February 2, 2016

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 17 ***Pages***

Report No.: 68106

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.
W07313A	X15-053	B32JL1	J6A130420-1	M74H31AA	9M74H310	6014022
		B32JL2	J6A130420-2	M74H41AA	9M74H410	6014022

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

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

February 2, 2016

Attention: Scot Fitzgerald

SAF Number	:	X15-053
Date SDG Closed	:	January 12, 2016
Number of Samples	:	Two (2)
Sample Type	:	Water
SDG Number	:	W07313A
Data Deliverable	:	15-Day / Summary

CASE NARRATIVE

I. Introduction

On January 12, 2016, two samples were re-logged in at TestAmerica (TARL). Upon receipt, the samples were assigned laboratory ID numbers to correspond with the CH2M specific IDs.

II. Sample Receipt

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Liquid Scintillation Counting
Mid-Level Tritium by method RL-LSC-005

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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

Liquid Scintillation Counting
Mid-Level 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:

Whitney N. Ritari

Digitally signed by Whitney Ritari
Date: 2016.02.02 17:31:39 -08'00'

Whitney Ritari
Project Manager

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Drinking Water Method Cross References

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

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

Uncertainty Estimation

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

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

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

Report Definitions

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

RECHECK, RECOUNT, OR REANALYSIS ORDER

01/12/2016

Order Number: **160112TARL-R8722**

TestAmerica Incorporated, Richland
2800 George Washington Way
Richland, WA 99354

Sample Delivery Group:W07313

Method Name:906.0_H3_LSC

Sample#: B32JL1 - m74H3 Sample Date: 11/12/2015 8:10:00 AM SAF #:X15-053

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
9M7WHL10	1/12/2016 1:19:13 PM	Tritium	REANALYZE	15 Days / 15 Days

Special Instructions: The lab reported tritium by the routine method. The midlevel method and MDC are needed. SLF 01/12/2016

Sample#: B32JL2-m74H4 Sample Date: 11/12/2015 7:10:00 AM SAF #:X15-053

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
9M7WHM10	1/12/2016 1:19:13 PM	Tritium	REANALYZE	15 Days / 15 Days

Special Instructions: The lab reported tritium by the routine method. The midlevel method and MDC are needed. SLF 01/12/2016

J6A130420

J6A130420
W07313A
Due 1-27-16

Deliver Report Results to:CHPRC
P.O. Box 1600
Richland, WA 99352
C/O Mr.Scot Fitzgerald

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X15-053-022 Page 1 of 1

Collector	D.L. Floyd/CHPRC	Contact/Requester	WATERS-HUSTED, K	Telephone No.	376-4650
SAF No.	X15-053	Sampling Origin	Hanford Site	Purchase Order/Charge Code	302869
Project Title	200-BP-5 Treatability Test - Week 3	Logbook No.	HNF-N-506 80 / 26	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority: 21 Days	PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
*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.

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B32JL1	N	W	NOV 12 2015	0810	1x1-L P	906.0ML_TRITIUM_LSC: COMMON M7WHL	6 Months	None

J5K120416
007313
Due 12-4-15

J5K120416

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D.L. Floyd/CHPRC			NOV 12 2015 0915	M.A. White CHPRC			NOV 12 2015 0915
M.A. White CHPRC			NOV 12 2015 1425	J. Bock, TARL			NOV 12 2015 1425

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 9/8/2015 FSR ID = FSR3870 A-6004-842 (REV 2)

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C.# X15-053-023 Page 1 of 1

Collector	D.L. Floyd/CHPRC	Contact/Requester	WATERS-HUSTED, K	Telephone No.	376-4650
SAF No.	X15-053	Sampling Origin	Hanford Site	Purchase Order/Charge Code	302869
Project Title	200-BP-5 Treatability Test - Week 3	Logbook No.	HNF-N-506 80126	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority: 21 Days	PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS
*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.

