

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

TestAmerica Job ID: 160-3482-1

Client Project/Site: RFP-CBA-022 (7 DAY TAT)

For:

Westinghouse Electric Company LLC
3300 State Road P
Festus, Missouri 63028

Attn: Martin Swanson



Authorized for release by:
8/30/2013 3:38:43 PM

Ivan Vania, Project Manager I
ivan.vania@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

2

3

4

5

6

7

8

9

10

11

12



Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Chain of Custody	6
Receipt Checklists	9
Definitions/Glossary	10
Method Summary	11
Sample Summary	12
Client Sample Results	13
QC Sample Results	38
QC Association Summary	44
Tracer Carrier Summary	50

Case Narrative

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Job ID: 160-3482-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

Client: Westinghouse Electric Company LLC

Project: RFP-CBA-022 (7 DAY TAT)

Report Number: 160-3482-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica St. Louis attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results for Chemistry analyses are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header. All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client."

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 08/22/2013; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 20.0° C, 20.0° C and 20.0° C.

TECHNETIUM-99 (ICPMS)

Samples L050301PRS00 (160-3482-1), L050302PES00 (160-3482-2), L050303PRS00 (160-3482-3), L050304PEQ00 (160-3482-4), L050304PES00 (160-3482-5), L050305PRS00 (160-3482-6), L050306PES00 (160-3482-7), L050307PRS00 (160-3482-8), L050308PES00 (160-3482-9), L050309PRS00 (160-3482-10), L050310PES00 (160-3482-11), L050311PRS00 (160-3482-12), L050312PES00 (160-3482-13), L050313PRS00 (160-3482-14), L050314PES00 (160-3482-15), L050315PRS00 (160-3482-16), L050316PES00 (160-3482-17), L050317PRS00 (160-3482-18), L050318PES00 (160-3482-19), L050319PRS00 (160-3482-20), L050320PES00 (160-3482-21), L050321PRS00 (160-3482-22), L050322PES00 (160-3482-23), L050323PUB00 (160-3482-24), L050324PUB00 (160-3482-25), L050325PUB00 (160-3482-26), L050326PUB00 (160-3482-27), L050327PUB00 (160-3482-28), L050328PUB00 (160-3482-29), L050329PUB00 (160-3482-30), L050330PUB00 (160-3482-31), L050331PUB00 (160-3482-32) and L050332PUB00 (160-3482-33) were analyzed for Technetium-99 (ICPMS) in accordance with EPA SW-846 Method 6020A. The samples were prepared on 08/23/2013 and analyzed on 08/27/2013.

Case Narrative

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Job ID: 160-3482-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

No difficulties were encountered during the Tc-99 analysis. All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples L050301PRS00 (160-3482-1), L050302PES00 (160-3482-2), L050303PRS00 (160-3482-3), L050304PEQ00 (160-3482-4), L050304PES00 (160-3482-5), L050305PRS00 (160-3482-6), L050306PES00 (160-3482-7), L050307PRS00 (160-3482-8), L050308PES00 (160-3482-9), L050309PRS00 (160-3482-10), L050310PES00 (160-3482-11), L050311PRS00 (160-3482-12), L050312PES00 (160-3482-13), L050313PRS00 (160-3482-14), L050314PES00 (160-3482-15), L050315PRS00 (160-3482-16), L050316PES00 (160-3482-17), L050317PRS00 (160-3482-18), L050318PES00 (160-3482-19), L050319PRS00 (160-3482-20), L050320PES00 (160-3482-21), L050321PRS00 (160-3482-22), L050322PES00 (160-3482-23), L050323PUB00 (160-3482-24), L050324PUB00 (160-3482-25), L050325PUB00 (160-3482-26), L050326PUB00 (160-3482-27), L050327PUB00 (160-3482-28), L050328PUB00 (160-3482-29), L050329PUB00 (160-3482-30), L050330PUB00 (160-3482-31), L050331PUB00 (160-3482-32) and L050332PUB00 (160-3482-33) were analyzed for percent solids in accordance with EPA Method 160.3 MOD. The samples were analyzed on 08/24/2013.

No difficulties were encountered during the % solids analysis. All quality control parameters were within the acceptance limits.

CESIUM-137 & OTHER GAMMA EMITTERS (GS)

Samples L050301PRS00 (160-3482-1), L050302PES00 (160-3482-2), L050303PRS00 (160-3482-3), L050304PEQ00 (160-3482-4), L050304PES00 (160-3482-5), L050305PRS00 (160-3482-6), L050306PES00 (160-3482-7), L050307PRS00 (160-3482-8), L050308PES00 (160-3482-9), L050309PRS00 (160-3482-10), L050310PES00 (160-3482-11), L050311PRS00 (160-3482-12), L050312PES00 (160-3482-13), L050313PRS00 (160-3482-14), L050314PES00 (160-3482-15), L050315PRS00 (160-3482-16), L050316PES00 (160-3482-17), L050317PRS00 (160-3482-18), L050318PES00 (160-3482-19), L050319PRS00 (160-3482-20), L050320PES00 (160-3482-21), L050321PRS00 (160-3482-22), L050322PES00 (160-3482-23), L050323PUB00 (160-3482-24), L050324PUB00 (160-3482-25), L050325PUB00 (160-3482-26), L050326PUB00 (160-3482-27), L050327PUB00 (160-3482-28), L050328PUB00 (160-3482-29), L050329PUB00 (160-3482-30), L050330PUB00 (160-3482-31), L050331PUB00 (160-3482-32) and L050332PUB00 (160-3482-33) were analyzed for Cesium-137 & Other Gamma Emitters (GS) in accordance with DOE GA-01-R. The samples were leached on 08/23/2013, prepared on 08/28/2013 and analyzed on 08/28/2013 and 08/29/2013.

Preparation Batch 69096:

Radium-226 is reported in these samples at the client's request. Radium-226 is reported from the 609.31 keV line of Bismuth-214. Because the samples have not had a 21-day ingrowth, the activity for Radium-226 is an estimated value and may be biased low. This bias is caused by the disruption of secular equilibrium between Radium-226 and Bismuth-214 by the loss of Radon-222 during sample preparation. (160-3482-19 DU), (LCS 160-69096/2-A), (MB 160-69096/1-A), L050301PRS00 (160-3482-1), L050302PES00 (160-3482-2), L050303PRS00 (160-3482-3), L050304PEQ00 (160-3482-4), L050304PES00 (160-3482-5), L050305PRS00 (160-3482-6), L050306PES00 (160-3482-7), L050307PRS00 (160-3482-8), L050308PES00 (160-3482-9), L050309PRS00 (160-3482-10), L050310PES00 (160-3482-11), L050311PRS00 (160-3482-12), L050312PES00 (160-3482-13), L050313PRS00 (160-3482-14), L050314PES00 (160-3482-15), L050315PRS00 (160-3482-16), L050316PES00 (160-3482-17), L050317PRS00 (160-3482-18), L050318PES00 (160-3482-19), L050319PRS00 (160-3482-20)

The reporting limit for thorium-234 was not met due to insufficient sample weight available for analysis. Analytical results are reported with the MDC achieved. L050302PES00 (160-3482-2), L050308PES00 (160-3482-9), L050310PES00 (160-3482-11), L050314PES00 (160-3482-15)

Preparation Batch 69129:

The detection goal for thorium-234 analyzed by gamma spectroscopy was not met for the following samples due to insufficient sample weight available for analysis: 160-3482-A-21-F, 160-3482-A-28-D, 160-3482-A-29-D, 160-3482-A-30-D, 160-3482-A-31-D, 160-3482-A-32-D, 160-3482-A-32-E DU. Analytical results are reported with the detection limit achieved.

In addition, sample 160-3482-A-27-D did not meet the detection goal for thorium-234 due to the activity of other isotopes in the sample. Analytical results are reported with the detection limit achieved.

Radium-226 is reported in these samples at the client's request. Radium-226 is reported from the 609.31 keV line of Bismuth-214. Because the samples have not had a 21-day ingrowth, the activity for Radium-226 is an estimated value and may be biased low. This bias is caused by the disruption of secular equilibrium between Radium-226 and Bismuth-214 by the loss of Radon-222 during sample

Case Narrative

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Job ID: 160-3482-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

preparation. (160-3482-32 DU), (LCS 160-69129/2-A), (MB 160-69129/1-A), L050320PES00 (160-3482-21), L050321PRS00 (160-3482-22), L050322PES00 (160-3482-23), L050323PUB00 (160-3482-24), L050324PUB00 (160-3482-25), L050325PUB00 (160-3482-26), L050326PUB00 (160-3482-27), L050327PUB00 (160-3482-28), L050328PUB00 (160-3482-29), L050329PUB00 (160-3482-30), L050330PUB00 (160-3482-31), L050331PUB00 (160-3482-32), L050332PUB00 (160-3482-33)

No other difficulties were encountered during the Gamma spec analysis. All other quality control parameters were within the acceptance limits.

Hematite Decommissioning Project	Procedure HDP-PR-QA-006, Chain of Custody	
	Revision: 3	Page 1 of 1
	Westinghouse Non-Proprietary Class 3	

**FORM HDP-PR-QA-006-1
CHAIN OF CUSTODY**

Instructions: Each time the container is transferred to another organization, a person from each organization should sign the CoC. The Laboratory/End User must verify that the sample is correctly identified before the sample is released for use or analysis and send the completed CoC to HDP.

Chain of Custody ID No. F-082213-01 Page 1/3				Requested Analysis												Laboratory Name:	
Project Name: Westinghouse Electric Company				Comp (C) or Grab (G)	Gamma Spec	Isotopic Uranium	Tc-99	Gamma Spec (21 day ingrow for Ra-226)							Total Containers	TA-MO	
Contact Person: Gerald Rood																Laboratory Address: 13715 Rider Trail North	
Phone Number: 314-810-3382																Phone No. 314-298-8566	
Sampler Name Scott Jenkins																Laboratory Contact Person: Joe Walker	
																Phone No. 708-870-8453	
																Turn Around Time	
																Rush (7 days)	
																Remarks	
Sample ID	Date	Time	Matrix														
L050301PRS00	8/20/2013	15:24	S	C	X		X	X							1	LSA05-03 Sys	
L050302PES00	8/20/2013	15:30	S	C	X		X	X							1		
L050303PRS00	8/20/2013	15:44	S	C	X		X	X							1		
L050304PEQ00	8/20/2013	15:52	S	C	X		X	X							1		
L050304PES00	8/20/2013	15:52	S	C	X		X	X							1		
L050305PRS00	8/20/2013	17:20	S	C	X		X	X							1		
L050306PES00	8/20/2013	17:30	S	C	X		X	X							1		
L050307PRS00	8/20/2013	16:08	S	C	X		X	X							1		
L050308PES00	8/20/2013	16:13	S	C	X		X	X							1		
L050309PRS00	8/21/2013	9:07	S	C	X		X	X							1		
L050310PES00	8/21/2013	9:19	S	C	X		X	X							1		
L050311PRS00	8/21/2013	9:42	S	C	X		X	X							1		
Relinquished by: <i>[Signature]</i>		Date/Time: 8-22-13 1720		Received by: <i>[Signature]</i>		Date/Time: 8-22-13 1720		Total: 33		Cooler Temperature: Ambient							
Company Name: WEC				Company Name: Crossroads				Cooler ID: 0822-04/05/06		Shipper and Number:							
Received by:		Date/Time:		Relinquished by: <i>[Signature]</i>		Date/Time: 8-22-13 18:47		Comments: Please re-analyze samples after 21-day ingrowth period.									
Company Name:				Company Name: Crossroads													
Relinquished by:		Date/Time:		Received by: <i>[Signature]</i>		Date/Time: 8-22-13 18:50		Verified By:									
Company Name:				Company Name: <i>[Signature]</i>													

3482

Hematite Decommissioning Project

Procedure HDP-PR-QA-006, Chain of Custody

Revision: 3

Page 1 of 1

Westinghouse Non-Proprietary Class 3

FORM HDP-PR-QA-006-1

CHAIN OF CUSTODY

Instructions: Each time the container is transferred to another organization, a person from each organization should sign the CoC. The Laboratory/End User must verify that the sample is correctly identified before the sample is released for use or analysis and send the completed CoC to HDP.

