhelandS**	4/5/2011 10:48:14		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Grp Rec Cnt: 4

ICOCFractions v4.8.44

3/25/2011 8:10:38 AM

Sample Preparation/Analysis

127642, Washington Closure Hanford LLC , Bechtel Hanford, Inc.

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

PRIORITY

AnalyDueDate: 03/31/2011

Batch: 1083464 WATER pCi/L PM, Quote: RW2, 27023
SEQ Batch, Test: None

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	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MF5X0-1-AK J1C240598-1-SAMP 03/24/2011 09:15	AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8					Scr:	Alpha:	Beta:
2 MF5X0-1-A1-X J1C240598-1-DUP 03/24/2011 09:15	insufficient Amt. for duplicate Analysis. 4/1/11 JMW AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8					Scr:	Alpha:	Beta:
3 MF59D-1-AA-B J1C240000-464-BLK 03/25/2011 08:09 pd	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
4 MF59D-1-AC-C J1C240000-464-LCS 03/25/2011 08:09 pd	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
5 MF59D-1-AD-BN J1C240000-464-IBLK 03/25/2011 08:09 pd	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27023

MF5X01AK-SAMP Constituent List:

Sample Preparation/Analysis

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 03/31/2011

Batch: 1083464 pCi/L
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	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:

```
MF59D1AA-BLK:

MF59D1AC-LCS:
  C-14        RDL:200        pCi/L     LCL:70      UCL:130     RPD:20
MF59D1AD-IBLK:

MF5X01AK-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MF59D1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MF59D1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MF59D1AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


TestAmerica Laboratories, Inc.

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4/4/2011 4:23:30 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/4/2010, 4/9/2011, Batch: '1083464', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1083464						
AC		Rev1C	WagnerF	4/1/2011 7:39:26 AM		
SC			MaucieriS	IsBatched	3/25/2011 8:24:18 AM	ICOC_RADCALC v4.8.49
SC			WagnerF	Sep1C	4/1/2011 7:39:26 AM	RL-LSC-008 REVISION 1
SC			BlackCL	InCnt1	4/1/2011 9:07:49 AM	RL-CI-005 REVISION 1
SC			DawkinsO	CalcC	4/3/2011 10:25:37 PM	RL-CI-005 REVISION 1
SC			antonsonl	Rev1C	4/4/2011 4:23:24 PM	RL-DR-001 Rev 2
AC			BlackCL	4/1/2011 9:07:49 AM		
AC			DawkinsO	4/3/2011 10:25:37 PM		
AC			antonsonl	4/4/2011 4:23:24 PM		

AC: Accepting Entry; SC: Status Change

3/25/2011 5:15:12 PM

Sample Preparation/Analysis

127642, Washington Closure Hanford LLC , Bechtel Hanford, Inc.

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

AnalyDueDate: 03/31/2011

5I CLIENT: HANFORD

Balance Id:

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech:

Batch: 1083417 WATER mg/L PM, Quote: RW2, 27023

SEQ Batch, Test: None All Tests: 1083417 88EA, 1083454 AWTA, 1083456 CLTL, 1083458 BNTB, 1083459 AZS7, 1083460 BCS8, 1083461 AMS5, 1083463 ARS6, 1083464 5SS3, 1084147 CGTH,

Work Order, Lot, Sample DateTime	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 MF5X0-1-AG								
J1C240598-1-SAMP								
03/24/2011 09:15		AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8				Scr:	Alpha:	Beta:
2 MF5X0-1-AM-S								
J1C240598-1-MS								
03/24/2011 09:15		AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8				Scr:	Alpha:	Beta:
3 MF5X0-1-AN-D								
J1C240598-1-MSD								
03/24/2011 09:15		AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8				Scr:	Alpha:	Beta:
4 MF5X0-1-AP-X								
J1C240598-1-DUP								
03/24/2011 09:15		AmtRec: 2X120G,2X250MLP,1X500MLP, #Containers: 8				Scr:	Alpha:	Beta:
5 MF512-1-AA-B								
J1C240000-417-BLK								
03/25/2011 17:15 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:
6 MF512-1-AC-C								
J1C240000-417-LCS								
03/25/2011 17:15 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

3/25/2011 5:15:12 PM

Sample Preparation/Analysis

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

Balance Id:

Pipet #:

AnalyDueDate: 03/31/2011

Sep1 DT/Tm Tech:

Batch: 1083417 mg/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample DateTime	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:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27023

MF5X01AG-SAMP Constituent List:
HEXCHROME RDL:0.0037 mg/L LCL:85 UCL:115 RPD:20
MF5X01AM-MS Constituent List:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20
MF5X01AN-MSD:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20
MF5121AA-BLK:
HEXCHROME RDL:0.002 mg/L LCL: UCL: RPD:
MF5121AC-LCS:
HEXCHROME RDL:0.002 mg/L LCL:85 UCL:115 RPD:20

MF5X01AG-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF5X01AM-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF5X01AN-MSD:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF5121AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MF5121AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-13904-1

SDG Number: JP0140

Job Description: SAF# RC-076

For:
Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Project Manager II
4/9/2011 1:43 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
04/09/2011

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.
TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-13904-1

SDG #: JP0140
SAF#: RC-076

Date SDG Closed: March 25, 2011
Data Deliverable: 7 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1FL24	280-13904-1	6010/7470/300.0/353.2/9040/350.1/9010/ 415.1/2540C/9050/8260A/8270A/8082	6010B/6020/7470A/300.0/353.2/9040B/350.1/9012A/ 5310B/2540C/9050A/8260B/8270C/8082

The method substitutions noted above, as agreed to by all parties, have no technical impact on the data.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this Case Narrative. 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 signature on the Report Cover.

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits, with any exceptions noted. Calculations are performed before rounding to avoid round-off errors in calculated results.

This report includes reporting limits (RLs) less than TestAmerica Denver's practical quantitation limits. These reporting limits are being used specifically at the client's request to meet the needs of this project. Please note that data are not normally reported to these levels without qualification, since they are inherently less reliable and potentially less defensible than required by the current NELAC standards.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The sample was received on 3/25/2011; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 5.2 C.

Sample J1FL24, requesting Metals analysis, was received at the laboratory improperly preserved. The laboratory adjusted the pH of the sample, and proceeded with the requested analysis. The client was notified on 3/25/2011.

GC/MS VOLATILES - SW846 8260B
The method required MS/MSD could not be performed for batch 280-59977, due to insufficient sample volume submitted by the client. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

GC/MS SEMIVOLATILES - SW846 8270C
The method required MS/MSD could not be performed for batch 280-59381, due to insufficient sample volume submitted by the client. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

GC SEMIVOLATILES - SW846 8082 - PCBs
The method required MS/MSD could not be performed for batch 280-59390, due to insufficient sample volume submitted by the client. A duplicate LCS (LCSD) was analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/6020/7470A
Due to insufficient sample volume submitted by the client, the Matrix Spike and Sample Duplicate analysis for SW846 6010B batch 280-59406 and SW846 6020 batch 280-59405 could not be performed. Duplicate LCS (LCSD) were analyzed to provide some evidence of batch precision.

No other anomalies were encountered.

GENERAL CHEMISTRY - MCAWW 300.0 - ANIONS
No anomalies were encountered.

GENERAL CHEMISTRY - MCAWW 350.1 - AMMONIA as N
Low levels of Ammonia as N are present in the method blank associated with batch 280-59412. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.

