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 62 *Pages*

Report No.: 72583

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.
W08024	A18-001	B3FP83	J8C050405-2	NANWM1AA	9NANWM10	8066014
		B3FP84	J8C050405-3	NANWN1AA	9NANWN10	8066014
		B3FPB6	J8C050409-3	NANW11AC	9NANW110	8066014
		B3FPB6	J8C050409-3	NANW12AA	9NANW120	8093023
		B3FPB8	J8C050409-2	NANW01AC	9NANW010	8066021
		B3FPB8	J8C050409-2	NANW02AA	9NANW020	8093023
		B3FPC2	J8C050409-1	NANWX1AC	9NANWX10	8066021
		B3FPC2	J8C050409-1	NANWX2AA	9NANWX20	8093023
		B3FPC5	J8C050403-1	NANWE1AC	9NANWE10	8066014
		B3FPC5	J8C050403-1	NANWE2AA	9NANWE20	8093023
		B3FPC7	J8C050405-1	NANWL1AC	9NANWL10	8066014
		B3FPC7	J8C050405-1	NANWL1AD	9NANWL10	8066021
		B3FPC7	J8C050405-1	NANWL2AA	9NANWL20	8093023
	I18-004	B3FPN6	J8C050406-1	NANWP1AD	9NANWP10	8066010
		B3FPN6	J8C050406-1	NANWP1AA	9NANWP10	8066015
		B3FPN6	J8C050406-1	NANWP1AE	9NANWP10	8066016
		B3FPN6	J8C050406-1	NANWP1AG	9NANWP10	8066020
		B3FPN6	J8C050406-1	NANWP1AH	9NANWP10	8066021
		B3FPN6	J8C050406-1	NANWP1AJ	9NANWP10	8066022
		B3FPN6	J8C050406-1	NANWP2AC	9NANWP20	8093023
		B3FPN6	J8C050406-1	NANWP2AF	9NANWP20	8096011
		B3FPV6	J8C050408-1	NANWV1AA	9NANWV10	8066014
		B3FPW2	J8C050408-2	NANWW1AA	9NANWW10	8066014
	W18-001	B3FRM3	J8C050404-1	NANWF1AD	9NANWF10	8066011
		B3FRM3	J8C050404-1	NANWF1AE	9NANWF10	8066012
		B3FRM3	J8C050404-1	NANWF1AA	9NANWF10	8066017

Report No.: 72583

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.
W08024	W18-001	B3FRM3	J8C050404-1	NANWF1AC	9NANWF10	8066018
	A18-001	B3FY25	J8C050409-4	NANW22AA	9NANW220	8093023
		B3FY26	J8C050409-5	NANW32AA	9NANW320	8093023

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

April 9, 2018

Attention: Scot Fitzgerald

SAF Number	:	A18-001, W18-001, I18-004
Date SDG Closed	:	March 6, 2018
Number of Samples	:	Thirteen (13)
Sample Type	:	Water
SDG Number	:	W08024
Data Deliverable	:	30-Day / Summary

CASE NARRATIVE

I. Introduction

On March 5, 2018, thirteen samples were received 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:

Alpha Spectroscopy
Plutonium-238, -239/240 by method RL-ALP-001
Uranium 234, 235 and 238 by method RL-ALP-004
Gas Proportional Counting
Gross Alpha by method RL-GPC-001
Gross Beta by method RL-GPC-001
Radium-228 by method RL-RA-001

Strontium by method RL-GPC-010
Alpha Scintillation Counting
Radium-226 by method RL-RA-001

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001
Iodine-129 (LL) by method RL-GAM-002
Liquid Scintillation Counting
Plutonium-241 by method RL-ALP-001
Selenium-79 by method RL-LSC-012
Technetium-99 by TEVA method RL-LSC-014
Tritium by method RL-LSC-005

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

Alpha Spectroscopy
Plutonium-238, -239/240 by method RL-ALP-001:
The duplicate has a tracer yield outside of acceptance criteria. For more information see the attached SIR. No other analytical or quality issues were noted. Except as noted, the sample result and associated batch QC results are within contractual requirements.

Uranium 234, 235 and 238 by method RL-ALP-004:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Gas Proportional Counting
Gross Alpha by method RL-GPC-001:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Gross Beta by method RL-GPC-001:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Radium-228 by method RL-RA-001:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Strontium by method RL-GPC-010:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Alpha Scintillation Counting

Radium-226 by method RL-RA-001:

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

Gamma Spectroscopy

Gamma Spec by method RL-GAM-001:

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

Iodine-129 (LL) by method RL-GAM-002:

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

Liquid Scintillation Counting

Plutonium-241 by method RL-ALP-001:

The LCS recovery is outside acceptance criteria. For more information see the attached SIR. No other analytical or quality issues were noted. Except as noted, the sample result and associated batch QC results are within contractual requirements.

Selenium-79 by method RL-LSC-012:

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

Technetium-99 by TEVA method RL-LSC-014:

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

Tritium by method RL-LSC-005:

No analytical or quality issues were noted. The sample result 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:

Digitally signed by Ashley L. Worthy
Date: 2018.04.09 12:41:15 -07'00'

Ashley L. Worthy
Project Manager

SAMPLE ISSUE RESOLUTION (SIR) REPORT

SIR Number: SIR18-0568
Rev. Number: 0
Date Initiated: 03/22/2018

SAMPLE EVENT INFORMATION

SAF NUM(S): I18-004

LABORATORY: TARL

SAMPLING INFORMATION

NUMBER OF SAMPLES: 1

SAMPLE NUMBERS: B3FPN6

SAMPLE MATRIX: WATER

SDG NUM(S): W08024

ISSUE BACKGROUND

CLASS: Laboratory Issue

TYPE: Quality Control Failure

DESCRIPTION: For the PUISO analysis the duplicate had a tracer yield of 107%. The duplicate is in agreement with the sample, and the results are a non-detect. The acceptance criteria for the tracer yield is 30-105%. Sample results are below the MDA and CRDL.

RESOLUTION

PROPOSED RESOLUTION: Report results and include comment in the case narrative.

FINAL RESOLUTION: Accept proposed resolution

SUBMITTED BY:

WORTHY, A — 03/21/2018

ACCEPTED BY:

NAGEL, SE — 03/22/2018

SAMPLE ISSUE RESOLUTION (SIR) REPORT

SIR Number: SIR18-0581
Rev. Number: 0
Date Initiated: 03/27/2018

SAMPLE EVENT INFORMATION

SAF NUM(S): I18-004

LABORATORY: TARL

SAMPLING INFORMATION

NUMBER OF SAMPLES: 1

SAMPLE NUMBERS: B3FPN6

SAMPLE MATRIX: WATER

SDG NUM(S): W08024

ISSUE BACKGROUND

CLASS: Laboratory Issue

TYPE: Quality Control Failure

DESCRIPTION: For the PUI241 analysis the LCS recovered low at 79%. The tracer yield is acceptable at 100%. The results were confirmed by a recount. The acceptance criteria for the LCS is 80-120%. The sample and its duplicated were non-detects.

RESOLUTION

PROPOSED RESOLUTION: Report results and include comment in the case narrative.

FINAL RESOLUTION: LCS recovery meets QSM requirements. Accept proposed resolution

SUBMITTED BY:

WORTHY, A 03/27/2018

ACCEPTED BY:

FITZGERALD, SL 03/27/2018

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|MDL	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.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A18-001-040

Collector:	Juan Aguilar /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	A18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	PERFORMANCE ASSESSMENT, JANUAR	**Logbook No.:**	HNF-N-506 -99/S	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	Monitoring	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FPC5	N	W	3-6-18	0841	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3FPC5	N	W	3-5-18	0841	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NANWE	6 Months	None

Page 10 of 62

J8C050403
WD8024

04/09/2018

J8C050403

Relinquished By	Signature	Date/Time	Received By	Signature	Date/Time
Juan Aguilar /CHPRC (Print First and Last Name)	MAR 05 2018	0900	Daniel Klug CHPRC	D. Klug MAR 05 2018	0900
Daniel Klug CHPRC	D. Klug MAR 05 2018	1040	J. Bock, TARL	J. Bock 3-5-18	1040

Matrix *

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

REV.0

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

Printed On 12/6/2017 FSR ID = FSR54498 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

04/09/2018

Sample Check-in List

REV.0

Date/Time Received: 3-5-18 / 1040

Container GM Screen Result: (Airlock) 0 cpm Initials[JB]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials[ ]
Container Alpha Screen Result: (Airlock) 0 cpm Initials[ ]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials[ ]

Client: PLW SDG #: WO8024 SAF #: A18-001 NA [ ]

Lot Number: 28C050403

Chain of Custody # A18-001-040

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

Samples received inside shipping container/cooler/box Yes [JB] 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 [JB]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [JB]
3. Cooler temperature: 7.8 °C Ice NA [ ]
4. Vermiculite/packing materials is NA [JB] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [JB] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 1
7. Containers received: 1x 250 mLp; 1x 4Lp
8. Sample holding times exceeded? NA [ ] Yes [ ] No [JB]
9. Samples have: ____ tape ____ hazard labels JB custody seals JB appropriate sample labels
10. Matrix: ____ A (FLT, Wipe, Solid, Soil) JB I (Water) ____ S (Air, Niosh 7400) ____ T (Biological, Ni-63)
11. Samples:
    JB 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 [JB] 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 [JB]
14. Description of anomalies (include sample numbers): NA [JB]
15. Sample Location, Sample Collector Listed on COC? * Yes [JB] No [ ]
    *For documentation only. No corrective action needed.
16. Additional Information: N/A

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

Sample Check-in List completed by Sample Custodian:
Signature: [signature] Date: 3-5-18

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

[✓] No action necessary, process as is

Project Manager [signature] Date 3-5-18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W18-001-211 Page 1 of 1

Collector:	Juan Aguilar /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	W18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	RCRA, JANUARY 2018	**Logbook No.:**	HNF-N-506 -9915	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	RCRA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FRM3	N	W	3-5-18	0841	1x1-L G/P	903.1_RA226_LUC: COMMON	6 Months	HNO3 to pH <2
B3FRM3	N	W	3-5-18	0841	1x1-L P	9310_ALPHABETA_GPC: COMMON	6 Months	HNO3 to pH <2
B3FRM3	N	W	3-5-18	0841	1x1-L G/P	RAISO_SEP_GPC: COMMON NANWF	6 Months	HNO3 to pH <2

Page 12 of 62

J8C050404
WD8024

04/09/2018

J8C050404

Relinquished By	Print First and Last Name	Signature	Date/Time	Received By	Print First and Last Name	Signature	Date/Time
Juan Aguilar /CHPRC			MAR 05 2018 0900	Daniel Klug CHPRC		D. Klug	MAR 05 2018 0900
Daniel Klug CHPRC		D. Klug	MAR 05 2018 1040		J. Bock, TARL	Bock	3-5-18 / 1040

Matrix *

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

REV.0

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

Printed On 12/6/2017 FSR ID = FSR54498 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

04/09/2018

Sample Check-in List

REV.0

Date/Time Received: 3-5-18/ 1040

Container GM Screen Result: (Airlock) 0 cpm Initials[B]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials[ ]
Container Alpha Screen Result: (Airlock) 0 cpm Initials[ ]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials[ ]

Client: BW SDG #: W08024 SAF #: W18-001 NA [ ]

