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 78 *Pages*

Report No.: 72649

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.
W08036	S17-008	B3BHD2	J8C200401-1	NAPH41AC	9NAPH410	8084013
		B3BHD2	J8C200401-1	NAPH41AD	9NAPH410	8084015
		B3BHD2	J8C200401-1	NAPH41AA	9NAPH410	8084017
		B3BHD2	J8C200401-1	NAPH41AF	9NAPH410	8084022
		B3BHD2	J8C200401-1	NAPH42AG	9NAPH420	8094010
		B3BHD2	J8C200401-1	NAPH43AE	9naph430	8115022
		B3BHD4	J8C200401-2	NAPH51AA	9NAPH510	8084016
	S18-001	B3FW36	J8C210402-1	NAPJE1AA	9NAPJE10	8084013
		B3FW36	J8C210402-1	NAPJE1AC	9NAPJE10	8084015
		B3FW36	J8C210402-1	NAPJE1AD	9NAPJE10	8084018
		B3FW42	J8C210402-2	NAPJF1AA	9NAPJF10	8084013
		B3FW42	J8C210402-2	NAPJF1AC	9NAPJF10	8084015
		B3FW42	J8C210402-2	NAPJF1AD	9NAPJF10	8084018
	S18-002	B3H538	J8C200402-1	NAPH61AA	9NAPH610	8084018
		B3H538	J8C200402-1	NAPH61AC	9NAPH610	8084022
		B3H545	J8C200402-2	NAPH71AA	9NAPH710	8084018
		B3H545	J8C200402-2	NAPH71AC	9NAPH710	8084022
	I18-006	B3HDL1	J8C230401-1	NAPN11AC	9NAPN110	8084011
		B3HDL1	J8C230401-1	NAPN11AA	9NAPN110	8084017
		B3HDL1	J8C230401-1	NAPN11AD	9NAPN110	8084021
		B3HDL1	J8C230401-1	NAPN11AE	9NAPN110	8084022
		B3HDL1	J8C230401-1	NAPN11AF	9NAPN110	8084024
		B3HDM4	J8C210401-1	NAPJD1AA	9NAPJD10	8084018
		B3HDN0	J8C230401-2	NAPN21AE	9NAPN210	8084011
		B3HDN0	J8C230401-2	NAPN21AD	9NAPN210	8084014
		B3HDN0	J8C230401-2	NAPN21AC	9NAPN210	8084017

Report No.: 72649

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SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
W08036	I18-006	B3HDN0	J8C230401-2	NAPN21AF	9NAPN210	8084018
		B3HDN0	J8C230401-2	NAPN21AA	9NAPN210	8084019
		B3HDN0	J8C230401-2	NAPN21AG	9NAPN210	8084020
		B3HDN0	J8C230401-2	NAPN21AH	9NAPN210	8084021
		B3HDN0	J8C230401-2	NAPN21AJ	9NAPN210	8084024
		B3HDN1	J8C230401-3	NAPN31AE	9NAPN310	8084011
		B3HDN1	J8C230401-3	NAPN31AD	9NAPN310	8084014
		B3HDN1	J8C230401-3	NAPN31AC	9NAPN310	8084017
		B3HDN1	J8C230401-3	NAPN31AF	9NAPN310	8084018
		B3HDN1	J8C230401-3	NAPN31AA	9NAPN310	8084019
		B3HDN1	J8C230401-3	NAPN31AG	9NAPN310	8084020
		B3HDN1	J8C230401-3	NAPN31AH	9NAPN310	8084021
		B3HDN1	J8C230401-3	NAPN31AJ	9NAPN310	8084024
		B3HDN3	J8C230401-4	NAPN41AA	9NAPN410	8084016
		B3HDN4	J8C230401-5	NAPN51AA	9NAPN510	8084016
	S18-003	B3HHL5	J8C210404-2	NAPJQ1AA	9NAPJQ10	8084015
		B3HHL6	J8C210404-1	NAPJP1AA	9NAPJP10	8084015
		B3HHT2	J8C210404-3	NAPJR1AC	9NAPJR10	8084014
		B3HHT2	J8C210404-3	NAPJR1AA	9NAPJR10	8084023
		B3HHT3	J8C210404-4	NAPJT2AC	9NAPJT20	8084014
		B3HHT3	J8C210404-4	NAPJT1AA	9NAPJT10	8084023

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 30, 2018

Attention: Scot Fitzgerald

SAF Number	:	S17-008, S18-002, I18-006, S18-001, S18-003,
Date SDG Closed	:	March 23, 2018
Number of Samples	:	Sixteen (16)
Sample Type	:	Water
SDG Number	:	W08036
Data Deliverable	:	30-Day / Summary

CASE NARRATIVE

I. Introduction

Between March 19, 2018 and March 22, 2018, sixteen 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
Americium 241 by method RL-ALP-003
Plutonium-238, -239/240 by method RL-ALP-001
Thorium-228,230,232 by method RL-ALP-001
Uranium 234, 235 and 238 by method RL-ALP-004

Page 3 of 78

Gas Proportional Counting
Gross Alpha by method RL-GPC-001
Gross Beta by method RL-GPC-001
Strontium by method RL-GPC-010
Gamma Spectroscopy
Gamma Spec by method RL-GAM-001
Iodine-129 (LL) by method RL-GAM-002
Liquid Scintillation Counting
Carbon-14 by method RL-LSC-008
Plutonium-241 by method RL-ALP-001
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
Americium 241 by method RL-ALP-003:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Plutonium-238, -239/240 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.

Thorium-228,230,232 by method RL-ALP-001:
No analytical or quality issues were 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.

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.

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
Carbon-14 by method RL-LSC-008:
No analytical or quality issues were noted. The sample result and associated batch QC results are within contractual requirements.

Plutonium-241 by method RL-ALP-001:
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:
The elevated RPD is not applicable due to low activity levels. No other analytical or quality issues were noted. Except as 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: 2018.04.30 12:46:56 -07'00'

Ashley L. Worthy
Project Manager

SAMPLE ISSUE RESOLUTION (SIR) REPORT

SIR Number: SIR18-0614
Rev. Number: 0
Date Initiated: 04/04/2018

SAMPLE EVENT INFORMATION

SAF NUM(S): I18-006

LABORATORY: TARL

SAMPLING INFORMATION

NUMBER OF SAMPLES: 2

SAMPLE NUMBERS: B3HDN0, B3HDN1

SAMPLE MATRIX: WATER

SDG NUM(S): W08036

ISSUE BACKGROUND

CLASS: Laboratory Issue

TYPE: Quality Control Failure

DESCRIPTION: For the PUISO analysis the LCS recovered low at 155%. The tracer yield is acceptable at 78%. The acceptance criteria for the LCS is 80-120%. The sample results are below the MDA and CRDL.

RESOLUTION

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

FINAL RESOLUTION: report the results and note the issue in the narrative.

SUBMITTED BY:

WORTHY, A 04/04/2018

ACCEPTED BY:

MEDLEY, HA 04/04/2018

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.# S17-008-534 Page 1 of 1

Collector: Mike Esparza /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: S17-008	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: SURV, AUGUST 2017	**Logbook No.:** HNF-N-~~506~~ 491-19 /20	**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
B3BHD2	N	W	3-19-18	1044	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3BHD2	N	W			1x1-L P	9310_ALPHABETA_GPC: COMMON	6 Months	HNO3 to pH <2
B3BHD2	N	W			4x1-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B3BHD2	N	W			1x500-mL P	TC99_ETVDSK_LSC: COMMON	6 Months	HCl to pH <2
B3BHD2	N	W			1x1-L G/P	UISO_PLATE_AEA: COMMON NAPH4	6 Months	HNO3 to pH <2

J8C200401
W08035

Relinquished By	Received By
Mike Esparza /CHPRC — Print First and Last Name; Signature; MAR 19 2018 1155 — Date/Time	Tim Callaway /CHPRC — Print First and Last Name; Signature; MAR 19 2018 1155 — Date/Time
Tim Callaway /CHPRC — Print First and Last Name; Signature; MAR 19 2018 1350 — Date/Time	B.Jorgenson, TARL — Print First and Last Name; Signature; 3-19-18 1350 — 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:

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S17-008-535 Page 1 of 1

Collector: Mike Esparza /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: S17-008	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: SURV, AUGUST 2017	**Logbook No.:** HNF-N-~~506~~ folio 491-19 /20	**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
B3BHD4	N	W	3/19/18	1044	1x500-mL G/P	C14_LSC: COMMON NAPHS	6 Months	None

J8C200401
W08036

Page 10 of 78

04/30/2018

Relinquished By:	Received By:
Mike Esparza /CHPRC — MAR 19 2018 1155 (Print First and Last Name / Signature / Date/Time)	Tim Calloway /CHPRC — MAR 19 2018 1155 (Print First and Last Name / Signature / Date/Time)
Tim Calloway /CHPRC — MAR 19 2018 1355 (Print First and Last Name / Signature / Date/Time)	B.Jorgenson, TARL — 3-19-18/1355 (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:

Page 10 of 78

REV. 0

Printed On 6/20/2017 FSR ID = FSR46538 A-6004-842 (REV 2)

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04/30/2018

Sample Check-in List

REV. 0

Date/Time Received: 3-19-18 / 1350

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

Client: PGW SDG #: W08035 SAF #: S17-008 NA [ ]

Lot Number: J8C200401

Chain of Custody # S17-008-534; 535

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

Samples received inside shipping container/cooler/box Yes [BJ] 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 [BJ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BJ]
3. Cooler temperature: 6.7 °C ICE NA [ ]
4. Vermiculite/packing materials is NA [BJ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [BJ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 1X250mLP 2X500mLP 6XLP
8. Sample holding times exceeded? NA [ ] Yes [ ] No [BJ]
9. Samples have: ____tape ____hazard labels [BJ] custody seals [BJ] appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) [BJ] I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
[BJ] 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 [BJ] 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 [BJ]
14. Description of anomalies (include sample numbers): NA [BJ] _____
15. Sample Location, Sample Collector Listed on COC? * Yes [BJ] 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: BJorgnson Date: 3-19-18

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

[A] No action necessary; process as is

Project Manager [signature] Date 3-23-18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-002-483 Page 1 of 1

Collector:	Juan Aguilar /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	S18-002	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	Sitewide Surv, February 2018	**Logbook No.:**	HNF-N-506 - 98160	**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
B3H538	N	W	3-19-18	1150	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B3H538	N	W	3-19-18	1150	1x500-mL P	TC99_ETVDSK_LSC: COMMON NAPH6	6 Months	HCl to pH <2

J8C200402
W08036

Relinquished By:	Received By:
Juan Aguilar /CHPRC — MAR 19 2018 1200 (Print First and Last Name / Signature / Date/Time)	Troy Bacon CHPRC Troy L. Bacon — MAR 19 2018 1200 (Print First and Last Name / Signature / Date/Time)
Troy Bacon CHPRC Troy L. Bacon — MAR 19 2018 1350 (Print First and Last Name / Signature / Date/Time)	B.Jorgenson, TARL B Jorgenson 3-19-18 1350 (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:

Printed On 12/13/2017 FSR ID = FSR55334 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S18-002-486

Collector:	Juan Aguilar CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	S18-002	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	Sitewide Surv, February 2018	**Logbook No.:**	HNF-N-506 - 98160	**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
B3H545	N	W	3-19-16	1125	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON	6 Months	None
B3H545	N	W	3-19-16	1125	1x500-mL P	TC99_ETVDSK_LSC: COMMON NAPH7	6 Months	HCl to pH <2

JBC200402
208036

Page 13 of 78

04/30/2018

Relinquished By	Print First and Last Name	Signature	Date/Time	Received By	Print First and Last Name	Signature	Date/Time
Juan Aguilar CHPRC			MAR 19 2018 1200	Troy Bacon CHPRC		Troy L. Bacon	MAR 19 2018 1200
Troy Bacon CHPRC		Troy L. Bacon	MAR 19 2018 1350		B.Jorgenson, TARL	B Jorgenson	3-19-18 / 1352

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

Page 13 of 78

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 3-19-18 / 1350

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

Client: PGW SDG #: W08035 SAF #: 518-002 NA [ ]

Lot Number: J8C200402

Chain of Custody # 518-002-483, 486

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

Samples received inside shipping container/cooler/box Yes [BJ] 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 [BJ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BJ]
3. Cooler temperature: 6.7 °C ICE NA [ ]
4. Vermiculite/packing materials is NA [BJ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [BJ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): _____
7. Containers received: _____
8. Sample holding times exceeded? NA [ ] Yes [ ] No [BJ]
9. Samples have: ____ tape ____ hazard labels BJ custody seals BJ appropriate sample labels
10. Matrix: ____ A (FLT, Wipe, Solid, Soil) BJ I (Water) ____ S (Air, Niosh 7400) ____ T (Biological, Ni-63)
11. Samples:
    BJ 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 [BJ] 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 [BJ]
14. Description of anomalies (include sample numbers): NA [BJ] _____
15. Sample Location, Sample Collector Listed on COC? * Yes [BJ] 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: BJorgnson Date: 3-19-18

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

[✓] No action necessary; process as is

Project Manager [signature] Date 3-23-18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-071 Page 1 of 1

Collector:	Kevin Patterson CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	I18-C06	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	AEA, MARCH 2018	**Logbook No.:**	HNF-N-506 -98-61	**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
B3HDM4	N	W	3-20-18	1252	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NAPJD1AA	6 Months	None

J8C210401
W08036

Relinquished By:	Received By:
Kevin Patterson CHPRC — Print First and Last Name; Signature; MAR 20 2018 1315 Date/Time	Daniel Klug CHPRC D.Klug — Print First and Last Name; Signature; MAR 20 2018 1315 Date/Time
Daniel Klug CHPRC D.Klug — Print First and Last Name; Signature; MAR 20 2018 1420 Date/Time	B.Jorgenson, TARL — Print First and Last Name; Signature; 3-20-18 1420 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:

Printed On 1/15/2018 FSR ID = FSR57194 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

04/30/2018

REV. 0

Sample Check-in List

Date/Time Received: 3-20-18/1420

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

Client: PGW SDG #: W08036 SAF #: I18-006 NA [ ]

Lot Number: J8C210401

Chain of Custody # I18-006-071

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

Samples received inside shipping container/cooler/box Yes [BJ] 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 [BJ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BJ]
3. Cooler temperature: 6.4 °C ICE NA [ ]
4. Vermiculite/packing materials is NA [BJ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

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

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

Sample Check-in List completed by Sample Custodian:
Signature: BJagmsn Date: 3-20-18

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

[ ] No action necessary; process as is

Project Manager [signature] Date 3-23-18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-001-228 Page 1 of 1

Collector:	Kevin Patterson CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	S18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	SURV, JANUARY 2018	**Logbook No.:**	HNF-N-506-98-61	**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
B3FW36	N	W	3-20-18	0901	1x1-L P	9310_ALPHABETA_GPC: COMMON	6 Months	HNO3 to pH <2
B3FW36	N	W	3-20-18	0901	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NAPJE	6 Months	None