The Matrix Spike performed on sample J1FL24 exhibited the percent recovery outside the control limits, and the associated sample result has been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GENERAL CHEMISTRY - MCAWW 353.2 - NITRATE+NITRITE
No anomalies were encountered.

GENERAL CHEMISTRY - SW846 9012A - TOTAL CYANIDE
No anomalies were encountered.

GENERAL CHEMISTRY - SM 2540C - TOTAL DISSOLVED SOLIDS
No anomalies were encountered.

GENERAL CHEMISTRY - SM 5310B - TOTAL ORGANIC CARBON
No anomalies were encountered.

GENERAL CHEMISTRY - SW846 9040B - PH
No anomalies were encountered.

GENERAL CHEMISTRY - SW846 9050A - SPECIFIC CONDUCTANCE
No anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an Estimated Value for TICs
	N	Presumptive evidence of material.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	J	Indicates an Estimated Value for TICs
	N	Presumptive evidence of material.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Analyzed for but not detected.
Metals		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
General Chemistry		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	N	MS, MSD: Spike recovery exceeds upper or lower control limits.
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Purge and Trap	TAL DEN		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Liquid-Liquid Extraction (Continuous)	TAL DEN		SW846 3520C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Liquid-Liquid Extraction (Separatory Funnel)	TAL DEN		SW846 3510C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Total Metals	TAL DEN		SW846 3010A
Metals (ICP/MS)	TAL DEN	SW846 6020	
Preparation, Total Metals	TAL DEN		SW846 3020A
Mercury (CVAA)	TAL DEN	SW846 7470A	
Preparation, Mercury	TAL DEN		SW846 7470A
Anions, Ion Chromatography	TAL DEN	MCAWW 300.0	
Nitrogen, Ammonia	TAL DEN	MCAWW 350.1	
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Total Cyanide (Automated Colorimetric]	TAL DEN	SW846 9012A	
Cyanide, Total and/or Amenable, Distillation	TAL DEN		SW846 9012A
pH	TAL DEN	SW846 9040B	
Specific Conductance	TAL DEN	SW846 9050A	
Solids, Total Dissolved (TDS)	TAL DEN	SM SM 2540C	
Organic Carbon, Total (TOC)	TAL DEN	SM SM 5310B	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method	Analyst	Analyst ID
SW846 8260B	Ilczyszyn, Dennis P	DPI
SW846 8270C	Tinkham, Sarah A	SAT
SW846 8082	Pavlakovich, Adam M	AMP
SW846 6010B	Harre, John K	JKH
SW846 6020	Lill, Thomas E	TEL
SW846 7470A	Stoltz, Katie	KS
MCAWW 300.0	Phan, Thu L	TLP
MCAWW 350.1	Stosak, Lara E	LES
MCAWW 353.2	Stosak, Lara E	LES
SW846 9012A	Kilker, Lorelei M	LMK
SW846 9040B	Taylor, Juli M	JMT
SW846 9050A	Berry III, Paul B	PBB
SM SM 2540C	Domnick, Brandon J	BJD
SM SM 5310B	Yates, George E	GEY

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-13904-1	J1FL24	Water	03/24/2011 0915	03/25/2011 1000

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Client Sample ID: **J1FL24**

Lab Sample ID: 280-13904-1
Client Matrix: Water

Date Sampled: 03/24/2011 0915
Date Received: 03/25/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-59977	Instrument ID:	MSV_G2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G2_2646.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/30/2011 0442			Final Weight/Volume:	20 mL
Prep Date:	03/30/2011 0442				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
n-Butanol	17	U	17	60
2-Butanone (MEK)	2.0	U	2.0	6.0
Carbon disulfide	0.45	U	0.45	2.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Chloroform	0.16	U	0.16	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
2-Hexanone	1.7	U	1.7	5.0
Methylene Chloride	0.32	U	0.32	2.0
4-Methyl-2-pentanone (MIBK)	0.98	U	0.98	5.0
2-Pentanone	1.0	U	1.0	5.0
Propionitrile	3.7	U	3.7	20
Tetrachloroethene	0.20	U	0.20	1.0
Tetrahydrofuran	2.0	U	2.0	7.0
Toluene	4.2		0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		70 - 127
Toluene-d8 (Surr)	103		80 - 125
4-Bromofluorobenzene (Surr)	102		78 - 120
Dibromofluoromethane (Surr)	94		77 - 120

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Client Sample ID: **J1FL24**

Lab Sample ID: 280-13904-1
Client Matrix: Water

Date Sampled: 03/24/2011 0915
Date Received: 03/25/2011 1000

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-59977	Instrument ID:	MSV_G2
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	G2_2646.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	03/30/2011 0442			Final Weight/Volume:	20 mL
Prep Date:	03/30/2011 0442				

Tentatively Identified Compounds **Number TIC's Found:** **3**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	3.85	420	J N
	Unknown	10.85	3.9	J N
	Unknown	12.42	2.2	J N

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Client Sample ID: **J1FL24**

Lab Sample ID: 280-13904-1
Client Matrix: Water

Date Sampled: 03/24/2011 0915
Date Received: 03/25/2011 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-60024	Instrument ID:	MSS_Y
Prep Method:	3520C	Prep Batch:	280-59381	Lab File ID:	Y9143.D
Dilution:	1.0			Initial Weight/Volume:	972.3 mL
Analysis Date:	03/30/2011 0247			Final Weight/Volume:	1000 uL
Prep Date:	03/25/2011 1450			Injection Volume:	0.5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
N-Nitrosodimethylamine	0.30	U	0.30	10
1,4-Dichlorobenzene	0.33	U	0.33	4.1
Benzyl alcohol	0.24	U	0.24	10
2-Methylphenol	1.0	U	1.0	10
3 & 4 Methylphenol	0.26	U	0.26	10
Acetophenone	0.25	U	0.25	10
Hexachloroethane	2.2	U	2.2	10
Naphthalene	0.30	U	0.30	4.1
2,4-Dinitrotoluene	1.7	U	1.7	10
Di-n-octyl phthalate	0.36	U	0.36	4.1
Tributyl phosphate	1.2	U	1.2	51

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorophenol	67		51 - 120
Phenol-d5	75		51 - 120
Nitrobenzene-d5	69		48 - 120
2-Fluorobiphenyl	50		38 - 120
2,4,6-Tribromophenol	89		57 - 120
Terphenyl-d14	68		50 - 120

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Client Sample ID: **J1FL24**

Lab Sample ID: 280-13904-1
Client Matrix: Water

Date Sampled: 03/24/2011 0915
Date Received: 03/25/2011 1000

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-60024	Instrument ID:	MSS_Y
Prep Method:	3520C	Prep Batch:	280-59381	Lab File ID:	Y9143.D
Dilution:	1.0			Initial Weight/Volume:	972.3 mL
Analysis Date:	03/30/2011 0247			Final Weight/Volume:	1000 uL
Prep Date:	03/25/2011 1450			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **4**

Cas Number	Analyte	RT	Est. Result (ug/L)	Qualifier
	Unknown	1.89	93	N J
	Unknown	2.80	4.2	N J
	Unknown	4.47	85	N J
117-81-7	Bis(2-ethylhexyl) phthalate	10.77	2.5	J N J

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Client Sample ID: **J1FL24**

Lab Sample ID: 280-13904-1
Client Matrix: Water

Date Sampled: 03/24/2011 0915
Date Received: 03/25/2011 1000

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-59806	Instrument ID:	GCS_P3
Prep Method:	3510C	Prep Batch:	280-59390	Initial Weight/Volume:	848.5 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	03/28/2011 2221			Injection Volume:	1 uL
Prep Date:	03/25/2011 1435			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Aroclor 1016	0.15	U	0.15	0.59
Aroclor 1221	0.25	U	0.25	0.59
Aroclor 1232	0.20	U	0.20	0.59
Aroclor 1242	0.12	U	0.12	0.59
Aroclor 1248	0.11	U	0.11	0.59
Aroclor 1254	0.13	U	0.13	0.59
Aroclor 1260	0.19	U	0.19	0.59

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	59		30 - 136