Lot Number: J8C050404

Chain of Custody # W18-001

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: 7.8 °C Ice NA [ ]
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): 1
7. Containers received: 3x4P
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: 3-5-18

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

[✓] No action necessary; process as is

Project Manager Susan Kelly Date 3-5-18

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A18-001-041

Collector:	Juan Aguilar /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	A18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	PERFORMANCE ASSESSMENT, JANUAR	**Logbook No.:**	HNF-N-506 -4915	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	Monitoring	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS

Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FPC7	N	W	3-5-18	1049	1x60-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3FPC7	N	W	3-5-18	1049	2x1-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B3FPC7	N	W	3-5-18	1049	1x125-mL P	TC99_ETVDSK_LSC: COMMON NANWL	6 Months	HCl to pH <2

J8C050405

WD8024

04/09/2018

J8C050405

Relinquished By: Juan Aguilar /CHPRC	MAR 05 2018 1100	Received By: Kevin Patterson CHPRC	MAR 05 2018 1100
Print First and Last Name / Signature / Date/Time		Print First and Last Name / Signature / Date/Time	
Relinquished By: Kevin Patterson CHPRC	MAR 05 2018 1125	Received By: Roger Friesz Jr. /CHPRC	MAR 05 2018 1125
Print First and Last Name / Signature / Date/Time		Print First and Last Name / Signature / Date/Time	
Relinquished By: Roger Friesz Jr. /CHPRC	MAR 05 2018 1245	Received By: J. Bock, TARL	3-5-18 1245
Print First and Last Name / Signature / Date/Time		Print First and Last Name / Signature / Date/Time	
Relinquished By:		Received By:	
Print First and Last Name / Signature / Date/Time		Print First and Last Name / Signature / Date/Time	

Matrix *

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

REV.0

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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A18-001-042 Page 1 of 1

Collector:	Juan Aguilar /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	A18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	PERFORMANCE ASSESSMENT, JANUAR	**Logbook No.:**	HNF-N-506 9915	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	Monitoring	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FP83	N	W	3-5-18	0630	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NANWM	6 Months	None

Page 15 of 62

J8C050405
WD8024

04/09/2018

Relinquished By: Juan Aguilar /CHPRC	MAR 05 2018 1100	Received By: Kevin Patterson CHPRC	MAR 05 2018 1100
Print First and Last Name / Signature	Date/Time	Print First and Last Name / Signature	Date/Time
Relinquished By: Kevin Patterson CHPRC	MAR 05 2018 1125	Received By: Roger Friesz Jr. /CHPRC	MAR 05 2018 1125
Print First and Last Name / Signature	Date/Time	Print First and Last Name / Signature	Date/Time
Relinquished By: Roger Friesz Jr. /CHPRC	MAR 05 2018 1245	Received By: J. Bock, TARL	3-5-18 1245
Print First and Last Name / Signature	Date/Time	Print First and Last Name / Signature	Date/Time
Relinquished By:		Received By:	
Print First and Last Name / Signature	Date/Time	Print First and Last Name / Signature	Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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:

REV.0

Printed On 12/6/2017 FSR ID = FSR54492 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A18-001-043 Page 1 of 1

Collector:	Juan Aguilar /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	A18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	PERFORMANCE ASSESSMENT, JANUAR	**Logbook No.:**	HNF-N-506-9915	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	Monitoring	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FP84	N	W	3-5-18	1013	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NANWN	6 Months	None

Page 16 of 62

J8C050405
W08024

04/09/2018

Relinquished By	Received By
Juan Aguilar /CHPRC — MAR 05 2018 1100 (Print First and Last Name / Signature / Date/Time)	Kevin Patterson CHPRC — MAR 05 2018 1100 (Print First and Last Name / Signature / Date/Time)
Kevin Patterson CHPRC — MAR 05 2018 1125 (Print First and Last Name / Signature / Date/Time)	Roger Friesz Jr. /CHPRC — MAR 05 2018 1125 (Print First and Last Name / Signature / Date/Time)
Roger Friesz Jr. /CHPRC — MAR 05 2018 1245 (Print First and Last Name / Signature / Date/Time)	J. Bock, TARL — 3-5-18 / 1245 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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:

REV.0

Printed On 12/6/2017 FSR ID = FSR54490 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

04/09/2018 **REV.0**

Sample Check-in List

Date/Time Received: 3-5-18 | 1245

Container GM Screen Result: (Airlock) 0 cpm Initials[B]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials[ ]
Container Alpha Screen Result: (Airlock) 0 cpm Initials[ ]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials[ ]

Client: PGW SDG #: WO8024 SAF #: A18-001 NA [ ]

Lot Number: J8C050405

Chain of Custody # A18-001-041;042;043

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: 16.4 °C Ice NA [ ]
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): 3
7. Containers received: 1x60 mLp; 1x125mLp; 2xLp; 2x4Lp
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: 3-5-18

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

[✓] No action necessary; process as is

Project Manager [signature] Date 3-6-18

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.# I18-004-109

Collector: Tim Calloway /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I18-004	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: SURV18, JANUARY 2018	**Logbook No.:** ~~HNF-N-506~~ KT 3-5-18 491 19	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol SURV	**Priority:** 30 Days	**Offsite Property No.:** N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FPN6	N	W	MAR 05 2018	1050	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3FPN6	N	W			1x1-L G/P	PU241_IE_LSC: COMMON; PUISO_IE_PRECIP_AEA: COMMON; UISO_PLATE_AEA: COMMON	6 Months	HNO3 to pH <2
B3FPN6	N	W			1x4-L G/P	GAMMA_GS: COMMON; GAMMA_GS: GW 01	6 Months	HNO3 to pH <2
B3FPN6	N	W			1x1-L G/P	SRISO_SEP_PRECIP_GPC: COMMON	6 Months	HNO3 to pH <2
B3FPN6	N	W			1x500-mL P	TC99_ETVDSK_LSC: COMMON	6 Months	HCl to pH <2
B3FPN6	N	W			1x500-mL G/P	SE79_SEP_IE_LSC: COMMON NANWP	6 Months	HNO3 to pH <2

J8C050406
W08024

J8C050406

04/09/2018

REV.0

Relinquished By:	Received By:
Tim Calloway /CHPRC — Print First and Last Name; Signature; MAR 05 2018 1110 — Date/Time	Roger Friesz Jr. /CHPRC — Print First and Last Name; Signature; MAR 05 2018 1110 — Date/Time
Roger Friesz Jr. /CHPRC — Print First and Last Name; Signature; MAR 05 2018 1245 — Date/Time	J. Bock, TARL — Print First and Last Name; Signature; 3-5-18 1245 — Date/Time
Print First and Last Name; Signature; Date/Time	Print First and Last Name; Signature; Date/Time
Print First and Last Name; Signature; Date/Time	Print First and Last Name; Signature; Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

04/09/2018

Sample Check-in List

REV.0

Date/Time Received: 3-5-18 | 1245

Container GM Screen Result: (Airlock) 0 cpm Initials[ ]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials[ ]
Container Alpha Screen Result: (Airlock) 0 cpm Initials[ ]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials[ ]

Client: PGW SDG #: W08024 SAF #: I18-004 NA [ ]

Lot Number: J8C050406

Chain of Custody # I18-004-109

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

Samples received inside shipping container/cooler/box Yes [ ] 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 [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [ ]
3. Cooler temperature: 16.4 °C Ice NA [ ]
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [ ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 1
7. Containers received: 1 x 250 mlp; 2 x 500 mlp; 2 x Lp; 1 x 4Lp
8. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
9. Samples have: ____tape ____hazard labels ____custody seals ____appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) ____I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
____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 [ ] 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 [ ]
14. Description of anomalies (include sample numbers): NA [ ]
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

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

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 3-5-18

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

[ ] No action necessary; process as is

Project Manager _____ Date 3-6-18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-004-113 Page 1 of 1

Collector:	Juan Aguilar /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	I18-004	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	SURV18, JANUARY 2018	**Logbook No.:**	HNF-N-506-9915	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	SURV	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FPV6	N	W	3-5-18	1319	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NANWV	6 Months	None

J8C050408
WO8024

Page 20 of 62

04/09/2018

J8C050408

Relinquished By	Signature	Date/Time	Received By	Signature	Date/Time
Juan Aguilar /CHPRC		MAR 05 2018 1346	Troy Bacon CHPRC	Troy L. Bacon	MAR 05 2018 1346
Troy Bacon CHPRC	Troy L. Bacon	MAR 05 2018 1450	J. Bock, TARL	Bock	3-5-18 1450

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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:

REV.0

Printed On 12/6/2017 FSR ID = FSR54486 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-004-115 Page 1 of 1

Collector:	Larry Rosane CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	I18-004	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	SURV18, JANUARY 2018	**Logbook No.:**	HNF-N-506 98/50	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	SURV	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FPW2	N	W	3-5-18	1224	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NANWW	6 Months	None

J8C050408
WD8024

Page 21 of 62

04/09/2018

Relinquished By:	Print First and Last Name	Signature	Date/Time	Received By:	Print First and Last Name	Signature	Date/Time
Larry Rosane CHPRC	Larry Rosane		MAR 05 2018 1310	Troy Bacon CHPRC	Troy L Bacon		MAR 05 2018 1310
Troy Bacon CHPRC	Troy L Bacon		MAR 05 2018 1450		J. Bock, TARL		3-5-18 1450

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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:

REV.0

Printed On 12/6/2017 FSR ID = FSR54487 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

04/09/2018

Sample Check-in List

REV.0

Date/Time Received: 3-5-18 / 1450

Container GM Screen Result: (Airlock) 0 cpm Initials[B]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials[ ]
Container Alpha Screen Result: (Airlock) 0 cpm Initials[ ]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials[B]

Client: PGW SDG #: WD8024 SAF #: I18-004 NA [ ]

Lot Number: I8C050408

Chain of Custody # I18-004-113; 115

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: 4.9 °C IR NA [ ]
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 4L
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: 3-5-18

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

[✓] No action necessary; process as is

Project Manager [signature] Date 3-6-18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A18-001-039 Page 1 of 1

Collector:	Larry Rosane /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	A18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	PERFORMANCE ASSESSMENT, JANUAR	**Logbook No.:**	HNF-N-506 98/50	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	Monitoring	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FPC2	N	W	3-5-18	1224	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3FPC2	N	W	3-5-18	1224	1x500-mL P	TC99_ETVDSK_LSC: COMMON NANWX	6 Months	HCl to pH <2

Page 23 of 62

J8C050409
WO 8024

04/09/2018

J8C050409

Relinquished By	Received By
Larry Rosane /CHPRC — Larry Rosane — MAR 05 2018 1310 (Print First and Last Name / Signature / Date/Time)	Troy Bacon CHPRC — Troy L. Bacon — MAR 05 2018 1310 (Print First and Last Name / Signature / Date/Time)
Troy Bacon CHPRC — Troy L. Bacon — MAR 05 2018 1450 (Print First and Last Name / Signature / Date/Time)	J. Bock, TARL — J. Bock — 3-5-18 / 1450 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)

Matrix *

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

REV.0

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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A18-001-038 Page 1 of 1

Collector:	Juan Aguilar /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	A18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	PERFORMANCE ASSESSMENT, JANUAR	**Logbook No.:**	HNF-N-506 -9915	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	Monitoring	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FPB8	N	W	3-5-18	1319	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3FPB8	N	W	3-5-18	1319	1x500-mL P	TC99_ETVDSK_LSC: COMMON NANWO	6 Months	HCl to pH <2

