GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171
F 843.766.1178

gel.com

November 13, 2019

Ms. Cynthia Logsdon
Westinghouse Electric Company, LLC
PO Drawer R
Columbia, South Carolina 29205

Re: ENV-CONSENTA
Work Order: 493207

Dear Ms. Logsdon:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 16, 2019. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4778.

Sincerely,

Katelyn Gray for
Hope Taylor
Project Manager

Purchase Order: 4500778461
Enclosures

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis Report
for

WNUC009 Westinghouse Electric Co, LLC

Client SDG: 493207 GEL Work Order: 493207

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

J See case narrative for an explanation

J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Hope Taylor.

Reviewed by 

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-RW1
Sample ID: 493207001
Matrix: Ground Water
Collect Date: 03-OCT-19 10:43
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1551	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	147	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2033	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		48.2	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		4600	50.0	200	ug/L	1.00	1					
Chromium	J	3.46	1.00	10.0	ug/L	1.00	1					
Cobalt	J	2.50	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		134	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1580	110	300	ug/L	1.00	1					
Manganese		38.0	2.00	10.0	ug/L	1.00	1					
Nickel		4480	1.50	5.00	ug/L	1.00	1					
Potassium		1570	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.14	1.00	5.00	ug/L	1.00	1					
Sodium		5040	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	7.63	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.0815	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2156	1928643	4
Uranium-238	J	0.0815	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1953	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-RW1 Project: WNUC01519
Sample ID: 493207001 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-RW2
Sample ID: 493207002
Matrix: Ground Water
Collect Date: 11-OCT-19 12:18
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1234	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	120	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2206	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		106	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		16600	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	4.14	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		3500	110	300	ug/L	1.00	1					
Manganese		90.3	2.00	10.0	ug/L	1.00	1					
Nickel		7.34	1.50	5.00	ug/L	1.00	1					
Potassium		2500	50.0	150	ug/L	1.00	1					
Selenium	J	7.61	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		19700	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	7.87	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.0743	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2208	1928643	4
Uranium-238	J	0.0743	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1955	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-RW2 Project: WNUC01519
Sample ID: 493207002 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-3A
Sample ID: 493207003
Matrix: Ground Water
Collect Date: 10-OCT-19 13:40
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1235	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2059	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		5.92	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		490	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.21	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		562	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium	J	251	110	300	ug/L	1.00	1					
Manganese	J	8.71	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.85	1.50	5.00	ug/L	1.00	1					
Potassium		664	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.22	1.00	5.00	ug/L	1.00	1					
Sodium		2410	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	8.59	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2210	1928643	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2007	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-3A
Sample ID: 493207003
Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-4
Sample ID: 493207004
Matrix: Ground Water
Collect Date: 11-OCT-19 15:15
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1625	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	105	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2103	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		99.1	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		12100	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.19	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		4930	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5100	110	300	ug/L	1.00	1					
Manganese		539	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.60	1.50	5.00	ug/L	1.00	1					
Potassium		5990	50.0	150	ug/L	1.00	1					
Selenium	J	6.33	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		45100	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	2.36	1.00	5.00	ug/L	1.00	1					
Zinc	J	7.90	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.146	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2211	1928643	4
Uranium-238	J	0.146	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2009	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-4 Project: WNUC01519
Sample ID: 493207004 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-6
Sample ID: 493207005
Matrix: Ground Water
Collect Date: 07-OCT-19 09:30
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1242	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2105	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		496	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		71400	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		6.41	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		21600	110	300	ug/L	1.00	1					
Manganese		142	2.00	10.0	ug/L	1.00	1					
Nickel		6.89	1.50	5.00	ug/L	1.00	1					
Potassium		13400	50.0	150	ug/L	1.00	1					
Selenium	J	12.9	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		124000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	4.07	1.00	5.00	ug/L	1.00	1					
Zinc	J	13.9	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.232	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2213	1928643	4
Uranium-238		0.232	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2011	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-6 Project: WNUC01519
Sample ID: 493207005 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-7A
Sample ID: 493207006
Matrix: Ground Water
Collect Date: 09-OCT-19 14:00
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1557	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2110	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		595	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		99500	50.0	200	ug/L	1.00	1					
Chromium	J	4.46	1.00	10.0	ug/L	1.00	1					
Cobalt		7.56	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		24700	110	300	ug/L	1.00	1					
Manganese		824	2.00	10.0	ug/L	1.00	1					
Nickel		17.5	1.50	5.00	ug/L	1.00	1					
Potassium		11500	50.0	150	ug/L	1.00	1					
Selenium	J	14.9	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		447000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium		5.11	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.69	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.698	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2215	1928643	4
Uranium-238		0.698	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2013	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-7A
Sample ID: 493207006
Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-10
Sample ID: 493207007
Matrix: Ground Water
Collect Date: 09-OCT-19 11:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1245	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		559	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2119	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		191	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		25100	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	2.26	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		7800	110	300	ug/L	1.00	1					
Manganese		440	2.00	10.0	ug/L	1.00	1					
Nickel		10.3	1.50	5.00	ug/L	1.00	1					
Potassium		8800	50.0	150	ug/L	1.00	1					
Selenium	J	9.01	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		79300	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	2.56	1.00	5.00	ug/L	1.00	1					
Zinc	J	7.18	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.083	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2216	1928643	4
Uranium-238	J	0.083	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2015	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-10 Project: WNUC01519
Sample ID: 493207007 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-10 Dup
Sample ID: 493207008
Matrix: Ground Water
Collect Date: 09-OCT-19 11:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1247	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		551	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2130	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		186	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		24400	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	2.53	1.00	5.00	ug/L	1.00	1					
Copper		58.6	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		7630	110	300	ug/L	1.00	1					
Manganese		427	2.00	10.0	ug/L	1.00	1					
Nickel		10.5	1.50	5.00	ug/L	1.00	1					
Potassium		8700	50.0	150	ug/L	1.00	1					
Selenium	J	7.72	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		78100	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	2.67	1.00	5.00	ug/L	1.00	1					
Zinc		41.1	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.114	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2222	1928643	4
Uranium-238	J	0.114	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2017	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-10 Dup
Sample ID: 493207008
Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-11	Project:	WNUC01519
Sample ID:	493207009	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	08-OCT-19 14:45		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	J	0.084	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1249	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2134	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		658	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		27900	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	2.05	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		13200	110	300	ug/L	1.00	1					
Manganese		83.5	2.00	10.0	ug/L	1.00	1					
Nickel		10.8	1.50	5.00	ug/L	1.00	1					
Potassium		6280	50.0	150	ug/L	1.00	1					
Selenium	J	8.48	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		36200	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc		45.0	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2223	1928643	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2019	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-11 Project: WNUC01519
Sample ID: 493207009 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-13R
Sample ID: 493207010
Matrix: Ground Water
Collect Date: 08-OCT-19 14:09
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1559	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		831	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2138	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		93.3	1.00	5.00	ug/L	1.00	1					
Beryllium	J	1.89	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		20500	50.0	200	ug/L	1.00	1					
Chromium	J	1.04	1.00	10.0	ug/L	1.00	1					
Cobalt		7.87	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	J	55.1	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		7990	110	300	ug/L	1.00	1					
Manganese		405	2.00	10.0	ug/L	1.00	1					
Nickel		9.39	1.50	5.00	ug/L	1.00	1					
Potassium		9980	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.60	1.00	5.00	ug/L	1.00	1					
Sodium		50400	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	2.81	1.00	5.00	ug/L	1.00	1					
Zinc	J	5.79	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.139	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2225	1928643	4
Uranium-238	J	0.139	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2021	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-13R
Sample ID: 493207010
Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-18R
Sample ID: 493207011
Matrix: Ground Water
Collect Date: 07-OCT-19 12:25
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1604	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2143	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		713	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	J	1.94	1.00	5.00	ug/L	1.00	1					
Calcium		222000	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.16	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Magnesium		36000	110	300	ug/L	1.00	1					
Manganese		229	2.00	10.0	ug/L	1.00	1					
Nickel		12.0	1.50	5.00	ug/L	1.00	1					
Potassium		11400	50.0	150	ug/L	1.00	1					
Selenium	J	23.7	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium		6.59	1.00	5.00	ug/L	1.00	1					
Zinc		26.4	3.30	20.0	ug/L	1.00	1					
Lead	U	ND	16.5	100	ug/L	1.00	5	JWJ	11/11/19	2147	1928593	3
Sodium		948000	500	1500	ug/L	1.00	5					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		4.10	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	4
SW846 3010A/6020B "As Received"												
Uranium-235	J	0.035	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2227	1928643	5
Uranium-238		4.06	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2023	1932181	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-18R
Sample ID: 493207011
Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 3005A/6010D	
4	EPA 200.8	
5	SW846 3010A/6020B	
6	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-22
Sample ID: 493207012
Matrix: Ground Water
Collect Date: 07-OCT-19 10:45
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1626	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		1610	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2152	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		46.3	1.00	5.00	ug/L	1.00	1					
Beryllium	J	1.76	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		55300	50.0	200	ug/L	1.00	1					
Chromium	J	1.07	1.00	10.0	ug/L	1.00	1					
Cobalt		7.89	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	J	65.8	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		9890	110	300	ug/L	1.00	1					
Manganese		1280	2.00	10.0	ug/L	1.00	1					
Nickel		13.4	1.50	5.00	ug/L	1.00	1					
Potassium		7030	50.0	150	ug/L	1.00	1					
Selenium	J	9.61	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		159000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.92	1.00	5.00	ug/L	1.00	1					
Zinc		47.0	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.872	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	J	0.0177	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2228	1928643	4
Uranium-238		0.854	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2029	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-22 Project: WNUC01519
Sample ID: 493207012 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-24
Sample ID: 493207013
Matrix: Ground Water
Collect Date: 11-OCT-19 10:01
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1628	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2156	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		12.1	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		4310	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		626	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		2260	110	300	ug/L	1.00	1					
Manganese	J	2.37	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		934	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		2420	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.23	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2230	1928643	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2031	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-24 Project: WNUC01519
Sample ID: 493207013 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-27	Project:	WNUC01519
Sample ID:	493207014	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	10-OCT-19 11:40		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1301	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2210	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		220	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		10700	50.0	200	ug/L	1.00	1					
Chromium	J	2.06	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		29000	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		13900	110	300	ug/L	1.00	1					
Manganese		5370	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		3850	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.02	1.00	5.00	ug/L	1.00	1					
Sodium		22400	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.96	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2232	1928643	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2033	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-27 Project: WNUC01519
Sample ID: 493207014 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

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DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-28
Sample ID: 493207015
Matrix: Ground Water
Collect Date: 07-OCT-19 14:43
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1302	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		981	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2213	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		44.1	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		10500	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		7.88	1.00	5.00	ug/L	1.00	1					
Copper	J	3.83	3.00	20.0	ug/L	1.00	1					
Iron	J	56.3	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		995	110	300	ug/L	1.00	1					
Manganese		23.0	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.72	1.50	5.00	ug/L	1.00	1					
Potassium		8120	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		137000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	2.32	1.00	5.00	ug/L	1.00	1					
Zinc	J	10.3	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.429	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2237	1928643	4
Uranium-238		0.429	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2035	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-28 Project: WNUC01519
Sample ID: 493207015 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-29
Sample ID: 493207016
Matrix: Ground Water
Collect Date: 07-OCT-19 12:53
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1609	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2217	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		158	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		18800	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5250	110	300	ug/L	1.00	1					
Manganese		32.7	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		4500	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		32900	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium		8.16	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.50	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		2.05	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	J	0.026	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2239	1928643	4
Uranium-238		2.03	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2037	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-29 Project: WNUC01519
Sample ID: 493207016 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-30
Sample ID: 493207017
Matrix: Ground Water
Collect Date: 07-OCT-19 10:09
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1611	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		356	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2221	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		234	1.00	5.00	ug/L	1.00	1					
Beryllium	J	1.03	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		90700	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.24	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4230	110	300	ug/L	1.00	1					
Manganese		73.2	2.00	10.0	ug/L	1.00	1					
Nickel		18.7	1.50	5.00	ug/L	1.00	1					
Potassium		7800	50.0	150	ug/L	1.00	1					
Selenium	J	8.76	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		147000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	2.25	1.00	5.00	ug/L	1.00	1					
Zinc	J	12.0	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		8.91	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235		0.199	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2240	1928643	4
Uranium-238		8.71	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2039	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-30 Project: WNUC01519
Sample ID: 493207017 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-32
Sample ID: 493207018
Matrix: Ground Water
Collect Date: 08-OCT-19 13:35
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1613	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2225	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		484	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		40600	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		12000	110	300	ug/L	1.00	1					
Manganese		363	2.00	10.0	ug/L	1.00	1					
Nickel	J	4.04	1.50	5.00	ug/L	1.00	1					
Potassium		9130	50.0	150	ug/L	1.00	1					
Selenium	J	20.3	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		221000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	2.99	1.00	5.00	ug/L	1.00	1					
Zinc	J	7.24	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.224	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2242	1928643	4
Uranium-238		0.224	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2041	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-32 Project: WNUC01519
Sample ID: 493207018 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-35
Sample ID: 493207019
Matrix: Ground Water
Collect Date: 02-OCT-19 13:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1614	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2230	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		62.5	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		16000	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	4.39	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4310	110	300	ug/L	1.00	1					
Manganese	J	5.29	2.00	10.0	ug/L	1.00	1					
Nickel		977	1.50	5.00	ug/L	1.00	1					
Potassium		3320	50.0	150	ug/L	1.00	1					
Selenium	J	13.0	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		8180	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	12.2	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2244	1928643	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2043	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-35 Project: WNUC01519
Sample ID: 493207019 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-36
Sample ID: 493207020
Matrix: Ground Water
Collect Date: 02-OCT-19 14:08
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1616	1932140	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/11/19	2234	1928593	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		34.9	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		1430	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		460	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		437	110	300	ug/L	1.00	1					
Manganese		54.9	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		1190	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.15	1.00	5.00	ug/L	1.00	1					
Sodium		5450	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.72	1.00	5.00	ug/L	1.00	1					
Zinc	J	9.36	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2245	1928643	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	2045	1932181	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-36 Project: WNUC01519
Sample ID: 493207020 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928592			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	10/23/19		1640	1928642			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932180			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1433	1932138			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-37
Sample ID: 493207021
Matrix: Ground Water
Collect Date: 02-OCT-19 15:25
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1316	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2323	1928595	2
Antimony	J	3.87	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		51.6	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		9960	50.0	200	ug/L	1.00	1					
Chromium	J	4.22	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5860	110	300	ug/L	1.00	1					
Manganese	U	ND	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		2230	50.0	150	ug/L	1.00	1					
Selenium	J	8.99	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		13300	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	12.9	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.0936	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1317	1928646	4
Uranium-238	J	0.0936	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1846	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-37	Project:	WNUC01519
Sample ID:	493207021	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-38
Sample ID: 493207022
Matrix: Ground Water
Collect Date: 04-OCT-19 13:05
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury		0.219	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1321	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	80.9	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2327	1928595	2
Antimony	J	4.60	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		96.7	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		7850	50.0	200	ug/L	1.00	1					
Chromium	J	4.29	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.84	1.00	5.00	ug/L	1.00	1					
Copper	J	6.02	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4650	110	300	ug/L	1.00	1					
Manganese		48.5	2.00	10.0	ug/L	1.00	1					
Nickel		271	1.50	5.00	ug/L	1.00	1					
Potassium		2640	50.0	150	ug/L	1.00	1					
Selenium	J	12.8	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		21300	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	10.9	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.183	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1619	1928646	4
Uranium-238	J	0.183	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1848	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-38	Project:	WNUC01519
Sample ID:	493207022	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-45
Sample ID: 493207023
Matrix: Ground Water
Collect Date: 02-OCT-19 12:00
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1630	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	90.5	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2350	1928595	2
Antimony	J	8.10	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		28.8	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		35100	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	2.04	1.00	5.00	ug/L	1.00	1					
Copper		109	3.00	20.0	ug/L	1.00	1					
Iron		34900	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		7930	110	300	ug/L	1.00	1					
Manganese		316	2.00	10.0	ug/L	1.00	1					
Nickel		262	1.50	5.00	ug/L	1.00	1					
Potassium		7530	50.0	150	ug/L	1.00	1					
Selenium	J	10.5	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		390000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.33	1.00	5.00	ug/L	1.00	1					
Zinc	J	12.6	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		1.00	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	J	0.0216	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1331	1928646	4
Uranium-238		0.983	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1901	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-45	Project:	WNUC01519
Sample ID:	493207023	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200		1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100		1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434		1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-51
Sample ID: 493207024
Matrix: Ground Water
Collect Date: 03-OCT-19 11:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1338	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2353	1928595	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		57.0	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		11600	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	3.06	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		40100	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		3830	110	300	ug/L	1.00	1					
Manganese		822	2.00	10.0	ug/L	1.00	1					
Nickel		28.2	1.50	5.00	ug/L	1.00	1					
Potassium		2700	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		8610	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	6.65	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1332	1928646	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1903	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-51	Project:	WNUC01519
Sample ID:	493207024	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-52
Sample ID: 493207025
Matrix: Ground Water
Collect Date: 03-OCT-19 12:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1340	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2356	1928595	2
Antimony	J	7.32	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		59.9	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		11100	50.0	200	ug/L	1.00	1					
Chromium	J	1.41	1.00	10.0	ug/L	1.00	1					
Cobalt		6.28	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		2400	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		3740	110	300	ug/L	1.00	1					
Manganese		696	2.00	10.0	ug/L	1.00	1					
Nickel		122	1.50	5.00	ug/L	1.00	1					
Potassium		2430	50.0	150	ug/L	1.00	1					
Selenium	J	7.27	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		30900	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	11.6	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1633	1928646	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1905	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-52	Project:	WNUC01519
Sample ID:	493207025	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-53
Sample ID: 493207026
Matrix: Ground Water
Collect Date: 03-OCT-19 12:58
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1341	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2359	1928595	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		78.2	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		15600	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		10.6	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		5620	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		6580	110	300	ug/L	1.00	1					
Manganese		376	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.91	1.50	5.00	ug/L	1.00	1					
Potassium		3570	50.0	150	ug/L	1.00	1					
Selenium	J	9.06	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		10700	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	15.2	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1635	1928646	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1907	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-53	Project:	WNUC01519
Sample ID:	493207026	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-54
Sample ID: 493207027
Matrix: Ground Water
Collect Date: 04-OCT-19 13:50
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1631	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0002	1928595	2
Antimony	J	4.12	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		61.2	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		11900	50.0	200	ug/L	1.00	1					
Chromium	J	2.36	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		1190	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4910	110	300	ug/L	1.00	1					
Manganese		29.9	2.00	10.0	ug/L	1.00	1					
Nickel		144	1.50	5.00	ug/L	1.00	1					
Potassium		2590	50.0	150	ug/L	1.00	1					
Selenium	J	13.1	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		10900	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	6.15	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1337	1928646	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1909	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-54	Project:	WNUC01519
Sample ID:	493207027	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-54-Dup
Sample ID: 493207028
Matrix: Ground Water
Collect Date: 04-OCT-19 13:50
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1345	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0004	1928595	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		61.8	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		12100	50.0	200	ug/L	1.00	1					
Chromium	J	2.48	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		1230	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4970	110	300	ug/L	1.00	1					
Manganese		32.1	2.00	10.0	ug/L	1.00	1					
Nickel		127	1.50	5.00	ug/L	1.00	1					
Potassium		2610	50.0	150	ug/L	1.00	1					
Selenium	J	15.4	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		10800	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	6.82	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1637	1928646	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1911	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-54-Dup	Project:	WNUC01519
Sample ID:	493207028	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200		1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100		1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434		1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-55
Sample ID: 493207029
Matrix: Ground Water
Collect Date: 04-OCT-19 11:40
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1347	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0007	1928595	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		41.6	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		8400	50.0	200	ug/L	1.00	1					
Chromium	J	5.03	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5170	110	300	ug/L	1.00	1					
Manganese	J	3.76	2.00	10.0	ug/L	1.00	1					
Nickel		17.3	1.50	5.00	ug/L	1.00	1					
Potassium		2130	50.0	150	ug/L	1.00	1					
Selenium	J	9.89	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		11400	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	7.38	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		183	0.670	2.00	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235		5.79	0.100	0.700	ug/L	1.00	10	PRB	11/12/19	1648	1928646	4
Uranium-238		177	0.670	2.00	ug/L	1.00	10					
Uranium-234		0.052	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1917	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-55	Project:	WNUC01519
Sample ID:	493207029	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200		1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100		1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434		1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-56
Sample ID: 493207030
Matrix: Ground Water
Collect Date: 04-OCT-19 11:06
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1348	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0011	1928595	2
Antimony	J	7.39	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		57.1	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		11300	50.0	200	ug/L	1.00	1					
Chromium	J	4.16	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5480	110	300	ug/L	1.00	1					
Manganese	J	7.66	2.00	10.0	ug/L	1.00	1					
Nickel	J	4.73	1.50	5.00	ug/L	1.00	1					
Potassium		2710	50.0	150	ug/L	1.00	1					
Selenium	J	8.58	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		14000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	6.45	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		134	0.670	2.00	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235		4.19	0.100	0.700	ug/L	1.00	10	PRB	11/12/19	1650	1928646	4
Uranium-238		130	0.670	2.00	ug/L	1.00	10					
Uranium-234	J	0.034	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1919	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-56	Project:	WNUC01519
Sample ID:	493207030	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-57
Sample ID: 493207031
Matrix: Ground Water
Collect Date: 03-OCT-19 14:15
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1353	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0015	1928595	2
Antimony	J	4.30	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		73.4	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		10600	50.0	200	ug/L	1.00	1					
Chromium	J	3.38	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	J	30.6	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5240	110	300	ug/L	1.00	1					
Manganese		18.9	2.00	10.0	ug/L	1.00	1					
Nickel		25.6	1.50	5.00	ug/L	1.00	1					
Potassium		2740	50.0	150	ug/L	1.00	1					
Selenium	J	11.1	6.00	30.0	ug/L	1.00	1					
Silver	J	1.08	1.00	5.00	ug/L	1.00	1					
Sodium		12300	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	9.15	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.207	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1344	1928646	4
Uranium-238		0.207	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1921	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-57	Project:	WNUC01519
Sample ID:	493207031	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-58
Sample ID: 493207032
Matrix: Ground Water
Collect Date: 04-OCT-19 09:20
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1355	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0025	1928595	2
Antimony	J	7.38	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		167	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		17500	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		6050	110	300	ug/L	1.00	1					
Manganese		208	2.00	10.0	ug/L	1.00	1					
Nickel		96.7	1.50	5.00	ug/L	1.00	1					
Potassium		4300	50.0	150	ug/L	1.00	1					
Selenium	J	9.88	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		18600	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	2.04	1.00	5.00	ug/L	1.00	1					
Zinc	J	5.83	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		1.72	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	J	0.049	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1639	1928646	4
Uranium-238		1.67	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1923	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-58	Project:	WNUC01519
Sample ID:	493207032	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200		1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100		1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434		1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-59
Sample ID: 493207033
Matrix: Ground Water
Collect Date: 05-OCT-19 09:30
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1357	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0029	1928595	2
Antimony	J	4.22	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		210	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		16400	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		6590	110	300	ug/L	1.00	1					
Manganese		62.8	2.00	10.0	ug/L	1.00	1					
Nickel		10.3	1.50	5.00	ug/L	1.00	1					
Potassium		6120	50.0	150	ug/L	1.00	1					
Selenium	J	8.65	6.00	30.0	ug/L	1.00	1					
Silver	J	1.08	1.00	5.00	ug/L	1.00	1					
Sodium		41800	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium		6.31	1.00	5.00	ug/L	1.00	1					
Zinc	J	7.86	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		22.2	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235		0.659	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1351	1928646	4
Uranium-238		21.6	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1925	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-59	Project:	WNUC01519
Sample ID:	493207033	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-72
Sample ID: 493207034
Matrix: Ground Water
Collect Date: 04-OCT-19 10:35
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1359	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0033	1928595	2
Antimony	J	5.12	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		48.9	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		11900	50.0	200	ug/L	1.00	1					
Chromium	J	1.59	1.00	10.0	ug/L	1.00	1					
Cobalt		5.27	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		1070	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		3760	110	300	ug/L	1.00	1					
Manganese		992	2.00	10.0	ug/L	1.00	1					
Nickel		9.31	1.50	5.00	ug/L	1.00	1					
Potassium		3260	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		12400	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	8.31	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.095	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1353	1928646	4
Uranium-238	J	0.095	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1927	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-72	Project:	WNUC01519
Sample ID:	493207034	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200		1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100		1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434		1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-73
Sample ID: 493207035
Matrix: Ground Water
Collect Date: 04-OCT-19 09:45
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1645	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	126	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0036	1928595	2
Antimony	J	3.54	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		79.0	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		9540	50.0	200	ug/L	1.00	1					
Chromium	J	1.66	1.00	10.0	ug/L	1.00	1					
Cobalt		6.27	1.00	5.00	ug/L	1.00	1					
Copper	J	9.06	3.00	20.0	ug/L	1.00	1					
Iron		299	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4600	110	300	ug/L	1.00	1					
Manganese		454	2.00	10.0	ug/L	1.00	1					
Nickel		99.7	1.50	5.00	ug/L	1.00	1					
Potassium		2400	50.0	150	ug/L	1.00	1					
Selenium	J	12.9	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		10200	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	10.8	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.0831	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1641	1928646	4
Uranium-238	J	0.0831	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1929	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-73	Project:	WNUC01519
Sample ID:	493207035	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-74
Sample ID: 493207036
Matrix: Ground Water
Collect Date: 09-OCT-19 09:15
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1405	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0040	1928595	2
Antimony	J	4.18	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		151	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		6700	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	3.43	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	J	44.6	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		3050	110	300	ug/L	1.00	1					
Manganese		134	2.00	10.0	ug/L	1.00	1					
Nickel		21.1	1.50	5.00	ug/L	1.00	1					
Potassium		3030	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.05	1.00	5.00	ug/L	1.00	1					
Sodium		10900	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	14.5	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1643	1928646	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1935	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-74	Project:	WNUC01519
Sample ID:	493207036	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-75
Sample ID: 493207037
Matrix: Ground Water
Collect Date: 09-OCT-19 10:25
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1407	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0043	1928595	2
Antimony	J	4.12	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		104	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		12900	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		29.2	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		4590	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5220	110	300	ug/L	1.00	1					
Manganese		740	2.00	10.0	ug/L	1.00	1					
Nickel		315	1.50	5.00	ug/L	1.00	1					
Potassium		3910	50.0	150	ug/L	1.00	1					
Selenium	J	7.38	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		7670	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	13.3	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1358	1928646	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1937	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-75	Project:	WNUC01519
Sample ID:	493207037	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200		1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100		1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434		1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-76
Sample ID: 493207038
Matrix: Ground Water
Collect Date: 05-OCT-19 10:49
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1409	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		894	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0046	1928595	2
Antimony	J	5.99	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		129	1.00	5.00	ug/L	1.00	1					
Beryllium	J	1.49	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		4430	50.0	200	ug/L	1.00	1					
Chromium	J	1.12	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.41	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1510	110	300	ug/L	1.00	1					
Manganese		32.9	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.80	1.50	5.00	ug/L	1.00	1					
Potassium		3900	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		22200	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	5.89	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.946	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	J	0.0308	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1645	1928646	4
Uranium-238		0.915	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1939	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-76	Project:	WNUC01519
Sample ID:	493207038	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200		1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100		1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434		1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-77
Sample ID: 493207039
Matrix: Ground Water
Collect Date: 06-OCT-19 12:05
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1411	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		750	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0050	1928595	2
Antimony	J	3.53	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		70.9	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		9350	50.0	200	ug/L	1.00	1					
Chromium	J	2.55	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.27	1.00	5.00	ug/L	1.00	1					
Copper	J	10.0	3.00	20.0	ug/L	1.00	1					
Iron		223	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1970	110	300	ug/L	1.00	1					
Manganese	J	5.83	2.00	10.0	ug/L	1.00	1					
Nickel		8.14	1.50	5.00	ug/L	1.00	1					
Potassium		6270	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		277000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium		11.5	1.00	5.00	ug/L	1.00	1					
Zinc		28.5	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		247	1.34	4.00	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235		10.1	0.200	1.40	ug/L	1.00	20	PRB	11/12/19	1652	1928646	4
Uranium-238		237	1.34	4.00	ug/L	1.00	20					
Uranium-234		0.089	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1941	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-77	Project:	WNUC01519
Sample ID:	493207039	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-78
Sample ID: 493207040
Matrix: Ground Water
Collect Date: 05-OCT-19 11:59
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1412	1932146	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		1320	68.0	200	ug/L	1.00	1	JWJ	11/05/19	0055	1928595	2
Antimony	J	3.58	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		54.4	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		7500	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1420	110	300	ug/L	1.00	1					
Manganese	J	2.83	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		4090	50.0	150	ug/L	1.00	1					
Selenium	J	8.62	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		45500	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium		7.88	1.00	5.00	ug/L	1.00	1					
Zinc	J	8.47	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.0933	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/12/19	1705	1928646	4
Uranium-238	J	0.0933	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/12/19	1943	1928646	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-78	Project:	WNUC01519
Sample ID:	493207040	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928594			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/30/19		1100	1928645			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932143			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-79
Sample ID: 493207041
Matrix: Ground Water
Collect Date: 07-OCT-19 14:00
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1442	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		878	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2211	1928597	2
Antimony	J	5.15	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		75.4	1.00	5.00	ug/L	1.00	1					
Beryllium	J	1.41	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		11200	50.0	200	ug/L	1.00	1					
Chromium	J	1.86	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5490	110	300	ug/L	1.00	1					
Manganese		12.8	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		4490	50.0	150	ug/L	1.00	1					
Selenium	J	8.57	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		11500	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.87	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.0892	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2118	1928649	4
Uranium-238	J	0.0892	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0822	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-79 Project: WNUC01519
Sample ID: 493207041 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-80
Sample ID: 493207042
Matrix: Ground Water
Collect Date: 06-OCT-19 08:47
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1447	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		1210	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2227	1928597	2
Antimony	J	5.32	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		124	1.00	5.00	ug/L	1.00	1					
Beryllium	J	1.59	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		17000	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		6.06	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		230	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5240	110	300	ug/L	1.00	1					
Manganese		118	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.88	1.50	5.00	ug/L	1.00	1					
Potassium		7300	50.0	150	ug/L	1.00	1					
Selenium	J	12.2	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		53600	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	8.47	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.151	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2127	1928649	4
Uranium-238	J	0.151	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0824	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-80 Project: WNUC01519
Sample ID: 493207042 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-81	Project:	WNUC01519
Sample ID:	493207043	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	08-OCT-19 09:46		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1448	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2232	1928597	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		266	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		6000	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		10.3	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		18800	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1930	110	300	ug/L	1.00	1					
Manganese		385	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.31	1.50	5.00	ug/L	1.00	1					
Potassium		4760	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		16800	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.25	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.59	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.0728	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2129	1928649	4
Uranium-238	J	0.0728	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0836	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-81 Project: WNUC01519
Sample ID: 493207043 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-82	Project:	WNUC01519
Sample ID:	493207044	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	08-OCT-19 09:45		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1450	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	107	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2241	1928597	2
Antimony	J	7.19	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		162	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		1520	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		17.3	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		3030	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		902	110	300	ug/L	1.00	1					
Manganese		227	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.93	1.50	5.00	ug/L	1.00	1					
Potassium		1830	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		25600	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	13.1	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.151	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2134	1928649	4
Uranium-238	J	0.151	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0838	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-82	Project:	WNUC01519
Sample ID:	493207044	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-83
Sample ID: 493207045
Matrix: Ground Water
Collect Date: 08-OCT-19 11:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1452	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2245	1928597	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		114	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		4120	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		10.0	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		226	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		2200	110	300	ug/L	1.00	1					
Manganese		170	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.44	1.50	5.00	ug/L	1.00	1					
Potassium		1360	50.0	150	ug/L	1.00	1					
Selenium	J	6.14	6.00	30.0	ug/L	1.00	1					
Silver	J	1.54	1.00	5.00	ug/L	1.00	1					
Sodium		23200	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	8.73	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2135	1928649	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0840	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-83 Project: WNUC01519
Sample ID: 493207045 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-84
Sample ID: 493207046
Matrix: Ground Water
Collect Date: 08-OCT-19 12:19
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1454	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2249	1928597	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		215	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		5960	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		19.0	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		2710	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		2390	110	300	ug/L	1.00	1					
Manganese		1060	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.19	1.50	5.00	ug/L	1.00	1					
Potassium		1720	50.0	150	ug/L	1.00	1					
Selenium	J	9.95	6.00	30.0	ug/L	1.00	1					
Silver	J	1.23	1.00	5.00	ug/L	1.00	1					
Sodium		25600	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	13.9	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.0704	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2137	1928649	4
Uranium-238	J	0.0704	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0842	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-84 Project: WNUC01519
Sample ID: 493207046 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-87
Sample ID: 493207047
Matrix: Ground Water
Collect Date: 02-OCT-19 13:00
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1455	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		382	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2251	1928597	2
Antimony	J	5.21	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		89.8	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		5440	50.0	200	ug/L	1.00	1					
Chromium	J	1.02	1.00	10.0	ug/L	1.00	1					
Cobalt	J	4.87	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		3160	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1770	110	300	ug/L	1.00	1					
Manganese		386	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		2250	50.0	150	ug/L	1.00	1					
Selenium	J	6.47	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		32500	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	2.74	1.00	5.00	ug/L	1.00	1					
Zinc	J	7.31	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.457	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2139	1928649	4
Uranium-238		0.457	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0844	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-87	Project:	WNUC01519
Sample ID:	493207047	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-92
Sample ID: 493207048
Matrix: Ground Water
Collect Date: 10-OCT-19 09:30
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1457	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2254	1928597	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		165	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		6100	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		21200	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4490	110	300	ug/L	1.00	1					
Manganese		687	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		1630	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		15800	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	3.97	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2141	1928649	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0846	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-92 Project: WNUC01519
Sample ID: 493207048 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-93	Project:	WNUC01519
Sample ID:	493207049	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	06-OCT-19 13:54		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1509	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2257	1928597	2
Antimony	J	4.77	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		91.2	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		5470	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	3.97	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		3060	110	300	ug/L	1.00	1					
Manganese		171	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.76	1.50	5.00	ug/L	1.00	1					
Potassium		2830	50.0	150	ug/L	1.00	1					
Selenium	J	15.3	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		11700	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	12.0	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2142	1928649	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0848	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-93 Project: WNUC01519
Sample ID: 493207049 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-96
Sample ID: 493207050
Matrix: Ground Water
Collect Date: 11-OCT-19 14:20
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1511	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2301	1928597	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		128	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		8750	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	3.35	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		32300	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4150	110	300	ug/L	1.00	1					
Manganese		880	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		2020	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		18300	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	6.00	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2144	1928649	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0850	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-96 Project: WNUC01519
Sample ID: 493207050 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-97
Sample ID: 493207051
Matrix: Ground Water
Collect Date: 11-OCT-19 12:25
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1513	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	82.7	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2304	1928597	2
Antimony	J	3.97	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		155	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		7250	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.05	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		492	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		3420	110	300	ug/L	1.00	1					
Manganese		98.9	2.00	10.0	ug/L	1.00	1					
Nickel	J	3.18	1.50	5.00	ug/L	1.00	1					
Potassium		3780	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		20800	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	9.02	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2146	1928649	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0852	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-97 Project: WNUC01519
Sample ID: 493207051 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-01-1008919
Sample ID: 493207052
Matrix: Ground Water
Collect Date: 08-OCT-19 11:00
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	10/29/19	1515	1932150	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/04/19	2306	1928597	2
Antimony	J	4.95	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium	U	ND	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium	U	ND	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium	U	ND	110	300	ug/L	1.00	1					
Manganese	U	ND	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium	U	ND	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium	J	210	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	U	ND	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/13/19	1627	1938406	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/11/19	2147	1928649	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/13/19	0854	1932179	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-01-1008919 Project: WNUC01519
Sample ID: 493207052 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	10/23/19		1200	1928596			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/23/19		1300	1928648			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	10/29/19		0930	1932178			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	10/28/19		1434	1932148			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	EPA 200.8	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