Tetrachloro-m-xylene	70		25 - 120

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Client Sample ID: **J1FL24**

Lab Sample ID: 280-13904-1
Client Matrix: Water

Date Sampled: 03/24/2011 0915
Date Received: 03/25/2011 1000

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-59885	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-59406	Lab File ID:	25A1032911.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	03/29/2011 1501			Final Weight/Volume:	50 mL
Prep Date:	03/28/2011 1530				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Aluminum	8.2		0.018	0.050
Antimony	0.0031	U	0.0031	0.0060
Arsenic	0.011		0.0044	0.010
Barium	0.081		0.00058	0.0050
Beryllium	0.00047	U	0.00047	0.0010
Cadmium	0.00054	B	0.00045	0.0020
Calcium	12.1		0.034	0.20
Chromium	0.044		0.00066	0.0020
Copper	0.025		0.0014	0.010
Iron	12.4		0.022	0.050
Lead	0.020		0.0026	0.0050
Magnesium	4.8		0.011	0.20
Manganese	0.28		0.00025	0.0050
Nickel	0.012	B	0.0013	0.040
Potassium	33.6		0.24	3.0
Selenium	0.0049	U	0.0049	0.010
Silicon	27.6		0.035	0.50
Silver	0.00093	U	0.00093	0.0020
Sodium	101		0.092	0.50
Vanadium	0.025		0.0011	0.010
Zinc	0.063		0.0045	0.010

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-59766	Instrument ID:	MT_024
Prep Method:	3020A	Prep Batch:	280-59405	Lab File ID:	307AREF.D
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	03/29/2011 1004			Final Weight/Volume:	50 mL
Prep Date:	03/28/2011 1530				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Uranium	0.00086	B	0.000020	0.0010

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	280-59796	Instrument ID:	MT_033
Prep Method:	7470A	Prep Batch:	280-59416	Lab File ID:	110329AB.txt
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2011 1210			Final Weight/Volume:	30 mL
Prep Date:	03/28/2011 1730				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	0.00011	B	0.000027	0.00020

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Client Sample ID: **J1FL24**

Lab Sample ID: 280-13904-1
Client Matrix: Water

Date Sampled: 03/24/2011 0915
Date Received: 03/25/2011 1000

7470A Mercury (CVAA)

General Chemistry

Client Sample ID: **J1FL24**

Lab Sample ID: 280-13904-1
Client Matrix: Water

Date Sampled: 03/24/2011 0915
Date Received: 03/25/2011 1000

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.11	U	mg/L	0.11	0.20	1.0	300.0
Analysis Batch: 280-59689	Analysis Date: 03/25/2011 1655						
Nitrate as N	5.7		mg/L	0.042	0.50	1.0	300.0
Analysis Batch: 280-59688	Analysis Date: 03/25/2011 1655						
Chloride	4.0		mg/L	0.25	3.0	1.0	300.0
Analysis Batch: 280-59689	Analysis Date: 03/25/2011 1655						
Nitrite as N	0.049	U	mg/L	0.049	0.50	1.0	300.0
Analysis Batch: 280-59688	Analysis Date: 03/25/2011 1655						
Fluoride	0.10	B	mg/L	0.060	0.50	1.0	300.0
Analysis Batch: 280-59689	Analysis Date: 03/25/2011 1655						
Orthophosphate as P	0.28	B	mg/L	0.19	0.50	1.0	300.0
Analysis Batch: 280-59688	Analysis Date: 03/25/2011 1655						
Sulfate	22.5		mg/L	0.23	5.0	1.0	300.0
Analysis Batch: 280-59689	Analysis Date: 03/25/2011 1655						
Ammonia as N	0.086	B N C	mg/L	0.022	0.10	1.0	350.1
Analysis Batch: 280-59412	Analysis Date: 03/25/2011 1502						
Nitrate Nitrite as N	6.2		mg/L	0.019	0.10	1.0	353.2
Analysis Batch: 280-59415	Analysis Date: 03/25/2011 1502						
Total Cyanide	0.0020	U	mg/L	0.0020	0.010	1.0	9012A
Analysis Batch: 280-59510	Analysis Date: 03/26/2011 1232						
Prep Batch: 280-59374	Prep Date: 03/25/2011 1234						
Total Dissolved Solids	809		mg/L	4.7	10.0	1.0	SM 2540C
Analysis Batch: 280-59610	Analysis Date: 03/28/2011 0927						
Total Organic Carbon - Quad	5.1		mg/L	0.16	1.0	1.0	SM 5310B
Analysis Batch: 280-59481	Analysis Date: 03/25/2011 1653						

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH	8.88		SU	0.100	0.100	1.0	9040B
Analysis Batch: 280-59395	Analysis Date: 03/25/2011 1423						
Specific Conductance	556		umhos/cm	2.00	2.00	1.0	9050A
Analysis Batch: 280-59933	Analysis Date: 03/30/2011 1019						

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-59977					
LCS 280-59977/6	Lab Control Sample	T	Water	8260B	
LCSD 280-59977/7	Lab Control Sample Duplicate	T	Water	8260B	
MB 280-59977/8	Method Blank	T	Water	8260B	
280-13904-1	J1FL24	T	Water	8260B	

Report Basis
T = Total

GC/MS Semi VOA

Prep Batch: 280-59381					
LCS 280-59381/2-A	Lab Control Sample	T	Water	3520C	
LCSD 280-59381/3-A	Lab Control Sample Duplicate	T	Water	3520C	
MB 280-59381/1-A	Method Blank	T	Water	3520C	
280-13904-1	J1FL24	T	Water	3520C	
Analysis Batch:280-59803					
LCS 280-59381/2-A	Lab Control Sample	T	Water	8270C	280-59381
LCSD 280-59381/3-A	Lab Control Sample Duplicate	T	Water	8270C	280-59381
MB 280-59381/1-A	Method Blank	T	Water	8270C	280-59381
Analysis Batch:280-60024					
280-13904-1	J1FL24	T	Water	8270C	280-59381

Report Basis
T = Total

GC Semi VOA

Prep Batch: 280-59390					
LCS 280-59390/2-A	Lab Control Sample	T	Water	3510C	
LCSD 280-59390/3-A	Lab Control Sample Duplicate	T	Water	3510C	
MB 280-59390/1-A	Method Blank	T	Water	3510C	
280-13904-1	J1FL24	T	Water	3510C	
Analysis Batch:280-59806					
LCS 280-59390/2-A	Lab Control Sample	T	Water	8082	280-59390
LCSD 280-59390/3-A	Lab Control Sample Duplicate	T	Water	8082	280-59390
MB 280-59390/1-A	Method Blank	T	Water	8082	280-59390
280-13904-1	J1FL24	T	Water	8082	280-59390

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-59405					
LCS 280-59405/2-A	Lab Control Sample	T	Water	3020A	
LCSD 280-59405/3-A	Lab Control Sample Duplicate	T	Water	3020A	
MB 280-59405/1-A	Method Blank	T	Water	3020A	
280-13904-1	J1FL24	T	Water	3020A	
Prep Batch: 280-59406					
LCS 280-59406/2-A	Lab Control Sample	T	Water	3010A	
LCSD 280-59406/3-A	Lab Control Sample Duplicate	T	Water	3010A	
MB 280-59406/1-A	Method Blank	T	Water	3010A	
280-13904-1	J1FL24	T	Water	3010A	
Prep Batch: 280-59416					
LCS 280-59416/2-A	Lab Control Sample	T	Water	7470A	
MB 280-59416/1-A	Method Blank	T	Water	7470A	
280-13904-1	J1FL24	T	Water	7470A	
280-13904-1DU	Duplicate	T	Water	7470A	
280-13904-1MS	Matrix Spike	T	Water	7470A	
Analysis Batch:280-59766					
LCS 280-59405/2-A	Lab Control Sample	T	Water	6020	280-59405
LCSD 280-59405/3-A	Lab Control Sample Duplicate	T	Water	6020	280-59405
MB 280-59405/1-A	Method Blank	T	Water	6020	280-59405
280-13904-1	J1FL24	T	Water	6020	280-59405
Analysis Batch:280-59796					
LCS 280-59416/2-A	Lab Control Sample	T	Water	7470A	280-59416
MB 280-59416/1-A	Method Blank	T	Water	7470A	280-59416
280-13904-1	J1FL24	T	Water	7470A	280-59416
280-13904-1DU	Duplicate	T	Water	7470A	280-59416
280-13904-1MS	Matrix Spike	T	Water	7470A	280-59416
Analysis Batch:280-59885					
LCS 280-59406/2-A	Lab Control Sample	T	Water	6010B	280-59406
LCSD 280-59406/3-A	Lab Control Sample Duplicate	T	Water	6010B	280-59406
MB 280-59406/1-A	Method Blank	T	Water	6010B	280-59406
280-13904-1	J1FL24	T	Water	6010B	280-59406

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-59374					
HLCS 280-59374/1-A	High Level Control Sample	T	Water	9012A	
LCS 280-59374/3-A	Lab Control Sample	T	Water	9012A	
LLCS 280-59374/2-A	Low Level Control Sample	T	Water	9012A	
MB 280-59374/4-A	Method Blank	T	Water	9012A	
280-13904-1	J1FL24	T	Water	9012A	
280-13904-1DU	Duplicate	T	Water	9012A	
280-13904-1MS	Matrix Spike	T	Water	9012A	