J8C210402
W08036

Page 17 of 78

04/30/2018

Relinquished By:	Received By:
Kevin Patterson CHPRC — MAR 20 2018 1225 (Print First and Last Name / Signature / Date/Time)	Daniel Klug CHPRC D.K — MAR 20 2018 1225 (Print First and Last Name / Signature / Date/Time)
Daniel Klug CHPRC D.K — MAR 20 2018 1420 (Print First and Last Name / Signature / Date/Time)	B. Jorgenson, TARL — 3-20-18 1420 (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:

Page 27 of 78

REV. 0

Printed On 11/21/2017 FSR ID = FSR53931 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-001-230 Page 1 of 1

Collector:	Kevin Patterson CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	S18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	SURV, JANUARY 2018	**Logbook No.:**	HNF-N-506-98-61	**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
B3FW42	N	W	3-20-18	1017	1x1-L P	9310_ALPHABETA_GPC: COMMON	6 Months	HNO3 to pH <2
B3FW42	N	W	3-20-18	1017	1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NAPJF	6 Months	None

J8C210402
W08035

Page 18 of 78

04/30/2018

Relinquished By	Received By
Kevin Patterson CHPRC — MAR 20 2018 1225 (Print First and Last Name / Signature / Date/Time)	Daniel Klug CHPRC — MAR 20 2018 1225 (Print First and Last Name / Signature / Date/Time)
Daniel Klug CHPRC — MAR 20 2018 1420 (Print First and Last Name / Signature / Date/Time)	B.Jorgenson, TARL — 3-20-18 1420 (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:

Page 28 of 78

REV. 0

Printed On 11/21/2017 FSR ID = FSR53932 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

04/30/2018

Sample Check-in List

REV. 0

Date/Time Received: 3-20-18/1420

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

Client: PGW SDG #: W08036 SAF #: S18-001 NA [ ]

Lot Number: J8C210402

Chain of Custody # S18-001-228; 230

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

Samples received inside shipping container/cooler/box Yes [BJ] 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 [BJ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BJ]
3. Cooler temperature: 6.4 °C ICE NA [ ]
4. Vermiculite/packing materials is NA [BJ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

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

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

Sample Check-in List completed by Sample Custodian:
Signature: BJagnsm Date: 3-20-18

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

[✓] No action necessary; process as is

Project Manager Ashley Liberty Date 3-23-18

LS-023 Rev. 18, 12/2016

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-003-276 Page 1 of 1

Collector: Frank Hall /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: S18-003	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: CERCLA, MARCH 2018	**Logbook No.:** HNF-N-506-99-19	**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 CERCLA	**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
B3HHL6	N	W	MAR 20 2018	1636	1x1-L P	9310_ALPHABETA_GPC: Gross Beta NAPJP	6 Months	HNO3 to pH <2

Page 20 of 78

J8C210404
W080036

04/30/2018

Relinquished By:	Received By:
Frank Hall /CHPRC — MAR 20 2018 1140 (Print First and Last Name / Signature / Date/Time)	Daniel Klug CHPRC — MAR 20 2018 1140 (Print First and Last Name / Signature / Date/Time)
Daniel Klug CHPRC — MAR 20 2018 1420 (Print First and Last Name / Signature / Date/Time)	T. Holm TARI — 3/20/18 1420 (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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C.# S18-003-274 Page 1 of 1

Collector: Frank Hall /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: S18-003	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: CERCLA, MARCH 2018	**Logbook No.:** HNF-N-506-99-19	**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 CERCLA	**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
B3HHL5	N	W	MAR 20 2018	0715	1x1-L P	9310_ALPHABETA_GPC: Gross Beta NAPJQ	6 Months	HNO3 to pH <2

J8C210404
W08036

Page 21 of 78

04/30/2018

Relinquished By:	Received By:
Frank Hall /CHPRC — MAR 20 2018 1140 (Print First and Last Name / Signature / Date/Time)	Daniel Klug CHPRC — MAR 20 2018 1140 (Print First and Last Name / Signature / Date/Time)
Relinquished By: Daniel Klug CHPRC — MAR 20 2018 1420 (Print First and Last Name / Signature / Date/Time)	Received By: T. Holm TARL — 3/20/18 1420 (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:

Printed On 1/15/2018 FSR ID = FSR57075 A-6004-842 (REV 3)

REV. 0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-003-322 Page 1 of 1

Collector: Frank Hall /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: S18-003	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: CERCLA, MARCH 2018	**Logbook No.:** HNF-N-506-99-19	**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 CERCLA	**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
B3HHT2	N	W	MAR 20 2018	0854	1x1-L G/P	AMCMISO_EIE_PRECIP_AEA: COMMON; THISO_IE_PRECIP_AEA: COMMON NAPJR	180 Days	HNO3 to pH <2

J8C210404

N08036

Relinquished By:	Received By:
Frank Hall /CHPRC — MAR 20 2018 0920 (Print First and Last Name / Signature / Date/Time)	Daniel Klug CHPRC — D.K. — MAR 20 2018 0920 (Print First and Last Name / Signature / Date/Time)
Daniel Klug CHPRC — D.K. — MAR 20 2018 1420 (Print First and Last Name / Signature / Date/Time)	B.Jorgenson, TARL — B Jorgenson 3-20-18 1420 (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:

Printed On 1/15/2018 FSR ID = FSR57134 A-6004-842 (REV 3)

04/30/2018

REV. 0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S18-003-324 Page 1 of 1

Collector:	Frank Hall /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	S18-003	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	CERCLA, MARCH 2018	**Logbook No.:**	HNF-N-506-99-19	**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	CERCLA	**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
B3HHT3	N	W	MAR 20 2018	0854	1x1-L G/P	AMCMISO_EIE_PRECIP_AEA: COMMON; THISO_IE_PRECIP_AEA: COMMON NAPJT	180 Days	HNO3 to pH <2

J8C210404
WO80386

04/30/2018

Relinquished By:	Received By:
Frank Hall /CHPRC — MAR 20 2018 0920 (Print First and Last Name / Signature / Date/Time)	Daniel Klug CHPRC — MAR 20 2018 0920 (Print First and Last Name / Signature / Date/Time)
Daniel Klug CHPRC — 1420 (Print First and Last Name / Signature / Date/Time)	B.Jorgenson, TARL — 3-20-18/1420 (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

Printed On 1/15/2018 FSR ID = FSR57134 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

04/30/2018 REV. 0

Sample Check-in List

Date/Time Received: 3-20-18/1420

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

Client: PGW SDG #: W08036 SAF #: S18-003 NA [ ]

Lot Number: J8C210404

Chain of Custody # S18-003-276; 274; 322; 324

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

Samples received inside shipping container/cooler/box Yes [BJ] 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 [BJ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BJ]
3. Cooler temperature: 6.4 °C ICE NA [ ]
4. Vermiculite/packing materials is NA [BJ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

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

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

Sample Check-in List completed by Sample Custodian:
Signature: BJagnson Date: 3-20-18

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

[✓] No action necessary; process as is

Project Manager [signature] Date 3-23-18

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-087 Page 1 of 1

Collector: Juan Aguilar /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I18-006	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: AEA, MARCH 2018	**Logbook No.:** HNF-N-506 - 98163	**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
B3HDL1	N	W	3-22-18	1003	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3HDL1	N	W			1x4-L G/P	GAMMA_GS: COMMON; GAMMA_GS: GW 01	6 Months	HNO3 to pH <2
B3HDL1	N	W			1x1-L G/P	SRISO_SEP_PRECIP_GPC: COMMON	6 Months	HNO3 to pH <2
B3HDL1	N	W			1x1-L G/P	UISO_PLATE_AEA: COMMON	6 Months	HNO3 to pH <2
B3HDL1	N	W	3-22-18	1003	1x500-mL P	TC99_ETVDSK_LSC: COMMON NAPNI	6 Months	HCl to pH <2

J8C230401

W08036

Relinquished By: Juan Aguilar /CHPRC — MAR 22 2018 1050 (Print First and Last Name / Signature / Date/Time)	Received By: Lesly Wall /CHPRC — MAR 22 2018 1050 (Print First and Last Name / Signature / Date/Time)	Matrix *	
Relinquished By: Lesly Wall /CHPRC — MAR 22 2018 1120 (Print First and Last Name / Signature / Date/Time)	Received By: Tim Calloway /CHPRC — MAR 22 2018 1120 (Print First and Last Name / Signature / Date/Time)	S = Soil	DS = Drum Solids
Relinquished By: Tim Calloway /CHPRC — MAR 22 2018 (Print First and Last Name / Signature / Date/Time)	Received By: T. Holm TARL — 3/22/18 1425 (Print First and Last Name / Signature / Date/Time)	SE = Sediment	DL = Drum Liquid
Relinquished By: (Print First and Last Name / Signature / Date/Time)	Received By: (Print First and Last Name / Signature / Date/Time)	SO = Solid	T = Tissue
		SL = Sludge	WI = Wipe
		W = Water	L = Liquid
		O = Oil	V = Vegetation
		A = Air	X = Other

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

Printed On 2/26/2018 FSR ID = FSR58300 A-6004-842 (REV 3)

04/30/2018

REV. 0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-073 Page 1 of 1

Collector:	Jeff Lucas /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	I18-006	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	AEA, MARCH 2018	**Logbook No.:**	HNF-N-506 99 /21	**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
B3HDN0	N	W	MAR 2 2 2018	0700	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3HDN0	N	W			1x4-L G/P	GAMMA_GS: COMMON; GAMMA_GS: GW 01; GAMMA_GS: TH234	6 Months	HNO3 to pH <2
B3HDN0	N	W			1x1-L G/P	AMCMISO_EIE_PRECIP_AEA: COMMON; PU241_IE_LSC: COMMON; PUISO_IE_PRECIP_AEA: COMMON; UISO_PLATE_AEA: COMMON	180 Days	HNO3 to pH <2
B3HDN0	N	W			1x1-L G/P	SRISO_SEP_PRECIP_GPC: COMMON	6 Months	HNO3 to pH <2
B3HDN0	N	W			1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NAPNZ	6 Months	None

J8C230401
W08036

Relinquished By:	Print First and Last Name	Signature	Date/Time	Received By:	Print First and Last Name	Signature	Date/Time
	Tim Calloway /CHPRC	Jeff Lucas /CHPRC	MAR 2 2 2018 1130		Tim Calloway /CHPRC		MAR 2 2 2018 1130
	Tim Calloway /CHPRC		MAR 2 2 2018 1445		T. Holm TARI		3/22/18 1445

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:

Printed On 2/26/2018 FSR ID = FSR58276 A-6004-842 (REV 3)

04/30/2018 REV. 0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-075 Page 1 of 1

Collector: Jeff Lucas /CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I18-006	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: AEA, MARCH 2018	**Logbook No.:** HNF-N-506 99 /21	**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
B3HDN1	N	W	MAR 2 2 2018	0840	1x250-mL P	906.0_TRITIUM_LSC: COMMON	6 Months	None
B3HDN1	N	W			1x4-L G/P	GAMMA_GS: COMMON; GAMMA_GS: GW 01; GAMMA_GS: TH234	6 Months	HNO3 to pH <2
B3HDN1	N	W			1x1-L G/P	AMCMISO_EIE_PRECIP_AEA: COMMON; PU241_IE_LSC: COMMON; PUISO_IE_PRECIP_AEA: COMMON; UISO_PLATE_AEA: COMMON	180 Days	HNO3 to pH <2
B3HDN1	N	W			1x1-L G/P	SRISO_SEP_PRECIP_GPC: COMMON	6 Months	HNO3 to pH <2
B3HDN1	N	W			1x4-L G/P	I129LL_SEP_LEPS_GS_LL: COMMON NAPN 3	6 Months	None

JOC 230401
W08036

Relinquished By:	Received By:
Jeff Lucas /CHPRC — MAR 2 2 2018 1130 (Print First and Last Name / Signature / Date/Time)	Tim Calloway, /CHPRC — MAR 2 2 2018 1130 (Print First and Last Name / Signature / Date/Time)
Tim Calloway /CHPRC — MAR 2 2 2018 1445 (Print First and Last Name / Signature / Date/Time)	T. Holm TARL — 3/22/18 14:45 (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:

Printed On 2/26/2018 FSR ID = FSR58275 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-074 Page 1 of 1

Collector:	Jeff Lucas /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	I18-006	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	AEA, MARCH 2018	**Logbook No.:**	HNF-N-506 99 /21	**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
B3HDN3	N	W	MAR 2 2 2018	0700	1x500-mL G/P	C14_LSC: COMMON NAPN4	6 Months	None

J8C230401
W08036

Page 28 of 78

04/30/2018

Relinquished By:	Received By:
Jeff Lucas /CHPRC — MAR 2 2 2018 1130 (Print First and Last Name / Signature / Date/Time)	Tim Calloway /CHPRC — MAR 2 2 2018 1130 (Print First and Last Name / Signature / Date/Time)
Tim Calloway /CHPRC — MAR 2 2 2018 1445 (Print First and Last Name / Signature / Date/Time)	T. Holm — 3/22/18 14:45 (Print First and Last Name / Signature / Date/Time)
(Print First and Last Name / Signature / Date/Time)	T. Holm TARL (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:

Page 28 of 78

REV. 0

Printed On 2/26/2018 FSR ID = FSR58276 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I18-006-077 Page 1 of 1

Collector:	Jeff Lucas /CHPRC	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	I18-006	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	AEA, MARCH 2018	**Logbook No.:**	HNF-N-506 99 /21	**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
B3HDN4	N	W	MAR 2 2 2018	0840	1x500-mL G/P	C14_LSC: COMMON NARN5	6 Months	None

J8C230401
W08036

Page 29 of 78

04/30/2018

Relinquished By:	Received By:
Jeff Lucas /CHPRC — Print First and Last Name; Signature; MAR 2 2 2018 1130 — Date/Time	Tim Calloway /CHPRC — Print First and Last Name; Signature; MAR 2 2 2018 1130 — Date/Time
Tim Calloway /CHPRC — Print First and Last Name; Signature; MAR 2 2 2018 1445 — Date/Time	T. Holm TARL — Print First and Last Name; Signature; 3/22/18 14:45 — 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:

Page 28 of 78

REV. 0

Printed On 2/26/2018 FSR ID = FSR58275 A-6004-842 (REV 3)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

04/30/2018

Sample Check-in List

REV. 0

Date/Time Received: 3/22/18/1445

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 #: W08036 SAF #: 118-006 NA [ ]

Lot Number: J8C230401

Chain of Custody # 118-006-087; 073; 075; 074; 077

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

Samples received inside shipping container/cooler/box Yes [JH] 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 [JH]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [JH]
3. Cooler temperature: 4.3 °C NA [ ]
4. Vermiculite/packing materials is NA [JH] Ice Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [JH] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 5
7. Containers received: 3x250 mLP; 3x500mLP; 1ex LP; 5x4LP
8. Sample holding times exceeded? NA [ ] Yes [ ] No [JH]
9. Samples have: ____tape ____hazard labels JH custody seals JH appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) JH I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
JH 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 [JH] 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 [JH]
14. Description of anomalies (include sample numbers): NA [JH] _____
15. Sample Location, Sample Collector Listed on COC? * Yes [JH] No [ ]
*For documentation only. No corrective action needed.
16. Additional Information: N/A

