

Analytical Data Package Prepared For

**Fluor Hanford Inc.**

Radiochemical Analysis By  
**TestAmerica**

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

Assigned Laboratory Code: TARL

Data Package Contains \_\_\_\_\_ Pages

Report No.: 39582

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.	
<u>W05459</u>	F06-027	B1WCL0	J8G220235-1	KR0JK1AA	9KR0JK10	8204393	
		B1WCL0	J8G220235-1	KR0JK1AC	9KR0JK10	8204394	
		B1WCL1	J8G220235-2	KR0JL1AA	9KR0JL10	8204393	
		B1WCL1	J8G220235-2	KR0JL1AC	9KR0JL10	8204394	
		B1WCL2	J8G220235-3	KR0JM1AA	9KR0JM10	8204393	
		B1WCL2	J8G220235-3	KR0JM1AC	9KR0JM10	8204394	
		B1WCL3	J8G220235-4	KR0JP1AA	9KR0JP10	8204393	
		B1WCL3	J8G220235-4	KR0JP1AC	9KR0JP10	8204394	
		B1WCL4	J8G220235-5	KR0JR1AA	9KR0JR10	8204393	
		B1WCL4	J8G220235-5	KR0JR1AC	9KR0JR10	8204394	
		B1WCL5	J8G220235-6	KR0JX1AA	9KR0JX10	8204393	
		B1WCL5	J8G220235-6	KR0JX1AC	9KR0JX10	8204394	
		B1WCL6	J8G220235-7	KR0J01AA	9KR0J010	8204393	
		B1WCL6	J8G220235-7	KR0J01AC	9KR0J010	8204394	
		B1WCL7	J8G220235-8	KR0J11AA	9KR0J110	8204393	
		B1WCL7	J8G220235-8	KR0J11AC	9KR0J110	8204394	
		B1WCL8	J8G220235-9	KR0J41AA	9KR0J410	8204393	
		B1WCL8	J8G220235-9	KR0J41AC	9KR0J410	8204394	
		B1WCL9	J8G220235-10	KR0J51AA	9KR0J510	8204393	
		B1WCL9	J8G220235-10	KR0J51AC	9KR0J510	8204394	
		F06-027	B1WCM0	J8G220235-11	KR0J61AA	9KR0J610	8204393
			B1WCM0	J8G220235-11	KR0J61AC	9KR0J610	8204394
			B1WCM1	J8G220235-12	KR0KA1AA	9KR0KA10	8204393
			B1WCM1	J8G220235-12	KR0KA1AC	9KR0KA10	8204394
			B1WCM2	J8G220235-13	KR0KF1AA	9KR0KF10	8204393
		B1WCM2	J8G220235-13	KR0KF1AC	9KR0KF10	8204394	

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Report No.: 39582

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.
W05459	F06-027	B1WCM3	J8G220235-14	KR0KK1AA	9KR0KK10	8204393
		B1WCM3	J8G220235-14	KR0KK1AC	9KR0KK10	8204394
		B1WCM4	J8G220235-15	KR0KL1AA	9KR0KL10	8204393
		B1WCM4	J8G220235-15	KR0KL1AC	9KR0KL10	8204394
		B1WCM5	J8G220235-16	KR0KP1AA	9KR0KP10	8204393
		B1WCM5	J8G220235-16	KR0KP1AC	9KR0KP10	8204394
		B1WCM6	J8G220235-17	KR0KR1AA	9KR0KR10	8204393
		B1WCM6	J8G220235-17	KR0KR1AC	9KR0KR10	8204394

## Certificate of Analysis

Fluor Hanford, Inc.  
1200 Jadwin Ave.  
Richland, WA 99352

July 25, 2008

Attention: Steve Trent

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SAF Number	:	F06-027
Date SDG Closed	:	July 22, 2008
Number of Samples	:	Seventeen (17)
Sample Type	:	Water
SDG Number	:	W05459
Data Deliverable	:	3/15 Day

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### CASE NARRATIVE

#### I. Introduction

On July 22, 2008 seventeen samples were received at TestAmerica for radiochemical analysis. Upon receipt, the samples were assigned to lot J8G220235 and assigned the following laboratory ID number to correspond with the Fluor Hanford (FH) specific ID:

<u>FLH ID#</u>	<u>STLR ID#</u>	<u>DATE OF RECEIPT</u>	<u>MATRIX</u>
B1WCL0	KR0JK	7/22/08	WATER
B1WCL1	KR0JL	7/22/08	WATER
B1WCL2	KR0JM	7/22/08	WATER
B1WCL3	KR0JP	7/22/08	WATER
B1WCL4	KR0JR	7/22/08	WATER
B1WCL5	KR0JX	7/22/08	WATER
B1WCL6	KR0J0	7/22/08	WATER
B1WCL7	KR0J1	7/22/08	WATER
B1WCL8	KR0J4	7/22/08	WATER
B1WCL9	KR0J5	7/22/08	WATER
B1WCM0	KR0J6	7/22/08	WATER
B1WCM1	KR0KA	7/22/08	WATER
B1WCM2	KR0KF	7/22/08	WATER

Fluor Hanford, Inc.  
July 25, 2008

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B1WCM3	KR0KK	7/22/08	WATER
B1WCM4	KR0KL	7/22/08	WATER
B1WCM5	KR0KP	7/22/08	WATER
B1WCM6	KR0KR	7/22/08	WATER

## 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 RICH-RC-5014  
Gross Beta by method RICH-RC-5014

## 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 RICH-RC-5014:

The samples were not acidified. TestAmerica notified the client by email on July 22, 2008. TestAmerica also emailed an IRF on July 23, 2008. The client accepted the proposed resolution (Tracking Number: 08-105) on July 23, 2008.

All samples in this SDG except B1WCM6 were analyzed with reduced volumes based on weight screens. The blank, LCS and sample B1WCM6 meet the CRDL. All other samples do not meet the CRDL. The samples were counted for the maximum time of 200 minutes.

Except as noted, the LCS, batch blank, sample and sample duplicate (B1WCL1) results are within contractual requirements.

Fluor Hanford, Inc.  
July 25, 2008

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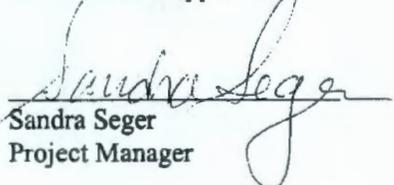
Gross Beta by method RICH-RC-5014:

The samples were not acidified. TestAmerica notified the client by email on July 22, 2008. TestAmerica also emailed an IRF on July 23, 2008. The client accepted the proposed resolution (Tracking Number: 08-105) on July 23, 2008.

All the samples in this SDG did not meet the CRDL due to reduced aliquot sized which were based on weight screen results. The samples were counted for the longest time frame appropriate to this analysis. Except as noted, the LCS, batch blank, sample and sample duplicate (BILTY8) results are within contractual requirements.

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

Reviewed and approved:

  
Sandra Seger  
Project Manager

**Seger, Sandra**

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**From:** Widrig, Dana L [Dana\_L\_Widrig@RL.gov]  
**Sent:** Tuesday, July 22, 2008 2:58 PM  
**To:** Seger, Sandra  
**Subject:** RE: Non Acidified Alpha and Beta Water Samples

Sandra,

Thanks for the heads up. You don't need to wait to run them. Just go ahead and acidify them and run them. But go ahead and write the IRF.

Thanks,

Dana

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**From:** Seger, Sandra [mailto:Sandra.Seger@testamericainc.com]  
**Sent:** Tuesday, July 22, 2008 1:28 PM  
**To:** Widrig, Dana L  
**Cc:** Trent, Stephen J  
**Subject:** Non Acidified Alpha and Beta Water Samples

Dana,

We received 17 water samples today for the 3 day alpha and beta project. One of the samples has a pH <2, the others are above 2. The bottle labels and lids indicate the samples were acidified. There is also an orange sticker noting the samples were acidified. Maybe there is a buffering problem as Steve suggested yesterday.

We will acidify the samples and let sit for 24 hours before processing. I'll send you a IRF for these samples.

Thanks,  
Sandra

Confidentiality Notice: The information contained in this message is intended only for the use of the addressee, and may be confidential and/or privileged. If the reader of this message is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately.

Please consider the environment before printing this e-mail.



**Seger, Sandra**

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**From:** Hampt, Heidi [Heidi\_Hampt@RL.gov]  
**Sent:** Wednesday, July 23, 2008 10:09 AM  
**To:** Seger, Sandra  
**Cc:** Trent, Stephen J; Ayres, Doris E; Widrig, Dana L  
**Subject:** RE: W05459 IRF  
**Attachments:** 08-105.DOC

Sandra,

Here is the response to the second IRF.