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B32JL2	N	W	NOV 12 2015	0710	1x1-L P	906.0ML_TRITIUM_LSC: COMMON mqwtm	6 Months	None

JSK120416
W07313
Due 12-4-15

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
D.L. Floyd/CHPRC			NOV 12 2015 0915	M.A. White CHPRC			NOV 12 2015 0915
M.A. White CHPRC			NOV 12 2015 1425		J. Bock, TARL		NOV 12 2015 1425

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 9/8/2015 FSR ID = FSR2604 A-6004-842 (REV 2)

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Sample Check-in List

Date/Time Received: 11-12-15 / 1425 Container GM Screen Result: (Airlock) 0 cpm Initials [B]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [B]

Client: PGW SDG #: WO 7313 SAF #: X15-053 NA [ ]

Lot Number: JSK120416

Chain of Custody # X15-053-022, 023

Shipping Container ID or Air Bill Number : _____ NA [B]

Samples received inside shipping container/cooler/box Yes [B] 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 [B]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [B]
3. Cooler temperature: _____ °C NA [B]
4. Vermiculite/packing materials is NA [B] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [B] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 2 x 4p
8. Sample holding times exceeded? NA [ ] Yes [ ] No [B]
9. Samples have: ____ tape ____ hazard labels [B] custody seals [B] appropriate sample labels
10. Matrix: ____ A (FLT, Wipe, Solid, Soil) [B] I (Water) ____ S (Air, Niosh 7400) ____ T (Biological, Ni-63)
11. Samples:
    [B] 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 [B] No [ ] NA [ ]
    (If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [B]
14. Description of anomalies (include sample numbers): NA [B]
15. Sample Location, Sample Collector Listed on COC? * Yes [B] No [ ]
    *For documentation only. No corrective action needed.
16. Additional Information: N/A

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

Sample Check-In List completed by Sample Custodian:
Signature: [signature] Date: 11-12-15

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

[✓] No action necessary; process as is

Project Manager [signature] Date 11-13-15

LS-023 Rev. 17, 05/13

Sample Results Summary

Date: 02-Feb-16

TestAmerica Inc TARL

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

Report No. : 68106 **SDG No:** W07313A

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
6014022	**906.0ML_H3_LSC**								
B32JL1									
	M74H31AA	H-3	1.09E+04 +- 1.2E+03		pCi/L	100%	2.27E+01	3.00E+01	
B32JL2									
	M74H41AA	H-3	-3.45E+01 +- 1.8E+01	U	pCi/L	100%	2.11E+01	3.00E+01	
B33J95 DUP									
	M74H51AC	H-3	1.09E+02 +- 2.6E+01		pCi/L	100%	2.33E+01	3.00E+01	22.7

No. of Results: 3

RPD - Relative Percent Difference.

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

QC Results Summary

Date: 02-Feb-16

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 68106

SDG No.: W07317A

Batch Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
906.0ML_H3_LSC								
6014022 MATRIX SPIKE, B32JL3								
M74H21AC	H-3	1.39E+03 +- 1.8E+03		pCi/L	100%	91%	-0.1	2.67E+01
6014022 BLANK QC,								
M74KD1AA	H-3	-2.37E+01 +- 1.8E+01	U	pCi/L	100%			2.08E+01
906.0ML_H3_LSC								
6027021 LCS,								
M74KD2AC	H-3	7.31E+03 +- 8.3E+02		pCi/L	100%	80%	-0.2	2.44E+01

No. of Results: 3

TestAmerica Inc

rptSTLRchQcSummary V5.4.1 A2002

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

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

FORM I

SAMPLE RESULTS

Date: 02-Feb-16

Lab Name:	**TestAmerica Inc**	**SDG:**	W07313A	**Collection Date:**	11/12/2015 8:10:00 AM
Lot-Sample No.:	**J6A130420-1**	**Report No. :**	68106	**Received Date:**	1/12/2016 1:19:00 PM
Client Sample ID:	**B32JL1**	**COC No. :**	X15-053-022	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	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: 6014022	906.0ML_H3_LSC			**Work Order:** M74H31AA			**Report DB ID:** 9M74H310					
H-3	**1.09E+04**		6.9E+01	1.2E+03	2.27E+01	pCi/L	100%	*(480.1)*	1/15/16 12:09 p		0.01002	LSCQ1
						1.12E+01	3.00E+01	*(17.8)*			L	