Chain of Custody ID No. F-082213-01 Page 2/3				Requested Analysis										Laboratory Name:		
Project Name:				Comp (C) or Grab (G)	Gamma Spec	Isotopic Uranium	Tc-99	Gamma Spec (21 day ingrow for Ra-226)						Total Containers	TA-MO	
Westinghouse Electric Company															Laboratory Address:	
Contact Person:															13715 Rider Trail North	
Phone Number:															Phone No.	
314-810-3382															314-298-8566	
Sampler Name				Laboratory Contact Person:												
Scott Jenkins				Joe Walker												
Phone No.				708-870-8453												
				Turn Around Time												
				Rush (7 days)												
				Remarks												
Sample ID	Date	Time	Matrix	C	X		X	X						1	LSA 05-03 Sys	
L050312PES00	8/21/2013	10:47	S	C	X		X	X						1		
L050313PRS00	8/21/2013	11:21	S	C	X		X	X						1		
L050314PES00	8/21/2013	11:38	S	C	X		X	X						1		
L050315PRS00	8/21/2013	13:40	S	C	X		X	X						1		
L050316PES00	8/21/2013	13:55	S	C	X		X	X						1		
L050317PRS00	8/21/2013	15:15	S	C	X		X	X						1		
L050318PES00	8/21/2013	15:21	S	C	X		X	X						1		
L050319PRS00	8/21/2013	16:42	S	C	X		X	X						1		
L050320PES00	8/21/2013	16:50	S	C	X		X	X						1		
L050321PRS00	8/21/2013	16:19	S	C	X		X	X						1		
L050322PES00	8/21/2013	16:24	S	C	X		X	X						1	LSA 05-03 Sys	
L050323PUB00	8/19/2013	16:35	S	C	X		X	X						1	LSA 05-03 Bias	
Relinquished by: <i>[Signature]</i>				Date/Time: 8-22-13 1720		Received by: <i>[Signature]</i>		Date/Time: 8-22 1720		Total: 33		Cooler Temperature: Ambient				
Company Name: WEC						Company Name: Crossroads				Cooler ID: 0822-04/05/06		Shipper and Number:				
Received by:				Date/Time:		Relinquished by: <i>[Signature]</i>		Date/Time: 8-22 18:47		Comments: Please re-analyze samples after 21-day ingrowth period.						
Company Name:						Company Name: Crossroads										
Relinquished by:				Date/Time:		Received by: <i>[Signature]</i>		Date/Time: 8-22 18:50		Verified By:						
Company Name:						Company Name: TA										

Hematite Decommissioning Project

Procedure HDP-PR-QA-006, Chain of Custody

Revision: 3

Page 1 of 1

Westinghouse Non-Proprietary Class 3

FORM HDP-PR-QA-006-1

CHAIN OF CUSTODY

Instructions: Each time the container is transferred to another organization, a person from each organization should sign the CoC. The Laboratory/End User must verify that the sample is correctly identified before the sample is released for use or analysis and send the completed CoC to HDP.

Chain of Custody ID No. F-082213-01 Page 3/3				Requested Analysis												Laboratory Name:	
Project Name: Westinghouse Electric Company				Comp (C) or Grab (G)	Gamma Spec	Isotopic Uranium	Tc-99	Gamma Spec (21 day ingrow for Ra-226)							Total Containers	TA-MO	
Contact Person: Gerald Rood																Laboratory Address: 13715 Rider Trail North	
Phone Number: 314-810-3382																Phone No. 314-298-8566	
Sampler Name Scott Jenkins																Laboratory Contact Person: Joe Walker	
																Phone No. 708-870-8453	
																Turn Around Time	
																Rush (7 days)	
																Remarks	
Sample ID	Date	Time	Matrix														
L050324PUB00	8/19/2013	16:45	S	C	X		X	X							1	USA 05-03 Bras	
L050325PUB00	8/19/2013	16:55	S	C	X		X	X							1		
L050326PUB00	8/20/2013	14:55	S	C	X		X	X							1		
L050327PUB00	8/21/2013	9:15	S	C	X		X	X							1		
L050328PUB00	8/21/2013	9:45	S	C	X		X	X							1		
L050329PUB00	8/21/2013	10:50	S	C	X		X	X							1		
L050330PUB00	8/21/2013	11:10	S	C	X		X	X							1		
L050331PUB00	8/21/2013	11:20	S	C	X		X	X							1		
L050332PUB00	8/21/2013	13:40	S	C	X		X	X							1		
Relinquished by: <i>[Signature]</i>				Date/Time: 8-22-13 17:20		Received by: <i>[Signature]</i>				Date/Time: 8-22 17:20		Total: 33		Cooler Temperature: Ambient			
Company Name: WEC						Company Name: crossroads						Cooler ID: 0822-04/05106		Shipper and Number:			
Received by:				Date/Time:		Relinquished by: <i>[Signature]</i>				Date/Time: 8-22 18:57		Comments: Please re-analyze samples after 21-day ingrowth period.					
Company Name:						Company Name: crossroads											
Relinquished by:				Date/Time:		Received by: <i>[Signature]</i>				Date/Time: 8-22 18:50		Verified By:					
Company Name:						Company Name: TA											

Login Sample Receipt Checklist

Client: Westinghouse Electric Company LLC

Job Number: 160-3482-1

Login Number: 3482

List Source: TestAmerica St. Louis

List Number: 1

Creator: Daniels, Brian J

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Definitions/Glossary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Qualifiers

Rad

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS), Tc-99	SW846	TAL SL
Moisture	Percent Moisture	EPA	TAL SL
6020A	Metals (ICP/MS), Tc-99 in Activity	SW846	TAL SL
GA-01-R	Cesium-137 & Other Gamma Emitters (GS)	DOE	TAL SL

Protocol References:

DOE = U.S. Department of Energy

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-3482-1	L050301PRS00	Solid	08/20/13 15:24	08/22/13 16:45
160-3482-2	L050302PES00	Solid	08/20/13 15:30	08/22/13 16:45
160-3482-3	L050303PRS00	Solid	08/20/13 15:44	08/22/13 16:45
160-3482-4	L050304PEQ00	Solid	08/20/13 15:52	08/22/13 16:45
160-3482-5	L050304PES00	Solid	08/20/13 15:52	08/22/13 16:45
160-3482-6	L050305PRS00	Solid	08/20/13 17:20	08/22/13 16:45
160-3482-7	L050306PES00	Solid	08/20/13 17:30	08/22/13 16:45
160-3482-8	L050307PRS00	Solid	08/20/13 16:08	08/22/13 16:45
160-3482-9	L050308PES00	Solid	08/20/13 16:13	08/22/13 16:45
160-3482-10	L050309PRS00	Solid	08/20/13 09:07	08/22/13 16:45
160-3482-11	L050310PES00	Solid	08/21/13 09:19	08/22/13 16:45
160-3482-12	L050311PRS00	Solid	08/21/13 09:42	08/22/13 16:45
160-3482-13	L050312PES00	Solid	08/21/13 10:47	08/22/13 16:45
160-3482-14	L050313PRS00	Solid	08/21/13 11:21	08/22/13 16:45
160-3482-15	L050314PES00	Solid	08/21/13 11:38	08/22/13 16:45
160-3482-16	L050315PRS00	Solid	08/21/13 13:40	08/22/13 16:45
160-3482-17	L050316PES00	Solid	08/21/13 13:55	08/22/13 16:45
160-3482-18	L050317PRS00	Solid	08/21/13 15:15	08/22/13 16:45
160-3482-19	L050318PES00	Solid	08/21/13 15:21	08/22/13 16:45
160-3482-20	L050319PRS00	Solid	08/21/13 16:42	08/22/13 16:45
160-3482-21	L050320PES00	Solid	08/21/13 16:50	08/22/13 16:45
160-3482-22	L050321PRS00	Solid	08/21/13 16:19	08/22/13 16:45
160-3482-23	L050322PES00	Solid	08/21/13 16:24	08/22/13 16:45
160-3482-24	L050323PUB00	Solid	08/19/13 16:35	08/22/13 16:45
160-3482-25	L050324PUB00	Solid	08/19/13 16:45	08/22/13 16:45
160-3482-26	L050325PUB00	Solid	08/19/13 16:55	08/22/13 16:45
160-3482-27	L050326PUB00	Solid	08/20/13 14:55	08/22/13 16:45
160-3482-28	L050327PUB00	Solid	08/21/13 09:15	08/22/13 16:45
160-3482-29	L050328PUB00	Solid	08/21/13 09:45	08/22/13 16:45
160-3482-30	L050329PUB00	Solid	08/21/13 10:50	08/22/13 16:45
160-3482-31	L050330PUB00	Solid	08/21/13 11:10	08/22/13 16:45
160-3482-32	L050331PUB00	Solid	08/21/13 11:20	08/22/13 16:45
160-3482-33	L050332PUB00	Solid	08/21/13 13:40	08/22/13 16:45

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050301PRS00

Lab Sample ID: 160-3482-1

Date Collected: 08/20/13 15:24

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 83.2

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00070	0.000021	mg/Kg	☆	08/23/13 14:01	08/27/13 15:30	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0398	U	-0.0201	0.0238	1.40	0.240	pCi/g	08/23/13 14:01	08/27/13 15:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	86		30 - 110					08/23/13 14:01	08/27/13 15:30	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.23		0.140	0.183		0.163	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Americium 241	-0.0360	U	1.44	1.44		0.118	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Bismuth 212	1.30		0.437	0.455		0.427	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Bismuth 214	0.859		0.108	0.136		0.0756	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Lead 212	1.15		0.0828	0.149		0.0679	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Lead 214	0.940		0.100	0.136		0.0799	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Potassium 40	22.6		1.37	2.58		0.152	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Protactinium 231	0.515	U	0.299	0.304		1.32	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Radium 226	0.859		0.108	0.136	1.00	0.0756	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Thorium 234	1.02		0.342	0.357	1.00	0.875	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Uranium 235	0.0619	U	0.163	0.163		0.275	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Protactinium 234m	0.000	U	1.30	1.30		7.07	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Thorium 232	1.23		0.140	0.183		0.163	pCi/g	08/28/13 10:52	08/28/13 22:44	1
Other Detected Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.364		0.0504	0.0616		0.0371	pCi/g	08/28/13 10:52	08/28/13 22:44	1

Client Sample ID: L050302PES00

Lab Sample ID: 160-3482-2

Date Collected: 08/20/13 15:30

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 81.6

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00070	0.000021	mg/Kg	☆	08/23/13 14:01	08/27/13 15:42	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0483	U	-0.0176	0.0209	1.40	0.240	pCi/g	08/23/13 14:01	08/27/13 15:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	87		30 - 110					08/23/13 14:01	08/27/13 15:42	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050302PES00

Lab Sample ID: 160-3482-2

Date Collected: 08/20/13 15:30

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.11		0.186	0.217		0.121	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Americium 241	0.0282	U	0.0704	0.0704		0.118	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Bismuth 212	0.874		0.463	0.472		0.677	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Bismuth 214	0.922		0.117	0.151		0.0713	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Lead 212	1.13		0.0924	0.172		0.0825	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Lead 214	0.953		0.126	0.160		0.0979	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Potassium 40	18.9		1.47	2.43		0.357	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Protactinium 231	0.257	U	0.231	0.233		1.26	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Radium 226	0.922		0.117	0.151	1.00	0.0713	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Thorium 234	1.64		0.869	0.886	1.00	1.05	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Uranium 235	0.187	U	0.152	0.153		0.242	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Protactinium 234m	0.696	U	4.42	4.42		7.15	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Thorium 232	1.11		0.186	0.217		0.121	pCi/g	08/28/13 10:52	08/28/13 23:16	1
Other Detected										
Radionuclides	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Tl-208	0.344		0.0561	0.0664		0.0444	pCi/g	08/28/13 10:52	08/28/13 23:16	1

Client Sample ID: L050303PRS00

Lab Sample ID: 160-3482-3

Date Collected: 08/20/13 15:44

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 83.8

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00067	0.000020	mg/Kg	☆	08/23/13 14:01	08/27/13 15:46	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Technetium 99	-0.0638	U	-0.0628	0.0719	1.35	0.231	pCi/g	08/23/13 14:01	08/27/13 15:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	88		30 - 110					08/23/13 14:01	08/27/13 15:46	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.03		0.141	0.176		0.110	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Americium 241	0.0255	U	0.0543	0.0543		0.0906	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Bismuth 212	1.22		0.308	0.333		0.314	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Bismuth 214	0.789		0.0917	0.123		0.0636	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Lead 212	1.14		0.0759	0.166		0.0590	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Lead 214	0.879		0.0975	0.134		0.0754	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Potassium 40	20.8		1.22	2.45		0.251	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Protactinium 231	0.513	U	0.339	0.344		1.14	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Radium 226	0.789		0.0917	0.123	1.00	0.0636	pCi/g	08/28/13 10:52	08/28/13 23:18	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050303PRS00

Lab Sample ID: 160-3482-3

Date Collected: 08/20/13 15:44

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Thorium 234	1.60		0.672	0.693	1.00	0.865	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Uranium 235	0.0973	U	0.140	0.140		0.228	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Protactinium 234m	4.19	U	2.30	2.34		4.72	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Thorium 232	1.03		0.141	0.176		0.110	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.370		0.0502	0.0632		0.0370	pCi/g	08/28/13 10:52	08/28/13 23:18	1