Thanks,  
Heidi

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**From:** Seger, Sandra [mailto:Sandra.Seger@testamericainc.com]  
**Sent:** Wednesday, July 23, 2008 8:50 AM  
**To:** Hampt, Heidi  
**Subject:** W05459 IRF

## 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	RICH-RC-5017
EPA 900.0	Alpha & Beta	RICH-RC-5014
EPA 00-02	Gross Alpha (Coprecipitation)	RICH-RC-5021
EPA 903.0	Total Alpha Radium (Ra-226)	RICH-RC-5027
EPA 903.1	Ra-226	RICH-RC-5005
EPA 904.0	Ra-228	RICH-RC-5005
EPA 905.0	Sr-89/90	RICH-RC-5006
ASTM D5174	Uranium	RICH-RC-5058
EPA 906.0	Tritium	RICH-RC-5007

**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,  $R = \text{constants} * f(x,y,z,\dots)$ . The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties ( $u_i$ ) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty ( $u_c$ ) multiplied by the coverage factor (1,2, or 3).

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

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

## Report Definitions

<b>Action Lev</b>	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.
<b>Batch</b>	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
<b>Bias</b>	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
<b>COC No</b>	Chain of Custody Number assigned by the Client or TestAmerica.
<b>Count Error (#s)</b>	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.
<b>Total Uncert (#s) <i>u<sub>c</sub> - Combined Uncertainty.</i></b>	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, <i>u<sub>c</sub> the combined uncertainty.</i> The uncertainty is absolute and in the same units as the result.
<b>(#s), Coverage Factor</b>	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
<b>CRDL (RL)</b>	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)
<b>Lc</b>	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%. $L_c = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt}/\text{BkgndCntMin}) / \text{SCntMin})) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$ . For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
<b>Lot-Sample No</b>	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.
<b>MDC MDA</b>	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \text{Sqrt}(\text{BkgndCnt}/\text{BkgndCntMin}) / \text{SCntMin}) + 2.71 / \text{SCntMin}) * (\text{ConvFct}/(\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$ . For LSC methods the batch blank is used as a measure of the background variability.
<b>Primary Detector</b>	The instrument identifier associated with the analysis of the sample aliquot.
<b>Ratio U-234/U-238</b>	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.
<b>Rst/MDC</b>	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.
<b>Rst/TotUcert</b>	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.
<b>Report DB No</b>	Sample Identifier used by the report system. The number is based upon the first five digits of the <b>Work Order</b> Number.
<b>RER</b>	The equation Replicate Error Ratio = $(S-D)/[\text{sqrt}(\text{TPUs}^2 + \text{TPUd}^2)]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
<b>SDG</b>	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
<b>Sum Rpt Alpha Spec Rst(s)</b>	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.
<b>Work Order</b>	The LIMS software assign test specific identifier.
<b>Yield</b>	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: 25-Jul-08

TestAmerica TARL

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

Report No. : 39582

SDG No: W05459

Batch	Client Id Work Order	Parameter	Result +- Uncertainty ( 2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
8204393	BETA_GPC								
	<b>B1WCL0</b>								
	KR0JK1AA	BETA	5.24E+01 +- 1.76E+01		pCi/L	100%	2.58E+01	4.00E+00	
	<b>B1WCL0 DUP</b>								
	KR0JK1AD	BETA	4.54E+01 +- 1.69E+01		pCi/L	100%	2.74E+01	4.00E+00	14.5
	<b>B1WCL1</b>								
	KR0JL1AA	BETA	6.65E+00 +- 5.76E+00	U	pCi/L	100%	1.09E+01	4.00E+00	
	<b>B1WCL2</b>								
	KR0JM1AA	BETA	6.74E+01 +- 1.70E+01		pCi/L	100%	2.30E+01	4.00E+00	
	<b>B1WCL3</b>								
	KR0JP1AA	BETA	2.45E+01 +- 1.42E+01	U	pCi/L	100%	2.55E+01	4.00E+00	
	<b>B1WCL4</b>								
	KR0JR1AA	BETA	1.06E+01 +- 1.04E+01	U	pCi/L	100%	1.99E+01	4.00E+00	
	<b>B1WCL5</b>								
	KR0JX1AA	BETA	5.12E+01 +- 2.38E+01		pCi/L	100%	4.10E+01	4.00E+00	
	<b>B1WCL6</b>								
	KR0J01AA	BETA	5.02E+01 +- 2.19E+01		pCi/L	100%	3.71E+01	4.00E+00	
	<b>B1WCL7</b>								
	KR0J11AA	BETA	7.68E+02 +- 1.01E+02		pCi/L	100%	2.17E+01	4.00E+00	
	<b>B1WCL8</b>								
	KR0J41AA	BETA	3.69E+01 +- 1.58E+01		pCi/L	100%	2.70E+01	4.00E+00	
	<b>B1WCL9</b>								
	KR0J51AA	BETA	7.13E+02 +- 9.39E+01		pCi/L	100%	1.86E+01	4.00E+00	
	<b>B1WCM0</b>								
	KR0J61AA	BETA	4.73E+02 +- 6.38E+01		pCi/L	100%	1.89E+01	4.00E+00	
	<b>B1WCM1</b>								
	KR0KA1AA	BETA	3.43E+02 +- 5.07E+01		pCi/L	100%	1.51E+01	4.00E+00	
	<b>B1WCM2</b>								
	KR0KF1AA	BETA	2.05E+03 +- 3.13E+02		pCi/L	100%	1.54E+01	4.00E+00	
	<b>B1WCM3</b>								
	KR0KK1AA	BETA	4.34E+02 +- 6.01E+01		pCi/L	100%	9.10E+00	4.00E+00	
	<b>B1WCM4</b>								
	KR0KL1AA	BETA	4.06E+02 +- 5.49E+01		pCi/L	100%	1.11E+01	4.00E+00	
	<b>B1WCM5</b>								
	KR0KP1AA	BETA	5.31E+02 +- 7.18E+01		pCi/L	100%	1.25E+01	4.00E+00	
	<b>B1WCM6</b>								
	KR0KR1AA	BETA	4.33E+02 +- 7.70E+01		pCi/L	100%	2.66E+00	4.00E+00	
8204394	RICHRC5014								
	<b>B1WCL0</b>								
	KR0JK1AC	ALPHA	2.92E+00 +- 7.55E+00	U	pCi/L	100%	1.37E+01	3.00E+00	

TestAmerica  
rptSTLRchSaSummary2 V5.1.6  
A2002

RPD - Relative Percent Difference.

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

**Sample Results Summary**

Date: 25-Jul-08

**TestAmerica TARL**

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

Report No. : 39582

SDG No: W05459

Batch	Client Id Work Order	Parameter	Result +- Uncertainty ( 2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
8204394	RICHRC5014								
	<b>B1WCL1</b>								
	KR0JL1AC	ALPHA	-1.04E+00 +- 4.86E+00	U	pCi/L	100%	9.16E+00	3.00E+00	
	<b>B1WCL1 DUP</b>								
	KR0JL1AD	ALPHA	1.56E+00 +- 3.26E+00	U	pCi/L	100%	5.66E+00	3.00E+00	998.3
	<b>B1WCL2</b>								
	KR0JM1AC	ALPHA	-1.33E+01 +- 1.58E+01	U	pCi/L	100%	3.26E+01	3.00E+00	
	<b>B1WCL3</b>								
	KR0JP1AC	ALPHA	1.86E+00 +- 5.90E+00	U	pCi/L	100%	1.12E+01	3.00E+00	
	<b>B1WCL4</b>								
	KR0JR1AC	ALPHA	1.60E+00 +- 6.01E+00	U	pCi/L	100%	1.13E+01	3.00E+00	
	<b>B1WCL5</b>								
	KR0JX1AC	ALPHA	-1.61E+00 +- 1.85E+01	U	pCi/L	100%	3.52E+01	3.00E+00	
	<b>B1WCL6</b>								
	KR0J01AC	ALPHA	-1.24E+01 +- 1.63E+01	U	pCi/L	100%	3.27E+01	3.00E+00	
	<b>B1WCL7</b>								
	KR0J11AC	ALPHA	-2.08E+00 +- 5.39E+00	U	pCi/L	100%	1.16E+01	3.00E+00	
	<b>B1WCL8</b>								
	KR0J41AC	ALPHA	2.80E+00 +- 8.16E+00	U	pCi/L	100%	1.48E+01	3.00E+00	
	<b>B1WCL9</b>								
	KR0J51AC	ALPHA	-3.29E+00 +- 3.54E+00	U	pCi/L	100%	8.71E+00	3.00E+00	
	<b>B1WCM0</b>								
	KR0J61AC	ALPHA	0.00E+00 +- 4.27E+00	U	pCi/L	100%	8.69E+00	3.00E+00	
	<b>B1WCM1</b>								
	KR0KA1AC	ALPHA	-5.05E-01 +- 2.68E+00	U	pCi/L	100%	6.07E+00	3.00E+00	
	<b>B1WCM2</b>								
	KR0KF1AC	ALPHA	1.98E+00 +- 2.82E+00	U	pCi/L	100%	4.59E+00	3.00E+00	
	<b>B1WCM3</b>								
	KR0KK1AC	ALPHA	1.38E+00 +- 2.88E+00	U	pCi/L	100%	5.00E+00	3.00E+00	
	<b>B1WCM4</b>								
	KR0KL1AC	ALPHA	-4.96E+00 +- 4.40E+00	U	pCi/L	100%	9.35E+00	3.00E+00	
	<b>B1WCM5</b>								
	KR0KP1AC	ALPHA	4.18E-01 +- 2.51E+00	U	pCi/L	100%	5.02E+00	3.00E+00	
	<b>B1WCM6</b>								
	KR0KR1AC	ALPHA	1.43E+00 +- 1.47E+00	U	pCi/L	100%	2.67E+00	3.00E+00	
	No. of Results:	36							

