

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: 160-5228-2

Client Project/Site: RFP-CBA-022 (21 DAY TAT)

For:

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

Attn: Martin Swanson



Authorized for release by:
2/21/2014 11:24:30 AM

Ivan Vania, Project Manager II
(314)298-8566

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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.

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Case Narrative

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Job ID: 160-5228-2

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

Client: Westinghouse Electric Company LLC

Project: RFP-CBA-022 (21 DAY TAT)

Report Number: 160-5228-2

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 01/20/2014; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 18.0° C and 18.0° C.

RADIUM-226 BY GAMMA SPEC (21 DAY INGROWTH)

Samples L100525BUB00 (160-5228-1), L100526BUB00 (160-5228-2), L100527BUB00 (160-5228-3), L100528BUB00 (160-5228-4), L100501BES00 (160-5228-5), L100502BEQ00 (160-5228-6), L100502BES00 (160-5228-7), L100503BES00 (160-5228-8), L100504BES00 (160-5228-9), L100505BES00 (160-5228-10), L100506BES00 (160-5228-11), L100507BES00 (160-5228-12), L100508BES00 (160-5228-13), L100509BSS00 (160-5228-14), L100510BSS00 (160-5228-15), L100511BSS00 (160-5228-16), L100512BSS00 (160-5228-17), L100513BSS00 (160-5228-18), L100514BSS00 (160-5228-19), L100515BSS00 (160-5228-20), L100516BSS00 (160-5228-21), L100517BSS00 (160-5228-22), L100518BSS00 (160-5228-23), L100519BSS00 (160-5228-24), L100520BSS00 (160-5228-25), L100521BSS00 (160-5228-26), L100522BSS00 (160-5228-27), L100523BSS00 (160-5228-28) and L100524BSS00 (160-5228-29) were analyzed for Radium-226 by gamma spec (21 day ingrowth) in accordance with EPA GA_01_R. The samples were leached on 01/21/2014, prepared on 01/23/2014 and analyzed on 02/13/2014 and 02/18/2014.

Case Narrative

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Job ID: 160-5228-2 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

No difficulties were encountered during the Radium 226 analysis. All other quality control parameters were within the acceptance limits.

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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.

[illegible]

Hematite Decommissioning Project

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

Revision: 3

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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-011914-01 Page 1/3				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	Comp (C) or Grab (G)	Gamma Spec	Isotopic Uranium	Tc-99	Gamma Spec (21 day ingrow for Ra-226)								
L100501BES00	1/16/2014	8:55	S	C			X	X						1	LSA-10-05 Sys samples	
L100502BEQ00	1/16/2014	9:15	S	C			X	X						1	LSA-10-05 QC samples	
L100502BES00	1/16/2014	9:15	S	C			X	X						1	LSA-10-05 Sys samples	
L100503BES00	1/14/2014	11:05	S	C			X	X						1	LSA-10-05 Sys samples	
L100504BES00	1/14/2014	14:20	S	C			X	X						1	LSA-10-05 Sys samples	
L100505BES00	1/14/2014	10:50	S	C			X	X						1	LSA-10-05 Sys samples	
L100506BES00	1/14/2014	14:00	S	C			X	X						1	LSA-10-05 Sys samples	
L100507BES00	1/14/2014	14:15	S	C			X	X						1	LSA-10-05 Sys samples	
L100508BES00	1/14/2014	10:35	S	C			X	X						1	LSA-10-05 Sys samples	
L100509BSS00	1/17/2014	14:30	S	C			X	X						1	LSA-10-05 Sidewall Samples	
L100510BSS00	1/17/2014	11:10	S	C			X	X						1	LSA-10-05 Sidewall Samples	
L100511BSS00	1/17/2014	10:45	S	C			X	X						1	LSA-10-05 Sidewall Samples	
Relinquished by: <i>C = C</i>				Date/Time: <i>1-20-14 1615</i>		Received by: <i>Joe Walker</i>				Date/Time: <i>1-20 1615</i>		Total: 25		Cooler Temperature: Ambient		
Company Name: <i>WEC</i>						Company Name: <i>Crossroad</i>						Cooler ID: 0120-03/04		Shipper and Number:		
Received by:				Date/Time:		Relinquished by: <i>Joe Walker</i>				Date/Time: <i>1-20 1859</i>		Comments: Please analyze samples on a 7 TAT for Tc-99. Please analyze samples for gamma spec after a 21 day ingrowth period.				
Company Name:						Company Name: <i>Crossroads</i>										
Relinquished by:				Date/Time:		Received by: <i>Curtis Wilber</i>				Date/Time: <i>1/20/14 1859</i>						
Company Name:						Company Name: <i>14</i>						Verified By: <i>Curtis Wilber</i>				

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-011914-01 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														
L100512BSS00	1/17/2014	10:50	S	C			X	X							1	LSA-10-05 Sidewall Samples	
L100513BSS00	1/17/2014	14:20	S	C			X	X							1	LSA-10-05 Sidewall Samples	
L100514BSS00	1/17/2014	13:50	S	C			X	X							1	LSA-10-05 Sidewall Samples	
L100515BSS00	1/17/2014	14:10	S	C			X	X							1	LSA-10-05 Sidewall Samples	
L100516BSS00	1/17/2014	11:00	S	C			X	X							1	LSA-10-05 Sidewall Samples	
L100517BSS00	1/16/2014	15:35	S	C			X	X							1	LSA-10-05 Sidewall Samples	
L100518BSS00	1/16/2014	15:10	S	C			X	X							1	LSA-10-05 Sidewall Samples	
L100519BSS00	1/17/2014	14:55	S	C			X	X							1	LSA-10-05 Sidewall Samples	
L100520BSS00	1/17/2014	14:45	S	C			X	X							1	LSA-10-05 Sidewall Samples	
L100521BSS00	1/16/2014	14:15	S	C			X	X							1	LSA-10-05 Sidewall Samples	
L100522BSS00	1/16/2014	14:20	S	C			X	X							1	LSA-10-05 Sidewall Samples	
L100523BSS00	1/16/2014	14:35	S	C			X	X							1	LSA-10-05 Sidewall Samples	
Relinquished by: <i>C = L</i>		Date/Time: <i>1-20-14 1615</i>		Received by: <i>Joe Brakshaw</i>		Date/Time: <i>1-20 1615</i>		Total: <i>25</i>		Cooler Temperature: <i>Ambient</i>							
Company Name: <i>WEL</i>				Company Name: <i>Crossroads</i>				Cooler ID: <i>0120-03/04</i>		Shipper and Number:							
Received by:		Date/Time:		Relinquished by: <i>Joe Brakshaw</i>		Date/Time: <i>1-20 1651</i>		Comments: Please analyze samples on a 7 TAT for Tc-99. Please analyze samples for gamma spec after a 21 day ingrowth period.		Verified By: <i>Curtis Wilder</i>							
Company Name:				Company Name: <i>Crossroads</i>													
Relinquished by:		Date/Time:		Received by: <i>K</i>		Date/Time: <i>1/20/14 6079</i>											
Company Name:				Company Name: <i>W</i>													

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.