Analysis Batch:280-59395					
LCS 280-59395/4	Lab Control Sample	T	Water	9040B	
LCSD 280-59395/5	Lab Control Sample Duplicate	T	Water	9040B	
280-13904-1	J1FL24	T	Water	9040B	
280-13904-1DU	Duplicate	T	Water	9040B	
Analysis Batch:280-59412					
LCS 280-59412/170	Lab Control Sample	T	Water	350.1	
MB 280-59412/169	Method Blank	T	Water	350.1	
280-13904-1	J1FL24	T	Water	350.1	
280-13904-1DU	Duplicate	T	Water	350.1	
280-13904-1MS	Matrix Spike	T	Water	350.1	
Analysis Batch:280-59415					
LCS 280-59415/170	Lab Control Sample	T	Water	353.2	
MB 280-59415/169	Method Blank	T	Water	353.2	
280-13904-1	J1FL24	T	Water	353.2	
280-13904-1DU	Duplicate	T	Water	353.2	
280-13904-1MS	Matrix Spike	T	Water	353.2	
Analysis Batch:280-59481					
LCS 280-59481/3	Lab Control Sample	T	Water	SM 5310B	
MB 280-59481/4	Method Blank	T	Water	SM 5310B	
280-13904-1	J1FL24	T	Water	SM 5310B	
280-13904-1DU	Duplicate	T	Water	SM 5310B	
280-13904-1MS	Matrix Spike	T	Water	SM 5310B	
Analysis Batch:280-59510					
HLCS 280-59374/1-A	High Level Control Sample	T	Water	9012A	280-59374
LCS 280-59374/3-A	Lab Control Sample	T	Water	9012A	280-59374
LLCS 280-59374/2-A	Low Level Control Sample	T	Water	9012A	280-59374
MB 280-59374/4-A	Method Blank	T	Water	9012A	280-59374
280-13904-1	J1FL24	T	Water	9012A	280-59374
280-13904-1DU	Duplicate	T	Water	9012A	280-59374
280-13904-1MS	Matrix Spike	T	Water	9012A	280-59374

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-59610					
LCS 280-59610/2	Lab Control Sample	T	Water	SM 2540C	
LCSD 280-59610/3	Lab Control Sample Duplicate	T	Water	SM 2540C	
MB 280-59610/1	Method Blank	T	Water	SM 2540C	
280-13904-1	J1FL24	T	Water	SM 2540C	
280-13904-1DU	Duplicate	T	Water	SM 2540C	
Analysis Batch:280-59688					
LCS 280-59688/24	Lab Control Sample	T	Water	300.0	
MB 280-59688/25	Method Blank	T	Water	300.0	
280-13904-1	J1FL24	T	Water	300.0	
280-13904-1DU	Duplicate	T	Water	300.0	
280-13904-1MS	Matrix Spike	T	Water	300.0	
Analysis Batch:280-59689					
LCS 280-59689/24	Lab Control Sample	T	Water	300.0	
MB 280-59689/25	Method Blank	T	Water	300.0	
280-13904-1	J1FL24	T	Water	300.0	
280-13904-1DU	Duplicate	T	Water	300.0	
280-13904-1MS	Matrix Spike	T	Water	300.0	
Analysis Batch:280-59933					
LCS 280-59933/3	Lab Control Sample	T	Water	9050A	
LCSD 280-59933/4	Lab Control Sample Duplicate	T	Water	9050A	
MB 280-59933/5	Method Blank	T	Water	9050A	
280-13904-1	J1FL24	T	Water	9050A	
280-13904-1DU	Duplicate	T	Water	9050A	

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59977

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 280-59977/8	Analysis Batch:	280-59977	Instrument ID:	MSV_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_2628.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/29/2011 2255	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	03/29/2011 2255				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acetone	1.9	U	1.9	10
Benzene	0.16	U	0.16	1.0
Bromodichloromethane	0.17	U	0.17	1.0
n-Butanol	17	U	17	60
2-Butanone (MEK)	2.0	U	2.0	6.0
Carbon disulfide	0.45	U	0.45	2.0
Carbon tetrachloride	0.19	U	0.19	1.0
Chlorobenzene	0.17	U	0.17	1.0
Chloroform	0.16	U	0.16	1.0
1,3-Dichlorobenzene	0.13	U	0.13	1.0
1,4-Dichlorobenzene	0.16	U	0.16	1.0
1,1-Dichloroethane	0.22	U	0.22	1.0
1,2-Dichloroethane	0.13	U	0.13	1.0
cis-1,2-Dichloroethene	0.15	U	0.15	1.0
trans-1,2-Dichloroethene	0.15	U	0.15	1.0
1,1-Dichloroethene	0.23	U	0.23	1.0
1,2-Dichloropropane	0.18	U	0.18	1.0
Ethylbenzene	0.16	U	0.16	1.0
2-Hexanone	1.7	U	1.7	5.0
Methylene Chloride	0.32	U	0.32	2.0
4-Methyl-2-pentanone (MIBK)	0.98	U	0.98	5.0
2-Pentanone	1.0	U	1.0	5.0
Propionitrile	3.7	U	3.7	20
Tetrachloroethene	0.20	U	0.20	1.0
Tetrahydrofuran	2.0	U	2.0	7.0
Toluene	0.17	U	0.17	1.0
1,1,1-Trichloroethane	0.16	U	0.16	1.0
1,1,2-Trichloroethane	0.27	U	0.27	1.0
Trichloroethene	0.16	U	0.16	1.0
Vinyl chloride	0.10	U	0.10	1.0
Xylenes, Total	0.19	U	0.19	2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	70 - 127
Toluene-d8 (Surr)	103	80 - 125
4-Bromofluorobenzene (Surr)	102	78 - 120
Dibromofluoromethane (Surr)	97	77 - 120

Method Blank TICs- Batch: 280-59977

Cas Number	Analyte	RT	Est. Result	Qual
	Unknown	3.79	24.9	N J

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-59977

Method: 8260B
Preparation: 5030B

LCS Lab Sample ID:	LCS 280-59977/6	Analysis Batch:	280-59977	Instrument ID:	MSV_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_2626.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/29/2011 2217	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	03/29/2011 2217				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-59977/7	Analysis Batch:	280-59977	Instrument ID:	MSV_G2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	G2_2627.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/29/2011 2236	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	03/29/2011 2236				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	96	86	77 - 120	10	20		
Bromodichloromethane	95	84	78 - 120	12	20		
Carbon tetrachloride	96	86	80 - 120	11	21		
Chlorobenzene	101	92	78 - 120	10	20		
Chloroform	98	88	78 - 120	11	20		
1,3-Dichlorobenzene	99	90	75 - 120	10	20		
1,1-Dichloroethane	94	84	77 - 120	12	21		
trans-1,2-Dichloroethene	99	91	80 - 120	9	24		
1,1-Dichloroethene	103	92	68 - 133	11	20		
1,2-Dichloropropane	89	80	76 - 120	11	20		
Ethylbenzene	99	90	78 - 120	9	26		
Methylene Chloride	100	83	60 - 134	19	20		
Tetrachloroethene	99	91	77 - 120	8	20		
Toluene	98	88	73 - 120	10	20		
1,1,1-Trichloroethane	93	84	78 - 120	10	20		
Trichloroethene	97	88	78 - 122	9	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100	87	70 - 127
Toluene-d8 (Surr)	111	99	80 - 125
4-Bromofluorobenzene (Surr)	112	100	78 - 120
Dibromofluoromethane (Surr)	109	95	77 - 120

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59381

Method: 8270C
Preparation: 3520C

Lab Sample ID:	MB 280-59381/1-A	Analysis Batch:	280-59803	Instrument ID:	MSS_Y
Client Matrix:	Water	Prep Batch:	280-59381	Lab File ID:	Y9079.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/29/2011 0053	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	03/25/2011 1450			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
N-Nitrosodimethylamine	0.29	U	0.29	10
1,4-Dichlorobenzene	0.32	U	0.32	4.0
Benzyl alcohol	0.23	U	0.23	10
2-Methylphenol	0.98	U	0.98	10
3 & 4 Methylphenol	0.25	U	0.25	10
Acetophenone	0.24	U	0.24	10
Hexachloroethane	2.1	U	2.1	10
Naphthalene	0.29	U	0.29	4.0
2,4-Dinitrotoluene	1.7	U	1.7	10
Di-n-octyl phthalate	0.35	U	0.35	4.0
Tributyl phosphate	1.1	U	1.1	50

Surrogate	% Rec	Acceptance Limits
2-Fluorophenol	76	51 - 120
Phenol-d5	81	51 - 120
Nitrobenzene-d5	79	48 - 120
2-Fluorobiphenyl	57	38 - 120
2,4,6-Tribromophenol	80	57 - 120
Terphenyl-d14	100	50 - 120

Method Blank TICs- Batch: 280-59381

Cas Number	Analyte	RT	Est. Result	Qual
	Unknown	1.92	86.6	N J
	Unknown	4.48	93.9	N J

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-59381

Method: 8270C
Preparation: 3520C

LCS Lab Sample ID:	LCS 280-59381/2-A	Analysis Batch:	280-59803	Instrument ID:	MSS_Y
Client Matrix:	Water	Prep Batch:	280-59381	Lab File ID:	Y9080.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/29/2011 0113	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	03/25/2011 1450			Injection Volume:	0.5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-59381/3-A	Analysis Batch:	280-59803	Instrument ID:	MSS_Y