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

Sample Check-in ~~List~~ completed by Sample Custodian:
Signature: _____ Date: 3/22/18

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

[X] No action necessary, process as is

Project Manager _____ Date 3-23-18

Sample Results Summary

Date: 30-Apr-18

TestAmerica Inc TARL

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

Report No. : 72649 **SDG No:** W08036

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
8084021 SRISO_SEP_PRECIP_GPC									
B3HDL1									
	NAPN11AD	STRONTIUM	6.23E-02 +- 3.6E-01	U	pCi/L	87%	6.47E-01	2.00E+00	
B3HDN0									
	NAPN21AH	STRONTIUM	-1.05E-01 +- 3.7E-01	U	pCi/L	89%	7.06E-01	2.00E+00	
B3HDN1									
	NAPN31AH	STRONTIUM	3.74E-01 +- 4.2E-01	U	pCi/L	93%	6.71E-01	2.00E+00	
B3HF19 DUP									
	NAPJH1AC	STRONTIUM	-3.16E-01 +- 7.1E-01	U	pCi/L	88%	1.37E+00	2.00E+00	555.8
8084020 PUISO_PLATE_AEA									
B3HDN0									
	NAPN21AG	PU-238	2.15E-02 +- 1.6E-01	U	pCi/L	80%	4.49E-01	1.00E+00	
		PU239/40	-1.10E-02 +- 1.5E-01	U	pCi/L	80%	3.28E-01	1.00E+00	
B3HDN0 DUP									
	NAPN21AM	PU-238	-5.15E-02 +- 1.3E-01	U	pCi/L	96%	3.82E-01	1.00E+00	-485.6
		PU239/40	-1.52E-02 +- 1.3E-01	U	pCi/L	96%	2.94E-01	1.00E+00	-31.4
B3HDN1									
	NAPN31AG	PU-238	-6.19E-02 +- 1.3E-01	U	pCi/L	93%	4.06E-01	1.00E+00	
		PU239/40	-3.09E-03 +- 1.3E-01	U	pCi/L	93%	2.41E-01	1.00E+00	
8084014 AMCMISO_EIE_PLT_AEA									
B3HDN0									
	NAPN21AD	AMERICIUM 241	1.54E-01 +- 2.7E-01	U	pCi/L	97%	4.89E-01	1.00E+00	
B3HDN0 DUP									
	NAPN21AK	AMERICIUM 241	2.87E-03 +- 1.5E-01	U	pCi/L	99%	4.51E-01	1.00E+00	192.7
B3HDN1									
	NAPN31AD	AMERICIUM 241	2.97E-03 +- 1.5E-01	U	pCi/L	96%	4.66E-01	1.00E+00	
B3HHT2									
	NAPJR1AC	AMERICIUM 241	1.13E-01 +- 2.2E-01	U	pCi/L	92%	4.15E-01	1.00E+00	
B3HHT3									
	NAPJT2AC	AMERICIUM 241	1.22E-01 +- 2.1E-01	U	pCi/L	96%	3.56E-01	1.00E+00	
8084023 THISO_IE_PRECIP_AEA									
B3HHT2									
	NAPJR1AA	TH-228	5.36E-02 +- 1.3E-01	U	pCi/L	93%	3.02E-01	1.00E+00	
		TH-230	-1.33E-02 +- 1.3E-01	U	pCi/L	93%	2.98E-01	1.00E+00	
		TH-232	-2.65E-03 +- 1.3E-01	U	pCi/L	93%	2.43E-01	1.00E+00	
B3HHT2 DUP									
	NAPJR1AD	TH-228	5.88E-02 +- 1.2E-01	U	pCi/L	105%	2.25E-01	1.00E+00	9.3
		TH-230	-4.84E-03 +- 1.2E-01	U	pCi/L	105%	2.39E-01	1.00E+00	-93.0
		TH-232	-2.42E-03 +- 1.2E-01	U	pCi/L	105%	2.22E-01	1.00E+00	-9.1

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: 30-Apr-18

TestAmerica Inc TARL

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

Report No. : 72649 **SDG No:** W08036

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
8084023 THISO_IE_PRECIP_AEA									
B3HHT3									
	NAPJT1AA	TH-228	5.67E-02 +- 1.2E-01	U	pCi/L	102%	2.43E-01	1.00E+00	
		TH-230	4.37E-02 +- 1.2E-01	U	pCi/L	102%	2.90E-01	1.00E+00	
		TH-232	-9.74E-03 +- 1.2E-01	U	pCi/L	102%	2.64E-01	1.00E+00	
8084024 UISO_PLATE_AEA									
B3HDL1									
	NAPN11AF	U-234	-6.09E-03 +- 1.5E-01	U	pCi/L	86%	3.01E-01	1.00E+00	
		U-235	0.00E+00 +- 1.5E-01	U	pCi/L	86%	2.80E-01	1.00E+00	
		U-238	7.62E-02 +- 1.5E-01	U	pCi/L	86%	2.80E-01	1.00E+00	
B3HDN0									
	NAPN21AJ	U-234	-6.02E-03 +- 1.5E-01	U	pCi/L	83%	2.97E-01	1.00E+00	
		U-235	-3.01E-03 +- 1.5E-01	U	pCi/L	83%	2.76E-01	1.00E+00	
		U-238	0.00E+00 +- 1.5E-01	U	pCi/L	83%	2.76E-01	1.00E+00	
B3HDN1									
	NAPN31AJ	U-234	1.03E+01 +- 2.4E+00		pCi/L	102%	2.89E-01	1.00E+00	
		U-235	1.92E-01 +- 2.3E-01	U	pCi/L	102%	2.77E-01	1.00E+00	
		U-238	9.85E+00 +- 2.3E+00		pCi/L	102%	2.44E-01	1.00E+00	
8094010 UISO_PLATE_AEA									
B3BHD2									
	NAPH42AG	U-234	1.83E+04 +- 4.1E+03		pCi/L	82%	1.25E+02	1.00E+00	
		U-235	1.05E+03 +- 4.2E+02		pCi/L	82%	1.10E+02	1.00E+00	
		U-238	2.26E+04 +- 5.0E+03		pCi/L	82%	1.19E+02	1.00E+00	
B3BHD2 DUP									
	NAPH41AK	U-234	1.78E+04 +- 3.8E+03		pCi/L	97%	1.11E+02	1.00E+00	2.8
		U-235	8.72E+02 +- 3.5E+02		pCi/L	97%	9.42E+01	1.00E+00	18.7
		U-238	1.92E+04 +- 4.1E+03		pCi/L	97%	9.42E+01	1.00E+00	16.6
8084011 GAMMA_GS									
B3HDL1									
	NAPN11AC	CO-60	-3.49E+00 +- 5.2E+00	U	pCi/L		3.94E+00	2.50E+01	
		CS-134	-1.08E+00 +- 3.7E+00	U	pCi/L		3.43E+00	8.00E+01	
		CS-137	1.05E+00 +- 3.2E+00	U	pCi/L		3.78E+00	1.50E+01	
		EU-152	-6.34E+00 +- 7.7E+00	U	pCi/L		5.88E+00	5.00E+01	
		EU-154	-9.29E+00 +- 1.5E+01	U	pCi/L		4.02E+00	5.00E+01	
		EU-155	-8.23E+00 +- 6.5E+00	U	pCi/L		7.71E+00	5.00E+01	
		K-40	2.57E-01 +- 3.4E+01	U	pCi/L		6.11E+01		
		SB-125	2.14E+00 +- 7.4E+00	U	pCi/L		9.07E+00	5.00E+01	
		TH-234	-1.72E+00 +- 3.2E+01	U	pCi/L		4.54E+01		
B3HDL1 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: 30-Apr-18

TestAmerica Inc TARL

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

Report No. : 72649 **SDG No:** W08036

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)		Qual	Units	Tracer Yield	MDL	CRDL	RPD
8084011 GAMMA_GS										
B3HDL1 DUP										
	NAPN11AG	CO-60	-2.74E+00	+- 5.1E+00	U	pCi/L		3.82E+00	2.50E+01	-23.9
		CS-134	3.26E+00	+- 3.1E+00	U	pCi/L		3.56E+00	8.00E+01	398.0
		CS-137	8.15E-01	+- 2.5E+00	U	pCi/L		3.16E+00	1.50E+01	24.7
		EU-152	4.39E+00	+- 5.8E+00	U	pCi/L		4.36E+00	5.00E+01	-1100.2
		EU-154	1.16E+00	+- 1.2E+01	U	pCi/L		2.49E+00	5.00E+01	-256.9
		EU-155	-1.23E+00	+- 2.5E+00	U	pCi/L		3.14E+00	5.00E+01	-148.0
		K-40	1.00E+00	+- 2.5E+01	U	pCi/L		4.62E+01		118.1
		SB-125	3.04E+00	+- 6.3E+00	U	pCi/L		8.35E+00	5.00E+01	34.8
		TH-234	-4.61E+00	+- 1.1E+01	U	pCi/L		1.76E+01		-91.3
B3HDN0										
	NAPN21AE	CO-60	1.38E-02	+- 1.6E+00	U	pCi/L		2.89E+00	2.50E+01	
		CS-134	-3.65E-01	+- 2.1E+00	U	pCi/L		3.65E+00	8.00E+01	
		CS-137	2.64E+00	+- 2.0E+00	U	pCi/L		3.83E+00	1.50E+01	
		EU-152	-2.50E+00	+- 5.3E+00	U	pCi/L		8.92E+00	5.00E+01	
		EU-154	-6.31E+00	+- 5.3E+00	U	pCi/L		8.08E+00	5.00E+01	
		EU-155	-2.27E+00	+- 4.4E+00	U	pCi/L		7.29E+00	5.00E+01	
		K-40	-1.05E+01	+- 2.8E+01	U	pCi/L		5.02E+01		
		SB-125	-4.99E+00	+- 5.0E+00	U	pCi/L		7.96E+00	5.00E+01	
		TH-234	-5.36E+01	+- 2.0E+02	U	pCi/L		3.54E+02		
B3HDN1										
	NAPN31AE	CO-60	4.48E+00	+- 1.5E+00		pCi/L		2.71E+00	2.50E+01	
		CS-134	-1.92E-01	+- 3.6E+00	U	pCi/L		3.43E+00	8.00E+01	
		CS-137	3.58E-01	+- 3.5E+00	U	pCi/L		3.88E+00	1.50E+01	
		EU-152	9.90E-01	+- 7.4E+00	U	pCi/L		6.08E+00	5.00E+01	
		EU-154	6.13E+00	+- 9.6E+00	U	pCi/L		4.18E+00	5.00E+01	
		EU-155	5.86E-01	+- 5.9E+00	U	pCi/L		8.14E+00	5.00E+01	
		K-40	4.21E+00	+- 3.1E+01	U	pCi/L		5.57E+01		
		SB-125	6.42E+00	+- 6.6E+00	U	pCi/L		9.03E+00	5.00E+01	
		TH-234	3.71E+01	+- 3.0E+01	U	pCi/L		4.73E+01		
8084018 I129LL_SEP_LEPS_GS										
B3FW36										
	NAPJE1AD	I129	4.92E+00	+- 1.2E+00		pCi/L	92%	8.06E-01	1.00E+00	
B3FW36 DUP										
	NAPJE1AG	I129	4.50E+00	+- 8.7E-01		pCi/L	91%	6.29E-01	1.00E+00	8.9
B3FW42										
	NAPJF1AD	I129	5.02E+00	+- 1.2E+00		pCi/L	94%	7.97E-01	1.00E+00	
B3H538										

TestAmerica Inc

rptTALRchSaSummary2 V5.8.5 A2002

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: 30-Apr-18

TestAmerica Inc TARL

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

Report No. : 72649 **SDG No:** W08036

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
8084018 I129LL_SEP_LEPS_GS									
B3H538									
	NAPH61AA	I129	1.20E+00 +- 5.9E-01		pCi/L	91%	5.92E-01	1.00E+00	
B3H545									
	NAPH71AA	I129	2.19E+00 +- 8.5E-01		pCi/L	92%	7.02E-01	1.00E+00	
B3HDM4									
	NAPJD1AA	I129	1.74E-02 +- 2.9E-01	U	pCi/L	87%	5.23E-01	1.00E+00	
B3HDN0									
	NAPN21AF	I129	4.34E-01 +- 2.6E-01	U	pCi/L	94%	5.53E-01	1.00E+00	
B3HDN1									
	NAPN31AF	I129	4.43E+00 +- 1.0E+00		pCi/L	94%	8.39E-01	1.00E+00	
8115022 I129_SEP_LEPS_GS									
B3BHD2									
	NAPH43AE	I129	2.15E+00 +- 7.5E-01		pCi/L	85%	3.99E-01	1.00E+00	
8084013 9310_ALPHABETA_GPC									
B3BHD2									
	NAPH41AC	Alpha	1.69E+04 +- 4.2E+03		pCi/L	100%	3.61E+01	3.00E+00	
B3FW36									
	NAPJE1AA	Alpha	1.85E+00 +- 1.2E+00		pCi/L	100%	1.50E+00	3.00E+00	
B3FW36 DUP									
	NAPJE1AE	Alpha	2.74E+00 +- 1.4E+00		pCi/L	100%	1.75E+00	3.00E+00	39.0
B3FW42									
	NAPJF1AA	Alpha	2.10E+00 +- 1.1E+00		pCi/L	100%	1.36E+00	3.00E+00	
8084015 9310_ALPHABETA_GPC									
B3BHD2									
	NAPH41AD	Beta	1.11E+04 +- 1.4E+03		pCi/L	100%	3.16E+01	4.00E+00	
B3FW36									
	NAPJE1AC	Beta	7.22E+00 +- 1.6E+00		pCi/L	100%	1.69E+00	4.00E+00	
B3FW36 DUP									
	NAPJE1AF	Beta	8.04E+00 +- 1.7E+00		pCi/L	100%	1.69E+00	4.00E+00	10.7
B3FW42									
	NAPJF1AC	Beta	7.93E+00 +- 1.6E+00		pCi/L	100%	1.60E+00	4.00E+00	
B3HHL5									
	NAPJQ1AA	Beta	7.79E-01 +- 1.0E+00	U	pCi/L	100%	1.73E+00	4.00E+00	
B3HHL6									
	NAPJP1AA	Beta	3.74E+01 +- 5.2E+00		pCi/L	100%	1.89E+00	4.00E+00	
8084016 C14_LSC									
B3BHD4									
	NAPH51AA	C-14	1.32E+03 +- 7.8E+01		pCi/L	100%	1.78E+01	5.00E+01	
B3BHD4 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: 30-Apr-18