[illegible]

Login Sample Receipt Checklist

Client: Westinghouse Electric Company LLC

Job Number: 160-5228-2

Login Number: 5228

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 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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)
Dil Fac	Dilution Factor
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 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Method	Method Description	Protocol	Laboratory
GA-01-R	Radium-226 & Other Gamma Emitters (GS)	DOE	TAL SL

Protocol References:

DOE = U.S. Department of Energy

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 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-5228-1	L100525BUB00	Solid	01/19/14 12:50	01/20/14 18:30
160-5228-2	L100526BUB00	Solid	01/19/14 13:00	01/20/14 18:30
160-5228-3	L100527BUB00	Solid	01/19/14 13:10	01/20/14 18:30
160-5228-4	L100528BUB00	Solid	01/19/14 13:15	01/20/14 18:30
160-5228-5	L100501BES00	Solid	01/16/14 08:55	01/20/14 18:30
160-5228-6	L100502BEQ00	Solid	01/16/14 09:15	01/20/14 18:30
160-5228-7	L100502BES00	Solid	01/16/14 09:15	01/20/14 18:30
160-5228-8	L100503BES00	Solid	01/14/14 11:05	01/20/14 18:30
160-5228-9	L100504BES00	Solid	01/14/14 14:20	01/20/14 18:30
160-5228-10	L100505BES00	Solid	01/14/14 10:50	01/20/14 18:30
160-5228-11	L100506BES00	Solid	01/14/14 14:00	01/20/14 18:30
160-5228-12	L100507BES00	Solid	01/14/14 14:15	01/20/14 18:30
160-5228-13	L100508BES00	Solid	01/14/14 10:35	01/20/14 18:30
160-5228-14	L100509BSS00	Solid	01/17/14 14:30	01/20/14 18:30
160-5228-15	L100510BSS00	Solid	01/17/14 11:10	01/20/14 18:30
160-5228-16	L100511BSS00	Solid	01/17/14 10:45	01/20/14 18:30
160-5228-17	L100512BSS00	Solid	01/17/14 10:50	01/20/14 18:30
160-5228-18	L100513BSS00	Solid	01/17/14 14:20	01/20/14 18:30
160-5228-19	L100514BSS00	Solid	01/17/14 13:50	01/20/14 18:30
160-5228-20	L100515BSS00	Solid	01/17/14 14:10	01/20/14 18:30
160-5228-21	L100516BSS00	Solid	01/17/14 11:00	01/20/14 18:30
160-5228-22	L100517BSS00	Solid	01/16/14 15:35	01/20/14 18:30
160-5228-23	L100518BSS00	Solid	01/16/14 15:10	01/20/14 18:30
160-5228-24	L100519BSS00	Solid	01/17/14 14:55	01/20/14 18:30
160-5228-25	L100520BSS00	Solid	01/17/14 14:45	01/20/14 18:30
160-5228-26	L100521BSS00	Solid	01/16/14 14:15	01/20/14 18:30
160-5228-27	L100522BSS00	Solid	01/16/14 14:20	01/20/14 18:30
160-5228-28	L100523BSS00	Solid	01/16/14 14:35	01/20/14 18:30
160-5228-29	L100524BSS00	Solid	01/16/14 15:00	01/20/14 18:30

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100525BUB00

Lab Sample ID: 160-5228-1

Date Collected: 01/19/14 12:50

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.11		0.126	0.170		0.103	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Bismuth 212	1.30		0.427	0.448		0.404	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Bismuth 214	1.16		0.120	0.170		0.0817	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Lead 212	1.07		0.0788	0.160		0.0793	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Lead 214	1.31		0.0965	0.167		0.0717	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Potassium 40	20.2		1.23	2.41		0.471	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Protactinium 231	0.356	U	0.227	0.231		1.17	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Radium 226	1.16		0.120	0.170	1.00	0.0817	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Thorium 232	1.11		0.126	0.170		0.103	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Thorium 234	1.20		0.731	0.742		0.956	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Uranium 235	0.512		0.201	0.207		0.228	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Americium 241	-0.0188	U	0.0704	0.0704		0.118	pCi/g	01/23/14 09:31	02/13/14 10:01	1
Protactinium 234m	3.72	U	1.62	1.67		5.85	pCi/g	01/23/14 09:31	02/13/14 10:01	1

Client Sample ID: L100526BUB00

Lab Sample ID: 160-5228-2

Date Collected: 01/19/14 13:00

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.26		0.152	0.198		0.119	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Bismuth 212	1.35		0.429	0.451		0.395	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Bismuth 214	1.17		0.117	0.169		0.0858	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Lead 212	1.15		0.0836	0.171		0.0649	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Lead 214	1.27		0.0993	0.165		0.0840	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Potassium 40	20.2		1.37	2.48		0.253	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Protactinium 231	0.520	U	0.256	0.263		1.41	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Radium 226	1.17		0.117	0.169	1.00	0.0858	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Thorium 232	1.26		0.152	0.198		0.119	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Thorium 234	0.862	U	0.358	0.369		0.897	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Uranium 235	0.0895	U	0.143	0.143		0.262	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Americium 241	0.000	U	0.0329	0.0329		0.120	pCi/g	01/23/14 09:31	02/13/14 10:00	1
Protactinium 234m	1.44	U	3.67	3.67		6.34	pCi/g	01/23/14 09:31	02/13/14 10:00	1

Client Sample ID: L100527BUB00

Lab Sample ID: 160-5228-3

Date Collected: 01/19/14 13:10

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.30		0.151	0.201		0.0835	pCi/g	01/23/14 09:31	02/13/14 10:15	1
Bismuth 212	1.32		0.565	0.582		0.543	pCi/g	01/23/14 09:31	02/13/14 10:15	1
Bismuth 214	1.22		0.125	0.178		0.0593	pCi/g	01/23/14 09:31	02/13/14 10:15	1
Lead 212	1.04		0.0889	0.162		0.0820	pCi/g	01/23/14 09:31	02/13/14 10:15	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100527BUB00

Lab Sample ID: 160-5228-3

Date Collected: 01/19/14 13:10

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Lead 214	1.32		0.118	0.182		0.103	pCi/g	01/23/14 09:31	02/13/14 10:15	1
Potassium 40	19.1		1.54	2.49		0.596	pCi/g	01/23/14 09:31	02/13/14 10:15	1
Protactinium 231	0.404	U	0.472	0.474		0.771	pCi/g	01/23/14 09:31	02/13/14 10:15	1
Radium 226	1.22		0.125	0.178	1.00	0.0593	pCi/g	01/23/14 09:31	02/13/14 10:15	1
Thorium 232	1.30		0.151	0.201		0.0835	pCi/g	01/23/14 09:31	02/13/14 10:15	1
Thorium 234	1.01	U	0.437	0.450		1.24	pCi/g	01/23/14 09:31	02/13/14 10:15	1
Uranium 235	0.208	U	0.145	0.146		0.230	pCi/g	01/23/14 09:31	02/13/14 10:15	1
Americium 241	-0.000505	U	0.0730	0.0730		0.124	pCi/g	01/23/14 09:31	02/13/14 10:15	1
Protactinium 234m	2.84	U	4.01	4.02		6.67	pCi/g	01/23/14 09:31	02/13/14 10:15	1