Client Matrix:	Water	Prep Batch:	280-59381	Lab File ID:	Y9081.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/29/2011 0133	Units:	ug/L	Final Weight/Volume:	1000 uL
Prep Date:	03/25/2011 1450			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Phenol	82	76	52 - 120	7	42		
2-Chlorophenol	80	73	57 - 120	9	30		
1,4-Dichlorobenzene	41	35	27 - 120	14	52		
2-Methylphenol	79	72	50 - 120	9	30		
N-Nitrosodi-n-propylamine	79	73	50 - 120	7	30		
1,2,4-Trichlorobenzene	39	37	23 - 120	7	42		
4-Chloro-3-methylphenol	85	84	63 - 120	2	30		
2-Methylnaphthalene	59	56	32 - 120	5	32		
2,4,6-Trichlorophenol	85	84	52 - 120	2	30		
Acenaphthene	78	79	45 - 120	1	30		
4-Nitrophenol	100	102	49 - 124	2	35		
2,4-Dinitrotoluene	103	102	51 - 120	1	32		
Pentachlorophenol	100	100	40 - 120	1	33		
Anthracene	98	97	56 - 120	0	30		
Carbazole	98	97	48 - 120	1	30		
Pyrene	103	100	56 - 120	3	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
2-Fluorophenol	75	70	51 - 120
Phenol-d5	80	75	51 - 120
Nitrobenzene-d5	76	75	48 - 120
2-Fluorobiphenyl	67	70	38 - 120
2,4,6-Tribromophenol	95	95	57 - 120
Terphenyl-d14	101	99	50 - 120

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59390

Method: 8082
Preparation: 3510C

Lab Sample ID:	MB 280-59390/1-A	Analysis Batch:	280-59806	Instrument ID:	GCS_P3
Client Matrix:	Water	Prep Batch:	280-59390	Lab File ID:	010B1001.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/28/2011 2117	Units:	ug/L	Final Weight/Volume:	10000 uL
Prep Date:	03/25/2011 1435			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	0.12	U	0.12	0.50
Aroclor 1221	0.21	U	0.21	0.50
Aroclor 1232	0.17	U	0.17	0.50
Aroclor 1242	0.10	U	0.10	0.50
Aroclor 1248	0.092	U	0.092	0.50
Aroclor 1254	0.11	U	0.11	0.50
Aroclor 1260	0.16	U	0.16	0.50

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	98	30 - 136
Tetrachloro-m-xylene	84	25 - 120

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-59390

Method: 8082
Preparation: 3510C

LCS Lab Sample ID:	LCS 280-59390/2-A	Analysis Batch:	280-59806	Instrument ID:	GCS_P3
Client Matrix:	Water	Prep Batch:	280-59390	Lab File ID:	011B1101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/28/2011 2138	Units:	ug/L	Final Weight/Volume:	10000 uL
Prep Date:	03/25/2011 1435			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 280-59390/3-A	Analysis Batch:	280-59806	Instrument ID:	GCS_P3
Client Matrix:	Water	Prep Batch:	280-59390	Lab File ID:	012B1201.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/28/2011 2200	Units:	ug/L	Final Weight/Volume:	10000 uL
Prep Date:	03/25/2011 1435			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aroclor 1016	93	105	58 - 128	13	30		
Aroclor 1260	99	101	69 - 140	2	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Decachlorobiphenyl	96	98	30 - 136
Tetrachloro-m-xylene	83	87	25 - 120

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59406

Method: 6010B
Preparation: 3010A

Lab Sample ID:	MB 280-59406/1-A	Analysis Batch:	280-59885	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-59406	Lab File ID:	25A1032911.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/29/2011 1454	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/28/2011 1530				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	0.018	U	0.018	0.050
Antimony	0.0031	U	0.0031	0.0060
Arsenic	0.0044	U	0.0044	0.010
Barium	0.00058	U	0.00058	0.0050
Beryllium	0.00047	U	0.00047	0.0010
Cadmium	0.00045	U	0.00045	0.0020
Calcium	0.034	U	0.034	0.20
Chromium	0.00066	U	0.00066	0.0020
Copper	0.0014	U	0.0014	0.010
Iron	0.022	U	0.022	0.050
Lead	0.0026	U	0.0026	0.0050
Magnesium	0.011	U	0.011	0.20
Manganese	0.00025	U	0.00025	0.0050
Nickel	0.0013	U	0.0013	0.040
Potassium	0.24	U	0.24	3.0
Selenium	0.0049	U	0.0049	0.010
Silicon	0.035	U	0.035	0.50
Silver	0.00093	U	0.00093	0.0020
Sodium	0.092	U	0.092	0.50
Vanadium	0.0011	U	0.0011	0.010
Zinc	0.0045	U	0.0045	0.010

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-59406

Method: 6010B
Preparation: 3010A

LCS Lab Sample ID:	LCS 280-59406/2-A	Analysis Batch:	280-59885	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-59406	Lab File ID:	25A1032911.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/29/2011 1456	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/28/2011 1530				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-59406/3-A	Analysis Batch:	280-59885	Instrument ID:	MT_025
Client Matrix:	Water	Prep Batch:	280-59406	Lab File ID:	25A1032911.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/29/2011 1458	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/28/2011 1530				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aluminum	97	98	87 - 111	1	20		
Antimony	96	98	88 - 110	1	20		
Arsenic	95	96	88 - 110	1	20		
Barium	106	106	90 - 112	0	20		
Beryllium	100	100	89 - 113	0	20		
Cadmium	104	105	88 - 111	1	20		
Calcium	101	101	90 - 111	0	20		
Chromium	103	104	90 - 113	0	20		
Copper	99	100	86 - 112	1	20		
Iron	96	96	89 - 115	1	20		
Lead	95	95	89 - 110	0	20		
Magnesium	102	102	90 - 113	0	20		
Manganese	105	105	90 - 110	1	20		
Nickel	101	101	89 - 111	0	20		
Potassium	105	105	89 - 114	0	20		
Selenium	98	98	85 - 112	0	20		
Silicon	100	99	90 - 110	0	20		
Silver	108	109	86 - 115	1	20		
Sodium	104	103	90 - 115	1	20		
Vanadium	106	106	90 - 111	0	20		
Zinc	102	102	85 - 111	0	20		

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59405

Method: 6020
Preparation: 3020A

Lab Sample ID:	MB 280-59405/1-A	Analysis Batch:	280-59766	Instrument ID:	MT_024
Client Matrix:	Water	Prep Batch:	280-59405	Lab File ID:	304_BLK.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/29/2011 0955	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/28/2011 1530				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Uranium	0.000020	U	0.000020	0.0010

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-59405

Method: 6020
Preparation: 3020A

LCS Lab Sample ID:	LCS 280-59405/2-A	Analysis Batch:	280-59766	Instrument ID:	MT_024
Client Matrix:	Water	Prep Batch:	280-59405	Lab File ID:	305_LCS.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/29/2011 0958	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/28/2011 1530				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-59405/3-A	Analysis Batch:	280-59766	Instrument ID:	MT_024
Client Matrix:	Water	Prep Batch:	280-59405	Lab File ID:	306LCSD.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/29/2011 1001	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/28/2011 1530				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Uranium	111	111	85 - 119	0	20		

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59416

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 280-59416/1-A	Analysis Batch:	280-59796	Instrument ID:	MT_033
Client Matrix:	Water	Prep Batch:	280-59416	Lab File ID:	110329AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2011 1206	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	03/28/2011 1730				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.000027	U	0.000027	0.00020

Lab Control Sample - Batch: 280-59416

Method: 7470A
Preparation: 7470A

Lab Sample ID:	LCS 280-59416/2-A	Analysis Batch:	280-59796	Instrument ID:	MT_033