TestAmerica Inc TARL

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

Report No. : 72649 **SDG No:** W08036

Batch	Client Id Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
8084016 C14_LSC									
B3BHD4 DUP									
	NAPH51AC	C-14	1.32E+03 +- 7.8E+01		pCi/L	100%	1.78E+01	5.00E+01	0.0
B3HDN3									
	NAPN41AA	C-14	-2.57E+00 +- 8.7E+00	U	pCi/L	100%	1.79E+01	5.00E+01	
B3HDN4									
	NAPN51AA	C-14	9.88E+01 +- 1.3E+01		pCi/L	100%	1.78E+01	5.00E+01	
8084017 906.0_H3_LSC									
B3BHD2									
	NAPH41AA	H-3	1.52E+04 +- 8.7E+02		pCi/L	100%	4.94E+02	7.00E+02	
B3HDL1									
	NAPN11AA	H-3	5.91E+02 +- 2.6E+02		pCi/L	100%	5.04E+02	7.00E+02	
B3HDN0									
	NAPN21AC	H-3	7.73E+02 +- 2.7E+02		pCi/L	100%	5.00E+02	7.00E+02	
B3HDN1									
	NAPN31AC	H-3	6.87E+03 +- 5.4E+02		pCi/L	100%	4.91E+02	7.00E+02	
B3HF01 DUP									
	NAPJL1AD	H-3	1.11E+03 +- 2.9E+02		pCi/L	100%	4.97E+02	7.00E+02	90.9
8084019 PU241_IE_LSC									
B3HDN0									
	NAPN21AA	Pu-241	8.70E+00 +- 7.1E+00	U	pCi/L	80%	1.32E+01	2.50E+01	
B3HDN0 DUP									
	NAPN21AL	Pu-241	5.74E+00 +- 5.8E+00	U	pCi/L	96%	1.10E+01	2.50E+01	41.0
B3HDN1									
	NAPN31AA	Pu-241	4.09E+00 +- 5.9E+00	U	pCi/L	93%	1.14E+01	2.50E+01	
8084022 TC99_ETVDSK_LSC									
B3BHD2									
	NAPH41AF	TC-99	3.07E+04 +- 8.9E+02		pCi/L	100%	1.46E+02	5.00E+01	
B3BHD2 DUP									
	NAPH41AH	TC-99	3.14E+04 +- 9.1E+02		pCi/L	100%	1.47E+02	5.00E+01	2.4
B3H538									
	NAPH61AC	TC-99	5.05E+02 +- 2.1E+01		pCi/L	100%	1.24E+01	5.00E+01	
B3H545									
	NAPH71AC	TC-99	2.35E+02 +- 1.3E+01		pCi/L	100%	1.13E+01	5.00E+01	
B3HDL1									
	NAPN11AE	TC-99	7.80E+00 +- 5.8E+00	U	pCi/L	100%	1.28E+01	5.00E+01	

No. of Results: 111

RPD - Relative Percent Difference.

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

QC Results Summary

Date: 30-Apr-18

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 72649 **SDG No.:** W08037

Batch Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
SRISO_SEP_PRECIP_GPC								
8084021 BLANK QC,								
NAPPR1AA	STRONTIUM	1.21E-01 +- 4.1E-01	U	pCi/L	84%			7.18E-01
8084021 LCS,								
NAPPR1AC	STRONTIUM	1.33E+01 +- 3.4E+00		pCi/L	91%	99%	0.0	7.43E-01
PUISO_PLATE_AEA								
8084020 BLANK QC,								
NAPPQ1AA	PU-238	-5.46E-02 +- 1.4E-01	U	pCi/L	87%			4.04E-01
	PU239/40	-3.21E-03 +- 1.3E-01	U	pCi/L	87%			2.50E-01
8084020 LCS,								
NAPPQ1AC	PU239/40	6.99E+00 +- 1.9E+00		pCi/L	78%	155%	0.6	3.14E-01
AMCMISO_EIE_PLT_AEA								
8084014 BLANK QC,								
NAPPJ1AA	AMERICIUM 241	4.08E-02 +- 1.5E-01	U	pCi/L	97%			3.81E-01
8084014 LCS,								
NAPPJ1AC	AMERICIUM 241	2.49E+01 +- 5.3E+00		pCi/L	87%	112%	0.1	4.94E-01
THISO_IE_PRECIP_AEA								
8084023 BLANK QC,								
NAPPV1AA	TH-228	-6.66E-03 +- 1.7E-01	U	pCi/L	95%			3.28E-01
	TH-230	-1.64E-02 +- 1.6E-01	U	pCi/L	95%			3.69E-01
	TH-232	-6.57E-03 +- 1.6E-01	U	pCi/L	95%			3.24E-01
8084023 LCS,								
NAPPV1AC	TH-230	1.08E+01 +- 2.6E+00		pCi/L	96%	96%	0.0	3.65E-01
UISO_PLATE_AEA								
8084024 BLANK QC,								
NAPPW1AA	U-234	-3.00E-03 +- 1.5E-01	U	pCi/L	86%			2.75E-01
	U-235	0.00E+00 +- 1.5E-01	U	pCi/L	86%			2.75E-01
	U-238	-3.00E-03 +- 1.5E-01	U	pCi/L	86%			2.75E-01
8084024 LCS,								
NAPPW1AC	U-234	7.97E+00 +- 2.1E+00		pCi/L	95%	94%	-0.1	3.27E-01
	U-238	8.49E+00 +- 2.2E+00		pCi/L	95%	95%	0.0	2.87E-01
UISO_PLATE_AEA								
8094010 BLANK QC,								
NAP1R1AA	U-234	-5.87E-03 +- 1.5E-01	U	pCi/L	89%			2.90E-01
	U-235	0.00E+00 +- 1.5E-01	U	pCi/L	89%			2.69E-01
	U-238	7.34E-02 +- 1.5E-01	U	pCi/L	89%			2.69E-01
8094010 LCS,								
NAP1R1AC	U-234	1.52E+01 +- 3.3E+00		pCi/L	95%	94%	-0.1	2.77E-01
	U-238	1.48E+01 +- 3.2E+00		pCi/L	95%	87%	-0.1	2.45E-01
GAMMA_GS								
8084011 BLANK QC,								
NAPPF1AA	CO-60	-1.78E+00 +- 3.6E+00	U	pCi/L				2.87E+00

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

Date: 30-Apr-18

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 72649 **SDG No.:** W08036

Batch Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
NAPPF1AA	CS-134	-2.89E+00 +- 4.0E+00	U	pCi/L				3.14E+00
	CS-137	-8.11E-01 +- 2.6E+00	U	pCi/L				2.73E+00
	EU-152	2.78E+00 +- 5.1E+00	U	pCi/L				3.88E+00
	EU-154	-9.87E-01 +- 1.1E+01	U	pCi/L				2.37E+00
	EU-155	-1.09E+00 +- 2.0E+00	U	pCi/L				2.87E+00
	K-40	-1.31E+01 +- 1.8E+01	U	pCi/L				3.74E+01
	SB-125	-6.70E-01 +- 5.3E+00	U	pCi/L				6.26E+00
	TH-234	2.14E+00 +- 1.0E+01	U	pCi/L				1.65E+01
8084011 LCS,								
NAPPF1AC	CO-60	3.66E+01 +- 6.9E+00		pCi/L		96%	0.0	3.35E+00
	CS-137	5.20E+01 +- 8.4E+00		pCi/L		105%	0.0	4.55E+00
	EU-152	8.87E+01 +- 1.6E+01		pCi/L		112%	0.1	1.08E+01
I129LL_SEP_LEPS_GS								
8084018 BLANK QC,								
NAPPN1AA	I129	6.59E-02 +- 2.3E-01	U	pCi/L	93%			3.97E-01
8084018 LCS,								
NAPPN1AC	I129	2.42E+01 +- 3.1E+00		pCi/L	95%	125%	0.3	1.06E+00
I129_SEP_LEPS_GS								
8115022 BLANK QC,								
NAQKD1AA	I129	-3.92E-01 +- 3.9E-01	U	pCi/L	92%			4.09E-01
8115022 LCS,								
NAQKD1AC	I129	3.98E+01 +- 4.3E+00		pCi/L	88%	103%	0.0	4.44E-01
9310_ALPHABETA_GPC								
8084013 BLANK QC,								
NAPPH1AA	Alpha	-6.34E-02 +- 3.6E-01	U	pCi/L	100%			6.89E-01
8084013 LCS,								
NAPPH1AC	Alpha	1.85E+01 +- 4.8E+00		pCi/L	100%	82%	-0.2	5.40E-01
9310_ALPHABETA_GPC								
8084015 BLANK QC,								
NAPPK1AA	Beta	8.44E-01 +- 9.8E-01	U	pCi/L	100%			1.60E+00
8084015 LCS,								
NAPPK1AC	Beta	2.29E+01 +- 3.5E+00		pCi/L	100%	102%	0.0	1.66E+00
C14_LSC								
8084016 MATRIX SPIKE, B3HDN3								
NAPN41AC	C-14	4.77E+02 +- 3.2E+01		pCi/L	100%	100%	0.0	1.78E+01
8084016 BLANK QC,								
NAPPL1AA	C-14	7.24E-01 +- 8.8E+00	U	pCi/L	100%			1.79E+01
8084016 LCS,								
NAPPL1AC	C-14	4.75E+02 +- 3.2E+01		pCi/L	100%	99%	0.0	1.79E+01
906.0_H3_LSC								
8084017 MATRIX SPIKE, B3HF06								
NAPJN1AD	H-3	1.40E+03 +- 3.4E+02		pCi/L	100%	86%	-0.1	5.77E+02

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

Date: 30-Apr-18

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 72649 **SDG No.:** W08036

Batch Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
8084017 BLANK QC,								
NAPPM1AA	H-3	2.45E+02 +- 2.5E+02	U	pCi/L	100%			5.05E+02
8084017 LCS,								
NAPPM1AC	H-3	2.50E+03 +- 3.6E+02		pCi/L	100%	91%	-0.1	4.98E+02
PU241_IE_LSC								
8084019 BLANK QC,								
NAPPP1AA	Pu-241	1.32E+00 +- 6.3E+00	U	pCi/L	87%			1.21E+01
8084019 LCS,								
NAPPP1AC	Pu-241	1.22E+03 +- 7.6E+01		pCi/L	78%	107%	0.1	1.35E+01
TC99_ETVDSK_LSC								
8084022 MATRIX SPIKE, B3H538								
NAPH61AD	TC-99	4.29E+02 +- 3.8E+01		pCi/L	100%	79%	-0.2	1.14E+01
8084022 BLANK QC,								
NAPPT1AA	TC-99	4.90E+00 +- 5.5E+00	U	pCi/L	100%			1.14E+01
8084022 LCS,								
NAPPT1AC	TC-99	9.73E+01 +- 8.9E+00		pCi/L	100%	91%	-0.1	1.16E+01

No. of Results: 52

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.

Page 38 of 78

FORM I

SAMPLE RESULTS

Date: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/19/2018 10:44:00 AM
Lot-Sample No.:	**J8C200401-1**	**Report No. :**	72649	**Received Date:**	3/19/2018 1:50:00 PM
Client Sample ID:	**B3BHD2**	**COC No. :**	S17-008-534	**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: 8084013	9310_ALPHABETA_GPC			**Work Order:** NAPH41AC			**Report DB ID:** 9NAPH410					
Alpha	**1.69E+04**		2.9E+02	4.2E+03	3.61E+01	pCi/L	100%	*(467.4)*	4/5/18 09:35 a		0.00501	GPC22A
						1.61E+01	3.00E+00	*(8.1)*			L	
Batch: 8084015	9310_ALPHABETA_GPC			**Work Order:** NAPH41AD			**Report DB ID:** 9NAPH410					
Beta	**1.11E+04**		1.5E+02	1.4E+03	3.16E+01	pCi/L	100%	*(352.9)*	4/5/18 09:18 a		0.01002	GPC26B
						1.50E+01	4.00E+00	*(16.3)*			L	
Batch: 8084017	906.0_H3_LSC			**Work Order:** NAPH41AA			**Report DB ID:** 9NAPH410					
H-3	**1.52E+04**		6.1E+02	8.7E+02	4.94E+02	pCi/L	100%	*(30.7)*	3/30/18 06:04 p		0.00501	LSC6
						2.30E+02	7.00E+02	*(34.7)*			L	
Batch: 8084022	TC99_ETVDSK_LSC			**Work Order:** NAPH41AF			**Report DB ID:** 9NAPH410					
TC-99	**3.07E+04**		4.1E+02	8.9E+02	1.46E+02	pCi/L	100%	*(210.8)*	4/3/18 10:29 a		0.01003	LSC10
						6.87E+01	5.00E+01	*(68.7)*			L	
Batch: 8094010	UISO_PLATE_AEA			**Work Order:** NAPH42AG			**Report DB ID:** 9NAPH420					
U-234	**1.83E+04**		1.5E+03	4.1E+03	1.25E+02	pCi/L	82%	*(146.3)*	4/12/18 01:28 p		0.00054	ALP419
						2.82E+01	1.00E+00	*(9.)*			L	
U-235	**1.05E+03**		3.6E+02	4.2E+02	1.10E+02	pCi/L	82%	*(9.5)*	4/12/18 01:28 p		0.00054	ALP419
						2.15E+01	1.00E+00	*(5.)*			L	
U-238	**2.26E+04**		1.7E+03	5.0E+03	1.19E+02	pCi/L	82%	*(190.7)*	4/12/18 01:28 p		0.00054	ALP419
						2.52E+01	1.00E+00	*(9.1)*			L	
								Ratio U-234/238 = 0.8				
Batch: 8115022	I129_SEP_LEPS_GS			**Work Order:** NAPH43AE			**Report DB ID:** 9naph430					

04/30/2018

REV. 0

Page 39 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/19/2018 10:44:00 AM
Lot-Sample No.:	**J8C200401-1**	**Report No. :**	72649	**Received Date:**	3/19/2018 1:50:00 PM
Client Sample ID:	**B3BHD2**	**COC No. :**	S17-008-534	**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
I129	**2.15E+00**		7.5E-01	7.5E-01	3.99E-01	pCi/L	85% 1.00E+00	*(5.4)* *(5.7)*	4/26/18 06:16 p		1.0004 L	LEP4$1

No. of Results: 8 **Comments:**

04/30/2018

REV. 0

Page 40 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/19/2018 10:44:00 AM
Lot-Sample No.:	**J8C200401-2**	**Report No. :**	72649	**Received Date:**	3/19/2018 1:50:00 PM
Client Sample ID:	**B3BHD4**	**COC No. :**	S17-008-535	**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: 8084016	C14_LSC			**Work Order:**	NAPH51AA		**Report DB ID:**	9NAPH510				
C-14	**1.32E+03**		2.6E+01	7.8E+01	1.78E+01	pCi/L	100%	*(74.3)*	4/13/18 01:31 p		0.075	LSC4
						8.55E+00	5.00E+01	*(34.)*			L	