Client Sample ID: L100528BUB00

Lab Sample ID: 160-5228-4

Date Collected: 01/19/14 13:15

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.45		0.154	0.208		0.0829	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Bismuth 212	1.12		0.390	0.405		0.522	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Bismuth 214	1.40		0.132	0.190		0.0883	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Lead 212	1.16		0.0896	0.154		0.0911	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Lead 214	1.59		0.112	0.190		0.0965	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Potassium 40	18.4		1.30	2.20		0.524	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Protactinium 231	-0.786	U	0.872	0.875		1.43	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Radium 226	1.40		0.132	0.190	1.00	0.0883	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Thorium 232	1.45		0.154	0.208		0.0829	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Thorium 234	0.985	U	0.391	0.403		1.16	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Uranium 235	0.156	U	0.177	0.177		0.292	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Americium 241	-0.00149	U	0.0646	0.0646		0.109	pCi/g	01/23/14 09:31	02/13/14 14:45	1
Protactinium 234m	1.40	U	3.11	3.11		5.33	pCi/g	01/23/14 09:31	02/13/14 14:45	1

Client Sample ID: L100501BES00

Lab Sample ID: 160-5228-5

Date Collected: 01/16/14 08:55

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.18		0.168	0.203		0.0706	pCi/g	01/23/14 09:31	02/13/14 14:46	1
Bismuth 212	1.33		0.630	0.643		0.581	pCi/g	01/23/14 09:31	02/13/14 14:46	1
Bismuth 214	1.21		0.134	0.179		0.0845	pCi/g	01/23/14 09:31	02/13/14 14:46	1
Lead 212	1.31		0.0939	0.170		0.0698	pCi/g	01/23/14 09:31	02/13/14 14:46	1
Lead 214	1.25		0.115	0.166		0.0800	pCi/g	01/23/14 09:31	02/13/14 14:46	1
Potassium 40	17.5		1.39	2.19		0.413	pCi/g	01/23/14 09:31	02/13/14 14:46	1
Protactinium 231	0.501	U	0.271	0.275		1.47	pCi/g	01/23/14 09:31	02/13/14 14:46	1
Radium 226	1.21		0.134	0.179	1.00	0.0845	pCi/g	01/23/14 09:31	02/13/14 14:46	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100501BES00

Lab Sample ID: 160-5228-5

Date Collected: 01/16/14 08:55

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Thorium 232	1.18		0.168	0.203		0.0706	pCi/g	01/23/14 09:31	02/13/14 14:46	1
Thorium 234	1.64		0.833	0.849		1.05	pCi/g	01/23/14 09:31	02/13/14 14:46	1
Uranium 235	0.110	U	0.169	0.170		0.283	pCi/g	01/23/14 09:31	02/13/14 14:46	1
Americium 241	-0.0190	U	0.0660	0.0661		0.111	pCi/g	01/23/14 09:31	02/13/14 14:46	1
Protactinium 234m	5.35	U	3.65	3.69		7.63	pCi/g	01/23/14 09:31	02/13/14 14:46	1

Client Sample ID: L100502BEQ00

Lab Sample ID: 160-5228-6

Date Collected: 01/16/14 09:15

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.43		0.204	0.246		0.149	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Bismuth 212	1.77		0.667	0.689		0.901	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Bismuth 214	1.81		0.212	0.275		0.146	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Lead 212	1.44		0.121	0.197		0.112	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Lead 214	1.94		0.166	0.251		0.138	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Potassium 40	19.1		1.78	2.56		0.793	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Protactinium 231	0.604	U	0.353	0.358		2.04	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Radium 226	1.81		0.212	0.275	1.00	0.146	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Thorium 232	1.43		0.204	0.246		0.149	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Thorium 234	1.32		0.482	0.499		1.24	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Uranium 235	0.0448	U	0.230	0.230		0.390	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Americium 241	-0.0138	U	0.0933	0.0933		0.157	pCi/g	01/23/14 09:31	02/13/14 14:47	1
Protactinium 234m	1.68	U	5.16	5.16		9.02	pCi/g	01/23/14 09:31	02/13/14 14:47	1

Client Sample ID: L100502BES00

Lab Sample ID: 160-5228-7

Date Collected: 01/16/14 09:15

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	2.11		0.306	0.374		0.148	pCi/g	01/23/14 09:31	02/13/14 14:43	1
Bismuth 212	1.27	U	1.03	1.04		1.59	pCi/g	01/23/14 09:31	02/13/14 14:43	1
Bismuth 214	1.76		0.314	0.363		0.264	pCi/g	01/23/14 09:31	02/13/14 14:43	1
Lead 212	1.55		0.220	0.298		0.235	pCi/g	01/23/14 09:31	02/13/14 14:43	1
Lead 214	1.92		0.306	0.365		0.258	pCi/g	01/23/14 09:31	02/13/14 14:43	1
Potassium 40	19.3		2.49	3.17		1.02	pCi/g	01/23/14 09:31	02/13/14 14:43	1
Protactinium 231	0.967	U	0.646	0.655		3.58	pCi/g	01/23/14 09:31	02/13/14 14:43	1
Radium 226	1.76		0.314	0.363	1.00	0.264	pCi/g	01/23/14 09:31	02/13/14 14:43	1
Thorium 232	2.11		0.306	0.374		0.148	pCi/g	01/23/14 09:31	02/13/14 14:43	1
Thorium 234	2.86	U	2.47	2.49		3.29	pCi/g	01/23/14 09:31	02/13/14 14:43	1
Uranium 235	0.282	U	0.441	0.441		0.726	pCi/g	01/23/14 09:31	02/13/14 14:43	1
Americium 241	-0.0219	U	0.158	0.158		0.273	pCi/g	01/23/14 09:31	02/13/14 14:43	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100502BES00

Lab Sample ID: 160-5228-7

Date Collected: 01/16/14 09:15

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Protactinium 234m	-4.00	U	160	160		21.1	pCi/g	01/23/14 09:31	02/13/14 14:43	1

Client Sample ID: L100503BES00

Lab Sample ID: 160-5228-8

Date Collected: 01/14/14 11:05

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.15		0.134	0.178		0.150	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Bismuth 212	1.56		0.563	0.586		0.526	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Bismuth 214	1.20		0.119	0.173		0.0715	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Lead 212	1.23		0.0818	0.178		0.0634	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Lead 214	1.31		0.102	0.170		0.0786	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Potassium 40	19.0		1.21	2.29		0.255	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Protactinium 231	0.620	U	0.372	0.378		1.26	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Radium 226	1.20		0.119	0.173	1.00	0.0715	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Thorium 232	1.15		0.134	0.178		0.150	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Thorium 234	1.18		0.724	0.734		0.952	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Uranium 235	0.162	U	0.162	0.163		0.212	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Americium 241	0.0716	U	0.0641	0.0645		0.0882	pCi/g	01/23/14 09:31	02/13/14 14:48	1
Protactinium 234m	1.67	U	3.16	3.17		5.50	pCi/g	01/23/14 09:31	02/13/14 14:48	1

Client Sample ID: L100504BES00

Lab Sample ID: 160-5228-9

Date Collected: 01/14/14 14:20

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.28		0.186	0.228		0.0983	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Bismuth 212	2.04		0.633	0.667		0.520	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Bismuth 214	1.31		0.136	0.193		0.0583	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Lead 212	1.21		0.0990	0.185		0.0858	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Lead 214	1.21		0.138	0.186		0.0999	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Potassium 40	19.6		1.57	2.54		0.409	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Protactinium 231	0.410	U	0.257	0.261		1.55	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Radium 226	1.31		0.136	0.193	1.00	0.0583	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Thorium 232	1.28		0.186	0.228		0.0983	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Thorium 234	0.858	U	0.381	0.392		1.35	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Uranium 235	0.153	U	0.147	0.148		0.269	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Americium 241	0.000395	U	0.0773	0.0773		0.131	pCi/g	01/23/14 09:31	02/13/14 14:50	1
Protactinium 234m	3.52	U	4.43	4.44		8.47	pCi/g	01/23/14 09:31	02/13/14 14:50	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100505BES00