Page 24 of 62

J8C050409
W08024

04/09/2018

Relinquished By:	Received By:
Juan Aguilar /CHPRC — MAR 05 2018 1346 (Print First and Last Name / Signature / Date/Time)	Troy Bacon CHPRC, Troy L. Bacon — MAR 05 2018 1346 (Print First and Last Name / Signature / Date/Time)
Troy Bacon CHPRC, Troy L. Bacon — MAR 05 2018 1450 (Print First and Last Name / Signature / Date/Time)	J. Bock, TARL — 3-5-18 1450 (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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:

REV.0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # A18-001-037

Collector:	Larry Rosano /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	A18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	PERFORMANCE ASSESSMENT, JANUAR	**Logbook No.:**	HNF-N-506 981/50	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	Monitoring	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FPB6	N	W	3-5-18	1130	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3FPB6	N	W	3-5-18	1130	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NANW1	6 Months	None

18 C 050409
W08024

Page 25 of 62

04/09/2018

Relinquished By:	Received By:
Larry Rosano /CHPRC — Print First and Last Name; Larry Rosano — Signature; MAR 05 2018 1310 — Date/Time	Troy Bacon CHPRC — Print First and Last Name; Troy L. Bacon — Signature; MAR 05 2018 1310 — Date/Time
Troy Bacon CHPRC — Print First and Last Name; Troy L. Bacon — Signature; MAR 05 2018 1450 — Date/Time	J. Bock, TARL — Print First and Last Name; Bock — Signature; 3-5-18 1450 — Date/Time
Relinquished By: — Print First and Last Name / Signature / Date/Time	Received By: — Print First and Last Name / Signature / Date/Time
Relinquished By: — Print First and Last Name / Signature / Date/Time	Received By: — Print First and Last Name / Signature / Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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:

REV.0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A18-001-065 Page 1 of 1

Collector:	Larry Rosane /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	A18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	PERFORMANCE ASSESSMENT, JANUAR	**Logbook No.:**	HNF-N-506 98/50	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	Monitoring	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FY25	N	W	3-5-18	0923	1x250-mL P	906.0_TRITIUM_LSC: COMMON NANW2	6 Months	None

J8C050409
W08024

Page 26 of 62

04/09/2018

Relinquished By	Received By
Relinquished By: Larry Rosane /CHPRC — Print First and Last Name: Larry Rosane — Signature: Larry Rosane — Date/Time: MAR 05 2018 1310	Received By: Troy Bacon CHPRC — Print First and Last Name: Troy L Bacon — Signature: Troy L Bacon — Date/Time: MAR 05 2018 1310
Relinquished By: Troy Bacon CHPRC — Print First and Last Name: Troy L Bacon — Signature: Troy L Bacon — Date/Time: MAR 05 2018 1450	Received By: J. Bock, TARL — Print First and Last Name: J. Bock, TARL — Signature: J. Bock — Date/Time: 3-5-18 1450
Relinquished By: — Print First and Last Name — Signature — Date/Time	Received By: — Print First and Last Name — Signature — Date/Time
Relinquished By: — Print First and Last Name — Signature — Date/Time	Received By: — Print First and Last Name — Signature — Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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:

REV.0

Printed On 11/21/2017 FSR ID = FSR53843 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # A18-001-066 Page 1 of 1

Collector:	Larry Rosane /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	A18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	PERFORMANCE ASSESSMENT, JANUAR	**Logbook No.:**	HNF-N-506 98/50	**Ice Chest No.:**	N/A
Shipped To (Lab):	TestAmerica Incorporated, Rich	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:**	N/A
Protocol	Monitoring	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

SPECIAL INSTRUCTIONS
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FY26	N	W	3-5-18	0015	1x250-mL P	906.0_TRITIUM_LSC: COMMON NANW3	6 Months	None

08C050409
WD8024

Page 27 of 62

04/09/2018

Relinquished By:	Received By:
Larry Rosane /CHPRC — Larry Rosane — MAR 05 2018 1310 (Print First and Last Name / Signature / Date/Time)	Troy Bacon CHPRC — Troy L. Bacon — MAR 05 2018 1310 (Print First and Last Name / Signature / Date/Time)
Troy Bacon CHPRC — Troy L. Bacon — MAR 05 2018 1450 (Print First and Last Name / Signature / Date/Time)	J. Bock, TARL — Bock — 3-5-18 / 1450 (Print First and Last Name / Signature / Date/Time)
Print First and Last Name / Signature / Date/Time	Print First and Last Name / Signature / Date/Time
Print First and Last Name / Signature / Date/Time	Print First and Last Name / Signature / Date/Time

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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:

REV.0

Printed On 11/21/2017 FSR ID = FSR53842 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

04/09/2018 **REV.0**

Sample Check-in List

Date/Time Received: 3-5-18 / 1450

Container GM Screen Result: (Airlock) 0 cpm Initials [B]
Sample GM Screen Result (Sample Receiving) 0 cpm Initials [ ]
Container Alpha Screen Result: (Airlock) 0 cpm Initials [ ]
Sample Alpha Screen Result (Sample Receiving) 0 cpm Initials [ ]

Client: PGW SDG #: W08024 SAF #: A18-001 NA [ ]

Lot Number: J8C050409

Chain of Custody # A18-001-039; 038; 037; 065; 066

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: 4.9 °C ±4 NA [ ]
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): 5
7. Containers received: 5 x 250mLp; 2 x 500mLp; 1 x 4Lp
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: 3-5-18

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

[✓] No action necessary; process as is

Project Manager [signature] Date 3-6-18

Sample Results Summary

Date: 09-Apr-18

TestAmerica Inc TARL

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

Report No. : 72583 **SDG No:** W08024

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
8066020 SRISO_SEP_PRECIP_GPC									
B3FPN6									
	NANWP1A	STRONTIUM	-2.41E-01 +- 7.1E-01	U	pCi/L	81%	1.35E+00	2.00E+00	
B3FPN6 DUP									
	NANWP1AP	STRONTIUM	4.55E-01 +- 7.6E-01	U	pCi/L	79%	1.28E+00	2.00E+00	649.3
8066016 PUISO_PLATE_AEA									
B3FPN6									
	NANWP1AE	PU-238	-6.63E-03 +- 1.4E-01	U	pCi/L	99%	2.79E-01	1.00E+00	
		PU239/40	-3.31E-02 +- 1.4E-01	U	pCi/L	99%	3.68E-01	1.00E+00	
B3FPN6 DUP									
	NANWP1A	PU-238	-2.64E-02 +- 1.4E-01	U	pCi/L	107%	3.50E-01	1.00E+00	-119.8
		PU239/40	-1.65E-02 +- 1.4E-01	U	pCi/L	107%	3.20E-01	1.00E+00	-66.9
8066022 UISO_PLATE_AEA									
B3FPN6									
	NANWP1AJ	U-234	5.18E-01 +- 3.8E-01		pCi/L	90%	2.58E-01	1.00E+00	
		U-235	-2.62E-03 +- 1.3E-01	U	pCi/L	90%	2.40E-01	1.00E+00	
		U-238	-7.86E-03 +- 1.3E-01	U	pCi/L	90%	2.72E-01	1.00E+00	
B3FPN6 DUP									
	NANWP1AR	U-234	6.93E-01 +- 4.9E-01		pCi/L	74%	3.80E-01	1.00E+00	28.9
		U-235	-6.37E-03 +- 1.6E-01	U	pCi/L	74%	3.14E-01	1.00E+00	-83.5
		U-238	2.96E-01 +- 3.2E-01	U	pCi/L	74%	3.80E-01	1.00E+00	210.9
8066010 GAMMA_GS									
B3FPN6									
	NANWP1AD	CO-60	6.18E-01 +- 4.1E+00	U	pCi/L		4.13E+00	2.50E+01	
		CS-134	-3.79E+00 +- 4.6E+00	U	pCi/L		3.56E+00	8.00E+01	
		CS-137	9.25E-02 +- 3.2E+00	U	pCi/L		3.41E+00	1.50E+01	
		EU-152	-1.40E+00 +- 7.1E+00	U	pCi/L		3.81E+00	5.00E+01	
		EU-154	-1.51E-01 +- 1.2E+01	U	pCi/L		2.34E+00	5.00E+01	
		EU-155	6.16E-01 +- 2.3E+00	U	pCi/L		3.19E+00	5.00E+01	
		K-40	-1.54E+01 +- 6.0E+01	U	pCi/L		4.66E+01		
		SB-125	5.68E+00 +- 5.6E+00	U	pCi/L		7.93E+00	5.00E+01	
B3FPN6 DUP									
	NANWP1AK	CO-60	-1.96E+00 +- 6.8E+00	U	pCi/L		5.81E+00	2.50E+01	-384.1
		CS-134	2.11E+00 +- 6.0E+00	U	pCi/L		6.17E+00	8.00E+01	-703.6
		CS-137	7.99E-01 +- 5.0E+00	U	pCi/L		5.32E+00	1.50E+01	158.5
		EU-152	4.15E+00 +- 1.4E+01	U	pCi/L		1.30E+01	5.00E+01	404.3
		EU-154	5.47E+00 +- 1.6E+01	U	pCi/L		9.18E+00	5.00E+01	211.4
		EU-155	-8.23E+00 +- 1.3E+01	U	pCi/L		1.50E+01	5.00E+01	-232.4
		K-40	-5.74E+01 +- 5.2E+01	U	pCi/L		9.69E+01		-115.4

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.

Sample Results Summary

Date: 09-Apr-18

TestAmerica Inc TARL

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

Report No. : 72583 **SDG No:** W08024

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
8066010 GAMMA_GS									
B3FPN6 DUP									
	NANWP1AK	SB-125	1.46E+01 +- 1.2E+01	U	pCi/L		1.46E+01	5.00E+01	88.1
8066014 I129LL_SEP_LEPS_GS									
B3FP83									
	NANWM1A	I129	1.60E-02 +- 3.7E-01	U	pCi/L	90%	6.70E-01	1.00E+00	
B3FP83 DUP									
	NANWM1A	I129	1.08E-01 +- 3.1E-01	U	pCi/L	92%	6.14E-01	1.00E+00	148.5
B3FP84									
	NANWN1AA	I129	2.22E-01 +- 3.7E-01	U	pCi/L	94%	7.17E-01	1.00E+00	
B3FPB6									
	NANW11AC	I129	-1.21E-01 +- 3.3E-01	U	pCi/L	85%	5.75E-01	1.00E+00	
B3FPC5									
	NANWE1AC	I129	6.74E-02 +- 4.2E-01	U	pCi/L	89%	7.47E-01	1.00E+00	
B3FPC7									
	NANWL1AC	I129	1.99E-01 +- 2.7E-01	U	pCi/L	89%	5.52E-01	1.00E+00	
B3FPV6									
	NANWV1AA	I129	-2.40E-01 +- 2.7E-01	U	pCi/L	91%	4.34E-01	1.00E+00	
B3FPW2									
	NANWW1A	I129	2.33E-01 +- 3.4E-01	U	pCi/L	90%	6.82E-01	1.00E+00	
8066011 9310_ALPHABETA_GPC									
B3FRM3									
	NANWF1AD	Alpha	7.29E-01 +- 8.8E-01	U	pCi/L	100%	1.43E+00	3.00E+00	
B3FRM3 DUP									
	NANWF1AF	Alpha	5.58E-01 +- 7.3E-01	U	pCi/L	100%	1.19E+00	3.00E+00	26.6
8066012 9310_ALPHABETA_GPC									
B3FRM3									
	NANWF1AE	Beta	7.37E+00 +- 1.6E+00		pCi/L	100%	1.77E+00	4.00E+00	
B3FRM3 DUP									
	NANWF1AG	Beta	5.09E+00 +- 1.4E+00		pCi/L	100%	1.77E+00	4.00E+00	36.6
8066017 903.1_RA226_LUC									
B3FRM3									
	NANWF1AA	Ra-226	1.44E-01 +- 1.8E-01	U	pCi/L	76%	3.02E-01	1.00E+00	
B3FRM3 DUP									
	NANWF1AH	Ra-226	-6.59E-02 +- 2.1E-01	U	pCi/L	82%	4.04E-01	1.00E+00	536.2
8066018 RAISO_SEP_GPC									
B3FRM3									
	NANWF1AC	Ra-228	2.69E-01 +- 2.2E-01	U	pCi/L	81%	3.55E-01	1.00E+00	
B3FRM3 DUP									
	NANWF1AJ	Ra-228	5.98E-01 +- 2.4E-01		pCi/L	88%	3.52E-01	1.00E+00	76.0

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.