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

04/30/2018

REV. 0

Page 41 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/20/2018 9:01:00 AM
Lot-Sample No.:	**J8C210402-1**	**Report No. :**	72649	**Received Date:**	3/20/2018 2:20:00 PM
Client Sample ID:	**B3FW36**	**COC No. :**	S18-001-228	**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: 8084013	9310_ALPHABETA_GPC			**Work Order:** NAPJE1AA			**Report DB ID:** 9NAPJE10					
Alpha	**1.85E+00**		1.1E+00	1.2E+00	1.50E+00	pCi/L	100%	*(1.2)*	4/5/18 09:35 a		0.20006	GPC22B
						6.51E-01	3.00E+00	*(3.2)*			L	
Batch: 8084015	9310_ALPHABETA_GPC			**Work Order:** NAPJE1AC			**Report DB ID:** 9NAPJE10					
Beta	**7.22E+00**		1.3E+00	1.6E+00	1.69E+00	pCi/L	100%	*(4.3)*	4/5/18 09:18 a		0.20005	GPC26C
						8.05E-01	4.00E+00	*(8.9)*			L	
Batch: 8084018	I129LL_SEP_LEPS_GS			**Work Order:** NAPJE1AD			**Report DB ID:** 9NAPJE10					
I129	**4.92E+00**		1.2E+00	1.2E+00	8.06E-01	pCi/L	92%	*(6.1)*	4/18/18 11:01 a		2.00163	LEP451
							1.00E+00	*(8.4)*			L	

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

04/30/2018

REV. 0

Page 42 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/20/2018 10:17:00 AM
Lot-Sample No.:	**J8C210402-2**	**Report No. :**	72649	**Received Date:**	3/20/2018 2:20:00 PM
Client Sample ID:	**B3FW42**	**COC No. :**	S18-001-230	**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: 8084013	9310_ALPHABETA_GPC			**Work Order:** NAPJF1AA			**Report DB ID:** 9NAPJF10					
Alpha	**2.10E+00**		1.0E+00	1.1E+00	1.36E+00	pCi/L	100%	*(1.5)*	4/5/18 09:35 a		0.20188	GPC22D
						5.88E-01	3.00E+00	*(3.7)*			L	
Batch: 8084015	9310_ALPHABETA_GPC			**Work Order:** NAPJF1AC			**Report DB ID:** 9NAPJF10					
Beta	**7.93E+00**		1.3E+00	1.6E+00	1.60E+00	pCi/L	100%	*(5.)*	4/5/18 09:18 a		0.20144	GPC27A
						7.60E-01	4.00E+00	*(9.7)*			L	
Batch: 8084018	I129LL_SEP_LEPS_GS			**Work Order:** NAPJF1AD			**Report DB ID:** 9NAPJF10					
I129	**5.02E+00**		1.2E+00	1.2E+00	7.97E-01	pCi/L	94%	*(6.3)*	4/18/18 12:44 p		2.00163	LEP451
							1.00E+00	*(8.7)*			L	

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

04/30/2018

REV. 0

Page 43 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/19/2018 11:50:00 AM
Lot-Sample No.:	**J8C200402-1**	**Report No. :**	72649	**Received Date:**	3/19/2018 1:50:00 PM
Client Sample ID:	**B3H538**	**COC No. :**	S18-002-483	**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: 8084018	I129LL_SEP_LEPS_GS			**Work Order:**	NAPH61AA		**Report DB ID:**	9NAPH610				
I129	**1.20E+00**		5.9E-01	5.9E-01	5.92E-01	pCi/L	91%	*(2.)*	4/18/18 07:31 a		2.00166	LEP5$1
							1.00E+00	*(4.)*			L	
Batch: 8084022	TC99_ETVDSK_LSC			**Work Order:**	NAPH61AC		**Report DB ID:**	9NAPH610				
TC-99	**5.05E+02**		1.6E+01	2.1E+01	1.24E+01	pCi/L	100%	*(40.8)*	4/3/18 11:58 a		0.12551	LSC10
						5.85E+00	5.00E+01	*(48.2)*			L	

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

04/30/2018

REV. 0

Page 44 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/19/2018 11:25:00 AM
Lot-Sample No.:	**J8C200402-2**	**Report No. :**	72649	**Received Date:**	3/19/2018 1:50:00 PM
Client Sample ID:	**B3H545**	**COC No. :**	S18-002-486	**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: 8084018	I129LL_SEP_LEPS_GS			**Work Order:**	NAPH71AA		**Report DB ID:**	9NAPH710				
I129	**2.19E+00**		8.5E-01	8.5E-01	7.02E-01	pCi/L	92%	*(3.1)*	4/18/18 09:13 a		2.00039	LEP4$1
							1.00E+00	*(5.2)*			L	
Batch: 8084022	TC99_ETVDSK_LSC			**Work Order:**	NAPH71AC		**Report DB ID:**	9NAPH710				
TC-99	**2.35E+02**		1.1E+01	1.3E+01	1.13E+01	pCi/L	100%	*(20.7)*	4/3/18 01:27 p		0.12567	LSC10
						5.35E+00	5.00E+01	*(36.3)*			L	

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

04/30/2018

REV. 0

Page 45 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 10:03:00 AM
Lot-Sample No.:	**J8C230401-1**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDL1**	**COC No. :**	I18-006-087	**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: 8084011	GAMMA_GS			**Work Order:**	NAPN11AC		**Report DB ID:**	9NAPN110				
CO-60	**-3.49E+00**	U	5.2E+00	5.2E+00	3.94E+00	pCi/L		*-0.89*	4/3/18 01:47 p		2.00003	$GER11
						1.76E+00	2.50E+01	*-(1.3)*			L	
CS-134	**-1.08E+00**	U	3.7E+00	3.7E+00	3.43E+00	pCi/L		*-0.32*	4/3/18 01:47 p		2.00003	$GER11
						1.58E+00	8.00E+01	*-0.58*			L	
CS-137	**1.05E+00**	U	3.2E+00	3.2E+00	3.78E+00	pCi/L		*0.28*	4/3/18 01:47 p		2.00003	$GER11
						1.73E+00	1.50E+01	*0.65*			L	
EU-152	**-6.34E+00**	U	7.7E+00	7.7E+00	5.88E+00	pCi/L		*-(1.1)*	4/3/18 01:47 p		2.00003	$GER11
						2.72E+00	5.00E+01	*-(1.7)*			L	
EU-154	**-9.29E+00**	U	1.5E+01	1.5E+01	4.02E+00	pCi/L		*-(2.3)*	4/3/18 01:47 p		2.00003	$GER11
						1.86E+00	5.00E+01	*-(1.2)*			L	
EU-155	**-8.23E+00**	U	6.5E+00	6.5E+00	7.71E+00	pCi/L		*-(1.1)*	4/3/18 01:47 p		2.00003	$GER11
						3.56E+00	5.00E+01	*-(2.5)*			L	
K-40	**2.57E-01**	U	3.4E+01	3.4E+01	6.11E+01	pCi/L		*0.*	4/3/18 01:47 p		2.00003	$GER11
						2.79E+01		*0.02*			L	
SB-125	**2.14E+00**	U	7.4E+00	7.4E+00	9.07E+00	pCi/L		*0.24*	4/3/18 01:47 p		2.00003	$GER11
						4.18E+00	5.00E+01	*0.58*			L	
TH-234	**-1.72E+00**	U	3.2E+01	3.2E+01	4.54E+01	pCi/L		*-0.04*	4/3/18 01:47 p		2.00003	$GER11
						2.10E+01		*-0.11*			L	
Batch: 8084017	906.0_H3_LSC			**Work Order:**	NAPN11AA		**Report DB ID:**	9NAPN110				
H-3	**5.91E+02**		2.3E+02	2.6E+02	5.04E+02	pCi/L	100%	*(1.2)*	3/30/18 09:44 p		0.00501	LSC01
						2.35E+02	7.00E+02	*(4.5)*			L	

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.

04/30/2018
REV. 0

Page 46 of 78

FORM I

SAMPLE RESULTS

Date: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 10:03:00 AM
Lot-Sample No.:	**J8C230401-1**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDL1**	**COC No. :**	I18-006-087	**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: 8084021	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPN11AD		**Report DB ID:**	9NAPN110				
STRONTIUM	**6.23E-02**	U	3.6E-01	3.6E-01	6.47E-01	pCi/L	87%	*0.1*	4/9/18 08:05 a		0.5024	GPC31D
						2.89E-01	2.00E+00	*0.35*			L	
Batch: 8084022	TC99_ETVDSK_LSC			**Work Order:**	NAPN11AE		**Report DB ID:**	9NAPN110				
TC-99	**7.80E+00**	U	5.2E+00	5.8E+00	1.28E+01	pCi/L	100%	*0.61*	4/3/18 02:11 p		0.12684	LSC10
						6.03E+00	5.00E+01	*(2.7)*			L	
Batch: 8084024	UISO_PLATE_AEA			**Work Order:**	NAPN11AF		**Report DB ID:**	9NAPN110				
U-234	**-6.09E-03**	U	1.5E-01	1.5E-01	3.01E-01	pCi/L	86%	*-0.02*	4/4/18 08:41 a		0.20126	ALP420
						6.39E-02	1.00E+00	*-0.08*			L	
U-235	**0.00E+00**	U	0.0E+00	1.5E-01	2.80E-01	pCi/L	86%	*0.*	4/4/18 08:41 a		0.20126	ALP420
						5.46E-02	1.00E+00	*0.*			L	
U-238	**7.62E-02**	U	1.5E-01	1.5E-01	2.80E-01	pCi/L	86%	*0.27*	4/4/18 08:41 a		0.20126	ALP420
						5.46E-02	1.00E+00	*1.*			L	

Ratio U-234/238 = -0.1

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

04/30/2018

REV. 0

Page 47 of 78

FORM I

SAMPLE RESULTS

Date: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/20/2018 12:52:00 PM
Lot-Sample No.:	**J8C210401-1**	**Report No. :**	72649	**Received Date:**	3/20/2018 2:20:00 PM
Client Sample ID:	**B3HDM4**	**COC No. :**	I18-006-071	**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: 8084018	I129LL_SEP_LEPS_GS			**Work Order:** NAPJD1AA			**Report DB ID:** 9NAPJD10					
I129	**1.74E-02**	U	2.9E-01	2.9E-01	5.23E-01	pCi/L	87%	*0.03*	4/18/18 09:14 a		2.00217	LEP5$1
							1.00E+00	*0.12*			L	

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

04/30/2018

REV. 0

Page 48 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 7:00:00 AM
Lot-Sample No.:	**J8C230401-2**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDN0**	**COC No. :**	I18-006-073	**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: 8084011	GAMMA_GS			**Work Order:**	NAPN21AE		**Report DB ID:**	9NAPN210				
CO-60	**1.38E-02**	U	1.6E+00	1.6E+00	2.89E+00	pCi/L		*0.*	4/3/18 01:48 p		2.00026	GER10$1
							2.50E+01	*0.02*			L	
CS-134	**-3.65E-01**	U	2.1E+00	2.1E+00	3.65E+00	pCi/L		*-0.1*	4/3/18 01:48 p		2.00026	GER10$1
							8.00E+01	*-0.35*			L	
CS-137	**2.64E+00**	U	2.0E+00	2.0E+00	3.83E+00	pCi/L		*0.69*	4/3/18 01:48 p		2.00026	GER10$1
							1.50E+01	*(2.7)*			L	
EU-152	**-2.50E+00**	U	5.3E+00	5.3E+00	8.92E+00	pCi/L		*-0.28*	4/3/18 01:48 p		2.00026	GER10$1
							5.00E+01	*-0.94*			L	
EU-154	**-6.31E+00**	U	5.3E+00	5.3E+00	8.08E+00	pCi/L		*-0.78*	4/3/18 01:48 p		2.00026	GER10$1
							5.00E+01	*-(2.4)*			L	
EU-155	**-2.27E+00**	U	4.4E+00	4.4E+00	7.29E+00	pCi/L		*-0.31*	4/3/18 01:48 p		2.00026	GER10$1
							5.00E+01	*-(1.)*			L	
K-40	**-1.05E+01**	U	2.8E+01	2.8E+01	5.02E+01	pCi/L		*-0.21*	4/3/18 01:48 p		2.00026	GER10$1
								-0.76			L	
SB-125	**-4.99E+00**	U	5.0E+00	5.0E+00	7.96E+00	pCi/L		*-0.63*	4/3/18 01:48 p		2.00026	GER10$1
							5.00E+01	*-(2.)*			L	
TH-234	**-5.36E+01**	U	2.0E+02	2.0E+02	3.54E+02	pCi/L		*-0.15*	4/3/18 01:48 p		2.00026	GER10$1
								-0.53			L	
Batch: 8084014	AMCMISO_EIE_PLT_AEA			**Work Order:**	NAPN21AD		**Report DB ID:**	9NAPN210				
AMERICIUM 241	**1.54E-01**	U	2.7E-01	2.7E-01	4.89E-01	pCi/L	97%	*0.31*	4/2/18 04:43 p		0.20102	ALP426
						1.55E-01	1.00E+00	*(1.1)*			L	

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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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 7:00:00 AM
Lot-Sample No.:	**J8C230401-2**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDN0**	**COC No. :**	I18-006-073	**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: 8084017	906.0_H3_LSC			**Work Order:**	NAPN21AC		**Report DB ID:**	9NAPN210				
H-3	**7.73E+02**		2.4E+02	2.7E+02	5.00E+02	pCi/L	100%	*(1.5)*	3/30/18 10:28 p		0.005	LSC6
						2.33E+02	7.00E+02	*(5.7)*			L	
Batch: 8084018	I129LL_SEP_LEPS_GS			**Work Order:**	NAPN21AF		**Report DB ID:**	9NAPN210				
I129	**4.34E-01**	U	2.6E-01	2.6E-01	5.53E-01	pCi/L	94%	*0.78*	4/18/18 12:45 p		2.00008	LEP5$1
							1.00E+00	*(3.3)*			L	
Batch: 8084019	PU241_IE_LSC			**Work Order:**	NAPN21AA		**Report DB ID:**	9NAPN210				
Pu-241	**8.70E+00**	U	5.7E+00	7.1E+00	1.32E+01	pCi/L	80%	*0.66*	4/6/18 08:58 p		0.20068	LSC10
						6.33E+00	2.50E+01	*(2.5)*			L	
Batch: 8084020	PUISO_PLATE_AEA			**Work Order:**	NAPN21AG		**Report DB ID:**	9NAPN210				
PU-238	**2.15E-02**	U	1.6E-01	1.6E-01	4.49E-01	pCi/L	80%	*0.05*	4/2/18 04:51 p		0.20068	ALP414
						1.36E-01	1.00E+00	*0.28*			L	
PU239/40	**-1.10E-02**	U	1.5E-01	1.5E-01	3.28E-01	pCi/L	80%	*-0.03*	4/2/18 04:51 p		0.20068	ALP414
						7.73E-02	1.00E+00	*-0.14*			L	
Batch: 8084021	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPN21AH		**Report DB ID:**	9NAPN210				
STRONTIUM	**-1.05E-01**	U	3.7E-01	3.7E-01	7.06E-01	pCi/L	89%	*-0.15*	4/9/18 08:05 a		0.50049	GPC32A
						3.18E-01	2.00E+00	*-0.56*			L	
Batch: 8084024	UISO_PLATE_AEA			**Work Order:**	NAPN21AJ		**Report DB ID:**	9NAPN210				
U-234	**-6.02E-03**	U	1.5E-01	1.5E-01	2.97E-01	pCi/L	83%	*-0.02*	4/4/18 08:41 a		0.20232	ALP421
						6.32E-02	1.00E+00	*-0.08*			L	