Lab Sample ID: 160-5228-10

Date Collected: 01/14/14 10:50

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.19		0.135	0.182		0.107	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Bismuth 212	1.50		0.455	0.481		0.407	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Bismuth 214	1.16		0.107	0.161		0.0754	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Lead 212	1.18		0.0760	0.170		0.0587	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Lead 214	1.42		0.104	0.180		0.0816	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Potassium 40	20.3		1.18	2.39		0.312	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Protactinium 231	0.181	U	0.564	0.564		0.958	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Radium 226	1.16		0.107	0.161	1.00	0.0754	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Thorium 232	1.19		0.135	0.182		0.107	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Thorium 234	0.966		0.316	0.332		0.815	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Uranium 235	0.312		0.148	0.151		0.208	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Americium 241	-0.00690	U	0.0713	0.0713		0.120	pCi/g	01/23/14 09:31	02/13/14 15:43	1
Protactinium 234m	7.93		3.04	3.14		5.15	pCi/g	01/23/14 09:31	02/13/14 15:43	1

Client Sample ID: L100506BES00

Lab Sample ID: 160-5228-11

Date Collected: 01/14/14 14:00

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.20		0.172	0.207		0.118	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Bismuth 212	1.35		0.429	0.448		0.396	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Bismuth 214	1.17		0.117	0.163		0.0736	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Lead 212	1.04		0.0818	0.139		0.0801	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Lead 214	1.19		0.112	0.161		0.0838	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Potassium 40	21.0		1.30	2.40		0.417	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Protactinium 231	-0.645	U	0.829	0.832		1.37	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Radium 226	1.17		0.117	0.163	1.00	0.0736	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Thorium 232	1.20		0.172	0.207		0.118	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Thorium 234	0.905		0.339	0.350		0.857	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Uranium 235	0.170	U	0.114	0.115		0.179	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Americium 241	0.0149	U	0.0675	0.0675		0.113	pCi/g	01/23/14 09:31	02/13/14 15:44	1
Protactinium 234m	2.11	U	3.31	3.31		5.54	pCi/g	01/23/14 09:31	02/13/14 15:44	1

Client Sample ID: L100507BES00

Lab Sample ID: 160-5228-12

Date Collected: 01/14/14 14:15

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.13		0.195	0.224		0.168	pCi/g	01/23/14 09:31	02/13/14 15:45	1
Bismuth 212	1.41		0.472	0.491		0.408	pCi/g	01/23/14 09:31	02/13/14 15:45	1
Bismuth 214	1.23		0.138	0.183		0.0872	pCi/g	01/23/14 09:31	02/13/14 15:45	1
Lead 212	1.07		0.0860	0.144		0.0702	pCi/g	01/23/14 09:31	02/13/14 15:45	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100507BES00

Lab Sample ID: 160-5228-12

Date Collected: 01/14/14 14:15

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Lead 214	1.18		0.104	0.155		0.102	pCi/g	01/23/14 09:31	02/13/14 15:45	1
Potassium 40	18.2		1.38	2.24		0.281	pCi/g	01/23/14 09:31	02/13/14 15:45	1
Protactinium 231	0.653	U	0.369	0.375		1.01	pCi/g	01/23/14 09:31	02/13/14 15:45	1
Radium 226	1.23		0.138	0.183	1.00	0.0872	pCi/g	01/23/14 09:31	02/13/14 15:45	1
Thorium 232	1.13		0.195	0.224		0.168	pCi/g	01/23/14 09:31	02/13/14 15:45	1
Thorium 234	0.891	U	0.369	0.379		0.992	pCi/g	01/23/14 09:31	02/13/14 15:45	1
Uranium 235	0.0572	U	0.0591	0.0593		0.276	pCi/g	01/23/14 09:31	02/13/14 15:45	1
Americium 241	0.000655	U	0.0626	0.0626		0.106	pCi/g	01/23/14 09:31	02/13/14 15:45	1
Protactinium 234m	0.656	U	3.08	3.09		7.14	pCi/g	01/23/14 09:31	02/13/14 15:45	1

Client Sample ID: L100508BES00

Lab Sample ID: 160-5228-13

Date Collected: 01/14/14 10:35

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.12		0.145	0.185		0.158	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Bismuth 212	0.779		0.428	0.436		0.633	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Bismuth 214	1.18		0.147	0.191		0.0970	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Lead 212	1.03		0.0862	0.159		0.0813	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Lead 214	1.24		0.112	0.171		0.0684	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Potassium 40	18.2		1.41	2.33		0.454	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Protactinium 231	0.445	U	0.236	0.241		1.38	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Radium 226	1.18		0.147	0.191	1.00	0.0970	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Thorium 232	1.12		0.145	0.185		0.158	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Thorium 234	0.792	U	0.353	0.363		1.07	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Uranium 235	0.00198	U	0.164	0.164		0.279	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Americium 241	0.0198	U	0.0678	0.0679		0.114	pCi/g	01/23/14 09:31	02/13/14 15:46	1
Protactinium 234m	0.133	U	1.72	1.72		6.36	pCi/g	01/23/14 09:31	02/13/14 15:46	1

Client Sample ID: L100509BSS00

Lab Sample ID: 160-5228-14

Date Collected: 01/17/14 14:30

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.15		0.124	0.171		0.0814	pCi/g	01/23/14 09:31	02/13/14 15:47	1
Bismuth 212	1.43		0.421	0.447		0.364	pCi/g	01/23/14 09:31	02/13/14 15:47	1
Bismuth 214	1.03		0.106	0.151		0.0715	pCi/g	01/23/14 09:31	02/13/14 15:47	1
Lead 212	1.19		0.0752	0.172		0.0563	pCi/g	01/23/14 09:31	02/13/14 15:47	1
Lead 214	1.24		0.0946	0.159		0.0688	pCi/g	01/23/14 09:31	02/13/14 15:47	1
Potassium 40	19.9		1.23	2.38		0.433	pCi/g	01/23/14 09:31	02/13/14 15:47	1
Protactinium 231	0.566	U	0.288	0.294		0.914	pCi/g	01/23/14 09:31	02/13/14 15:47	1
Radium 226	1.03		0.106	0.151	1.00	0.0715	pCi/g	01/23/14 09:31	02/13/14 15:47	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100509BSS00

Lab Sample ID: 160-5228-14

Date Collected: 01/17/14 14:30

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Thorium 232	1.15		0.124	0.171		0.0814	pCi/g	01/23/14 09:31	02/13/14 15:47	1
Thorium 234	1.15		0.623	0.635		0.835	pCi/g	01/23/14 09:31	02/13/14 15:47	1
Uranium 235	0.0897	U	0.122	0.122		0.231	pCi/g	01/23/14 09:31	02/13/14 15:47	1
Americium 241	0.00124	U	0.0622	0.0622		0.105	pCi/g	01/23/14 09:31	02/13/14 15:47	1
Protactinium 234m	1.49	U	2.81	2.82		4.89	pCi/g	01/23/14 09:31	02/13/14 15:47	1