TestAmerica  
rptSTLRchSaSum  
mary2 V5.1.6  
A2002

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

QC Results Summary

Date: 25-Jul-08

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 39582

SDG No.: W05459

Batch	Work Order	Parameter	Result +- Uncertainty ( 2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC MDA
BETA_GPC									
8204393	BLANK QC,								
	KR0V61AA	BETA	1.39E+00 +- 9.55E-01	U	pCi/L	100%			1.76E+00
8204393	LCS,								
	KR0V61AC	BETA	2.43E+01 +- 3.52E+00		pCi/L	100%	107%	0.1	1.65E+00
RICHRC5014									
8204394	BLANK QC,								
	KR0WD1AA	ALPHA	5.51E-02 +- 2.07E-01	U	pCi/L	100%			3.89E-01
8204394	LCS,								
	KR0WD1AC	ALPHA	2.20E+01 +- 4.87E+00		pCi/L	100%	97%	0.0	6.24E-01
No. of Results: 4									

TestAmerica Bias - (Result/Expected)-1 as defined by ANSI N13.30.  
 rptSTLRchQcSummary V5.1.6 A2002 U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

FORM I  
SAMPLE RESULTS

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-1  
Client Sample ID: B1WCL0

SDG: W05459  
Report No. : 39582  
COC No. : F06-027-242

Collection Date: 7/21/2008 11:25:00 AM  
Received Date: 7/22/2008 11:45:00 AM  
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: 8204393	BETA_GPC				Work Order: KR0JK1AA		Report DB ID: 9KR0JK10					
BETA	<b>5.24E+01</b>		1.5E+01	1.8E+01	2.58E+01	pCi/L	100%	(2.)	7/23/08 07:12 p		0.0147	GPC28B
						1.24E+01	4.00E+00	(6.)			L	
Batch: 8204394	RICHRC5014				Work Order: KR0JK1AC		Report DB ID: 9KR0JK10					
ALPHA	<b>2.92E+00</b>	U	7.5E+00	7.6E+00	1.37E+01	pCi/L	100%	0.21	7/24/08 05:56 a		0.0105	GPC12A
						5.54E+00	3.00E+00	0.77			L	

No. of Results: 2      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-2  
Client Sample ID: B1WCL1

SDG: W05459  
Report No.: 39582  
COC No.: F06-027-242

Collection Date: 7/21/2008 11:20:00 AM  
Received Date: 7/22/2008 11:45:00 AM  
Matrix: WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8204393	BETA_GPC				Work Order: KR0JL1AA		Report DB ID: 9KR0JL10					
BETA	<b>6.65E+00</b>	U	5.7E+00	5.8E+00	1.09E+01	pCi/L	100%	0.61	7/23/08 07:12 p		0.0401	GPC26A
						5.28E+00	4.00E+00	(2.3)			L	
Batch: 8204394	RICHRC5014				Work Order: KR0JL1AC		Report DB ID: 9KR0JL10					
ALPHA	<b>-1.04E+00</b>	U	4.9E+00	4.9E+00	9.16E+00	pCi/L	100%	-0.11	7/24/08 05:56 a		0.028	GPC12C
						4.11E+00	3.00E+00	-0.43			L	

No. of Results: 2      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-3  
Client Sample ID: B1WCL2

SDG: W05459  
Report No. : 39582  
COC No. : F06-027-242

Collection Date: 7/21/2008 11:10:00 AM  
Received Date: 7/22/2008 11:45:00 AM  
Matrix: WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8204393	BETA_GPC				Work Order: KR0JM1AA		Report DB ID: 9KR0JM10					
BETA	<b>6.74E+01</b>		1.5E+01	1.7E+01	2.30E+01	pCi/L	100%	(2.9)	7/23/08 07:12 p		0.0173	GPC26B
							1.11E+01	4.00E+00			L	
Batch: 8204394	RICHRC5014				Work Order: KR0JM1AC		Report DB ID: 9KR0JM10					
ALPHA	<b>-1.33E+01</b> U		1.5E+01	1.6E+01	3.26E+01	pCi/L	100%	-0.41	7/24/08 07:57 a		0.0116	GPC11C
							1.45E+01	3.00E+00			L	

No. of Results: 2      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jul-08

Lab Name: TestAmerica

SDG: W05459

Collection Date: 7/21/2008 11:45:00 AM

Lot-Sample No.: J8G220235-4

Report No. : 39582

Received Date: 7/22/2008 11:45:00 AM

Client Sample ID: B1WCL3

COC No. : F06-027-242

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: 8204393	BETA_GPC				Work Order: KR0JP1AA		Report DB ID: 9KR0JP10					
BETA	<b>2.45E+01</b>	U	1.4E+01	1.4E+01	2.55E+01	pCi/L	100%	0.96	7/23/08 07:12 p		0.0152	GPC26C
							1.23E+01	4.00E+00			L	
Batch: 8204394	RICHRC5014				Work Order: KR0JP1AC		Report DB ID: 9KR0JP10					
ALPHA	<b>1.86E+00</b>	U	5.9E+00	5.9E+00	1.12E+01	pCi/L	100%	0.17	7/24/08 07:57 a		0.0114	GPC11D
							4.33E+00	3.00E+00			L	

No. of Results: 2      Comments:

FORM I  
SAMPLE RESULTS

Date: 25-Jul-08

Lab Name: TestAmerica

SDG: W05459

Collection Date: 7/21/2008 11:35:00 AM

Lot-Sample No.: J8G220235-5

Report No.: 39582

Received Date: 7/22/2008 11:45:00 AM

Client Sample ID: B1WCL4

COC No.: F06-027-242

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	Allquot Size	Primary Detector
Batch: 8204393	BETA_GPC				Work Order: KR0JR1AA		Report DB ID: 9KR0JR10					
BETA	<b>1.06E+01</b>	U	1.0E+01	1.0E+01	1.99E+01	pCi/L	100%	0.53	7/23/08 07:12 p		0.0198	GPC26D
							9.57E+00	4.00E+00	(2.)		L	
Batch: 8204394	RICHRC5014				Work Order: KR0JR1AC		Report DB ID: 9KR0JR10					
ALPHA	<b>1.60E+00</b>	U	6.0E+00	6.0E+00	1.13E+01	pCi/L	100%	0.14	7/24/08 09:29 a		0.0138	GPC12A
							4.57E+00	3.00E+00			L	

No. of Results: 2      Comments:

## FORM I

Date: 25-Jul-08

## SAMPLE RESULTS

Lab Name: TestAmerica

SDG: W05459

Collection Date: 7/21/2008 12:15:00 PM

Lot-Sample No.: J8G220235-6

Report No. : 39582

Received Date: 7/22/2008 11:45:00 AM

Client Sample ID: B1WCL5

COC No. : F06-027-242

Matrix: WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8204393	BETA_GPC				Work Order: KR0JX1AA		Report DB ID: 9KR0JX10					
BETA	<b>5.12E+01</b>		2.3E+01	2.4E+01	4.10E+01 pCi/L		100%	(1.2)	7/23/08 07:12 p		0.009	GPC27A
						1.97E+01	4.00E+00	(4.3)			L	
Batch: 8204394	RICHRC5014				Work Order: KR0JX1AC		Report DB ID: 9KR0JX10					
ALPHA	<b>-1.61E+00</b> U		1.8E+01	1.8E+01	3.52E+01 pCi/L		100%	-0.05	7/24/08 09:29 a		0.0066	GPC12B
						1.54E+01	3.00E+00	-0.17			L	

No. of Results: 2

Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-7  
Client Sample ID: B1WCL6

SDG: W05459  
Report No.: 39582  
COC No.: F06-027-242

Collection Date: 7/21/2008 12:10:00 PM  
Received Date: 7/22/2008 11:45:00 AM  
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: 8204393	BETA_GPC				Work Order: KR0J01AA		Report DB ID: 9KR0J010					
BETA	<b>5.02E+01</b>		2.1E+01	2.2E+01	3.71E+01 pCi/L		100%	(1.4)	7/23/08 07:12 p		0.0111	GPC27B
							1.79E+01	4.00E+00			L	
Batch: 8204394	RICHRC5014				Work Order: KR0J01AC		Report DB ID: 9KR0J010					
ALPHA	<b>-1.24E+01 U</b>		1.6E+01	1.6E+01	3.27E+01 pCi/L		100%	-0.38	7/24/08 09:29 a		0.008	GPC12C
							1.47E+01	3.00E+00			L	

No. of Results: 2      Comments:

## FORM I

Date: 25-Jul-08

## SAMPLE RESULTS

Lab Name: TestAmerica

SDG: W05459

Collection Date: 7/21/2008 1:35:00 PM

Lot-Sample No.: J8G220235-8

Report No.: 39582

Received Date: 7/22/2008 11:45:00 AM

Client Sample ID: B1WCL7

COC No.: F06-027-242

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: 8204393	BETA_GPC				Work Order: KR0J11AA		Report DB ID: 9KR0J110					
BETA	<b>7.68E+02</b>		3.1E+01	1.0E+02	2.17E+01	pCi/L	100%	(35.4)	7/23/08 07:12 p		0.0196	GPC27C
						1.05E+01	4.00E+00	(15.2)			L	
Batch: 8204394	RICHRC5014				Work Order: KR0J11AC		Report DB ID: 9KR0J110					
ALPHA	<b>-2.08E+00</b>	U	5.4E+00	5.4E+00	1.16E+01	pCi/L	100%	-0.18	7/24/08 10:59 a		0.0147	GPC10A
						4.84E+00	3.00E+00	-0.77			L	

No. of Results: 2

Comments:

FORM I  
SAMPLE RESULTS

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-9  
Client Sample ID: B1WCL8

SDG: W05459  
Report No.: 39582  
COC No.: F06-027-242

Collection Date: 7/21/2008 12:00:00 PM  
Received Date: 7/22/2008 11:45:00 AM  
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: 8204393	BETA_GPC				Work Order: KR0J41AA				Report DB ID: 9KR0J410			
BETA	<b>3.69E+01</b>		1.5E+01	1.6E+01	2.70E+01	pCi/L	100%	(1.4)	7/23/08 07:12 p		0.0156	GPC27D
							1.30E+01	4.00E+00	(4.7)		L	
Batch: 8204394	RICHRC5014				Work Order: KR0J41AC				Report DB ID: 9KR0J410			
ALPHA	<b>2.80E+00</b> U		8.1E+00	8.2E+00	1.48E+01	pCi/L	100%	0.19	7/24/08 10:59 a		0.0113	GPC10B
							6.14E+00	3.00E+00	0.69		L	

No. of Results: 2      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-10  
Client Sample ID: B1WCL9

SDG: W05459  
Report No. : 39582  
COC No. : F06-027-242

Collection Date: 7/21/2008 12:25:00 PM  
Received Date: 7/22/2008 11:45:00 AM  
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: 8204393	BETA_GPC				Work Order: KR0J51AA				Report DB ID: 9KR0J510			
BETA	<b>7.13E+02</b>		2.8E+01	9.4E+01	1.86E+01	pCi/L	100%	(38.4)	7/23/08 07:12 p		0.0222	GPC32A
							8.96E+00	4.00E+00			L	
Batch: 8204394	RICHRC5014				Work Order: KR0J51AC				Report DB ID: 9KR0J510			
ALPHA	<b>-3.29E+00</b> U		3.5E+00	3.5E+00	8.71E+00	pCi/L	100%	-0.38	7/24/08 10:59 a		0.0178	GPC10C
							3.61E+00	3.00E+00			L	

No. of Results: 2      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-11  
Client Sample ID: B1WCM0

SDG: W05459  
Report No.: 39582  
COC No.: F06-027-242

Collection Date: 7/21/2008 11:55:00 AM  
Received Date: 7/22/2008 11:45:00 AM  
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: 8204393	BETA_GPC				Work Order: KR0J61AA		Report DB ID: 9KR0J610					
BETA	<b>4.73E+02</b>		2.4E+01	6.4E+01	1.89E+01	pCi/L	100%	(25.1)	7/23/08 07:12 p		0.0216	GPC32B
							9.10E+00	4.00E+00	(14.8)		L	
Batch: 8204394	RICHRC5014				Work Order: KR0J61AC		Report DB ID: 9KR0J610					
ALPHA	<b>0.00E+00</b>	U	0.0E+00	4.3E+00	8.69E+00	pCi/L	100%	0.	7/24/08 10:59 a		0.0168	GPC10D
							3.51E+00	3.00E+00	0.		L	

No. of Results: 2      Comments:

FORM I  
SAMPLE RESULTS

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-12  
Client Sample ID: B1WCM1

SDG: W05459  
Report No.: 39582  
COC No.: F06-027-242

Collection Date: 7/21/2008 1:15:00 PM  
Received Date: 7/22/2008 11:45:00 AM  
Matrix: WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8204393	BETA_GPC				Work Order: KR0KA1AA		Report DB ID: 9KR0KA10					
BETA	<b>3.43E+02</b>		1.9E+01	5.1E+01	1.51E+01	pCi/L	100%	(22.7)	7/23/08 07:12 p		0.0252	GPC32C
							7.28E+00	4.00E+00			L	
Batch: 8204394	RICHRC5014				Work Order: KR0KA1AC		Report DB ID: 9KR0KA10					
ALPHA	<b>-5.05E-01</b>	U	2.7E+00	2.7E+00	6.07E+00	pCi/L	100%	-0.08	7/24/08 10:59 a		0.0202	GPC10E
							2.35E+00	3.00E+00			L	

No. of Results: 2      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-13  
Client Sample ID: B1WCM2

SDG: W05459  
Report No.: 39582  
COC No.: F06-027-242

Collection Date: 7/21/2008 1:25:00 PM  
Received Date: 7/22/2008 11:45:00 AM  
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: 8204393	BETA_GPC											
	BETA		4.0E+01	3.1E+02	1.54E+01	pCi/L	100%	(133.4)	7/23/08 07:12 p		0.0258	GPC32D
							7.44E+00	4.00E+00			L	
Batch: 8204394	RICHRC5014											
	ALPHA	U	2.8E+00	2.8E+00	4.59E+00	pCi/L	100%	0.43	7/24/08 10:59 a		0.0218	GPC10F
							1.62E+00	3.00E+00			L	

No. of Results: 2      Comments:

FORM I  
SAMPLE RESULTS

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-14  
Client Sample ID: B1WCM3

SDG: W05459  
Report No. : 39582  
COC No. : F06-027-242

Collection Date: 7/21/2008 12:45:00 PM  
Received Date: 7/22/2008 11:45:00 AM  
Matrix: WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8204393	BETA_GPC				Work Order: KR0KK1AA		Report DB ID: 9KR0KK10					
BETA	<b>4.34E+02</b>		1.5E+01	6.0E+01	9.10E+00	pCi/L	100%	(47.7)	7/24/08 07:53 a		0.045	GPC26A
							4.39E+00	4.00E+00			L	
Batch: 8204394	RICHRC5014				Work Order: KR0KK1AC		Report DB ID: 9KR0KK10					
ALPHA	<b>1.38E+00</b>	U	2.9E+00	2.9E+00	5.00E+00	pCi/L	100%	0.28	7/24/08 11:31 a		0.0376	GPC11A
							2.13E+00	3.00E+00			L	

No. of Results: 2      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-15  
Client Sample ID: B1WCM4

SDG: W05459  
Report No.: 39582  
COC No.: F06-027-242

Collection Date: 7/21/2008 12:35:00 PM  
Received Date: 7/22/2008 11:45:00 AM  
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: 8204393	BETA_GPC				Work Order: KR0KL1AA		Report DB ID: 9KR0KL10					
BETA	<b>4.06E+02</b>		1.6E+01	5.5E+01	1.11E+01	pCi/L	100%	(36.7)	7/24/08 07:53 a		0.0371	GPC26B
							5.33E+00	4.00E+00			L	
Batch: 8204394	RICHRC5014				Work Order: KR0KL1AC		Report DB ID: 9KR0KL10					
ALPHA	<b>-4.96E+00</b> U		4.2E+00	4.4E+00	9.35E+00	pCi/L	100%	-0.53	7/24/08 11:31 a		0.0303	GPC11C
							4.16E+00	3.00E+00			L	

No. of Results: 2      Comments:

FORM I  
SAMPLE RESULTS

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-16  
Client Sample ID: B1WCM5

SDG: W05459  
Report No.: 39582  
COC No.: F06-027-242

Collection Date: 7/21/2008 12:55:00 PM  
Received Date: 7/22/2008 11:45:00 AM  
Matrix: WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert( 2 s)	MDC MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8204393	BETA_GPC				Work Order: KR0KP1AA		Report DB ID: 9KR0KP10					
BETA	<b>5.31E+02</b>		2.0E+01	7.2E+01	1.25E+01	pCi/L	100%	(42.7)	7/24/08 07:53 a		0.0304	GPC26C
							5.99E+00	4.00E+00			L	
Batch: 8204394	RICHRC5014				Work Order: KR0KP1AC		Report DB ID: 9KR0KP10					
ALPHA	<b>4.18E-01</b>	U	2.5E+00	2.5E+00	5.02E+00	pCi/L	100%	0.08	7/24/08 11:31 a		0.0237	GPC11D
							1.95E+00	3.00E+00			L	

No. of Results: 2      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jul-08