04/30/2018

REV. 0

Page 50 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 7:00:00 AM
Lot-Sample No.:	**J8C230401-2**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDN0**	**COC No. :**	I18-006-073	**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
U-235	**-3.01E-03**	U	1.5E-01	1.5E-01	2.76E-01	pCi/L	83%	*-0.01*	4/4/18 08:41 a		0.20232	ALP421
						5.39E-02	1.00E+00	*-0.04*			L	
U-238	**0.00E+00**	U	0.0E+00	1.5E-01	2.76E-01	pCi/L	83%	*0.*	4/4/18 08:41 a		0.20232	ALP421
						5.39E-02	1.00E+00	*0.*			L	

No. of Results: 19 **Comments:**

04/30/2018

REV. 0

Page 51 of 78

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.
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FORM I

SAMPLE RESULTS

Date: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 8:40:00 AM
Lot-Sample No.:	**J8C230401-3**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDN1**	**COC No. :**	I18-006-075	**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: 8084011	GAMMA_GS			**Work Order:**	NAPN31AE		**Report DB ID:**	9NAPN310				
CO-60	**4.48E+00**		1.5E+00	1.5E+00	2.71E+00	pCi/L		*(1.7)*	4/4/18 07:35 a		2.00045	$GER11
						1.16E+00	2.50E+01	*(6.2)*			L	
CS-134	**-1.92E-01**	U	3.6E+00	3.6E+00	3.43E+00	pCi/L		*-0.06*	4/4/18 07:35 a		2.00045	$GER11
						1.57E+00	8.00E+01	*-0.11*			L	
CS-137	**3.58E-01**	U	3.5E+00	3.5E+00	3.88E+00	pCi/L		*0.09*	4/4/18 07:35 a		2.00045	$GER11
						1.77E+00	1.50E+01	*0.21*			L	
EU-152	**9.90E-01**	U	7.4E+00	7.4E+00	6.08E+00	pCi/L		*0.16*	4/4/18 07:35 a		2.00045	$GER11
						2.82E+00	5.00E+01	*0.27*			L	
EU-154	**6.13E+00**	U	9.6E+00	9.6E+00	4.18E+00	pCi/L		*(1.5)*	4/4/18 07:35 a		2.00045	$GER11
						1.94E+00	5.00E+01	*(1.3)*			L	
EU-155	**5.86E-01**	U	5.9E+00	5.9E+00	8.14E+00	pCi/L		*0.07*	4/4/18 07:35 a		2.00045	$GER11
						3.77E+00	5.00E+01	*0.2*			L	
K-40	**4.21E+00**	U	3.1E+01	3.1E+01	5.57E+01	pCi/L		*0.08*	4/4/18 07:35 a		2.00045	$GER11
						2.53E+01		*0.27*			L	
SB-125	**6.42E+00**	U	6.6E+00	6.6E+00	9.03E+00	pCi/L		*0.71*	4/4/18 07:35 a		2.00045	$GER11
						4.16E+00	5.00E+01	*(1.9)*			L	
TH-234	**3.71E+01**	U	3.0E+01	3.0E+01	4.73E+01	pCi/L		*0.78*	4/4/18 07:35 a		2.00045	$GER11
						2.20E+01		*(2.5)*			L	
Batch: 8084014	AMCMISO_EIE_PLT_AEA			**Work Order:**	NAPN31AD		**Report DB ID:**	9NAPN310				
AMERICIUM 241	**2.97E-03**	U	1.5E-01	1.5E-01	4.66E-01	pCi/L	96%	*0.01*	4/2/18 04:43 p		0.20171	ALP429
						1.47E-01	1.00E+00	*0.04*			L	

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FORM I

SAMPLE RESULTS

Date: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 8:40:00 AM
Lot-Sample No.:	**J8C230401-3**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDN1**	**COC No. :**	I18-006-075	**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: 8084017	906.0_H3_LSC			**Work Order:**	NAPN31AC		**Report DB ID:**	9NAPN310				
H-3	**6.87E+03**		4.4E+02	5.4E+02	4.91E+02	pCi/L	100%	*(14.)*	3/30/18 11:11 p		0.00502	LSC6
						2.29E+02	7.00E+02	*(25.4)*			L	
Batch: 8084018	I129LL_SEP_LEPS_GS			**Work Order:**	NAPN31AF		**Report DB ID:**	9NAPN310				
I129	**4.43E+00**		1.0E+00	1.0E+00	8.39E-01	pCi/L	94%	*(5.3)*	4/18/18 02:27 p		2.00476	LEP4$1
							1.00E+00	*(8.9)*			L	
Batch: 8084019	PU241_IE_LSC			**Work Order:**	NAPN31AA		**Report DB ID:**	9NAPN310				
Pu-241	**4.09E+00**	U	4.8E+00	5.9E+00	1.14E+01	pCi/L	93%	*0.36*	4/7/18 01:10 a		0.20083	LSC10
						5.46E+00	2.50E+01	*(1.4)*			L	
Batch: 8084020	PUISO_PLATE_AEA			**Work Order:**	NAPN31AG		**Report DB ID:**	9NAPN310				
PU-238	**-6.19E-02**	U	1.3E-01	1.3E-01	4.06E-01	pCi/L	93%	*-0.15*	4/2/18 04:51 p		0.20083	ALP420
						1.29E-01	1.00E+00	*-0.94*			L	
PU239/40	**-3.09E-03**	U	1.3E-01	1.3E-01	2.41E-01	pCi/L	93%	*-0.01*	4/2/18 04:51 p		0.20083	ALP420
						4.93E-02	1.00E+00	*-0.05*			L	
Batch: 8084021	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPN31AH		**Report DB ID:**	9NAPN310				
STRONTIUM	**3.74E-01**	U	4.1E-01	4.2E-01	6.71E-01	pCi/L	93%	*0.56*	4/9/18 08:05 a		0.50124	GPC32B
						3.03E-01	2.00E+00	*(1.8)*			L	
Batch: 8084024	UISO_PLATE_AEA			**Work Order:**	NAPN31AJ		**Report DB ID:**	9NAPN310				
U-234	**1.03E+01**		1.7E+00	2.4E+00	2.89E-01	pCi/L	102%	*(35.7)*	4/4/18 08:41 a		0.20047	ALP423
						6.81E-02	1.00E+00	*(8.5)*			L	

04/30/2018

REV. 0

Page 53 of 78

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.
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FORM I

SAMPLE RESULTS

Date: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 8:40:00 AM
Lot-Sample No.:	**J8C230401-3**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDN1**	**COC No. :**	I18-006-075	**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
U-235	**1.92E-01**	U	2.3E-01	2.3E-01	2.77E-01	pCi/L	102%	*0.69*	4/4/18 08:41 a		0.20047	ALP423
						6.24E-02	1.00E+00	*(1.6)*			L	
U-238	**9.85E+00**		1.6E+00	2.3E+00	2.44E-01	pCi/L	102%	*(40.3)*	4/4/18 08:41 a		0.20047	ALP423
						4.77E-02	1.00E+00	*(8.4)*			L	

Ratio U-234/238 = 1.0

No. of Results: 19 **Comments:**

04/30/2018

REV. 0

Page 54 of 78

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.
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FORM I

SAMPLE RESULTS

Date: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 7:00:00 AM
Lot-Sample No.:	**J8C230401-4**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDN3**	**COC No. :**	I18-006-074	**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: 8084016	C14_LSC			**Work Order:**	NAPN41AA		**Report DB ID:**	9NAPN410				
C-14	**-2.57E+00**	U	7.4E+00	8.7E+00	1.79E+01	pCi/L	100%	*-0.14*	4/13/18 03:43 p		0.075	LSC4
						8.60E+00	5.00E+01	*-0.59*			L	

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

04/30/2018

REV. 0

Page 55 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 8:40:00 AM
Lot-Sample No.:	**J8C230401-5**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDN4**	**COC No. :**	I18-006-077	**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: 8084016	C14_LSC			**Work Order:** NAPN51AA			**Report DB ID:** 9NAPN510					
C-14	**9.88E+01**		1.0E+01	1.3E+01	1.78E+01	pCi/L	100%	*(5.6)*	4/13/18 05:55 p		0.075	LSC4
						8.52E+00	5.00E+01	*(15.4)*			L	

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

04/30/2018

REV. 0

Page 56 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/20/2018 7:15:00 AM
Lot-Sample No.:	**J8C210404-2**	**Report No. :**	72649	**Received Date:**	3/20/2018 2:20:00 PM
Client Sample ID:	**B3HHL5**	**COC No. :**	S18-003-274	**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: 8084015	9310_ALPHABETA_GPC			**Work Order:** NAPJQ1AA			**Report DB ID:** 9NAPJQ10					
Beta	**7.79E-01**	U	1.0E+00	1.0E+00	1.73E+00	pCi/L	100%	*0.45*	4/5/18 09:18 a		0.20251	GPC27C
						8.28E-01	4.00E+00	*(1.5)*			L	

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

04/30/2018

REV. 0

Page 57 of 78

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: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/20/2018 10:36:00 AM
Lot-Sample No.:	**J8C210404-1**	**Report No. :**	72649	**Received Date:**	3/20/2018 2:20:00 PM
Client Sample ID:	**B3HHL6**	**COC No. :**	S18-003-276	**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: 8084015	9310_ALPHABETA_GPC			**Work Order:** NAPJP1AA			**Report DB ID:** 9NAPJP10					
Beta	**3.74E+01**		2.4E+00	5.2E+00	1.89E+00	pCi/L	100%	*(19.8)*	4/5/18 09:18 a		0.20007	GPC27B
						9.01E-01	4.00E+00	*(14.5)*			L	

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

04/30/2018

REV. 0

Page 58 of 78

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.
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FORM I

SAMPLE RESULTS

Date: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/20/2018 8:54:00 AM
Lot-Sample No.:	**J8C210404-3**	**Report No. :**	72649	**Received Date:**	3/20/2018 2:20:00 PM
Client Sample ID:	**B3HHT2**	**COC No. :**	S18-003-322	**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: 8084014	AMCMISO_EIE_PLT_AEA			**Work Order:**	NAPJR1AC		**Report DB ID:**	9NAPJR10				
AMERICIUM 241	**1.13E-01**	U	2.2E-01	2.2E-01	4.15E-01	pCi/L	92%	*0.27*	4/2/18 04:42 p		0.20044	ALP424
						1.18E-01	1.00E+00	*(1.)*			L	
Batch: 8084023	THISO_IE_PRECIP_AEA			**Work Order:**	NAPJR1AA		**Report DB ID:**	9NAPJR10				
TH-228	**5.36E-02**	U	1.3E-01	1.3E-01	3.02E-01	pCi/L	93%	*0.18*	4/2/18 04:49 p		0.20017	ALP115
						7.37E-02	1.00E+00	*0.8*			L	
TH-230	**-1.33E-02**	U	1.3E-01	1.3E-01	2.98E-01	pCi/L	93%	*-0.04*	4/2/18 04:49 p		0.20017	ALP115
						7.28E-02	1.00E+00	*-0.2*			L	
TH-232	**-2.65E-03**	U	1.3E-01	1.3E-01	2.43E-01	pCi/L	93%	*-0.01*	4/2/18 04:49 p		0.20017	ALP115
						4.74E-02	1.00E+00	*-0.04*			L	

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

04/30/2018

REV. 0

Page 59 of 78

FORM I

SAMPLE RESULTS

Date: 30-Apr-18

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/20/2018 8:54:00 AM
Lot-Sample No.:	**J8C210404-4**	**Report No. :**	72649	**Received Date:**	3/20/2018 2:20:00 PM
Client Sample ID:	**B3HHT3**	**COC No. :**	S18-003-324	**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: 8084014	AMCMISO_EIE_PLT_AEA			**Work Order:** NAPJT2AC			**Report DB ID:** 9NAPJT20					
AMERICIUM 241	**1.22E-01**	U	2.1E-01	2.1E-01	3.56E-01	pCi/L	96%	*0.34*	4/6/18 10:41 a		0.20001	ALP41
						9.40E-02	1.00E+00	*(1.2)*			L	
Batch: 8084023	THISO_IE_PRECIP_AEA			**Work Order:** NAPJT1AA			**Report DB ID:** 9NAPJT10					
TH-228	**5.67E-02**	U	1.2E-01	1.2E-01	2.43E-01	pCi/L	102%	*0.23*	4/2/18 04:49 p		0.2	ALP118
						5.17E-02	1.00E+00	*0.92*			L	
TH-230	**4.37E-02**	U	1.2E-01	1.2E-01	2.90E-01	pCi/L	102%	*0.15*	4/2/18 04:49 p		0.2	ALP118
						7.49E-02	1.00E+00	*0.71*			L	
TH-232	**-9.74E-03**	U	1.2E-01	1.2E-01	2.64E-01	pCi/L	102%	*-0.04*	4/2/18 04:49 p		0.2	ALP118
						6.22E-02	1.00E+00	*-0.16*			L	

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

04/30/2018

REV. 0

Page 60 of 78

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: 30-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/19/2018 10:44:00 AM
Lot-Sample No.:	**J8C200401-1**	**Report No. :**	72649	**Received Date:**	3/19/2018 1:50:00 PM
Client Sample ID:	**B3BHD2 DUP**	**COC No. :**	S17-008-534	**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: 8084022	TC99_ETVDSK_LSC			**Work Order:**	NAPH41AH	**Report DB ID:**	NAPH41HR		**Orig Sa DB ID:** 9NAPH410			
TC-99	3.14E+04		4.2E+02	9.1E+02	1.47E+02	pCi/L	100%	(214.3)	4/3/18 11:13 a		0.01002	LSC10
	3.07E+04		**RPD**	**2.4**		5.00E+01		(68.8)			L	
Batch: 8094010	UISO_PLATE_AEA			**Work Order:**	NAPH41AK	**Report DB ID:**	NAPH41KR		**Orig Sa DB ID:** 9NAPH420			
U-234	1.78E+04		1.4E+03	3.8E+03	1.11E+02	pCi/L	97%	(159.8)	4/12/18 01:28 p		0.00054	ALP414
	1.83E+04		**RPD**	**2.8**		1.00E+00		(9.3)			L	
U-235	8.72E+02		3.0E+02	3.5E+02	9.42E+01	pCi/L	97%	(9.3)	4/12/18 01:28 p		0.00054	ALP414
	1.05E+03		**RPD**	**18.7**		1.00E+00		(5.)			L	
U-238	1.92E+04		1.4E+03	4.1E+03	9.42E+01	pCi/L	97%	(203.5)	4/12/18 01:28 p		0.00054	ALP414
	2.26E+04		**RPD**	**16.6**		1.00E+00		(9.3)			L	