QC Summary

Report Date: November 13, 2019

Westinghouse Electric Company, LLC
PO Drawer R
Columbia, South Carolina

Contact: **Ms. Cynthia Logsdon**

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 1928643											
QC1204408494 LCS											
Uranium-235	0.360				0.346	ug/L		96	(80%-120%)	PRB	11/11/19 21:54
Uranium-238	49.6				49.0	ug/L		98.7	(80%-120%)		
QC1204408493 MB											
Uranium-235				U	ND	ug/L					11/11/19 21:53
Uranium-238				U	ND	ug/L					
QC1204408495 493207001 MS											
Uranium-235	0.360	U	ND		0.356	ug/L		98.6	(75%-125%)		11/11/19 21:58
Uranium-238	49.6	J	0.0815		50.6	ug/L		102	(75%-125%)		
QC1204408496 493207001 MSD											
Uranium-235	0.360	U	ND		0.357	ug/L	0.0842	98.7	(0%-20%)		11/11/19 21:59
Uranium-238	49.6	J	0.0815		50.9	ug/L	0.465	102	(0%-20%)		
QC1204408497 493207001 SDILT											
Uranium-235		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/11/19 22:03
Uranium-238		J	0.0815	J	0.077	ug/L	372		(0%-20%)		
Batch 1928646											
QC1204408504 LCS											
Uranium-235	0.360				0.370	ug/L		103	(80%-120%)	PRB	11/12/19 16:17
Uranium-238	49.6				50.5	ug/L		102	(80%-120%)		

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch 1928646												
QC1204418212 LCS												
Uranium-234	0.550				0.562	ug/L		102	(80%-120%)	PRB	11/12/19	18:44
QC1204408503 MB												
Uranium-234				U	ND	ug/L					11/12/19	18:42
Uranium-235				U	ND	ug/L					11/12/19	16:15
Uranium-238				U	ND	ug/L						
QC1204408505 493207022 MS												
Uranium-235	0.360	U	ND		0.375	ug/L		103	(75%-125%)		11/12/19	16:21
Uranium-238	49.6	J	0.183		50.7	ug/L		102	(75%-125%)			
QC1204418213 493207022 MS												
Uranium-234	0.550	U	ND		0.559	ug/L		102	(75%-125%)		11/12/19	18:50
QC1204408506 493207022 MSD												
Uranium-235	0.360	U	ND		0.384	ug/L	2.29	106	(0%-20%)		11/12/19	16:23
Uranium-238	49.6	J	0.183		51.2	ug/L	0.847	103	(0%-20%)			
QC1204418214 493207022 MSD												
Uranium-234	0.550	U	ND		0.553	ug/L	1.08	101	(0%-20%)		11/12/19	18:52
QC1204408507 493207022 SDILT												
Uranium-234		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/12/19	18:54
Uranium-235		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/12/19	16:27
Uranium-238		J	0.183	J	0.144	ug/L	294		(0%-20%)			

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 1928649											
QC1204408513 LCS											
Uranium-235	0.360				0.356	ug/L		98.8	(80%-120%)	PRB	11/11/19 21:17
Uranium-238	49.6				50.0	ug/L		101	(80%-120%)		
QC1204408512 MB											
Uranium-235				U	ND	ug/L					11/11/19 21:15
Uranium-238				U	ND	ug/L					
QC1204408514 493207041 MS											
Uranium-235	0.360	U	ND		0.361	ug/L		99.8	(75%-125%)		11/11/19 21:20
Uranium-238	49.6	J	0.0892		50.2	ug/L		101	(75%-125%)		
QC1204408515 493207041 MSD											
Uranium-235	0.360	U	ND		0.347	ug/L	3.9	95.9	(0%-20%)		11/11/19 21:22
Uranium-238	49.6	J	0.0892		49.5	ug/L	1.24	99.6	(0%-20%)		
QC1204408516 493207041 SDILT											
Uranium-235		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/11/19 21:25
Uranium-238		J	0.0892	U	ND	ug/L	N/A		(0%-20%)		
Batch 1932179											
QC1204416532 LCS											
Uranium-234	0.550				0.571	ug/L		104	(80%-120%)	PRB	11/13/19 08:20
QC1204416531 MB											
Uranium-234				U	ND	ug/L					11/13/19 08:18
QC1204416533 493207042 MS											
Uranium-234	0.550	U	ND		0.565	ug/L		103	(75%-125%)		11/13/19 08:26

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 1932179											
QC1204416534 493207042 MSD											
Uranium-234	0.550	U	ND		0.562	ug/L	0.532	102	(0%-20%)	PRB	11/13/19 08:28
QC1204416535 493207042 SDILT											
Uranium-234		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/13/19 08:30
Batch 1932181											
QC1204416537 LCS											
Uranium-234	0.550				0.561	ug/L		102	(80%-120%)	PRB	11/12/19 19:51
QC1204416536 MB											
Uranium-234				U	ND	ug/L					11/12/19 19:49
QC1204416538 493207002 MS											
Uranium-234	0.550	U	ND		0.570	ug/L		104	(75%-125%)		11/12/19 19:57
QC1204416539 493207002 MSD											
Uranium-234	0.550	U	ND		0.584	ug/L	2.43	106	(0%-20%)		11/12/19 19:59
QC1204416540 493207002 SDILT											
Uranium-234		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/12/19 20:01
Metals Analysis-ICP											
Batch 1928593											
QC1204408369 LCS											
Aluminum	5000				4840	ug/L		96.8	(80%-120%)	JWJ	11/11/19 20:31
Antimony	500				515	ug/L		103	(80%-120%)		
Arsenic	500				491	ug/L		98.2	(80%-120%)		
Barium	500				497	ug/L		99.4	(80%-120%)		
Beryllium	500				508	ug/L		102	(80%-120%)		

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1928593											
Cadmium	500			492	ug/L		98.5	(80%-120%)	JWJ	11/11/19	20:31
Calcium	5000			5020	ug/L		100	(80%-120%)			
Chromium	500			494	ug/L		98.8	(80%-120%)			
Cobalt	500			529	ug/L		106	(80%-120%)			
Copper	500			490	ug/L		98	(80%-120%)			
Iron	5000			5040	ug/L		101	(80%-120%)			
Lead	500			492	ug/L		98.4	(80%-120%)			
Magnesium	5000			5020	ug/L		100	(80%-120%)			
Manganese	500			476	ug/L		95.3	(80%-120%)			
Nickel	500			496	ug/L		99.2	(80%-120%)			
Potassium	5000			5030	ug/L		101	(80%-120%)			
Selenium	500			487	ug/L		97.4	(80%-120%)			
Silver	100			99.5	ug/L		99.5	(80%-120%)			
Sodium	5000			4680	ug/L		93.7	(80%-120%)			
Thallium	500			501	ug/L		100	(80%-120%)			

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1928593											
Vanadium	500			494	ug/L		98.8	(80%-120%)	JWJ	11/11/19	20:31
Zinc	500			486	ug/L		97.2	(80%-120%)			
QC1204408368 MB											
Aluminum			U	ND	ug/L					11/11/19	20:27
Antimony			U	ND	ug/L						
Arsenic			U	ND	ug/L						
Barium			U	ND	ug/L						
Beryllium			U	ND	ug/L						
Cadmium			U	ND	ug/L						
Calcium			U	ND	ug/L						
Chromium			U	ND	ug/L						
Cobalt			U	ND	ug/L						
Copper			U	ND	ug/L						
Iron			U	ND	ug/L						
Lead			U	ND	ug/L						
Magnesium			U	ND	ug/L						

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1928593											
Manganese				U	ND	ug/L				JWJ	11/11/19 20:27
Nickel				U	ND	ug/L					
Potassium				U	ND	ug/L					
Selenium				U	ND	ug/L					
Silver				U	ND	ug/L					
Sodium				U	ND	ug/L					
Thallium				U	ND	ug/L					
Vanadium				U	ND	ug/L					
Zinc				J	4.44	ug/L					
QC1204408370 493207001 MS											
Aluminum	5000	J	147		4880	ug/L		94.6	(75%-125%)		11/11/19 20:37
Antimony	500	U	ND		507	ug/L		101	(75%-125%)		
Arsenic	500	U	ND		475	ug/L		94.9	(75%-125%)		
Barium	500		48.2		529	ug/L		96.2	(75%-125%)		
Beryllium	500	U	ND		492	ug/L		98.3	(75%-125%)		
Cadmium	500	U	ND		470	ug/L		94	(75%-125%)		

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1928593												
Calcium	5000		4600		9840	ug/L		105	(75%-125%)	JWJ	11/11/19	20:37
Chromium	500	J	3.46		478	ug/L		94.9	(75%-125%)			
Cobalt	500	J	2.50		510	ug/L		102	(75%-125%)			
Copper	500	U	ND		473	ug/L		94.6	(75%-125%)			
Iron	5000		134		5100	ug/L		99.3	(75%-125%)			
Lead	500	U	ND		469	ug/L		93.6	(75%-125%)			
Magnesium	5000		1580		6380	ug/L		96	(75%-125%)			
Manganese	500		38.0		501	ug/L		92.6	(75%-125%)			
Nickel	500		4480		4730	ug/L		N/A	(75%-125%)			
Potassium	5000		1570		6580	ug/L		100	(75%-125%)			
Selenium	500	U	ND		473	ug/L		93.5	(75%-125%)			
Silver	100	J	1.14		97.3	ug/L		96.1	(75%-125%)			
Sodium	5000		5040		9240	ug/L		84	(75%-125%)			
Thallium	500	U	ND		480	ug/L		95.4	(75%-125%)			
Vanadium	500	U	ND		480	ug/L		95.9	(75%-125%)			

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1928593											
Zinc	500	J	7.63		474	ug/L		93.3	(75%-125%)	JWJ	11/11/19 20:37
QC1204408371 493207001 MSD											
Aluminum	5000	J	147		5240	ug/L	7.25	102	(0%-20%)		11/11/19 20:40
Antimony	500	U	ND		527	ug/L	3.87	105	(0%-20%)		
Arsenic	500	U	ND		492	ug/L	3.56	98.3	(0%-20%)		
Barium	500		48.2		548	ug/L	3.46	100	(0%-20%)		
Beryllium	500	U	ND		510	ug/L	3.55	102	(0%-20%)		
Cadmium	500	U	ND		488	ug/L	3.71	97.5	(0%-20%)		
Calcium	5000		4600		10200	ug/L	3.54	112	(0%-20%)		
Chromium	500	J	3.46		498	ug/L	4.07	98.9	(0%-20%)		
Cobalt	500	J	2.50		530	ug/L	3.69	105	(0%-20%)		
Copper	500	U	ND		491	ug/L	3.76	98.2	(0%-20%)		
Iron	5000		134		5320	ug/L	4.28	104	(0%-20%)		
Lead	500	U	ND		485	ug/L	3.47	96.9	(0%-20%)		
Magnesium	5000		1580		6580	ug/L	3.04	99.9	(0%-20%)		
Manganese	500		38.0		520	ug/L	3.8	96.4	(0%-20%)		

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1928593											
Nickel	500		4480		4850	ug/L	2.51	N/A	(0%-20%)	JWJ	11/11/19 20:40
Potassium	5000		1570		6730	ug/L	2.29	103	(0%-20%)		
Selenium	500	U	ND		484	ug/L	2.39	95.8	(0%-20%)		
Silver	100	J	1.14		99.6	ug/L	2.32	98.4	(0%-20%)		
Sodium	5000		5040		9550	ug/L	3.22	90.1	(0%-20%)		
Thallium	500	U	ND		492	ug/L	2.57	97.9	(0%-20%)		
Vanadium	500	U	ND		498	ug/L	3.73	99.5	(0%-20%)		
Zinc	500	J	7.63		490	ug/L	3.3	96.5	(0%-20%)		
QC1204408372 493207001 SDILT											
Aluminum		J	147	U	ND	ug/L	N/A		(0%-20%)		11/11/19 20:45
Antimony		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Arsenic		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Barium			48.2		10.3	ug/L	6.26		(0%-20%)		
Beryllium		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Cadmium		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Calcium			4600		927	ug/L	.782		(0%-20%)		

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1928593										
Chromium	J	3.46	U	ND	ug/L	N/A		(0%-20%)	JWJ	11/11/19 20:45
Cobalt	J	2.50	U	ND	ug/L	N/A		(0%-20%)		
Copper	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Iron		134	U	ND	ug/L	N/A		(0%-20%)		
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Magnesium		1580		316	ug/L	.019		(0%-20%)		
Manganese		38.0	J	8.30	ug/L	9.34		(0%-20%)		
Nickel		4480		879	ug/L	1.87		(0%-20%)		
Potassium		1570		334	ug/L	6.16		(0%-20%)		
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Silver	J	1.14	U	ND	ug/L	N/A		(0%-20%)		
Sodium		5040		1050	ug/L	3.94		(0%-20%)		
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Vanadium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Zinc	J	7.63	U	ND	ug/L	N/A		(0%-20%)		

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1928595										
QC1204408374 LCS										
Aluminum	5000			4980	ug/L		99.7	(80%-120%)	JWJ	11/04/19 23:21
Antimony	500			568	ug/L		114	(80%-120%)		
Arsenic	500			498	ug/L		99.7	(80%-120%)		
Barium	500			502	ug/L		100	(80%-120%)		
Beryllium	500			521	ug/L		104	(80%-120%)		
Cadmium	500			489	ug/L		97.8	(80%-120%)		
Calcium	5000			4910	ug/L		98.3	(80%-120%)		
Chromium	500			496	ug/L		99.3	(80%-120%)		
Cobalt	500			540	ug/L		108	(80%-120%)		
Copper	500			497	ug/L		99.4	(80%-120%)		
Iron	5000			5160	ug/L		103	(80%-120%)		
Lead	500			497	ug/L		99.4	(80%-120%)		
Magnesium	5000			5190	ug/L		104	(80%-120%)		
Manganese	500			480	ug/L		96	(80%-120%)		
Nickel	500			496	ug/L		99.3	(80%-120%)		

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1928595										
Potassium	5000			5220	ug/L		104	(80%-120%)	JWJ	11/04/19 23:21
Selenium	500			488	ug/L		97.6	(80%-120%)		
Silver	100			101	ug/L		101	(80%-120%)		
Sodium	5000			4870	ug/L		97.4	(80%-120%)		
Thallium	500			508	ug/L		102	(80%-120%)		
Vanadium	500			497	ug/L		99.4	(80%-120%)		
Zinc	500			488	ug/L		97.6	(80%-120%)		
QC1204408373 MB										
Aluminum			U	ND	ug/L					11/04/19 23:17
Antimony			U	ND	ug/L					
Arsenic			U	ND	ug/L					
Barium			U	ND	ug/L					
Beryllium			U	ND	ug/L					
Cadmium			U	ND	ug/L					
Calcium			U	ND	ug/L					
Chromium			U	ND	ug/L					

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1928595										
Cobalt			U	ND	ug/L				JWJ	11/04/19 23:17
Copper			J	6.81	ug/L					
Iron			U	ND	ug/L					
Lead			U	ND	ug/L					
Magnesium			U	ND	ug/L					
Manganese			U	ND	ug/L					
Nickel			U	ND	ug/L					
Potassium			U	ND	ug/L					
Selenium			J	9.30	ug/L					
Silver			U	ND	ug/L					
Sodium			U	ND	ug/L					
Thallium			U	ND	ug/L					
Vanadium			U	ND	ug/L					
Zinc			J	4.71	ug/L					
QC1204408375 493207022 MS										
Aluminum	5000	J 80.9		5130	ug/L		101	(75%-125%)		11/04/19 23:31

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1928595												
Antimony	500	J	4.60		599	ug/L		119	(75%-125%)	JWJ	11/04/19	23:31
Arsenic	500	U	ND		498	ug/L		99.4	(75%-125%)			
Barium	500		96.7		597	ug/L		100	(75%-125%)			
Beryllium	500	U	ND		530	ug/L		106	(75%-125%)			
Cadmium	500	U	ND		488	ug/L		97.6	(75%-125%)			
Calcium	5000		7850		13100	ug/L		104	(75%-125%)			
Chromium	500	J	4.29		497	ug/L		98.5	(75%-125%)			
Cobalt	500	J	1.84		534	ug/L		107	(75%-125%)			
Copper	500	J	6.02		500	ug/L		98.8	(75%-125%)			
Iron	5000	U	ND		5330	ug/L		106	(75%-125%)			
Lead	500	U	ND		494	ug/L		98.8	(75%-125%)			
Magnesium	5000		4650		9510	ug/L		97.3	(75%-125%)			
Manganese	500		48.5		529	ug/L		96	(75%-125%)			
Nickel	500		271		759	ug/L		97.5	(75%-125%)			
Potassium	5000		2640		7750	ug/L		102	(75%-125%)			

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1928595											
Selenium	500	J	12.8		495	ug/L		96.4	(75%-125%)	JWJ	11/04/19 23:31
Silver	100	U	ND		101	ug/L		101	(75%-125%)		
Sodium	5000		21300		25100	ug/L		N/A	(75%-125%)		
Thallium	500	U	ND		491	ug/L		98.2	(75%-125%)		
Vanadium	500	U	ND		511	ug/L		102	(75%-125%)		
Zinc	500	J	10.9		494	ug/L		96.6	(75%-125%)		
QC1204408376 493207022 MSD											
Aluminum	5000	J	80.9		4920	ug/L	4.29	96.8	(0%-20%)		11/04/19 23:34
Antimony	500	J	4.60		591	ug/L	1.34	117	(0%-20%)		
Arsenic	500	U	ND		488	ug/L	1.97	97.5	(0%-20%)		
Barium	500		96.7		581	ug/L	2.74	96.9	(0%-20%)		
Beryllium	500	U	ND		515	ug/L	2.96	103	(0%-20%)		
Cadmium	500	U	ND		475	ug/L	2.81	94.9	(0%-20%)		
Calcium	5000		7850		12900	ug/L	0.931	102	(0%-20%)		
Chromium	500	J	4.29		487	ug/L	1.93	96.6	(0%-20%)		
Cobalt	500	J	1.84		521	ug/L	2.52	104	(0%-20%)		

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1928595											
Copper	500	J	6.02		488	ug/L	2.35	96.5	(0%-20%)	JWJ	11/04/19 23:34
Iron	5000	U	ND		5020	ug/L	6.02	99.9	(0%-20%)		
Lead	500	U	ND		484	ug/L	1.97	96.9	(0%-20%)		
Magnesium	5000		4650		9090	ug/L	4.54	88.8	(0%-20%)		
Manganese	500		48.5		518	ug/L	2.04	93.9	(0%-20%)		
Nickel	500		271		743	ug/L	2.15	94.3	(0%-20%)		
Potassium	5000		2640		7620	ug/L	1.69	99.5	(0%-20%)		
Selenium	500	J	12.8		486	ug/L	1.78	94.7	(0%-20%)		
Silver	100	U	ND		97.9	ug/L	3.13	97.6	(0%-20%)		
Sodium	5000		21300		23900	ug/L	4.58	N/A	(0%-20%)		
Thallium	500	U	ND		484	ug/L	1.3	96.9	(0%-20%)		
Vanadium	500	U	ND		498	ug/L	2.53	99.5	(0%-20%)		
Zinc	500	J	10.9		485	ug/L	1.88	94.7	(0%-20%)		
QC1204408377 493207022 SDILT											
Aluminum		J	80.9	U	ND	ug/L	N/A		(0%-20%)		11/04/19 23:39
Antimony		J	4.60	J	5.23	ug/L	468		(0%-20%)		

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1928595										
Arsenic	U	ND	U	ND	ug/L	N/A		(0%-20%)	JWJ	11/04/19 23:39
Barium		96.7		20.1	ug/L	4.14		(0%-20%)		
Beryllium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Cadmium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Calcium		7850		1540	ug/L	1.88		(0%-20%)		
Chromium	J	4.29	U	ND	ug/L	N/A		(0%-20%)		
Cobalt	J	1.84	U	ND	ug/L	N/A		(0%-20%)		
Copper	J	6.02	U	ND	ug/L	N/A		(0%-20%)		
Iron	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Magnesium		4650		901	ug/L	3.05		(0%-20%)		
Manganese		48.5		10.5	ug/L	8.65		(0%-20%)		
Nickel		271		60.5	ug/L	11.4		(0%-20%)		
Potassium		2640		545	ug/L	3.19		(0%-20%)		
Selenium	J	12.8	U	ND	ug/L	N/A		(0%-20%)		

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1928595										
Silver	U	ND	U	ND	ug/L	N/A		(0%-20%)	JWJ	11/04/19 23:39
Sodium		21300		4330	ug/L	1.58		(0%-20%)		
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Vanadium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Zinc	J	10.9	J	4.99	ug/L	128		(0%-20%)		
Batch 1928597										
QC1204408379 LCS										
Aluminum	5000			4770	ug/L		95.5	(80%-120%)	JWJ	11/04/19 22:09
Antimony	500			582	ug/L		116	(80%-120%)		
Arsenic	500			480	ug/L		96	(80%-120%)		
Barium	500			481	ug/L		96.1	(80%-120%)		
Beryllium	500			509	ug/L		102	(80%-120%)		
Cadmium	500			476	ug/L		95.1	(80%-120%)		
Calcium	5000			4780	ug/L		95.7	(80%-120%)		
Chromium	500			483	ug/L		96.6	(80%-120%)		
Cobalt	500			522	ug/L		104	(80%-120%)		
Copper	500			486	ug/L		97.2	(80%-120%)		

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1928597										
Iron	5000			4970	ug/L		99.4	(80%-120%)	JWJ	11/04/19 22:09
Lead	500			488	ug/L		97.6	(80%-120%)		
Magnesium	5000			5010	ug/L		100	(80%-120%)		
Manganese	500			466	ug/L		93.1	(80%-120%)		
Nickel	500			483	ug/L		96.6	(80%-120%)		
Potassium	5000			5080	ug/L		102	(80%-120%)		
Selenium	500			479	ug/L		95.7	(80%-120%)		
Silver	100			98.0	ug/L		98	(80%-120%)		
Sodium	5000			4900	ug/L		97.9	(80%-120%)		
Thallium	500			479	ug/L		95.9	(80%-120%)		
Vanadium	500			494	ug/L		98.8	(80%-120%)		
Zinc	500			472	ug/L		94.3	(80%-120%)		
QC1204408378 MB										
Aluminum			U	ND	ug/L					11/04/19 22:05
Antimony			J	4.13	ug/L					
Arsenic			U	ND	ug/L					

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1928597											
Barium			U	ND	ug/L				JWJ	11/04/19	22:05
Beryllium			U	ND	ug/L						
Cadmium			U	ND	ug/L						
Calcium			U	ND	ug/L						
Chromium			U	ND	ug/L						
Cobalt			U	ND	ug/L						
Copper			U	ND	ug/L						
Iron			U	ND	ug/L						
Lead			U	ND	ug/L						
Magnesium			U	ND	ug/L						
Manganese			U	ND	ug/L						
Nickel			U	ND	ug/L						
Potassium				96.6	ug/L						
Selenium			J	7.39	ug/L						
Silver			U	ND	ug/L						

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1928597											
Sodium					315	ug/L				JWJ	11/04/19 22:05
Thallium				U	ND	ug/L					
Vanadium				U	ND	ug/L					
Zinc				J	4.11	ug/L					
QC1204408380 493207041 MS											
Aluminum	5000		878		5780	ug/L		98.1	(75%-125%)		11/04/19 22:15
Antimony	500	J	5.15		588	ug/L		117	(75%-125%)		
Arsenic	500	U	ND		487	ug/L		97.4	(75%-125%)		
Barium	500		75.4		553	ug/L		95.5	(75%-125%)		
Beryllium	500	J	1.41		513	ug/L		102	(75%-125%)		
Cadmium	500	U	ND		471	ug/L		94.2	(75%-125%)		
Calcium	5000		11200		16400	ug/L		105	(75%-125%)		
Chromium	500	J	1.86		481	ug/L		95.8	(75%-125%)		
Cobalt	500	U	ND		514	ug/L		103	(75%-125%)		
Copper	500	U	ND		484	ug/L		96.7	(75%-125%)		
Iron	5000	U	ND		5130	ug/L		102	(75%-125%)		