Lab Name: TestAmerica  
Lot-Sample No.: J8G220235-17  
Client Sample ID: B1WCM6

SDG: W05459  
Report No.: 39582  
COC No.: F06-027-242

Collection Date: 7/21/2008 1:05:00 PM  
Received Date: 7/22/2008 11:45:00 AM  
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: 8204393	BETA_GPC				Work Order: KR0KR1AA		Report DB ID: 9KR0KR10					
BETA	<b>4.33E+02</b>		9.6E+00	7.7E+01	2.66E+00	pCi/L	100%	(162.6)	7/23/08 06:22 p		0.2	GPC31B
							1.26E+00	4.00E+00			L	
Batch: 8204394	RICHRC5014				Work Order: KR0KR1AC		Report DB ID: 9KR0KR10					
ALPHA	<b>1.43E+00</b>	U	1.4E+00	1.5E+00	2.67E+00	pCi/L	100%	0.53	7/23/08 06:18 p		0.2	GPC12C
							1.06E+00	3.00E+00			L	

No. of Results: 2      Comments:

## FORM II

Date: 25-Jul-08

## DUPLICATE RESULTS

Lab Name: TestAmerica  
 Lot-Sample No.: J8G220235-1  
 Client Sample ID: B1WCL0 DUP

SDG: W05459  
 Report No.: 39582  
 COC No.: F06-027-242

Collection Date: 7/21/2008 11:25:00 AM  
 Received Date: 7/22/2008 11:45:00 AM  
 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/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 8204393	BETA_GPC				Work Order: KR0JK1AD	Report DB ID: KR0JK1DR			Orig Sa DB ID: 9KR0JK10			
BETA	4.54E+01		1.6E+01	1.7E+01	2.74E+01	pCi/L	100%	(1.7)	7/23/08 07:12 p		0.0147	GPC28D
	5.24E+01			RPD 14.5		4.00E+00		(5.4)			L	

No. of Results: 1      Comments:

TestAmerica      RPD - Relative Percent Difference.

rptSTLRchDupV5.1      MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 .6 A2002

## FORM II

Date: 25-Jul-08

## DUPLICATE RESULTS

Lab Name: TestAmerica  
 Lot-Sample No.: J8G220235-2  
 Client Sample ID: B1WCL1 DUP

SDG: W05459  
 Report No. : 39582  
 COC No. : F06-027-242

Collection Date: 7/21/2008 11:20:00 AM  
 Received Date: 7/22/2008 11:45:00 AM  
 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: 8204394	RICHRC5014				Work Order: KR0JL1AD	Report DB ID: KR0JL1DR			Orig Sa DB ID: 9KR0JL10			
ALPHA	1.56E+00	U	3.2E+00	3.3E+00	5.66E+00	pCi/L	100%	0.28	7/24/08 07:57 a		0.028	GPC11A
	-1.04E+00	U		RPD 998.3		3.00E+00		0.96			L	

No. of Results: 1    Comments:

TestAmerica    RPD - Relative Percent Difference.  
 rptSLRchDupV5.1    MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 .6 A2002    U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

**FORM II**  
**BLANK RESULTS**

Date: 25-Jul-08

Lab Name: TestAmerica

SDG: W05459

Matrix: WATER

Report No. : 39582

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
<b>Batch:</b> 8204394	RICHRC5014				<b>Work Order:</b> KR0WD1AA			<b>Report DB ID:</b> KR0WD1AB				
ALPHA	5.51E-02	U	2.1E-01	2.1E-01	3.89E-01	pCi/L	100%	0.14	7/24/08 01:04 p		0.2	GPC12A
					1.57E-01	3.00E+00		0.53			L	
<b>Batch:</b> 8204393	BETA_GPC				<b>Work Order:</b> KR0V61AA			<b>Report DB ID:</b> KR0V61AB				
BETA	1.39E+00	U	9.4E-01	9.6E-01	1.76E+00	pCi/L	100%	0.79	7/24/08 07:53 a		0.2	GPC26D
					8.44E-01	4.00E+00		(2.9)			L	
<b>No. of Results:</b> 2	<b>Comments:</b>											

**FORM II**  
**LCS RESULTS**

Date: 25-Jul-08

Lab Name: TestAmerica

SDG: W05459

Matrix: WATER

Report No. : 39582

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: 8204394	RICHRC5014					Work Order: KR0WD1AC		Report DB ID: KR0WD1CS					
ALPHA	2.20E+01		1.6E+00	4.9E+00	6.24E-01	pCi/L	100%	2.27E+01	3.33E-01	97%	7/24/08 01:04 p	0.2	GPC12B
							Rec Limits:	75	125	0.0		L	
Batch: 8204393	BETA_GPC					Work Order: KR0V61AC		Report DB ID: KR0V61CS					
BETA	2.43E+01		1.7E+00	3.5E+00	1.65E+00	pCi/L	100%	2.28E+01	2.98E-01	107%	7/24/08 07:53 a	0.2	GPC27A
							Rec Limits:	70	130	0.1		L	
No. of Results:	2	Comments:											

Lot No., Due Date: **J8G220235; 07/25/2008**  
 Client, Site: **108302; FLH HANFORD**  
 QC Batch No., Method Test: **8204394; RALPHATH Alpha by GPC-Th**  
 SDG, Matrix: **W05459; WATER**

**1.0 COC**

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

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**3.0 QC & Samples**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**4.0 Raw Data**

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

Yes  No  N/A

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

Yes  No  N/A

4.3 Were Yields entered correctly? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**5.0 Other**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

5.4 Was transcription checked? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

6.0 Comments on any No response:  
 ncm 10-12728

First Level Review: *Steve Antonson*

Date: 7/25/08

**Data Review Checklist**  
**RADIOCHEMISTRY**  
 Second Level Review

Batch Number: 8204394

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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?	✓	✓	
<b>C. Other</b>			
1. Are all Non-conformances included and noted?	✓		7/25/08
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: 7/25/08

# Clouseau Nonconformance Memo



NCM #: <b>10-12728</b> NCM Initiated By: Lisa Antonson Date Opened: 07/25/2008 Date Closed:	Classification: <b>Anomaly</b> Status: <b>QAREVIEW</b> Production Area: Environmental - Prep Tests: Alpha by GPC-Th Lot #'s (Sample #'s): J8G220000 (394), J8G220235 (1,10,11,12,13,14,15,16,17,2, 3,4,5,6,7,8,9), QC Batches: 8204394,
Nonconformance: MDA not met Subcategory: Sample size reduced due to high residue mass	

### Problem Description / Root Cause

<u>Name</u>	<u>Date</u>	<u>Description</u>
Lisa Antonson	07/25/2008	Only sample KR0KR, the blank and the LCS meet CRDL in this batch. The samples have reduced aliquots based on weight screens. They were counted for the maximum time of 200 minutes.

### Corrective Action

<u>Name</u>	<u>Date</u>	<u>Corrective Action</u>
Lisa Antonson	07/25/2008	NA

### Client Notification Summary

<u>Client</u>	<u>Project Manager</u>	<u>Notified</u>	<u>Response</u>	<u>How Notified</u>	<u>Note</u>

### Quality Assurance Verification

<u>Verified By</u>	<u>Due Date</u>	<u>Status</u>	<u>Notes</u>
		This section not yet completed by QA.	

### Approval History

<u>Date Approved</u>	<u>Approved By</u>	<u>Position</u>

**Lot No., Due Date:** J8G220235; 07/25/2008  
**Client, Site:** 108302; FLH HANFORD  
**QC Batch No., Method Test:** 8204393; RBETA-SR Beta by GPC-Sr/Y  
**SDG, Matrix:** W05459; WATER

**1.0 COC**

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

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**3.0 QC & Samples**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**4.0 Raw Data**

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

Yes  No  N/A

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

Yes  No  N/A

4.3 Were Yields entered correctly? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

**5.0 Other**

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

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

5.4 Was transcription checked? Yes No N/A

Yes  No  N/A

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

Yes  No  N/A

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

Yes  No  N/A

6.0 Comments on any No response:

Please see NCM # 10-12723

First Level Review

*John Horte*

Date

7-24-8

**Data Review Checklist**  
**RADIOCHEMISTRY**  
 Second Level Review

Batch Number: 8204393

Review Item	Yes (✓)	No (✓)	NA (✓)
<b>A. Sample Analysis</b>			
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>B. QC Samples</b>			
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?	✓		
<b>C. Other</b>			
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: See Ncm

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Second Level Review: Jodie C Date: 7/24/08

# Clouseau Nonconformance Memo

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

NCM #: <b>10-12723</b> NCM Initiated By: John Norton Date Opened: 07/24/2008 Date Closed:	Classification: <b>Anomaly</b> Status: <b>GLREVIEW</b> Production Area: Environmental - Prep Tests: Beta by GPC-Sr/Y Lot #'s (Sample #'s): J8G220000 (393), J8G220235 (1,10,11,12,13,14,15,16,17,2, 3,4,5,6,7,8,9), QC Batches: 8204393,
Nonconformance: MDA not met Subcategory: Sample size reduced due to high residue mass	

### Problem Description / Root Cause

Name	Date	Description
John Norton	07/24/2008	The samples in this batch did not meet the RDL due to reduced aliquot sizes caused by high residue weights.

### Corrective Action

Name	Date	Corrective Action
John Norton	07/24/2008	The samples were counted for the longest time frame appropriate to this analysis, many of the samples showed activity that was greater than the IDC.

### Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
			<u>Response</u>		<u>Response Note</u>

### Quality Assurance Verification

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

### Approval History

Date Approved	Approved By	Position
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Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F06-027-242

PAGE 1 OF 4

**COLLECTOR**  
Julian

**SAMPLING LOCATION**  
100NR2 Syn.Apatite Inj.#4 - Post-Inj.Smpis-Day3

**ICE CHEST NO.**

**COMPANY CONTACT**  
FABRE, RJ

**TELEPHONE NO.**  
373-2774

**PROJECT DESIGNATION**  
100-N Apatite Barrier Performance Monitoring

**FIELD LOGBOOK NO.**  
HNF-N-585-11

**ACTUAL SAMPLE DEPTH**

**OFFSITE PROPERTY NO.**

**PROJECT COORDINATOR**  
TRENT, SJ

**PRICE CODE** 7A

**SAF NO.**  
F06-027

**AIR QUALITY**

**COA**  
122561ES20

**METHOD OF SHIPMENT**  
GOVERNMENT VEHICLE

**BILL OF LADING/AIR BILL NO.**

**DATA TURNAROUND**  
3 Days / 15 Days

**SHIPPED TO**  
TestAmerica Incorporated, Richland

**MATRIX\*** **POSSIBLE SAMPLE HAZARDS/ REMARKS**

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

Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

**SPECIAL HANDLING AND/OR STORAGE**

**PRESERVATION** HNO3 to pH <2

**TYPE OF CONTAINER** P

**NO. OF CONTAINER(S)** 1

**VOLUME** 1000mL

**SAMPLE ANALYSIS**  
Gross Alpha (Gross alpha)  
Gross Beta (Gross beta)

Lot #029688

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B1WCL0	KROJK WATER	7-21-08	1125	✓									
B1WCL1	KROJL WATER	7-21-08	1120	✓									
B1WCL2	KROJM WATER	7-21-08	1110	✓									
B1WCL3	KROJP WATER	7-21-08	1145	✓									
B1WCL4	KROJR WATER	7-21-08	1135	✓									

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	R. D. Julian	1500 7-21-08	D. Connolly	1500 7-21-08	
RELINQUISHED BY/REMOVED FROM	D. Connolly	7-22-08 11:45	[Signature]	7-22-08 11:45	
RELINQUISHED BY/REMOVED FROM					
RELINQUISHED BY/REMOVED FROM					
RELINQUISHED BY/REMOVED FROM					
RELINQUISHED BY/REMOVED FROM					

**SPECIAL INSTRUCTIONS**

J86220235  
W05459  
DUE 72808

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

COLLECTOR *Julian*  
 SAMPLING LOCATION 100NR2 Syn.Apatite Inj.#4 - Post-Inj.Smpls-Day3  
 ICE CHEST NO.

COMPANY CONTACT FABRE, RJ  
 TELEPHONE NO. 373-2774  
 PROJECT DESIGNATION 100-N Apatite Barrier Performance Monitoring  
 FIELD LOGBOOK NO. HNF-N-585-11  
 OFFSITE PROPERTY NO.

PROJECT COORDINATOR TRENT, SJ  
 PRICE CODE 7A  
 AIR QUALITY   
 SAF NO. F06-027  
 COA 122561ES20  
 METHOD OF SHIPMENT GOVERNMENT VEHICLE  
 BILL OF LADING/AIR BILL NO.

DATA TURNAROUND  
 3 Days / 15 Days

SHIPPED TO TestAmerica Incorporated, Richland

MATRIX\* POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)  
 DL=Drum  
 Liquids  
 DS=Drum  
 Solids  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other  
 SPECIAL HANDLING AND/OR STORAGE

PRESERVATION HNO3 to pH <2  
 TYPE OF CONTAINER P  
 NO. OF CONTAINER(S) 1  
 VOLUME 1000mL  
 SAMPLE ANALYSIS Gross Alpha (Gross alpha)  
 Gross Beta (Gross beta)

Lot # 028688

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B1WCL5	KROJX WATER	7-21-08	1215	✓
B1WCL6	KROJD WATER	7-21-08	1210	✓
B1WCL7	KROJI WATER	7-21-08	1335	✓
B1WCL8	KROJH WATER	7-21-08	1200	✓
B1WCL9	KROJS WATER	7-21-08	1225	✓

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
R. D. Julian	1500 7-21-08	D Connolly	1500 7-21-08
D Connolly	7-22-8 11:45	D Connolly	7-22-8 11:45

J8G220235  
 W05459  
 DUE 72808

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

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F06-027-242

PAGE 3 OF 4

COLLECTOR

*Julian*

COMPANY CONTACT

FABRE, RJ

TELEPHONE NO.

373-2774

PROJECT COORDINATOR

TRENT, SJ

PRICE CODE

7A

DATA TURNAROUND

SAMPLING LOCATION

100NR2 Syn.Apatite Inj.#4 - Post-Inj.Smpls-Day3

PROJECT DESIGNATION

100-N Apatite Barrier Performance Monitoring

SAF NO.

F06-027

AIR QUALITY

3 Days / 15 Days

ICE CHEST NO.

FIELD LOGBOOK NO.

HNF-N-585-11

ACTUAL SAMPLE DEPTH

COA

122561ES20

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

SHIPPED TO

TestAmerica Incorporated, Richland

OFFSITE PROPERTY NO.

BILL OF LADING/AIR BILL NO.

MATRIX\*

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

POSSIBLE SAMPLE HAZARDS/ REMARKS

Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

PRESERVATION

HNO3 to pH <2

TYPE OF CONTAINER

P

NO. OF CONTAINER(S)

1

VOLUME

1000mL

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

Gross Alpha (Gross alpha)  
Gross Beta (Gross beta)

*Lot # 028688*

SAMPLE NO.

MATRIX\*

SAMPLE DATE SAMPLE TIME

143  
B1WCM0 KROJ6 WATER  
B1WCM1 KROKA WATER  
B1WCM2 KROKF WATER  
B1WCM3 KROKK WATER  
B1WCM4 KROKL WATER

7-21-08 11:55 ✓  
7-21-08 13:15 ✓  
7-21-08 13:25 ✓  
7-21-08 12:45 ✓  
7-21-08 12:35 ✓

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM  
*R. D. Julian*

DATE/TIME

*7-21-08*

RECEIVED BY/STORED IN

*[Signature]*

DATE/TIME

*7-21-08*

RELINQUISHED BY/REMOVED FROM

DATE/TIME

*7-22-08 11:45*

RECEIVED BY/STORED IN

*[Signature]*

DATE/TIME

*7-22-08 11:45*

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME

*J86220235  
W05459  
DUE 72808*

TESTAMERICA

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F06-027-242

PAGE 4 OF 4

COLLECTOR

*Jackson*

COMPANY CONTACT

FABRE, RJ

TELEPHONE NO.

373-2774

PROJECT COORDINATOR

TRENT, SJ

PRICE CODE 7A

DATA TURNAROUND

SAMPLING LOCATION

100NR2 Syn.Apatite Inj.#4 - Post-Inj.Smpis-Day3

PROJECT DESIGNATION

100-N Apatite Barrier Performance Monitoring

SAF NO.

F06-027

AIR QUALITY

3 Days / 15 Days

ICE CHEST NO.

FIELD LOGBOOK NO.

HNF-N-585-11

ACTUAL SAMPLE DEPTH

COA

122561E520

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

SHIPPED TO

TestAmerica Incorporated, Richland

OFFSITE PROPERTY NO.

BILL OF LADING/AIR BILL NO.

MATRIX\*

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

POSSIBLE SAMPLE HAZARDS/ REMARKS

Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

PRESERVATION

HNO3 to pH <2

TYPE OF CONTAINER

P

NO. OF CONTAINER(S)

1

VOLUME

1000mL

SAMPLE ANALYSIS

Gross Alpha (Gross alpha)  
Gross Beta (Gross beta)

SPECIAL HANDLING AND/OR STORAGE

SAMPLE NO.

MATRIX\*

Lot # 028688  
SAMPLE DATE SAMPLE TIME

B1WCM5 KROKP WATER  
B1WCM6 KROKR WATER

7-21-08 1255 ✓  
7-21-08 1305 ✓

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM

R. D. Julian

DATE/TIME

1500 7-21-08

RECEIVED BY/STORED IN

*Donnelly*

DATE/TIME

1500 7-21-08

J8G220235

RELINQUISHED BY/REMOVED FROM

*Donnelly*

DATE/TIME

7:22 f 1145

RECEIVED BY/STORED IN

*Donnelly*

DATE/TIME

7:22 f 1145

W05459

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

DUE 72808

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME



# Sample Check-in List

Date/Time Received: 7-22-08 1145 GM Screen Result 0.1K AP

Client: PGW SDG#: W05459 NA [ ] SAF#: F06-027 NA [ ]

Work Order Number: J86220235 Chain of Custody # F06-027-242

Shipping Container ID: \_\_\_\_\_ Air Bill # \_\_\_\_\_

- 1. Custody Seals on shipping container intact? NA [ ] Yes  No [ ] NH
- 2. Custody Seals dated and signed? NA [ ] Yes  No [ ] NH
- 3. Chain of Custody record present? NA [ ] Yes  No [ ] NH
- 4. Cooler Temperature: \_\_\_\_\_ NA  NH 5. Vermiculite/packing materials is NA  Wet [ ] Dry [ ] NH
- 6. Number of samples in shipping container: 17
- 7. Sample holding times exceeded? NA [ ] Yes [ ] No  NH
- 8. Samples have:
  - NH Tape
  - NH Custody Seals
  - NH Hazard Labels
  - \_\_\_\_\_ Appropriate Sample Labels
- 9. Samples are:
  - NH In Good Condition
  - \_\_\_\_\_ Broken
  - \_\_\_\_\_ Leaking
  - \_\_\_\_\_ Have Air Bubbles
 (Only for samples requiring no head space.)
- 10. Sample pH taken? NA [ ] pH<2 [ ] pH>2  pH>9 [ ] Amount HNO<sub>3</sub> Added 2mL/LP AP
- 11. Sample Location, Sample Collector Listed? \*  
\*For documentation only. No corrective action needed.
- 12. Were any anomalies identified in sample receipt? Yes [ ] No  NH
- 13. Description of anomalies (include sample numbers): \_\_\_\_\_

Sample Custodian [Signature] Date: 7-22-08

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person Contacted \_\_\_\_\_

[ ] No action necessary; process as is.