Client Sample ID: L050304PEQ00

Lab Sample ID: 160-3482-4

Date Collected: 08/20/13 15:52

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 82.0

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00071	0.000021	mg/Kg	☼	08/23/13 14:01	08/27/13 15:49	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0875	U	-0.00602	0.0119	1.43	0.245	pCi/g	08/23/13 14:01	08/27/13 15:49	1
Carrier										
Re	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	85		30 - 110					08/23/13 14:01	08/27/13 15:49	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.29		0.155	0.199		0.127	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Americium 241	-0.0293	U	0.667	0.667		0.114	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Bismuth 212	1.61		0.353	0.387		0.221	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Bismuth 214	0.875		0.106	0.136		0.0712	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Lead 212	1.19		0.0849	0.154		0.0730	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Lead 214	0.891		0.101	0.133		0.0794	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Potassium 40	23.6		1.53	2.75		0.572	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Protactinium 231	0.891	U	0.382	0.392		1.24	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Radium 226	0.875		0.106	0.136	1.00	0.0712	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Thorium 234	1.04		0.367	0.381	1.00	0.927	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Uranium 235	0.112	U	0.164	0.165		0.270	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Protactinium 234m	1.97	U	3.36	3.37		5.67	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Thorium 232	1.29		0.155	0.199		0.127	pCi/g	08/28/13 10:52	08/28/13 23:18	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.344		0.0542	0.0637		0.0425	pCi/g	08/28/13 10:52	08/28/13 23:18	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050304PES00

Lab Sample ID: 160-3482-5

Date Collected: 08/20/13 15:52

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 81.8

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00076	0.000023	mg/Kg	☼	08/23/13 14:01	08/27/13 15:53	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0618	U	-0.0725	0.0895	1.52	0.260	pCi/g	08/23/13 14:01	08/27/13 15:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	81		30 - 110					08/23/13 14:01	08/27/13 15:53	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.16		0.133	0.174		0.112	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Americium 241	0.0141	U	0.0636	0.0637		0.107	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Bismuth 212	1.51		0.454	0.477		0.421	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Bismuth 214	0.828		0.106	0.133		0.0778	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Lead 212	1.14		0.0825	0.191		0.0658	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Lead 214	0.974		0.0906	0.140		0.0888	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Potassium 40	22.9		1.38	2.60		0.365	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Protactinium 231	0.677	U	0.305	0.316		1.27	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Radium 226	0.828		0.106	0.133	1.00	0.0778	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Thorium 234	1.55		0.712	0.728	1.00	0.897	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Uranium 235	0.172	U	0.138	0.139		0.262	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Protactinium 234m	3.07	U	3.74	3.75		5.44	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Thorium 232	1.16		0.133	0.174		0.112	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Other Detected Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.405		0.0523	0.0655		0.0358	pCi/g	08/28/13 10:52	08/28/13 23:52	1

Client Sample ID: L050305PRS00

Lab Sample ID: 160-3482-6

Date Collected: 08/20/13 17:20

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 82.8

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00070	0.000021	mg/Kg	☼	08/23/13 14:01	08/27/13 15:57	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0360	U	-0.0548	0.0641	1.40	0.240	pCi/g	08/23/13 14:01	08/27/13 15:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	86		30 - 110					08/23/13 14:01	08/27/13 15:57	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050305PRS00

Lab Sample ID: 160-3482-6

Date Collected: 08/20/13 17:20

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.17		0.135	0.176		0.108	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Americium 241	0.00112	U	0.0618	0.0618		0.104	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Bismuth 212	1.60		0.442	0.468		0.357	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Bismuth 214	0.856		0.102	0.132		0.0756	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Lead 212	0.969		0.0842	0.134		0.0922	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Lead 214	0.944		0.0975	0.134		0.0718	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Potassium 40	21.9		1.30	2.48		0.346	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Protactinium 231	0.287	U	0.202	0.204		1.21	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Radium 226	0.856		0.102	0.132	1.00	0.0756	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Thorium 234	1.44		0.756	0.769	1.00	0.914	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Uranium 235	0.145	U	0.139	0.140		0.242	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Protactinium 234m	0.946	U	2.91	2.91		5.06	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Thorium 232	1.17		0.135	0.176		0.108	pCi/g	08/28/13 10:52	08/28/13 23:49	1
Other Detected										
Radionuclides	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Tl-208	0.368		0.0541	0.0649		0.0431	pCi/g	08/28/13 10:52	08/28/13 23:49	1

Client Sample ID: L050306PES00

Lab Sample ID: 160-3482-7

Date Collected: 08/20/13 17:30

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 81.2

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00071	0.000021	mg/Kg	☼	08/23/13 14:01	08/27/13 16:09	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Technetium 99	0.139	U	0.0574	0.0678	1.41	0.242	pCi/g	08/23/13 14:01	08/27/13 16:09	1
Carrier										
	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	87		30 - 110					08/23/13 14:01	08/27/13 16:09	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.29		0.236	0.271		0.135	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Americium 241	-0.00159	U	0.0765	0.0765		0.129	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Bismuth 212	1.56		0.539	0.563		0.440	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Bismuth 214	0.852		0.124	0.153		0.0796	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Lead 212	1.09		0.0886	0.166		0.0726	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Lead 214	0.902		0.103	0.140		0.0877	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Potassium 40	18.9		1.52	2.47		0.491	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Protactinium 231	0.415	U	0.274	0.278		1.42	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Radium 226	0.852		0.124	0.153	1.00	0.0796	pCi/g	08/28/13 10:52	08/28/13 23:54	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050306PES00

Lab Sample ID: 160-3482-7

Date Collected: 08/20/13 17:30

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Thorium 234	1.16		0.725	0.735	1.00	0.977	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Uranium 235	0.131	U	0.133	0.134		0.192	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Protactinium 234m	-0.434	U	4.15	4.15		7.45	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Thorium 232	1.29		0.236	0.271		0.135	pCi/g	08/28/13 10:52	08/28/13 23:54	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.380		0.0592	0.0711		0.0395	pCi/g	08/28/13 10:52	08/28/13 23:54	1

Client Sample ID: L050307PRS00

Lab Sample ID: 160-3482-8

Date Collected: 08/20/13 16:08

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 81.9

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00075	0.000022	mg/Kg	☆	08/23/13 14:01	08/27/13 16:13	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	0.0340	U	0.0608	0.0739	1.50	0.256	pCi/g	08/23/13 14:01	08/27/13 16:13	1
Carrier										
Re	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	82		30 - 110					08/23/13 14:01	08/27/13 16:13	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.24		0.141	0.190		0.137	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Americium 241	-0.00776	U	1.07	1.07		0.101	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Bismuth 212	1.45		0.388	0.417		0.316	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Bismuth 214	0.797		0.103	0.132		0.0764	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Lead 212	1.10		0.0803	0.164		0.0604	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Lead 214	0.958		0.0955	0.138		0.0760	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Potassium 40	19.9		1.36	2.45		0.278	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Protactinium 231	0.414	U	0.352	0.355		1.06	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Radium 226	0.797		0.103	0.132	1.00	0.0764	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Thorium 234	1.05		0.336	0.353	1.00	0.849	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Uranium 235	0.116	U	0.134	0.134		0.239	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Protactinium 234m	3.12	U	3.40	3.42		5.50	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Thorium 232	1.24		0.141	0.190		0.137	pCi/g	08/28/13 10:52	08/28/13 23:52	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.371		0.0502	0.0633		0.0458	pCi/g	08/28/13 10:52	08/28/13 23:52	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050308PES00

Lab Sample ID: 160-3482-9

Date Collected: 08/20/13 16:13

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 81.7

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00071	0.000021	mg/Kg	☼	08/23/13 14:01	08/27/13 16:17	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0443	U	-0.0696	0.0809	1.42	0.243	pCi/g	08/23/13 14:01	08/27/13 16:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	86		30 - 110					08/23/13 14:01	08/27/13 16:17	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.10		0.164	0.199		0.131	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Americium 241	0.0150	U	0.0724	0.0724		0.122	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Bismuth 212	1.57		0.602	0.623		0.554	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Bismuth 214	0.818		0.108	0.138		0.0712	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Lead 212	1.07		0.0884	0.164		0.0788	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Lead 214	0.985		0.108	0.149		0.0948	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Potassium 40	21.8		1.55	2.71		0.356	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Protactinium 231	0.507	U	0.301	0.306		1.42	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Radium 226	0.818		0.108	0.138	1.00	0.0712	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Thorium 234	1.32		0.827	0.839	1.00	1.01	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Uranium 235	0.0739	U	0.168	0.168		0.282	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Protactinium 234m	4.09	U	4.12	4.14		6.60	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Thorium 232	1.10		0.164	0.199		0.131	pCi/g	08/28/13 10:52	08/28/13 23:53	1
Other Detected Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.388		0.0670	0.0782		0.0504	pCi/g	08/28/13 10:52	08/28/13 23:53	1

Client Sample ID: L050309PRS00

Lab Sample ID: 160-3482-10

Date Collected: 08/20/13 09:07

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 83.3

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00069	0.000021	mg/Kg	☼	08/23/13 14:01	08/27/13 16:20	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0504	U	-0.0519	0.0604	1.38	0.236	pCi/g	08/23/13 14:01	08/27/13 16:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	86		30 - 110					08/23/13 14:01	08/27/13 16:20	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050309PRS00

Lab Sample ID: 160-3482-10

Date Collected: 08/20/13 09:07

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.12		0.134	0.177		0.0972	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Americium 241	0.0133	U	0.0601	0.0601		0.101	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Bismuth 212	1.32		0.386	0.410		0.334	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Bismuth 214	0.806		0.0897	0.123		0.0571	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Lead 212	1.11		0.0727	0.161		0.0527	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Lead 214	0.849		0.0840	0.122		0.0576	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Potassium 40	19.3		1.18	2.30		0.328	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Protactinium 231	0.474	U	0.244	0.250		1.10	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Radium 226	0.806		0.0897	0.123	1.00	0.0571	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Thorium 234	1.24		0.553	0.568	1.00	0.773	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Uranium 235	0.0931	U	0.143	0.144		0.233	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Protactinium 234m	8.29		3.08	3.19		2.54	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Thorium 232	1.12		0.134	0.177		0.0972	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Other Detected										
Radionuclides	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Tl-208	0.377		0.0477	0.0617		0.0311	pCi/g	08/28/13 10:52	08/28/13 23:51	1

Client Sample ID: L050310PES00

Lab Sample ID: 160-3482-11

Date Collected: 08/21/13 09:19

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 81.2

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00069	0.000021	mg/Kg	☆	08/23/13 14:01	08/27/13 16:24	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Technetium 99	-0.0626	U	-0.0652	0.0732	1.37	0.235	pCi/g	08/23/13 14:01	08/27/13 16:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	89		30 - 110					08/23/13 14:01	08/27/13 16:24	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.15		0.122	0.169		0.102	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Americium 241	-0.00426	U	0.0669	0.0669		0.113	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Bismuth 212	1.51		0.421	0.449		0.382	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Bismuth 214	0.831		0.0953	0.129		0.0725	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Lead 212	1.00		0.0792	0.152		0.0845	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Lead 214	0.954		0.0907	0.134		0.0741	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Potassium 40	20.4		1.20	2.41		0.370	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Protactinium 231	0.293	U	0.187	0.190		1.27	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Radium 226	0.831		0.0953	0.129	1.00	0.0725	pCi/g	08/28/13 10:52	08/29/13 08:19	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050310PES00

Lab Sample ID: 160-3482-11

Date Collected: 08/21/13 09:19

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Thorium 234	0.748	U	0.365	0.374	1.00	1.05	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Uranium 235	0.290		0.164	0.167		0.195	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Protactinium 234m	2.40	U	2.79	2.80		4.56	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Thorium 232	1.15		0.122	0.169		0.102	pCi/g	08/28/13 10:52	08/29/13 08:19	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.379		0.0519	0.0651		0.0411	pCi/g	08/28/13 10:52	08/29/13 08:19	1

Client Sample ID: L050311PRS00

Lab Sample ID: 160-3482-12

Date Collected: 08/21/13 09:42

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 81.7

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00075	0.000023	mg/Kg	☼	08/23/13 14:01	08/27/13 16:28	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0691	U	-0.0316	0.0397	1.51	0.258	pCi/g	08/23/13 14:01	08/27/13 16:28	1
Carrier										
Re	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	81		30 - 110					08/23/13 14:01	08/27/13 16:28	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.22		0.148	0.189		0.138	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Americium 241	-0.0435	U	0.580	0.580		0.108	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Bismuth 212	1.59		0.503	0.526		0.439	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Bismuth 214	0.940		0.117	0.148		0.0842	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Lead 212	1.20		0.0805	0.152		0.0570	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Lead 214	0.969		0.0933	0.132		0.0817	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Potassium 40	21.9		1.39	2.53		0.389	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Protactinium 231	0.366	U	0.283	0.285		1.36	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Radium 226	0.940		0.117	0.148	1.00	0.0842	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Thorium 234	1.32		0.792	0.802	1.00	0.971	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Uranium 235	0.101	U	0.157	0.157		0.264	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Protactinium 234m	-0.316	U	2.96	2.96		5.30	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Thorium 232	1.22		0.148	0.189		0.138	pCi/g	08/28/13 10:52	08/28/13 23:51	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.395		0.0498	0.0629		0.0349	pCi/g	08/28/13 10:52	08/28/13 23:51	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050312PES00