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1928597											
Lead	500	U	ND		482	ug/L		96.3	(75%-125%)	JWJ	11/04/19 22:15
Magnesium	5000		5490		10100	ug/L		92.1	(75%-125%)		
Manganese	500		12.8		479	ug/L		93.2	(75%-125%)		
Nickel	500	U	ND		476	ug/L		95	(75%-125%)		
Potassium	5000		4490		9470	ug/L		99.5	(75%-125%)		
Selenium	500	J	8.57		486	ug/L		95.5	(75%-125%)		
Silver	100	U	ND		97.6	ug/L		97.1	(75%-125%)		
Sodium	5000		11500		15900	ug/L		86.1	(75%-125%)		
Thallium	500	U	ND		476	ug/L		95.2	(75%-125%)		
Vanadium	500	U	ND		498	ug/L		99.4	(75%-125%)		
Zinc	500	J	4.87		474	ug/L		93.9	(75%-125%)		
QC1204408381 493207041 MSD											
Aluminum	5000		878		5880	ug/L	1.64	100	(0%-20%)		11/04/19 22:18
Antimony	500	J	5.15		569	ug/L	3.28	113	(0%-20%)		
Arsenic	500	U	ND		489	ug/L	0.303	97.7	(0%-20%)		
Barium	500		75.4		562	ug/L	1.66	97.4	(0%-20%)		

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1928597											
Beryllium	500	J	1.41		509	ug/L	0.761	102	(0%-20%)	JWJ	11/04/19 22:18
Cadmium	500	U	ND		471	ug/L	0.0212	94.1	(0%-20%)		
Calcium	5000		11200		16200	ug/L	1.15	101	(0%-20%)		
Chromium	500	J	1.86		483	ug/L	0.533	96.3	(0%-20%)		
Cobalt	500	U	ND		516	ug/L	0.501	103	(0%-20%)		
Copper	500	U	ND		484	ug/L	0.0496	96.8	(0%-20%)		
Iron	5000	U	ND		5170	ug/L	0.693	103	(0%-20%)		
Lead	500	U	ND		478	ug/L	0.731	95.6	(0%-20%)		
Magnesium	5000		5490		10100	ug/L	0.367	91.4	(0%-20%)		
Manganese	500		12.8		483	ug/L	0.926	94	(0%-20%)		
Nickel	500	U	ND		480	ug/L	0.787	95.8	(0%-20%)		
Potassium	5000		4490		9550	ug/L	0.876	101	(0%-20%)		
Selenium	500	J	8.57		487	ug/L	0.162	95.7	(0%-20%)		
Silver	100	U	ND		97.1	ug/L	0.514	96.6	(0%-20%)		
Sodium	5000		11500		15900	ug/L	0.107	86.5	(0%-20%)		

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1928597											
Thallium	500	U	ND		493	ug/L	3.43	98.6	(0%-20%)	JWJ	11/04/19 22:18
Vanadium	500	U	ND		492	ug/L	1.27	98.2	(0%-20%)		
Zinc	500	J	4.87		475	ug/L	0.276	94.1	(0%-20%)		
QC1204408382 493207041 SDILT											
Aluminum			878	J	170	ug/L	2.96		(0%-20%)		11/04/19 22:23
Antimony		J	5.15	U	ND	ug/L	N/A		(0%-20%)		
Arsenic		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Barium			75.4		15.3	ug/L	1.15		(0%-20%)		
Beryllium		J	1.41	U	ND	ug/L	N/A		(0%-20%)		
Cadmium		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Calcium			11200		2250	ug/L	.662		(0%-20%)		
Chromium		J	1.86	U	ND	ug/L	N/A		(0%-20%)		
Cobalt		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Copper		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Iron		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Lead		U	ND	U	ND	ug/L	N/A		(0%-20%)		

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1928597										
Magnesium		5490		1070	ug/L	2.31		(0%-20%)	JWJ	11/04/19 22:23
Manganese		12.8	J	2.64	ug/L	3.56		(0%-20%)		
Nickel	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Potassium		4490		945	ug/L	5.27		(0%-20%)		
Selenium	J	8.57	J	10.3	ug/L	504		(0%-20%)		
Silver	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Sodium		11500		2460	ug/L	6.34		(0%-20%)		
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Vanadium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Zinc	J	4.87	U	ND	ug/L	N/A		(0%-20%)		
Metals Analysis-Mercury										
Batch 1932140										
QC1204416446 493207001 DUP										
Mercury	U	ND	U	ND	ug/L	N/A			MTM1	10/29/19 16:56
QC1204416445 LCS										
Mercury	2.00			1.90	ug/L		94.9	(80%-120%)		10/29/19 12:23
QC1204416444 MB										
Mercury			U	ND	ug/L					10/29/19 15:49

QC Summary

Workorder: **493207**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury												
Batch 1932140												
QC1204416447 493207001 MS												
Mercury	2.00	U	ND		2.00	ug/L		99.9	(75%-125%)	MTM1	10/29/19	16:58
QC1204416448 493207001 SDILT												
Mercury		U	ND	U	ND	ug/L	N/A		(0%-10%)		10/29/19	12:30
Batch 1932146												
QC1204416468 493207022 DUP												
Mercury			0.219		0.216	ug/L	1.38 ^		(+/-0.200)	MTM1	10/29/19	13:23
QC1204416467 LCS												
Mercury	2.00				2.04	ug/L		102	(80%-120%)		10/29/19	13:14
QC1204416466 MB												
Mercury				U	ND	ug/L					10/29/19	13:13
QC1204416469 493207022 MS												
Mercury	2.00		0.219		2.19	ug/L		98.7	(75%-125%)		10/29/19	13:25
QC1204416470 493207022 SDILT												
Mercury			0.219	U	ND	ug/L	N/A		(0%-10%)		10/29/19	13:33
Batch 1932150												
QC1204416634 493207048 DUP												
Mercury		U	ND	U	ND	ug/L	N/A			MTM1	10/29/19	14:59
QC1204416483 LCS												
Mercury	2.00				1.86	ug/L		92.8	(80%-120%)		10/29/19	14:16
QC1204416482 MB												
Mercury				U	ND	ug/L					10/29/19	14:14
QC1204416635 493207048 MS												
Mercury	2.00	U	ND		1.13	ug/L		56.6*	(75%-125%)		10/29/19	15:00

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch 1932150											
QC1204416637 493207048 PS											
Mercury	2.00 U	ND		1.09	ug/L		54.3*	(80%-120%)	MTM1	10/29/19	15:08
QC1204416636 493207048 SDILT											
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)		10/29/19	15:02

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-RW1
Sample ID: 493207001
Matrix: Ground Water
Collect Date: 03-OCT-19 10:43
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/04/19	1054	1929062	1
Uranium-233/234	U	0.126	+/-0.198	0.322	0.500	pCi/L							
Uranium-235/236	U	0.139	+/-0.206	0.302	0.500	pCi/L							
Uranium-238	U	0.169	+/-0.198	0.274	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.51	+/-2.42	3.77	5.00	pCi/L			JXK3	11/01/19	1604	1932118	2
Beta		3.98	+/-2.38	3.47	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	1.40	+/-14.3	25.8	50.0	pCi/L			JJ3	11/06/19	0711	1928954	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			72.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			95.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-RW2
Sample ID: 493207002
Matrix: Ground Water
Collect Date: 11-OCT-19 12:18
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/04/19	1054	1929062	1
Uranium-233/234	U	0.252	+/-0.226	0.267	0.500	pCi/L							
Uranium-235/236	U	0.107	+/-0.189	0.287	0.500	pCi/L							
Uranium-238	U	0.0958	+/-0.152	0.211	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.00	+/-2.39	3.92	5.00	pCi/L			JXK3	11/01/19	1604	1932118	2
Beta		11.9	+/-3.53	4.35	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	270	+/-308	518	700	pCi/L			EW3	10/23/19	2313	1929020	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	23.1	+/-15.7	24.9	50.0	pCi/L			JJ3	11/06/19	0734	1928954	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			73.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			97.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-3A
Sample ID: 493207003
Matrix: Ground Water
Collect Date: 10-OCT-19 13:40
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/04/19	1054	1929062	1
Uranium-233/234	U	0.287	+/-0.262	0.319	0.500	pCi/L							
Uranium-235/236	U	0.0414	+/-0.155	0.261	0.500	pCi/L							
Uranium-238	U	0.145	+/-0.198	0.269	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.36	+/-2.04	2.91	5.00	pCi/L			JXK3	11/01/19	1604	1932118	2
Beta	U	1.15	+/-2.26	3.96	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	7.25	+/-12.4	21.3	50.0	pCi/L			JJ3	11/05/19	1037	1928954	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			60.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			91	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-4	Project:	WNUC01519
Sample ID:	493207004	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	11-OCT-19 15:15		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/04/19	1054	1929062	1
Uranium-233/234		0.313	+/-0.239	0.257	0.500	pCi/L							
Uranium-235/236	U	0.124	+/-0.179	0.216	0.500	pCi/L							
Uranium-238		0.392	+/-0.249	0.175	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	3.36	+/-3.04	4.61	5.00	pCi/L			JXK3	11/02/19	1438	1932118	2
Beta		19.4	+/-3.86	4.09	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		41.3	+/-18.2	27.0	50.0	pCi/L			JJ3	11/06/19	0756	1928954	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			81.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			90.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-6
Sample ID: 493207005
Matrix: Ground Water
Collect Date: 07-OCT-19 09:30
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/04/19	1054	1929062	1
Uranium-233/234		0.372	+/-0.267	0.313	0.500	pCi/L							
Uranium-235/236	U	0.0443	+/-0.125	0.133	0.500	pCi/L							
Uranium-238	U	0.153	+/-0.175	0.219	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		11.9	+/-5.29	4.96	5.00	pCi/L			JXK3	11/02/19	1438	1932118	2
Beta		1370	+/-25.5	4.14	5.00	pCi/L							
Alpha		6.28	+/-1.93	2.27	5.00	pCi/L			JXK3	11/04/19	1844	1932118	3
Beta		1360	+/-10.3	2.11	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		2440	+/-90.1	32.3	50.0	pCi/L			JJ3	11/06/19	0819	1928954	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			78.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			82	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-7A
Sample ID: 493207006
Matrix: Ground Water
Collect Date: 09-OCT-19 14:00
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/04/19	1054	1929062	1
Uranium-233/234		0.409	+/-0.272	0.286	0.500	pCi/L							
Uranium-235/236	U	0.0909	+/-0.156	0.136	0.500	pCi/L							
Uranium-238		0.259	+/-0.220	0.242	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		7.74	+/-2.77	3.04	5.00	pCi/L			JXK3	11/02/19	1712	1932118	2
Beta		111	+/-4.67	3.74	5.00	pCi/L							
Alpha		4.95	+/-3.02	4.25	5.00	pCi/L			JXK3	11/05/19	1522	1932118	3
Beta		117	+/-4.69	3.48	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	-16.9	+/-292	542	700	pCi/L			EW3	10/23/19	2329	1929020	4
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		210	+/-30.5	30.6	50.0	pCi/L			JJ3	11/06/19	0841	1928954	5

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	EPA 906.0 Modified	
5	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			80.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			84.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-7A	Project:	WNUC01519
Sample ID:	493207006	Client ID:	WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-10
Sample ID: 493207007
Matrix: Ground Water
Collect Date: 09-OCT-19 11:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/04/19	1054	1929062	1
Uranium-233/234	U	0.0993	+/-0.169	0.265	0.500	pCi/L							
Uranium-235/236	U	0.0935	+/-0.160	0.140	0.500	pCi/L							
Uranium-238	U	0.180	+/-0.183	0.181	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	4.50	+/-3.51	4.60	5.00	pCi/L			JXK3	11/02/19	1438	1932118	2
Beta		80.0	+/-6.63	3.27	5.00	pCi/L							
Alpha		3.19	+/-1.20	1.51	5.00	pCi/L			JXK3	11/04/19	1844	1932118	3
Beta		82.5	+/-2.56	1.38	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	32.7	+/-294	537	700	pCi/L			EW3	10/23/19	2346	1929020	4
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		118	+/-23.9	28.2	50.0	pCi/L			JJ3	11/06/19	0904	1928954	5

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	EPA 906.0 Modified	
5	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			87.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			90.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-10	Project:	WNUC01519
Sample ID:	493207007	Client ID:	WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-10 Dup
Sample ID: 493207008
Matrix: Ground Water
Collect Date: 09-OCT-19 11:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235		13.8				percent			MXS2	11/04/19	1054	1929062	1
Uranium-233/234	U	0.0991	+/-0.157	0.236	0.500	pCi/L							
Uranium-235/236		0.219	+/-0.211	0.131	0.500	pCi/L							
Uranium-238		0.212	+/-0.184	0.106	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	3.09	+/-2.95	4.42	5.00	pCi/L			JXK3	11/02/19	1438	1932118	2
Beta		76.5	+/-6.76	4.89	5.00	pCi/L							
Alpha	U	1.28	+/-2.76	4.89	5.00	pCi/L			JXK3	11/05/19	1014	1932118	3
Beta		75.8	+/-5.47	2.97	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	165	+/-314	548	700	pCi/L			EW3	10/24/19	0002	1929020	4
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		121	+/-24.7	29.0	50.0	pCi/L			JJ3	11/06/19	0926	1928954	5

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	EPA 906.0 Modified	
5	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			79.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			87.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-10 Dup	Project:	WNUC01519
Sample ID:	493207008	Client ID:	WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-11
Sample ID: 493207009
Matrix: Ground Water
Collect Date: 08-OCT-19 14:45
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/04/19	1054	1929062	1
Uranium-233/234	U	0.205	+/-0.197	0.236	0.500	pCi/L							
Uranium-235/236	U	0.0769	+/-0.151	0.209	0.500	pCi/L							
Uranium-238	U	0.133	+/-0.157	0.169	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		7.31	+/-4.04	4.62	5.00	pCi/L			JXK3	11/02/19	1439	1932118	2
Beta		2460	+/-33.7	3.32	5.00	pCi/L							
Alpha		8.33	+/-1.76	1.84	5.00	pCi/L			JXK3	11/04/19	1844	1932118	3
Beta		2430	+/-13.4	1.45	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		3420	+/-98.0	27.7	50.0	pCi/L			JJ3	11/06/19	0949	1928954	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			86.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			95.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-13R
Sample ID: 493207010
Matrix: Ground Water
Collect Date: 08-OCT-19 14:09
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/06/19	0856	1929062	1
Uranium-233/234	U	0.246	+/-0.212	0.255	0.500	pCi/L							
Uranium-235/236	U	0.0418	+/-0.118	0.126	0.500	pCi/L							
Uranium-238		0.221	+/-0.190	0.187	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	3.26	+/-3.13	4.90	5.00	pCi/L			JXK3	11/02/19	1439	1932118	2
Beta		55.5	+/-5.68	4.79	5.00	pCi/L							
Alpha	U	1.03	+/-1.14	1.90	5.00	pCi/L			JXK3	11/04/19	1844	1932118	3
Beta		50.8	+/-2.16	1.70	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	116	+/-306	542	700	pCi/L			EW3	10/24/19	0018	1929020	4
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		63.4	+/-22.7	32.2	50.0	pCi/L			JJ3	11/06/19	1011	1928954	5

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	EPA 906.0 Modified	
5	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			91.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			87	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-13R	Project:	WNUC01519
Sample ID:	493207010	Client ID:	WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-18R
Sample ID: 493207011
Matrix: Ground Water
Collect Date: 07-OCT-19 12:25
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235		3.41				percent			MXS2	11/09/19	1302	1929062	1
Uranium-233/234		1.53	+/-0.446	0.252	0.500	pCi/L							
Uranium-235/236		0.266	+/-0.219	0.188	0.500	pCi/L							
Uranium-238		1.17	+/-0.391	0.223	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	7.67	+/-6.13	9.58	5.00	pCi/L			JXK3	11/02/19	1712	1932118	2
Beta		143	+/-7.41	5.73	5.00	pCi/L							
Alpha	U	11.9	+/-8.37	13.2	5.00	pCi/L			JXK3	11/04/19	1844	1932118	3
Beta		157	+/-8.94	9.40	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	210	+/-306	524	700	pCi/L			EW3	10/24/19	0034	1929020	4
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		214	+/-31.9	32.3	50.0	pCi/L			JJ3	11/06/19	1034	1928954	5

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	EPA 906.0 Modified	
5	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			91.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			74.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-18R	Project:	WNUC01519
Sample ID:	493207011	Client ID:	WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-22
Sample ID: 493207012
Matrix: Ground Water
Collect Date: 07-OCT-19 10:45
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/07/19	2124	1929062	1
Uranium-233/234		0.905	+/-0.309	0.244	0.500	pCi/L							
Uranium-235/236	U	0.136	+/-0.144	0.156	0.500	pCi/L							
Uranium-238		0.322	+/-0.190	0.181	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.92	+/-3.15	4.60	5.00	pCi/L			JXK3	11/02/19	1439	1932118	2
Beta		29.6	+/-5.00	4.77	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	115	+/-300	532	700	pCi/L			EW3	10/24/19	0051	1929020	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		57.4	+/-21.2	30.1	50.0	pCi/L			JJ3	11/06/19	1056	1928954	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			84.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			82.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-24
Sample ID: 493207013
Matrix: Ground Water
Collect Date: 11-OCT-19 10:01
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/06/19	0856	1929062	1
Uranium-233/234	U	0.136	+/-0.183	0.264	0.500	pCi/L							
Uranium-235/236	U	0.0816	+/-0.160	0.222	0.500	pCi/L							
Uranium-238	U	0.066	+/-0.130	0.180	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.396	+/-2.09	4.49	5.00	pCi/L			JXK3	11/02/19	1439	1932118	2
Beta	U	2.51	+/-2.61	4.32	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	67.8	+/-289	520	700	pCi/L			EW3	10/24/19	0107	1929020	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	13.0	+/-13.8	23.1	50.0	pCi/L			JJ3	11/05/19	1602	1928954	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			78.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			87.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-27
Sample ID: 493207014
Matrix: Ground Water
Collect Date: 10-OCT-19 11:40
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235		15.2				percent			MXS2	11/06/19	0856	1929062	1
Uranium-233/234	U	0.0588	+/-0.183	0.345	0.500	pCi/L							
Uranium-235/236		0.198	+/-0.218	0.148	0.500	pCi/L							
Uranium-238	U	0.171	+/-0.195	0.244	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.689	+/-1.98	4.63	5.00	pCi/L			JXK3	11/02/19	1450	1932118	2
Beta		5.10	+/-2.36	3.27	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	2.42	+/-13.4	23.8	50.0	pCi/L			JJ3	11/05/19	1635	1928954	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			70.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			81.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-28
Sample ID: 493207015
Matrix: Ground Water
Collect Date: 07-OCT-19 14:43
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/06/19	0856	1929062	1
Uranium-233/234		0.672	+/-0.345	0.302	0.500	pCi/L							
Uranium-235/236	U	0.00	+/-0.0975	0.145	0.500	pCi/L							
Uranium-238	U	0.119	+/-0.176	0.258	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	3.14	+/-3.06	4.84	5.00	pCi/L			JXK3	11/02/19	1450	1932118	2
Beta		8.26	+/-2.20	2.65	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	20.1	+/-14.6	23.7	50.0	pCi/L			JJ3	11/05/19	1707	1928954	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			75.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			78.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-29
Sample ID: 493207016
Matrix: Ground Water
Collect Date: 07-OCT-19 12:53
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/06/19	0856	1929062	1
Uranium-233/234		1.20	+/-0.443	0.274	0.500	pCi/L							
Uranium-235/236	U	0.00	+/-0.0978	0.146	0.500	pCi/L							
Uranium-238		0.972	+/-0.393	0.188	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.25	+/-2.86	4.81	5.00	pCi/L			JXK3	11/02/19	1450	1932118	2
Beta		7.67	+/-3.22	4.47	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	116	+/-305	541	700	pCi/L			EW3	10/24/19	0123	1929020	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	11.6	+/-18.4	31.5	50.0	pCi/L			JJ3	11/05/19	1740	1928954	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			84.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			62.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-30
Sample ID: 493207017
Matrix: Ground Water
Collect Date: 07-OCT-19 10:09
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235		4.12				percent			MXS2	11/07/19	2124	1929062	1
Uranium-233/234		11.5	+/-1.02	0.240	0.500	pCi/L							
Uranium-235/236		0.914	+/-0.327	0.153	0.500	pCi/L							
Uranium-238		3.31	+/-0.554	0.212	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		7.57	+/-3.95	4.89	5.00	pCi/L			JXK3	11/02/19	1451	1932118	2
Beta		20.8	+/-3.16	3.03	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	443	+/-339	544	700	pCi/L			EW3	10/24/19	0140	1929020	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		49.7	+/-19.8	28.7	50.0	pCi/L			JJ3	11/06/19	1119	1928954	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			85.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			84.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-32
Sample ID: 493207018
Matrix: Ground Water
Collect Date: 08-OCT-19 13:35
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/06/19	0856	1929062	1
Uranium-233/234		0.322	+/-0.226	0.224	0.500	pCi/L							
Uranium-235/236	U	-0.00982	+/-0.0847	0.196	0.500	pCi/L							
Uranium-238		0.191	+/-0.173	0.159	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		7.17	+/-3.99	4.93	5.00	pCi/L			JXK3	11/02/19	1451	1932118	2
Beta		176	+/-7.59	3.10	5.00	pCi/L							
Alpha	U	1.11	+/-2.72	4.71	5.00	pCi/L			JXK3	11/04/19	1843	1932118	3
Beta		174	+/-3.77	1.41	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	81.8	+/-293	524	700	pCi/L			EW3	10/24/19	0156	1929020	4
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		321	+/-47.0	46.5	50.0	pCi/L			JJ3	11/06/19	1141	1928954	5

