

March 31, 2015

Analytical Data Package Prepared For  
**CH2M Hill Plateau Remediation**

Radiochemical Analysis By  
**TestAmerica Inc**

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

Assigned Laboratory Code: TARL

Data Package Contains 13 Pages

Report No.: 65183

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.
W07074	F13-047	B2YRV3	J5B250414-1	M58W51AD	9M58W510	5056042
		B2YRV3	J5B250414-1	M58W51AE	9M58W510	5056044
		B2YRV3	J5B250414-1	M58W54AC	9M58W540	5086049



## Certificate of Analysis

CH2M Hill Plateau Remediation Company  
P.O. Box 1600  
Mail Stop – R3-60  
Richland, WA 99352

March 30, 2015

Attention: Scot Fitzgerald

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SAF Number	:	F13-047
Date SDG Closed	:	February 25, 2015
Number of Samples	:	One (1)
Sample Type	:	Water
SDG Number	:	W07074
Data Deliverable	:	30-Day / Summary

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### CASE NARRATIVE

#### **I. Introduction**

On February 25, 2015, one sample was received at TestAmerica (TARL). Upon receipt, the sample was assigned laboratory ID numbers to correspond with the CH2M specific IDs.

#### **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**  
Strontium-90 by method RL-GPC-003
- Liquid Scintillation Counting**  
Carbon-14 by method RL-LSC-008  
Tritium by method RL-LSC-005

CH2M Hill Plateau Remediation Company  
March 30, 2015

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**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**

Strontium-90 by method RL-GPC-003:

No analytical or quality issues were noted. The sample results and associated batch QC results are within contractual requirements.

**Liquid Scintillation Counting**

Carbon-14 by method RL-LSC-008:

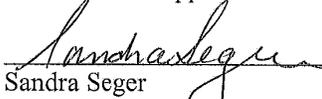
No analytical or quality issues were noted. The sample results and associated batch QC results are within contractual requirements.

Tritium by method RL-LSC-005:

No analytical or quality issues were noted. The sample results and associated batch QC results are within contractual requirements.

We certify that this data package is in compliance with the SOW, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager (or designee) and the laboratory's client services representative as verified by their signatures on this report.

Reviewed and approved:

  
Sandra Seger  
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,  $R = \text{constants} * f(x,y,z,...)$ . 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 ( $S/\sqrt{n}$ ), 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>CSU (#s) <i>u<sub>c</sub> Combined Standard Uncert.</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 standard 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%. $Lc = (1.645 * \sqrt{2 * (BkgrndCnt / BkgrndCntMin) / SCntMin}) * (ConvFct / (Eff * Yld * Abn * Vol) * IngrFct)$ . 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.
<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%. $MDC = (4.65 * \sqrt{(BkgrndCnt / BkgrndCntMin) / SCntMin} + 2.71 / SCntMin) * (ConvFct / (Eff * Yld * Abn * Vol) * IngrFct)$ . For LSC methods the batch blank is used as a measure of the background variability.
<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 = $(S-D) / [\sqrt{(TPUs^2 + TPUD^2)}]$ 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.
<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.

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F13-047-110	PAGE 1 OF 1
COLLECTOR <i>E. Kavan</i>	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C8295, I-007 SPT	PROJECT DESIGNATION 100-KR-4 Long Term & Interim Action Monitoring - Water	SAF NO. F13-047	COA 300085	AIR QUALITY <input type="checkbox"/>	METHOD OF SHIPMENT GOVERNMENT VEHICLE
ICE CHEST NO. N/A	FIELD LOGBOOK NO. HNF-N-645-3 p 4	ACTUAL SAMPLE DEPTH 59.6'	BILL OF LADING/AIR BILL NO. N/A		ORIGINAL
SHIPPED TO TestAmerica Incorporated, Richland	OFFSITE PROPERTY NO. N/A				

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	HNO3 to pH	None
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WF=Wipe X=Other	*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	None	<2	None
		6 Months	6 Months	6 Months
		G/P	G/P	P
	NO. OF CONTAINER(S)	2	3	1
	VOLUME	1L	1L	1L
	SAMPLE ANALYSIS	C14, I3C; COMMON;	SRTOT_SEP_PR ECP_GPC; COMMON;	TRITIUM_DIST I3C; COMMON;
	SPECIAL HANDLING AND/OR STORAGE			