Client Matrix:	Water	Prep Batch:	280-59416	Lab File ID:	110329AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2011 1208	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	03/28/2011 1730				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00469	94	88 - 111	

Matrix Spike - Batch: 280-59416

Method: 7470A
Preparation: 7470A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59796	Instrument ID:	MT_033
Client Matrix:	Water	Prep Batch:	280-59416	Lab File ID:	110329AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2011 1215	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	03/28/2011 1730				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00011	B	0.00500	0.00506	99	88 - 111	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Duplicate - Batch: 280-59416

Method: 7470A
Preparation: 7470A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59796	Instrument ID:	MT_033
Client Matrix:	Water	Prep Batch:	280-59416	Lab File ID:	110329AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2011 1213	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	03/28/2011 1730				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.00011	B	0.000119	12	20	B

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59688

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 280-59688/25	Analysis Batch:	280-59688	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	134.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1639	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate as N	0.042	U	0.042	0.50
Nitrite as N	0.049	U	0.049	0.50
Orthophosphate as P	0.19	U	0.19	0.50

Method Reporting Limit Check - Batch: 280-59688

Method: 300.0
Preparation: N/A

Lab Sample ID:	MRL 280-59688/3	Analysis Batch:	280-59688	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 0907	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	0.200	0.203	102	50 - 150	B
Nitrite as N	0.200	0.194	97	50 - 150	B
Orthophosphate as P	0.200	0.19	61	50 - 150	U

Lab Control Sample - Batch: 280-59688

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 280-59688/24	Analysis Batch:	280-59688	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	133.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1622	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	5.00	5.13	103	90 - 110	
Nitrite as N	5.00	5.14	103	90 - 110	
Orthophosphate as P	5.00	5.45	109	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Matrix Spike - Batch: 280-59688

Method: 300.0
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59688	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	137.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1729	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	5.7		5.00	10.72	100	80 - 120	
Nitrite as N	0.049	U	5.00	5.04	101	80 - 120	
Orthophosphate as P	0.28	B	5.00	5.39	102	80 - 120	

Duplicate - Batch: 280-59688

Method: 300.0
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59688	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	136.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1712	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate as N	5.7		5.75	0.03	15	
Nitrite as N	0.049	U	0.049	NC	15	U
Orthophosphate as P	0.28	B	0.274	4	15	B

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59689

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 280-59689/25	Analysis Batch:	280-59689	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	134.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1639	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Bromide	0.11	U	0.11	0.20
Chloride	0.25	U	0.25	3.0
Fluoride	0.060	U	0.060	0.50
Sulfate	0.23	U	0.23	5.0

Method Reporting Limit Check - Batch: 280-59689

Method: 300.0
Preparation: N/A

Lab Sample ID:	MRL 280-59689/3	Analysis Batch:	280-59689	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 0907	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	0.200	0.190	95	50 - 150	B
Chloride	1.00	1.00	100	50 - 150	B
Fluoride	0.200	0.191	96	50 - 150	B
Sulfate	1.00	0.974	97	50 - 150	B

Lab Control Sample - Batch: 280-59689

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 280-59689/24	Analysis Batch:	280-59689	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	133.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1622	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	5.00	5.10	102	90 - 110	
Chloride	25.0	25.45	102	90 - 110	
Fluoride	5.00	5.25	105	90 - 110	
Sulfate	25.0	25.72	103	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Matrix Spike - Batch: 280-59689

Method: 300.0
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59689	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	137.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1729	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Bromide	0.11	U	5.00	4.93	99	80 - 120	
Chloride	4.0		25.0	29.47	102	80 - 120	
Fluoride	0.10	B	5.00	5.05	99	80 - 120	
Sulfate	22.5		25.0	47.80	101	80 - 120	

Duplicate - Batch: 280-59689

Method: 300.0
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59689	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	136.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1712	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Bromide	0.11	U	0.11	NC	15	U
Chloride	4.0		3.97	0.1	15	
Fluoride	0.10	B	0.102	2	15	B
Sulfate	22.5		22.35	0.5	15	

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59412

Method: 350.1
Preparation: N/A

Lab Sample ID:	MB 280-59412/169	Analysis Batch:	280-59412	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0325NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1454	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Ammonia as N	0.0453	B	0.022	0.10

Lab Control Sample - Batch: 280-59412

Method: 350.1
Preparation: N/A

Lab Sample ID:	LCS 280-59412/170	Analysis Batch:	280-59412	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0325NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/25/2011 1456	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia as N	5.00	5.21	104	90 - 110	

Matrix Spike - Batch: 280-59412

Method: 350.1
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59412	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0325NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	03/25/2011 1505	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Ammonia as N	0.086	B	4.00	3.52	86	90 - 110	N

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Duplicate - Batch: 280-59412

Method: 350.1
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59412	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0325NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1503	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Ammonia as N	0.086	B	0.0886	4	10	B

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59415

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-59415/169	Analysis Batch:	280-59415	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0325NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1454	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	0.019	U	0.019	0.10

Method Reporting Limit Check - Batch: 280-59415

Method: 353.2
Preparation: N/A