Sample Results Summary

Date: 09-Apr-18

TestAmerica Inc TARL

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

Report No. : 72583 **SDG No:** W08024

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
8066018 RAISO_SEP_GPC									
8066015 PU241_IE_LSC									
B3FPN6									
	NANWP1AA	Pu-241	-3.69E+00 +- 5.7E+00	U	pCi/L	99%	1.13E+01	2.50E+01	
B3FPN6 DUP									
	NANWP1AL	Pu-241	-3.46E+00 +- 5.7E+00	U	pCi/L	100%	1.12E+01	2.50E+01	-6.6
8066021 TC99_ETVDSK_LSC									
B3FPB8									
	NANW01AC	Tc-99	8.77E+01 +- 8.8E+00		pCi/L	100%	1.22E+01	5.00E+01	
B3FPC2									
	NANWX1AC	Tc-99	8.84E+01 +- 8.9E+00		pCi/L	100%	1.22E+01	5.00E+01	
B3FPC7									
	NANWL1AD	Tc-99	1.03E+02 +- 9.7E+00		pCi/L	100%	1.28E+01	5.00E+01	
B3FPN6									
	NANWP1AH	Tc-99	3.03E+01 +- 6.9E+00		pCi/L	100%	1.22E+01	5.00E+01	
B3FPN6 DUP									
	NANWP1AT	Tc-99	2.95E+01 +- 6.8E+00		pCi/L	100%	1.22E+01	5.00E+01	2.7
8093023 906.0_H3_LSC									
B3FPB6									
	NANW12AA	H-3	1.33E+03 +- 2.8E+02		pCi/L	100%	4.71E+02	7.00E+02	
B3FPB8									
	NANW02AA	H-3	8.64E+02 +- 2.5E+02		pCi/L	100%	4.70E+02	7.00E+02	
B3FPC2									
	NANWX2AA	H-3	8.79E+02 +- 2.5E+02		pCi/L	100%	4.66E+02	7.00E+02	
B3FPC5									
	NANWE2AA	H-3	1.04E+02 +- 2.1E+02	U	pCi/L	100%	4.69E+02	7.00E+02	
B3FPC5 DUP									
	NANWE2AD	H-3	1.67E+02 +- 2.1E+02	U	pCi/L	100%	4.70E+02	7.00E+02	46.6
B3FPC7									
	NANWL2AA	H-3	2.25E+03 +- 3.3E+02		pCi/L	100%	4.68E+02	7.00E+02	
B3FPN6									
	NANWP2AC	H-3	5.31E+02 +- 2.4E+02		pCi/L	100%	4.71E+02	7.00E+02	
B3FY25									
	NANW22AA	H-3	8.67E+02 +- 2.5E+02		pCi/L	100%	4.70E+02	7.00E+02	
B3FY26									
	NANW32AA	H-3	5.30E+02 +- 2.4E+02		pCi/L	100%	4.75E+02	7.00E+02	
8096011 SE79_SEP_IE_LSC									
B3FPN6									
	NANWP2AF	Se-79	-1.10E+00 +- 6.1E+00	U	pCi/L	74%	1.26E+01	5.00E+01	
B3FPN6 DUP									

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.

Sample Results Summary

Date: 09-Apr-18

TestAmerica Inc TARL

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

Report No. : 72583 **SDG No:** W08024

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
8096011	**SE79_SEP_IE_LSC**								
	B3FPN6 DUP								
	NANWP2AN	Se-79	4.07E+00 +- 6.8E+00	U	pCi/L	68%	1.37E+01	5.00E+01	348.1

No. of Results: 62

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

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Date: 09-Apr-18

Report No. : 72583 **SDG No.:** W08024

Batch Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
SRISO_SEP_PRECIP_GPC								
8066020 BLANK QC,								
NANX31AA	STRONTIUM	1.72E-01 +- 7.6E-01	U	pCi/L	79%			1.35E+00
8066020 LCS,								
NANX32AC	STRONTIUM	1.49E+01 +- 3.7E+00		pCi/L	79%	111%	0.1	8.33E-01
PUISO_PLATE_AEA								
8066016 BLANK QC,								
NANXX1AA	PU-238	-3.85E-02 +- 1.3E-01	U	pCi/L	95%			3.49E-01
	PU239/40	2.61E-02 +- 1.3E-01	U	pCi/L	95%			3.42E-01
8066016 LCS,								
NANXX1AC	PU239/40	4.79E+00 +- 1.4E+00		pCi/L	101%	107%	0.1	2.60E-01
UISO_PLATE_AEA								
8066022 BLANK QC,								
NANX51AA	U-234	5.86E-02 +- 1.6E-01	U	pCi/L	78%			3.58E-01
	U-235	-9.26E-03 +- 1.5E-01	U	pCi/L	78%			3.21E-01
	U-238	2.19E-01 +- 2.7E-01	U	pCi/L	78%			3.35E-01
8066022 LCS,								
NANX51AC	U-234	1.43E+01 +- 3.1E+00		pCi/L	97%	90%	-0.1	3.05E-01
	U-238	1.56E+01 +- 3.4E+00		pCi/L	97%	94%	-0.1	4.72E-01
GAMMA_GS								
8066010 BLANK QC,								
NANXP1AA	CO-60	-2.01E+00 +- 5.1E+00	U	pCi/L				3.50E+00
	CS-134	6.12E-01 +- 3.4E+00	U	pCi/L				3.82E+00
	CS-137	1.30E+00 +- 3.0E+00	U	pCi/L				3.68E+00
	EU-152	2.91E+00 +- 5.8E+00	U	pCi/L				4.47E+00
	EU-154	2.67E+00 +- 1.2E+01	U	pCi/L				2.79E+00
	EU-155	5.00E-01 +- 2.3E+00	U	pCi/L				2.67E+00
	K-40	-1.38E+01 +- 2.8E+01	U	pCi/L				5.41E+01
	SB-125	-3.66E+00 +- 7.9E+00	U	pCi/L				8.62E+00
8066010 LCS,								
NANXP1AC	CO-60	3.56E+01 +- 4.3E+00		pCi/L		97%	0.0	5.45E+00
	CS-137	5.44E+01 +- 8.4E+00		pCi/L		112%	0.1	5.15E+00
	EU-152	6.99E+01 +- 8.4E+00		pCi/L		92%	-0.1	1.29E+01
I129LL_SEP_LEPS_GS								
8066014 BLANK QC,								
NANXV1AA	I129	2.24E-01 +- 3.9E-01	U	pCi/L	92%			7.52E-01
8066014 LCS,								
NANXV1AC	I129	2.07E+01 +- 2.7E+00		pCi/L	93%	106%	0.1	8.36E-01
9310_ALPHABETA_GPC								
8066011 BLANK QC,								
NANXQ1AA	Alpha	-8.54E-02 +- 4.2E-01	U	pCi/L	100%			8.08E-01
8066011 LCS,								

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

rptSTLRchQcSummary V5.8.5 A2002 **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

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Date: 09-Apr-18

Report No. : 72583 **SDG No.:** W08024

Batch Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
NANXQ1AC	Alpha	2.24E+01 +- 5.9E+00		pCi/L	100%	99%	0.0	6.97E-01
9310_ALPHABETA_GPC								
8066012 BLANK QC,								
NANXR1AA	Beta	8.28E-01 +- 9.4E-01	U	pCi/L	100%			1.54E+00
8066012 LCS,								
NANXR1AC	Beta	2.61E+01 +- 3.7E+00		pCi/L	100%	118%	0.2	1.52E+00
903.1_RA226_LUC								
8066017 BLANK QC,								
NANX01AA	Ra-226	-1.91E-02 +- 1.6E-01	U	pCi/L	83%			3.11E-01
8066017 LCS,								
NANX01AC	Ra-226	8.24E+00 +- 2.0E+00		pCi/L	94%	83%	-0.2	3.65E-01
RAISO_SEP_GPC								
8066018 BLANK QC,								
NANX11AA	Ra-228	6.40E-01 +- 2.4E-01		pCi/L	88%			3.37E-01
8066018 LCS,								
NANX11AC	Ra-228	9.95E+00 +- 1.2E+00		pCi/L	88%	102%	0.0	3.07E-01
PU241_IE_LSC								
8066015 BLANK QC,								
NANXW1AA	Pu-241	-1.40E+00 +- 6.1E+00	U	pCi/L	95%			1.18E+01
8066015 LCS,								
NANXW1AC	Pu-241	8.77E+02 +- 5.5E+01		pCi/L	100%	79%	-0.2	1.11E+01
TC99_ETVDSK_LSC								
8066021 MATRIX SPIKE, B3FPN6								
NANWP1AQ	Tc-99	5.02E+02 +- 2.3E+01		pCi/L	100%	93%	-0.1	1.22E+01
8066021 BLANK QC,								
NANX41AA	Tc-99	-2.49E+00 +- 5.6E+00	U	pCi/L	100%			1.22E+01
8066021 LCS,								
NANX41AC	Tc-99	1.00E+02 +- 9.3E+00		pCi/L	100%	93%	-0.1	1.22E+01
906.0_H3_LSC								
8093023 MATRIX SPIKE, B3FPC7								
NANWL2AE	H-3	1.33E+03 +- 5.3E+02		pCi/L	100%	82%	-0.2	5.49E+02
8093023 BLANK QC,								
NANXT2AA	H-3	4.34E+02 +- 2.3E+02	U	pCi/L	100%			4.81E+02
8093023 LCS,								
NANXT2AC	H-3	3.12E+03 +- 3.7E+02		pCi/L	100%	113%	0.1	4.75E+02
SE79_SEP_IE_LSC								
8096011 BLANK QC,								
NANX22AA	Se-79	4.10E+00 +- 5.9E+00	U	pCi/L	79%			1.18E+01