Ratio U-234/238 = 0.9 ***Alpha Spec Result Sum = 3.8E+04***

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

04/30/2018

REV. 0

Page 61 of 78

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

rptSTLRchDupV5.8.5 A2002 **MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.**

FORM II

Date: 30-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/19/2018 10:44:00 AM
Lot-Sample No.:	**J8C200401-2**	**Report No. :**	72649	**Received Date:**	3/19/2018 1:50:00 PM
Client Sample ID:	**B3BHD4 DUP**	**COC No. :**	S17-008-535	**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: 8084016	C14_LSC			**Work Order:**	NAPH51AC	**Report DB ID:**	NAPH51CR		**Orig Sa DB ID:**	9NAPH510		
C-14	1.32E+03		2.6E+01	7.8E+01	1.78E+01	pCi/L	100%	(74.4)	4/13/18 02:37 p		0.075	LSC4
	1.32E+03		**RPD**	**0.0**		5.00E+01		(34.)			L	

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

04/30/2018

REV. 0

Page 62 of 78

FORM II

Date: 30-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/20/2018 9:01:00 AM
Lot-Sample No.:	**J8C210402-1**	**Report No. :**	72649	**Received Date:**	3/20/2018 2:20:00 PM
Client Sample ID:	**B3FW36 DUP**	**COC No. :**	S18-001-228	**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: 8084013	9310_ALPHABETA_GPC			**Work Order:**	NAPJE1AE	**Report DB ID:**	NAPJE1ER		**Orig Sa DB ID:** 9NAPJE10			
Alpha	2.74E+00		1.3E+00	1.4E+00	1.75E+00	pCi/L	100%	(1.6)	4/5/18 09:35 a		0.20171	GPC22C
	1.85E+00		**RPD**	**39.0**		3.00E+00		(3.8)			L	
Batch: 8084015	9310_ALPHABETA_GPC			**Work Order:**	NAPJE1AF	**Report DB ID:**	NAPJE1FR		**Orig Sa DB ID:** 9NAPJE10			
Beta	8.04E+00		1.4E+00	1.7E+00	1.69E+00	pCi/L	100%	(4.7)	4/5/18 09:18 a		0.20048	GPC26D
	7.22E+00		**RPD**	**10.7**		4.00E+00		(9.5)			L	
Batch: 8084018	I129LL_SEP_LEPS_GS			**Work Order:**	NAPJE1AG	**Report DB ID:**	NAPJE1GR		**Orig Sa DB ID:** 9NAPJE10			
I129	4.50E+00		8.7E-01	8.7E-01	6.29E-01	pCi/L	91%	(7.2)	4/18/18 11:02 a		1.88195	LEP5$1
	4.92E+00		**RPD**	**8.9**		1.00E+00		(10.4)			L	

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

04/30/2018

REV. 0

Page 63 of 78

FORM II

Date: 30-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 10:03:00 AM
Lot-Sample No.:	**J8C230401-1**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDL1 DUP**	**COC No. :**	I18-006-087	**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: 8084011	GAMMA_GS			**Work Order:**	NAPN11AG	**Report DB ID:**	NAPN11GR		**Orig Sa DB ID:**	9NAPN110		
CO-60	-2.74E+00	U	5.1E+00	5.1E+00	3.82E+00	pCi/L		-0.72	4/3/18 01:48 p		1.6967	$GER18
	-3.49E+00	U	**RPD**	**-23.9**		2.50E+01		-(1.1)			L	
CS-134	3.26E+00	U	3.1E+00	3.1E+00	3.56E+00	pCi/L		0.92	4/3/18 01:48 p		1.6967	$GER18
	-1.08E+00	U	**RPD**	**398.0**		8.00E+01		(2.1)			L	
CS-137	8.15E-01	U	2.5E+00	2.5E+00	3.16E+00	pCi/L		0.26	4/3/18 01:48 p		1.6967	$GER18
	1.05E+00	U	**RPD**	**24.7**		1.50E+01		0.64			L	
EU-152	4.39E+00	U	5.8E+00	5.8E+00	4.36E+00	pCi/L		(1.)	4/3/18 01:48 p		1.6967	$GER18
	-6.34E+00	U	**RPD**	**-1100.2**		5.00E+01		(1.5)			L	
EU-154	1.16E+00	U	1.2E+01	1.2E+01	2.49E+00	pCi/L		0.46	4/3/18 01:48 p		1.6967	$GER18
	-9.29E+00	U	**RPD**	**-256.9**		5.00E+01		0.19			L	
EU-155	-1.23E+00	U	2.5E+00	2.5E+00	3.14E+00	pCi/L		-0.39	4/3/18 01:48 p		1.6967	$GER18
	-8.23E+00	U	**RPD**	**-148.0**		5.00E+01		-0.98			L	
K-40	1.00E+00	U	2.5E+01	2.5E+01	4.62E+01	pCi/L		0.02	4/3/18 01:48 p		1.6967	$GER18
	2.57E-01	U	**RPD**	**118.1**				0.08			L	
SB-125	3.04E+00	U	6.3E+00	6.3E+00	8.35E+00	pCi/L		0.36	4/3/18 01:48 p		1.6967	$GER18
	2.14E+00	U	**RPD**	**34.8**		5.00E+01		0.97			L	
TH-234	-4.61E+00	U	1.1E+01	1.1E+01	1.76E+01	pCi/L		-0.26	4/3/18 01:48 p		1.6967	$GER18
	-1.72E+00	U	**RPD**	**-91.3**				-0.8			L	

No. of Results: 9 **Comments:**

04/30/2018

REV. 0

Page 64 of 78

FORM II

Date: 30-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/22/2018 7:00:00 AM
Lot-Sample No.:	**J8C230401-2**	**Report No. :**	72649	**Received Date:**	3/22/2018 2:45:00 PM
Client Sample ID:	**B3HDN0 DUP**	**COC No. :**	I18-006-073	**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: 8084014	AMCMISO_EIE_PLT_AEA			**Work Order:**	NAPN21AK	**Report DB ID:**	NAPN21KR		**Orig Sa DB ID:** 9NAPN210			
AMERICIUM 241	2.87E-03	U	1.5E-01	1.5E-01	4.51E-01	pCi/L	99%	0.01	4/2/18 04:43 p		0.20041	ALP427
	1.54E-01	U	**RPD**	**192.7**		1.00E+00		0.04			L	
									Alpha Spec Result Sum = 2.9E-03			
Batch: 8084019	PU241_IE_LSC			**Work Order:**	NAPN21AL	**Report DB ID:**	NAPN21LR		**Orig Sa DB ID:** 9NAPN210			
Pu-241	5.74E+00	U	4.7E+00	5.8E+00	1.10E+01	pCi/L	96%	0.52	4/6/18 11:04 p		0.20075	LSC10
	8.70E+00	U	**RPD**	**41.0**		2.50E+01		(2.)			L	
									Alpha Spec Result Sum = 2.9E-03			
Batch: 8084020	PUISO_PLATE_AEA			**Work Order:**	NAPN21AM	**Report DB ID:**	NAPN21MR		**Orig Sa DB ID:** 9NAPN210			
PU-238	-5.15E-02	U	1.3E-01	1.3E-01	3.82E-01	pCi/L	96%	-0.14	4/2/18 04:51 p		0.20075	ALP419
	2.15E-02	U	**RPD**	**-485.6**		1.00E+00		-0.8			L	
PU239/40	-1.52E-02	U	1.3E-01	1.3E-01	2.94E-01	pCi/L	96%	-0.05	4/2/18 04:51 p		0.20075	ALP419
	-1.10E-02	U	**RPD**	**-31.4**		1.00E+00		-0.24			L	

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

04/30/2018

REV. 0

Page 65 of 78

FORM II

Date: 30-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08037	**Collection Date:**	3/20/2018 9:02:00 AM
Lot-Sample No.:	**J8C210403-4**	**Report No. :**	72649	**Received Date:**	3/20/2018 2:20:00 PM
Client Sample ID:	**B3HF01 DUP**	**COC No. :**	X18-023-020	**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: 8084017	906.0_H3_LSC			**Work Order:** NAPJL1AD		**Report DB ID:** NAPJL1DR			**Orig Sa DB ID:** 9NAPJL10			
H-3	1.11E+03		2.5E+02	2.9E+02	4.97E+02	pCi/L	100%	(2.2)	3/30/18 07:32 p		0.00502	LSC6
	4.15E+02	U	**RPD**	**90.9**		7.00E+02		(7.7)			L	

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

04/30/2018

REV. 0

Page 66 of 78

FORM II

Date: 30-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08037	**Collection Date:**	3/20/2018 9:33:00 AM
Lot-Sample No.:	**J8C210403-1**	**Report No. :**	72649	**Received Date:**	3/20/2018 2:20:00 PM
Client Sample ID:	**B3HF19 DUP**	**COC No. :**	X18-023-016	**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: 8084021	SRISO_SEP_PRECIP_GPC			**Work Order:** NAPJH1AC		**Report DB ID:** NAPJH1CR			**Orig Sa DB ID:** 9NAPJH10			
STRONTIUM	-3.16E-01	U	7.1E-01	7.1E-01	1.37E+00	pCi/L	88%	-0.23	3/30/18 03:13 p		0.5024	GPC32B
	6.72E-01	U	**RPD**	**555.8**		2.00E+00		-0.89			L	

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

04/30/2018

REV. 0

Page 67 of 78

FORM II

Date: 30-Apr-18

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	W08036	**Collection Date:**	3/20/2018 8:54:00 AM
Lot-Sample No.:	**J8C210404-3**	**Report No. :**	72649	**Received Date:**	3/20/2018 2:20:00 PM
Client Sample ID:	**B3HHT2 DUP**	**COC No. :**	S18-003-322	**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: 8084023	THISO_IE_PRECIP_AEA			**Work Order:** NAPJR1AD		**Report DB ID:** NAPJR1DR			**Orig Sa DB ID:** 9NAPJR10			
TH-228	5.88E-02	U	1.2E-01	1.2E-01	2.25E-01	pCi/L	105%	0.26	4/2/18 04:49 p		0.20073	ALP116
	5.36E-02	U	**RPD**	**9.3**		1.00E+00		0.96			L	
TH-230	-4.84E-03	U	1.2E-01	1.2E-01	2.39E-01	pCi/L	105%	-0.02	4/2/18 04:49 p		0.20073	ALP116
	-1.33E-02	U	**RPD**	**-93.0**		1.00E+00		-0.08			L	
TH-232	-2.42E-03	U	1.2E-01	1.2E-01	2.22E-01	pCi/L	105%	-0.01	4/2/18 04:49 p		0.20073	ALP116
	-2.65E-03	U	**RPD**	**-9.1**		1.00E+00		-0.04			L	

Alpha Spec Result Sum = 5.2E-02

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

04/30/2018

REV. 0

Page 68 of 78

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

BLANK RESULTS

Date: 30-Apr-18

Lab Name: TestAmerica Inc

Matrix: WATER

SDG: W08036

Report No. : 72649

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: 8084016	C14_LSC			**Work Order:**	NAPPL1AA		**Report DB ID:**	NAPPL1AB				
C-14	7.24E-01	U	7.5E+00	8.8E+00	1.79E+01	pCi/L	100%	0.04	4/13/18 07:00 p		0.075	LSC4
					8.58E+00	5.00E+01		0.16			L	
Batch: 8084020	PUISO_PLATE_AEA			**Work Order:**	NAPPQ1AA		**Report DB ID:**	NAPPQ1AB				
PU-238	-5.46E-02	U	1.4E-01	1.4E-01	4.04E-01	pCi/L	87%	-0.14	4/2/18 04:52 p		0.20023	ALP421
					1.25E-01	1.00E+00		-0.8			L	
PU239/40	-3.21E-03	U	1.3E-01	1.3E-01	2.50E-01	pCi/L	87%	-0.01	4/2/18 04:52 p		0.20023	ALP421
					5.11E-02	1.00E+00		-0.05			L	
Batch: 8084024	UISO_PLATE_AEA			**Work Order:**	NAPPW1AA		**Report DB ID:**	NAPPW1AB				
U-234	-3.00E-03	U	1.5E-01	1.5E-01	2.75E-01	pCi/L	86%	-0.01	4/4/18 08:41 a		0.20007	ALP424
					5.37E-02	1.00E+00		-0.04			L	
U-235	0.00E+00	U	0.0E+00	1.5E-01	2.75E-01	pCi/L	86%	0.	4/4/18 08:41 a		0.20007	ALP424
					5.37E-02	1.00E+00		0.			L	
U-238	-3.00E-03	U	1.5E-01	1.5E-01	2.75E-01	pCi/L	86%	-0.01	4/4/18 08:41 a		0.20007	ALP424
					5.37E-02	1.00E+00		-0.04			L	
								Ratio U-234/238 = 1.0				
Batch: 8094010	UISO_PLATE_AEA			**Work Order:**	NAP1R1AA		**Report DB ID:**	NAP1R1AB				
U-234	-5.87E-03	U	1.5E-01	1.5E-01	2.90E-01	pCi/L	89%	-0.02	4/12/18 01:29 p		0.20066	ALP420
					6.16E-02	1.00E+00		-0.08			L	
U-235	0.00E+00	U	0.0E+00	1.5E-01	2.69E-01	pCi/L	89%	0.	4/12/18 01:29 p		0.20066	ALP420
					5.26E-02	1.00E+00		0.			L	
U-238	7.34E-02	U	1.5E-01	1.5E-01	2.69E-01	pCi/L	89%	0.27	4/12/18 01:29 p		0.20066	ALP420
					5.26E-02	1.00E+00		1.			L	
								Ratio U-234/238 = -0.1				