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

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TestAmerica Inc

rptSTLRchSample
V5.4.1 A2002

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

FORM I

SAMPLE RESULTS

Date: 02-Feb-16

Lab Name:	**TestAmerica Inc**	**SDG:**	W07313A	**Collection Date:**	11/12/2015 7:10:00 AM
Lot-Sample No.:	**J6A130420-2**	**Report No. :**	68106	**Received Date:**	1/12/2016 1:19:00 PM
Client Sample ID:	**B32JL2**	**COC No. :**	X15-053-023	**Matrix:**	WATER

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	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: 6014022	906.0ML_H3_LSC			**Work Order:** M74H41AA			**Report DB ID:** 9M74H410					
H-3	**-3.45E+01**	U	1.0E+01	1.8E+01	2.11E+01	pCi/L	100%	*-(1.6)*	1/15/16 12:09 p		0.01	LSCQ1
						1.04E+01	3.00E+01	*-(3.8)*			L	

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

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TestAmerica Inc

rptSTLRchSample
V5.4.1 A2002

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

FORM II

Date: 02-Feb-16

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W07334A	**Collection Date:**	12/4/2015 2:36:00 PM
Lot-Sample No.:	**J6A130421-1**	**Report No. :**	68106	**Received Date:**	1/12/2016 1:20:00 PM
Client Sample ID:	**B33J95 DUP**	**COC No. :**	S16-012-418	**Matrix:**	WATER

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6014022	906.0ML_H3_LSC			**Work Order:** M74H51AC		**Report DB ID:** M74H51CR			**Orig Sa DB ID:** 9M74H510			
H-3	1.09E+02		1.3E+01	2.6E+01	2.33E+01	pCi/L	100%	(4.7)	1/15/16 12:09 p		0.01001	LSCQ1
	8.70E+01		**RPD**	**22.7**		3.00E+01		(8.4)			L	

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

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TestAmerica Inc **RPD** - Relative Percent Difference.

rptSTLRchDupV5.4.1 A2002 **MDC|MDA,Lc** - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

FORM II

BLANK RESULTS

Date: 02-Feb-16

Lab Name: TestAmerica Inc

SDG: W07317A

Matrix: WATER

Report No. : 68106

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: 6014022	906.0ML_H3_LSC			**Work Order:**	M74KD1AA		**Report DB ID:**	M74KD1AB				
H-3	-2.37E+01	U	9.7E+00	1.8E+01	2.08E+01	pCi/L	100%	-(1.1)	1/15/16 12:09 p		0.01001	LSCQ1
					1.02E+01	2.50E+01		-(2.6)			L	

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

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TestAmerica Inc

rptSTLRchBlank
V5.4.1 A2002

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

FORM II

LCS RESULTS

Date: 02-Feb-16

Lab Name: TestAmerica Inc

SDG: W07313A

Matrix: WATER

Report No. : 68106

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: 6027021	906.0ML_H3_LSC			**Work Order:**	M74KD2AC		**Report DB ID:**	M74KD2CS					
H-3	7.31E+03		5.8E+01	8.3E+02	2.44E+01	pCi/L	100%	9.08E+03	2.7E+02	80%	1/27/16 01:59 p	0.01002	LSCQ1
							Rec Limits:	70	130	-0.2		L	

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

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

rptSTLRchLcs
V5.4.1 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 02-Feb-16

Lab Name: TestAmerica Inc **SDG:** W07317A

Lot-Sample No.: J6A130419-1, B32JL3 **Report No. :** 68106 **Matrix:** WATER

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	CSU (2 s)	MDC|MDA	Rpt Unit	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 6014022	**Work Order:** M74H21AC			**Report DB ID:** M74H21CW			**Orig Sa DB ID:** 9M74H210					
H-3	1.39E+03		8.0E+01	1.8E+03	2.67E+01	pCi/L	100%	91.44%	1.51E+03	1/15/16 12:09 p	0.00857	906.0ML_H3_LSC
	1.09E+04								4.5E+01		L	LSCQ1

Number of Results: 1

Comments:

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TestAmerica Inc **RER** - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

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

V5.4.1 A2002