Lab Sample ID: 160-3482-13

Date Collected: 08/21/13 10:47

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 81.4

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00073	0.000022	mg/Kg	☼	08/23/13 14:01	08/27/13 16:32	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0820	U	-0.0253	0.0315	1.46	0.249	pCi/g	08/23/13 14:01	08/27/13 16:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	84		30 - 110					08/23/13 14:01	08/27/13 16:32	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.20		0.155	0.198		0.145	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Americium 241	0.0195	U	0.0632	0.0632		0.106	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Bismuth 212	1.50		0.416	0.444		0.322	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Bismuth 214	1.03		0.119	0.160		0.0805	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Lead 212	1.14		0.0823	0.169		0.0637	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Lead 214	1.02		0.0903	0.139		0.0755	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Potassium 40	21.1		1.38	2.56		0.167	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Protactinium 231	-0.704	U	0.804	0.808		1.32	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Radium 226	1.03		0.119	0.160	1.00	0.0805	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Thorium 234	1.26		0.633	0.647	1.00	0.838	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Uranium 235	0.153	U	0.136	0.137		0.237	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Protactinium 234m	1.95	U	3.70	3.71		6.29	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Thorium 232	1.20		0.155	0.198		0.145	pCi/g	08/28/13 10:52	08/29/13 08:15	1
Other Detected Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.384		0.0579	0.0703		0.0430	pCi/g	08/28/13 10:52	08/29/13 08:15	1

Client Sample ID: L050313PRS00

Lab Sample ID: 160-3482-14

Date Collected: 08/21/13 11:21

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 85.5

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00070	0.000021	mg/Kg	☼	08/23/13 14:01	08/27/13 16:36	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0419	U	-0.0433	0.0524	1.40	0.239	pCi/g	08/23/13 14:01	08/27/13 16:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	83		30 - 110					08/23/13 14:01	08/27/13 16:36	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050313PRS00

Lab Sample ID: 160-3482-14

Date Collected: 08/21/13 11:21

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.14		0.134	0.174		0.158	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Americium 241	-0.00399	U	0.0812	0.0812		0.112	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Bismuth 212	1.05		0.403	0.415		0.553	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Bismuth 214	0.858		0.110	0.138		0.0792	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Lead 212	1.19		0.0840	0.153		0.0690	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Lead 214	0.861		0.0976	0.128		0.0749	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Potassium 40	21.8		1.41	2.54		0.414	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Protactinium 231	0.410	U	0.206	0.210		1.20	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Radium 226	0.858		0.110	0.138	1.00	0.0792	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Thorium 234	0.837	U	0.338	0.348	1.00	0.893	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Uranium 235	0.231		0.170	0.172		0.227	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Protactinium 234m	0.141	U	1.72	1.72		8.15	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Thorium 232	1.14		0.134	0.174		0.158	pCi/g	08/28/13 10:52	08/29/13 03:09	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.337		0.0464	0.0568		0.0341	pCi/g	08/28/13 10:52	08/29/13 03:09	1

Client Sample ID: L050314PES00

Lab Sample ID: 160-3482-15

Date Collected: 08/21/13 11:38

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 83.0

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00073	0.000022	mg/Kg	☆	08/23/13 14:01	08/27/13 16:40	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0712	U	-0.0717	0.0878	1.46	0.250	pCi/g	08/23/13 14:01	08/27/13 16:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	82		30 - 110					08/23/13 14:01	08/27/13 16:40	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.11		0.161	0.197		0.113	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Americium 241	-0.0242	U	0.0715	0.0715		0.120	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Bismuth 212	1.04		0.414	0.428		0.539	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Bismuth 214	0.785		0.111	0.137		0.0831	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Lead 212	1.04		0.0859	0.160		0.0705	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Lead 214	0.832		0.110	0.140		0.111	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Potassium 40	18.6		1.42	2.37		0.200	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Protactinium 231	0.605	U	0.359	0.365		1.28	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Radium 226	0.785		0.111	0.137	1.00	0.0831	pCi/g	08/28/13 10:52	08/29/13 08:18	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050314PES00

Lab Sample ID: 160-3482-15

Date Collected: 08/21/13 11:38

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Thorium 234	1.57		0.836	0.852	1.00	1.01	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Uranium 235	0.138	U	0.135	0.136		0.209	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Protactinium 234m	0.000	U	1.20	1.20		5.01	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Thorium 232	1.11		0.161	0.197		0.113	pCi/g	08/28/13 10:52	08/29/13 08:18	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.269		0.0519	0.0590		0.0435	pCi/g	08/28/13 10:52	08/29/13 08:18	1

Client Sample ID: L050315PRS00

Lab Sample ID: 160-3482-16

Date Collected: 08/21/13 13:40

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 82.3

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00076	0.000023	mg/Kg	☼	08/23/13 14:01	08/27/13 16:44	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0502	U	-0.0387	0.0482	1.51	0.259	pCi/g	08/23/13 14:01	08/27/13 16:44	1
Carrier										
Re	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
	81		30 - 110					08/23/13 14:01	08/27/13 16:44	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.09		0.113	0.158		0.111	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Americium 241	0.00258	U	0.0551	0.0551		0.0932	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Bismuth 212	1.12		0.411	0.427		0.392	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Bismuth 214	0.742		0.0834	0.114		0.0539	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Lead 212	1.17		0.0752	0.169		0.0566	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Lead 214	0.910		0.0837	0.126		0.0688	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Potassium 40	19.1		1.19	2.28		0.385	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Protactinium 231	-0.543	U	0.665	0.668		1.10	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Radium 226	0.742		0.0834	0.114	1.00	0.0539	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Thorium 234	1.54		0.727	0.745	1.00	0.920	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Uranium 235	0.0913	U	0.0933	0.0937		0.223	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Protactinium 234m	5.23		2.28	2.34		4.78	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Thorium 232	1.09		0.113	0.158		0.111	pCi/g	08/28/13 10:52	08/29/13 08:20	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.325		0.0447	0.0560		0.0340	pCi/g	08/28/13 10:52	08/29/13 08:20	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050316PES00

Lab Sample ID: 160-3482-17

Date Collected: 08/21/13 13:55

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 81.7

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00068	0.000020	mg/Kg	☼	08/23/13 14:01	08/27/13 16:55	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0254	U	-0.0632	0.0700	1.35	0.231	pCi/g	08/23/13 14:01	08/27/13 16:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	90		30 - 110					08/23/13 14:01	08/27/13 16:55	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.44		0.191	0.236		0.101	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Americium 241	0.00284	U	0.0633	0.0633		0.109	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Bismuth 212	1.09		0.439	0.452		0.438	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Bismuth 214	0.911		0.120	0.149		0.0825	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Lead 212	1.23		0.0843	0.157		0.0675	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Lead 214	0.946		0.0899	0.128		0.0751	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Potassium 40	20.1		1.32	2.35		0.358	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Protactinium 231	0.618	U	0.225	0.233		1.25	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Radium 226	0.911		0.120	0.149	1.00	0.0825	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Thorium 234	1.36		0.601	0.615	1.00	0.798	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Uranium 235	0.0944	U	0.176	0.176		0.293	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Protactinium 234m	0.895	U	2.73	2.73		4.80	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Thorium 232	1.44		0.191	0.236		0.101	pCi/g	08/28/13 10:52	08/29/13 10:11	1
Other Detected			Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radionuclides	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.386		0.0461	0.0594		0.0352	pCi/g	08/28/13 10:52	08/29/13 10:11	1

Client Sample ID: L050317PRS00

Lab Sample ID: 160-3482-18

Date Collected: 08/21/13 15:15

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 82.7

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00071	0.000021	mg/Kg	☼	08/23/13 14:01	08/27/13 16:59	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0574	U	-0.0181	0.0223	1.43	0.244	pCi/g	08/23/13 14:01	08/27/13 16:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	85		30 - 110					08/23/13 14:01	08/27/13 16:59	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050317PRS00

Lab Sample ID: 160-3482-18

Date Collected: 08/21/13 15:15

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.23		0.146	0.189		0.130	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Americium 241	0.0205	U	0.0633	0.0633		0.106	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Bismuth 212	1.78		0.571	0.597		0.469	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Bismuth 214	1.04		0.107	0.147		0.0615	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Lead 212	1.26		0.0866	0.209		0.0679	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Lead 214	1.09		0.110	0.163		0.0817	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Potassium 40	22.5		1.39	2.58		0.436	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Protactinium 231	1.03		0.371	0.392		0.970	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Radium 226	1.04		0.107	0.147	1.00	0.0615	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Thorium 234	1.65		0.734	0.752	1.00	0.903	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Uranium 235	0.105	U	0.139	0.139		0.274	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Protactinium 234m	2.40	U	3.73	3.74		6.25	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Thorium 232	1.23		0.146	0.189		0.130	pCi/g	08/28/13 10:52	08/29/13 10:13	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.361		0.0539	0.0643		0.0449	pCi/g	08/28/13 10:52	08/29/13 10:13	1

Client Sample ID: L050318PES00

Lab Sample ID: 160-3482-19

Date Collected: 08/21/13 15:21

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 81.4

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00070	0.000021	mg/Kg	☼	08/23/13 14:01	08/27/13 17:03	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0489	U	-0.0160	0.0192	1.41	0.241	pCi/g	08/23/13 14:01	08/27/13 17:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	87		30 - 110					08/23/13 14:01	08/27/13 17:03	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.19		0.153	0.195		0.123	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Americium 241	-0.00657	U	0.0679	0.0679		0.115	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Bismuth 212	1.61		0.554	0.579		0.478	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Bismuth 214	0.869		0.118	0.149		0.0841	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Lead 212	1.08		0.0874	0.165		0.0781	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Lead 214	0.942		0.111	0.148		0.0826	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Potassium 40	21.1		1.47	2.61		0.189	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Protactinium 231	0.456	U	0.264	0.269		1.46	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Radium 226	0.869		0.118	0.149	1.00	0.0841	pCi/g	08/28/13 10:52	08/29/13 10:12	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050318PES00

Lab Sample ID: 160-3482-19

Date Collected: 08/21/13 15:21

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Thorium 234	1.40		0.770	0.784	1.00	0.977	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Uranium 235	0.128	U	0.158	0.158		0.219	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Protactinium 234m	0.146	U	3.61	3.61		6.55	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Thorium 232	1.19		0.153	0.195		0.123	pCi/g	08/28/13 10:52	08/29/13 10:12	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.364		0.0587	0.0698		0.0455	pCi/g	08/28/13 10:52	08/29/13 10:12	1

Client Sample ID: L050319PRS00

Lab Sample ID: 160-3482-20

Date Collected: 08/21/13 16:42

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 84.2

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00065	0.000020	mg/Kg	☼	08/23/13 14:01	08/27/13 17:07	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0560	U	-0.0748	0.0825	1.31	0.224	pCi/g	08/23/13 14:01	08/27/13 17:07	1
Carrier										
Re	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
	91		30 - 110					08/23/13 14:01	08/27/13 17:07	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	0.989		0.124	0.156		0.147	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Americium 241	0.0142	U	0.0582	0.0583		0.0979	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Bismuth 212	1.42		0.515	0.533		0.477	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Bismuth 214	0.828		0.105	0.132		0.0815	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Lead 212	1.02		0.0850	0.139		0.0902	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Lead 214	0.879		0.0887	0.123		0.0769	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Potassium 40	21.6		1.30	2.45		0.343	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Protactinium 231	0.602	U	0.306	0.312		1.28	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Radium 226	0.828		0.105	0.132	1.00	0.0815	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Thorium 234	0.753	U	0.254	0.265	1.00	0.950	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Uranium 235	0.0985	U	0.128	0.128		0.211	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Protactinium 234m	1.85	U	3.50	3.50		5.44	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Thorium 232	0.989		0.124	0.156		0.147	pCi/g	08/28/13 10:52	08/29/13 10:14	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.376		0.0511	0.0628		0.0379	pCi/g	08/28/13 10:52	08/29/13 10:14	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050320PES00