Project Manager \_\_\_\_\_ Date \_\_\_\_\_

TESTAMERICA

7/23/2008 11:32:21 AM **Sample Preparation/Analysis** Balance Id:1119381299  
 108302, Fluor Hanford Inc , Waste AZ Gross Alpha PrpRC5014 Pipet #: \_\_\_\_\_  
 Management Federal Servi JZ Gross Alpha by GPC using Th-230 curve PRIORITY  
**AnalyDueDate: 07/28/2008** WO 5459 01 STANDARD TEST SET

**Batch: 8204394** WATER pCi/L PM, Quote: SS , 29754 Sep1 DT/Tm Tech: \_\_\_\_\_  
 SEQ Batch, Test: None All Tests: 8204393 BCS8, 8204394 AZTZ, Sep2 DT/Tm Tech: \_\_\_\_\_  
Prep Tech: ,BockT

Work Order, Lot, Sample Date/Time	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 KRQJK-1-AC J8G220235-1-SAMP 07/21/2008 11:25 AmtRec: LP #Containers: 1	10.50g,in									
<span style="font-size: 1.5em;">1.5</span> <span style="font-size: 1.5em;">49.7</span> <span style="font-size: 1.5em;">200</span> <span style="font-size: 1.5em;">DZ</span> <span style="font-size: 1.5em;">0737</span> <span style="font-size: 1.5em;">7/24/08</span>										
							Scr:	Alpha:	Beta:	
2 KRQJL-1-AC J8G220235-2-SAMP 07/21/2008 11:20 AmtRec: LP #Containers: 1	28.00g,in									
<span style="font-size: 1.5em;">46.9</span> <span style="font-size: 1.5em;">12C</span>										
							Scr:	Alpha:	Beta:	
3 KRQJL-1-AD-X J8G220235-2-DUP 07/21/2008 11:20 AmtRec: LP #Containers: 1	28.00g,in									
<span style="font-size: 1.5em;">38.4</span> <span style="font-size: 1.5em;">11A</span> <span style="font-size: 1.5em;">0938</span> <span style="font-size: 1.5em;">7/24/08</span>										
							Scr:	Alpha:	Beta:	
4 KRQJM-1-AC J8G220235-3-SAMP 07/21/2008 11:10 AmtRec: LP #Containers: 1	11.60g,in									
<span style="font-size: 1.5em;">67.0</span> <span style="font-size: 1.5em;">11C</span>										
							Scr:	Alpha:	Beta:	
5 KRQJP-1-AC J8G220235-4-SAMP 07/21/2008 11:45 AmtRec: LP #Containers: 1	11.40g,in									
<span style="font-size: 1.5em;">54.4</span> <span style="font-size: 1.5em;">11D</span>										
							Scr:	Alpha:	Beta:	
6 KRQJR-1-AC J8G220235-5-SAMP 07/21/2008 11:35 AmtRec: LP #Containers: 1	13.80g,in									
<span style="font-size: 1.5em;">54.8</span> <span style="font-size: 1.5em;">DZ</span> <span style="font-size: 1.5em;">1110</span> <span style="font-size: 1.5em;">7/24/08</span>										
							Scr:	Alpha:	Beta:	
7 KRQJX-1-AC J8G220235-6-SAMP 07/21/2008 12:15 AmtRec: LP #Containers: 1	6.60g,in									
<span style="font-size: 1.5em;">48.1</span> <span style="font-size: 1.5em;">12B</span>										
							Scr:	Alpha:	Beta:	

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TESTAMERICA

7/23/2008 11:32:21 AM **Sample Preparation/Analysis** Balance Id:1119381299  
 108302, Fluor Hanford Inc , Waste AZ Gross Alpha PrpRC5014 Pipet #: \_\_\_\_\_  
 Management Federal Servi AZ Gross Alpha by GPC using Th-230 curve  
**AnalyDueDate: 07/28/2008** 01 STANDARD TEST SET

**Batch: 8204394 WATER pCi/L PM, Quote: SS , 29754** Sep1 DT/Tm Tech: \_\_\_\_\_  
 SEQ Batch, Test: None Sep2 DT/Tm Tech: \_\_\_\_\_  
Prep Tech: BockT

Work Order, Lot, Sample Date/Time	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 KR0J0-1-AC	8.00g,in									
J8G220235-7-SAMP 07/21/2008 12:10										
				1.5	48.4	200	18C	1110	7/24/08	
				Scr:			Alpha:			
				Beta:						
9 KR0J1-1-AC	14.70g,in									
J8G220235-8-SAMP 07/21/2008 13:35										
				52.8			11A	1240		
				Scr:			Alpha:			
				Beta:						
10 KR0J4-1-AC	11.30g,in									
J8G220235-9-SAMP 07/21/2008 12:00										
				53.7			10B			
				Scr:			Alpha:			
				Beta:						
11 KR0J5-1-AC	17.80g,in									
J8G220235-10-SAMP 07/21/2008 12:25										
				51.4			10C			
				Scr:			Alpha:			
				Beta:						
12 KR0J6-1-AC	16.80g,in									
J8G220235-11-SAMP 07/21/2008 11:55										
				53.8			10D			
				Scr:			Alpha:			
				Beta:						
13 KR0KA-1-AC	20.20g,in									
J8G220235-12-SAMP 07/21/2008 13:15										
				50.0			10E			
				Scr:			Alpha:			
				Beta:						
14 KR0KF-1-AC	21.80g,in									
J8G220235-13-SAMP 07/21/2008 13:25										
				55.2			10F			
				Scr:			Alpha:			
				Beta:						

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TESTAMERICA

7/23/2008 11:32:22 AM

**Sample Preparation/Analysis**

Balance Id:1119381299

108302, Fluor Hanford Inc  
Management Federal Servi

, Waste

AZ Gross Alpha PrpRC5014  
~~77~~ Gross Alpha by GPC using Th-230 curve  
 01 STANDARD TEST SET

Pipet #: \_\_\_\_\_

AnalyDueDate: 07/28/2008

Sep1 DT/Tm Tech:

Batch: 8204394 WATER pCi/L

PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,BockT



Work Order, Lot, Sample Date/Time	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:
15 KR0KK-1-AC J8G220235-14-SAMP 07/21/2008 12:45	37.60g,in						11A	1312	7/24/08M	
<p style="text-align: center;">1.5      50.3      200</p>										
16 KR0KL-1-AC J8G220235-15-SAMP 07/21/2008 12:35	30.30g,in						11C			
<p style="text-align: center;">51.3</p>										
17 KR0KP-1-AC J8G220235-16-SAMP 07/21/2008 12:55	23.70g,in						11D			
<p style="text-align: center;">49.8</p>										
18 KR0KR-1-AC J8G220235-17-SAMP 07/21/2008 13:05	200.00g,in									
<p style="text-align: center;">50.3      50 APA <del>100</del>      7/23/08 12C</p>										
19 KR0WD-1-AA-B J8G220000-394-BLK 07/21/2008 11:20	200.00g,in						12A	1444	7/24/08M	
<p style="text-align: center;">0.1</p>										
20 KR0WD-1-AC-C J8G220000-394-LCS 07/21/2008 11:20	200.00g,in		ASD4534 07/16/08,pd				12B			
<p style="text-align: center;">0.1</p>										

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7/25/2008 11:57:13 AM

# ICOC Fraction Transfer/Status Report

ByDate: 7/26/2007, 7/30/2008, Batch: '8204394', User: \*ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting	Comments
<b>8204394</b>				
AC	<b>Rev1C</b>	<b>BockT</b>	7/23/2008 11:10:47	
SC		wagarr	IsBatched 7/22/2008 2:18:23 PM	ICOC_RADCALC v4.8.32
SC		BockT	InPrep 7/23/2008 11:10:47 AM	rl-gpc-001 rev 0
SC		AshworthA	Prep2C 7/23/2008 5:19:53 PM	GPC-001 REVISION 0
SC		DAWKINSO	InCnt1 7/23/2008 5:57:06 PM	RL-CI-006 REVISION 0
SC		DAWKINSO	CalcC 7/24/2008 4:49:58 PM	RL-CI-006 REVISION 0
SC		BlackCL	CalcC 7/25/2008 1:54:29 AM	RL-CI-006 REVISION 0
SC		antonsonl	Rev1C 7/25/2008 11:55:07 AM	RICH-RC-0002 REV 8
AC		<b>AshworthA</b>	7/23/2008 5:19:53 PM	
AC		<b>DAWKINSO</b>	7/23/2008 5:57:06 PM	
AC		<b>DAWKINSO</b>	7/24/2008 4:49:58 PM	
AC		<b>BlackCL</b>	7/25/2008 1:54:29	
AC		<b>antonsonl</b>	7/25/2008 11:55:07	

AC: Accepting Entry; SC: Status Change

TAL Richland  
Richland Wa.