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	EPA 906.0 Modified	
5	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			92.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			49.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-32	Project:	WNUC01519
Sample ID:	493207018	Client ID:	WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-35
Sample ID: 493207019
Matrix: Ground Water
Collect Date: 02-OCT-19 13:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/06/19	0856	1929062	1
Uranium-233/234		0.304	+/-0.239	0.271	0.500	pCi/L							
Uranium-235/236	U	0.045	+/-0.126	0.135	0.500	pCi/L							
Uranium-238		0.109	+/-0.144	0.109	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.793	+/-1.53	2.91	5.00	pCi/L			JXK3	11/01/19	1626	1932118	2
Beta	U	3.54	+/-2.43	3.75	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	21.7	+/-21.2	35.1	50.0	pCi/L			JJ3	11/06/19	1204	1928954	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			84.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			70.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-36
Sample ID: 493207020
Matrix: Ground Water
Collect Date: 02-OCT-19 14:08
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MXS2	11/06/19	0859	1929062	1
Uranium-233/234	U	0.148	+/-0.294	0.514	0.500	pCi/L							
Uranium-235/236	U	-0.0134	+/-0.201	0.469	0.500	pCi/L							
Uranium-238	U	-0.0108	+/-0.163	0.380	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.270	+/-1.40	3.02	5.00	pCi/L			JXK3	11/01/19	1626	1932118	2
Beta	U	-0.343	+/-1.52	3.10	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	15.0	+/-13.8	22.9	50.0	pCi/L			JJ3	11/05/19	1950	1928954	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			69.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			85.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-37
Sample ID: 493207021
Matrix: Ground Water
Collect Date: 02-OCT-19 15:25
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	0901	1929063	1
Uranium-233/234	U	0.103	+/-0.162	0.242	0.500	pCi/L							
Uranium-235/236	U	-0.0108	+/-0.0933	0.216	0.500	pCi/L							
Uranium-238	U	0.0277	+/-0.104	0.175	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.75	+/-1.88	2.98	5.00	pCi/L			HXB2	11/01/19	1544	1932119	2
Beta	U	-0.31	+/-2.51	4.64	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-14.9	+/-24.5	43.2	50.0	pCi/L			JJ3	11/05/19	0544	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			85.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			87.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-38
Sample ID: 493207022
Matrix: Ground Water
Collect Date: 04-OCT-19 13:05
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	0901	1929063	1
Uranium-233/234	U	0.106	+/-0.191	0.310	0.500	pCi/L							
Uranium-235/236	U	0.00	+/-0.106	0.158	0.500	pCi/L							
Uranium-238		0.128	+/-0.168	0.128	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.54	+/-2.53	4.03	5.00	pCi/L			HXB2	11/01/19	1544	1932119	2
Beta	U	2.43	+/-2.63	4.37	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-1.12	+/-24.8	42.9	50.0	pCi/L			JJ3	11/05/19	0611	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			71.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			85.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-45	Project:	WNUC01519
Sample ID:	493207023	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	02-OCT-19 12:00		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	0902	1929063	1
Uranium-233/234		0.897	+/-0.408	0.323	0.500	pCi/L							
Uranium-235/236	U	-0.0125	+/-0.108	0.250	0.500	pCi/L							
Uranium-238		0.477	+/-0.301	0.258	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		4.37	+/-2.39	3.50	5.00	pCi/L			HXB2	11/02/19	1711	1932119	2
Beta		16.6	+/-2.33	3.14	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	4.99	+/-23.1	39.8	50.0	pCi/L			JJ3	11/05/19	0638	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			101	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			90	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-51
Sample ID: 493207024
Matrix: Ground Water
Collect Date: 03-OCT-19 11:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	0902	1929063	1
Uranium-233/234	U	0.0146	+/-0.152	0.320	0.500	pCi/L							
Uranium-235/236	U	0.0799	+/-0.157	0.218	0.500	pCi/L							
Uranium-238	U	-0.0705	+/-0.0887	0.297	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.544	+/-1.48	3.10	5.00	pCi/L			HXB2	11/01/19	1544	1932119	2
Beta		3.56	+/-2.33	3.51	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-16.3	+/-24.7	43.7	50.0	pCi/L			JJ3	11/05/19	0705	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			105	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			85.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-52
Sample ID: 493207025
Matrix: Ground Water
Collect Date: 03-OCT-19 12:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235		93.5				percent			BXA4	11/07/19	0902	1929063	1
Uranium-233/234	U	0.121	+/-0.149	0.199	0.500	pCi/L							
Uranium-235/236		0.115	+/-0.151	0.115	0.500	pCi/L							
Uranium-238	U	0.00124	+/-0.0917	0.204	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.521	+/-1.78	4.39	5.00	pCi/L			HXB2	11/01/19	1545	1932119	2
Beta	U	1.61	+/-2.52	4.34	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-20.8	+/-26.7	47.4	50.0	pCi/L			JJ3	11/05/19	0732	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			117	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			80.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-53
Sample ID: 493207026
Matrix: Ground Water
Collect Date: 03-OCT-19 12:58
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	0902	1929063	1
Uranium-233/234	U	0.0359	+/-0.219	0.446	0.500	pCi/L							
Uranium-235/236	U	-0.0157	+/-0.135	0.313	0.500	pCi/L							
Uranium-238	U	-0.0614	+/-0.166	0.443	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.61	+/-2.17	3.72	5.00	pCi/L			HXB2	11/01/19	1545	1932119	2
Beta	U	1.72	+/-2.25	3.79	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-35.1	+/-24.9	45.1	50.0	pCi/L			JJ3	11/05/19	0759	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			72.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			87.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-54
Sample ID: 493207027
Matrix: Ground Water
Collect Date: 04-OCT-19 13:50
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	0902	1929063	1
Uranium-233/234	U	0.0685	+/-0.181	0.324	0.500	pCi/L							
Uranium-235/236	U	-0.0666	+/-0.126	0.389	0.500	pCi/L							
Uranium-238	U	0.0126	+/-0.131	0.274	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.55	+/-1.98	3.34	5.00	pCi/L			HXB2	11/01/19	1545	1932119	2
Beta	U	1.96	+/-2.70	4.59	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-19.6	+/-27.0	47.7	50.0	pCi/L			JJ3	11/05/19	0826	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			81.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			83.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-54-Dup
Sample ID: 493207028
Matrix: Ground Water
Collect Date: 04-OCT-19 13:50
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235		13.3				percent			BXA4	11/11/19	1242	1929063	1
Uranium-233/234	U	0.101	+/-0.0879	0.116	0.500	pCi/L							
Uranium-235/236		0.0554	+/-0.0665	0.0416	0.500	pCi/L							
Uranium-238	U	0.056	+/-0.0659	0.0858	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.53	+/-1.82	3.02	5.00	pCi/L			HXB2	11/01/19	1545	1932119	2
Beta	U	0.741	+/-2.63	4.64	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-14.4	+/-28.0	49.2	50.0	pCi/L			JJ3	11/05/19	0853	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			63.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			79.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-55	Project:	WNUC01519
Sample ID:	493207029	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	04-OCT-19 11:40		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235		4.01				percent			BXA4	11/11/19	1450	1929063	1
Uranium-233/234		290	+/-5.76	0.287	0.500	pCi/L							
Uranium-235/236		16.3	+/-1.52	0.230	0.500	pCi/L							
Uranium-238		60.5	+/-2.63	0.0893	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		414	+/-21.0	3.03	5.00	pCi/L			HXB2	11/01/19	1545	1932119	2
Beta		77.6	+/-7.20	4.95	5.00	pCi/L							
Alpha		461	+/-25.3	3.09	5.00	pCi/L			HXB2	11/04/19	1155	1932119	3
Beta		77.1	+/-7.16	4.29	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-11.9	+/-25.5	44.7	50.0	pCi/L			JJ3	11/05/19	0921	1928956	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			66.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			85.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-56	Project:	WNUC01519
Sample ID:	493207030	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	04-OCT-19 11:06		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235		3.63				percent			BXA4	11/07/19	0944	1929063	1
Uranium-233/234		192	+/-5.98	0.438	0.500	pCi/L							
Uranium-235/236		9.18	+/-1.46	0.366	0.500	pCi/L							
Uranium-238		37.9	+/-2.66	0.406	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		252	+/-16.5	3.54	5.00	pCi/L			HXB2	11/01/19	1545	1932119	2
Beta		60.3	+/-6.35	4.92	5.00	pCi/L							
Alpha		276	+/-20.0	3.82	5.00	pCi/L			HXB2	11/04/19	1155	1932119	3
Beta		48.6	+/-5.92	4.51	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-20.5	+/-26.7	47.4	50.0	pCi/L			JJ3	11/05/19	0948	1928956	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			76.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			83	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-57
Sample ID: 493207031
Matrix: Ground Water
Collect Date: 03-OCT-19 14:15
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	0944	1929063	1
Uranium-233/234	U	-0.0917	+/-0.197	0.516	0.500	pCi/L							
Uranium-235/236	U	0.00	+/-0.129	0.191	0.500	pCi/L							
Uranium-238	U	0.0165	+/-0.188	0.400	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.202	+/-1.31	3.01	5.00	pCi/L			HXB2	11/01/19	1545	1932119	2
Beta	U	3.09	+/-2.72	4.42	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-16.3	+/-25.0	44.1	50.0	pCi/L			JJ3	11/05/19	1015	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			71	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			86	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-58
Sample ID: 493207032
Matrix: Ground Water
Collect Date: 04-OCT-19 09:20
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	0944	1929063	1
Uranium-233/234		2.10	+/-0.612	0.397	0.500	pCi/L							
Uranium-235/236	U	0.104	+/-0.179	0.157	0.500	pCi/L							
Uranium-238	U	0.331	+/-0.282	0.354	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		4.21	+/-2.84	3.59	5.00	pCi/L			HXB2	11/01/19	1545	1932119	2
Beta	U	2.43	+/-2.57	4.23	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-26.1	+/-26.2	46.8	50.0	pCi/L			JJ3	11/05/19	1042	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			87.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			82.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-59	Project:	WNUC01519
Sample ID:	493207033	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	05-OCT-19 09:30		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235		3.66				percent			BXA4	11/11/19	1450	1929063	1
Uranium-233/234		38.0	+/-2.06	0.243	0.500	pCi/L							
Uranium-235/236		2.02	+/-0.534	0.108	0.500	pCi/L							
Uranium-238		8.26	+/-0.965	0.182	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		40.9	+/-8.76	4.17	5.00	pCi/L			HXB2	11/01/19	1545	1932119	2
Beta		17.6	+/-3.83	3.34	5.00	pCi/L							
Alpha		47.9	+/-9.96	3.83	5.00	pCi/L			HXB2	11/04/19	1155	1932119	3
Beta		17.1	+/-3.88	4.17	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	13.0	+/-28.0	47.7	50.0	pCi/L			JJ3	11/05/19	1109	1928956	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			75.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			80.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-72
Sample ID: 493207034
Matrix: Ground Water
Collect Date: 04-OCT-19 10:35
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	1034	1929063	1
Uranium-233/234	U	0.125	+/-0.193	0.303	0.500	pCi/L							
Uranium-235/236	U	-0.0117	+/-0.101	0.233	0.500	pCi/L							
Uranium-238	U	0.0205	+/-0.114	0.218	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.05	+/-1.77	3.25	5.00	pCi/L			HXB2	11/01/19	1542	1932119	2
Beta	U	2.74	+/-2.62	4.31	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-17.1	+/-21.5	37.6	50.0	pCi/L			JJ3	11/06/19	0933	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			88.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			75.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-73
Sample ID: 493207035
Matrix: Ground Water
Collect Date: 04-OCT-19 09:45
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	1034	1929063	1
Uranium-233/234	U	-0.0042	+/-0.192	0.430	0.500	pCi/L							
Uranium-235/236	U	0.0655	+/-0.184	0.197	0.500	pCi/L							
Uranium-238	U	0.121	+/-0.214	0.324	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.241	+/-1.51	3.37	5.00	pCi/L			HXB2	11/01/19	1542	1932119	2
Beta	U	1.85	+/-2.41	4.10	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-23	+/-27.5	48.9	50.0	pCi/L			JJ3	11/05/19	1204	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			54.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			79.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-74
Sample ID: 493207036
Matrix: Ground Water
Collect Date: 09-OCT-19 09:15
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	1034	1929063	1
Uranium-233/234	U	0.111	+/-0.190	0.277	0.500	pCi/L							
Uranium-235/236	U	0.00238	+/-0.176	0.392	0.500	pCi/L							
Uranium-238	U	0.0963	+/-0.165	0.144	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.595	+/-1.21	3.32	5.00	pCi/L			HXB2	11/01/19	1544	1932119	2
Beta	U	1.29	+/-2.37	4.13	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	11.5	+/-26.3	44.9	50.0	pCi/L			JJ3	11/05/19	1231	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			61.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			79.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-75
Sample ID: 493207037
Matrix: Ground Water
Collect Date: 09-OCT-19 10:25
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	1034	1929063	1
Uranium-233/234	U	0.0135	+/-0.148	0.313	0.500	pCi/L							
Uranium-235/236	U	0.078	+/-0.153	0.213	0.500	pCi/L							
Uranium-238	U	0.00143	+/-0.106	0.236	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.10	+/-2.18	3.41	5.00	pCi/L			HXB2	11/01/19	1544	1932119	2
Beta	U	3.89	+/-2.63	4.15	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-15.8	+/-26.5	46.7	50.0	pCi/L			JJ3	11/05/19	1258	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			83.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			80.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-76
Sample ID: 493207038
Matrix: Ground Water
Collect Date: 05-OCT-19 10:49
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	1034	1929063	1
Uranium-233/234		1.60	+/-0.537	0.365	0.500	pCi/L							
Uranium-235/236	U	-0.0126	+/-0.109	0.252	0.500	pCi/L							
Uranium-238		0.354	+/-0.282	0.330	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.77	+/-2.66	4.06	5.00	pCi/L			HXB2	11/01/19	1544	1932119	2
Beta		6.88	+/-2.86	4.06	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-14.6	+/-24.5	43.3	50.0	pCi/L			JJ3	11/05/19	1325	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			70.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			81	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-77	Project:	WNUC01519
Sample ID:	493207039	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	06-OCT-19 12:05		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235		4.75				percent			BXA4	11/07/19	1034	1929063	1
Uranium-233/234		511	+/-10.1	0.485	0.500	pCi/L							
Uranium-235/236		26.0	+/-2.55	0.310	0.500	pCi/L							
Uranium-238		81.0	+/-4.04	0.405	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		914	+/-18.1	2.43	5.00	pCi/L			HXB2	11/02/19	1711	1932119	2
Beta		115	+/-3.46	2.23	5.00	pCi/L							
Alpha		816	+/-32.1	4.81	5.00	pCi/L			HXB2	11/04/19	1156	1932119	3
Beta		106	+/-6.03	2.84	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		101	+/-21.7	33.2	50.0	pCi/L			JJ3	11/06/19	1017	1928956	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			59.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			82.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-78	Project:	WNUC01519
Sample ID:	493207040	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	05-OCT-19 11:59		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			BXA4	11/07/19	1454	1929063	1
Uranium-233/234	U	0.0921	+/-0.143	0.236	0.500	pCi/L							
Uranium-235/236	U	0.0466	+/-0.101	0.151	0.500	pCi/L							
Uranium-238	U	0.105	+/-0.125	0.175	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.146	+/-1.62	4.24	5.00	pCi/L			HXB2	11/01/19	1548	1932119	2
Beta	U	4.12	+/-2.76	4.30	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-6.5	+/-27.6	48.1	50.0	pCi/L			JJ3	11/05/19	1419	1928956	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			87.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			75.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-79
Sample ID: 493207041
Matrix: Ground Water
Collect Date: 07-OCT-19 14:00
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/08/19	0842	1929066	1
Uranium-233/234	U	0.0539	+/-0.262	0.520	0.500	pCi/L							
Uranium-235/236	U	-0.0112	+/-0.186	0.393	0.500	pCi/L							
Uranium-238	U	0.115	+/-0.260	0.409	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.99	+/-3.08	4.87	5.00	pCi/L			HXB2	11/07/19	1651	1935052	2
Beta		5.90	+/-2.76	4.03	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	3.52	+/-20.6	35.4	50.0	pCi/L			JJ3	11/05/19	0610	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			79.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			93.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-80
Sample ID: 493207042
Matrix: Ground Water
Collect Date: 06-OCT-19 08:47
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/07/19	0901	1929066	1
Uranium-233/234	U	0.154	+/-0.191	0.258	0.500	pCi/L							
Uranium-235/236	U	0.0254	+/-0.141	0.270	0.500	pCi/L							
Uranium-238	U	0.0695	+/-0.137	0.189	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.30	+/-2.30	4.28	5.00	pCi/L			HXB2	11/07/19	1650	1935052	2
Beta		7.29	+/-2.96	4.17	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	2.56	+/-19.7	33.9	50.0	pCi/L			JJ3	11/05/19	0934	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			88.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			96.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-81
Sample ID: 493207043
Matrix: Ground Water
Collect Date: 08-OCT-19 09:46
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/07/19	0901	1929066	1
Uranium-233/234	U	0.0084	+/-0.144	0.312	0.500	pCi/L							
Uranium-235/236	U	-0.0482	+/-0.112	0.331	0.500	pCi/L							
Uranium-238	U	0.112	+/-0.162	0.195	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.177	+/-1.44	3.61	5.00	pCi/L			HXB2	11/07/19	1650	1935052	2
Beta	U	1.23	+/-2.77	4.85	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-11.9	+/-18.8	33.0	50.0	pCi/L			JJ3	11/05/19	1006	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			84.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			96.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-82
Sample ID: 493207044
Matrix: Ground Water
Collect Date: 08-OCT-19 09:45
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/07/19	0901	1929066	1
Uranium-233/234	U	0.0453	+/-0.140	0.260	0.500	pCi/L							
Uranium-235/236	U	0.00	+/-0.0866	0.129	0.500	pCi/L							
Uranium-238	U	0.140	+/-0.171	0.229	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.37	+/-2.56	4.69	5.00	pCi/L			HXB2	11/07/19	1651	1935052	2
Beta		4.82	+/-2.79	4.29	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-1.54	+/-22.3	38.6	50.0	pCi/L			JJ3	11/05/19	1037	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			92.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			85.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-83
Sample ID: 493207045
Matrix: Ground Water
Collect Date: 08-OCT-19 11:55
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/08/19	0842	1929066	1
Uranium-233/234		0.603	+/-0.454	0.482	0.500	pCi/L							
Uranium-235/236	U	0.161	+/-0.293	0.361	0.500	pCi/L							
Uranium-238	U	-0.0584	+/-0.144	0.430	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.300	+/-2.02	4.27	5.00	pCi/L			HXB2	11/07/19	1651	1935052	2
Beta	U	2.75	+/-2.42	3.94	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	0.914	+/-20.5	35.3	50.0	pCi/L			JJ3	11/05/19	1109	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			85.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			94	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-84
Sample ID: 493207046
Matrix: Ground Water
Collect Date: 08-OCT-19 12:19
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/07/19	0901	1929066	1
Uranium-233/234	U	0.0661	+/-0.159	0.276	0.500	pCi/L							
Uranium-235/236	U	0.0491	+/-0.138	0.147	0.500	pCi/L							
Uranium-238	U	-0.00952	+/-0.0821	0.190	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.286	+/-1.27	3.44	5.00	pCi/L			HXB2	11/07/19	1651	1935052	2
Beta	U	3.97	+/-2.59	4.06	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-9.22	+/-19.4	34.0	50.0	pCi/L			JJ3	11/05/19	1141	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			88.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			93.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-87
Sample ID: 493207047
Matrix: Ground Water
Collect Date: 02-OCT-19 13:00
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/07/19	0901	1929066	1
Uranium-233/234	U	0.175	+/-0.199	0.291	0.500	pCi/L							
Uranium-235/236	U	0.00163	+/-0.121	0.269	0.500	pCi/L							
Uranium-238	U	0.151	+/-0.176	0.244	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.68	+/-2.22	3.77	5.00	pCi/L			HXB2	11/07/19	1650	1935052	2
Beta		4.92	+/-2.89	4.46	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	0.787	+/-20.8	35.9	50.0	pCi/L			JJ3	11/05/19	1212	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			81.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			92.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-92
Sample ID: 493207048
Matrix: Ground Water
Collect Date: 10-OCT-19 09:30
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/07/19	0901	1929066	1
Uranium-233/234	U	0.0426	+/-0.122	0.222	0.500	pCi/L							
Uranium-235/236	U	-0.027	+/-0.0816	0.229	0.500	pCi/L							
Uranium-238	U	0.0765	+/-0.122	0.168	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.58	+/-2.74	4.95	5.00	pCi/L			HXB2	11/07/19	1652	1935052	2
Beta	U	3.78	+/-2.95	4.73	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-10.2	+/-20.3	35.6	50.0	pCi/L			JJ3	11/05/19	1244	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			91.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			89.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-93
Sample ID: 493207049
Matrix: Ground Water
Collect Date: 06-OCT-19 13:54
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/07/19	0901	1929066	1
Uranium-233/234	U	0.115	+/-0.157	0.238	0.500	pCi/L							
Uranium-235/236	U	0.0644	+/-0.127	0.175	0.500	pCi/L							
Uranium-238	U	0.090	+/-0.133	0.195	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		3.06	+/-2.31	2.89	5.00	pCi/L			HXB2	11/07/19	1652	1935052	2
Beta		8.18	+/-3.28	4.56	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-29	+/-23.3	41.7	50.0	pCi/L			JJ3	11/05/19	1316	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			98.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			78	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-96	Project:	WNUC01519
Sample ID:	493207050	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	11-OCT-19 14:20		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/07/19	0901	1929066	1
Uranium-233/234	U	0.0695	+/-0.141	0.240	0.500	pCi/L							
Uranium-235/236	U	0.108	+/-0.155	0.187	0.500	pCi/L							
Uranium-238	U	0.0719	+/-0.127	0.193	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.51	+/-2.43	3.52	5.00	pCi/L			HXB2	11/07/19	1750	1935052	2
Beta		4.36	+/-2.32	3.26	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-1.25	+/-21.9	37.8	50.0	pCi/L			JJ3	11/05/19	1347	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			85.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			85	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: November 13, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-97
Sample ID: 493207051
Matrix: Ground Water
Collect Date: 11-OCT-19 12:25
Receive Date: 16-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/07/19	0901	1929066	1
Uranium-233/234	U	0.106	+/-0.159	0.247	0.500	pCi/L							
Uranium-235/236	U	0.0403	+/-0.113	0.121	0.500	pCi/L							
Uranium-238	U	0.0495	+/-0.114	0.180	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.168	+/-1.85	3.92	5.00	pCi/L			HXB2	11/07/19	1750	1935052	2
Beta		11.0	+/-3.52	4.72	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	10.3	+/-24.7	42.1	50.0	pCi/L			JJ3	11/06/19	0807	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			96.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			67.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 13, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	EB-01-1008919	Project:	WNUC01519
Sample ID:	493207052	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	08-OCT-19 11:00		
Receive Date:	16-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/07/19	0901	1929066	1
Uranium-233/234	U	0.0804	+/-0.145	0.234	0.500	pCi/L							
Uranium-235/236	U	0.111	+/-0.160	0.192	0.500	pCi/L							
Uranium-238	U	0.0247	+/-0.0926	0.156	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.671	+/-1.39	3.57	5.00	pCi/L			HXB2	11/07/19	1750	1935052	2
Beta	U	-1.34	+/-1.32	3.08	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-1.24	+/-19.0	32.9	50.0	pCi/L			JJ3	11/05/19	1451	1928959	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			90.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			95.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

QC Summary

Report Date: November 13, 2019

Westinghouse Electric Company, LLC
PO Drawer R
Columbia, South Carolina

Contact: **Ms. Cynthia Logsdon**

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch 1929062											
QC1204409564 493207001 DUP											
Pct Uranium-235	U	0.00	U	0.00	percent	N/A			N/A MXS2	11/09/19	13:02
Uranium-233/234	U	0.126	U	0.247	pCi/L	N/A			N/A		
	Uncertainty	+/-0.198		+/-0.230							
Uranium-235/236	U	0.139	U	0.0362	pCi/L	N/A			N/A		
	Uncertainty	+/-0.206		+/-0.136							
Uranium-238	U	0.169	U	0.117	pCi/L	N/A			N/A		
	Uncertainty	+/-0.198		+/-0.174							
QC1204409565 LCS											
Pct Uranium-235				1.33	percent					11/06/19	08:59
Uranium-233/234				14.7	pCi/L						
	Uncertainty			+/-1.57							
Uranium-235/236				1.22	pCi/L						
	Uncertainty			+/-0.510							
Uranium-238	13.6			14.0	pCi/L		103	(75%-125%)			
	Uncertainty			+/-1.53							
QC1204409563 MB											
Pct Uranium-235			U	0.00	percent					11/06/19	08:59
Uranium-233/234			U	-0.12	pCi/L						
	Uncertainty			+/-0.0986							
Uranium-235/236			U	0.162	pCi/L						
	Uncertainty			+/-0.222							
Uranium-238			U	-0.00641	pCi/L						
	Uncertainty			+/-0.149							

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 1929063										
QC1204409569 493207022 DUP										
Pct Uranium-235	U	0.00	U	0.00	percent	N/A			N/A BXA4	11/07/19 14:54
Uranium-233/234	U	0.106	U	0.288	pCi/L	N/A			N/A	
	Uncertainty	+/-0.191		+/-0.231						
Uranium-235/236	U	0.00	U	0.0573	pCi/L	N/A			N/A	
	Uncertainty	+/-0.106		+/-0.124						
Uranium-238		0.128	U	-0.0712	pCi/L	67			N/A	
	Uncertainty	+/-0.168		+/-0.079						
QC1204409570 LCS										
Pct Uranium-235				0.927	percent					11/07/19 15:31
Uranium-233/234				15.3	pCi/L					
	Uncertainty			+/-1.49						
Uranium-235/236				0.833	pCi/L					
	Uncertainty			+/-0.397						
Uranium-238	13.6			13.8	pCi/L		101	(75%-125%)		
	Uncertainty			+/-1.42						
QC1204409568 MB										
Pct Uranium-235			U	0.00	percent					11/07/19 14:54
Uranium-233/234			U	-0.0204	pCi/L					
	Uncertainty			+/-0.123						
Uranium-235/236			U	-0.0125	pCi/L					
	Uncertainty			+/-0.0762						
Uranium-238			U	0.0135	pCi/L					
	Uncertainty			+/-0.123						
Batch 1929066										
QC1204409577 493207048 DUP										
Pct Uranium-235	U	0.00	U	0.00	percent	N/A			N/A EXC2	11/08/19 08:42
Uranium-233/234	U	0.0426	U	0.352	pCi/L	N/A			N/A	
	Uncertainty	+/-0.122		+/-0.372						

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 1929066										
Uranium-235/236	U	-0.027	U	0.0723	pCi/L	N/A		N/A	EXC2	11/08/19 08:42
	Uncertainty	+/-0.0816		+/-0.229						
Uranium-238	U	0.0765	U	0.210	pCi/L	N/A		N/A		
	Uncertainty	+/-0.122		+/-0.295						
QC1204409578 LCS										
Pct Uranium-235				0.733	percent					11/07/19 09:01
Uranium-233/234				14.6	pCi/L					
	Uncertainty			+/-1.72						
Uranium-235/236				0.779	pCi/L					
	Uncertainty			+/-0.460						
Uranium-238	13.6			16.4	pCi/L		120	(75%-125%)		
	Uncertainty			+/-1.82						
QC1204409576 MB										
Pct Uranium-235			U	0.00	percent					11/07/19 09:01
Uranium-233/234			U	0.0146	pCi/L					
	Uncertainty			+/-0.152						
Uranium-235/236			U	0.0908	pCi/L					
	Uncertainty			+/-0.156						
Uranium-238			U	-0.0264	pCi/L					
	Uncertainty			+/-0.0798						
Rad Gas Flow										
Batch 1932118										
QC1204416379 493207019 DUP										
Alpha	U	0.793		3.28	pCi/L	122*		(0% - 100%)	JXK3	11/01/19 16:26
	Uncertainty	+/-1.53		+/-2.20						
Beta	U	3.54	U	2.31	pCi/L	N/A		N/A		
	Uncertainty	+/-2.43		+/-1.82						
QC1204416382 LCS										
Alpha	125			128	pCi/L		102	(75%-125%)		11/01/19 16:26
	Uncertainty			+/-12.1						

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch 1932118											
Beta	461			457	pCi/L		99.2	(75%-125%)	JXK3	11/01/19	16:26
	Uncertainty			+/-17.1							
QC1204416378 MB											
Alpha			U	0.607	pCi/L					11/01/19	16:26
	Uncertainty			+/-1.47							
Beta			U	-0.158	pCi/L						
	Uncertainty			+/-2.03							
QC1204416380 493207019 MS											
Alpha	501 U	0.793		526	pCi/L		105	(75%-125%)		11/01/19	16:26
	Uncertainty	+/-1.53		+/-47.9							
Beta	1850 U	3.54		1880	pCi/L		102	(75%-125%)			
	Uncertainty	+/-2.43		+/-65.8							
QC1204416381 493207019 MSD											
Alpha	501 U	0.793		490	pCi/L	7.22	97.7	(0%-20%)		11/01/19	16:26
	Uncertainty	+/-1.53		+/-47.8							
Beta	1850 U	3.54		1790	pCi/L	4.59	97.1	(0%-20%)			
	Uncertainty	+/-2.43		+/-64.6							
Batch 1932119											
QC1204416384 493207022 DUP											
Alpha	U	2.54	U	1.52	pCi/L	N/A		N/A	HXB2	11/01/19	15:48
	Uncertainty	+/-2.53		+/-2.70							
Beta	U	2.43	U	3.90	pCi/L	N/A		N/A			
	Uncertainty	+/-2.63		+/-2.75							
QC1204416387 LCS											
Alpha	125			135	pCi/L		108	(75%-125%)		11/04/19	11:56
	Uncertainty			+/-12.0							
Beta	461			483	pCi/L		105	(75%-125%)			
	Uncertainty			+/-16.7							
QC1204416383 MB											
Alpha			U	-0.851	pCi/L					11/01/19	15:48
	Uncertainty			+/-1.00							
Beta			U	-1.89	pCi/L						
	Uncertainty			+/-2.14							

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1932119										
QC1204416385 493207022 MS										
Alpha	501 U	2.54		571	pCi/L		114	(75%-125%)	HXB2	11/01/19 15:48
	Uncertainty	+/-2.53		+/-54.1						
Beta	1840 U	2.43		1920	pCi/L		104	(75%-125%)		
	Uncertainty	+/-2.63		+/-66.1						
QC1204416386 493207022 MSD										
Alpha	501 U	2.54		540	pCi/L	5.66	108	(0%-20%)		11/04/19 11:56
	Uncertainty	+/-2.53		+/-49.8						
Beta	1840 U	2.43		1900	pCi/L	0.705	103	(0%-20%)		
	Uncertainty	+/-2.63		+/-66.3						
Batch 1935052										
QC1204423417 493207048 DUP										
Alpha	U	1.58	U	-0.677	pCi/L	N/A		N/A	HXB2	11/07/19 17:49
	Uncertainty	+/-2.74		+/-1.32						
Beta	U	3.78		4.52	pCi/L	17.9		(0% - 100%)		
	Uncertainty	+/-2.95		+/-2.64						
QC1204423420 LCS										
Alpha	125			118	pCi/L		94.3	(75%-125%)		11/07/19 17:50
	Uncertainty			+/-11.4						
Beta	461			490	pCi/L		106	(75%-125%)		
	Uncertainty			+/-17.0						
QC1204423416 MB										
Alpha			U	0.865	pCi/L					11/07/19 17:49
	Uncertainty			+/-1.76						
Beta			U	0.224	pCi/L					
	Uncertainty			+/-1.97						
QC1204423418 493207048 MS										
Alpha	501 U	1.58		578	pCi/L		115	(75%-125%)		11/07/19 17:49
	Uncertainty	+/-2.74		+/-51.7						
Beta	1840 U	3.78		1900	pCi/L		103	(75%-125%)		
	Uncertainty	+/-2.95		+/-66.4						
QC1204423419 493207048 MSD										
Alpha	501 U	1.58		567	pCi/L	1.77	113	(0%-20%)		11/07/19 17:49
	Uncertainty	+/-2.74		+/-52.2						

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1935052										
Beta	1840 U	3.78		1930	pCi/L	1.44	104	(0%-20%)	HXB2	11/07/19 17:49
	Uncertainty	+/-2.95		+/-67.6						
Rad Liquid Scintillation										
Batch 1928954										
QC1204409230 493207001 DUP										
Technetium-99	U	1.40	U	11.8	pCi/L	N/A		N/A	JJ3	11/06/19 12:26
	Uncertainty	+/-14.3		+/-18.2						
QC1204409231 LCS										
Technetium-99	854			783	pCi/L		91.6	(75%-125%)		11/05/19 21:28
	Uncertainty			+/-62.9						
QC1204409229 MB										
Technetium-99			U	15.0	pCi/L					11/05/19 20:23
	Uncertainty			+/-14.7						
Batch 1928956										
QC1204409239 493207022 DUP										
Technetium-99	U	-1.12	U	-21.7	pCi/L	N/A		N/A	JJ3	11/05/19 15:13
	Uncertainty	+/-24.8		+/-25.3						
QC1204409240 LCS										
Technetium-99	854			963	pCi/L		113	(75%-125%)		11/05/19 15:40
	Uncertainty			+/-52.3						
QC1204409238 MB										
Technetium-99			U	-29.9	pCi/L					11/05/19 14:46
	Uncertainty			+/-26.0						
Batch 1928959										
QC1204409248 493207048 DUP										
Technetium-99	U	-10.2	U	-3.94	pCi/L	N/A		N/A	JJ3	11/05/19 15:54
	Uncertainty	+/-20.3		+/-19.0						
QC1204409249 LCS										
Technetium-99	854			858	pCi/L		100	(75%-125%)		11/05/19 16:26
	Uncertainty			+/-40.4						
QC1204409247 MB										
Technetium-99			U	-3.4	pCi/L					11/05/19 15:22
	Uncertainty			+/-20.3						

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 1929020										
QC1204409432 493207002 DUP										
Tritium	U	270	U	-91.1	pCi/L	N/A		N/A	EW3	10/24/19 02:29
	Uncertainty	+/-308		+/-273						
QC1204409434 LCS										
Tritium	5880			5970	pCi/L		102	(75%-125%)		10/24/19 03:01
	Uncertainty			+/-676						
QC1204409431 MB										
Tritium			U	-101	pCi/L					10/24/19 02:12
	Uncertainty			+/-287						
QC1204409433 493207002 MS										
Tritium	5890 U	270		5320	pCi/L		90.4	(75%-125%)		10/24/19 02:45
	Uncertainty	+/-308		+/-646						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

**	Analyte is a Tracer compound
<	Result is less than value reported
>	Result is greater than value reported
BD	Results are either below the MDC or tracer recovery is low
FA	Failed analysis.
H	Analytical holding time was exceeded
J	See case narrative for an explanation
J	Value is estimated
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
M	M if above MDC and less than LLD
M	REMP Result > MDC/CL and < RDL
N/A	RPD or %Recovery limits do not apply.
N1	See case narrative
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
UI	Gamma Spectroscopy--Uncertain identification

QC Summary

Workorder: **493207**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

UJ Gamma Spectroscopy--Uncertain identification

UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Technical Case Narrative
Westinghouse Electric Co, LLC
SDG #: 493207

Metals

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3005A/6010D
Analytical Procedure: GL-MA-E-013 REV# 31
Analytical Batch: 1928593

Preparation Method: SW846 3005A
Preparation Procedure: GL-MA-E-006 REV# 14
Preparation Batch: 1928592

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207001	W-RW1
493207002	W-RW2
493207003	W-3A
493207004	W-4
493207005	W-6
493207006	W-7A
493207007	W-10
493207008	W-10 Dup
493207009	W-11
493207010	W-13R
493207011	W-18R
493207012	W-22
493207013	W-24
493207014	W-27
493207015	W-28
493207016	W-29
493207017	W-30
493207018	W-32
493207019	W-35
493207020	W-36
1204408368	Method Blank (MB)**ICP**
1204408369	Laboratory Control Sample (LCS)
1204408372	493207001(W-RW1L) Serial Dilution (SD)
1204408370	493207001(W-RW1S) Matrix Spike (MS)
1204408371	493207001(W-RW1SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample required dilution in order to minimize suppression due to matrix interferences for lead. 493207011 (W-18R). Sample was diluted to ensure that the sodium concentration was within the linear calibration range of the instrument. 493207011 (W-18R).

Analyte	493207011
Lead	5X
Sodium	5X

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3005A/6010D
Analytical Procedure: GL-MA-E-013 REV# 31
Analytical Batch: 1928595

Preparation Method: SW846 3005A
Preparation Procedure: GL-MA-E-006 REV# 14
Preparation Batch: 1928594

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207021	W-37
493207022	W-38
493207023	W-45
493207024	W-51
493207025	W-52
493207026	W-53
493207027	W-54
493207028	W-54-Dup
493207029	W-55
493207030	W-56
493207031	W-57
493207032	W-58
493207033	W-59
493207034	W-72
493207035	W-73
493207036	W-74
493207037	W-75
493207038	W-76
493207039	W-77
493207040	W-78
1204408373	Method Blank (MB)**ICP**
1204408374	Laboratory Control Sample (LCS)
1204408377	493207022(W-38L) Serial Dilution (SD)
1204408375	493207022(W-38S) Matrix Spike (MS)
1204408376	493207022(W-38SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3005A/6010D
Analytical Procedure: GL-MA-E-013 REV# 31
Analytical Batch: 1928597

Preparation Method: SW846 3005A
Preparation Procedure: GL-MA-E-006 REV# 14
Preparation Batch: 1928596

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207041	W-79
493207042	W-80
493207043	W-81
493207044	W-82
493207045	W-83
493207046	W-84
493207047	W-87
493207048	W-92
493207049	W-93
493207050	W-96
493207051	W-97
493207052	EB-01-1008919
1204408378	Method Blank (MB)**ICP**
1204408379	Laboratory Control Sample (LCS)
1204408382	493207041(W-79L) Serial Dilution (SD)
1204408380	493207041(W-79S) Matrix Spike (MS)
1204408381	493207041(W-79SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

Continuing Calibration Blanks (CCB) Requirements
The continuing calibration blank (CCB) bracketing the sample in this SDG did not meet the acceptance criteria. The samples bracketed by this CCB, however, contained the analyte less than the RDL. This indicates that any contribution to the concentration of these analytes in the samples from potential laboratory contamination would be minimal. 493207052 (EB-01-1008919). All continuing calibration blanks(CCB) bracketing the sample in this SDG did not meet the acceptance criteria for sodium. The samples bracketed by this CCB, however, contained the element with a concentration at least ten times greater than the concentration in the CCB. This indicates that

any contribution to the concentration of these elements in the samples from potential laboratory contamination would be minimal.

Quality Control (QC) Information

Method Blank (MB) Statement
The samples in this SDG contained analytes at concentrations more than ten times the amount present in the method blank, therefore the data was not adversely affected. 493207041 (W-79), 493207042 (W-80), 493207043 (W-81), 493207044 (W-82), 493207045 (W-83), 493207046 (W-84), 493207047 (W-87), 493207048 (W-92), 493207049 (W-93), 493207050 (W-96) and 493207051 (W-97). The samples in this SDG did not contain the above noted analytes at concentrations higher than the RDL, therefore the data was not adversely affected. 493207052 (EB-01-1008919).