Lab Sample ID: 160-3482-21

Date Collected: 08/21/13 16:50

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 83.8

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00068	0.000020	mg/Kg	☼	08/23/13 14:05	08/27/13 17:19	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0576	U	-0.0603	0.0689	1.35	0.231	pCi/g	08/23/13 14:05	08/27/13 17:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	88		30 - 110					08/23/13 14:05	08/27/13 17:19	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	0.927		0.205	0.226		0.143	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Americium 241	0.0154	U	0.120	0.120		0.204	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Bismuth 212	1.42		0.511	0.532		0.382	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Bismuth 214	0.683		0.138	0.155		0.107	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Lead 212	0.868		0.126	0.169		0.115	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Lead 214	0.689		0.145	0.161		0.115	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Potassium 40	18.2		1.74	2.55		0.660	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Protactinium 231	0.317	U	0.601	0.602		1.82	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Radium 226	0.683		0.138	0.155	1.00	0.107	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Thorium 234	0.759	U	0.603	0.608	1.00	1.82	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Uranium 235	0.213	U	0.213	0.214		0.363	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Protactinium 234m	2.53	U	4.94	4.95		8.51	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Thorium 232	0.927		0.205	0.226		0.143	pCi/g	08/28/13 13:20	08/28/13 19:12	1
Other Detected Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.239		0.0583	0.0633		0.0626	pCi/g	08/28/13 13:20	08/28/13 19:12	1

Client Sample ID: L050321PRS00

Lab Sample ID: 160-3482-22

Date Collected: 08/21/13 16:19

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 83.0

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00070	0.000021	mg/Kg	☼	08/23/13 14:05	08/27/13 17:30	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	0.00286	U	0.0748	0.0870	1.39	0.238	pCi/g	08/23/13 14:05	08/27/13 17:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	86		30 - 110					08/23/13 14:05	08/27/13 17:30	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050321PRS00

Lab Sample ID: 160-3482-22

Date Collected: 08/21/13 16:19

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.19		0.142	0.182		0.139	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Americium 241	0.0206	U	0.0605	0.0605		0.102	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Bismuth 212	0.000	U	0.541	0.541		0.681	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Bismuth 214	0.720		0.110	0.130		0.0854	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Lead 212	1.03		0.0867	0.140		0.0722	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Lead 214	0.835		0.0943	0.124		0.0906	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Potassium 40	18.4		1.41	2.27		0.201	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Protactinium 231	0.467	U	0.286	0.290		1.32	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Radium 226	0.720		0.110	0.130	1.00	0.0854	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Thorium 234	1.18		0.546	0.558	1.00	0.778	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Uranium 235	0.110	U	0.148	0.148		0.245	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Protactinium 234m	0.000	U	2.40	2.40		4.73	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Thorium 232	1.19		0.142	0.182		0.139	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Other Detected										
Radionuclides	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Tl-208	0.340		0.0529	0.0623		0.0393	pCi/g	08/28/13 13:20	08/28/13 20:18	1

Client Sample ID: L050322PES00

Lab Sample ID: 160-3482-23

Date Collected: 08/21/13 16:24

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 82.2

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00069	0.000021	mg/Kg	☆	08/23/13 14:05	08/27/13 17:42	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Technetium 99	0.000943	U	0.0605	0.0682	1.38	0.236	pCi/g	08/23/13 14:05	08/27/13 17:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	89		30 - 110					08/23/13 14:05	08/27/13 17:42	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.33		0.216	0.255		0.0964	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Americium 241	0.000403	U	0.0662	0.0662		0.113	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Bismuth 212	1.95		0.489	0.529		0.297	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Bismuth 214	0.660		0.110	0.129		0.104	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Lead 212	1.07		0.0949	0.168		0.0849	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Lead 214	0.825		0.108	0.138		0.101	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Potassium 40	18.5		1.54	2.44		0.384	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Protactinium 231	0.394	U	0.249	0.253		1.49	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Radium 226	0.660		0.110	0.129	1.00	0.104	pCi/g	08/28/13 13:20	08/28/13 20:21	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050322PES00

Lab Sample ID: 160-3482-23

Date Collected: 08/21/13 16:24

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Thorium 234	1.21		0.425	0.444	1.00	1.09	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Uranium 235	0.0873	U	0.174	0.174		0.291	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Protactinium 234m	1.24	U	3.61	3.62		6.39	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Thorium 232	1.33		0.216	0.255		0.0964	pCi/g	08/28/13 13:20	08/28/13 20:21	1
Other Detected			Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radionuclides	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.419		0.0642	0.0775		0.0389	pCi/g	08/28/13 13:20	08/28/13 20:21	1

Client Sample ID: L050323PUB00

Lab Sample ID: 160-3482-24

Date Collected: 08/19/13 16:35

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 84.6

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00067	0.000020	mg/Kg	☆	08/23/13 14:05	08/27/13 17:46	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	0.00439	U	0.0177	0.0201	1.35	0.231	pCi/g	08/23/13 14:05	08/27/13 17:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	88		30 - 110					08/23/13 14:05	08/27/13 17:46	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.30		0.172	0.213		0.0620	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Americium 241	0.00160	U	0.0601	0.0601		0.102	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Bismuth 212	1.29		0.454	0.471		0.417	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Bismuth 214	0.769		0.105	0.129		0.0738	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Lead 212	1.11		0.0823	0.187		0.0629	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Lead 214	0.883		0.0899	0.132		0.0813	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Potassium 40	19.6		1.33	2.31		0.448	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Protactinium 231	-0.628	U	0.796	0.800		1.31	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Radium 226	0.769		0.105	0.129	1.00	0.0738	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Thorium 234	1.41		0.719	0.733	1.00	0.893	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Uranium 235	0.0424	U	0.137	0.137		0.278	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Protactinium 234m	-0.0587	U	3.35	3.35		6.05	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Thorium 232	1.30		0.172	0.213		0.0620	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Other Detected			Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radionuclides	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.336		0.0515	0.0610		0.0384	pCi/g	08/28/13 13:20	08/28/13 21:13	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050324PUB00

Lab Sample ID: 160-3482-25

Date Collected: 08/19/13 16:45

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 84.5

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00068	0.000020	mg/Kg	☼	08/23/13 14:05	08/27/13 17:49	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0325	U	-0.0393	0.0453	1.36	0.232	pCi/g	08/23/13 14:05	08/27/13 17:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	87		30 - 110					08/23/13 14:05	08/27/13 17:49	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.12		0.153	0.187		0.0853	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Americium 241	0.0252	U	0.0624	0.0624		0.104	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Bismuth 212	1.22		0.407	0.424		0.379	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Bismuth 214	0.835		0.102	0.131		0.0643	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Lead 212	1.10		0.0818	0.144		0.0645	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Lead 214	0.875		0.0852	0.120		0.0893	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Potassium 40	23.4		1.45	2.68		0.399	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Protactinium 231	0.307	U	0.225	0.227		1.21	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Radium 226	0.835		0.102	0.131	1.00	0.0643	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Thorium 234	1.38		0.646	0.660	1.00	0.859	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Uranium 235	0.0720	U	0.137	0.137		0.245	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Protactinium 234m	1.31	U	3.71	3.71		5.88	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Thorium 232	1.12		0.153	0.187		0.0853	pCi/g	08/28/13 13:20	08/28/13 20:19	1
Other Detected			Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radionuclides	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.381		0.0524	0.0641		0.0373	pCi/g	08/28/13 13:20	08/28/13 20:19	1

Client Sample ID: L050325PUB00

Lab Sample ID: 160-3482-26

Date Collected: 08/19/13 16:55

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 82.7

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00073	0.000022	mg/Kg	☼	08/23/13 14:05	08/27/13 17:53	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0358	U	-0.0278	0.0339	1.45	0.249	pCi/g	08/23/13 14:05	08/27/13 17:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	83		30 - 110					08/23/13 14:05	08/27/13 17:53	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050325PUB00

Lab Sample ID: 160-3482-26

Date Collected: 08/19/13 16:55

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.08		0.152	0.184		0.101	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Americium 241	-0.0219	U	0.236	0.236		0.115	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Bismuth 212	0.858		0.376	0.385		0.520	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Bismuth 214	0.789		0.113	0.137		0.0799	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Lead 212	1.20		0.0853	0.154		0.0639	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Lead 214	0.856		0.103	0.132		0.0829	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Potassium 40	24.1		1.49	2.76		0.311	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Protactinium 231	-0.697	U	0.823	0.826		1.35	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Radium 226	0.789		0.113	0.137	1.00	0.0799	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Thorium 234	0.803	U	0.357	0.365	1.00	1.08	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Uranium 235	0.0944	U	0.145	0.145		0.274	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Protactinium 234m	1.17	U	3.80	3.80		6.60	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Thorium 232	1.08		0.152	0.184		0.101	pCi/g	08/28/13 13:20	08/28/13 20:20	1
Other Detected										
Radionuclides			Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
TI-208			0.402	0.0506		0.0311	pCi/g	08/28/13 13:20	08/28/13 20:20	1

Client Sample ID: L050326PUB00

Lab Sample ID: 160-3482-27

Date Collected: 08/20/13 14:55

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 97.8

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00057	0.000017	mg/Kg	☆	08/23/13 14:05	08/27/13 17:57	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

			Count	Total						
			Uncert.	Uncert.						
Analyte	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	0.121	U	0.169	0.189	1.14	0.196	pCi/g	08/23/13 14:05	08/27/13 17:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	90		30 - 110					08/23/13 14:05	08/27/13 17:57	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	0.314		0.0595	0.0675		0.0605	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Americium 241	-0.00857	U	0.0893	0.0893		0.149	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Bismuth 212	0.363		0.226	0.229		0.343	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Bismuth 214	0.404		0.0650	0.0774		0.0519	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Lead 212	0.219		0.0406	0.0495		0.0548	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Lead 214	0.472		0.0581	0.0760		0.0472	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Potassium 40	5.80		0.548	0.808		0.176	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Protactinium 231	0.337	U	0.353	0.355		0.700	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Radium 226	0.404		0.0650	0.0774	1.00	0.0519	pCi/g	08/28/13 13:20	08/28/13 21:12	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050326PUB00

Lab Sample ID: 160-3482-27

Date Collected: 08/20/13 14:55

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Thorium 234	36.3		1.83	4.22	1.00	1.73	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Uranium 235	6.84		0.343	0.776		0.399	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Protactinium 234m	42.5		4.85	6.48		2.17	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Thorium 232	0.314		0.0595	0.0675		0.0605	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.111		0.0272	0.0296		0.0253	pCi/g	08/28/13 13:20	08/28/13 21:12	1

Client Sample ID: L050327PUB00

Lab Sample ID: 160-3482-28

Date Collected: 08/21/13 09:15

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 87.1

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00067	0.000020	mg/Kg	☼	08/23/13 14:05	08/27/13 18:01	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.00115	U	-0.0328	0.0384	1.34	0.230	pCi/g	08/23/13 14:05	08/27/13 18:01	1
Carrier										
Re	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	85		30 - 110					08/23/13 14:05	08/27/13 18:01	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.05		0.164	0.193		0.127	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Americium 241	0.0504	U	0.0867	0.0868		0.144	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Bismuth 212	0.791		0.420	0.427		0.611	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Bismuth 214	0.837		0.115	0.141		0.0750	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Lead 212	1.03		0.0838	0.139		0.0676	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Lead 214	0.908		0.115	0.145		0.0911	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Potassium 40	20.8		1.49	2.50		0.337	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Protactinium 231	0.510	U	0.292	0.296		1.30	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Radium 226	0.837		0.115	0.141	1.00	0.0750	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Thorium 234	19.7		1.48	2.42	1.00	1.46	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Uranium 235	4.03		0.307	0.497		0.334	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Protactinium 234m	26.7		4.92	5.55		1.70	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Thorium 232	1.05		0.164	0.193		0.127	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Other Detected										
Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.353		0.0588	0.0681		0.0451	pCi/g	08/28/13 13:20	08/28/13 21:12	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050328PUB00

Lab Sample ID: 160-3482-29

Date Collected: 08/21/13 09:45

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 84.9

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00068	0.000020	mg/Kg	☼	08/23/13 14:05	08/27/13 18:05	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0446	U	-0.0101	0.0125	1.36	0.232	pCi/g	08/23/13 14:05	08/27/13 18:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	87		30 - 110					08/23/13 14:05	08/27/13 18:05	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.10		0.133	0.174		0.106	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Americium 241	0.0775	U	0.124	0.124		0.204	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Bismuth 212	1.66		0.462	0.493		0.393	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Bismuth 214	0.656		0.0974	0.119		0.0778	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Lead 212	1.04		0.0773	0.155		0.0698	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Lead 214	0.870		0.0920	0.129		0.0683	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Potassium 40	21.8		1.28	2.58		0.336	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Protactinium 231	0.701	U	0.411	0.418		1.27	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Radium 226	0.656		0.0974	0.119	1.00	0.0778	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Thorium 234	37.2		2.05	4.40	1.00	1.95	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Uranium 235	7.46		0.381	0.849		0.378	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Protactinium 234m	40.3		6.30	7.50		4.06	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Thorium 232	1.10		0.133	0.174		0.106	pCi/g	08/28/13 13:20	08/28/13 21:12	1
Other Detected			Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radionuclides	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.351		0.0550	0.0660		0.0435	pCi/g	08/28/13 13:20	08/28/13 21:12	1