TESTAMERICA

7/23/2008 5:06:04 PM

Sample Preparation/Analysis

Balance Id:1119381299

108302, Fluor Hanford Inc  
Management Federal Servi

, Waste

BC Gross Beta PrpRC5014  
S8 Gross Beta by GPC using Sr/Y-90 curve  
5I CLIENT: HANFORD

**Priority**

Pipet #:

AnalyDueDate: 07/25/2008

Sep1 DT/Tm Tech:

Batch: 8204393 WATER pCi/L  
SEQ Batch, Test: None All Tests: 8204393 BCS8, 8204394 AZTZ,

PM, Quote: SS, 29754

Sep2 DT/Tm Tech:

Prep Tech: BockT/APA



Work Order, Lot, Sample Date/Time	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 KR0JK-1-AA J8G220235-1-SAMP 07/21/2008 11:25	14.70g,in									
<p style="text-align: center;">1.5 101.6 200 28B 2051 7/23/08 BPA</p>										
2 KR0JK-1-AD-X J8G220235-1-DUP 07/21/2008 11:25	14.70g,in									
<p style="text-align: center;">97.1 28D</p>										
3 KR0JL-1-AA J8G220235-2-SAMP 07/21/2008 11:20	40.10g,in									
<p style="text-align: center;">92.2 26A</p>										
4 KR0JM-1-AA J8G220235-3-SAMP 07/21/2008 11:10	17.30g,in									
<p style="text-align: center;">105.0 26B</p>										
5 KR0JP-1-AA J8G220235-4-SAMP 07/21/2008 11:45	15.20g,in									
<p style="text-align: center;">98.2 26C</p>										
6 KR0JR-1-AA J8G220235-5-SAMP 07/21/2008 11:35	19.80g,in									
<p style="text-align: center;">106.5 26D</p>										
7 KR0JX-1-AA J8G220235-6-SAMP 07/21/2008 12:15	9.00g,in									
<p style="text-align: center;">91.8 27A</p>										

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TESTAMERICA

7/23/2008 5:06:05 PM

**Sample Preparation/Analysis**

Balance Id:1119381299

108302, Fluor Hanford Inc  
Management Federal Servi

Waste

BC Gross Beta PrpRC5014  
S8 Gross Beta by GPC using Sr/Y-90 curve  
5I CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 07/25/2008

Sep1 DT/Tm Tech:

Batch: 8204393 WATER pCi/L  
SEQ Batch, Test: None

PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

Prep Tech: BockT



Work Order, Lot, Sample Date/Time	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 KR0J0-1-AA J8G220235-7-SAMP 07/21/2008 12:10	11.10g,in									
				1.5	94.9	200	27B	2051	7/23/0807	
				AmtRec: LP		#Containers: 1		Scr:	Alpha:	Beta:
9 KR0J1-1-AA J8G220235-8-SAMP 07/21/2008 13:35	19.60g,in									
					98.5		27C			
				AmtRec: LP		#Containers: 1		Scr:	Alpha:	Beta:
10 KR0J4-1-AA J8G220235-9-SAMP 07/21/2008 12:00	15.60g,in									
					97.5		27D			
				AmtRec: LP		#Containers: 1		Scr:	Alpha:	Beta:
11 KR0J5-1-AA J8G220235-10-SAMP 07/21/2008 12:25	22.20g,in									
					85.1		32A	2051		
				AmtRec: LP		#Containers: 1		Scr:	Alpha:	Beta:
12 KR0J6-1-AA J8G220235-11-SAMP 07/21/2008 11:55	21.60g,in									
					92.2		32B			
				AmtRec: LP		#Containers: 1		Scr:	Alpha:	Beta:
13 KR0KA-1-AA J8G220235-12-SAMP 07/21/2008 13:15	25.20g,in									
					84.5		32C			
				AmtRec: LP		#Containers: 1		Scr:	Alpha:	Beta:
14 KR0KF-1-AA J8G220235-13-SAMP 07/21/2008 13:25	25.80g,in									
					84.9		32D			
				AmtRec: LP		#Containers: 1		Scr:	Alpha:	Beta:

5I

TESTAMERICA

7/23/2008 5:06:06 PM

**Sample Preparation/Analysis**

Balance Id:1119381299

108302, Fluor Hanford Inc  
Management Federal Servi

, Waste

BC Gross Beta PrpRC5014  
S8 Gross Beta by GPC using Sr/Y-90 curve  
5I CLIENT: HANFORD

Pipet #:

**AnalytDueDate: 07/25/2008**

Sep1 DT/Tm Tech:

**Batch: 8204393 WATER pCi/L**  
SEQ Batch, Test: None

PM, Quote: SS , 29754

Sep2 DT/Tm Tech:

Prep Tech: ,BockT

Work Order, Lot, Sample Date/Time	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:
15 KROKK-1-AA	45.00g,in									
J8G220235-14-SAMP				1.5	82.7	200	26A	0930	7/24/08	
07/21/2008 12:45	AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:	
16 KROKL-1-AA	37.10g,in									
J8G220235-15-SAMP					89.7		26B			
07/21/2008 12:35	AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:	
17 KROKP-1-AA	30.40g,in									
J8G220235-16-SAMP					81.1		26C			
07/21/2008 12:55	AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:	
18 KROKR-1-AA	200.00g,in									
J8G220235-17-SAMP					62.9	100	31B	1911	7/23/08	
07/21/2008 13:05	AmtRec: LP	#Containers: 1					Scr:	Alpha:	Beta:	
19 KROV6-1-AA-B	200.00g,in									
J8G220000-393-BLK					0.2	200	26D	0930	5/1/08	
07/21/2008 11:25	AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:	
20 KROV6-1-AC-C	200.00g,in									
J8G220000-393-LCS			BESB3304		0.4		27A			
07/21/2008 11:25	AmtRec:	#Containers: 1	07/16/08,pd				Scr:	Alpha:	Beta:	

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TESTAMERICA

7/23/2008 5:06:06 PM

## Sample Preparation/Analysis

Balance Id:1119381299

BC Gross Beta PrpRC5014  
 S8 Gross Beta by GPC using Sr/Y-90 curve  
 51 CLIENT: HANFORD

Pipet #: \_\_\_\_\_

AnalyDueDate: 07/25/2008

Sep1 DT/Tm Tech: \_\_\_\_\_

Batch: 8204393  
 SEQ Batch, Test: None

pCi/L

Sep2 DT/Tm Tech: \_\_\_\_\_

Prep Tech: ,BockT



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

## Comments:

## All Clients for Batch:

108302, Fluor Hanford Inc

Waste Management Federal Servi, SS , 29754

## KROJK1AA-SAMP Constituent List:

BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
KROV61AA-BLK:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
KROV61AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20
KROJK1AA-SAMP Calc Info:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KROV61AA-BLK:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
KROV61AC-LCS:					
Uncert Level (#s):	2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

Approved By \_\_\_\_\_ Date: \_\_\_\_\_

7/24/2008 10:36:31 AM

# ICOC Fraction Transfer/Status Report

ByDate: 7/25/2007, 7/29/2008, Batch: '8204393', User: \*ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	Comments
	<b>8204393</b>				
AC		<b>Rev1C</b>	<b>BockT</b>	7/23/2008 11:34:23	
SC			wagarr	IsBatched	7/22/2008 2:17:02 PM
SC			BockT	InPrep	7/23/2008 11:34:23 AM
SC			AshworthA	Prep2C	7/23/2008 5:20:12 PM
SC			DAWKINSO	InCnt1	7/23/2008 5:56:33 PM
SC			ClarkR	CalcC	7/24/2008 10:11:10 AM
SC			nortonj	Rev1C	7/24/2008 10:36:23 AM
AC			<b>AshworthA</b>	7/23/2008 5:20:12 PM	ICOC_RADCALC v4.8.32
AC			<b>DAWKINSO</b>	7/23/2008 5:56:33 PM	ri-gpc-001 rev 0
AC			<b>ClarkR</b>	7/24/2008 10:11:10	GPC-001 REVISION 0
AC			<b>nortonj</b>	7/24/2008 10:36:23	RL-CI-006 REVISION 0
					RL-CI-006 REVISION 0
					RICH-RC-0002 REV 8

AC: Accepting Entry; SC: Status Change

TAL Richland  
Richland Wa.