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3010A/6020B
Analytical Procedure: GL-MA-E-014 REV# 33
Analytical Batch: 1928643

Preparation Method: SW846 3010A
Preparation Procedure: GL-MA-E-008 REV# 19
Preparation Batch: 1928642

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207001	W-RW1
493207002	W-RW2
493207003	W-3A
493207004	W-4
493207005	W-6
493207006	W-7A
493207007	W-10
493207008	W-10 Dup
493207009	W-11
493207010	W-13R
493207011	W-18R
493207012	W-22
493207013	W-24
493207014	W-27
493207015	W-28
493207016	W-29
493207017	W-30
493207018	W-32
493207019	W-35
493207020	W-36
1204408493	Method Blank (MB)**ICP-MS**
1204408494	Laboratory Control Sample (LCS)
1204408497	493207001(W-RW1L) Serial Dilution (SD)
1204408495	493207001(W-RW1S) Matrix Spike (MS)
1204408496	493207001(W-RW1SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3010A/6020B
Analytical Procedure: GL-MA-E-014 REV# 33
Analytical Batch: 1928646

Preparation Method: SW846 3010A
Preparation Procedure: GL-MA-E-008 REV# 19
Preparation Batch: 1928645

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207021	W-37
493207022	W-38
493207023	W-45
493207024	W-51
493207025	W-52
493207026	W-53
493207027	W-54
493207028	W-54-Dup
493207029	W-55
493207030	W-56
493207031	W-57
493207032	W-58
493207033	W-59
493207034	W-72
493207035	W-73
493207036	W-74
493207037	W-75
493207038	W-76
493207039	W-77
493207040	W-78
1204408503	Method Blank (MB)**ICP-MS**
1204408504	Laboratory Control Sample (LCS)
1204418212	Laboratory Control Sample (LCS)
1204408507	493207022(W-38L) Serial Dilution (SD)
1204408505	493207022(W-38S) Matrix Spike (MS)
1204418213	493207022(W-38S) Matrix Spike (MS)
1204408506	493207022(W-38SD) Matrix Spike Duplicate (MSD)
1204418214	493207022(W-38SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Technical Information

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 493207029 (W-55), 493207030 (W-56) and 493207039 (W-77) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.

Analyte	493207		
	029	030	039
Uranium-235	10X	10X	20X
Uranium-238	10X	10X	20X

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3010A/6020B
Analytical Procedure: GL-MA-E-014 REV# 33
Analytical Batch: 1928649

Preparation Method: SW846 3010A
Preparation Procedure: GL-MA-E-008 REV# 19
Preparation Batch: 1928648

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207041	W-79
493207042	W-80
493207043	W-81
493207044	W-82
493207045	W-83
493207046	W-84
493207047	W-87
493207048	W-92
493207049	W-93
493207050	W-96
493207051	W-97
493207052	EB-01-1008919

1204408512	Method Blank (MB)**ICP-MS**
1204408513	Laboratory Control Sample (LCS)
1204408516	493207041(W-79L) Serial Dilution (SD)
1204408514	493207041(W-79S) Matrix Spike (MS)
1204408515	493207041(W-79SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3010A/6020B
Analytical Procedure: GL-MA-E-014 REV# 33
Analytical Batch: 1932179

Preparation Method: SW846 3010A
Preparation Procedure: GL-MA-E-008 REV# 19
Preparation Batch: 1932178

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207041	W-79
493207042	W-80
493207043	W-81
493207044	W-82
493207045	W-83
493207046	W-84
493207047	W-87
493207048	W-92
493207049	W-93
493207050	W-96
493207051	W-97
493207052	EB-01-1008919
1204416531	Method Blank (MB)**ICP-MS**
1204416532	Laboratory Control Sample (LCS)
1204416535	493207042(W-80L) Serial Dilution (SD)
1204416533	493207042(W-80S) Matrix Spike (MS)
1204416534	493207042(W-80SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3010A/6020B
Analytical Procedure: GL-MA-E-014 REV# 33
Analytical Batch: 1932181

Preparation Method: SW846 3010A
Preparation Procedure: GL-MA-E-008 REV# 19
Preparation Batch: 1932180

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207001	W-RW1
493207002	W-RW2
493207003	W-3A
493207004	W-4
493207005	W-6
493207006	W-7A
493207007	W-10
493207008	W-10 Dup
493207009	W-11
493207010	W-13R
493207011	W-18R
493207012	W-22
493207013	W-24
493207014	W-27
493207015	W-28
493207016	W-29
493207017	W-30
493207018	W-32
493207019	W-35
493207020	W-36
1204416536	Method Blank (MB)**ICP-MS**
1204416537	Laboratory Control Sample (LCS)
1204416540	493207002(W-RW2L) Serial Dilution (SD)
1204416538	493207002(W-RW2S) Matrix Spike (MS)
1204416539	493207002(W-RW2SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7470A
Analytical Procedure: GL-MA-E-010 REV# 38
Analytical Batch: 1932140

Preparation Method: SW846 7470A Prep
Preparation Procedure: GL-MA-E-010 REV# 38
Preparation Batch: 1932138

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207001	W-RW1
493207002	W-RW2
493207003	W-3A
493207004	W-4
493207005	W-6
493207006	W-7A
493207007	W-10
493207008	W-10 Dup
493207009	W-11
493207010	W-13R
493207011	W-18R
493207012	W-22
493207013	W-24
493207014	W-27
493207015	W-28
493207016	W-29
493207017	W-30
493207018	W-32
493207019	W-35
493207020	W-36
1204416444	Method Blank (MB)**CVAA**
1204416445	Laboratory Control Sample (LCS)
1204416448	493207001(W-RW1L) Serial Dilution (SD)
1204416446	493207001(W-RW1D) Sample Duplicate (DUP)
1204416447	493207001(W-RW1S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7470A
Analytical Procedure: GL-MA-E-010 REV# 38
Analytical Batch: 1932146

Preparation Method: SW846 7470A Prep
Preparation Procedure: GL-MA-E-010 REV# 38
Preparation Batch: 1932143

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207021	W-37
493207022	W-38
493207023	W-45
493207024	W-51
493207025	W-52
493207026	W-53
493207027	W-54
493207028	W-54-Dup
493207029	W-55
493207030	W-56
493207031	W-57
493207032	W-58
493207033	W-59
493207034	W-72
493207035	W-73
493207036	W-74
493207037	W-75
493207038	W-76
493207039	W-77
493207040	W-78
1204416466	Method Blank (MB)**CVAA**
1204416467	Laboratory Control Sample (LCS)
1204416470	493207022(W-38L) Serial Dilution (SD)
1204416468	493207022(W-38D) Sample Duplicate (DUP)
1204416469	493207022(W-38S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7470A
Analytical Procedure: GL-MA-E-010 REV# 38
Analytical Batch: 1932150

Preparation Method: SW846 7470A Prep
Preparation Procedure: GL-MA-E-010 REV# 38
Preparation Batch: 1932148

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207041	W-79
493207042	W-80
493207043	W-81
493207044	W-82
493207045	W-83
493207046	W-84
493207047	W-87
493207048	W-92
493207049	W-93
493207050	W-96
493207051	W-97
493207052	EB-01-1008919
1204416482	Method Blank (MB)**CVAA**
1204416483	Laboratory Control Sample (LCS)
1204416636	493207048(W-92L) Serial Dilution (SD)
1204416634	493207048(W-92D) Sample Duplicate (DUP)
1204416635	493207048(W-92S) Matrix Spike (MS)
1204416637	493207048(W-92PS) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement
The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike also did not meet the required control limits; thus, confirming matrix interferences and/or sample non-homogeneity.

Sample	Analyte	Value
1204416635 (W-92MS)	Mercury	56.6* (75%-125%)

Post Spike (PS) Recovery Statement

The percent recoveries (%R) obtained from the PS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The PS did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes and verifies the presence of matrix interferences.

Sample	Analyte	Value
1204416637 (W-92PS)	Mercury	54.3* (80%-120%)

Radiochemistry

Product: **Alphaspec U, Liquid**
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Procedure: GL-RAD-A-011 REV# 27
Analytical Batch: 1929062

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207001	W-RW1
493207002	W-RW2
493207003	W-3A
493207004	W-4
493207005	W-6
493207006	W-7A
493207007	W-10
493207008	W-10 Dup
493207009	W-11
493207010	W-13R
493207011	W-18R
493207012	W-22
493207013	W-24
493207014	W-27
493207015	W-28
493207016	W-29
493207017	W-30
493207018	W-32
493207019	W-35
493207020	W-36
1204409563	Method Blank (MB)
1204409564	493207001(W-RW1) Sample Duplicate (DUP)
1204409565	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Samples 493207011 (W-18R), 493207012 (W-22) and 493207017 (W-30) were recounted due to a peak shift. The recounts are reported. Sample 1204409564 (W-RW1DUP) was recounted due to a high MDA and then again due to a high relative percent difference/relative error ratio. The recount is reported.

Product: **Alphaspec U, Liquid**
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Procedure: GL-RAD-A-011 REV# 27
Analytical Batch: 1929063

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207021	W-37
493207022	W-38
493207023	W-45
493207024	W-51
493207025	W-52
493207026	W-53
493207027	W-54
493207028	W-54-Dup
493207029	W-55
493207030	W-56
493207031	W-57
493207032	W-58
493207033	W-59
493207034	W-72
493207035	W-73
493207036	W-74
493207037	W-75
493207038	W-76
493207039	W-77
493207040	W-78
1204409568	Method Blank (MB)
1204409569	493207022(W-38) Sample Duplicate (DUP)
1204409570	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Samples 493207028 (W-54-Dup), 493207029 (W-55) and 493207033 (W-59) were recounted due to a peak shift. The recounts are reported.

Miscellaneous Information

Additional Comments
The tracer peak centroid for sample 493207026 (W-53) is greater than 50 keV from the expected library energy value for the tracer; however, the tracer yield requirement was met and the tracer peak is within the tracer region of interest.

Product: **Alphaspec U, Liquid**
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Procedure: GL-RAD-A-011 REV# 27
Analytical Batch: 1929066

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207041	W-79
493207042	W-80
493207043	W-81
493207044	W-82
493207045	W-83
493207046	W-84
493207047	W-87
493207048	W-92
493207049	W-93
493207050	W-96
493207051	W-97
493207052	EB-01-1008919
1204409576	Method Blank (MB)
1204409577	493207048(W-92) Sample Duplicate (DUP)
1204409578	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Sample 493207045 (W-83) was recounted to verify sample results. Recount is reported. Samples 1204409577 (W-92DUP) and 493207041 (W-79) were recounted due to a suspected false positive. The recounts are reported.

Product: **GFPC, Gross Alpha Liquid**
Analytical Method: EPA 900.0/SW846 9310
Analytical Procedure: GL-RAD-A-001 REV# 20
Analytical Batch: 1932118

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207001	W-RW1
493207002	W-RW2
493207003	W-3A
493207004	W-4
493207005	W-6
493207006	W-7A
493207007	W-10
493207008	W-10 Dup
493207009	W-11
493207010	W-13R
493207011	W-18R
493207012	W-22
493207013	W-24
493207014	W-27
493207015	W-28
493207016	W-29
493207017	W-30
493207018	W-32
493207019	W-35
493207020	W-36
1204416378	Method Blank (MB)
1204416379	493207019(W-35) Sample Duplicate (DUP)
1204416380	493207019(W-35) Matrix Spike (MS)
1204416381	493207019(W-35) Matrix Spike Duplicate (MSD)
1204416382	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Preparation Information

Aliquot Reduced
493207006 (W-7A) and 493207011 (W-18R) aliquot volumes were reduced due to the sample matrix.

Quality Control (QC) Information

Duplication Criteria between QC Sample and Duplicate Sample
The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value

1204416379 (W-35DUP)	ALPHA	RPD 122* (0.0%-100.0%) RER 1.78 (0-3)

RDL Met
Sample (See Below) did not meet the required detection limit due to low sample volume. No more volume could be used due to not exceeding the maximum net weight limit of the calibration curve. The sample counted for 500 minutes.

Sample	Analyte	Value
493207011 (W-18R)	ALPHA	Result 11.9 < MDA 13.2 > RDL 5 pCi/L
	ALPHA	Result 7.67 < MDA 9.58 > RDL 5 pCi/L

Technical Information

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Recounts
Samples 493207005 (W-6), 493207006 (W-7A), 493207007 (W-10), 493207008 (W-10 Dup), 493207009 (W-11), 493207010 (W-13R), 493207011 (W-18R) and 493207018 (W-32) were recounted due to beta results greater than 50 pCi/L. Both counts are reported.

Miscellaneous Information

Additional Comments
The matrix spike and matrix spike duplicate, 1204416380 (W-35MS) and 1204416381 (W-35MSD), aliquots were reduced to conserve sample volume.

Product: **GFPC, Gross Alpha Liquid**
Analytical Method: EPA 900.0/SW846 9310
Analytical Procedure: GL-RAD-A-001 REV# 20
Analytical Batch: 1932119

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207021	W-37
493207022	W-38
493207023	W-45
493207024	W-51
493207025	W-52
493207026	W-53
493207027	W-54
493207028	W-54-Dup

493207029	W-55
493207030	W-56
493207031	W-57
493207032	W-58
493207033	W-59
493207034	W-72
493207035	W-73
493207036	W-74
493207037	W-75
493207038	W-76
493207039	W-77
493207040	W-78
1204416383	Method Blank (MB)
1204416384	493207022(W-38) Sample Duplicate (DUP)
1204416385	493207022(W-38) Matrix Spike (MS)
1204416386	493207022(W-38) Matrix Spike Duplicate (MSD)
1204416387	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Recounts
Samples 1204416386 (W-38MSD) and 1204416387 (LCS) were recounted due to high recovery. The recounts are reported. Samples 493207029 (W-55), 493207030 (W-56), 493207033 (W-59) and 493207039 (W-77) were recounted due to alpha results greater than 15 pCi/L and/or beta greater than 50 pCi/L. Both counts are reported.

Miscellaneous Information

Additional Comments
The matrix spike and matrix spike duplicate, 1204416385 (W-38MS) and 1204416386 (W-38MSD), aliquots were reduced to conserve sample volume.

Product: **GFPC, Gross Alpha Liquid**
Analytical Method: EPA 900.0/SW846 9310
Analytical Procedure: GL-RAD-A-001 REV# 20
Analytical Batch: 1935052

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207041	W-79
493207042	W-80
493207043	W-81
493207044	W-82
493207045	W-83
493207046	W-84
493207047	W-87
493207048	W-92
493207049	W-93
493207050	W-96
493207051	W-97
493207052	EB-01-1008919
1204423416	Method Blank (MB)
1204423417	493207048(W-92) Sample Duplicate (DUP)
1204423418	493207048(W-92) Matrix Spike (MS)
1204423419	493207048(W-92) Matrix Spike Duplicate (MSD)
1204423420	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Re-prep/Re-analysis
Samples were reprepped due to high relative percent difference/relative error ratio. The re-analysis is being reported.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information

Additional Comments
The matrix spike and matrix spike duplicate, 1204423418 (W-92MS) and 1204423419 (W-92MSD), aliquots were reduced to conserve sample volume.

Product: **Liquid Scint Tc99, Liquid**
Analytical Method: DOE EML HASL-300, Tc-02-RC Modified
Analytical Procedure: GL-RAD-A-059 REV# 5

Analytical Batch: 1928954

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207001	W-RW1
493207002	W-RW2
493207003	W-3A
493207004	W-4
493207005	W-6
493207006	W-7A
493207007	W-10
493207008	W-10 Dup
493207009	W-11
493207010	W-13R
493207011	W-18R
493207012	W-22
493207013	W-24
493207014	W-27
493207015	W-28
493207016	W-29
493207017	W-30
493207018	W-32
493207019	W-35
493207020	W-36
1204409229	Method Blank (MB)
1204409230	493207001(W-RW1) Sample Duplicate (DUP)
1204409231	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Samples 1204409230 (W-RW1DUP), 493207001 (W-RW1), 493207002 (W-RW2), 493207004 (W-4), 493207005 (W-6), 493207006 (W-7A), 493207007 (W-10), 493207008 (W-10 Dup), 493207009 (W-11), 493207010 (W-13R), 493207011 (W-18R), 493207012 (W-22), 493207017 (W-30), 493207018 (W-32) and 493207019 (W-35) were recounted to verify sample results. Recounts are reported.

Product: **Liquid Scint Tc99, Liquid**
Analytical Method: DOE EML HASL-300, Tc-02-RC Modified
Analytical Procedure: GL-RAD-A-059 REV# 5
Analytical Batch: 1928956

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207021	W-37
493207022	W-38
493207023	W-45
493207024	W-51
493207025	W-52
493207026	W-53
493207027	W-54
493207028	W-54-Dup
493207029	W-55
493207030	W-56
493207031	W-57
493207032	W-58
493207033	W-59
493207034	W-72
493207035	W-73
493207036	W-74
493207037	W-75
493207038	W-76
493207039	W-77
493207040	W-78
1204409238	Method Blank (MB)
1204409239	493207022(W-38) Sample Duplicate (DUP)
1204409240	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Sample 493207034 (W-72) was recounted due to high MDC. The recount is reported. Sample 493207039 (W-77) was recounted to verify sample results. Recount is reported.

Product: **Liquid Scint Tc99, Liquid**
Analytical Method: DOE EML HASL-300, Tc-02-RC Modified
Analytical Procedure: GL-RAD-A-059 REV# 5
Analytical Batch: 1928959

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207041	W-79
493207042	W-80

493207043	W-81
493207044	W-82
493207045	W-83
493207046	W-84
493207047	W-87
493207048	W-92
493207049	W-93
493207050	W-96
493207051	W-97
493207052	EB-01-1008919
1204409247	Method Blank (MB)
1204409248	493207048(W-92) Sample Duplicate (DUP)
1204409249	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Sample 493207051 (W-97) was recounted due to high MDC. The recount is reported.

Product: **LSC, Tritium Dist, Liquid**
Analytical Method: EPA 906.0 Modified
Analytical Procedure: GL-RAD-A-002 REV# 23
Analytical Batch: 1929020

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493207002	W-RW2
493207006	W-7A
493207007	W-10
493207008	W-10 Dup
493207010	W-13R
493207011	W-18R
493207012	W-22
493207013	W-24
493207016	W-29
493207017	W-30
493207018	W-32
1204409431	Method Blank (MB)
1204409432	493207002(W-RW2) Sample Duplicate (DUP)
1204409433	493207002(W-RW2) Matrix Spike (MS)
1204409434	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: 1 of 7

Project #: ENV-CONSENTA
GEL Quote #:
QAC Number [1]:
PO Number: 4500778461-

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number: 493207

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC — Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility — Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: — Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI: isotopic uranium (alpha spec)	NI: isotopic uranium (by individual isotope, ICP MS)	NI: gross alpha	NI: gross beta	NI: Tc-99	NI: Total U (by ICP-MS)	IN: TAL Metals	Tritium			<-- Preservative Type (6)
W-WR1	10/3/19	1043	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R.Crews
W-WR2	10/11/19	1218	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R.Crews
W-3A	10'10'19	1340	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-4	10/10/19&10/11/19	1110/1515	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart Tal Metals @1515on10/10 Rad @1110 on 1
W-6	10/7/19	0930	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-7A	10/9/19	1400	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by J. Leaphart
W-10	10/9/19	1155	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by J. Leaphart
W-10 Dup	10/9/19	1155	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by J. Leaphart
W-11	10/8/19	1445	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: X Rush: ____ Specify: ____
(Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable:
C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
Eastern Pacific
Central Other ____
Mountain

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	R Crews	10/16/19	1042	Secure Location	10/16/19	1042
2	Secure Location	10/16/19	1110		10/16/19	1110
3		10/16/19	1629		10/16/19	1629

Sample Shipping and Delivery Details

GEL PM: Hope Taylor
Method of Shipment: Date Shipped: N/A
Airbill #:
Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B**, **6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? *YES* *NO*
Cooler Temp: *C*

Project #: ENV-CONSENTA
GEL Quote #:
COC Number [1]:
PO Number: 4500778461

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC   Phone #: 803.647.1920
Project/Site Name: Columbia Fuel Fabrication Facility   Fax #: 803.695.3964
Address: 5801 Bluff Road, Hopkins, SC 29061
Collected by: Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	isotopic uranium (alpha spec)	isotopic uranium (by individual isotope, ICP-MS)	gross alpha	gross beta	Tc-99	Total U (by ICP-MS)	TAL Metals	Tritium			Comments Note: extra sample is required for sample specific QC
									NI	NI	NI	NI	NI	NI	NI				<-- Preservative Type (6)
W-13R	10/8/19	1409	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews
W-18R	10/7/19	1225	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by J. Leaphart
W-22	10'7'19	1045	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by J. Leaphart
W-24	10/11/19	1001	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews
W-27	10/10/19	1140	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-28	10/7/19	1443	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-29	10/7/19	1253	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews
W-30	10/7/2019	1009	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews
W-32	10/8/19	1335	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by J. Leaphart

TAT Requested: Normal: _X_ Rush: ___ Specify: _ASAP_
(Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable:
C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
Eastern   Pacific
Central   Other ________
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
R Crews	10/16/19	1042	secure location	10/16/19	1042
2 secure location	10/16/19	1110	2 [signature]	10-16-19	1110
3 [signature]	10-16-19	1629	3 [signature]	10/16/19	1629

Sample Shipping and Delivery Details

GEL PM: Hope Taylor
Method of Shipment: Date Shipped: N/A
Airbill #:
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite
3.) Field Filtered: For liquid matrices, indicate with a - **Y** - for yes the sample was field filtered or - **N** - for sample was not field filtered.
4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).
6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact?
YES   NO
Cooler Temp:
C

Page: 3 of 7

Project #: ENV-CONSENTA
GEL Quote #:
COC Number (1):
PO Number: 4500778461

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: Send Results: joynerdp@westinghouse.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI: isotopic uranium (alpha spec)	NI: isotopic uranium (by individual isotope, ICP MS)	NI: gross alpha	NI: gross beta	NI: Tc-99	NI: Total U (by ICP-MS)	IN: TAL Metals	Tritium			<-- Preservative Type (6)
W-35	10/2/19	1355	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-36	10/2/19	1408	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-37	10/2/19	1525	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-38	10/4/19	1305	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-38-MS	10/4/19	1305	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-38-MSD	10/4/19	1305	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-45	10/2/19	1200	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-51	10/3/19	1155	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-52	10/3/19	1255	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: _X_ Rush: ___ Specify: _ASAP_
(Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable:
C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
Eastern Pacific
Central Other _____
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 R. Crews	10/16/19	1042	Secure Location	10/16/19	1042
2 Secure Location	10/16/19	1110	2	10-16-19	1110
3	10-16-19	1629	3	10/16/19	1629

Sample Shipping and Delivery Details

GEL PM: Hope Taylor

Method of Shipment: Date Shipped: N/A

Airbill #:

Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a - **Y** - for yes the sample was field filtered or - **N** - for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A)** and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact?
YES *NO*

Cooler Temp:
C

Page: 4 of 7

Project #: ENV-CONSENTA
GEL Quote #:
COC Number [1]:
PO Number: 4500778461

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC — Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility — Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: — Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI: isotopic uranium (alpha spec)	NI: isotopic uranium (by individual isotope, ICP MS)	NI: gross alpha	NI: gross beta	NI: Tc-99	NI: Total U (by ICP-MS)	IN: TAL Metals	Tritium			<-- Preservative Type (6)
W-53	10/3/19	1258	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-54	10/4/19	1350	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-54-Dup	10/4/19	1350	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-55	10/4/19	1140	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-56	10/4/19	1106	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-57	10/3/19	1415	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-58	10/4/19	0920	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-59	10/5/19	0930	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-72	10/4/19	1035	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: _X__ Rush: ___ Specify: _ASAP_
(Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable:
C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
Eastern Pacific
Central Other _____
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 R. Crews	10/16/19	1542	Secure Location	10/16/19	1042
2 Secure Location	10/16/19	1110	2	10-16-19 10/16/19	1110
3	10-16-19	1629	3		1629

Sample Shipping and Delivery Details

GEL PM: Hope Taylor
Method of Shipment:
Date Shipped: N/A
Airbill #:
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite
3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.
4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).
6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact?
YES *NO*
Cooler Temp:
C

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Page: 5 of 7

Project #: ENV-CONSENTA
GEL Quote #:
COC Number [1]:
PO Number: 4500778461

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC — Phone #: 803.647.1920
Project/Site Name: Columbia Fuel Fabrication Facility — Fax #: 803.695.3964
Address: 5801 Bluff Road, Hopkins, SC 29061
Collected by: — Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI isotopic uranium (alpha spec)	NI isotopic uranium (by individual isotope, ICP-MS)	NI gross alpha	NI gross beta	NI Tc-99	NI Total U (by ICP-MS)	IN TAL Metals	Tritium			<-- Preservative Type (6)
W-73	10/4/19	0945	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-74	10/9/19	0915	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-75	10/9/19	1025	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-76	10/5/19	1049	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-77	10/6/19	1205	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-78	10/5/19	1159	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-79	10/7/19	1400	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-80	10/6/19	0847	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-81	10/8/19	0946	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: _X_ Rush: ___ Specify: _ASAP_
(Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable:
C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
Eastern Pacific
Central Other _____
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 R. Crews	10/16/19	1042	Secure Location	10/16/19	1042
2 Secure Location	10/16/19	1110	2	10.16.19	1110
3	10.16.19	1629	3	10/16/19	1629

Sample Shipping and Delivery Details

GEL PM: Hope Taylor
Method of Shipment: — Date Shipped: N/A
Airbill #:
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite
3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.
4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B**, **6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).
6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact?
YES *NO*
Cooler Temp:
C

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Project #: ENV-CONSENTA
GEL Quote #:
COC Number [1]:
PO Number: 4500778641

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC — Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility — Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: — Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI: isotopic uranium (alpha spec)	NI: isotopic uranium (by individual isotope, ICP-MS)	NI: gross alpha	NI: gross beta	NI: Tc-99	NI: Total U (by ICP-MS)	IN: TAL Metals	Tritium			<-- Preservative Type (6)
W-82	10/8/19	0945	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-83	10/8/19	1155	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-84	10/8/19	1219	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-87	10/2/19	0946/1300	G	N	GW			3	X	X	X	X	X	X	X				TAL METALS SAMPLED @1300 by J. Leapha
W-92	10/10/19	0930	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-92-MS	10/10/19	0930	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-92-MS-MSD	10/10/19	0930	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-93	10/6/19	1354	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-96	10/11/19	1420	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: _X_ Rush: ___ Specify: _ASAP_
(Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable:
C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
Eastern Pacific
Central Other _____
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 R. Crews	10/16/19	1042	Secure Location	10/16/19	1042
2 Secure Location	10/16/19	1110	2	10-16-19	1110
3	10-16-19	1627	3	10/16/19	1627

Sample Shipping and Delivery Details

GEL PM: Hope Taylor
Method of Shipment: — Date Shipped: N/A
Airbill #:
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite
3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.
4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B**, **6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).
6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact?
YES *NO*
Cooler Temp: *C*

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Page: ___7___ of ___7___

Project #: ENV-CONSENTA
GEL Quote #: ____
COC Number [1]: ____
PO Number: 4500778461

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC — Phone #: 803.647.1920
Project/Site Name: Columbia Fuel Fabrication Facility — Fax #: 803.695.3964
Address: 5801 Bluff Road, Hopkins, SC 29061
Collected by: — Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	TSCA Regulated	Total number of containers	isotopic uranium (alpha spec)	isotopic uranium (by individual isotope, ICP-MS)	gross alpha	gross beta	Tc-99	Total U (by ICP-MS)	TAL Metals	Tritium			Comments Note: extra sample is required for sample specific QC
<-- Preservative Type (6)									NI	NI	NI	NI	NI	NI	NI				
W-97	10/11/19	1225	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
EB-01-100819	10/8/19	1100	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart

TAT Requested: Normal: _X_ Rush: ___ Specify: _ASAP_ (Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: Eastern, Pacific, Central, Other ____, Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1. R. Crews [signature]	10/16/19	1042	Secure Locatin	10/16/19	1042
2 Secure Location	10/16/19	1110	2 [signature]	10/16/19	1110
3 [signature]	10-16-19	1629	3 [signature]	10/16/19	1629

Sample Shipping and Delivery Details

GEL PM: Hope Taylor
Method of Shipment: — Date Shipped: N/A
Airbill #:
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite
3.) Field Filtered: For liquid matrices, indicate with a - **Y** - for yes the sample was field filtered or - **N** - for sample was not field filtered.
4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal
5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B**, **6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).
6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? *YES* *NO*
Cooler Temp: ____ *C*

GEL Laboratories LLC

HT **SAMPLE RECEIPT & REVIEW FORM** 493207

Client: WNUC	**SDG/AR/COC/Work Order:**
Received By: AJA	**Date Received:** 10/16/19
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services (Courier) Other

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	**Comments/Qualifiers (Required for Non-Conforming Items)**
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*		✓		Preservation Method: (Wet Ice) Ice Packs Dry ice (None) Other: *all temperatures are recorded in Celsius TEMP: rchem -23° metals -1°
4	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: IR4-16 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?			✓	ID's and containers affected: W-WR1 samples have W-RW1 on bottles, one metals bottle for W-54-Dup has W-54
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided?			✓	
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials SH Date 10/22/19 Page 1 of 1

GL-CHL-SR-001 Rev 6

List of current GEL Certifications as of 13 November 2019

State	Certification
Alaska	17−018
Alaska Drinking Water	SC00012
Arkansas	88−0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH−0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330−15−00283, P330−15−00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C−SC−01
Kansas NELAP	E−10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M−SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE−OS−26−13
Nevada	SC000122020−1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R−158
Oklahoma	2019−165
Pennsylvania NELAP	68−00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235−19−15
Utah NELAP	SC000122019−29
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171
F 843.766.1178

gel.com

November 21, 2019

Ms. Cynthia Logsdon
Westinghouse Electric Company, LLC
PO Drawer R
Columbia, South Carolina 29205

Re: ENV-CONSENTA
Work Order: 493970

Dear Ms. Logsdon:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 23, 2019. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4778.

Sincerely,

Hope Taylor
Project Manager

Purchase Order: 4500778461
Enclosures

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis Report
for

WNUC009 Westinghouse Electric Co, LLC

Client SDG: 493970 GEL Work Order: 493970

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

J See case narrative for an explanation

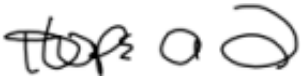
J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Hope Taylor.