Client Sample ID: L100510BSS00

Lab Sample ID: 160-5228-15

Date Collected: 01/17/14 11:10

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.11		0.217	0.245		0.141	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Bismuth 212	0.891		0.510	0.518		0.768	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Bismuth 214	1.24		0.135	0.187		0.0724	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Lead 212	1.09		0.0897	0.167		0.0810	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Lead 214	1.27		0.117	0.176		0.100	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Potassium 40	18.7		1.44	2.39		0.360	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Protactinium 231	0.395	U	0.257	0.261		1.48	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Radium 226	1.24		0.135	0.187	1.00	0.0724	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Thorium 232	1.11		0.217	0.245		0.141	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Thorium 234	1.53		0.798	0.814		1.04	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Uranium 235	0.0328	U	0.168	0.168		0.284	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Americium 241	0.00328	U	0.0649	0.0649		0.110	pCi/g	01/23/14 09:31	02/13/14 15:48	1
Protactinium 234m	-0.116	U	0.781	0.781		8.01	pCi/g	01/23/14 09:31	02/13/14 15:48	1

Client Sample ID: L100511BSS00

Lab Sample ID: 160-5228-16

Date Collected: 01/17/14 10:45

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.17		0.108	0.161		0.0969	pCi/g	01/23/14 09:31	02/13/14 16:26	1
Bismuth 212	1.88		0.438	0.479		0.341	pCi/g	01/23/14 09:31	02/13/14 16:26	1
Bismuth 214	1.30		0.103	0.170		0.0608	pCi/g	01/23/14 09:31	02/13/14 16:26	1
Lead 212	1.16		0.0721	0.167		0.0622	pCi/g	01/23/14 09:31	02/13/14 16:26	1
Lead 214	1.38		0.0843	0.166		0.0740	pCi/g	01/23/14 09:31	02/13/14 16:26	1
Potassium 40	19.7		1.09	2.29		0.314	pCi/g	01/23/14 09:31	02/13/14 16:26	1
Protactinium 231	-0.606	U	0.679	0.682		1.11	pCi/g	01/23/14 09:31	02/13/14 16:26	1
Radium 226	1.30		0.103	0.170	1.00	0.0608	pCi/g	01/23/14 09:31	02/13/14 16:26	1
Thorium 232	1.17		0.108	0.161		0.0969	pCi/g	01/23/14 09:31	02/13/14 16:26	1
Thorium 234	1.90		0.804	0.828		0.943	pCi/g	01/23/14 09:31	02/13/14 16:26	1
Uranium 235	0.155	U	0.0996	0.101		0.163	pCi/g	01/23/14 09:31	02/13/14 16:26	1
Americium 241	-0.00558	U	0.0645	0.0645		0.108	pCi/g	01/23/14 09:31	02/13/14 16:26	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100511BSS00

Lab Sample ID: 160-5228-16

Date Collected: 01/17/14 10:45

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Protactinium 234m	4.96	U	2.07	2.13		6.38	pCi/g	01/23/14 09:31	02/13/14 16:26	1

Client Sample ID: L100512BSS00

Lab Sample ID: 160-5228-17

Date Collected: 01/17/14 10:50

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.20		0.160	0.202		0.0907	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Bismuth 212	1.54		0.484	0.509		0.423	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Bismuth 214	1.26		0.110	0.171		0.0684	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Lead 212	1.10		0.0786	0.162		0.0786	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Lead 214	1.38		0.108	0.180		0.0769	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Potassium 40	21.1		1.19	2.47		0.357	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Protactinium 231	-0.639	U	0.723	0.726		1.19	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Radium 226	1.26		0.110	0.171	1.00	0.0684	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Thorium 232	1.20		0.160	0.202		0.0907	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Thorium 234	1.69		0.715	0.737		0.897	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Uranium 235	0.152	U	0.116	0.117		0.187	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Americium 241	-0.0180	U	0.0671	0.0672		0.112	pCi/g	01/23/14 09:31	02/13/14 16:27	1
Protactinium 234m	2.81	U	2.96	2.97		4.80	pCi/g	01/23/14 09:31	02/13/14 16:27	1

Client Sample ID: L100513BSS00

Lab Sample ID: 160-5228-18

Date Collected: 01/17/14 14:20

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.31		0.137	0.191		0.114	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Bismuth 212	0.790		0.414	0.422		0.610	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Bismuth 214	1.33		0.125	0.186		0.0735	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Lead 212	1.20		0.0839	0.176		0.0638	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Lead 214	1.35		0.143	0.201		0.111	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Potassium 40	20.4		1.36	2.50		0.246	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Protactinium 231	0.860	U	0.387	0.398		0.931	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Radium 226	1.33		0.125	0.186	1.00	0.0735	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Thorium 232	1.31		0.137	0.191		0.114	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Thorium 234	0.958		0.343	0.357		0.926	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Uranium 235	0.0902	U	0.145	0.145		0.264	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Americium 241	-0.0214	U	0.0638	0.0639		0.107	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Protactinium 234m	4.51	U	3.83	3.86		6.01	pCi/g	01/23/14 09:31	02/13/14 16:28	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100514BSS00

Lab Sample ID: 160-5228-19

Date Collected: 01/17/14 13:50

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.04		0.173	0.203		0.169	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Bismuth 212	1.05		0.448	0.461		0.436	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Bismuth 214	1.12		0.127	0.172		0.0821	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Lead 212	1.05		0.0899	0.162		0.0854	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Lead 214	1.19		0.129	0.179		0.0923	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Potassium 40	18.8		1.47	2.42		0.472	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Protactinium 231	0.374	U	0.293	0.296		1.41	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Radium 226	1.12		0.127	0.172	1.00	0.0821	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Thorium 232	1.04		0.173	0.203		0.169	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Thorium 234	1.38		0.690	0.705		0.943	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Uranium 235	0.144	U	0.175	0.176		0.306	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Americium 241	0.0227	U	0.0735	0.0735		0.123	pCi/g	01/23/14 09:31	02/13/14 16:28	1
Protactinium 234m	0.592	U	2.78	2.78		9.75	pCi/g	01/23/14 09:31	02/13/14 16:28	1

Client Sample ID: L100515BSS00

Lab Sample ID: 160-5228-20

Date Collected: 01/17/14 14:10

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.21		0.144	0.190		0.108	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Bismuth 212	1.28		0.371	0.394		0.343	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Bismuth 214	1.12		0.117	0.166		0.0760	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Lead 212	1.16		0.0758	0.169		0.0578	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Lead 214	1.29		0.104	0.169		0.0708	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Potassium 40	19.2		1.18	2.29		0.310	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Protactinium 231	-0.554	U	0.740	0.743		1.22	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Radium 226	1.12		0.117	0.166	1.00	0.0760	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Thorium 232	1.21		0.144	0.190		0.108	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Thorium 234	1.35		0.696	0.710		0.907	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Uranium 235	0.182		0.119	0.121		0.165	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Americium 241	-0.0207	U	0.0655	0.0655		0.110	pCi/g	01/23/14 09:31	02/13/14 16:29	1
Protactinium 234m	0.324	U	2.67	2.67		5.52	pCi/g	01/23/14 09:31	02/13/14 16:29	1