Client Sample ID: L050329PUB00

Lab Sample ID: 160-3482-30

Date Collected: 08/21/13 10:50

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 83.9

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00071	0.000021	mg/Kg	☼	08/23/13 14:05	08/27/13 18:09	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.0692	U	-0.0527	0.0631	1.41	0.242	pCi/g	08/23/13 14:05	08/27/13 18:09	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	84		30 - 110					08/23/13 14:05	08/27/13 18:09	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050329PUB00

Lab Sample ID: 160-3482-30

Date Collected: 08/21/13 10:50

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.12		0.185	0.214		0.141	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Americium 241	-0.0123	U	0.233	0.233		0.209	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Bismuth 212	2.13		0.590	0.626		0.465	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Bismuth 214	0.870		0.112	0.141		0.0804	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Lead 212	1.13		0.0906	0.152		0.0849	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Lead 214	0.849		0.106	0.134		0.0882	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Potassium 40	24.7		1.55	2.85		0.412	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Protactinium 231	0.751	U	0.359	0.366		1.56	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Radium 226	0.870		0.112	0.141	1.00	0.0804	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Thorium 234	51.2		1.60	5.25	1.00	2.43	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Uranium 235	12.6		0.534	1.33		0.524	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Protactinium 234m	62.9		8.35	10.3		4.70	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Thorium 232	1.12		0.185	0.214		0.141	pCi/g	08/28/13 13:20	08/28/13 21:13	1
Other Detected										
Radionuclides	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Tl-208	0.349		0.0550	0.0646		0.0427	pCi/g	08/28/13 13:20	08/28/13 21:13	1

Client Sample ID: L050330PUB00

Lab Sample ID: 160-3482-31

Date Collected: 08/21/13 11:10

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 85.8

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00068	0.000020	mg/Kg	☼	08/23/13 14:05	08/27/13 18:13	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Technetium 99	0.0440	U	0.107	0.124	1.36	0.233	pCi/g	08/23/13 14:05	08/27/13 18:13	1
Carrier										
	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	86		30 - 110					08/23/13 14:05	08/27/13 18:13	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.05		0.132	0.170		0.0999	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Americium 241	-0.0181	U	0.139	0.139		0.231	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Bismuth 212	1.10		0.368	0.385		0.391	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Bismuth 214	0.817		0.117	0.144		0.0891	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Lead 212	1.07		0.0770	0.159		0.0707	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Lead 214	0.843		0.103	0.135		0.0861	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Potassium 40	20.3		1.22	2.41		0.422	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Protactinium 231	0.396	U	0.217	0.221		1.35	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Radium 226	0.817		0.117	0.144	1.00	0.0891	pCi/g	08/28/13 13:20	08/28/13 22:02	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050330PUB00

Lab Sample ID: 160-3482-31

Date Collected: 08/21/13 11:10

Matrix: Solid

Date Received: 08/22/13 16:45

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Thorium 234	53.3		1.99	5.92	1.00	1.77	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Uranium 235	2.88		0.284	0.408		0.330	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Protactinium 234m	65.3		6.92	9.56		2.78	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Thorium 232	1.05		0.132	0.170		0.0999	pCi/g	08/28/13 13:20	08/28/13 22:02	1
Other Detected			Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radionuclides	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.384		0.0558	0.0686		0.0447	pCi/g	08/28/13 13:20	08/28/13 22:02	1

Client Sample ID: L050331PUB00

Lab Sample ID: 160-3482-32

Date Collected: 08/21/13 11:20

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 85.0

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00068	0.000020	mg/Kg	☆	08/23/13 14:05	08/27/13 18:17	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	0.0418	U	0.0400	0.0464	1.36	0.234	pCi/g	08/23/13 14:05	08/27/13 18:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	87		30 - 110					08/23/13 14:05	08/27/13 18:17	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.07		0.141	0.178		0.0645	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Americium 241	0.0558	U	0.140	0.140		0.232	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Bismuth 212	0.890		0.418	0.428		0.600	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Bismuth 214	0.930		0.110	0.147		0.0774	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Lead 212	1.03		0.0826	0.157		0.0740	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Lead 214	0.955		0.102	0.142		0.102	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Potassium 40	20.2		1.37	2.47		0.171	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Protactinium 231	0.337	U	0.304	0.306		1.40	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Radium 226	0.930		0.110	0.147	1.00	0.0774	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Thorium 234	59.8		2.33	6.67	1.00	2.06	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Uranium 235	3.05		0.311	0.439		0.336	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Protactinium 234m	73.7		8.54	11.3		4.01	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Thorium 232	1.07		0.141	0.178		0.0645	pCi/g	08/28/13 13:20	08/29/13 21:25	1
Other Detected			Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radionuclides	Result	Qualifier	(2σ+/-)	(2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.334		0.0569	0.0666		0.0478	pCi/g	08/28/13 13:20	08/29/13 21:25	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Client Sample ID: L050332PUB00

Lab Sample ID: 160-3482-33

Date Collected: 08/21/13 13:40

Matrix: Solid

Date Received: 08/22/13 16:45

Percent Solids: 83.7

Method: 6020A - Metals (ICP/MS), Tc-99

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00071	0.000021	mg/Kg	☼	08/23/13 14:05	08/27/13 18:28	1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.000968	U	-0.0716	0.0849	1.41	0.242	pCi/g	08/23/13 14:05	08/27/13 18:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	84		30 - 110					08/23/13 14:05	08/27/13 18:28	1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	0.950		0.183	0.205		0.136	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Americium 241	-0.000906	U	0.0814	0.0814		0.109	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Bismuth 212	0.796		0.437	0.444		0.644	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Bismuth 214	0.830		0.105	0.133		0.0650	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Lead 212	1.16		0.0910	0.154		0.0776	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Lead 214	0.904		0.0891	0.125		0.0788	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Potassium 40	19.8		1.44	2.39		0.192	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Protactinium 231	0.652	U	0.396	0.402		0.919	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Radium 226	0.830		0.105	0.133	1.00	0.0650	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Thorium 234	2.62		0.813	0.852	1.00	0.987	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Uranium 235	0.253		0.141	0.143		0.206	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Protactinium 234m	2.15	U	3.40	3.41		5.73	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Thorium 232	0.950		0.183	0.205		0.136	pCi/g	08/28/13 13:20	08/28/13 22:03	1
Other Detected Radionuclides	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tl-208	0.429		0.0648	0.0770		0.0471	pCi/g	08/28/13 13:20	08/28/13 22:03	1

TestAmerica St. Louis

QC Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Method: 6020A - Metals (ICP/MS), Tc-99

Lab Sample ID: MB 160-68378/1-A

Matrix: Solid

Analysis Batch: 68965

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 68378

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00053	0.000016	mg/Kg		08/23/13 14:01	08/27/13 15:22	1

Lab Sample ID: LCS 160-68378/2-A

Matrix: Solid

Analysis Batch: 68965

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 68378

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Technetium 99	0.00247	0.00244		mg/Kg		99	80 - 120

Lab Sample ID: 160-3482-1 MS

Matrix: Solid

Analysis Batch: 68965

Client Sample ID: L050301PRS00

Prep Type: Total/NA

Prep Batch: 68378

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Technetium 99	ND		0.00321	0.00285		mg/Kg	☼	89	75 - 125

Lab Sample ID: 160-3482-1 MSD

Matrix: Solid

Analysis Batch: 68965

Client Sample ID: L050301PRS00

Prep Type: Total/NA

Prep Batch: 68378

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Technetium 99	ND		0.00324	0.00300		mg/Kg	☼	93	75 - 125	5	30

Lab Sample ID: MB 160-68379/1-A

Matrix: Solid

Analysis Batch: 68965

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 68379

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Technetium 99	ND		0.00053	0.000016	mg/Kg		08/23/13 14:05	08/27/13 17:11	1

Lab Sample ID: LCS 160-68379/2-A

Matrix: Solid

Analysis Batch: 68965

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 68379

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Technetium 99	0.00241	0.00242		mg/Kg		100	80 - 120

Lab Sample ID: 160-3482-21 MS

Matrix: Solid

Analysis Batch: 68965

Client Sample ID: L050320PES00

Prep Type: Total/NA

Prep Batch: 68379

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Technetium 99	ND		0.00313	0.00289		mg/Kg	☼	92	75 - 125

Lab Sample ID: 160-3482-21 MSD

Matrix: Solid

Analysis Batch: 68965

Client Sample ID: L050320PES00

Prep Type: Total/NA

Prep Batch: 68379

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Technetium 99	ND		0.00315	0.00291		mg/Kg	☼	92	75 - 125	1	30

TestAmerica St. Louis

QC Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Lab Sample ID: MB 160-68378/1-A

Matrix: Solid

Analysis Batch: 68966

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 68378

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.04825	U	-0.0157	0.0171	1.05	0.180	pCi/g	08/23/13 14:01	08/27/13 15:22	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Re	95		30 - 110					08/23/13 14:01	08/27/13 15:22	1

Lab Sample ID: LCS 160-68378/2-A

Matrix: Solid

Analysis Batch: 68966

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 68378

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Technetium 99		42.3	41.74		4.26	1.06	0.181	pCi/g	99	80 - 120
Carrier	LCS %Yield	LCS Qualifier	Limits							
Re	95		30 - 110							

Lab Sample ID: 160-3482-1 MS

Matrix: Solid

Analysis Batch: 68966

Client Sample ID: L050301PRS00

Prep Type: Total/NA

Prep Batch: 68378

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Technetium 99	-0.0398	U	54.9	48.77		5.20	1.37	0.235	pCi/g	89	75 - 125
Carrier	MS %Yield	MS Qualifier	Limits								
Re	87		30 - 110								

Lab Sample ID: 160-3482-1 MSD

Matrix: Solid

Analysis Batch: 68966

Client Sample ID: L050301PRS00

Prep Type: Total/NA

Prep Batch: 68378

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Technetium 99	-0.0398	U	55.4	51.40		5.43	1.39	0.237	pCi/g	93	75 - 125	0.25	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Re	87		30 - 110										

Lab Sample ID: MB 160-68379/1-A

Matrix: Solid

Analysis Batch: 68966

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 68379

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Technetium 99	-0.04694	U	-0.0191	0.0206	1.05	0.180	pCi/g	08/23/13 14:05	08/27/13 17:11	1

TestAmerica St. Louis

QC Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity (Continued)

Lab Sample ID: MB 160-68379/1-A

Matrix: Solid

Analysis Batch: 68966

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 68379

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Re	95		30 - 110	08/23/13 14:05	08/27/13 17:11	1

Lab Sample ID: LCS 160-68379/2-A

Matrix: Solid

Analysis Batch: 68966

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 68379

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Technetium 99	41.3	41.44		4.01	1.03	0.177	pCi/g	100	80 - 120
Carrier	LCS %Yield	LCS Qualifier	Limits						
Re	96		30 - 110						

Lab Sample ID: 160-3482-21 MS

Matrix: Solid

Analysis Batch: 68966

Client Sample ID: L050320PES00

Prep Type: Total/NA

Prep Batch: 68379

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Technetium 99	-0.0576	U	53.6	49.54		5.61	1.34	0.229	pCi/g	92	75 - 125
Carrier	MS %Yield	MS Qualifier	Limits								
Re	88		30 - 110								

Lab Sample ID: 160-3482-21 MSD

Matrix: Solid

Analysis Batch: 68966

Client Sample ID: L050320PES00

Prep Type: Total/NA

Prep Batch: 68379

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Technetium 99	-0.0576	U	53.9	49.87		5.41	1.35	0.231	pCi/g	92	75 - 125	0.03	1
Carrier	MSD %Yield	MSD Qualifier	Limits										
Re	88		30 - 110										

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-69096/1-A

Matrix: Solid

Analysis Batch: 69583

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 69096

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	0.01168	U	0.0290	0.0290		0.0507	pCi/g	08/28/13 10:52	08/29/13 23:56	1
Americium 241	0.004928	U	0.0124	0.0124		0.0215	pCi/g	08/28/13 10:52	08/29/13 23:56	1
Bismuth 212	-0.01066	U	0.113	0.113		0.213	pCi/g	08/28/13 10:52	08/29/13 23:56	1
Bismuth 214	-0.008760	U	0.0515	0.0516		0.0377	pCi/g	08/28/13 10:52	08/29/13 23:56	1