No. of Results: 40

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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 6:30:00 AM
Lot-Sample No.:	**J8C050405-2**	**Report No. :**	72583	**Received Date:**	3/5/2018 12:45:00 PM
Client Sample ID:	**B3FP83**	**COC No. :**	A18-001-042	**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: 8066014	I129LL_SEP_LEPS_GS			**Work Order:** NANWM1AA			**Report DB ID:** 9NANWM10					
I129	**1.60E-02**	U	3.7E-01	3.7E-01	6.70E-01	pCi/L	90%	*0.02*	4/2/18 09:38 a		2.00054	LEP4$1
							1.00E+00	*0.09*			L	

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

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchSample
V5.8.5 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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 10:13:00 AM
Lot-Sample No.:	**J8C050405-3**	**Report No. :**	72583	**Received Date:**	3/5/2018 12:45:00 PM
Client Sample ID:	**B3FP84**	**COC No. :**	A18-001-043	**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: 8066014	I129LL_SEP_LEPS_GS			**Work Order:** NANWN1AA			**Report DB ID:** 9NANWN10					
I129	**2.22E-01**	U	3.7E-01	3.7E-01	7.17E-01	pCi/L	94%	*0.31*	4/2/18 11:23 a		2.00089	LEP4$1
							1.00E+00	*(1.2)*			L	

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

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchSample
V5.8.5 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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 11:30:00 AM
Lot-Sample No.:	**J8C050409-3**	**Report No. :**	72583	**Received Date:**	3/5/2018 2:50:00 PM
Client Sample ID:	**B3FPB6**	**COC No. :**	A18-001-037	**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: 8066014	I129LL_SEP_LEPS_GS			**Work Order:** NANW11AC			**Report DB ID:** 9NANW110					
I129	**-1.21E-01**	U	3.3E-01	3.3E-01	5.75E-01	pCi/L	85%	*-0.21*	4/2/18 01:07 p		2.00096	LEP5$1
							1.00E+00	*-0.74*			L	
Batch: 8093023	906.0_H3_LSC			**Work Order:** NANW12AA			**Report DB ID:** 9NANW120					
H-3	**1.33E+03**		2.5E+02	2.8E+02	4.71E+02	pCi/L	100%	*(2.8)*	4/4/18 05:44 p		0.00503	LSC6
						2.19E+02	7.00E+02	*(9.5)*			L	

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

04/09/2018

REV.0

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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 1:19:00 PM
Lot-Sample No.:	**J8C050409-2**	**Report No. :**	72583	**Received Date:**	3/5/2018 2:50:00 PM
Client Sample ID:	**B3FPB8**	**COC No. :**	A18-001-038	**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: 8066021	TC99_ETVDSK_LSC			**Work Order:**	NANW01AC		**Report DB ID:**	9NANW010				
Tc-99	**8.77E+01**		7.9E+00	8.8E+00	1.22E+01	pCi/L	100%	*(7.2)*	3/19/18 02:22 p		0.12558	LSC6
						5.77E+00	5.00E+01	*(19.8)*			L	
Batch: 8093023	906.0_H3_LSC			**Work Order:**	NANW02AA		**Report DB ID:**	9NANW020				
H-3	**8.64E+02**		2.3E+02	2.5E+02	4.70E+02	pCi/L	100%	*(1.8)*	4/4/18 05:01 p		0.005	LSC6
						2.18E+02	7.00E+02	*(6.8)*			L	

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

04/09/2018

REV.0

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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 12:24:00 PM
Lot-Sample No.:	**J8C050409-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 2:50:00 PM
Client Sample ID:	**B3FPC2**	**COC No. :**	A18-001-039	**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: 8066021	TC99_ETVDSK_LSC			**Work Order:**	NANWX1AC		**Report DB ID:**	9NANWX10				
Tc-99	**8.84E+01**		7.9E+00	8.9E+00	1.22E+01	pCi/L	100%	*(7.2)*	3/19/18 01:37 p		0.12525	LSC6
						5.79E+00	5.00E+01	*(19.8)*			L	
Batch: 8093023	906.0_H3_LSC			**Work Order:**	NANWX2AA		**Report DB ID:**	9NANWX20				
H-3	**8.79E+02**		2.3E+02	2.5E+02	4.66E+02	pCi/L	100%	*(1.9)*	4/4/18 04:17 p		0.00503	LSC6
						2.16E+02	7.00E+02	*(6.9)*			L	

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

04/09/2018

REV.0

FORM I

SAMPLE RESULTS

Date: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 8:41:00 AM
Lot-Sample No.:	**J8C050403-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 10:40:00 AM
Client Sample ID:	**B3FPC5**	**COC No. :**	A18-001-040	**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: 8066014	I129LL_SEP_LEPS_GS			**Work Order:** NANWE1AC			**Report DB ID:** 9NANWE10					
I129	**6.74E-02**	U	4.2E-01	4.2E-01	7.47E-01	pCi/L	89%	*0.09*	4/2/18 07:41 a		2.00097	LEP4$1
							1.00E+00	*0.32*			L	
Batch: 8093023	906.0_H3_LSC			**Work Order:** NANWE2AA			**Report DB ID:** 9NANWE20					
H-3	**1.04E+02**	U	1.9E+02	2.1E+02	4.69E+02	pCi/L	100%	*0.22*	4/4/18 12:38 p		0.00501	LSC6
						2.18E+02	7.00E+02	*0.98*			L	

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

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchSample
V5.8.5 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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 10:49:00 AM
Lot-Sample No.:	**J8C050405-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 12:45:00 PM
Client Sample ID:	**B3FPC7**	**COC No. :**	A18-001-041	**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: 8066014	I129LL_SEP_LEPS_GS			**Work Order:** NANWL1AC			**Report DB ID:** 9NANWL10					
I129	**1.99E-01**	U	2.7E-01	2.7E-01	5.52E-01	pCi/L	89%	*0.36*	4/2/18 07:41 a		2.0154	LEP5$1
							1.00E+00	*(1.5)*			L	
Batch: 8066021	TC99_ETVDSK_LSC			**Work Order:** NANWL1AD			**Report DB ID:** 9NANWL10					
Tc-99	**1.03E+02**		8.6E+00	9.7E+00	1.28E+01	pCi/L	100%	*(8.1)*	3/19/18 10:37 a		0.11974	LSC6
						6.05E+00	5.00E+01	*(21.4)*			L	
Batch: 8093023	906.0_H3_LSC			**Work Order:** NANWL2AA			**Report DB ID:** 9NANWL20					
H-3	**2.25E+03**		2.9E+02	3.3E+02	4.68E+02	pCi/L	100%	*(4.8)*	4/4/18 02:06 p		0.00501	LSC6
						2.17E+02	7.00E+02	*(13.9)*			L	

No. of Results: 3 **Comments:**

04/09/2018

REV.0

TestAmerica Inc
rptSTLRchSample
V5.8.5 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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 10:50:00 AM
Lot-Sample No.:	**J8C050406-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 12:45:00 PM
Client Sample ID:	**B3FPN6**	**COC No. :**	I18-004-109	**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: 8066010	GAMMA_GS			**Work Order:**	NANWP1AD		**Report DB ID:**	9NANWP10				
CO-60	**6.18E-01**	U	4.1E+00	4.1E+00	4.13E+00	pCi/L		*0.15*	3/15/18 03:38 p		2.00025	$GER16
						1.81E+00	2.50E+01	*0.3*			L	
CS-134	**-3.79E+00**	U	4.6E+00	4.6E+00	3.56E+00	pCi/L		*-(1.1)*	3/15/18 03:38 p		2.00025	$GER16
						1.57E+00	8.00E+01	*-(1.7)*			L	
CS-137	**9.25E-02**	U	3.2E+00	3.2E+00	3.41E+00	pCi/L		*0.03*	3/15/18 03:38 p		2.00025	$GER16
						1.53E+00	1.50E+01	*0.06*			L	
EU-152	**-1.40E+00**	U	7.1E+00	7.1E+00	3.81E+00	pCi/L		*-0.37*	3/15/18 03:38 p		2.00025	$GER16
						1.69E+00	5.00E+01	*-0.4*			L	
EU-154	**-1.51E-01**	U	1.2E+01	1.2E+01	2.34E+00	pCi/L		*-0.06*	3/15/18 03:38 p		2.00025	$GER16
						1.04E+00	5.00E+01	*-0.02*			L	
EU-155	**6.16E-01**	U	2.3E+00	2.3E+00	3.19E+00	pCi/L		*0.19*	3/15/18 03:38 p		2.00025	$GER16
						1.44E+00	5.00E+01	*0.54*			L	
K-40	**-1.54E+01**	U	6.0E+01	6.0E+01	4.66E+01	pCi/L		*-0.33*	3/15/18 03:38 p		2.00025	$GER16
						2.08E+01		*-0.52*			L	
SB-125	**5.68E+00**	U	5.6E+00	5.6E+00	7.93E+00	pCi/L		*0.72*	3/15/18 03:38 p		2.00025	$GER16
						3.58E+00	5.00E+01	*(2.)*			L	
Batch: 8066015	PU241_IE_LSC			**Work Order:**	NANWP1AA		**Report DB ID:**	9NANWP10				
Pu-241	**-3.69E+00**	U	4.6E+00	5.7E+00	1.13E+01	pCi/L	99%	*-0.33*	3/20/18 08:10 p		0.20087	LSC10
						5.42E+00	2.50E+01	*-(1.3)*			L	
Batch: 8066016	PUISO_PLATE_AEA			**Work Order:**	NANWP1AE		**Report DB ID:**	9NANWP10				

04/09/2018

REV.0

TestAmerica Inc
rptSTLRchSample
V5.8.5 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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 10:50:00 AM
Lot-Sample No.:	**J8C050406-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 12:45:00 PM
Client Sample ID:	**B3FPN6**	**COC No. :**	I18-004-109	**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
PU-238	**-6.63E-03**	U	1.4E-01	1.4E-01	2.79E-01	pCi/L	99%	*-0.02*	3/19/18 03:41 p		0.20087	ALP39
						6.21E-02	1.00E+00	*-0.1*			L	
PU239/40	**-3.31E-02**	U	1.4E-01	1.4E-01	3.68E-01	pCi/L	99%	*-0.09*	3/19/18 03:41 p		0.20087	ALP39
						1.05E-01	1.00E+00	*-0.47*			L	
Batch: 8066020	SRISO_SEP_PRECIP_GPC			**Work Order:**	NANWP1AG		**Report DB ID:**	9NANWP10				
STRONTIUM	**-2.41E-01**	U	7.1E-01	7.1E-01	1.35E+00	pCi/L	81%	*-0.18*	3/16/18 07:56 a		0.50034	GPC32A
						6.08E-01	2.00E+00	*-0.68*			L	
Batch: 8066021	TC99_ETVDSK_LSC			**Work Order:**	NANWP1AH		**Report DB ID:**	9NANWP10				
Tc-99	**3.03E+01**		6.1E+00	6.9E+00	1.22E+01	pCi/L	100%	*(2.5)*	3/19/18 11:22 a		0.12532	LSC6
						5.79E+00	5.00E+01	*(8.8)*			L	
Batch: 8066022	UISO_PLATE_AEA			**Work Order:**	NANWP1AJ		**Report DB ID:**	9NANWP10				
U-234	**5.18E-01**		3.7E-01	3.8E-01	2.58E-01	pCi/L	90%	*(2.)*	3/20/18 12:23 p		0.20033	ALP211
						5.49E-02	1.00E+00	*(2.7)*			L	
U-235	**-2.62E-03**	U	1.3E-01	1.3E-01	2.40E-01	pCi/L	90%	*-0.01*	3/20/18 12:23 p		0.20033	ALP211
						4.69E-02	1.00E+00	*-0.04*			L	
U-238	**-7.86E-03**	U	1.3E-01	1.3E-01	2.72E-01	pCi/L	90%	*-0.03*	3/20/18 12:23 p		0.20033	ALP211
						6.14E-02	1.00E+00	*-0.12*			L	
							Ratio U-234/238 = -65.9					
Batch: 8093023	906.0_H3_LSC			**Work Order:**	NANWP2AC		**Report DB ID:**	9NANWP20				
H-3	**5.31E+02**		2.2E+02	2.4E+02	4.71E+02	pCi/L	100%	*(1.1)*	4/4/18 03:33 p		0.00501	LSC6
						2.19E+02	7.00E+02	*(4.5)*			L	
Batch: 8096011	SE79_SEP_IE_LSC			**Work Order:**	NANWP2AF		**Report DB ID:**	9NANWP20				