Lab Sample ID:	MRL 280-59415/17	Analysis Batch:	280-59415	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0325NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/25/2011 1049	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N	0.100	0.0844	84	50 - 150	B

Lab Control Sample - Batch: 280-59415

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCS 280-59415/170	Analysis Batch:	280-59415	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0325NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/25/2011 1456	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N	5.00	5.50	110	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Matrix Spike - Batch: 280-59415

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59415	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0325NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	03/25/2011 1505	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N	6.2	4.00	9.98	96	72 - 113	

Duplicate - Batch: 280-59415

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59415	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0325NXN.
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/25/2011 1503	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Nitrate Nitrite as N	6.2	6.19	0.6	20	

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59374

Method: 9012A
Preparation: 9012A

Lab Sample ID:	MB 280-59374/4-A	Analysis Batch:	280-59510	Instrument ID:	WC_Alp 1
Client Matrix:	Water	Prep Batch:	280-59374	Lab File ID:	C:\FLOW_4\CN032611
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/26/2011 1231	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/25/2011 1234				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Cyanide	0.0020	U	0.0020	0.010

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

High Level Control Sample - Batch: 280-59374

Method: 9012A
Preparation: 9012A

Lab Sample ID:	HLCS 280-59374/1-A	Analysis Batch:	280-59510	Instrument ID:	WC_Alp 1
Client Matrix:	Water	Prep Batch:	280-59374	Lab File ID:	C:\FLOW_4\CN032611
Dilution:	2.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/26/2011 1219	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/25/2011 1234				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Cyanide	0.400	0.410	102	90 - 110	

Low Level Control Sample - Batch: 280-59374

Method: 9012A
Preparation: 9012A

Lab Sample ID:	LLCS 280-59374/2-A	Analysis Batch:	280-59510	Instrument ID:	WC_Alp 1
Client Matrix:	Water	Prep Batch:	280-59374	Lab File ID:	C:\FLOW_4\CN032611
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/26/2011 1220	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/25/2011 1234				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Cyanide	0.100	0.107	107	90 - 110	

Lab Control Sample - Batch: 280-59374

Method: 9012A
Preparation: 9012A

Lab Sample ID:	LCS 280-59374/3-A	Analysis Batch:	280-59510	Instrument ID:	WC_Alp 1
Client Matrix:	Water	Prep Batch:	280-59374	Lab File ID:	C:\FLOW_4\CN032611
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/26/2011 1222	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/25/2011 1234				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Cyanide	0.100	0.106	106	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Matrix Spike - Batch: 280-59374

Method: 9012A
Preparation: 9012A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59510	Instrument ID:	WC_Alp 1
Client Matrix:	Water	Prep Batch:	280-59374	Lab File ID:	C:\FLOW_4\CN032611
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/26/2011 1234	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/25/2011 1234				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Total Cyanide	0.0020	U	0.100	0.0918	92	90 - 110	

Duplicate - Batch: 280-59374

Method: 9012A
Preparation: 9012A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59510	Instrument ID:	WC_Alp 1
Client Matrix:	Water	Prep Batch:	280-59374	Lab File ID:	C:\FLOW_4\CN032611
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/26/2011 1235	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/25/2011 1234				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Total Cyanide	0.0020	U	0.0020	NC	20	U

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-59395

Method: 9040B
Preparation: N/A

LCS Lab Sample ID:	LCS 280-59395/4	Analysis Batch:	280-59395	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	032511A.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/25/2011 1421	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-59395/5	Analysis Batch:	280-59395	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	032511A.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/25/2011 1422	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
pH	100	100	99 - 101	0	5		

Duplicate - Batch: 280-59395

Method: 9040B
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59395	Instrument ID:	WC_pH Probe
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	032511A.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/25/2011 1424	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	8.88	8.880	0	5	

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59933

Method: 9050A
Preparation: N/A

Lab Sample ID:	MB 280-59933/5	Analysis Batch:	280-59933	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/30/2011 1019	Units:	umhos/cm	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	RL	RL
Specific Conductance	2.00	U	2.00	2.00

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-59933

Method: 9050A
Preparation: N/A

LCS Lab Sample ID:	LCS 280-59933/3	Analysis Batch:	280-59933	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/30/2011 1019	Units:	umhos/cm	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-59933/4	Analysis Batch:	280-59933	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/30/2011 1019	Units:	umhos/cm	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Specific Conductance	101	101	90 - 110	0	10		

Duplicate - Batch: 280-59933

Method: 9050A
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59933	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	03/30/2011 1019	Units:	umhos/cm	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Specific Conductance	556	543.0	2	10	

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59610

Method: SM 2540C
Preparation: N/A

Lab Sample ID:	MB 280-59610/1	Analysis Batch:	280-59610	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/28/2011 0927	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Dissolved Solids	4.7	U	4.7	10.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-59610

Method: SM 2540C
Preparation: N/A

LCS Lab Sample ID:	LCS 280-59610/2	Analysis Batch:	280-59610	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/28/2011 0927	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-59610/3	Analysis Batch:	280-59610	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/28/2011 0927	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Total Dissolved Solids	98	97	86 - 110	1	20		

Duplicate - Batch: 280-59610

Method: SM 2540C
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59610	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/28/2011 0927	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids	809	794.0	2	10	

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Method Blank - Batch: 280-59481