J5B250414

J5B250414  
SDG# W07074  
DUE 3-27-15

M5865

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2YRV3	WATER	2-24-15	1459

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM <i>E. Kavan</i>	RECEIVED BY/STORED IN 55U #1	TRVL-14-190
DATE/TIME 2-24-15 1555	DATE/TIME 2-24-15 1555	
RELINQUISHED BY/REMOVED FROM SSU-1	RECEIVED BY/STORED IN FBI/HAZCHPRC	
DATE/TIME FEB 25 2015	DATE/TIME FEB 25 2015	
RELINQUISHED BY/REMOVED FROM FBI/HAZCHPRC	RECEIVED BY/STORED IN J. Friesz, TARK	
DATE/TIME FEB 25 2015	DATE/TIME FEB 25 2015	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
DATE/TIME	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
DATE/TIME	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
DATE/TIME	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
DATE/TIME	DATE/TIME	
LABORATORY SECTION	RECEIVED BY	TITLE
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DATE/TIME
PRINTED ON 11/7/2014		

TRVL-14-190

March 31, 2015

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 2/25/15 0945 Container GM Screen Result: (Airlock) 26 cpm Initials [ J ]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [ J ]

Client: FLH SDG #: W07074 SAF #: F13-047 NA [ ]

Lot Number: J5B250414

Chain of Custody # F13-047-110

Shipping Container ID or Air Bill Number : Hand Delivered NA [ ]

Samples received inside shipping container/cooler/box Yes [ J ] Continue with 1 through 4. Initial appropriate response.
No [ ] Go to 5, add comment to #16.

- 1. Custody Seals on shipping container intact? Yes [ ] No [ ] No Custody Seal [ J ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [ J ]
3. Cooler temperature: 4.6 C ON ICE NA [ ]
4. Vermiculite/packing materials is NA [ J ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

- 5. Chain of Custody record present? Yes [ J ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 6
7. Containers received: 6 x 1 p

8. Sample holding times exceeded? NA [ ] Yes [ ] No [ J ]

9. Samples have: tape hazard labels custody seals appropriate sample labels

10. Matrix: A (FLT, Wipe, Solid, Soil) J I (Water) S (Air, Niosh 7400) T (Biological, Ni-63)

11. Samples: J are in good condition are leaking are broken
have air bubbles (Only for samples requiring no head space) Other

12. Sample pH appropriate for analysis requested Yes [ J ] No [ ] NA [ ]
(If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO3 added and pH after addition on table)

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

14. Description of anomalies (include sample numbers): NA [ J ]

15. Sample Location, Sample Collector Listed on COC? \* Yes [ J ] No [ ]
\*For documentation only. No corrective action needed.

16. Additional Information: NA

[ ] Client/Courier denied temperature check. [ J ] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:
Signature: Date: 2/25/15

Client Notification needed? Yes [ ] No [ J ] Date:
By:
Person contacted:

No action necessary; process as is
Project Manager Samantha Segur Date 2-25-15

Sample Results Summary

Date: 31-Mar-15

TestAmerica Inc TARL

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

Report No. : 65183

SDG No: W07074

Batch	Client Id Work Order	Parameter	Result +- CSU ( 2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5056042	SRISQ_SEP-PRECIP-GPG SRTDTL SEP. PRECIP-GPS SKS 3-31-15								
	<b>B2YRV3</b>								
	M58W51AD	STRONTIUM	1.61E-01 +- 2.4E-01	U	pCi/L	88%	5.17E-01	2.00E+00	
	<b>B2YRV3 DUP</b>								
	M58W51AF	STRONTIUM	3.36E-02 +- 2.0E-01	U	pCi/L	90%	4.52E-01	2.00E+00	131.1
5056044	TRITIUM_DIST_LSC								
	<b>B2YRV3</b>								
	M58W51AE	H-3	5.03E+04 +- 1.7E+03		pCi/L	100%	3.22E+02	4.00E+02	
	<b>B2YRV3 DUP</b>								
	M58W51AH	H-3	5.10E+04 +- 1.7E+03		pCi/L	100%	3.22E+02	4.00E+02	1.3
5086049	C14_LSC								
	<b>B2YRV3</b>								
	M58W54AC	C-14	6.27E+01 +- 4.5E+00		pCi/L	100%	3.52E+00	2.00E+02	
	<b>B2YRV3 DUP</b>								
	M58W54AG	C-14	6.79E+01 +- 4.8E+00		pCi/L	100%	3.52E+00	2.00E+02	7.9
No. of Results:		6							