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchSample V5.8.5 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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 10:50:00 AM
Lot-Sample No.:	**J8C050406-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 12:45:00 PM
Client Sample ID:	**B3FPN6**	**COC No. :**	I18-004-109	**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
Se-79	**-1.10E+00**	U	5.1E+00	6.1E+00	1.26E+01	pCi/L	74%	*-0.09*	4/6/18 10:19 a		0.20026	LSC9
						5.98E+00	5.00E+01	*-0.36*			L	

No. of Results: 18 **Comments:**

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchSample
V5.8.5 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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 1:19:00 PM
Lot-Sample No.:	**J8C050408-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 2:50:00 PM
Client Sample ID:	**B3FPV6**	**COC No. :**	I18-004-113	**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: 8066014	I129LL_SEP_LEPS_GS			**Work Order:** NANWV1AA			**Report DB ID:** 9NANWV10					
I129	**-2.40E-01**	U	2.7E-01	2.7E-01	4.34E-01	pCi/L	91%	*-0.55*	4/2/18 11:24 a		2.001	LEP5$1
							1.00E+00	*-(1.8)*			L	

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

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchSample
V5.8.5 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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 12:24:00 PM
Lot-Sample No.:	**J8C050408-2**	**Report No. :**	72583	**Received Date:**	3/5/2018 2:50:00 PM
Client Sample ID:	**B3FPW2**	**COC No. :**	I18-004-115	**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: 8066014	I129LL_SEP_LEPS_GS			**Work Order:** NANWW1AA			**Report DB ID:** 9NANWW10					
I129	**2.33E-01**	U	3.4E-01	3.4E-01	6.82E-01	pCi/L	90%	*0.34*	4/2/18 01:06 p		2.00042	LEP4$1
							1.00E+00	*(1.4)*			L	

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

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchSample
V5.8.5 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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 8:41:00 AM
Lot-Sample No.:	**J8C050404-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 10:40:00 AM
Client Sample ID:	**B3FRM3**	**COC No. :**	W18-001-211	**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: 8066011	9310_ALPHABETA_GPC			**Work Order:**	NANWF1AD		**Report DB ID:**	9NANWF10				
Alpha	**7.29E-01**	U	8.6E-01	8.8E-01	1.43E+00	pCi/L	100%	*0.51*	3/21/18 01:21 p		0.20047	GPC21A
						6.37E-01	3.00E+00	*(1.6)*			L	
Batch: 8066012	9310_ALPHABETA_GPC			**Work Order:**	NANWF1AE		**Report DB ID:**	9NANWF10				
Beta	**7.37E+00**		1.4E+00	1.6E+00	1.77E+00	pCi/L	100%	*(4.2)*	3/21/18 09:26 a		0.20136	GPC26B
						8.46E-01	4.00E+00	*(9.)*			L	
Batch: 8066017	903.1_RA226_LUC			**Work Order:**	NANWF1AA		**Report DB ID:**	9NANWF10				
Ra-226	**1.44E-01**	U	1.8E-01	1.8E-01	3.02E-01	pCi/L	76%	*0.48*	4/4/18 11:22 a		1.00282	ASC1NB
						1.24E-01	1.00E+00	*(1.6)*			L	
Batch: 8066018	RAISO_SEP_GPC			**Work Order:**	NANWF1AC		**Report DB ID:**	9NANWF10				
Ra-228	**2.69E-01**	U	2.0E-01	2.2E-01	3.55E-01	pCi/L	81%	*0.76*	3/27/18 07:12 p		1.00282	GPC3A
						1.43E-01	1.00E+00	*(2.5)*			L	

No. of Results: 4 **Comments:**

04/09/2018

REV.0

TestAmerica Inc
rptSTLRchSample
V5.8.5 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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 9:23:00 AM
Lot-Sample No.:	**J8C050409-4**	**Report No. :**	72583	**Received Date:**	3/5/2018 2:50:00 PM
Client Sample ID:	**B3FY25**	**COC No. :**	A18-001-065	**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: 8093023	906.0_H3_LSC			**Work Order:**	NANW22AA		**Report DB ID:**	9NANW220				
H-3	**8.67E+02**		2.3E+02	2.5E+02	4.70E+02	pCi/L	100%	*(1.8)*	4/4/18 06:28 p		0.00501	LSC6
						2.18E+02	7.00E+02	*(6.8)*			L	

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

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchSample
V5.8.5 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: 09-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 6:15:00 AM
Lot-Sample No.:	**J8C050409-5**	**Report No. :**	72583	**Received Date:**	3/5/2018 2:50:00 PM
Client Sample ID:	**B3FY26**	**COC No. :**	A18-001-066	**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: 8093023	906.0_H3_LSC			**Work Order:**	NANW32AA		**Report DB ID:**	9NANW320				
H-3	**5.30E+02**		2.2E+02	2.4E+02	4.75E+02	pCi/L	100%	*(1.1)*	4/4/18 07:12 p		0.00502	LSC6
						2.21E+02	7.00E+02	*(4.5)*			L	

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

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchSample
V5.8.5 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: 09-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 6:30:00 AM
Lot-Sample No.:	**J8C050405-2**	**Report No. :**	72583	**Received Date:**	3/5/2018 12:45:00 PM
Client Sample ID:	**B3FP83 DUP**	**COC No. :**	A18-001-042	**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: 8066014	I129LL_SEP_LEPS_GS			**Work Order:**	NANWM1AC	**Report DB ID:**	NANWM1CR		**Orig Sa DB ID:**	9NANWM10		
I129	1.08E-01	U	3.1E-01	3.1E-01	6.14E-01	pCi/L	92%	0.18	4/2/18 09:40 a		1.68397	LEP5$1
	1.60E-02	U	**RPD**	**148.5**		1.00E+00		0.7			L	

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

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchDupV5.8.5 A2002

RPD - Relative Percent Difference.

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

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

FORM II

Date: 09-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 8:41:00 AM
Lot-Sample No.:	**J8C050403-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 10:40:00 AM
Client Sample ID:	**B3FPC5 DUP**	**COC No. :**	A18-001-040	**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: 8093023	906.0_H3_LSC			**Work Order:**	NANWE2AD	**Report DB ID:**	NANWE2DR		**Orig Sa DB ID:**	9NANWE20		
H-3	1.67E+02	U	2.0E+02	2.1E+02	4.70E+02	pCi/L	100%	0.36	4/4/18 01:22 p		0.00502	LSC6
	1.04E+02	U	**RPD**	**46.6**		7.00E+02		(1.6)			L	

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

04/09/2018

REV.0

RPD - Relative Percent Difference.

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

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

FORM II

Date: 09-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 10:50:00 AM
Lot-Sample No.:	**J8C050406-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 12:45:00 PM
Client Sample ID:	**B3FPN6 DUP**	**COC No. :**	I18-004-109	**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: 8066010	GAMMA_GS			**Work Order:**	NANWP1AK	**Report DB ID:**	NANWP1KR		**Orig Sa DB ID:** 9NANWP10			
CO-60	-1.96E+00	U	6.8E+00	6.8E+00	5.81E+00	pCi/L		-0.34	3/15/18 03:38 p		1.88639	$GER12
	6.18E-01	U	**RPD**	**-384.1**		2.50E+01		-0.58			L	
CS-134	2.11E+00	U	6.0E+00	6.0E+00	6.17E+00	pCi/L		0.34	3/15/18 03:38 p		1.88639	$GER12
	-3.79E+00	U	**RPD**	**-703.6**		8.00E+01		0.7			L	
CS-137	7.99E-01	U	5.0E+00	5.0E+00	5.32E+00	pCi/L		0.15	3/15/18 03:38 p		1.88639	$GER12
	9.25E-02	U	**RPD**	**158.5**		1.50E+01		0.32			L	
EU-152	4.15E+00	U	1.4E+01	1.4E+01	1.30E+01	pCi/L		0.32	3/15/18 03:38 p		1.88639	$GER12
	-1.40E+00	U	**RPD**	**404.3**		5.00E+01		0.61			L	
EU-154	5.47E+00	U	1.6E+01	1.6E+01	9.18E+00	pCi/L		0.6	3/15/18 03:38 p		1.88639	$GER12
	-1.51E-01	U	**RPD**	**211.4**		5.00E+01		0.67			L	
EU-155	-8.23E+00	U	1.3E+01	1.3E+01	1.50E+01	pCi/L		-0.55	3/15/18 03:38 p		1.88639	$GER12
	6.16E-01	U	**RPD**	**-232.4**		5.00E+01		-(1.3)			L	
K-40	-5.74E+01	U	5.2E+01	5.2E+01	9.69E+01	pCi/L		-0.59	3/15/18 03:38 p		1.88639	$GER12
	-1.54E+01	U	**RPD**	**-115.4**				-(2.2)			L	
SB-125	1.46E+01	U	1.2E+01	1.2E+01	1.46E+01	pCi/L		(1.)	3/15/18 03:38 p		1.88639	$GER12
	5.68E+00	U	**RPD**	**88.1**		5.00E+01		(2.5)			L	
Batch: 8066015	PU241_IE_LSC			**Work Order:**	NANWP1AL	**Report DB ID:**	NANWP1LR		**Orig Sa DB ID:** 9NANWP10			
Pu-241	-3.46E+00	U	4.5E+00	5.7E+00	1.12E+01	pCi/L	100%	-0.31	3/20/18 10:15 p		0.20061	LSC10
	-3.69E+00	U	**RPD**	**-6.6**		2.50E+01		-(1.2)			L	
Batch: 8066016	PUISO_PLATE_AEA			**Work Order:**	NANWP1AM	**Report DB ID:**	NANWP1MR		**Orig Sa DB ID:** 9NANWP10			

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchDupV5.8.5 A2002

RPD - Relative Percent Difference.