Reviewed by 

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-14
Sample ID: 493970001
Matrix: Ground Water
Collect Date: 18-OCT-19 11:55
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1116	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1500	1930877	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		799	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		66000	50.0	200	ug/L	1.00	1					
Chromium	J	1.94	1.00	10.0	ug/L	1.00	1					
Cobalt		24.0	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		11900	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		18900	110	300	ug/L	1.00	1					
Manganese		3440	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.07	1.50	5.00	ug/L	1.00	1					
Potassium		17500	50.0	150	ug/L	1.00	1					
Selenium	J	6.14	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		15700	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	11.5	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.368	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0046	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1208	1930853	5
Uranium-238		0.368	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-14	Project:	WNUC01519
Sample ID:	493970001	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002		1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000		1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237		1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-20
Sample ID: 493970002
Matrix: Ground Water
Collect Date: 15-OCT-19 12:35
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1118	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1503	1930877	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		181	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		9740	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	3.69	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		229	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		6900	110	300	ug/L	1.00	1					
Manganese		420	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.29	1.50	5.00	ug/L	1.00	1					
Potassium		666	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		8600	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	7.63	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0048	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1210	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-20	Project:	WNUC01519
Sample ID:	493970002	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002		1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000		1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237		1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-23R
Sample ID: 493970003
Matrix: Ground Water
Collect Date: 18-OCT-19 10:30
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1119	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1506	1930877	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		53.8	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		1380	50.0	200	ug/L	1.00	1					
Chromium	J	1.96	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		852	110	300	ug/L	1.00	1					
Manganese	J	7.36	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		645	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.25	1.00	5.00	ug/L	1.00	1					
Sodium		8150	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.69	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0050	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1211	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-23R	Project:	WNUC01519
Sample ID:	493970003	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002		1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000		1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237		1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-25
Sample ID: 493970004
Matrix: Ground Water
Collect Date: 16-OCT-19 11:45
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1121	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		486	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1510	1930877	2
Antimony	J	4.52	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		94.0	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		12600	50.0	200	ug/L	1.00	1					
Chromium	J	1.95	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		19700	30.0	100	ug/L	1.00	1					
Lead	J	4.10	3.30	20.0	ug/L	1.00	1					
Magnesium		5040	110	300	ug/L	1.00	1					
Manganese		272	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		2500	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.56	1.00	5.00	ug/L	1.00	1					
Sodium		8090	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium		9.28	1.00	5.00	ug/L	1.00	1					
Zinc	J	16.0	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.295	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0052	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1213	1930853	5
Uranium-238		0.295	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-25 Project: WNUC01519
Sample ID: 493970004 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002	1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-26
Sample ID: 493970005
Matrix: Ground Water
Collect Date: 14-OCT-19 14:25
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1123	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		326	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1513	1930877	2
Antimony	J	3.64	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		197	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		16100	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	2.93	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	J	4.81	3.30	20.0	ug/L	1.00	1					
Magnesium		5570	110	300	ug/L	1.00	1					
Manganese		239	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		8010	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.68	1.00	5.00	ug/L	1.00	1					
Sodium		21300	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.26	1.00	5.00	ug/L	1.00	1					
Zinc	U	ND	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0054	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1214	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-26 Project: WNUC01519
Sample ID: 493970005 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002		1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000		1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237		1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-33
Sample ID: 493970006
Matrix: Ground Water
Collect Date: 17-OCT-19 09:18
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1124	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1517	1930877	2
Antimony	J	4.02	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		181	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		12700	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5160	110	300	ug/L	1.00	1					
Manganese	J	4.55	2.00	10.0	ug/L	1.00	1					
Nickel	J	4.74	1.50	5.00	ug/L	1.00	1					
Potassium		2780	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		14400	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc		27.1	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0100	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1216	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-33	Project:	WNUC01519
Sample ID:	493970006	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002		1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000		1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237		1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-33-Dup
Sample ID: 493970007
Matrix: Ground Water
Collect Date: 17-OCT-19 09:18
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1129	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1521	1930877	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		201	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		14100	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5620	110	300	ug/L	1.00	1					
Manganese	J	5.08	2.00	10.0	ug/L	1.00	1					
Nickel		5.71	1.50	5.00	ug/L	1.00	1					
Potassium		2970	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		15300	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc		28.3	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0102	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1221	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-33-Dup
Sample ID: 493970007
Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002	1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-39
Sample ID: 493970008
Matrix: Ground Water
Collect Date: 18-OCT-19 11:21
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1131	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1532	1930877	2
Antimony	J	8.79	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		324	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		41500	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.52	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		7620	110	300	ug/L	1.00	1					
Manganese		43.4	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		3230	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		106000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	6.41	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0104	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1222	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-39	Project:	WNUC01519
Sample ID:	493970008	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002	1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-40
Sample ID: 493970009
Matrix: Ground Water
Collect Date: 15-OCT-19 12:33
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1133	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1537	1930877	2
Antimony	J	8.02	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		16.8	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		16700	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	J	5.76	3.30	20.0	ug/L	1.00	1					
Magnesium		2630	110	300	ug/L	1.00	1					
Manganese	U	ND	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		2820	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.17	1.00	5.00	ug/L	1.00	1					
Sodium		2210	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.25	1.00	5.00	ug/L	1.00	1					
Zinc	U	ND	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0106	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1224	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-40	Project:	WNUC01519
Sample ID:	493970009	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002		1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000		1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237		1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-41R
Sample ID: 493970010
Matrix: Ground Water
Collect Date: 14-OCT-19 13:45
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1134	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1541	1930877	2
Antimony	J	6.21	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		655	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		34600	50.0	200	ug/L	1.00	1					
Chromium	J	1.48	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		11000	110	300	ug/L	1.00	1					
Manganese	J	5.52	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		5240	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.08	1.00	5.00	ug/L	1.00	1					
Sodium		66600	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	7.38	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0108	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1225	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-41R
Sample ID: 493970010
Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002	1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-43
Sample ID: 493970011
Matrix: Ground Water
Collect Date: 18-OCT-19 10:03
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1136	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1545	1930877	2
Antimony	J	3.76	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		159	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		8770	50.0	200	ug/L	1.00	1					
Chromium	J	1.28	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		3590	110	300	ug/L	1.00	1					
Manganese	J	5.24	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		2650	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.05	1.00	5.00	ug/L	1.00	1					
Sodium		3020	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.53	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0110	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1227	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-43	Project:	WNUC01519
Sample ID:	493970011	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002	1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-44
Sample ID: 493970012
Matrix: Ground Water
Collect Date: 14-OCT-19 14:55
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1138	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1549	1930877	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		151	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		5460	50.0	200	ug/L	1.00	1					
Chromium	J	3.15	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	J	75.8	30.0	100	ug/L	1.00	1					
Lead	J	5.46	3.30	20.0	ug/L	1.00	1					
Magnesium		3060	110	300	ug/L	1.00	1					
Manganese	J	8.67	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		2850	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	2.18	1.00	5.00	ug/L	1.00	1					
Sodium		5570	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	U	ND	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0112	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1228	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-44	Project:	WNUC01519
Sample ID:	493970012	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002	1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-47
Sample ID: 493970013
Matrix: Ground Water
Collect Date: 17-OCT-19 12:10
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1139	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		571	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1553	1930877	2
Antimony	J	5.33	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		260	1.00	5.00	ug/L	1.00	1					
Beryllium	J	2.32	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		22300	50.0	200	ug/L	1.00	1					
Chromium	J	1.24	1.00	10.0	ug/L	1.00	1					
Cobalt		7.85	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		8890	110	300	ug/L	1.00	1					
Manganese		986	2.00	10.0	ug/L	1.00	1					
Nickel	J	3.35	1.50	5.00	ug/L	1.00	1					
Potassium		9220	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.53	1.00	5.00	ug/L	1.00	1					
Sodium		53900	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	4.29	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.27	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0114	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1230	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-47	Project:	WNUC01519
Sample ID:	493970013	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002	1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-50
Sample ID: 493970014
Matrix: Ground Water
Collect Date: 15-OCT-19 11:05
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1141	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1558	1930877	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		8.87	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		733	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	2.36	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		443	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		335	110	300	ug/L	1.00	1					
Manganese		10.4	2.00	10.0	ug/L	1.00	1					
Nickel	J	3.06	1.50	5.00	ug/L	1.00	1					
Potassium		670	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		3180	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	11.8	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.101	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0120	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1232	1930853	5
Uranium-238	J	0.101	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-50	Project:	WNUC01519
Sample ID:	493970014	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002		1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000		1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237		1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-60
Sample ID: 493970015
Matrix: Ground Water
Collect Date: 17-OCT-19 09:10
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1143	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1602	1930877	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		121	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		6900	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.82	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		3810	30.0	100	ug/L	1.00	1					
Lead	J	3.41	3.30	20.0	ug/L	1.00	1					
Magnesium		2210	110	300	ug/L	1.00	1					
Manganese		76.8	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		2400	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		7130	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.33	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0122	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1236	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-60 Project: WNUC01519
Sample ID: 493970015 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002		1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000		1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237		1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-61
Sample ID: 493970016
Matrix: Ground Water
Collect Date: 17-OCT-19 10:30
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1144	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1605	1930877	2
Antimony	J	5.44	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		216	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		10400	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		5.12	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		150	30.0	100	ug/L	1.00	1					
Lead	J	5.14	3.30	20.0	ug/L	1.00	1					
Magnesium		3310	110	300	ug/L	1.00	1					
Manganese		330	2.00	10.0	ug/L	1.00	1					
Nickel	J	4.81	1.50	5.00	ug/L	1.00	1					
Potassium		3850	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.75	1.00	5.00	ug/L	1.00	1					
Sodium		4000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	6.41	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0124	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1238	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-61	Project:	WNUC01519
Sample ID:	493970016	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002	1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-64
Sample ID: 493970017
Matrix: Ground Water
Collect Date: 17-OCT-19 13:25
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1149	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		785	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1616	1930877	2
Antimony	J	8.91	3.50	20.0	ug/L	1.00	1					
Arsenic	J	5.40	5.00	30.0	ug/L	1.00	1					
Barium		394	1.00	5.00	ug/L	1.00	1					
Beryllium	J	2.35	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		22900	50.0	200	ug/L	1.00	1					
Chromium	J	1.14	1.00	10.0	ug/L	1.00	1					
Cobalt		14.1	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	J	5.51	3.30	20.0	ug/L	1.00	1					
Magnesium		9060	110	300	ug/L	1.00	1					
Manganese		662	2.00	10.0	ug/L	1.00	1					
Nickel	J	3.94	1.50	5.00	ug/L	1.00	1					
Potassium		8640	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	2.50	1.00	5.00	ug/L	1.00	1					
Sodium		49100	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.35	1.00	5.00	ug/L	1.00	1					
Zinc	U	ND	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0126	1930853	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1239	1930853	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-64	Project:	WNUC01519
Sample ID:	493970017	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1002	1930876			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930852			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-65
Sample ID: 493970018
Matrix: Ground Water
Collect Date: 17-OCT-19 13:05
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1158	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/12/19	1158	1930879	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		93.7	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		8060	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.19	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		3680	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		2160	110	300	ug/L	1.00	1					
Manganese		193	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		2200	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		20900	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	3.98	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0809	1930855	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1442	1930855	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-65	Project:	WNUC01519
Sample ID:	493970018	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1000	1930878			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930854			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-66
Sample ID: 493970019
Matrix: Ground Water
Collect Date: 17-OCT-19 11:33
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury		0.284	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1200	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/12/19	1200	1930879	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		68.5	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		6730	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		2400	110	300	ug/L	1.00	1					
Manganese		15.4	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		1990	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		5430	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.35	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0811	1930855	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1443	1930855	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-66	Project:	WNUC01519
Sample ID:	493970019	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1000	1930878			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930854			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-67
Sample ID: 493970020
Matrix: Ground Water
Collect Date: 18-OCT-19 09:05
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	J	0.189	0.067	0.200	ug/L	1.00	1	MTM1	11/11/19	1201	1936546	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/12/19	1203	1930879	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		306	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		11500	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	4.77	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4130	110	300	ug/L	1.00	1					
Manganese		16.5	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.64	1.50	5.00	ug/L	1.00	1					
Potassium		4250	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		21900	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	6.72	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0813	1930855	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1445	1930855	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-67	Project:	WNUC01519
Sample ID:	493970020	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1000	1930878			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930854			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		CW2	11/08/19		1237	1936545			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-94
Sample ID: 493970021
Matrix: Ground Water
Collect Date: 15-OCT-19 09:00
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/07/19	1616	1935388	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/12/19	1143	1930879	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		114	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		5440	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.30	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		20900	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		2490	110	300	ug/L	1.00	1					
Manganese		431	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.94	1.50	5.00	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		8060	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.18	3.30	20.0	ug/L	1.00	1					
Potassium		1110	50.0	150	ug/L	1.00	1	LS	11/12/19	1306	1930879	3
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	4
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0815	1930855	5
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1450	1930855	6
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-94 Project: WNUC01519
Sample ID: 493970021 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1000	1930878			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930854			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/06/19		1400	1935387			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 3005A/6010D	
4	SW846 6020	
5	SW846 3010A/6020B	
6	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-95
Sample ID: 493970022
Matrix: Ground Water
Collect Date: 15-OCT-19 11:10
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/07/19	1630	1935388	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/12/19	1206	1930879	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		120	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		6230	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	2.24	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		42900	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		3880	110	300	ug/L	1.00	1					
Manganese		538	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.33	1.50	5.00	ug/L	1.00	1					
Potassium		1190	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		9960	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	U	ND	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.114	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0827	1930855	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1458	1930855	5
Uranium-238	J	0.114	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-95 Project: WNUC01519
Sample ID: 493970022 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1000	1930878			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930854			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/06/19		1400	1935387			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-01-101519
Sample ID: 493970023
Matrix: Ground Water
Collect Date: 15-OCT-19 09:20
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/07/19	1632	1935388	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/12/19	1208	1930879	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium	U	ND	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium	U	ND	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium	U	ND	110	300	ug/L	1.00	1					
Manganese	U	ND	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium	U	ND	50.0	150	ug/L	1.00	1					
Selenium	J	6.43	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium	U	ND	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.54	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0829	1930855	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1459	1930855	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-01-101519 Project: WNUC01519
Sample ID: 493970023 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1000	1930878			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930854			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/06/19		1400	1935387			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-01-101819
Sample ID: 493970024
Matrix: Ground Water
Collect Date: 18-OCT-19 09:05
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/07/19	1633	1935388	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/12/19	1211	1930879	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium	U	ND	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium	U	ND	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium	U	ND	110	300	ug/L	1.00	1					
Manganese	U	ND	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium	J	137	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium	U	ND	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	5.24	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0831	1930855	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1501	1930855	5
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-01-101819 Project: WNUC01519
Sample ID: 493970024 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1000	1930878			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930854			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/06/19		1400	1935387			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: WSW-01
Sample ID: 493970025
Matrix: Ground Water
Collect Date: 15-OCT-19 12:00
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	11/07/19	1635	1935388	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/12/19	1214	1930879	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium	J	3.87	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		380	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.99	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium	J	184	110	300	ug/L	1.00	1					
Manganese	J	3.99	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.09	1.50	5.00	ug/L	1.00	1					
Potassium		687	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		1620	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	5.83	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.272	0.067	0.200	ug/L			PRB	11/20/19	1648	1941237	3
SW846 3010A/6020B "As Received"												
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/20/19	0833	1930855	4
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	BAJ	11/20/19	1502	1930855	5
Uranium-238		0.272	0.067	0.200	ug/L	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	WSW-01	Project:	WNUC01519
Sample ID:	493970025	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		SM1	11/04/19		1000	1930878			
SW846 3010A		SW 846 3010 Acid Digestion		SM1	11/04/19		1000	1930854			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/06/19		1400	1935387			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-14
Sample ID: 493970001
Matrix: Ground Water
Collect Date: 18-OCT-19 11:55
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/12/19	0917	1931298	1
Uranium-233/234	U	0.0696	+/-0.156	0.279	0.500	pCi/L							
Uranium-235/236	U	-0.0412	+/-0.112	0.298	0.500	pCi/L							
Uranium-238	U	0.139	+/-0.165	0.241	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		4.27	+/-3.10	4.05	5.00	pCi/L			HXB2	11/13/19	1645	1934331	2
Beta		35.6	+/-4.35	3.97	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-4.64	+/-25.4	44.3	50.0	pCi/L			JJ3	11/10/19	0933	1931701	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			93.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			93.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-20	Project:	WNUC01519
Sample ID:	493970002	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	15-OCT-19 12:35		
Receive Date:	23-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/18/19	1231	1931298	1
Uranium-233/234	U	0.0228	+/-0.178	0.368	0.500	pCi/L							
Uranium-235/236	U	0.0276	+/-0.153	0.294	0.500	pCi/L							
Uranium-238	U	0.0995	+/-0.197	0.332	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.912	+/-1.46	2.64	5.00	pCi/L			HXB2	11/13/19	1645	1934331	2
Beta	U	3.22	+/-2.37	3.81	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-5.36	+/-25.9	45.2	50.0	pCi/L			JJ3	11/10/19	0955	1931701	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			75.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			92.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-23R
Sample ID: 493970003
Matrix: Ground Water
Collect Date: 18-OCT-19 10:30
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/12/19	0917	1931298	1
Uranium-233/234	U	0.0833	+/-0.169	0.274	0.500	pCi/L							
Uranium-235/236	U	-0.0126	+/-0.109	0.252	0.500	pCi/L							
Uranium-238	U	0.0221	+/-0.123	0.235	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.743	+/-0.580	2.32	5.00	pCi/L			HXB2	11/13/19	1645	1934331	2
Beta	U	1.68	+/-2.60	4.45	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-5.85	+/-25.0	43.7	50.0	pCi/L			JJ3	11/10/19	1017	1931701	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			68.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			94.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-25
Sample ID: 493970004
Matrix: Ground Water
Collect Date: 16-OCT-19 11:45
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/18/19	1231	1931298	1
Uranium-233/234	U	0.195	+/-0.208	0.260	0.500	pCi/L							
Uranium-235/236	U	0.0748	+/-0.172	0.273	0.500	pCi/L							
Uranium-238		0.269	+/-0.222	0.191	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		10.1	+/-4.00	4.75	5.00	pCi/L			HXB2	11/13/19	1600	1934331	2
Beta		7.27	+/-3.06	4.60	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-30.7	+/-24.3	44.1	50.0	pCi/L			JJ3	11/10/19	1039	1931701	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			87.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			93.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-26
Sample ID: 493970005
Matrix: Ground Water
Collect Date: 14-OCT-19 14:25
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/12/19	0917	1931298	1
Uranium-233/234	U	0.0497	+/-0.148	0.273	0.500	pCi/L							
Uranium-235/236	U	0.0344	+/-0.129	0.217	0.500	pCi/L							
Uranium-238	U	0.0381	+/-0.130	0.242	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.697	+/-2.54	4.97	5.00	pCi/L			HXB2	11/13/19	1641	1934331	2
Beta		12.5	+/-3.17	3.32	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	38.6	+/-267	479	700	pCi/L			RP1	11/04/19	1220	1931829	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-19.6	+/-24.3	43.4	50.0	pCi/L			JJ3	11/10/19	1101	1931701	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			86	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			93.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-33
Sample ID: 493970006
Matrix: Ground Water
Collect Date: 17-OCT-19 09:18
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/12/19	0917	1931298	1
Uranium-233/234	U	0.102	+/-0.160	0.240	0.500	pCi/L							
Uranium-235/236	U	0.0445	+/-0.125	0.134	0.500	pCi/L							
Uranium-238	U	0.0274	+/-0.103	0.173	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.89	+/-2.95	4.71	5.00	pCi/L			HXB2	11/15/19	0626	1938632	2
Beta		7.78	+/-3.14	4.28	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	-44.2	+/-253	468	700	pCi/L			RP1	11/04/19	1241	1931829	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-24.7	+/-22.2	40.1	50.0	pCi/L			JJ3	11/10/19	1123	1931701	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			81.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			97.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-33-Dup	Project:	WNUC01519
Sample ID:	493970007	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	17-OCT-19 09:18		
Receive Date:	23-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/12/19	0917	1931298	1
Uranium-233/234	U	0.0758	+/-0.163	0.281	0.500	pCi/L							
Uranium-235/236	U	0.0446	+/-0.125	0.134	0.500	pCi/L							
Uranium-238	U	0.0361	+/-0.101	0.108	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.51	+/-2.37	3.46	5.00	pCi/L			HXB2	11/15/19	0626	1938632	2
Beta		5.81	+/-2.57	3.43	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	137	+/-279	485	700	pCi/L			RP1	11/04/19	1303	1931829	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-9.79	+/-23.8	41.9	50.0	pCi/L			JJ3	11/10/19	1144	1931701	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			78.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			95.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-39
Sample ID: 493970008
Matrix: Ground Water
Collect Date: 18-OCT-19 11:21
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/18/19	1231	1931298	1
Uranium-233/234	U	-0.0592	+/-0.149	0.384	0.500	pCi/L							
Uranium-235/236	U	0.00196	+/-0.145	0.323	0.500	pCi/L							
Uranium-238	U	0.149	+/-0.176	0.190	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.22	+/-2.55	4.83	5.00	pCi/L			HXB2	11/13/19	1648	1934331	2
Beta		8.84	+/-2.75	3.49	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	174	+/-279	479	700	pCi/L			RP1	11/04/19	1324	1931829	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	0.726	+/-24.9	43.1	50.0	pCi/L			JJ3	11/10/19	1206	1931701	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			78.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			94.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-40
Sample ID: 493970009
Matrix: Ground Water
Collect Date: 15-OCT-19 12:33
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/12/19	0917	1931298	1
Uranium-233/234	U	0.0131	+/-0.129	0.273	0.500	pCi/L							
Uranium-235/236	U	0.0454	+/-0.128	0.136	0.500	pCi/L							
Uranium-238	U	0.129	+/-0.164	0.203	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.796	+/-1.87	3.62	5.00	pCi/L			HXB2	11/13/19	1648	1934331	2
Beta	U	3.44	+/-2.31	3.49	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-9.52	+/-24.8	43.7	50.0	pCi/L			JJ3	11/10/19	1228	1931701	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			90.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			94.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-41R
Sample ID: 493970010
Matrix: Ground Water
Collect Date: 14-OCT-19 13:45
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/16/19	1045	1931298	1
Uranium-233/234	U	0.0652	+/-0.197	0.365	0.500	pCi/L							
Uranium-235/236	U	0.0336	+/-0.217	0.444	0.500	pCi/L							
Uranium-238	U	0.0757	+/-0.200	0.359	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		8.93	+/-4.68	4.94	5.00	pCi/L			HXB2	11/13/19	1648	1934331	2
Beta		14.3	+/-3.29	3.48	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	223	+/-282	478	700	pCi/L			RP1	11/04/19	1346	1931829	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-3.57	+/-24.0	41.8	50.0	pCi/L			JJ3	11/10/19	1250	1931701	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			71	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			96.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-43
Sample ID: 493970011
Matrix: Ground Water
Collect Date: 18-OCT-19 10:03
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/12/19	0917	1931298	1
Uranium-233/234	U	-0.0235	+/-0.109	0.276	0.500	pCi/L							
Uranium-235/236	U	0.0698	+/-0.160	0.254	0.500	pCi/L							
Uranium-238	U	0.0475	+/-0.131	0.227	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.159	+/-1.55	3.22	5.00	pCi/L			HXB2	11/13/19	1649	1934331	2
Beta	U	3.16	+/-2.89	4.75	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	4.14	+/-257	466	700	pCi/L			RP1	11/04/19	1407	1931829	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-15.7	+/-27.0	47.8	50.0	pCi/L			JJ3	11/10/19	1312	1931701	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			83.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			82.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-44
Sample ID: 493970012
Matrix: Ground Water
Collect Date: 14-OCT-19 14:55
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/12/19	0917	1931298	1
Uranium-233/234	U	0.0335	+/-0.132	0.252	0.500	pCi/L							
Uranium-235/236	U	0.036	+/-0.135	0.227	0.500	pCi/L							
Uranium-238	U	0.0107	+/-0.112	0.234	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	3.47	+/-2.60	3.64	5.00	pCi/L			HXB2	11/13/19	1649	1934331	2
Beta	U	0.283	+/-2.20	4.05	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	-61.7	+/-271	501	700	pCi/L			RP1	11/05/19	0852	1931829	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-3.15	+/-24.4	42.5	50.0	pCi/L			JJ3	11/10/19	1334	1931701	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			79.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			94.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-47
Sample ID: 493970013
Matrix: Ground Water
Collect Date: 17-OCT-19 12:10
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/13/19	1038	1931298	1
Uranium-233/234	U	-0.0328	+/-0.0815	0.223	0.500	pCi/L							
Uranium-235/236	U	-0.00816	+/-0.0704	0.163	0.500	pCi/L							
Uranium-238	U	-0.033	+/-0.0625	0.193	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.24	+/-2.49	4.65	5.00	pCi/L			HXB2	11/13/19	1649	1934331	2
Beta		61.5	+/-6.07	4.27	5.00	pCi/L							
Alpha	U	1.95	+/-2.91	4.97	5.00	pCi/L			HXB2	11/14/19	0654	1934331	3
Beta		61.6	+/-5.06	4.07	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	137	+/-276	481	700	pCi/L			RP1	11/04/19	1450	1931829	4
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		94.2	+/-29.0	44.8	50.0	pCi/L			JJ3	11/10/19	1355	1931701	5

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	EPA 906.0 Modified	
5	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			106	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			94.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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Report Date: November 21, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-47	Project:	WNUC01519
Sample ID:	493970013	Client ID:	WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-50
Sample ID: 493970014
Matrix: Ground Water
Collect Date: 15-OCT-19 11:05
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/13/19	1038	1931298	1
Uranium-233/234	U	0.279	+/-0.280	0.355	0.500	pCi/L							
Uranium-235/236	U	0.0468	+/-0.176	0.295	0.500	pCi/L							
Uranium-238	U	0.201	+/-0.245	0.328	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	3.48	+/-2.64	3.78	5.00	pCi/L			HXB2	11/13/19	1649	1934331	2
Beta	U	0.072	+/-1.95	3.68	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-11.1	+/-26.9	47.3	50.0	pCi/L			JJ3	11/10/19	1417	1931701	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			69.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			90.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-60
Sample ID: 493970015
Matrix: Ground Water
Collect Date: 17-OCT-19 09:10
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/13/19	1038	1931298	1
Uranium-233/234	U	0.0248	+/-0.184	0.380	0.500	pCi/L							
Uranium-235/236	U	0.0418	+/-0.157	0.263	0.500	pCi/L							
Uranium-238	U	0.00356	+/-0.163	0.359	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.200	+/-1.71	3.76	5.00	pCi/L			HXB2	11/13/19	1649	1934331	2
Beta	U	1.38	+/-2.00	3.43	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-7.75	+/-25.8	45.3	50.0	pCi/L			JJ3	11/10/19	1439	1931701	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			77.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			90	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-61
Sample ID: 493970016
Matrix: Ground Water
Collect Date: 17-OCT-19 10:30
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/13/19	1038	1931298	1
Uranium-233/234	U	-0.0719	+/-0.0721	0.262	0.500	pCi/L							
Uranium-235/236	U	0.0596	+/-0.137	0.217	0.500	pCi/L							
Uranium-238	U	0.0254	+/-0.114	0.222	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.31	+/-2.04	3.62	5.00	pCi/L			HXB2	11/13/19	1649	1934331	2
Beta	U	0.862	+/-2.21	3.94	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-16.1	+/-25.5	45.3	50.0	pCi/L			JJ3	11/10/19	1501	1931701	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			102	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			92.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-64
Sample ID: 493970017
Matrix: Ground Water
Collect Date: 17-OCT-19 13:25
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/13/19	1038	1931298	1
Uranium-233/234	U	0.0871	+/-0.179	0.306	0.500	pCi/L							
Uranium-235/236	U	0.0256	+/-0.142	0.272	0.500	pCi/L							
Uranium-238	U	0.0239	+/-0.168	0.345	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	4.11	+/-3.49	4.95	5.00	pCi/L			HXB2	11/13/19	1649	1934331	2
Beta		70.3	+/-6.61	2.90	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		81.9	+/-28.9	45.6	50.0	pCi/L			JJ3	11/17/19	0525	1937355	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			70.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			80.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-65
Sample ID: 493970018
Matrix: Ground Water
Collect Date: 17-OCT-19 13:05
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/13/19	1038	1931298	1
Uranium-233/234	U	-0.0554	+/-0.0953	0.306	0.500	pCi/L							
Uranium-235/236	U	-0.04	+/-0.121	0.339	0.500	pCi/L							
Uranium-238	U	0.0898	+/-0.154	0.135	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.22	+/-2.01	3.60	5.00	pCi/L			JXK3	11/12/19	1544	1934335	2
Beta		7.14	+/-3.11	4.72	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-20.1	+/-24.1	43.0	50.0	pCi/L			JJ3	11/10/19	1545	1931701	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			77.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			95.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-66
Sample ID: 493970019
Matrix: Ground Water
Collect Date: 17-OCT-19 11:33
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/13/19	1038	1931298	1
Uranium-233/234	U	0.0479	+/-0.206	0.404	0.500	pCi/L							
Uranium-235/236	U	0.0022	+/-0.163	0.362	0.500	pCi/L							
Uranium-238	U	0.080	+/-0.182	0.312	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.144	+/-0.863	2.25	5.00	pCi/L			JXK3	11/12/19	1701	1934335	2
Beta	U	3.33	+/-2.40	3.85	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-10.5	+/-25.1	44.1	50.0	pCi/L			JJ3	11/10/19	1606	1931701	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			78.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			92.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-67
Sample ID: 493970020
Matrix: Ground Water
Collect Date: 18-OCT-19 09:05
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			HAKB	11/13/19	1038	1931298	1
Uranium-233/234	U	-0.0325	+/-0.102	0.270	0.500	pCi/L							
Uranium-235/236	U	0.00	+/-0.0856	0.127	0.500	pCi/L							
Uranium-238	U	0.0343	+/-0.0966	0.103	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.30	+/-1.94	2.72	5.00	pCi/L			JXK3	11/12/19	1701	1934335	2
Beta		73.7	+/-5.72	3.82	5.00	pCi/L							
Alpha	U	-0.411	+/-2.14	4.51	5.00	pCi/L			JXK3	11/13/19	1123	1934335	3
Beta		56.9	+/-5.29	3.18	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		84.3	+/-28.7	44.8	50.0	pCi/L			JJ3	11/10/19	1628	1931701	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			84.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			88.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-94
Sample ID: 493970021
Matrix: Ground Water
Collect Date: 15-OCT-19 09:00
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/08/19	0842	1931299	1
Uranium-233/234	U	0.0614	+/-0.137	0.232	0.500	pCi/L							
Uranium-235/236	U	-0.0102	+/-0.0883	0.205	0.500	pCi/L							
Uranium-238	U	0.0262	+/-0.0984	0.165	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.14	+/-1.50	2.55	5.00	pCi/L			JXK3	11/12/19	1701	1934335	2
Beta	U	2.48	+/-2.67	4.47	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	20.4	+/-24.1	40.6	50.0	pCi/L			JJ3	11/10/19	1213	1931703	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			89.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			95.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-95
Sample ID: 493970022
Matrix: Ground Water
Collect Date: 15-OCT-19 11:10
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/08/19	0842	1931299	1
Uranium-233/234	U	0.0378	+/-0.197	0.393	0.500	pCi/L							
Uranium-235/236	U	0.0692	+/-0.194	0.207	0.500	pCi/L							
Uranium-238	U	0.056	+/-0.157	0.168	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.695	+/-1.37	2.61	5.00	pCi/L			JXK3	11/12/19	1606	1934335	2
Beta	U	0.814	+/-2.03	3.57	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	2.35	+/-23.9	41.5	50.0	pCi/L			JJ3	11/10/19	1234	1931703	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			54.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			94.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-01-101519
Sample ID: 493970023
Matrix: Ground Water
Collect Date: 15-OCT-19 09:20
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/12/19	1431	1931299	1
Uranium-233/234	U	-0.0567	+/-0.181	0.436	0.500	pCi/L							
Uranium-235/236	U	-0.000537	+/-0.175	0.379	0.500	pCi/L							
Uranium-238	U	-0.0224	+/-0.148	0.346	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.26	+/-2.52	4.58	5.00	pCi/L			JXK3	11/12/19	1606	1934335	2
Beta	U	-0.53	+/-2.14	3.95	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-2.34	+/-23.5	41.0	50.0	pCi/L			JJ3	11/10/19	1256	1931703	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			46.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			94.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-01-101819
Sample ID: 493970024
Matrix: Ground Water
Collect Date: 18-OCT-19 09:05
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/08/19	0843	1931299	1
Uranium-233/234	U	-0.0535	+/-0.183	0.456	0.500	pCi/L							
Uranium-235/236	U	0.0461	+/-0.173	0.291	0.500	pCi/L							
Uranium-238	U	0.051	+/-0.174	0.323	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.82	+/-1.07	3.25	5.00	pCi/L			JXK3	11/12/19	1634	1934335	2
Beta	U	0.519	+/-2.12	3.89	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	24.5	+/-25.0	41.9	50.0	pCi/L			JJ3	11/10/19	1317	1931703	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			76.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			92.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: WSW-01
Sample ID: 493970025
Matrix: Ground Water
Collect Date: 15-OCT-19 12:00
Receive Date: 23-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/08/19	0843	1931299	1
Uranium-233/234	U	0.315	+/-0.366	0.503	0.500	pCi/L							
Uranium-235/236	U	-0.0205	+/-0.177	0.411	0.500	pCi/L							
Uranium-238	U	0.158	+/-0.279	0.423	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.599	+/-1.18	2.31	5.00	pCi/L			JXK3	11/12/19	1634	1934335	2
Beta	U	-1.0	+/-1.63	3.43	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	17.4	+/-25.2	42.7	50.0	pCi/L			JJ3	11/10/19	1339	1931703	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			61.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			94.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