Client Sample ID: L100516BSS00

Lab Sample ID: 160-5228-21

Date Collected: 01/17/14 11:00

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.13		0.140	0.178		0.133	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Bismuth 212	1.45		0.444	0.466		0.377	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Bismuth 214	1.15		0.140	0.179		0.104	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Lead 212	1.12		0.0909	0.151		0.0938	pCi/g	01/23/14 11:51	02/13/14 19:10	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100516BSS00

Lab Sample ID: 160-5228-21

Date Collected: 01/17/14 11:00

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Lead 214	1.41		0.114	0.178		0.0791	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Potassium 40	20.4		1.36	2.39		0.478	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Protactinium 231	0.416	U	0.275	0.278		1.38	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Radium 226	1.15		0.140	0.179	1.00	0.104	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Thorium 232	1.13		0.140	0.178		0.133	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Thorium 234	1.30		0.765	0.776		0.957	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Uranium 235	0.161	U	0.168	0.168		0.260	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Americium 241	-0.00285	U	0.0667	0.0667		0.113	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Protactinium 234m	0.951	U	2.96	2.96		6.10	pCi/g	01/23/14 11:51	02/13/14 19:10	1

Client Sample ID: L100517BSS00

Lab Sample ID: 160-5228-22

Date Collected: 01/16/14 15:35

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.25		0.170	0.213		0.134	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Bismuth 212	1.67		0.571	0.597		0.479	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Bismuth 214	1.35		0.126	0.188		0.0732	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Lead 212	1.27		0.0868	0.186		0.0697	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Lead 214	1.37		0.114	0.182		0.0950	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Potassium 40	18.9		1.29	2.32		0.240	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Protactinium 231	-0.643	U	0.798	0.801		1.32	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Radium 226	1.35		0.126	0.188	1.00	0.0732	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Thorium 232	1.25		0.170	0.213		0.134	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Thorium 234	1.69		0.771	0.791		0.992	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Uranium 235	0.0371	U	0.149	0.149		0.249	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Americium 241	0.00137	U	0.0649	0.0649		0.110	pCi/g	01/23/14 11:51	02/13/14 19:11	1
Protactinium 234m	5.66	U	2.86	2.92		6.13	pCi/g	01/23/14 11:51	02/13/14 19:11	1

Client Sample ID: L100518BSS00

Lab Sample ID: 160-5228-23

Date Collected: 01/16/14 15:10

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Actinium 228	1.37		0.117	0.177		0.0807	pCi/g	01/23/14 11:51	02/18/14 12:32	1
Bismuth 212	1.48		0.302	0.335		0.279	pCi/g	01/23/14 11:51	02/18/14 12:32	1
Bismuth 214	1.62		0.0778	0.176		0.0480	pCi/g	01/23/14 11:51	02/18/14 12:32	1
Lead 212	1.37		0.0467	0.154		0.0363	pCi/g	01/23/14 11:51	02/18/14 12:32	1
Lead 214	1.72		0.0616	0.178		0.0460	pCi/g	01/23/14 11:51	02/18/14 12:32	1
Potassium 40	19.1		0.692	1.96		0.243	pCi/g	01/23/14 11:51	02/18/14 12:32	1
Protactinium 231	-0.629	U	0.451	0.455		0.732	pCi/g	01/23/14 11:51	02/18/14 12:32	1
Radium 226	1.62		0.0778	0.176	1.00	0.0480	pCi/g	01/23/14 11:51	02/18/14 12:32	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100518BSS00

Lab Sample ID: 160-5228-23

Date Collected: 01/16/14 15:10

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Thorium 232	1.37		0.117	0.177		0.0807	pCi/g	01/23/14 11:51	02/18/14 12:32	1
Thorium 234	1.45		0.398	0.423		0.514	pCi/g	01/23/14 11:51	02/18/14 12:32	1
Uranium 235	0.200		0.0709	0.0735		0.115	pCi/g	01/23/14 11:51	02/18/14 12:32	1
Americium 241	-0.0105	U	0.0367	0.0367		0.0610	pCi/g	01/23/14 11:51	02/18/14 12:32	1
Protactinium 234m	7.26		1.57	1.72		3.54	pCi/g	01/23/14 11:51	02/18/14 12:32	1

Client Sample ID: L100519BSS00

Lab Sample ID: 160-5228-24

Date Collected: 01/17/14 14:55

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.37		0.146	0.197		0.147	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Bismuth 212	1.35		0.494	0.511		0.488	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Bismuth 214	1.94		0.147	0.239		0.0804	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Lead 212	1.54		0.0937	0.190		0.0701	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Lead 214	1.97		0.131	0.231		0.101	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Potassium 40	20.8		1.34	2.41		0.380	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Protactinium 231	0.455	U	0.263	0.267		1.43	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Radium 226	1.94		0.147	0.239	1.00	0.0804	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Thorium 232	1.37		0.146	0.197		0.147	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Thorium 234	1.45		0.625	0.641		0.871	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Uranium 235	0.0992	U	0.178	0.178		0.274	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Americium 241	-0.00350	U	0.0708	0.0708		0.119	pCi/g	01/23/14 11:51	02/13/14 19:10	1
Protactinium 234m	2.94	U	3.89	3.90		6.56	pCi/g	01/23/14 11:51	02/13/14 19:10	1

Client Sample ID: L100520BSS00

Lab Sample ID: 160-5228-25

Date Collected: 01/17/14 14:45

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.41		0.197	0.244		0.0910	pCi/g	01/23/14 11:51	02/13/14 20:11	1
Bismuth 212	2.01		0.587	0.623		0.521	pCi/g	01/23/14 11:51	02/13/14 20:11	1
Bismuth 214	1.75		0.167	0.246		0.0829	pCi/g	01/23/14 11:51	02/13/14 20:11	1
Lead 212	1.46		0.107	0.217		0.0910	pCi/g	01/23/14 11:51	02/13/14 20:11	1
Lead 214	1.71		0.131	0.221		0.112	pCi/g	01/23/14 11:51	02/13/14 20:11	1
Potassium 40	17.5		1.53	2.35		0.567	pCi/g	01/23/14 11:51	02/13/14 20:11	1
Protactinium 231	0.629	U	0.345	0.352		1.70	pCi/g	01/23/14 11:51	02/13/14 20:11	1
Radium 226	1.75		0.167	0.246	1.00	0.0829	pCi/g	01/23/14 11:51	02/13/14 20:11	1
Thorium 232	1.41		0.197	0.244		0.0910	pCi/g	01/23/14 11:51	02/13/14 20:11	1
Thorium 234	0.604	U	0.380	0.385		1.37	pCi/g	01/23/14 11:51	02/13/14 20:11	1
Uranium 235	0.137	U	0.189	0.190		0.311	pCi/g	01/23/14 11:51	02/13/14 20:11	1
Americium 241	0.0213	U	0.0569	0.0570		0.0958	pCi/g	01/23/14 11:51	02/13/14 20:11	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100520BSS00

Lab Sample ID: 160-5228-25

Date Collected: 01/17/14 14:45

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Protactinium 234m	-0.267	U	3.71	3.71		9.51	pCi/g	01/23/14 11:51	02/13/14 20:11	1