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

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

FORM II

Date: 09-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 10:50:00 AM
Lot-Sample No.:	**J8C050406-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 12:45:00 PM
Client Sample ID:	**B3FPN6 DUP**	**COC No. :**	I18-004-109	**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
PU-238	-2.64E-02	U	1.4E-01	1.4E-01	3.50E-01	pCi/L	107%	-0.08	3/19/18 03:41 p		0.20061	ALP40
	-6.63E-03	U	**RPD**	**-119.8**		1.00E+00		-0.38			L	
PU239/40	-1.65E-02	U	1.4E-01	1.4E-01	3.20E-01	pCi/L	107%	-0.05	3/19/18 03:41 p		0.20061	ALP40
	-3.31E-02	U	**RPD**	**-66.9**		1.00E+00		-0.24			L	
Batch: 8066020	SRISO_SEP_PRECIP_GPC			**Work Order:**	NANWP1AP	**Report DB ID:**	NANWP1PR		**Orig Sa DB ID:** 9NANWP10			
STRONTIUM	4.55E-01	U	7.5E-01	7.6E-01	1.28E+00	pCi/L	79%	0.35	3/16/18 07:56 a		0.50042	GPC32B
	-2.41E-01	U	**RPD**	**649.3**		2.00E+00		(1.2)			L	
Batch: 8066021	TC99_ETVDSK_LSC			**Work Order:**	NANWP1AT	**Report DB ID:**	NANWP1TR		**Orig Sa DB ID:** 9NANWP10			
Tc-99	2.95E+01		6.1E+00	6.8E+00	1.22E+01	pCi/L	100%	(2.4)	3/19/18 12:52 p		0.12518	LSC6
	3.03E+01		**RPD**	**2.7**		5.00E+01		(8.6)			L	
Batch: 8066022	UISO_PLATE_AEA			**Work Order:**	NANWP1AR	**Report DB ID:**	NANWP1RR		**Orig Sa DB ID:** 9NANWP10			
U-234	6.93E-01		4.8E-01	4.9E-01	3.80E-01	pCi/L	74%	(1.8)	3/20/18 12:23 p		0.20058	ALP212
	5.18E-01		**RPD**	**28.9**		1.00E+00		(2.8)			L	
U-235	-6.37E-03	U	1.6E-01	1.6E-01	3.14E-01	pCi/L	74%	-0.02	3/20/18 12:23 p		0.20058	ALP212
	-2.62E-03	U	**RPD**	**-83.5**		1.00E+00		-0.08			L	
U-238	2.96E-01	U	3.2E-01	3.2E-01	3.80E-01	pCi/L	74%	0.78	3/20/18 12:23 p		0.20058	ALP212
	-7.86E-03	U	**RPD**	**210.9**		1.00E+00		(1.8)			L	
						Ratio U-234/238 = 2.3			***Alpha Spec Result Sum = 9.4E-01***			
Batch: 8096011	SE79_SEP_IE_LSC			**Work Order:**	NANWP2AN	**Report DB ID:**	NANWP2NR		**Orig Sa DB ID:** 9NANWP20			

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchDupV5.8.5 A2002

RPD - Relative Percent Difference.

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

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

FORM II

Date: 09-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 10:50:00 AM
Lot-Sample No.:	**J8C050406-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 12:45:00 PM
Client Sample ID:	**B3FPN6 DUP**	**COC No. :**	I18-004-109	**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
Se-79	4.07E+00	U	5.8E+00	6.8E+00	1.37E+01	pCi/L	68%	0.3	4/6/18 11:01 a		0.20022	LSC9
	-1.10E+00	U	**RPD**	**348.1**		5.00E+01		(1.2)			L	

No. of Results: 17 **Comments:**

04/09/2018

REV.0

TestAmerica Inc

rptSTLRchDupV5.8.5 A2002

RPD - Relative Percent Difference.

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

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

FORM II

Date: 09-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08024	**Collection Date:**	3/5/2018 8:41:00 AM
Lot-Sample No.:	**J8C050404-1**	**Report No. :**	72583	**Received Date:**	3/5/2018 10:40:00 AM
Client Sample ID:	**B3FRM3 DUP**	**COC No. :**	W18-001-211	**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: 8066011	9310_ALPHABETA_GPC			**Work Order:**	NANWF1AF	**Report DB ID:**	NANWF1FR		**Orig Sa DB ID:** 9NANWF10			
Alpha	5.58E-01	U	7.1E-01	7.3E-01	1.19E+00	pCi/L	100%	0.47	3/21/18 01:21 p		0.20052	GPC21B
	7.29E-01	U	**RPD**	**26.6**		3.00E+00		(1.5)			L	
Batch: 8066012	9310_ALPHABETA_GPC			**Work Order:**	NANWF1AG	**Report DB ID:**	NANWF1GR		**Orig Sa DB ID:** 9NANWF10			
Beta	5.09E+00		1.3E+00	1.4E+00	1.77E+00	pCi/L	100%	(2.9)	3/21/18 09:26 a		0.20205	GPC26C
	7.37E+00		**RPD**	**36.6**		4.00E+00		(7.1)			L	
Batch: 8066017	903.1_RA226_LUC			**Work Order:**	NANWF1AH	**Report DB ID:**	NANWF1HR		**Orig Sa DB ID:** 9NANWF10			
Ra-226	-6.59E-02	U	2.1E-01	2.1E-01	4.04E-01	pCi/L	82%	-0.16	4/4/18 11:22 a		0.99989	ASC4HB
	1.44E-01	U	**RPD**	**536.2**		1.00E+00		-0.63			L	
Batch: 8066018	RAISO_SEP_GPC			**Work Order:**	NANWF1AJ	**Report DB ID:**	NANWF1JR		**Orig Sa DB ID:** 9NANWF10			
Ra-228	5.98E-01		2.3E-01	2.4E-01	3.52E-01	pCi/L	88%	(1.7)	3/27/18 07:12 p		0.99989	GPC3B
	2.69E-01	U	**RPD**	**76.0**		1.00E+00		(4.9)			L	

No. of Results: 4 **Comments:**

04/09/2018

REV.0

FORM II

BLANK RESULTS

Date: 09-Apr-18

Lab Name: TestAmerica Inc

Matrix: WATER

SDG: W08024

Report No. : 72583

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: 8066016	PUISO_PLATE_AEA			**Work Order:**	NANXX1AA		**Report DB ID:**	NANXX1AB				
PU-238	-3.85E-02	U	1.3E-01	1.3E-01	3.49E-01	pCi/L	95%	-0.11	3/19/18 03:41 p		0.20046	ALP43
					1.04E-01	1.00E+00		-0.61			L	
PU239/40	2.61E-02	U	1.2E-01	1.3E-01	3.42E-01	pCi/L	95%	0.08	3/19/18 03:41 p		0.20046	ALP43
					1.00E-01	1.00E+00		0.42			L	
Batch: 8066022	UISO_PLATE_AEA			**Work Order:**	NANX51AA		**Report DB ID:**	NANX51AB				
U-234	5.86E-02	U	1.6E-01	1.6E-01	3.58E-01	pCi/L	78%	0.16	3/20/18 12:23 p		0.2003	ALP216
					9.01E-02	1.00E+00		0.75			L	
U-235	-9.26E-03	U	1.5E-01	1.5E-01	3.21E-01	pCi/L	78%	-0.03	3/20/18 12:23 p		0.2003	ALP216
					7.24E-02	1.00E+00		-0.12			L	
U-238	2.19E-01	U	2.7E-01	2.7E-01	3.35E-01	pCi/L	78%	0.65	3/20/18 12:23 p		0.2003	ALP216
					7.90E-02	1.00E+00		(1.6)			L	
							Ratio U-234/238 = 0.3					
Batch: 8066015	PU241_IE_LSC			**Work Order:**	NANXW1AA		**Report DB ID:**	NANXW1AB				
Pu-241	-1.40E+00	U	4.8E+00	6.1E+00	1.18E+01	pCi/L	95%	-0.12	3/21/18 12:21 a		0.20046	LSC10
					5.68E+00	2.50E+01		-0.46			L	
Batch: 8093023	906.0_H3_LSC			**Work Order:**	NANXT2AA		**Report DB ID:**	NANXT2AB				
H-3	4.34E+02	U	2.1E+02	2.3E+02	4.81E+02	pCi/L	100%	0.9	4/4/18 07:56 p		0.00501	LSC6
					2.23E+02	7.00E+02		(3.7)			L	
Batch: 8066010	GAMMA_GS			**Work Order:**	NANXP1AA		**Report DB ID:**	NANXP1AB				
CO-60	-2.01E+00	U	5.1E+00	5.1E+00	3.50E+00	pCi/L		-0.57	3/15/18 03:39 p		2.00586	$GER17
					1.52E+00	2.50E+01		-0.79			L	

04/09/2018

REV.0

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

BLANK RESULTS

Date: 09-Apr-18

Lab Name: TestAmerica Inc

Matrix: WATER

SDG: W08024

Report No. : 72583

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
CS-134	6.12E-01	U	3.4E+00	3.4E+00	3.82E+00	pCi/L		0.16	3/15/18 03:39 p		2.00586	$GER17
					1.69E+00	8.00E+01		0.36			L	
CS-137	1.30E+00	U	3.0E+00	3.0E+00	3.68E+00	pCi/L		0.35	3/15/18 03:39 p		2.00586	$GER17
					1.66E+00	1.50E+01		0.86			L	
EU-152	2.91E+00	U	5.8E+00	5.8E+00	4.47E+00	pCi/L		0.65	3/15/18 03:39 p		2.00586	$GER17
					2.00E+00	5.00E+01		1.			L	
EU-154	2.67E+00	U	1.2E+01	1.2E+01	2.79E+00	pCi/L		0.96	3/15/18 03:39 p		2.00586	$GER17
					1.25E+00	5.00E+01		0.46			L	
EU-155	5.00E-01	U	2.3E+00	2.3E+00	2.67E+00	pCi/L		0.19	3/15/18 03:39 p		2.00586	$GER17
					1.19E+00	5.00E+01		0.43			L	
K-40	-1.38E+01	U	2.8E+01	2.8E+01	5.41E+01	pCi/L		-0.25	3/15/18 03:39 p		2.00586	$GER17
					2.44E+01			-0.97			L	
SB-125	-3.66E+00	U	7.9E+00	7.9E+00	8.62E+00	pCi/L		-0.43	3/15/18 03:39 p		2.00586	$GER17
					3.90E+00	5.00E+01		-0.93			L	
Batch: 8066011	9310_ALPHABETA_GPC			**Work Order:**	NANXQ1AA		**Report DB ID:**	NANXQ1AB				
Alpha	-8.54E-02	U	4.2E-01	4.2E-01	8.08E-01	pCi/L	100%	-0.11	3/21/18 01:21 p		0.20017	GPC21C
					3.58E-01	3.00E+00		-0.4			L	
Batch: 8066012	9310_ALPHABETA_GPC			**Work Order:**	NANXR1AA		**Report DB ID:**	NANXR1AB				
Beta	8.28E-01	U	9.3E-01	9.4E-01	1.54E+00	pCi/L	100%	0.54	3/21/18 09:26 a		0.20004	GPC26D
					7.32E-01	4.00E+00		(1.8)			L	
Batch: 8066014	I129LL_SEP_LEPS_GS			**Work Order:**	NANXV1AA		**Report DB ID:**	NANXV1AB				
I129	2.24E-01	U	3.9E-01	3.9E-01	7.52E-01	pCi/L	92%	0.3	4/2/18 03:09 p		2.00139	LEP4$1
						1.00E+00		(1.1)			L	