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	MB 280-59481/4	Analysis Batch:	280-59481	Instrument ID:	WC_SHI3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	032511.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/25/2011 1639	Units:	mg/L	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Organic Carbon - Quad	0.16	U	0.16	1.0

Lab Control Sample - Batch: 280-59481

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	LCS 280-59481/3	Analysis Batch:	280-59481	Instrument ID:	WC_SHI3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	032511.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/25/2011 1624	Units:	mg/L	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon - Quad	25.0	24.84	99	88 - 112	

Matrix Spike - Batch: 280-59481

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59481	Instrument ID:	WC_SHI3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	032511.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/25/2011 1723	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon - Quad	5.1	25.0	29.95	99	88 - 112	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13904-1
Sdg Number: JP0140

Duplicate - Batch: 280-59481

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	280-13904-1	Analysis Batch:	280-59481	Instrument ID:	WC_SHI3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	032511.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	03/25/2011 1708	Units:	mg/L	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Organic Carbon - Quad	5.1	5.15	0.794	15	

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-076-036	Page 1 of 2

Collector: M BLANKENSHIP	Company Contact: D Woolery	Telephone No.: 509-431-0448	Project Coordinator: KESSNER, JH
Price Code: ~~7L~~ 7B	Data Turnaround: ~~24 Hours~~ 7 DAY		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Water	Sampling Location: 100-D-50:6 Pipelines and Catch Basins		SAF No.: RC-076
Ice Chest No.: ERC-96-511	Field Logbook No.: EL-1607-10	COA: R00D502000	Method of Shipment: FED EX
Shipped To: TestAmerica Incorporated, ~~Richland~~ DENVER	Offsite Property No.: NA		Bill of Lading/Air Bill No.: 7945 7088 5037

POSSIBLE SAMPLE HAZARDS/REMARKS

NONE JEB 3-24-11

Special Handling and/or Storage

Cool 4 degrees C

Preservation	HNO3 to pH <2	Cool 4C	Cool 4C	H2SO4 to pH <2 Cool 4C	NaOH to pH >= 12 Cool 4C	HCl or H2SO4 to pH <2 Coo	Cool 4C	Cool 4C	HCl or H2SO4 to pH <2 Coo	Cool 4C
Type of Container	G/P	G/P	P	G/P	G/P	G	G/P	P	aGs*	aG
No. of Container(s)	1	1	1	1	1	1	1	1	1	1
Volume	250mL	120mL	125mL	125mL	500mL	125mL	125mL	125mL	40mL	1000mL
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196	IC Anions - 300.0; NO2/NO3 - 353.2; pH (Water) - 9040	Ammonia - 350.1	Total Cyanide - 9010	TOC - 415.1	TDS - 2540C	Conductivity - 9050	VOA - 8260A (ETF)	Semi-VOA - 8270A (ETF)

Sample No.	Matrix *	Sample Date	Sample Time										
J1FL20	WATER												
J1FL21	WATER												
J1FL22	WATER												
J1FL23	WATER												
J1FL24	WATER	3/24/11	0915	X		X	X	X	X	X	X	X	X

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From: MD Blankenship	Date/Time: 3-24-11 1035	Received By/Stored In: D Woolery	Date/Time: 3/24/11 1035
Relinquished By/Removed From: D Woolery	Date/Time: 3/24/11 1135	Received By/Stored In: A Freier	Date/Time: 1135 3-24-11
Relinquished By/Removed From: A. Freier	Date/Time: 1200 3-24-11	Received By/Stored In: A Freier	Date/Time: AF 3-24-11 Fed Ex
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time: 3/25/11 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

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Uranium, Vanadium, Zinc}; Mercury - 7470 - (CV) {Mercury}

REVIEWED BY JEB DATE 3-24-11

JP0140

Matrix *
S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

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Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-076-036	Page 2 of 2

Collector M BLANKENSHIP	**Company Contact** D Woolery **Telephone No.** 509-431-0448	**Project Coordinator** KESSNER, JH	**Price Code** 71 87B D 3/18/11 **Data Turnaround** ~~24 Hours~~ 7 DAY D 3/17/11
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Water	**Sampling Location** 100-D-50:6 Pipelines and Catch Basins	**SAF No.** RC-076	
Ice Chest No. ERC-96-511	**Field Logbook No.** EL-1607-10 **COA** R00D502000	**Method of Shipment** FED EX	
Shipped To D 3/17/11 TestAmerica Incorporated, ~~Richland~~ DENVER	**Offsite Property No.** NA	**Bill of Lading/Air Bill No.** 7945 7088 5037	

POSSIBLE SAMPLE HAZARDS/REMARKS

NONE
JEB 3-24-11

Special Handling and/or Storage

Cool 4 degrees C

Preservation	Cool 4C	HNO3 to pH <2	HNO3 to pH <2 Cool 4C	None	HCl to pH <2	None	None			
Type of Container	aG	G/P	G/P	G/P	G/P	G/P	G			
No. of Container(s)	1	1	1	2	1	1	1			
Volume	1000mL	1000mL	500mL	2000mL	250mL	250mL	120mL			
SAMPLE ANALYSIS	PCBs - 8082	See item (1) in Special Instructions.	Gross Alpha & Beta - 900.0	Iodine-129	Technetium-99	Carbon-14	Tritium - 906.0; Strontium-89,90 -- Total Sr			

Sample No.	Matrix *	Sample Date	Sample Time										
J1FL20	WATER												
J1FL21	WATER												
J1FL22	WATER												
J1FL23	WATER												
J1FL24	WATER	3/24/11	0915	X									

3/24/11 3/17/11

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
M BLANKENSHIP	0955 3-24-11	DWOOLERY	3/24/11 1035
DWOOLERY	3/24/11 1135	A. Frerer	1135 3-24-11
A. Frerer	WCH 1200 3-24-11	Fed Ex	
			3/25/11 1000

SPECIAL INSTRUCTIONS

(1) Gamma Spec (Client List) {Americium-241, Antimony-125, Cerium-144, ~~Cesium-134, Cesium-137,~~ Cobalt-60, Curium-244, Europium-152, ~~Europium-154,~~ Europium-155, Neptunium-237, Niobium-94, ~~Radium-226,~~ Ruthenium-106, Zinc-65}

REVIEWED BY JEB DATE 3-24-11

JP0140

Matrix *
S=Soil
SE=Sediment
SO=Solid
SI=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Project 28002142 - Water (6010/7470 Water)

Analytical Due:

Report Due: 4/1/11 (Rush 5day TAT)

Sample Check-in List

Date/Time Received: 3/25/11 1000 GM Screen Result 13 microR/hr

Client: Washington Closure Hanford SDG #: JP01140 NA[ ] SAF #: RC-076 NA [ ]

Job Number: 13904 Chain of Custody # RC-076-036

Shipping Container ID: ERC-96-511 Air Bill # 7945708859 37

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 °C: 5.2 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? ~~NA [✓]~~ MT 3/25/11 pH<2 [ ] pH>2 [✓] pH>9 [ ] Amount HNO_3 Added ~2 ml
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): Metals bottle has a pH of 5

Sample Custodian: [signature] Date: 3/25/11

Client Sample ID	Analysis Requested	Condition	Comments/Action
J1FL24	Metals 6010, 7470	pH=5	Sent to Lab for preservation

Client Informed on 3/25/11 by MTM Person Contacted Joan Kessner

[ ] No action necessary; process as is.

Project Manager [signature] Date 3/25/11

LS-023, Rev. 7, 1/08

From: (509) 375-4640 Origin ID: PSCA
WCH MAILROOM
WASHINGTON CLOSURE HANFORD
2620 FERMI AVE

RICHLAND, WA 99354

J1151102250225

Ship Date: 24MAR11
ActWgt: 74.0 LB
CAD: 8897843/INET3130

Delivery Address Bar Code

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

Ref #
Invoice #
PO #
Dept #

FRI - 25 MAR A1
PRIORITY OVERNIGHT

TRK# 0201 7945 7088 5037

XH WHHA

80002
CO-US
DEN

50DG2/BDC9/7EFB

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