QC Results Summary  
TestAmerica Inc TARL

Date: 31-Mar-15

Ordered by Method, Batch No, QC Type,.

Report No. : 65183

SDG No.: W07074

Batch	Work Order	Parameter	Result +- CSU ( 2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
<b>SRISO-SEP-PREGIP-GPC STRONTIUM-SEP-PRECIP-GPC SYS 3-31-15</b>									
5056042	BLANK QC,								
	M58XT1AA	STRONTIUM	-6.40E-02 +- 1.9E-01	U	pCi/L	92%			4.65E-01
5056042	LCS,								
	M58XT1AC	STRONTIUM	7.85E+00 +- 1.9E+00		pCi/L	88%	113%	0.1	4.56E-01
<b>TRITIUM_DIST_LSC</b>									
5056044	BLANK QC,								
	M58XW1AA	H-3	1.71E+02 +- 1.6E+02	U	pCi/L	100%			3.44E+02
5056044	LCS,								
	M58XW1AC	H-3	2.59E+03 +- 2.5E+02		pCi/L	100%	98%	0.0	3.40E+02
<b>C14_LSC</b>									
5086049	BLANK QC,								
	M6GQC1AA	C-14	3.20E+00 +- 1.9E+00	U	pCi/L	100%			3.52E+00
5086049	LCS,								
	M6GQC1AC	C-14	1.46E+02 +- 8.9E+00		pCi/L	100%	101%	0.0	3.51E+00
No. of Results: 6									

TestAmerica Inc Bias - (Result/Expected)-1 as defined by ANSI N13.30.  
 rptSTLRchQcSummary V5.3.6.8 U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.  
 A2002

FORM I

Date: 31-Mar-15

SAMPLE RESULTS

Lab Name: TestAmerica Inc  
 Lot-Sample No.: J5B250414-1  
 Client Sample ID: B2YRV3

SDG: W07074  
 Report No.: 65183  
 COC No.: F13-047-110

Collection Date: 2/24/2015 2:59:00 PM  
 Received Date: 2/25/2015 9:45:00 AM  
 Matrix: WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Opal Error (2 s)	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5056042	Work Order: M58W51AD Report DB ID: 9M58W510											
STRONTIUM	1.61E-01	U	2.4E-01	2.4E-01	5.17E-01	pCi/L	88%	0.31	3/9/15 08:27 p	1.003	L	GPC31A
							2.41E-01	(1.3)				
Batch: 5056044	Work Order: M58W51AE Report DB ID: 9M58W510											
H-3	5.03E+04		7.8E+02	1.7E+03	3.22E+02	pCi/L	100%	(156.5)	3/21/15 09:25 p	0.00503	L	LSC4
							1.53E+02	(59.1)				
Batch: 5086049	Work Order: M58W54AC Report DB ID: 9M58W540											
C-14	6.27E+01		2.5E+00	4.5E+00	3.52E+00	pCi/L	100%	(17.8)	3/29/15 08:31 p	0.25	L	LSC9
							1.72E+00	(27.6)				

No. of Results: 3 Comments:

TestAmerica Inc MDC|MDA|Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rpt|STLRchSample U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.  
 V5.3.6.8 A2002

FORM II

Date: 31-Mar-15

DUPLICATE RESULTS

Lab Name: TestAmerica Inc  
 Lot-Sample No.: J5B250414-1  
 Client Sample ID: B2YRV3 DUP  
 SDG: W07074  
 Report No.: 65183  
 COC No.: F13-047-110  
 Collection Date: 2/24/2015 2:59:00 PM  
 Received Date: 2/25/2015 9:45:00 AM  
 Matrix: WATER