04/09/2018

REV.0

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

BLANK RESULTS

Date: 09-Apr-18

Lab Name: TestAmerica Inc

SDG: W08024

Matrix: WATER

Report No. : 72583

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: 8066017	903.1_RA226_LUC			**Work Order:**	NANX01AA		**Report DB ID:**	NANX01AB				
Ra-226	-1.91E-02	U	1.6E-01	1.6E-01	3.11E-01	pCi/L	83%	-0.06	4/4/18 11:23 a		1.00082	ASCASC
					1.32E-01	1.00E+00		-0.24			L	
Batch: 8066018	RAISO_SEP_GPC			**Work Order:**	NANX11AA		**Report DB ID:**	NANX11AB				
Ra-228	6.40E-01		2.3E-01	2.4E-01	3.37E-01	pCi/L	88%	(1.9)	3/27/18 07:12 p		1.00082	GPC3C
					1.38E-01	1.00E+00		(5.3)			L	
Batch: 8066020	SRISO_SEP_PRECIP_GPC			**Work Order:**	NANX31AA		**Report DB ID:**	NANX31AB				
STRONTIUM	1.72E-01	U	7.6E-01	7.6E-01	1.35E+00	pCi/L	79%	0.13	3/16/18 07:56 a		0.50108	GPC32C
					6.10E-01	2.00E+00		0.45			L	
Batch: 8096011	SE79_SEP_IE_LSC			**Work Order:**	NANX22AA		**Report DB ID:**	NANX22AB				
Se-79	4.10E+00	U	5.0E+00	5.9E+00	1.18E+01	pCi/L	79%	0.35	4/6/18 11:44 a		0.20017	LSC9
					5.61E+00	5.00E+01		(1.4)			L	
Batch: 8066021	TC99_ETVDSK_LSC			**Work Order:**	NANX41AA		**Report DB ID:**	NANX41AB				
Tc-99	-2.49E+00	U	4.9E+00	5.6E+00	1.22E+01	pCi/L	100%	-0.2	3/19/18 03:07 p		0.12557	LSC6
					5.77E+00	5.00E+01		-0.89			L	

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

04/09/2018

REV.0

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: 09-Apr-18

Lab Name: TestAmerica Inc

SDG: W08024

Matrix: WATER

Report No. : 72583

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: 8066016	PUISO_PLATE_AEA			**Work Order:**	NANXX1AC		**Report DB ID:**	NANXX1CS					
PU239/40	4.79E+00		1.2E+00	1.4E+00	2.60E-01	pCi/L	101%	4.47E+00	4.5E-02	107%	3/19/18 03:41 p	0.20151	ALP44
							Rec Limits:	80	120	0.1		L	
Batch: 8066022	UISO_PLATE_AEA			**Work Order:**	NANX51AC		**Report DB ID:**	NANX51CS					
U-234	1.43E+01		1.9E+00	3.1E+00	3.05E-01	pCi/L	97%	1.59E+01	8.4E-02	90%	3/20/18 12:23 p	0.20378	ALP218
							Rec Limits:	80	120	-0.1		L	
U-238	1.56E+01		2.0E+00	3.4E+00	4.72E-01	pCi/L	97%	1.66E+01	8.8E-02	94%	3/20/18 12:23 p	0.20378	ALP218
							Rec Limits:	80	120	-0.1		L	
Batch: 8066015	PU241_IE_LSC			**Work Order:**	NANXW1AC		**Report DB ID:**	NANXW1CS					
Pu-241	8.77E+02		1.6E+01	5.5E+01	1.11E+01	pCi/L	100%	1.11E+03	1.3E+01	79%	3/21/18 02:27 a	0.20151	LSC10
							Rec Limits:	80	120	-0.2		L	
Batch: 8093023	906.0_H3_LSC			**Work Order:**	NANXT2AC		**Report DB ID:**	NANXT2CS					
H-3	3.12E+03		3.2E+02	3.7E+02	4.75E+02	pCi/L	100%	2.76E+03	8.3E+01	113%	4/4/18 09:24 p	0.00502	LSC6
							Rec Limits:	80	120	0.1		L	
Batch: 8066010	GAMMA_GS			**Work Order:**	NANXP1AC		**Report DB ID:**	NANXP1CS					
CO-60	3.56E+01		4.3E+00	4.3E+00	5.45E+00	pCi/L		3.67E+01		97%	3/15/18 03:39 p	2.0018	$GER13
							Rec Limits:	80	120	0.0		L	
CS-137	5.44E+01		8.4E+00	8.4E+00	5.15E+00	pCi/L		4.87E+01		112%	3/15/18 03:39 p	2.0018	$GER13
							Rec Limits:	80	120	0.1		L	
EU-152	6.99E+01		8.4E+00	8.4E+00	1.29E+01	pCi/L		7.56E+01		92%	3/15/18 03:39 p	2.0018	$GER13
							Rec Limits:	80	120	-0.1		L	
Batch: 8066011	9310_ALPHABETA_GPC			**Work Order:**	NANXQ1AC		**Report DB ID:**	NANXQ1CS					

04/09/2018

REV.0

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

rptSTLRchLcs
V5.8.5 A2002

FORM II

LCS RESULTS

Date: 09-Apr-18

Lab Name: TestAmerica Inc

SDG: W08024

Matrix: WATER

Report No. : 72583

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
Alpha	2.24E+01		1.7E+00	5.9E+00	6.97E-01	pCi/L	100%	2.26E+01	2.3E-01	99%	3/21/18 01:21 p	0.20098	GPC21D
							Rec Limits:	80	120	0.0		L	
Batch: 8066012	9310_ALPHABETA_GPC			**Work Order:**	NANXR1AC		**Report DB ID:**	NANXR1CS					
Beta	2.61E+01		1.8E+00	3.7E+00	1.52E+00	pCi/L	100%	2.21E+01	1.6E-01	118%	3/21/18 09:26 a	0.20026	GPC27A
							Rec Limits:	80	120	0.2		L	
Batch: 8066014	I129LL_SEP_LEPS_GS			**Work Order:**	NANXV1AC		**Report DB ID:**	NANXV1CS					
I129	2.07E+01		2.7E+00	2.7E+00	8.36E-01	pCi/L	93%	1.94E+01		106%	4/2/18 03:09 p	2.0004	LEP5$1
							Rec Limits:	80	120	0.1		L	
Batch: 8066017	903.1_RA226_LUC			**Work Order:**	NANX01AC		**Report DB ID:**	NANX01CS					
Ra-226	8.24E+00		7.4E-01	2.0E+00	3.65E-01	pCi/L	94%	9.93E+00	1.0E-01	83%	4/4/18 11:23 a	1.00115	ASCDUE
							Rec Limits:	75	125	-0.2		L	
Batch: 8066018	RAISO_SEP_GPC			**Work Order:**	NANX11AC		**Report DB ID:**	NANX11CS					
Ra-228	9.95E+00		6.5E-01	1.2E+00	3.07E-01	pCi/L	88%	9.79E+00	9.9E-02	102%	3/27/18 07:12 p	1.00115	GPC3D
							Rec Limits:	80	120	0.0		L	
Batch: 8066020	SRISO_SEP_PRECIP_GPC			**Work Order:**	NANX32AC		**Report DB ID:**	NANX32CS					
STRONTIUM	1.49E+01		1.4E+00	3.7E+00	8.33E-01	pCi/L	79%	1.35E+01	9.6E-02	111%	3/21/18 12:45 p	0.501	GPC31A
							Rec Limits:	80	120	0.1		L	
Batch: 8066021	TC99_ETVDSK_LSC			**Work Order:**	NANX41AC		**Report DB ID:**	NANX41CS					
Tc-99	1.00E+02		8.2E+00	9.3E+00	1.22E+01	pCi/L	100%	1.08E+02	6.2E-01	93%	3/19/18 03:52 p	0.12565	LSC6
							Rec Limits:	80	120	-0.1		L	

No. of Results: 15 **Comments:**

04/09/2018

REV.0

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

rptSTLRchLcs
V5.8.5 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 09-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08024

Lot-Sample No.: J8C050405-1, B3FPC7 **Report No. :** 72583 **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: 8093023	**Work Order:** NANWL2AE			**Report DB ID:** NANWL2EW			**Orig Sa DB ID:** 9NANWL20					
H-3	1.33E+03		3.7E+02	5.3E+02	5.49E+02	pCi/L	100%	81.87%	1.63E+03	4/4/18 02:49 p	0.0043	906.0_H3_LSC
	2.25E+03								4.9E+01		L	LSC6

Number of Results: 1

Comments:

04/09/2018

REV.0

TestAmerica Inc
rptSTLRchMs
V5.8.5 A2002

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

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

FORM II

MATRIX SPIKE RESULTS

Date: 09-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08024

Lot-Sample No.: J8C050406-1, B3FPN6 **Report No. :** 72583 **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: 8066021	**Work Order:** NANWP1AQ			**Report DB ID:** NANWP1QW			**Orig Sa DB ID:** 9NANWP10					
Tc-99	5.02E+02		1.6E+01	2.3E+01	1.22E+01	pCi/L	100%	92.93%	5.40E+02	3/19/18 12:07 p	0.12541	TC99_ETVDSK_LSC
	3.03E+01								3.1E+00		L	LSC6

Number of Results: 1

Comments:

04/09/2018

REV.0

TestAmerica Inc
rptSTLRchMs
V5.8.5 A2002

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

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

W08024

SAMP NUM	WMU Code	WELL NAME	SITE TYPE	PARENT WMU	DESCRIPTION
B3FP84	218-W-4B	299-W18-22	TSD	218-W-4B	218-W-4B Burial Ground
B3FPB6	218-W-4B	299-W15-152	TSD	218-W-4B	218-W-4B Burial Ground
B3FPB8	218-W-4B	299-W15-224	TSD	218-W-4B	218-W-4B Burial Ground
B3FPC2	218-W-4B	299-W15-83	TSD	218-W-4B	218-W-4B Burial Ground
B3FPC5	218-W-4B	299-W17-1	TSD	218-W-4B	218-W-4B Burial Ground
B3FPC7	218-W-4B	299-W18-21	TSD	218-W-4B	218-W-4B Burial Ground
B3FPV6	218-W-4B	299-W15-224	TSD	218-W-4B	218-W-4B Burial Ground
B3FPW2	218-W-4B	299-W15-83	TSD	218-W-4B	218-W-4B Burial Ground
B3FRM3	218-W-4B	299-W17-1	TSD	218-W-4B	218-W-4B Burial Ground
B3FY25	218-W-4B	299-W15-30	TSD	218-W-4B	218-W-4B Burial Ground
B3FP84	218-W-4C	299-W18-22	TSD	218-W-4C	218-W-4C Burial Ground
B3FPB6	218-W-4C	299-W15-152	TSD	218-W-4C	218-W-4C Burial Ground
B3FPB8	218-W-4C	299-W15-224	TSD	218-W-4C	218-W-4C Burial Ground
B3FPC2	218-W-4C	299-W15-83	TSD	218-W-4C	218-W-4C Burial Ground
B3FPC5	218-W-4C	299-W17-1	TSD	218-W-4C	218-W-4C Burial Ground
B3FPC7	218-W-4C	299-W18-21	TSD	218-W-4C	218-W-4C Burial Ground
B3FPV6	218-W-4C	299-W15-224	TSD	218-W-4C	218-W-4C Burial Ground
B3FPW2	218-W-4C	299-W15-83	TSD	218-W-4C	218-W-4C Burial Ground
B3FRM3	218-W-4C	299-W17-1	TSD	218-W-4C	218-W-4C Burial Ground
B3FY25	218-W-4C	299-W15-30	TSD	218-W-4C	218-W-4C Burial Ground