TestAmerica St. Louis

QC Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: MB 160-69096/1-A

Matrix: Solid

Analysis Batch: 69583

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 69096

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Lead 212	0.006093	U	0.0113	0.0113		0.0208	pCi/g	08/28/13 10:52	08/29/13 23:56	1
Lead 214	0.005683	U	0.0144	0.0144		0.0294	pCi/g	08/28/13 10:52	08/29/13 23:56	1
Potassium 40	-0.05724	U	0.185	0.185		0.260	pCi/g	08/28/13 10:52	08/29/13 23:56	1
Protactinium 231	0.0000	U	0.0585	0.0585		0.419	pCi/g	08/28/13 10:52	08/29/13 23:56	1
Radium 226	-0.008760	U	0.0515	0.0516	1.00	0.0377	pCi/g	08/28/13 10:52	08/29/13 23:56	1
Thorium 234	-0.001515	U	0.144	0.144	1.00	0.281	pCi/g	08/28/13 10:52	08/29/13 23:56	1
Uranium 235	0.02322	U	0.0279	0.0280		0.0577	pCi/g	08/28/13 10:52	08/29/13 23:56	1
Protactinium 234m	0.1541	U	0.603	0.604		0.953	pCi/g	08/28/13 10:52	08/29/13 23:56	1
Thorium 232	0.01168	U	0.0290	0.0290		0.0507	pCi/g	08/28/13 10:52	08/29/13 23:56	1

Other Detected Radionuclides	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Other Detected Radionuclide	None						pCi/g	08/28/13 10:52	08/29/13 23:56	1

Lab Sample ID: LCS 160-69096/2-A

Matrix: Solid

Analysis Batch: 69119

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 69096

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Americium 241	97.7	92.24		9.60		0.452	pCi/g	94	87 - 116
Cesium 137	31.7	29.97		3.14	0.200	0.145	pCi/g	95	87 - 120
Cobalt 60	24.8	23.27		2.35		0.0776	pCi/g	94	87 - 115

Lab Sample ID: 160-3482-19 DU

Matrix: Solid

Analysis Batch: 69580

Client Sample ID: L050318PES00

Prep Type: Total/NA

Prep Batch: 69096

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Actinium 228	1.19		1.123		0.184		0.132	pCi/g	0.16	1
Americium 241	-0.00657	U	-0.00935	U	0.0584		0.0982	pCi/g	0.02	1
Bismuth 212	1.61		1.052		0.332		0.378	pCi/g	0.61	1
Bismuth 214	0.869		0.8151		0.128		0.0696	pCi/g	0.20	1
Lead 212	1.08		1.126		0.163		0.0551	pCi/g	0.15	1
Lead 214	0.942		0.9246		0.133		0.0664	pCi/g	0.06	1
Potassium 40	21.1		20.73		2.44		0.304	pCi/g	0.06	1
Protactinium 231	0.456	U	0.4082	U	0.228		1.22	pCi/g	0.1	1
Radium 226	0.869		0.8151		0.128	1.00	0.0696	pCi/g	0.20	1
Thorium 234	1.40		1.433		0.696	1.00	0.881	pCi/g	0.02	1
Uranium 235	0.128	U	0.1260	U	0.131		0.226	pCi/g	0.01	1
Protactinium 234m	0.146	U	1.947	U	3.19		4.61	pCi/g	0.26	1
Thorium 232	1.19		1.123		0.184		0.132	pCi/g	0.16	1

TestAmerica St. Louis

QC Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: MB 160-69129/1-A

Matrix: Solid

Analysis Batch: 69117

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 69129

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	0.009657	U	0.0229	0.0230		0.0472	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Americium 241	-0.005719	U	0.0143	0.0143		0.0247	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Bismuth 212	0.007249	U	0.0914	0.0914		0.177	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Bismuth 214	0.01404	U	0.0179	0.0180		0.0314	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Lead 212	-0.006510	U	0.0349	0.0349		0.0251	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Lead 214	0.001975	U	0.0102	0.0102		0.0339	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Potassium 40	-0.02397	U	0.171	0.171		0.297	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Protactinium 231	0.02778	U	0.178	0.179		0.326	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Radium 226	0.01404	U	0.0179	0.0180	1.00	0.0314	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Thorium 234	-0.07931	U	0.453	0.453	1.00	0.314	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Uranium 235	0.01905	U	0.0338	0.0339		0.0573	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Protactinium 234m	0.0000	U	0.366	0.366		0.953	pCi/g	08/28/13 13:20	08/28/13 20:18	1
Thorium 232	0.009657	U	0.0229	0.0230		0.0472	pCi/g	08/28/13 13:20	08/28/13 20:18	1

Other Detected Radionuclides	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Other Detected Radionuclide	None						pCi/g	08/28/13 13:20	08/28/13 20:18	1

Lab Sample ID: LCS 160-69129/2-A

Matrix: Solid

Analysis Batch: 69118

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 69129

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Americium 241	97.7	90.80		9.45		0.490	pCi/g	93	87 - 116
Cesium 137	31.7	30.37		3.18	0.200	0.137	pCi/g	96	87 - 120
Cobalt 60	24.8	23.37		2.36		0.0980	pCi/g	94	87 - 115

Lab Sample ID: 160-3482-32 DU

Matrix: Solid

Analysis Batch: 69583

Client Sample ID: L050331PUB00

Prep Type: Total/NA

Prep Batch: 69129

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Actinium 228	1.07		1.094		0.178		0.103	pCi/g	0.06	1
Americium 241	0.0558	U	-0.08660	U	0.152		0.251	pCi/g	0.49	1
Bismuth 212	0.890		1.150		0.473		0.465	pCi/g	0.29	1
Bismuth 214	0.930		0.8241		0.138		0.0881	pCi/g	0.37	1
Lead 212	1.03		1.114		0.164		0.0683	pCi/g	0.26	1
Lead 214	0.955		1.014		0.147		0.0763	pCi/g	0.20	1
Potassium 40	20.2		19.38		2.32		0.378	pCi/g	0.16	1
Protactinium 231	0.337	U	0.5302	U	0.352		1.36	pCi/g	0.29	1
Radium 226	0.930		0.8241		0.138	1.00	0.0881	pCi/g	0.37	1
Thorium 234	59.8		63.13		6.96	1.00	1.90	pCi/g	0.24	1
Uranium 235	3.05		2.915		0.440		0.330	pCi/g	0.15	1
Protactinium 234m	73.7		62.73		9.51		3.35	pCi/g	0.53	1

TestAmerica St. Louis

QC Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Method: GA-01-R - Cesium-137 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: 160-3482-32 DU
Matrix: Solid
Analysis Batch: 69583

Client Sample ID: L050331PUB00
Prep Type: Total/NA
Prep Batch: 69129

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Thorium 232	1.07		1.094		0.178		0.103	pCi/g	0.06	1

QC Association Summary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Metals

Prep Batch: 68378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-1	L050301PRS00	Total/NA	Solid	None	
160-3482-1 MS	L050301PRS00	Total/NA	Solid	None	
160-3482-1 MSD	L050301PRS00	Total/NA	Solid	None	
160-3482-2	L050302PES00	Total/NA	Solid	None	
160-3482-3	L050303PRS00	Total/NA	Solid	None	
160-3482-4	L050304PEQ00	Total/NA	Solid	None	
160-3482-5	L050304PES00	Total/NA	Solid	None	
160-3482-6	L050305PRS00	Total/NA	Solid	None	
160-3482-7	L050306PES00	Total/NA	Solid	None	
160-3482-8	L050307PRS00	Total/NA	Solid	None	
160-3482-9	L050308PES00	Total/NA	Solid	None	
160-3482-10	L050309PRS00	Total/NA	Solid	None	
160-3482-11	L050310PES00	Total/NA	Solid	None	
160-3482-12	L050311PRS00	Total/NA	Solid	None	
160-3482-13	L050312PES00	Total/NA	Solid	None	
160-3482-14	L050313PRS00	Total/NA	Solid	None	
160-3482-15	L050314PES00	Total/NA	Solid	None	
160-3482-16	L050315PRS00	Total/NA	Solid	None	
160-3482-17	L050316PES00	Total/NA	Solid	None	
160-3482-18	L050317PRS00	Total/NA	Solid	None	
160-3482-19	L050318PES00	Total/NA	Solid	None	
160-3482-20	L050319PRS00	Total/NA	Solid	None	
LCS 160-68378/2-A	Lab Control Sample	Total/NA	Solid	None	
MB 160-68378/1-A	Method Blank	Total/NA	Solid	None	

Prep Batch: 68379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-21	L050320PES00	Total/NA	Solid	None	
160-3482-21 MS	L050320PES00	Total/NA	Solid	None	
160-3482-21 MSD	L050320PES00	Total/NA	Solid	None	
160-3482-22	L050321PRS00	Total/NA	Solid	None	
160-3482-23	L050322PES00	Total/NA	Solid	None	
160-3482-24	L050323PUB00	Total/NA	Solid	None	
160-3482-25	L050324PUB00	Total/NA	Solid	None	
160-3482-26	L050325PUB00	Total/NA	Solid	None	
160-3482-27	L050326PUB00	Total/NA	Solid	None	
160-3482-28	L050327PUB00	Total/NA	Solid	None	
160-3482-29	L050328PUB00	Total/NA	Solid	None	
160-3482-30	L050329PUB00	Total/NA	Solid	None	
160-3482-31	L050330PUB00	Total/NA	Solid	None	
160-3482-32	L050331PUB00	Total/NA	Solid	None	
160-3482-33	L050332PUB00	Total/NA	Solid	None	
LCS 160-68379/2-A	Lab Control Sample	Total/NA	Solid	None	
MB 160-68379/1-A	Method Blank	Total/NA	Solid	None	

Analysis Batch: 68965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-1	L050301PRS00	Total/NA	Solid	6020A	68378
160-3482-1 MS	L050301PRS00	Total/NA	Solid	6020A	68378
160-3482-1 MSD	L050301PRS00	Total/NA	Solid	6020A	68378
160-3482-2	L050302PES00	Total/NA	Solid	6020A	68378

TestAmerica St. Louis

QC Association Summary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Metals (Continued)

Analysis Batch: 68965 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-3	L050303PRS00	Total/NA	Solid	6020A	68378
160-3482-4	L050304PEQ00	Total/NA	Solid	6020A	68378
160-3482-5	L050304PES00	Total/NA	Solid	6020A	68378
160-3482-6	L050305PRS00	Total/NA	Solid	6020A	68378
160-3482-7	L050306PES00	Total/NA	Solid	6020A	68378
160-3482-8	L050307PRS00	Total/NA	Solid	6020A	68378
160-3482-9	L050308PES00	Total/NA	Solid	6020A	68378
160-3482-10	L050309PRS00	Total/NA	Solid	6020A	68378
160-3482-11	L050310PES00	Total/NA	Solid	6020A	68378
160-3482-12	L050311PRS00	Total/NA	Solid	6020A	68378
160-3482-13	L050312PES00	Total/NA	Solid	6020A	68378
160-3482-14	L050313PRS00	Total/NA	Solid	6020A	68378
160-3482-15	L050314PES00	Total/NA	Solid	6020A	68378
160-3482-16	L050315PRS00	Total/NA	Solid	6020A	68378
160-3482-17	L050316PES00	Total/NA	Solid	6020A	68378
160-3482-18	L050317PRS00	Total/NA	Solid	6020A	68378
160-3482-19	L050318PES00	Total/NA	Solid	6020A	68378
160-3482-20	L050319PRS00	Total/NA	Solid	6020A	68378
160-3482-21	L050320PES00	Total/NA	Solid	6020A	68379
160-3482-21 MS	L050320PES00	Total/NA	Solid	6020A	68379
160-3482-21 MSD	L050320PES00	Total/NA	Solid	6020A	68379
160-3482-22	L050321PRS00	Total/NA	Solid	6020A	68379
160-3482-23	L050322PES00	Total/NA	Solid	6020A	68379
160-3482-24	L050323PUB00	Total/NA	Solid	6020A	68379
160-3482-25	L050324PUB00	Total/NA	Solid	6020A	68379
160-3482-26	L050325PUB00	Total/NA	Solid	6020A	68379
160-3482-27	L050326PUB00	Total/NA	Solid	6020A	68379
160-3482-28	L050327PUB00	Total/NA	Solid	6020A	68379
160-3482-29	L050328PUB00	Total/NA	Solid	6020A	68379
160-3482-30	L050329PUB00	Total/NA	Solid	6020A	68379
160-3482-31	L050330PUB00	Total/NA	Solid	6020A	68379
160-3482-32	L050331PUB00	Total/NA	Solid	6020A	68379
160-3482-33	L050332PUB00	Total/NA	Solid	6020A	68379
LCS 160-68378/2-A	Lab Control Sample	Total/NA	Solid	6020A	68378
LCS 160-68379/2-A	Lab Control Sample	Total/NA	Solid	6020A	68379
MB 160-68378/1-A	Method Blank	Total/NA	Solid	6020A	68378
MB 160-68379/1-A	Method Blank	Total/NA	Solid	6020A	68379