Parameter	Result, Orig Rst, Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector							
Batch: 5056042	STRONTIUM	3.36E-02 U	1.9E-01	2.0E-01	4.52E-01	pCi/L	Report DB ID: M58W51FAF	Work Order: M58W51AH	2.0E+00	2.00E+00	90%	0.07	3/9/15 08:27 p	9M58W510	1.0027	L	GPC31B	
		1.61E-01 U	RPD 131.1									0.34						
Batch: 5056044	H-3	TRITIUM_DIST_LSC	7.8E+02	1.7E+03	3.22E+02	pCi/L	Report DB ID: M58W51HR	Work Order: M58W51AG	4.00E+02	4.00E+02	100%	(158.1)	3/21/15 10:48 p	9M58W510	0.00503	L	LSC4	
		5.03E+04	RPD 1.3									(59.2)						
Batch: 5086049	C-14	C14_LSC	2.6E+00	4.8E+00	3.52E+00	pCi/L	Report DB ID: M58W54GR	Work Order: M58W54AG	2.00E+02	2.00E+02	100%	(19.3)	3/29/15 10:35 p	9M58W540	0.25	L	LSC9	
		6.27E+01	RPD 7.9									(28.2)						

No. of Results: 3 Comments:

TestAmerica Inc RPD - Relative Percent Difference.  
 rptSTLRchDupV5. MDC|MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 3.6.8 A2002 U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

**FORM II  
BLANK RESULTS**

Date: 31-Mar-15

Lab Name: TestAmerica Inc      SDG: W07074      Report No.: 65183  
 Matrix: WATER

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5086049												
C-14	3.20E+00	U	1.6E+00	1.9E+00	3.52E+00	pCi/L	100%	0.91	3/30/15 12:39 a		0.25	LSC9
							Work Order: M6GQC1AA	Report DB ID: M6GQC1AB				
							1.72E+00	(3.4)				
Batch: 5056044												
H-3	1.71E+02	U	1.4E+02	1.6E+02	3.44E+02	pCi/L	100%	0.5	3/22/15 12:11 a		0.00508	LSC4
							Work Order: M58XW1AA	Report DB ID: M58XW1AB				
							1.63E+02	(2.1)				
Batch: 5056042												
STRONTIUM	-6.40E-02	U	1.9E-01	1.9E-01	4.65E-01	pCi/L	92%	-0.14	3/9/15 08:27 p		1.0024	GPC31C
							Work Order: M58XT1AA	Report DB ID: M58XT1AB				
							2.16E-01	-0.68				

No. of Results: 3      Comments:

TestAmerica Inc      MDCIMDA.Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 rptSTLRchBlank      U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.  
 V5.3.6.8 A2002

Date: 31-Mar-15

**FORM II  
LCS RESULTS**

SDG: W07074  
Report No.: 65183

Lab Name: TestAmerica Inc  
Matrix: WATER

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 5086049 C14_LSC													
C-14	1.46E+02		3.5E+00	8.9E+00	3.51E+00	pCi/L	100%	1.44E+02	2.9E+00	101%	3/30/15 02:43 a	0.25	LSC9
Work Order: M6GQC1AC Report DB ID: M6GQC1CS Rec Limits: 70 130 0.0													
Batch: 5056044 TRITIUM_DIST_LSC													
H-3	2.59E+03		2.2E+02	2.5E+02	3.40E+02	pCi/L	100%	2.65E+03	7.9E+01	98%	3/22/15 01:34 a	0.00503	LSC4
Work Order: M58XW1AC Report DB ID: M58XW1CS Rec Limits: 70 130 0.0													
Batch: 5056042 STRONTIUM													
STRONTIUM	7.85E+00		6.7E-01	1.9E+00	4.56E-01	pCi/L	88%	6.92E+00	4.9E-02	113%	3/9/15 08:27 p	1.0034	GPC31D
Work Order: M58XT1AC Report DB ID: M58XT1CS Rec Limits: 70 130 0.1													

No. of Results: 3 Comments:

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

rptSTLRchLcs  
V5.3.6.8 A2002