QC Summary

Report Date: November 21, 2019

Westinghouse Electric Company, LLC
PO Drawer R
Columbia, South Carolina

Contact: **Ms. Cynthia Logsdon**

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 1930853										
QC1204413564 LCS										
Uranium-235	0.360			0.377	ug/L		105	(80%-120%)	BAJ	11/20/19 12:06
Uranium-238	49.6			51.2	ug/L		103	(80%-120%)		
QC1204413568 LCS										
Uranium-234	0.550			0.569	ug/L		103	(80%-120%)	PRB	11/20/19 00:44
QC1204413563 MB										
Uranium-234			U	ND	ug/L					11/20/19 00:42
Uranium-235			U	ND	ug/L				BAJ	11/20/19 12:05
Uranium-238			U	ND	ug/L					
QC1204413565 493970017 MS										
Uranium-235	0.360	U	ND	0.378	ug/L		105	(75%-125%)		11/20/19 12:41
Uranium-238	49.6	U	ND	52.6	ug/L		106	(75%-125%)		
QC1204413569 493970017 MS										
Uranium-234	0.550	U	ND	0.574	ug/L		104	(75%-125%)	PRB	11/20/19 01:28
QC1204413566 493970017 MSD										
Uranium-235	0.360	U	ND	0.379	ug/L	0.264	105	(0%-20%)	BAJ	11/20/19 12:43
Uranium-238	49.6	U	ND	52.1	ug/L	0.892	105	(0%-20%)		
QC1204413643 493970017 MSD										
Uranium-234	0.550	U	ND	0.582	ug/L	1.38	106	(0%-20%)	PRB	11/20/19 01:30

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 1930853										
QC1204413567 493970017 SDILT										
Uranium-234	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	11/20/19 01:32
Uranium-235	U	ND	U	ND	ug/L	N/A		(0%-20%)	BAJ	11/20/19 12:46
Uranium-238	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Batch 1930855										
QC1204413571 LCS										
Uranium-235	0.360			0.363	ug/L		101	(80%-120%)	BAJ	11/20/19 14:40
Uranium-238	49.6			50.5	ug/L		102	(80%-120%)		
QC1204413575 LCS										
Uranium-234	0.550			0.571	ug/L		104	(80%-120%)	PRB	11/20/19 08:07
QC1204413570 MB										
Uranium-234			U	ND	ug/L					11/20/19 08:05
Uranium-235			U	ND	ug/L				BAJ	11/20/19 14:39
Uranium-238			U	ND	ug/L					
QC1204413572 493970021 MS										
Uranium-235	0.360	U	ND	0.364	ug/L		101	(75%-125%)		11/20/19 14:51
Uranium-238	49.6	U	ND	51.0	ug/L		103	(75%-125%)		
QC1204413576 493970021 MS										
Uranium-234	0.550	U	ND	0.551	ug/L		100	(75%-125%)	PRB	11/20/19 08:17
QC1204413573 493970021 MSD										
Uranium-235	0.360	U	ND	0.372	ug/L	2.07	103	(0%-20%)	BAJ	11/20/19 14:53

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 1930855										
Uranium-238	49.6 U	ND		50.8	ug/L	0.3	102	(0%-20%)	BAJ	11/20/19 14:53
QC1204413644 493970021 MSD										
Uranium-234	0.550 U	ND		0.550	ug/L	0.182	100	(0%-20%)	PRB	11/20/19 08:19
QC1204413574 493970021 SDILT										
Uranium-234	U	ND	U	ND	ug/L	N/A		(0%-20%)		11/20/19 08:21
Uranium-235	U	ND	U	ND	ug/L	N/A		(0%-20%)	BAJ	11/20/19 14:56
Uranium-238	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Metals Analysis-ICP										
Batch 1930877										
QC1204413634 LCS										
Aluminum	5000			4930	ug/L		98.7	(80%-120%)	JWJ	11/13/19 14:57
Antimony	500			516	ug/L		103	(80%-120%)		
Arsenic	500			489	ug/L		97.9	(80%-120%)		
Barium	500			499	ug/L		99.8	(80%-120%)		
Beryllium	500			513	ug/L		103	(80%-120%)		
Cadmium	500			490	ug/L		98	(80%-120%)		
Calcium	5000			5020	ug/L		100	(80%-120%)		
Chromium	500			489	ug/L		97.8	(80%-120%)		

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1930877											
Cobalt	500			537	ug/L		107	(80%-120%)	JWJ	11/13/19	14:57
Copper	500			490	ug/L		98	(80%-120%)			
Iron	5000			5050	ug/L		101	(80%-120%)			
Lead	500			490	ug/L		97.9	(80%-120%)			
Magnesium	5000			5050	ug/L		101	(80%-120%)			
Manganese	500			472	ug/L		94.4	(80%-120%)			
Nickel	500			496	ug/L		99.3	(80%-120%)			
Potassium	5000			5120	ug/L		102	(80%-120%)			
Selenium	500			476	ug/L		95.1	(80%-120%)			
Silver	100			100	ug/L		100	(80%-120%)			
Sodium	5000			4710	ug/L		94.3	(80%-120%)			
Thallium	500			493	ug/L		98.6	(80%-120%)			
Vanadium	500			494	ug/L		98.8	(80%-120%)			
Zinc	500			485	ug/L		96.9	(80%-120%)			
QC1204413633 MB											
Aluminum			U	ND	ug/L					11/13/19	14:53

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1930877											
Antimony			J	6.71	ug/L				JWJ	11/13/19	14:53
Arsenic			U	ND	ug/L						
Barium			U	ND	ug/L						
Beryllium			U	ND	ug/L						
Cadmium			U	ND	ug/L						
Calcium			U	ND	ug/L						
Chromium			U	ND	ug/L						
Cobalt			U	ND	ug/L						
Copper			U	ND	ug/L						
Iron			U	ND	ug/L						
Lead			U	ND	ug/L						
Magnesium			U	ND	ug/L						
Manganese			U	ND	ug/L						
Nickel			U	ND	ug/L						
Potassium			U	ND	ug/L						

QC Summary

Workorder: **493970**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1930877												
Selenium				U	ND	ug/L				JWJ	11/13/19	14:53
Silver				U	ND	ug/L						
Sodium				U	ND	ug/L						
Thallium				U	ND	ug/L						
Vanadium				U	ND	ug/L						
Zinc				U	ND	ug/L						
QC1204413635 493970017 MS												
Aluminum	5000		785		5800	ug/L		100	(75%-125%)		11/13/19	16:20
Antimony	500	J	8.91		536	ug/L		105	(75%-125%)			
Arsenic	500	J	5.40		497	ug/L		98.3	(75%-125%)			
Barium	500		394		893	ug/L		99.6	(75%-125%)			
Beryllium	500	J	2.35		520	ug/L		104	(75%-125%)			
Cadmium	500	U	ND		483	ug/L		96.5	(75%-125%)			
Calcium	5000		22900		27400	ug/L		N/A	(75%-125%)			
Chromium	500	J	1.14		486	ug/L		97	(75%-125%)			
Cobalt	500		14.1		542	ug/L		106	(75%-125%)			

QC Summary

Workorder: **493970**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1930877											
Copper	500	U	ND		484	ug/L		96.9	(75%-125%)	JWJ	11/13/19 16:20
Iron	5000	U	ND		5120	ug/L		102	(75%-125%)		
Lead	500	J	5.51		487	ug/L		96.4	(75%-125%)		
Magnesium	5000		9060		13900	ug/L		96.4	(75%-125%)		
Manganese	500		662		1130	ug/L		93.3	(75%-125%)		
Nickel	500	J	3.94		487	ug/L		96.6	(75%-125%)		
Potassium	5000		8640		13500	ug/L		97.6	(75%-125%)		
Selenium	500	U	ND		483	ug/L		96.6	(75%-125%)		
Silver	100	J	2.50		102	ug/L		99.4	(75%-125%)		
Sodium	5000		49100		52800	ug/L		N/A	(75%-125%)		
Thallium	500	U	ND		497	ug/L		99.4	(75%-125%)		
Vanadium	500	J	1.35		498	ug/L		99.2	(75%-125%)		
Zinc	500	U	ND		488	ug/L		97	(75%-125%)		
QC1204413636 493970017 MSD											
Aluminum	5000		785		5850	ug/L	1.01	101	(0%-20%)		11/13/19 16:23
Antimony	500	J	8.91		546	ug/L	1.86	107	(0%-20%)		

QC Summary

Workorder: **493970**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1930877												
Arsenic	500	J	5.40		509	ug/L	2.34	101	(0%-20%)	JWJ	11/13/19	16:23
Barium	500		394		917	ug/L	2.75	105	(0%-20%)			
Beryllium	500	J	2.35		525	ug/L	0.894	104	(0%-20%)			
Cadmium	500	U	ND		492	ug/L	1.81	98.3	(0%-20%)			
Calcium	5000		22900		29000	ug/L	5.98	N/A	(0%-20%)			
Chromium	500	J	1.14		500	ug/L	2.83	99.8	(0%-20%)			
Cobalt	500		14.1		553	ug/L	1.93	108	(0%-20%)			
Copper	500	U	ND		500	ug/L	3.1	99.9	(0%-20%)			
Iron	5000	U	ND		5150	ug/L	0.717	103	(0%-20%)			
Lead	500	J	5.51		490	ug/L	0.626	97	(0%-20%)			
Magnesium	5000		9060		14400	ug/L	3.8	107	(0%-20%)			
Manganese	500		662		1180	ug/L	4.71	104	(0%-20%)			
Nickel	500	J	3.94		501	ug/L	2.97	99.5	(0%-20%)			
Potassium	5000		8640		14100	ug/L	3.98	109	(0%-20%)			
Selenium	500	U	ND		501	ug/L	3.58	100	(0%-20%)			

QC Summary

Workorder: **493970**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1930877												
Silver	100	J	2.50		102	ug/L	0.0785	99.3	(0%-20%)	JWJ	11/13/19	16:23
Sodium	5000		49100		55200	ug/L	4.52	N/A	(0%-20%)			
Thallium	500	U	ND		505	ug/L	1.52	101	(0%-20%)			
Vanadium	500	J	1.35		512	ug/L	2.88	102	(0%-20%)			
Zinc	500	U	ND		503	ug/L	2.97	100	(0%-20%)			
QC1204413637 493970017 SDILT												
Aluminum			785	J	173	ug/L	10.3		(0%-20%)		11/13/19	16:31
Antimony		J	8.91	J	6.54	ug/L	267		(0%-20%)			
Arsenic		J	5.40	U	ND	ug/L	N/A		(0%-20%)			
Barium			394		85.5	ug/L	8.38		(0%-20%)			
Beryllium		J	2.35	U	ND	ug/L	N/A		(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A		(0%-20%)			
Calcium			22900		4550	ug/L	.67		(0%-20%)			
Chromium		J	1.14	U	ND	ug/L	N/A		(0%-20%)			
Cobalt			14.1	J	2.60	ug/L	8.24		(0%-20%)			
Copper		U	ND	U	ND	ug/L	N/A		(0%-20%)			

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1930877											
Iron	U	ND	U	ND	ug/L	N/A		(0%-20%)	JWJ	11/13/19	16:31
Lead	J	5.51	J	3.40	ug/L	209		(0%-20%)			
Magnesium		9060		2070	ug/L	14.1		(0%-20%)			
Manganese		662		146	ug/L	10.3		(0%-20%)			
Nickel	J	3.94	U	ND	ug/L	N/A		(0%-20%)			
Potassium		8640		1840	ug/L	6.48		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Silver	J	2.50	U	ND	ug/L	N/A		(0%-20%)			
Sodium		49100		10700	ug/L	9.4		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Vanadium	J	1.35	U	ND	ug/L	N/A		(0%-20%)			
Zinc	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Batch 1930879											
QC1204413639 LCS											
Aluminum	5000			4800	ug/L		96.1	(80%-120%)	LS	11/12/19	11:41
Antimony	500			499	ug/L		99.9	(80%-120%)			
Arsenic	500			456	ug/L		91.3	(80%-120%)			

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1930879											
Barium	500			495	ug/L		99	(80%-120%)	LS	11/12/19	11:41
Beryllium	500			481	ug/L		96.3	(80%-120%)			
Cadmium	500			493	ug/L		98.6	(80%-120%)			
Calcium	5000			5030	ug/L		101	(80%-120%)			
Chromium	500			505	ug/L		101	(80%-120%)			
Cobalt	500			515	ug/L		103	(80%-120%)			
Copper	500			503	ug/L		101	(80%-120%)			
Iron	5000			5220	ug/L		104	(80%-120%)			
Lead	500			490	ug/L		97.9	(80%-120%)			
Magnesium	5000			4880	ug/L		97.6	(80%-120%)			
Manganese	500			495	ug/L		98.9	(80%-120%)			
Nickel	500			497	ug/L		99.4	(80%-120%)			
Potassium	5000			4910	ug/L		98.1	(80%-120%)		11/12/19	13:04
Selenium	500			484	ug/L		96.8	(80%-120%)		11/12/19	11:41
Silver	100			99.8	ug/L		99.8	(80%-120%)			

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1930879											
Sodium	5000			4840	ug/L		96.8	(80%-120%)	LS	11/12/19	11:41
Thallium	500			488	ug/L		97.6	(80%-120%)			
Vanadium	500			506	ug/L		101	(80%-120%)			
Zinc	500			495	ug/L		99	(80%-120%)			
QC1204413638 MB											
Aluminum			U	ND	ug/L					11/12/19	11:38
Antimony			U	ND	ug/L						
Arsenic			U	ND	ug/L						
Barium			U	ND	ug/L						
Beryllium			U	ND	ug/L						
Cadmium			U	ND	ug/L						
Calcium			U	ND	ug/L						
Chromium			U	ND	ug/L						
Cobalt			U	ND	ug/L						
Copper			U	ND	ug/L						
Iron			U	ND	ug/L						

QC Summary

Workorder: **493970**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1930879												
Lead				U	ND	ug/L				LS	11/12/19	11:38
Magnesium				U	ND	ug/L						
Manganese				U	ND	ug/L						
Nickel				U	ND	ug/L						
Potassium				U	ND	ug/L					11/12/19	13:01
Selenium				U	ND	ug/L					11/12/19	11:38
Silver				U	ND	ug/L						
Sodium				U	ND	ug/L						
Thallium				U	ND	ug/L						
Vanadium				U	ND	ug/L						
Zinc				J	3.56	ug/L						
QC1204413640 493970021 MS												
Aluminum	5000	U	ND		4590	ug/L		91	(75%-125%)		11/12/19	11:45
Antimony	500	U	ND		489	ug/L		97.9	(75%-125%)			
Arsenic	500	U	ND		452	ug/L		90.3	(75%-125%)			
Barium	500		114		604	ug/L		98	(75%-125%)			

QC Summary

Workorder: **493970**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1930879												
Beryllium	500	U	ND		471	ug/L		94	(75%-125%)	LS	11/12/19	11:45
Cadmium	500	U	ND		484	ug/L		96.8	(75%-125%)			
Calcium	5000		5440		10400	ug/L		98.6	(75%-125%)			
Chromium	500	U	ND		488	ug/L		97.6	(75%-125%)			
Cobalt	500	J	1.30		503	ug/L		100	(75%-125%)			
Copper	500	U	ND		494	ug/L		98.5	(75%-125%)			
Iron	5000		20900		26000	ug/L		N/A	(75%-125%)			
Lead	500	U	ND		487	ug/L		97.3	(75%-125%)			
Magnesium	5000		2490		7170	ug/L		93.5	(75%-125%)			
Manganese	500		431		936	ug/L		101	(75%-125%)			
Nickel	500	J	1.94		481	ug/L		95.8	(75%-125%)			
Potassium	5000		1110		6460	ug/L		107	(75%-125%)		11/12/19	13:09
Selenium	500	U	ND		469	ug/L		93.8	(75%-125%)		11/12/19	11:45
Silver	100	U	ND		99.5	ug/L		98.7	(75%-125%)			
Sodium	5000		8060		12900	ug/L		97.1	(75%-125%)			

QC Summary

Workorder: **493970**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1930879												
Thallium	500	U	ND		483	ug/L		95.7	(75%-125%)	LS	11/12/19	11:45
Vanadium	500	U	ND		494	ug/L		98.6	(75%-125%)			
Zinc	500	J	4.18		482	ug/L		95.7	(75%-125%)			
QC1204413641 493970021 MSD												
Aluminum	5000	U	ND		4770	ug/L	3.94	94.7	(0%-20%)		11/12/19	11:47
Antimony	500	U	ND		498	ug/L	1.65	99.5	(0%-20%)			
Arsenic	500	U	ND		458	ug/L	1.28	91.5	(0%-20%)			
Barium	500		114		620	ug/L	2.6	101	(0%-20%)			
Beryllium	500	U	ND		479	ug/L	1.7	95.6	(0%-20%)			
Cadmium	500	U	ND		488	ug/L	0.801	97.6	(0%-20%)			
Calcium	5000		5440		10700	ug/L	3.17	105	(0%-20%)			
Chromium	500	U	ND		501	ug/L	2.73	100	(0%-20%)			
Cobalt	500	J	1.30		515	ug/L	2.37	103	(0%-20%)			
Copper	500	U	ND		507	ug/L	2.67	101	(0%-20%)			
Iron	5000		20900		27100	ug/L	3.96	N/A	(0%-20%)			
Lead	500	U	ND		495	ug/L	1.62	98.9	(0%-20%)			

QC Summary

Workorder: **493970**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1930879												
Magnesium	5000		2490		7450	ug/L	3.92	99.2	(0%-20%)	LS	11/12/19	11:47
Manganese	500		431		968	ug/L	3.33	107	(0%-20%)			
Nickel	500	J	1.94		493	ug/L	2.51	98.3	(0%-20%)			
Potassium	5000		1110		6410	ug/L	0.789	106	(0%-20%)		11/12/19	13:11
Selenium	500	U	ND		483	ug/L	2.94	96.6	(0%-20%)		11/12/19	11:47
Silver	100	U	ND		100	ug/L	0.674	99.4	(0%-20%)			
Sodium	5000		8060		13300	ug/L	2.98	105	(0%-20%)			
Thallium	500	U	ND		487	ug/L	0.845	96.5	(0%-20%)			
Vanadium	500	U	ND		507	ug/L	2.55	101	(0%-20%)			
Zinc	500	J	4.18		493	ug/L	2.25	97.8	(0%-20%)			
QC1204413642 493970021 SDILT												
Aluminum		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/12/19	11:50
Antimony		U	ND	U	ND	ug/L	N/A		(0%-20%)			
Arsenic		U	ND	U	ND	ug/L	N/A		(0%-20%)			
Barium			114		23.7	ug/L	4.09		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A		(0%-20%)			

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1930879											
Cadmium	U	ND	U	ND	ug/L	N/A		(0%-20%)	LS	11/12/19	11:50
Calcium		5440		1060	ug/L	2.79		(0%-20%)			
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Cobalt	J	1.30	U	ND	ug/L	N/A		(0%-20%)			
Copper	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Iron		20900		4000	ug/L	4.57		(0%-20%)			
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		2490		504	ug/L	1.16		(0%-20%)			
Manganese		431		83.1	ug/L	3.59		(0%-20%)			
Nickel	J	1.94	U	ND	ug/L	N/A		(0%-20%)			
Potassium		1110		318	ug/L	43.3		(0%-20%)		11/12/19	13:13
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)		11/12/19	11:50
Silver	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		8060		1530	ug/L	4.77		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			

QC Summary

Workorder: **493970**

Parmname			NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP														
Batch 1930879														
Vanadium				U	ND	U	ND	ug/L	N/A		(0%-20%)	LS	11/12/19	11:50
Zinc				J	4.18	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury														
Batch 1935388														
QC1204424150	493970021	DUP												
Mercury				U	ND	U	ND	ug/L	N/A			MTM1	11/07/19	16:18
QC1204424149	LCS													
Mercury			2.00				2.05	ug/L		102	(80%-120%)		11/07/19	14:28
QC1204424148	MB													
Mercury						U	ND	ug/L					11/07/19	14:26
QC1204424151	493970021	MS												
Mercury			2.00	U	ND		2.31	ug/L		114	(75%-125%)		11/07/19	16:20
QC1204424152	493970021	SDILT												
Mercury				U	ND	U	ND	ug/L	N/A		(0%-10%)		11/07/19	16:21
Batch 1936546														
QC1204426712	493970017	DUP												
Mercury				U	ND	U	ND	ug/L	N/A			MTM1	11/11/19	11:51
QC1204426711	LCS													
Mercury			2.00				2.08	ug/L		104	(80%-120%)		11/11/19	11:14
QC1204426710	MB													
Mercury						U	ND	ug/L					11/11/19	11:12
QC1204426713	493970017	MS												
Mercury			2.00	U	ND		1.78	ug/L		89.1	(75%-125%)		11/11/19	11:53

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch 1936546											
QC1204426714 493970017 SDILT											
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)	MTM1	11/11/19	11:54

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

QC Summary

Report Date: November 21, 2019

Westinghouse Electric Company, LLC
PO Drawer R
Columbia, South Carolina

Contact: **Ms. Cynthia Logsdon**

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch 1931298											
QC1204414591 493970017 DUP											
Pct Uranium-235	U	0.00	U	0.00	percent	N/A			N/A HAKB	11/13/19	10:38
Uranium-233/234	U	0.0871	U	0.0758	pCi/L	N/A			N/A		
	Uncertainty	+/-0.179		+/-0.163							
Uranium-235/236	U	0.0256	U	0.202	pCi/L	N/A			N/A		
	Uncertainty	+/-0.142		+/-0.217							
Uranium-238	U	0.0239	U	0.0909	pCi/L	N/A			N/A		
	Uncertainty	+/-0.168		+/-0.144							
QC1204414592 LCS											
Pct Uranium-235				0.717	percent					11/13/19	10:38
Uranium-233/234				11.7	pCi/L						
	Uncertainty			+/-1.15							
Uranium-235/236				0.570	pCi/L						
	Uncertainty			+/-0.293							
Uranium-238	13.6			12.3	pCi/L		90	(75%-125%)			
	Uncertainty			+/-1.18							
QC1204414590 MB											
Pct Uranium-235			U	0.00	percent					11/13/19	10:38
Uranium-233/234			U	0.0703	pCi/L						
	Uncertainty			+/-0.154							
Uranium-235/236			U	-0.0203	pCi/L						
	Uncertainty			+/-0.0899							
Uranium-238			U	0.0864	pCi/L						
	Uncertainty			+/-0.137							

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 1931299										
QC1204414594 493970021 DUP										
Pct Uranium-235	U	0.00	U	0.00	percent	N/A		N/A	MP2	11/08/19 08:43
Uranium-233/234	U	0.0614	U	0.213	pCi/L	N/A		N/A		
	Uncertainty	+/-0.137		+/-0.239						
Uranium-235/236	U	-0.0102	U	0.122	pCi/L	N/A		N/A		
	Uncertainty	+/-0.0883		+/-0.210						
Uranium-238	U	0.0262	U	0.0514	pCi/L	N/A		N/A		
	Uncertainty	+/-0.0984		+/-0.176						
QC1204414595 LCS										
Pct Uranium-235				0.665	percent					11/12/19 09:17
Uranium-233/234				14.8	pCi/L					
	Uncertainty			+/-1.40						
Uranium-235/236				0.640	pCi/L					
	Uncertainty			+/-0.341						
Uranium-238	13.6			14.8	pCi/L		109	(75%-125%)		
	Uncertainty			+/-1.39						
QC1204414593 MB										
Pct Uranium-235			U	0.00	percent					11/08/19 08:43
Uranium-233/234			U	-0.0194	pCi/L					
	Uncertainty			+/-0.165						
Uranium-235/236			U	0.0983	pCi/L					
	Uncertainty			+/-0.193						
Uranium-238			U	0.00362	pCi/L					
	Uncertainty			+/-0.166						
Rad Gas Flow										
Batch 1934331										
QC1204421847 493970017 DUP										
Alpha	U	4.11	U	2.59	pCi/L	N/A		N/A	HXB2	11/13/19 16:48
	Uncertainty	+/-3.49		+/-2.94						

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1934331										
Beta		70.3		69.8	pCi/L	0.699		(0%-20%)	HXB2	11/13/19 16:48
	Uncertainty	+/-6.61		+/-6.30						
QC1204421850 LCS										
Alpha	125			126	pCi/L		101	(75%-125%)		11/13/19 16:48
	Uncertainty			+/-12.4						
Beta	461			471	pCi/L		102	(75%-125%)		
	Uncertainty			+/-16.7						
QC1204421846 MB										
Alpha			U	-0.207	pCi/L					11/13/19 16:47
	Uncertainty			+/-1.58						
Beta			U	3.12	pCi/L					
	Uncertainty			+/-2.16						
QC1204421848 493970017 MS										
Alpha	501 U	4.11		482	pCi/L		96.1	(75%-125%)		11/13/19 16:48
	Uncertainty	+/-3.49		+/-50.3						
Beta	1840	70.3		1970	pCi/L		103	(75%-125%)		
	Uncertainty	+/-6.61		+/-72.2						
QC1204421849 493970017 MSD										
Alpha	501 U	4.11		610	pCi/L	23.5*	122	(0%-20%)		11/13/19 16:48
	Uncertainty	+/-3.49		+/-55.3						
Beta	1840	70.3		1920	pCi/L	2.57	100	(0%-20%)		
	Uncertainty	+/-6.61		+/-67.5						
Batch 1934335										
QC1204421856 493970021 DUP										
Alpha	U	1.14	U	1.39	pCi/L	N/A		N/A	JXK3	11/12/19 16:52
	Uncertainty	+/-1.50		+/-2.16						
Beta	U	2.48	U	4.33	pCi/L	N/A		N/A		
	Uncertainty	+/-2.67		+/-2.89						
QC1204421859 LCS										
Alpha	125			120	pCi/L		96.2	(75%-125%)		11/12/19 16:56
	Uncertainty			+/-11.5						
Beta	461			484	pCi/L		105	(75%-125%)		
	Uncertainty			+/-17.0						

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1934335										
QC1204421855 MB										
Alpha			U	0.685	pCi/L				JXK3	11/12/19 16:52
Uncertainty				+/-1.32						
Beta			U	-3.12	pCi/L					
Uncertainty				+/-2.22						
QC1204421857 493970021 MS										
Alpha	501 U	1.14		528	pCi/L		105	(75%-125%)		11/12/19 16:52
Uncertainty		+/-1.50		+/-55.1						
Beta	1840 U	2.48		1780	pCi/L		96.6	(75%-125%)		
Uncertainty		+/-2.67		+/-63.9						
QC1204421858 493970021 MSD										
Alpha	501 U	1.14		513	pCi/L	2.91	102	(0%-20%)		11/12/19 16:55
Uncertainty		+/-1.50		+/-46.8						
Beta	1840 U	2.48		1840	pCi/L	3.13	99.7	(0%-20%)		
Uncertainty		+/-2.67		+/-65.2						
Batch 1938632										
QC1204431726 493970006 DUP										
Alpha	U	2.89	U	1.12	pCi/L	N/A		N/A	HXB2	11/15/19 06:26
Uncertainty		+/-2.95		+/-2.18						
Beta		7.78		5.84	pCi/L	28.6		(0% - 100%)		
Uncertainty		+/-3.14		+/-2.75						
QC1204431729 LCS										
Alpha	125			143	pCi/L		114	(75%-125%)		11/15/19 06:26
Uncertainty				+/-13.5						
Beta	461			527	pCi/L		114	(75%-125%)		
Uncertainty				+/-19.2						
QC1204431725 MB										
Alpha			U	-0.434	pCi/L					11/15/19 06:26
Uncertainty				+/-1.63						
Beta			U	0.599	pCi/L					
Uncertainty				+/-1.82						
QC1204431727 493970006 MS										
Alpha	501 U	2.89		565	pCi/L		113	(75%-125%)		11/15/19 06:26
Uncertainty		+/-2.95		+/-50.7						

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1938632										
Beta	1840	7.78		1900	pCi/L		102	(75%-125%)	HXB2	11/15/19 06:26
	Uncertainty	+/-3.14		+/-67.1						
QC1204431728 493970006 MSD										
Alpha	501 U	2.89		576	pCi/L	1.93	115	(0%-20%)		11/15/19 06:26
	Uncertainty	+/-2.95		+/-51.4						
Beta	1840	7.78		1920	pCi/L	1.04	104	(0%-20%)		
	Uncertainty	+/-3.14		+/-67.9						
Rad Liquid Scintillation										
Batch 1931701										
QC1204415432 493970001 DUP										
Technetium-99	U	-4.64	U	-10.8	pCi/L	N/A		N/A	JJ3	11/10/19 17:12
	Uncertainty	+/-25.4		+/-25.4						
QC1204415433 LCS										
Technetium-99	854			887	pCi/L		104	(75%-125%)		11/10/19 17:34
	Uncertainty			+/-48.6						
QC1204415431 MB										
Technetium-99			U	-12.3	pCi/L					11/10/19 16:50
	Uncertainty			+/-26.0						
Batch 1931703										
QC1204415438 493970021 DUP										
Technetium-99	U	20.4	U	7.31	pCi/L	N/A		N/A	JJ3	11/10/19 14:21
	Uncertainty	+/-24.1		+/-25.7						
QC1204415439 LCS										
Technetium-99	854			845	pCi/L		98.8	(75%-125%)		11/10/19 14:43
	Uncertainty			+/-44.6						
QC1204415437 MB										
Technetium-99			U	0.204	pCi/L					11/10/19 14:00
	Uncertainty			+/-24.9						
Batch 1931829										
QC1204415696 493970005 DUP										
Tritium	U	38.6	U	-6.04	pCi/L	N/A		N/A	RP1	11/04/19 15:33
	Uncertainty	+/-267		+/-251						

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 1931829										
QC1204415698 LCS										
Tritium	5870			4540	pCi/L		77.4	(75%-125%)	RP1	11/04/19 16:16
	Uncertainty			+/-529						
QC1204415695 MB										
Tritium			U	74.7	pCi/L					11/04/19 15:11
	Uncertainty			+/-274						
QC1204415697 493970005 MS										
Tritium	5880 U	38.6		4660	pCi/L		79.3	(75%-125%)		11/04/19 15:54
	Uncertainty	+/-267		+/-524						
Batch 1937355										
QC1204428729 493970017 DUP										
Technetium-99		81.9		82.6	pCi/L	0.813		(0% - 100%)	JJ3	11/17/19 06:19
	Uncertainty	+/-28.9		+/-27.0						
QC1204428730 LCS										
Technetium-99	854			756	pCi/L		88.5	(75%-125%)		11/17/19 06:46
	Uncertainty			+/-45.8						
QC1204428728 MB										
Technetium-99			U	-19.4	pCi/L					11/17/19 05:52
	Uncertainty			+/-26.5						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

**	Analyte is a Tracer compound
<	Result is less than value reported
>	Result is greater than value reported
BD	Results are either below the MDC or tracer recovery is low
FA	Failed analysis.
H	Analytical holding time was exceeded
J	See case narrative for an explanation
J	Value is estimated
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
M	M if above MDC and less than LLD
M	REMP Result > MDC/CL and < RDL
N/A	RPD or %Recovery limits do not apply.