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: 30-Apr-18

Lab Name: TestAmerica Inc

SDG: W08036

Matrix: WATER

Report No. : 72649

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: 8084014	AMCMISO_EIE_PLT_AEA			**Work Order:**	NAPPJ1AA		**Report DB ID:**	NAPPJ1AB				
AMERICIUM 241	4.08E-02	U	1.5E-01	1.5E-01	3.81E-01	pCi/L	97%	0.11	4/2/18 04:43 p		0.20247	ALP430
					1.06E-01	1.00E+00		0.55			L	
Batch: 8084023	THISO_IE_PRECIP_AEA			**Work Order:**	NAPPV1AA		**Report DB ID:**	NAPPV1AB				
TH-228	-6.66E-03	U	1.7E-01	1.7E-01	3.28E-01	pCi/L	95%	-0.02	4/2/18 04:49 p		0.20231	ALP119
					6.98E-02	1.00E+00		-0.08			L	
TH-230	-1.64E-02	U	1.6E-01	1.6E-01	3.69E-01	pCi/L	95%	-0.04	4/2/18 04:49 p		0.20231	ALP119
					9.03E-02	1.00E+00		-0.2			L	
TH-232	-6.57E-03	U	1.6E-01	1.6E-01	3.24E-01	pCi/L	95%	-0.02	4/2/18 04:49 p		0.20231	ALP119
					6.89E-02	1.00E+00		-0.08			L	
Batch: 8084019	PU241_IE_LSC			**Work Order:**	NAPPP1AA		**Report DB ID:**	NAPPP1AB				
Pu-241	1.32E+00	U	5.1E+00	6.3E+00	1.21E+01	pCi/L	87%	0.11	4/7/18 03:15 a		0.20023	LSC10
					5.83E+00	2.50E+01		0.42			L	
Batch: 8084017	906.0_H3_LSC			**Work Order:**	NAPPM1AA		**Report DB ID:**	NAPPM1AB				
H-3	2.45E+02	U	2.2E+02	2.5E+02	5.05E+02	pCi/L	100%	0.49	3/30/18 11:55 p		0.00502	LSC6
					2.35E+02	7.00E+02		(2.)			L	
Batch: 8084011	GAMMA_GS			**Work Order:**	NAPPF1AA		**Report DB ID:**	NAPPF1AB				
CO-60	-1.78E+00	U	3.6E+00	3.6E+00	2.87E+00	pCi/L		-0.62	4/4/18 07:36 a		2.00239	$GER18
					1.21E+00	2.50E+01		-0.98			L	
CS-134	-2.89E+00	U	4.0E+00	4.0E+00	3.14E+00	pCi/L		-0.92	4/4/18 07:36 a		2.00239	$GER18
					1.41E+00	8.00E+01		-(1.4)			L	
CS-137	-8.11E-01	U	2.6E+00	2.6E+00	2.73E+00	pCi/L		-0.3	4/4/18 07:36 a		2.00239	$GER18
					1.21E+00	1.50E+01		-0.62			L	

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: 30-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08036

Matrix: WATER **Report No. :** 72649

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
EU-152	2.78E+00	U	5.1E+00	5.1E+00	3.88E+00	pCi/L		0.72	4/4/18 07:36 a		2.00239	$GER18
					1.72E+00	5.00E+01		(1.1)			L	
EU-154	-9.87E-01	U	1.1E+01	1.1E+01	2.37E+00	pCi/L		-0.42	4/4/18 07:36 a		2.00239	$GER18
					1.06E+00	5.00E+01		-0.19			L	
EU-155	-1.09E+00	U	2.0E+00	2.0E+00	2.87E+00	pCi/L		-0.38	4/4/18 07:36 a		2.00239	$GER18
					1.29E+00	5.00E+01		-(1.1)			L	
K-40	-1.31E+01	U	1.8E+01	1.8E+01	3.74E+01	pCi/L		-0.35	4/4/18 07:36 a		2.00239	$GER18
					1.65E+01			-(1.4)			L	
SB-125	-6.70E-01	U	5.3E+00	5.3E+00	6.26E+00	pCi/L		-0.11	4/4/18 07:36 a		2.00239	$GER18
					2.78E+00	5.00E+01		-0.25			L	
TH-234	2.14E+00	U	1.0E+01	1.0E+01	1.65E+01	pCi/L		0.13	4/4/18 07:36 a		2.00239	$GER18
					7.29E+00			0.43			L	
Batch: 8084013	9310_ALPHABETA_GPC			**Work Order:**	NAPPH1AA		**Report DB ID:**	NAPPH1AB				
Alpha	-6.34E-02	U	3.6E-01	3.6E-01	6.89E-01	pCi/L	100%	-0.09	4/5/18 09:35 a		0.20064	GPC23A
					3.01E-01	3.00E+00		-0.36			L	
Batch: 8084015	9310_ALPHABETA_GPC			**Work Order:**	NAPPK1AA		**Report DB ID:**	NAPPK1AB				
Beta	8.44E-01	U	9.7E-01	9.8E-01	1.60E+00	pCi/L	100%	0.53	4/5/18 09:18 a		0.20169	GPC28A
					7.64E-01	4.00E+00		(1.7)			L	
Batch: 8084018	I129LL_SEP_LEPS_GS			**Work Order:**	NAPPN1AA		**Report DB ID:**	NAPPN1AB				
I129	6.59E-02	U	2.3E-01	2.3E-01	3.97E-01	pCi/L	93%	0.17	4/18/18 02:27 p		2.00018	LEP5$1
						1.00E+00		0.56			L	
Batch: 8115022	I129_SEP_LEPS_GS			**Work Order:**	NAQKD1AA		**Report DB ID:**	naqkd1aB				

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: 30-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08036

Matrix: WATER **Report No. :** 72649

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
I129	-3.92E-01	U	3.9E-01	3.9E-01	4.09E-01	pCi/L	92%	-0.96	4/27/18 02:13 p		1.00178	LEP4$1
						1.00E+00		-(2.)			L	
Batch: 8084021	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPPR1AA		**Report DB ID:**	NAPPR1AB				
STRONTIUM	1.21E-01	U	4.1E-01	4.1E-01	7.18E-01	pCi/L	84%	0.17	4/9/18 08:05 a		0.50064	GPC32C
					3.23E-01	2.00E+00		0.59			L	
Batch: 8084022	TC99_ETVDSK_LSC			**Work Order:**	NAPPT1AA		**Report DB ID:**	NAPPT1AB				
TC-99	4.90E+00	U	4.9E+00	5.5E+00	1.14E+01	pCi/L	100%	0.43	4/3/18 02:56 p		0.1255	LSC10
					5.40E+00	5.00E+01		(1.8)			L	

No. of Results: 30 **Comments:**

04/30/2018

REV. 0

Page 72 of 78

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: 30-Apr-18

Lab Name: TestAmerica Inc

SDG: W08036

Matrix: WATER

Report No. : 72649

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: 8084016	C14_LSC			**Work Order:**	NAPPL1AC		**Report DB ID:**	NAPPL1CS					
C-14	4.75E+02		1.7E+01	3.2E+01	1.79E+01	pCi/L	100%	4.79E+02	9.6E+00	99%	4/13/18 08:06 p	0.075	LSC4
							Rec Limits:	80	120	0.0		L	
Batch: 8084020	PUISO_PLATE_AEA			**Work Order:**	NAPPQ1AC		**Report DB ID:**	NAPPQ1CS					
PU239/40	6.99E+00		1.5E+00	1.9E+00	3.14E-01	pCi/L	78%	4.51E+00	4.5E-02	155%	4/2/18 04:52 p	0.20113	ALP423
							Rec Limits:	80	120	0.6		L	
Batch: 8084024	UISO_PLATE_AEA			**Work Order:**	NAPPW1AC		**Report DB ID:**	NAPPW1CS					
U-234	7.97E+00		1.5E+00	2.1E+00	3.27E-01	pCi/L	95%	8.52E+00	4.4E-02	94%	4/4/18 08:42 a	0.20054	ALP425
							Rec Limits:	80	120	-0.1		L	
U-238	8.49E+00		1.6E+00	2.2E+00	2.87E-01	pCi/L	95%	8.92E+00	4.6E-02	95%	4/4/18 08:42 a	0.20054	ALP425
							Rec Limits:	80	120	0.0		L	
Batch: 8094010	UISO_PLATE_AEA			**Work Order:**	NAP1R1AC		**Report DB ID:**	NAP1R1CS					
U-234	1.52E+01		2.0E+00	3.3E+00	2.77E-01	pCi/L	95%	1.61E+01	8.4E-02	94%	4/12/18 01:29 p	0.20019	ALP421
							Rec Limits:	80	120	-0.1		L	
U-238	1.48E+01		2.0E+00	3.2E+00	2.45E-01	pCi/L	95%	1.69E+01	8.8E-02	87%	4/12/18 01:29 p	0.20019	ALP421
							Rec Limits:	80	120	-0.1		L	
Batch: 8084014	AMCMISO_EIE_PLT_AEA			**Work Order:**	NAPPJ1AC		**Report DB ID:**	NAPPJ1CS					
AMERICIUM 241	2.49E+01		2.8E+00	5.3E+00	4.94E-01	pCi/L	87%	2.23E+01	2.2E-01	112%	4/2/18 04:44 p	0.20147	ALP432
							Rec Limits:	80	120	0.1		L	
Batch: 8084023	THISO_IE_PRECIP_AEA			**Work Order:**	NAPPV1AC		**Report DB ID:**	NAPPV1CS					
TH-230	1.08E+01		2.1E+00	2.6E+00	3.65E-01	pCi/L	96%	1.12E+01	1.2E-01	96%	4/2/18 04:50 p	0.20119	ALP121
							Rec Limits:	80	120	0.0		L	
Batch: 8084019	PU241_IE_LSC			**Work Order:**	NAPPP1AC		**Report DB ID:**	NAPPP1CS					

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

rptSTLRchLcs
V5.8.5 A2002

04/30/2018
REV. 0
Page 73 of 78

FORM II

LCS RESULTS

Date: 30-Apr-18

Lab Name: TestAmerica Inc

SDG: W08036

Matrix: WATER

Report No. : 72649

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
Pu-241	1.22E+03		2.1E+01	7.6E+01	1.35E+01	pCi/L	78%	1.14E+03	1.4E+01	107%	4/7/18 05:21 a	0.20113	LSC10
							Rec Limits:	80	120	0.1		L	
Batch: 8084017	906.0_H3_LSC			**Work Order:**	NAPPM1AC		**Report DB ID:**	NAPPM1CS					
H-3	2.50E+03		3.1E+02	3.6E+02	4.98E+02	pCi/L	100%	2.75E+03	8.2E+01	91%	3/31/18 12:39 a	0.00501	LSC6
							Rec Limits:	80	120	-0.1		L	
Batch: 8084011	GAMMA_GS			**Work Order:**	NAPPF1AC		**Report DB ID:**	NAPPF1CS					
CO-60	3.66E+01		6.9E+00	6.9E+00	3.35E+00	pCi/L		3.82E+01		96%	4/4/18 07:36 a	2.00509	GER10$1
							Rec Limits:	80	120	0.0		L	
CS-137	5.20E+01		8.4E+00	8.4E+00	4.55E+00	pCi/L		4.98E+01		105%	4/4/18 07:36 a	2.00509	GER10$1
							Rec Limits:	80	120	0.0		L	
EU-152	8.87E+01		1.6E+01	1.6E+01	1.08E+01	pCi/L		7.91E+01		112%	4/4/18 07:36 a	2.00509	GER10$1
							Rec Limits:	80	120	0.1		L	
Batch: 8084013	9310_ALPHABETA_GPC			**Work Order:**	NAPPH1AC		**Report DB ID:**	NAPPH1CS					
Alpha	1.85E+01		1.5E+00	4.8E+00	5.40E-01	pCi/L	100%	2.25E+01	2.3E-01	82%	4/5/18 09:35 a	0.20075	GPC23C
							Rec Limits:	80	120	-0.2		L	
Batch: 8084015	9310_ALPHABETA_GPC			**Work Order:**	NAPPK1AC		**Report DB ID:**	NAPPK1CS					
Beta	2.29E+01		1.8E+00	3.5E+00	1.66E+00	pCi/L	100%	2.25E+01	1.6E-01	102%	4/5/18 09:18 a	0.20115	GPC28B
							Rec Limits:	80	120	0.0		L	
Batch: 8084018	I129LL_SEP_LEPS_GS			**Work Order:**	NAPPN1AC		**Report DB ID:**	NAPPN1CS					
I129	2.42E+01		3.1E+00	3.1E+00	1.06E+00	pCi/L	95%	1.93E+01		125%	4/19/18 07:37 a	2.00172	LEP4$1
							Rec Limits:	80	120	0.3		L	
Batch: 8115022	I129_SEP_LEPS_GS			**Work Order:**	NAQKD1AC		**Report DB ID:**	naqkd1cS					

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

rptSTLRchLcs
V5.8.5 A2002

04/30/2018
REV. 0

Page 74 of 78

FORM II

LCS RESULTS

Date: 30-Apr-18

Lab Name: TestAmerica Inc

SDG: W08036

Matrix: WATER

Report No. : 72649

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
I129	3.98E+01		4.3E+00	4.3E+00	4.44E-01	pCi/L	88%	3.85E+01		103%	4/26/18 06:18 p	1.00016	LEP5$1
							Rec Limits:	80	120	0.0		L	
Batch: 8084021	SRISO_SEP_PRECIP_GPC			**Work Order:**	NAPPR1AC		**Report DB ID:**	NAPPR1CS					
STRONTIUM	1.33E+01		1.2E+00	3.4E+00	7.43E-01	pCi/L	91%	1.34E+01	9.5E-02	99%	4/9/18 08:05 a	0.50139	GPC32D
							Rec Limits:	80	120	0.0		L	
Batch: 8084022	TC99_ETVDSK_LSC			**Work Order:**	NAPPT1AC		**Report DB ID:**	NAPPT1CS					
TC-99	9.73E+01		8.0E+00	8.9E+00	1.16E+01	pCi/L	100%	1.07E+02	6.1E-01	91%	4/3/18 03:40 p	0.1264	LSC10
							Rec Limits:	80	120	-0.1		L	

No. of Results: 19 **Comments:**

04/30/2018

REV. 0

Page 75 of 78

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

rptSTLRchLcs
V5.8.5 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 30-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08036

Lot-Sample No.: J8C200402-1, B3H538 **Report No. :** 72649 **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: 8084022	**Work Order:** NAPH61AD			**Report DB ID:** NAPH61DW			**Orig Sa DB ID:** 9NAPH610					
TC-99	4.29E+02		2.0E+01	3.8E+01	1.14E+01	pCi/L	100%	79.44%	5.40E+02	4/3/18 12:42 p	0.12574	TC99_ETVDSK_LSC
	5.05E+02								3.2E+00		L	LSC10

Number of Results: 1

Comments:

04/30/2018

REV. 0

Page 76 of 78

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

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

V5.8.5 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 30-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08037

Lot-Sample No.: J8C210403-6, B3HF06 **Report No. :** 72649 **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: 8084017	**Work Order:** NAPJN1AD			**Report DB ID:** NAPJN1DW			**Orig Sa DB ID:** 9NAPJN10					
H-3	1.40E+03		3.0E+02	3.4E+02	5.77E+02	pCi/L	100%	86.37%	1.62E+03	3/30/18 09:00 p	0.0043	906.0_H3_LSC
	-5.78E+01								4.9E+01		L	LSC6

Number of Results: 1

Comments:

04/30/2018

REV. 0

Page 77 of 78

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

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

V5.8.5 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 30-Apr-18

Lab Name: TestAmerica Inc **SDG:** W08036

Lot-Sample No.: J8C230401-4, B3HDN3 **Report No. :** 72649 **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: 8084016	**Work Order:** NAPN41AC			**Report DB ID:** NAPN41CW			**Orig Sa DB ID:** 9NAPN410					
C-14	4.77E+02		1.7E+01	3.2E+01	1.78E+01	pCi/L	100%	99.59%	4.79E+02	4/13/18 04:49 p	0.075	C14_LSC
	-2.57E+00								9.6E+00		L	LSC4

Number of Results: 1

Comments:

04/30/2018

REV. 0

Page 78 of 78

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

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

V5.8.5 A2002