General Chemistry

Analysis Batch: 68400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-1	L050301PRS00	Total/NA	Solid	Moisture	
160-3482-1 DU	L050301PRS00	Total/NA	Solid	Moisture	
160-3482-2	L050302PES00	Total/NA	Solid	Moisture	
160-3482-3	L050303PRS00	Total/NA	Solid	Moisture	
160-3482-4	L050304PEQ00	Total/NA	Solid	Moisture	
160-3482-5	L050304PES00	Total/NA	Solid	Moisture	
160-3482-6	L050305PRS00	Total/NA	Solid	Moisture	
160-3482-7	L050306PES00	Total/NA	Solid	Moisture	

TestAmerica St. Louis

QC Association Summary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

General Chemistry (Continued)

Analysis Batch: 68400 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-8	L050307PRS00	Total/NA	Solid	Moisture	
160-3482-9	L050308PES00	Total/NA	Solid	Moisture	
160-3482-10	L050309PRS00	Total/NA	Solid	Moisture	
160-3482-11	L050310PES00	Total/NA	Solid	Moisture	
160-3482-12	L050311PRS00	Total/NA	Solid	Moisture	
160-3482-13	L050312PES00	Total/NA	Solid	Moisture	
160-3482-14	L050313PRS00	Total/NA	Solid	Moisture	
160-3482-15	L050314PES00	Total/NA	Solid	Moisture	
160-3482-16	L050315PRS00	Total/NA	Solid	Moisture	
160-3482-17	L050316PES00	Total/NA	Solid	Moisture	
160-3482-18	L050317PRS00	Total/NA	Solid	Moisture	
160-3482-19	L050318PES00	Total/NA	Solid	Moisture	
160-3482-20	L050319PRS00	Total/NA	Solid	Moisture	
160-3482-21	L050320PES00	Total/NA	Solid	Moisture	
160-3482-22	L050321PRS00	Total/NA	Solid	Moisture	
160-3482-23	L050322PES00	Total/NA	Solid	Moisture	
160-3482-24	L050323PUB00	Total/NA	Solid	Moisture	
160-3482-25	L050324PUB00	Total/NA	Solid	Moisture	
160-3482-26	L050325PUB00	Total/NA	Solid	Moisture	
160-3482-27	L050326PUB00	Total/NA	Solid	Moisture	
160-3482-28	L050327PUB00	Total/NA	Solid	Moisture	
160-3482-29	L050328PUB00	Total/NA	Solid	Moisture	
160-3482-30	L050329PUB00	Total/NA	Solid	Moisture	
160-3482-31	L050330PUB00	Total/NA	Solid	Moisture	
160-3482-32	L050331PUB00	Total/NA	Solid	Moisture	
160-3482-33	L050332PUB00	Total/NA	Solid	Moisture	
160-3482-33 DU	L050332PUB00	Total/NA	Solid	Moisture	

Rad

Prep Batch: 68378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-1	L050301PRS00	Total/NA	Solid	None	
160-3482-1 MS	L050301PRS00	Total/NA	Solid	None	
160-3482-1 MSD	L050301PRS00	Total/NA	Solid	None	
160-3482-2	L050302PES00	Total/NA	Solid	None	
160-3482-3	L050303PRS00	Total/NA	Solid	None	
160-3482-4	L050304PEQ00	Total/NA	Solid	None	
160-3482-5	L050304PES00	Total/NA	Solid	None	
160-3482-6	L050305PRS00	Total/NA	Solid	None	
160-3482-7	L050306PES00	Total/NA	Solid	None	
160-3482-8	L050307PRS00	Total/NA	Solid	None	
160-3482-9	L050308PES00	Total/NA	Solid	None	
160-3482-10	L050309PRS00	Total/NA	Solid	None	
160-3482-11	L050310PES00	Total/NA	Solid	None	
160-3482-12	L050311PRS00	Total/NA	Solid	None	
160-3482-13	L050312PES00	Total/NA	Solid	None	
160-3482-14	L050313PRS00	Total/NA	Solid	None	
160-3482-15	L050314PES00	Total/NA	Solid	None	
160-3482-16	L050315PRS00	Total/NA	Solid	None	

TestAmerica St. Louis

QC Association Summary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Rad (Continued)

Prep Batch: 68378 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-17	L050316PES00	Total/NA	Solid	None	
160-3482-18	L050317PRS00	Total/NA	Solid	None	
160-3482-19	L050318PES00	Total/NA	Solid	None	
160-3482-20	L050319PRS00	Total/NA	Solid	None	
LCS 160-68378/2-A	Lab Control Sample	Total/NA	Solid	None	
MB 160-68378/1-A	Method Blank	Total/NA	Solid	None	

Prep Batch: 68379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-21	L050320PES00	Total/NA	Solid	None	
160-3482-21 MS	L050320PES00	Total/NA	Solid	None	
160-3482-21 MSD	L050320PES00	Total/NA	Solid	None	
160-3482-22	L050321PRS00	Total/NA	Solid	None	
160-3482-23	L050322PES00	Total/NA	Solid	None	
160-3482-24	L050323PUB00	Total/NA	Solid	None	
160-3482-25	L050324PUB00	Total/NA	Solid	None	
160-3482-26	L050325PUB00	Total/NA	Solid	None	
160-3482-27	L050326PUB00	Total/NA	Solid	None	
160-3482-28	L050327PUB00	Total/NA	Solid	None	
160-3482-29	L050328PUB00	Total/NA	Solid	None	
160-3482-30	L050329PUB00	Total/NA	Solid	None	
160-3482-31	L050330PUB00	Total/NA	Solid	None	
160-3482-32	L050331PUB00	Total/NA	Solid	None	
160-3482-33	L050332PUB00	Total/NA	Solid	None	
LCS 160-68379/2-A	Lab Control Sample	Total/NA	Solid	None	
MB 160-68379/1-A	Method Blank	Total/NA	Solid	None	

Leach Batch: 68380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-1	L050301PRS00	Total/NA	Solid	Dry and Grind	
160-3482-2	L050302PES00	Total/NA	Solid	Dry and Grind	
160-3482-3	L050303PRS00	Total/NA	Solid	Dry and Grind	
160-3482-4	L050304PEQ00	Total/NA	Solid	Dry and Grind	
160-3482-5	L050304PES00	Total/NA	Solid	Dry and Grind	
160-3482-6	L050305PRS00	Total/NA	Solid	Dry and Grind	
160-3482-7	L050306PES00	Total/NA	Solid	Dry and Grind	
160-3482-8	L050307PRS00	Total/NA	Solid	Dry and Grind	
160-3482-9	L050308PES00	Total/NA	Solid	Dry and Grind	
160-3482-10	L050309PRS00	Total/NA	Solid	Dry and Grind	
160-3482-11	L050310PES00	Total/NA	Solid	Dry and Grind	
160-3482-12	L050311PRS00	Total/NA	Solid	Dry and Grind	
160-3482-13	L050312PES00	Total/NA	Solid	Dry and Grind	
160-3482-14	L050313PRS00	Total/NA	Solid	Dry and Grind	
160-3482-15	L050314PES00	Total/NA	Solid	Dry and Grind	
160-3482-16	L050315PRS00	Total/NA	Solid	Dry and Grind	
160-3482-17	L050316PES00	Total/NA	Solid	Dry and Grind	
160-3482-18	L050317PRS00	Total/NA	Solid	Dry and Grind	
160-3482-19	L050318PES00	Total/NA	Solid	Dry and Grind	
160-3482-19 DU	L050318PES00	Total/NA	Solid	Dry and Grind	
160-3482-20	L050319PRS00	Total/NA	Solid	Dry and Grind	
160-3482-21	L050320PES00	Total/NA	Solid	Dry and Grind	

TestAmerica St. Louis

QC Association Summary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Rad (Continued)

Leach Batch: 68380 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-22	L050321PRS00	Total/NA	Solid	Dry and Grind	
160-3482-23	L050322PES00	Total/NA	Solid	Dry and Grind	
160-3482-24	L050323PUB00	Total/NA	Solid	Dry and Grind	
160-3482-25	L050324PUB00	Total/NA	Solid	Dry and Grind	
160-3482-26	L050325PUB00	Total/NA	Solid	Dry and Grind	
160-3482-27	L050326PUB00	Total/NA	Solid	Dry and Grind	
160-3482-28	L050327PUB00	Total/NA	Solid	Dry and Grind	
160-3482-29	L050328PUB00	Total/NA	Solid	Dry and Grind	
160-3482-30	L050329PUB00	Total/NA	Solid	Dry and Grind	
160-3482-31	L050330PUB00	Total/NA	Solid	Dry and Grind	
160-3482-32	L050331PUB00	Total/NA	Solid	Dry and Grind	
160-3482-32 DU	L050331PUB00	Total/NA	Solid	Dry and Grind	
160-3482-33	L050332PUB00	Total/NA	Solid	Dry and Grind	

Prep Batch: 69096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-1	L050301PRS00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-2	L050302PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-3	L050303PRS00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-4	L050304PEQ00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-5	L050304PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-6	L050305PRS00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-7	L050306PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-8	L050307PRS00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-9	L050308PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-10	L050309PRS00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-11	L050310PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-12	L050311PRS00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-13	L050312PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-14	L050313PRS00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-15	L050314PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-16	L050315PRS00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-17	L050316PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-18	L050317PRS00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-19	L050318PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-19 DU	L050318PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-20	L050319PRS00	Total/NA	Solid	Fill_Geo-0	68380
LCS 160-69096/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-0	
MB 160-69096/1-A	Method Blank	Total/NA	Solid	Fill_Geo-0	

Prep Batch: 69129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-21	L050320PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-22	L050321PRS00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-23	L050322PES00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-24	L050323PUB00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-25	L050324PUB00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-26	L050325PUB00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-27	L050326PUB00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-28	L050327PUB00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-29	L050328PUB00	Total/NA	Solid	Fill_Geo-0	68380

TestAmerica St. Louis

QC Association Summary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Rad (Continued)

Prep Batch: 69129 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-3482-30	L050329PUB00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-31	L050330PUB00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-32	L050331PUB00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-32 DU	L050331PUB00	Total/NA	Solid	Fill_Geo-0	68380
160-3482-33	L050332PUB00	Total/NA	Solid	Fill_Geo-0	68380
LCS 160-69129/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-0	
MB 160-69129/1-A	Method Blank	Total/NA	Solid	Fill_Geo-0	

Tracer/Carrier Summary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (7 DAY TAT)

TestAmerica Job ID: 160-3482-1

Method: 6020A - Metals (ICP/MS), Tc-99 in Activity

Matrix: Solid

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Re (30-110)	
160-3482-1	L050301PRS00	86	
160-3482-1 MS	L050301PRS00	87	
160-3482-1 MSD	L050301PRS00	87	
160-3482-2	L050302PES00	87	
160-3482-3	L050303PRS00	88	
160-3482-4	L050304PEQ00	85	
160-3482-5	L050304PES00	81	
160-3482-6	L050305PRS00	86	
160-3482-7	L050306PES00	87	
160-3482-8	L050307PRS00	82	
160-3482-9	L050308PES00	86	
160-3482-10	L050309PRS00	86	
160-3482-11	L050310PES00	89	
160-3482-12	L050311PRS00	81	
160-3482-13	L050312PES00	84	
160-3482-14	L050313PRS00	83	
160-3482-15	L050314PES00	82	
160-3482-16	L050315PRS00	81	
160-3482-17	L050316PES00	90	
160-3482-18	L050317PRS00	85	
160-3482-19	L050318PES00	87	
160-3482-20	L050319PRS00	91	
160-3482-21	L050320PES00	88	
160-3482-21 MS	L050320PES00	88	
160-3482-21 MSD	L050320PES00	88	
160-3482-22	L050321PRS00	86	
160-3482-23	L050322PES00	89	
160-3482-24	L050323PUB00	88	
160-3482-25	L050324PUB00	87	
160-3482-26	L050325PUB00	83	
160-3482-27	L050326PUB00	90	
160-3482-28	L050327PUB00	85	
160-3482-29	L050328PUB00	87	
160-3482-30	L050329PUB00	84	
160-3482-31	L050330PUB00	86	
160-3482-32	L050331PUB00	87	
160-3482-33	L050332PUB00	84	
LCS 160-68378/2-A	Lab Control Sample	95	
LCS 160-68379/2-A	Lab Control Sample	96	
MB 160-68378/1-A	Method Blank	95	
MB 160-68379/1-A	Method Blank	95	
Tracer/Carrier Legend			
Re = Re			