Client Sample ID: L100521BSS00

Lab Sample ID: 160-5228-26

Date Collected: 01/16/14 14:15

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.32		0.189	0.228		0.151	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Bismuth 212	1.84		0.683	0.706		0.624	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Bismuth 214	1.81		0.167	0.243		0.112	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Lead 212	1.30		0.103	0.173		0.105	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Lead 214	1.85		0.145	0.231		0.112	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Potassium 40	19.4		1.43	2.35		0.592	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Protactinium 231	0.525	U	0.328	0.332		1.54	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Radium 226	1.81		0.167	0.243	1.00	0.112	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Thorium 232	1.32		0.189	0.228		0.151	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Thorium 234	0.545	U	0.386	0.390		1.09	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Uranium 235	0.142	U	0.187	0.188		0.324	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Americium 241	-0.0289	U	0.0793	0.0793		0.132	pCi/g	01/23/14 11:51	02/13/14 20:06	1
Protactinium 234m	-1.19	U	4.49	4.49		7.77	pCi/g	01/23/14 11:51	02/13/14 20:06	1

Client Sample ID: L100522BSS00

Lab Sample ID: 160-5228-27

Date Collected: 01/16/14 14:20

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.63		0.240	0.286		0.124	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Bismuth 212	1.41		0.510	0.528		0.470	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Bismuth 214	1.49		0.147	0.206		0.0802	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Lead 212	1.26		0.0968	0.167		0.0776	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Lead 214	1.58		0.127	0.199		0.0922	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Potassium 40	19.9		1.55	2.47		0.479	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Protactinium 231	0.730	U	0.405	0.412		1.39	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Radium 226	1.49		0.147	0.206	1.00	0.0802	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Thorium 232	1.63		0.240	0.286		0.124	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Thorium 234	1.51		0.709	0.724		0.960	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Uranium 235	0.160	U	0.201	0.202		0.301	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Americium 241	-0.0142	U	0.0655	0.0655		0.111	pCi/g	01/23/14 11:51	02/13/14 20:07	1
Protactinium 234m	3.20	U	4.09	4.10		6.74	pCi/g	01/23/14 11:51	02/13/14 20:07	1

TestAmerica St. Louis

Client Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Client Sample ID: L100523BSS00

Lab Sample ID: 160-5228-28

Date Collected: 01/16/14 14:35

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.22		0.203	0.235		0.195	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Bismuth 212	2.76		0.660	0.713		0.439	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Bismuth 214	1.43		0.158	0.210		0.0936	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Lead 212	1.31		0.108	0.177		0.0989	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Lead 214	1.50		0.133	0.197		0.104	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Potassium 40	18.9		1.55	2.40		0.382	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Protactinium 231	0.446	U	0.307	0.310		1.75	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Radium 226	1.43		0.158	0.210	1.00	0.0936	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Thorium 232	1.22		0.203	0.235		0.195	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Thorium 234	1.03	U	0.389	0.402		1.11	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Uranium 235	0.117	U	0.164	0.164		0.268	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Americium 241	0.000189	U	0.0833	0.0833		0.141	pCi/g	01/23/14 11:51	02/13/14 20:08	1
Protactinium 234m	0.809	U	4.39	4.39		7.84	pCi/g	01/23/14 11:51	02/13/14 20:08	1

Client Sample ID: L100524BSS00

Lab Sample ID: 160-5228-29

Date Collected: 01/16/14 15:00

Matrix: Solid

Date Received: 01/20/14 18:30

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	1.27		0.171	0.210		0.167	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Bismuth 212	1.79		0.419	0.454		0.331	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Bismuth 214	1.84		0.135	0.224		0.0640	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Lead 212	1.44		0.0918	0.180		0.0765	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Lead 214	2.06		0.127	0.237		0.0911	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Potassium 40	22.2		1.33	2.51		0.265	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Protactinium 231	0.420	U	0.259	0.263		1.35	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Radium 226	1.84		0.135	0.224	1.00	0.0640	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Thorium 232	1.27		0.171	0.210		0.167	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Thorium 234	0.890	U	0.391	0.401		1.03	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Uranium 235	0.151	U	0.165	0.166		0.278	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Americium 241	-0.00122	U	0.0669	0.0669		0.113	pCi/g	01/23/14 11:51	02/13/14 20:09	1
Protactinium 234m	-0.707	U	28.3	28.3		8.42	pCi/g	01/23/14 11:51	02/13/14 20:09	1

TestAmerica St. Louis

QC Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-100838/1-A
Matrix: Solid
Analysis Batch: 105155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 100838

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	-0.01195	U	0.0503	0.0503		0.0935	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Bismuth 212	-0.0007132	U	0.106	0.106		0.222	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Bismuth 214	0.003746	U	0.0197	0.0197		0.0413	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Lead 212	0.006725	U	0.0137	0.0137		0.0259	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Lead 214	0.01265	U	0.0173	0.0174		0.0268	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Potassium 40	-0.1189	U	4.76	4.76		0.311	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Protactinium 231	-0.003736	U	0.217	0.217		0.414	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Radium 226	0.003746	U	0.0197	0.0197	1.00	0.0413	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Thorium 232	-0.01195	U	0.0503	0.0503		0.0935	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Thorium 234	0.09929	U	0.0934	0.0939		0.256	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Uranium 235	0.01131	U	0.0358	0.0358		0.0696	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Americium 241	0.005261	U	0.0132	0.0132		0.0232	pCi/g	01/23/14 09:31	02/13/14 09:59	1
Protactinium 234m	-0.01358	U	0.0290	0.0291		2.09	pCi/g	01/23/14 09:31	02/13/14 09:59	1

Lab Sample ID: LCS 160-100838/2-A
Matrix: Solid
Analysis Batch: 105158

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 100838

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Americium 241	101	99.98		10.4		0.518	pCi/g	99	87 - 116
Cesium 137	35.8	34.79		3.64		0.174	pCi/g	97	87 - 120
Cobalt 60	42.0	40.08		4.04		0.0967	pCi/g	96	87 - 115

Lab Sample ID: 160-5228-1 DU
Matrix: Solid
Analysis Batch: 105158

Client Sample ID: L100525BUB00
Prep Type: Total/NA
Prep Batch: 100838

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	Limit
Actinium 228	1.11		1.236		0.193		0.119	pCi/g	0.35	1
Bismuth 212	1.30		1.269		0.475		0.420	pCi/g	0.03	1
Bismuth 214	1.16		1.221		0.175		0.0828	pCi/g	0.17	1
Lead 212	1.07		1.205		0.174		0.0587	pCi/g	0.39	1
Lead 214	1.31		1.377		0.177		0.0889	pCi/g	0.19	1
Potassium 40	20.2		22.19		2.60		0.417	pCi/g	0.39	1
Protactinium 231	0.356	U	0.2240	U	0.557		0.941	pCi/g	0.17	1
Radium 226	1.16		1.221		0.175	1.00	0.0828	pCi/g	0.17	1
Thorium 232	1.11		1.236		0.193		0.119	pCi/g	0.35	1
Thorium 234	1.20		2.100		0.820		0.960	pCi/g	0.58	1
Uranium 235	0.512		0.6002		0.216		0.223	pCi/g	0.21	1
Americium 241	-0.0188	U	0.03552	U	0.0661		0.110	pCi/g	0.40	1
Protactinium 234m	3.72	U	6.402		3.50		5.47	pCi/g	0.52	1

TestAmerica St. Louis

QC Sample Results

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: MB 160-100878/1-A

Matrix: Solid

Analysis Batch: 106111

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 100878

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Actinium 228	-0.006739	U	0.0393	0.0393		0.0741	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Bismuth 212	0.001231	U	0.0672	0.0672		0.147	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Bismuth 214	0.0009563	U	0.00213	0.00214		0.0292	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Lead 212	-0.003682	U	0.0282	0.0282		0.0278	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Lead 214	0.002858	U	0.0178	0.0178		0.0352	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Potassium 40	-0.05587	U	2.23	2.23		0.198	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Protactinium 231	-0.01080	U	0.216	0.216		0.400	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Radium 226	0.0009563	U	0.00213	0.00214	1.00	0.0292	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Thorium 232	-0.006739	U	0.0393	0.0393		0.0741	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Thorium 234	0.03976	U	0.0792	0.0792		0.217	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Uranium 235	-0.0007164	U	0.00222	0.00222		0.0715	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Americium 241	0.01364	U	0.0143	0.0143		0.0229	pCi/g	01/23/14 11:51	02/19/14 20:42	1
Protactinium 234m	0.0000	U	0.329	0.329		1.21	pCi/g	01/23/14 11:51	02/19/14 20:42	1

Lab Sample ID: LCS 160-100878/2-A

Matrix: Solid

Analysis Batch: 105821

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 100878

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Americium 241	101	93.96		9.32		0.277	pCi/g	93	87 - 116
Cesium 137	35.8	35.25		3.44		0.110	pCi/g	99	87 - 120
Cobalt 60	41.9	41.01		3.93		0.0821	pCi/g	98	87 - 115

Lab Sample ID: 160-5228-21 DU

Matrix: Solid

Analysis Batch: 105158

Client Sample ID: L100516BSS00

Prep Type: Total/NA

Prep Batch: 100878

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Actinium 228	1.13		1.357		0.218		0.169	pCi/g	0.56	1
Bismuth 212	1.45		1.046		0.446		0.609	pCi/g	0.44	1
Bismuth 214	1.15		1.191		0.181		0.100	pCi/g	0.10	1
Lead 212	1.12		1.351		0.224		0.0717	pCi/g	0.62	1
Lead 214	1.41		1.551		0.206		0.0918	pCi/g	0.37	1
Potassium 40	20.4		20.07		2.35		0.404	pCi/g	0.08	1
Protactinium 231	0.416	U	-0.7475	U	0.859		1.40	pCi/g	1.02	1
Radium 226	1.15		1.191		0.181	1.00	0.100	pCi/g	0.10	1
Thorium 232	1.13		1.357		0.218		0.169	pCi/g	0.56	1
Thorium 234	1.30		1.083	U	0.420		1.17	pCi/g	0.18	1
Uranium 235	0.161	U	0.1387	U	0.177		0.290	pCi/g	0.07	1
Americium 241	-0.00285	U	0.000026	U	0.0621		0.105	pCi/g	0.02	1
Protactinium 234m	0.951	U	5.758	U	3.44		6.49	pCi/g	0.75	1

TestAmerica St. Louis

QC Association Summary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Rad

Leach Batch: 100327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5228-1	L100525BUB00	Total/NA	Solid	Dry and Grind	
160-5228-1 DU	L100525BUB00	Total/NA	Solid	Dry and Grind	
160-5228-2	L100526BUB00	Total/NA	Solid	Dry and Grind	
160-5228-3	L100527BUB00	Total/NA	Solid	Dry and Grind	
160-5228-4	L100528BUB00	Total/NA	Solid	Dry and Grind	
160-5228-5	L100501BES00	Total/NA	Solid	Dry and Grind	
160-5228-6	L100502BEQ00	Total/NA	Solid	Dry and Grind	
160-5228-7	L100502BES00	Total/NA	Solid	Dry and Grind	
160-5228-8	L100503BES00	Total/NA	Solid	Dry and Grind	
160-5228-9	L100504BES00	Total/NA	Solid	Dry and Grind	
160-5228-10	L100505BES00	Total/NA	Solid	Dry and Grind	
160-5228-11	L100506BES00	Total/NA	Solid	Dry and Grind	
160-5228-12	L100507BES00	Total/NA	Solid	Dry and Grind	
160-5228-13	L100508BES00	Total/NA	Solid	Dry and Grind	
160-5228-14	L100509BSS00	Total/NA	Solid	Dry and Grind	
160-5228-15	L100510BSS00	Total/NA	Solid	Dry and Grind	
160-5228-16	L100511BSS00	Total/NA	Solid	Dry and Grind	
160-5228-17	L100512BSS00	Total/NA	Solid	Dry and Grind	
160-5228-18	L100513BSS00	Total/NA	Solid	Dry and Grind	
160-5228-19	L100514BSS00	Total/NA	Solid	Dry and Grind	
160-5228-20	L100515BSS00	Total/NA	Solid	Dry and Grind	
160-5228-21	L100516BSS00	Total/NA	Solid	Dry and Grind	
160-5228-21 DU	L100516BSS00	Total/NA	Solid	Dry and Grind	
160-5228-22	L100517BSS00	Total/NA	Solid	Dry and Grind	
160-5228-23	L100518BSS00	Total/NA	Solid	Dry and Grind	
160-5228-24	L100519BSS00	Total/NA	Solid	Dry and Grind	
160-5228-25	L100520BSS00	Total/NA	Solid	Dry and Grind	
160-5228-26	L100521BSS00	Total/NA	Solid	Dry and Grind	
160-5228-27	L100522BSS00	Total/NA	Solid	Dry and Grind	
160-5228-28	L100523BSS00	Total/NA	Solid	Dry and Grind	
160-5228-29	L100524BSS00	Total/NA	Solid	Dry and Grind	

Prep Batch: 100838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5228-1	L100525BUB00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-1 DU	L100525BUB00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-2	L100526BUB00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-3	L100527BUB00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-4	L100528BUB00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-5	L100501BES00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-6	L100502BEQ00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-7	L100502BES00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-8	L100503BES00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-9	L100504BES00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-10	L100505BES00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-11	L100506BES00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-12	L100507BES00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-13	L100508BES00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-14	L100509BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-15	L100510BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-16	L100511BSS00	Total/NA	Solid	Fill_Geo-21	100327

TestAmerica St. Louis

QC Association Summary

Client: Westinghouse Electric Company LLC
Project/Site: RFP-CBA-022 (21 DAY TAT)

TestAmerica Job ID: 160-5228-2

Rad (Continued)

Prep Batch: 100838 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5228-17	L100512BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-18	L100513BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-19	L100514BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-20	L100515BSS00	Total/NA	Solid	Fill_Geo-21	100327
LCS 160-100838/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-21	
MB 160-100838/1-A	Method Blank	Total/NA	Solid	Fill_Geo-21	

Prep Batch: 100878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-5228-21	L100516BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-21 DU	L100516BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-22	L100517BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-23	L100518BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-24	L100519BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-25	L100520BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-26	L100521BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-27	L100522BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-28	L100523BSS00	Total/NA	Solid	Fill_Geo-21	100327
160-5228-29	L100524BSS00	Total/NA	Solid	Fill_Geo-21	100327
LCS 160-100878/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-21	
MB 160-100878/1-A	Method Blank	Total/NA	Solid	Fill_Geo-21	