QC Summary

Workorder: **493970**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N1	See case narrative
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
R	Sample results are rejected
U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
UI	Gamma Spectroscopy--Uncertain identification
UJ	Gamma Spectroscopy--Uncertain identification
UL	Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
h	Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Technical Case Narrative
Westinghouse Electric Co, LLC
SDG #: 493970

Metals

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3005A/6010D
Analytical Procedure: GL-MA-E-013 REV# 31
Analytical Batch: 1930877

Preparation Method: SW846 3005A
Preparation Procedure: GL-MA-E-006 REV# 14
Preparation Batch: 1930876

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970001	W-14
493970002	W-20
493970003	W-23R
493970004	W-25
493970005	W-26
493970006	W-33
493970007	W-33-Dup
493970008	W-39
493970009	W-40
493970010	W-41R
493970011	W-43
493970012	W-44
493970013	W-47
493970014	W-50
493970015	W-60
493970016	W-61
493970017	W-64
1204413633	Method Blank (MB)**ICP**
1204413634	Laboratory Control Sample (LCS)
1204413637	493970017(W-64L) Serial Dilution (SD)
1204413635	493970017(W-64S) Matrix Spike (MS)
1204413636	493970017(W-64SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Determination of Metals by ICP**

Analytical Method: SW846 3005A/6010D
Analytical Procedure: GL-MA-E-013 REV# 31
Analytical Batch: 1930879

Preparation Method: SW846 3005A
Preparation Procedure: GL-MA-E-006 REV# 14
Preparation Batch: 1930878

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970018	W-65
493970019	W-66
493970020	W-67
493970021	W-94
493970022	W-95
493970023	EB-01-101519
493970024	EB-01-101819
493970025	WSW-01
1204413638	Method Blank (MB)**ICP**
1204413639	Laboratory Control Sample (LCS)
1204413642	493970021(W-94L) Serial Dilution (SD)
1204413640	493970021(W-94S) Matrix Spike (MS)
1204413641	493970021(W-94SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

CRDL/PQL Requirements
The PQL standard recoveries for SW846 6010C or 6010D met the control limits with the exception of thallium and potassium. Client sample concentrations were less than the MDL or greater than two times the PQL; therefore the data were not adversely affected. 493970018 (W-65), 493970019 (W-66), 493970020 (W-67), 493970021 (W-94), 493970022 (W-95), 493970023 (EB-01-101519), 493970024 (EB-01-101819) and 493970025 (WSW-01).

Product: Determination of Metals by ICP-MS
Analytical Method: SW846 3010A/6020B
Analytical Procedure: GL-MA-E-014 REV# 33
Analytical Batch: 1930853

Preparation Method: SW846 3010A
Preparation Procedure: GL-MA-E-008 REV# 19
Preparation Batch: 1930852

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970001	W-14
493970002	W-20
493970003	W-23R
493970004	W-25
493970005	W-26
493970006	W-33
493970007	W-33-Dup
493970008	W-39
493970009	W-40
493970010	W-41R
493970011	W-43
493970012	W-44
493970013	W-47
493970014	W-50
493970015	W-60
493970016	W-61
493970017	W-64
1204413563	Method Blank (MB)**ICP-MS**
1204413564	Laboratory Control Sample (LCS)
1204413568	Laboratory Control Sample (LCS)
1204413567	493970017(W-64L) Serial Dilution (SD)
1204413565	493970017(W-64S) Matrix Spike (MS)
1204413569	493970017(W-64S) Matrix Spike (MS)
1204413566	493970017(W-64SD) Matrix Spike Duplicate (MSD)
1204413643	493970017(W-64SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3010A/6020B
Analytical Procedure: GL-MA-E-014 REV# 33
Analytical Batch: 1930855

Preparation Method: SW846 3010A
Preparation Procedure: GL-MA-E-008 REV# 19
Preparation Batch: 1930854

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970018	W-65
493970019	W-66
493970020	W-67
493970021	W-94
493970022	W-95
493970023	EB-01-101519
493970024	EB-01-101819
493970025	WSW-01
1204413570	Method Blank (MB)**ICP-MS**
1204413571	Laboratory Control Sample (LCS)
1204413575	Laboratory Control Sample (LCS)
1204413574	493970021(W-94L) Serial Dilution (SD)
1204413572	493970021(W-94S) Matrix Spike (MS)
1204413576	493970021(W-94S) Matrix Spike (MS)
1204413573	493970021(W-94SD) Matrix Spike Duplicate (MSD)
1204413644	493970021(W-94SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7470A
Analytical Procedure: GL-MA-E-010 REV# 38
Analytical Batch: 1935388

Preparation Method: SW846 7470A Prep
Preparation Procedure: GL-MA-E-010 REV# 38
Preparation Batch: 1935387

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970021	W-94
493970022	W-95
493970023	EB-01-101519
493970024	EB-01-101819
493970025	WSW-01
1204424148	Method Blank (MB)**CVAA**
1204424149	Laboratory Control Sample (LCS)

1204424152	493970021(W-94L) Serial Dilution (SD)
1204424150	493970021(W-94D) Sample Duplicate (DUP)
1204424151	493970021(W-94S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7470A
Analytical Procedure: GL-MA-E-010 REV# 38
Analytical Batch: 1936546

Preparation Method: SW846 7470A Prep
Preparation Procedure: GL-MA-E-010 REV# 38
Preparation Batch: 1936545

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970001	W-14
493970002	W-20
493970003	W-23R
493970004	W-25
493970005	W-26
493970006	W-33
493970007	W-33-Dup
493970008	W-39
493970009	W-40
493970010	W-41R
493970011	W-43
493970012	W-44
493970013	W-47
493970014	W-50
493970015	W-60
493970016	W-61
493970017	W-64
493970018	W-65
493970019	W-66
493970020	W-67
1204426710	Method Blank (MB)**CVAA**
1204426711	Laboratory Control Sample (LCS)
1204426714	493970017(W-64L) Serial Dilution (SD)
1204426712	493970017(W-64D) Sample Duplicate (DUP)
1204426713	493970017(W-64S) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Radiochemistry

Product: **Alphaspec U, Liquid**
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Procedure: GL-RAD-A-011 REV# 27
Analytical Batch: 1931298

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970001	W-14
493970002	W-20
493970003	W-23R
493970004	W-25
493970005	W-26
493970006	W-33
493970007	W-33-Dup
493970008	W-39
493970009	W-40
493970010	W-41R
493970011	W-43
493970012	W-44
493970013	W-47
493970014	W-50
493970015	W-60
493970016	W-61
493970017	W-64
493970018	W-65
493970019	W-66
493970020	W-67
1204414590	Method Blank (MB)
1204414591	493970017(W-64) Sample Duplicate (DUP)
1204414592	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Sample 493970004 (W-25) was recounted to verify sample results. Recount is reported. Sample 493970010 (W-41R) was recounted due to a peak shift. The recount is reported. Samples 493970002 (W-20) and 493970008

(W-39) were recounted due to a suspected false positive. The recounts are reported.

Miscellaneous Information

Additional Comments
The tracer peak centroid for samples 493970013 (W-47) and 493970017 (W-64) are greater than 50 keV from the expected library energy value for the tracer; however, the tracer yield requirement was met and the tracer peaks are within the tracer region of interest.

Product: **Alphaspec U, Liquid**
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Procedure: GL-RAD-A-011 REV# 27
Analytical Batch: 1931299

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970021	W-94
493970022	W-95
493970023	EB-01-101519
493970024	EB-01-101819
493970025	WSW-01
1204414593	Method Blank (MB)
1204414594	493970021(W-94) Sample Duplicate (DUP)
1204414595	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Sample 1204414595 (LCS) was recounted due to high recovery. The recount is reported. Sample 493970023 (EB-01-101519) was recounted due to high MDC. The recount is reported.

Miscellaneous Information

Additional Comments
The tracer peak centroid for sample 493970024 (EB-01-101819) is greater than 50 keV from the expected library energy value for the tracer; however, the tracer yield requirement was met and the tracer peak is within the tracer region of interest.

Product: **GFPC, Gross Alpha Liquid**
Analytical Method: EPA 900.0/SW846 9310
Analytical Procedure: GL-RAD-A-001 REV# 20
Analytical Batch: 1934331

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970001	W-14
493970002	W-20
493970003	W-23R
493970004	W-25
493970005	W-26
493970008	W-39
493970009	W-40
493970010	W-41R
493970011	W-43
493970012	W-44
493970013	W-47
493970014	W-50
493970015	W-60
493970016	W-61
493970017	W-64
1204421846	Method Blank (MB)
1204421847	493970017(W-64) Sample Duplicate (DUP)
1204421848	493970017(W-64) Matrix Spike (MS)
1204421849	493970017(W-64) Matrix Spike Duplicate (MSD)
1204421850	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplication Criteria between MS and MSD
The Matrix Spike and Matrix Spike Duplicate (See Below) do not meet the duplication requirement; however, they both meet the spiked recovery requirement.

Sample	Analyte	Value
1204421848MS and 1204421849MSD (W-64)	ALPHA	RPD 23.5* (0%-20%)

Technical Information

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium,

polonium and cesium may be lost during sample heating.

Recounts
Sample 493970013 (W-47) was recounted due to a beta result greater than 50 pCi/L. Both counts are reported.

Miscellaneous Information

Additional Comments
The matrix spike and matrix spike duplicate, 1204421848 (W-64MS) and 1204421849 (W-64MSD), aliquots were reduced to conserve sample volume.

Product: **GFPC, Gross Alpha Liquid**
Analytical Method: EPA 900.0/SW846 9310
Analytical Procedure: GL-RAD-A-001 REV# 20
Analytical Batch: 1934335

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970018	W-65
493970019	W-66
493970020	W-67
493970021	W-94
493970022	W-95
493970023	EB-01-101519
493970024	EB-01-101819
493970025	WSW-01
1204421855	Method Blank (MB)
1204421856	493970021(W-94) Sample Duplicate (DUP)
1204421857	493970021(W-94) Matrix Spike (MS)
1204421858	493970021(W-94) Matrix Spike Duplicate (MSD)
1204421859	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Recounts

Sample 493970020 (W-67) was recounted to verify sample results. Both counts are reported.

Miscellaneous Information

Additional Comments
The matrix spike and matrix spike duplicate, 1204421857 (W-94MS) and 1204421858 (W-94MSD), aliquots were reduced to conserve sample volume.

Product: **GFPC, Gross Alpha Liquid**
Analytical Method: EPA 900.0/SW846 9310
Analytical Procedure: GL-RAD-A-001 REV# 20
Analytical Batch: 1938632

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970006	W-33
493970007	W-33-Dup
1204431725	Method Blank (MB)
1204431726	493970006(W-33) Sample Duplicate (DUP)
1204431727	493970006(W-33) Matrix Spike (MS)
1204431728	493970006(W-33) Matrix Spike Duplicate (MSD)
1204431729	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Re-prep/Re-analysis
Samples were reprepped to verify the results. The re-analysis is being reported.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information

Additional Comments
The matrix spike and matrix spike duplicate, 1204431727 (W-33MS) and 1204431728 (W-33MSD), aliquots were reduced to conserve sample volume.

Product: **Liquid Scint Tc99, Liquid**
Analytical Method: DOE EML HASL-300, Tc-02-RC Modified
Analytical Procedure: GL-RAD-A-059 REV# 5
Analytical Batch: 1931701

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970001	W-14
493970002	W-20
493970003	W-23R
493970004	W-25
493970005	W-26
493970006	W-33
493970007	W-33-Dup
493970008	W-39
493970009	W-40
493970010	W-41R
493970011	W-43
493970012	W-44
493970013	W-47
493970014	W-50
493970015	W-60
493970016	W-61
493970018	W-65
493970019	W-66
493970020	W-67
1204415431	Method Blank (MB)
1204415432	493970001(W-14) Sample Duplicate (DUP)
1204415433	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Samples 493970013 (W-47) and 493970020 (W-67) were recounted to verify sample results. The recount results are similar to the original results. Original results are reported.

Product: **Liquid Scint Tc99, Liquid**
Analytical Method: DOE EML HASL-300, Tc-02-RC Modified

Analytical Procedure: GL-RAD-A-059 REV# 5
Analytical Batch: 1931703

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970021	W-94
493970022	W-95
493970023	EB-01-101519
493970024	EB-01-101819
493970025	WSW-01
1204415437	Method Blank (MB)
1204415438	493970021(W-94) Sample Duplicate (DUP)
1204415439	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **LSC, Tritium Dist, Liquid**
Analytical Method: EPA 906.0 Modified
Analytical Procedure: GL-RAD-A-002 REV# 23
Analytical Batch: 1931829

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970005	W-26
493970006	W-33
493970007	W-33-Dup
493970008	W-39
493970010	W-41R
493970011	W-43
493970012	W-44
493970013	W-47
1204415695	Method Blank (MB)
1204415696	493970005(W-26) Sample Duplicate (DUP)
1204415697	493970005(W-26) Matrix Spike (MS)
1204415698	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Sample 493970012 (W-44) was recounted to verify sample results. Recount is reported.

Product: **Liquid Scint Tc99, Liquid**
Analytical Method: DOE EML HASL-300, Tc-02-RC Modified
Analytical Procedure: GL-RAD-A-059 REV# 5
Analytical Batch: 1937355

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
493970017	W-64
1204428728	Method Blank (MB)
1204428729	493970017(W-64) Sample Duplicate (DUP)
1204428730	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Sample Re-prep/Re-analysis
Samples were reprepped to meet client’s QC requirement. Reanalysis is reported.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: 1 of 4

Project #: ENV-CONSENTA
GEL Quote #:
QOC Number [1]:
PO Number: 4500778461-

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number: 493970

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: R. Crews/ J. Leaphart Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI: isotopic uranium (alpha spec)	NI: isotopic uranium (by individual isotope, ICP MS)	NI: gross alpha	NI: gross beta	NI: Tc-99	NI: Total U (by ICP-MS)	NI: TAL Metals	Tritium			<-- Preservative Type (6)
W-14	10/18/19	1155	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-20	10/15/19	1235	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-23R	10/18/19	1030	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-25	10/16/19	1145	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-26	10/14/19	1425	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by J. Leaphart
W-33	10/17/19	0918	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews
W-33-Dup	10/17/19	0918	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews
W-39	10/18/2019	1121	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews
W-40	10/15/19	1233	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: X Rush: ____ Specify: ____
(Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable:
C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
Eastern Pacific
Central Other ____
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 R. Crews RCrews	10/23/19	1023	Secure Location	10/23/19	1023
2 Secure Location	10/23/19	1122	2	10-23-19	1122
3	10/23/19	1525	3	10/23/19	15:25

Sample Shipping and Delivery Details

GEL PM: Hope Taylor
Method of Shipment:
Date Shipped: N/A
Airbill #:
Airbill #:

1.) Chain of Custody Number = Order Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A**) and number of containers provided for each (i.e. *8260B* **- 3**, *6010B/7470A* **- 1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact?
YES NO
Cooler Temp:
C

Page: 2 of 4

Project #: ENV-CONSENTA
GEL Quote #:
COC Number [1]:
PO Number: 4500778461-

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: R. Crews/ J. Leaphart Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI: isotopic uranium (alpha spec)	NI: isotopic uranium (by individual isotope, ICP MS)	NI: gross alpha	NI: gross beta	NI: Tc-99	NI: Total U (by ICP-MS)	NI: TAL Metals	NI: Tritium			<-- Preservative Type (6)
W-41R	10/14/19	1345	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews
W-43	10/18/19	1003	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews
W-44	10/14/19	1455	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews
W-47	10/17/19	1210	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by J. Leaphart
W-50	10/15/19	1105	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-60	10/17/19	0910	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-61	10/17/19	1030	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-64	10/17/19	1325	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-64-MS	10/17/19	1325	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: X Rush: ____ Specify: _____
(Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable:
C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
Eastern Pacific
Central Other _____
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 R. Crews RCrews	10/23/19	1023	Secure Location	10/23/19	1023
2 Secure Location	10/23/19	1122	2	10-23-19	1122
3	10-23-19	1525	3	10/23/19	15:25

Sample Shipping and Delivery Details

GEL PM: Hope Taylor

Method of Shipment: Date Shipped: N/A

Airbill #:

Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a - **Y** - for yes the sample was field filtered or - **N** - for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A)** and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact?
YES *NO*

Cooler Temp:
C

Page 19 of 21 SDG: 693970

Page: 3 of 4

Project #: ENV-CONSENTA
GEL Quote #:
QC Number [1]:
PO Number: 4500778461-

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: R. Crews/ J. Leaphart Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI isotopic uranium (alpha spec)	NI isotopic uranium (by individual isotope, ICP MS)	NI gross alpha	NI gross beta	NI Tc-99	NI Total U (by ICP-MS)	NI TAL Metals	Tritium			<-- Preservative Type (6)
W-64-MSD	10/17/19	1325	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-65	10/17/19	1305	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-66	10/17/19	1133	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-67	10/18/19	0905	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-94	10/15/19	0900	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-94-MS	10/15/19	0900	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-94-MSD	10/15/19	0900	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-95	10/15/19	1110	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
EB-01-101519	10/15/19	0920	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: X Rush: ____ Specify: _____
(Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable:
C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
Eastern Pacific
Central Other _____
Mountain

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	R. Crews	10/23/19	1027	Secure Location	10/23/19	1027
2	Secure Location	10/23/19	1127	2	10-23-19	1127
3		10-23-19	1525	3	10/23/19	15:25

Sample Shipping and Delivery Details

GEL PM: Hope Taylor
Method of Shipment: Date Shipped: N/A
Airbill #:
Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A)** and number of containers provided for each (i.e. *8260B* **- 3**, *6010B/7470A* **- 1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: C

Page 120 of 270 SDG: 660390

Page: 4 of 4

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

Project #: ENV-CONSENTA
GEL Quote #:
QC Number [1]:
PO Number: 4500778461-

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC — Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility — Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: R. Crews/ J. Leaphart — Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI: isotopic uranium (alpha spec)	NI: isotopic uranium (by individual isotope, ICP MS)	NI: gross alpha	NI: gross beta	NI: Tc-99	NI: Total U (by ICP-MS)	NI: TAL Metals	Tritium			<-- Preservative Type (6)	Comments
EB-01-101819	10/18/19	0905	G	N	GW			3	X	X	X	X	X	X	X					Sampled by R. Crews
[redacted] WSW-01	10/15/19	1325	G	N	GW			3	X	X	X	X	X	X	X					Sampled by C. Suddeth

Note: extra sample is required for sample specific QC

TAT Requested: Normal: X Rush: ____ Specify: _____ (Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: Eastern Pacific Central Other _____ Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
R. Crews	10/23/19	1023	Secure Location	10/23/19	1023
2 Secure Location	10/23/19	1122	2 [signature]	10/23/19	1122
3 [signature]	10-23-19	1525	3 R. Crews	10/23/19	15:25

Sample Shipping and Delivery Details

GEL PM: Hope Taylor

Method of Shipment: Date Shipped: N/A

Airbill #:

Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A**) and number of containers provided for each (i.e. *8260B* **- 3**, *6010B/7470A* **- 1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? *YES* *NO*

Cooler Temp: ____ C

Page 12 of 12 SDG 460390

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

HT 493970

Client: WNVC	SDG/AR/COC/Work Order:
Received By: AJA	Date Received: 10/23/19
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	✓			Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius TEMP: 23°-rchem 1°-800metals
4	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: IR4-16 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided?			✓	
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials SH Date 10/25/19 Page 1 of 1

GL-CHL-SR-001 Rev 6

List of current GEL Certifications as of 21 November 2019

State	Certification
Alaska	17−018
Alaska Drinking Water	SC00012
Arkansas	88−0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH−0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330−15−00283, P330−15−00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C−SC−01
Kansas NELAP	E−10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M−SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE−OS−26−13
Nevada	SC000122020−1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R−158
Oklahoma	2019−165
Pennsylvania NELAP	68−00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235−19−15
Utah NELAP	SC000122019−29
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

GEL Laboratories LLC
a member of The GEL Group INC

PO Box 30712 Charleston, SC 29417
2040 Savage Road Charleston, SC 29407
P 843.556.8171
F 843.766.1178

gel.com

November 26, 2019

Ms. Cynthia Logsdon
Westinghouse Electric Company, LLC
PO Drawer R
Columbia, South Carolina 29205

Re: ENV-CONSENTA
Work Order: 494717

Dear Ms. Logsdon:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 30, 2019. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4778.

Sincerely,

Hope Taylor
Project Manager

Purchase Order: 4500778461
Enclosures

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 − (843) 556−8171 − www.gel.com

Certificate of Analysis Report
for

WNUC009 Westinghouse Electric Co, LLC

Client SDG: 494717 GEL Work Order: 494717

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

J See case narrative for an explanation

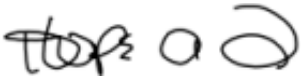
J Value is estimated

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Hope Taylor.

Reviewed by 

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-15
Sample ID: 494717001
Matrix: Ground Water
Collect Date: 21-OCT-19 09:05
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1338	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	75.0	68.0	200	ug/L	1.00	1	LS	11/13/19	1644	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		304	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		23700	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	4.38	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		9330	110	300	ug/L	1.00	1					
Manganese		230	2.00	10.0	ug/L	1.00	1					
Nickel		5.84	1.50	5.00	ug/L	1.00	1					
Potassium		8550	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		38900	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	2.03	1.00	5.00	ug/L	1.00	1					
Zinc	J	10.7	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2022	1934583	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1059	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-15	Project:	WNUC01519
Sample ID:	494717001	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730		1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730		1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411		1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-16
Sample ID: 494717002
Matrix: Ground Water
Collect Date: 21-OCT-19 10:30
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1340	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		827	68.0	200	ug/L	1.00	1	LS	11/13/19	1647	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		135	1.00	5.00	ug/L	1.00	1					
Beryllium	J	1.28	1.00	5.00	ug/L	1.00	1					
Cadmium	J	3.73	1.00	5.00	ug/L	1.00	1					
Calcium		12500	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	3.32	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		164	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4230	110	300	ug/L	1.00	1					
Manganese		427	2.00	10.0	ug/L	1.00	1					
Nickel	J	4.08	1.50	5.00	ug/L	1.00	1					
Potassium		12900	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		20000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	2.69	1.00	5.00	ug/L	1.00	1					
Zinc	J	19.1	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2024	1934583	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1101	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-16	Project:	WNUC01519
Sample ID:	494717002	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730		1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730		1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411		1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-17
Sample ID: 494717003
Matrix: Ground Water
Collect Date: 21-OCT-19 09:24
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1342	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/13/19	1650	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		164	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		16300	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		6.53	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		5030	110	300	ug/L	1.00	1					
Manganese		282	2.00	10.0	ug/L	1.00	1					
Nickel		8.33	1.50	5.00	ug/L	1.00	1					
Potassium		7440	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		35000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium		8.37	1.00	5.00	ug/L	1.00	1					
Zinc		29.0	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.0855	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2026	1934583	4
Uranium-238	J	0.0855	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1103	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-17	Project:	WNUC01519
Sample ID:	494717003	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730		1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730		1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411		1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-19B
Sample ID: 494717004
Matrix: Ground Water
Collect Date: 21-OCT-19 13:35
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1347	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/13/19	1626	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	J	5.32	5.00	30.0	ug/L	1.00	1					
Barium		84.8	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		4330	50.0	200	ug/L	1.00	1					
Chromium	J	2.27	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1520	110	300	ug/L	1.00	1					
Manganese	U	ND	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.95	1.50	5.00	ug/L	1.00	1					
Potassium		1510	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		7420	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	7.00	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2027	1934583	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1105	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-19B
Sample ID: 494717004
Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-42
Sample ID: 494717005
Matrix: Ground Water
Collect Date: 22-OCT-19 14:15
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1355	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		1150	68.0	200	ug/L	1.00	1	LS	11/13/19	1653	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		101	1.00	5.00	ug/L	1.00	1					
Beryllium	J	3.32	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		3980	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	3.22	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1970	110	300	ug/L	1.00	1					
Manganese		343	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.62	1.50	5.00	ug/L	1.00	1					
Potassium		3690	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		3770	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.36	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2039	1934583	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1117	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-42 Project: WNUC01519
Sample ID: 494717005 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-46
Sample ID: 494717006
Matrix: Ground Water
Collect Date: 21-OCT-19 12:00
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1357	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/13/19	1656	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		144	1.00	5.00	ug/L	1.00	1					
Beryllium	J	1.26	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		8640	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.16	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4980	110	300	ug/L	1.00	1					
Manganese	J	8.93	2.00	10.0	ug/L	1.00	1					
Nickel		6.13	1.50	5.00	ug/L	1.00	1					
Potassium		2670	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		18700	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	10.7	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2041	1934583	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1119	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-46	Project:	WNUC01519
Sample ID:	494717006	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-48
Sample ID: 494717007
Matrix: Ground Water
Collect Date: 21-OCT-19 12:56
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1359	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	70.4	68.0	200	ug/L	1.00	1	LS	11/13/19	1659	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		97.1	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		5690	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		2230	110	300	ug/L	1.00	1					
Manganese		26.9	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		2940	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		10100	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.74	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2043	1934583	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1121	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-48	Project:	WNUC01519
Sample ID:	494717007	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-48-Dup
Sample ID: 494717008
Matrix: Ground Water
Collect Date: 21-OCT-19 12:56
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1400	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	87.4	68.0	200	ug/L	1.00	1	LS	11/13/19	1702	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		99.1	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		5870	50.0	200	ug/L	1.00	1					
Chromium	J	1.11	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		2300	110	300	ug/L	1.00	1					
Manganese		28.8	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		3030	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		10400	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	5.10	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2045	1934583	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1123	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-48-Dup	Project:	WNUC01519
Sample ID:	494717008	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-49
Sample ID: 494717009
Matrix: Ground Water
Collect Date: 24-OCT-19 11:20
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1402	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/13/19	1705	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		10.5	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		729	50.0	200	ug/L	1.00	1					
Chromium	J	9.30	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.25	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		817	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium	J	296	110	300	ug/L	1.00	1					
Manganese	J	8.85	2.00	10.0	ug/L	1.00	1					
Nickel	J	3.11	1.50	5.00	ug/L	1.00	1					
Potassium		607	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		3660	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	8.09	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.0695	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2046	1934583	4
Uranium-238	J	0.0695	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1125	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-49	Project:	WNUC01519
Sample ID:	494717009	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-49-Dup
Sample ID: 494717010
Matrix: Ground Water
Collect Date: 24-OCT-19 11:20
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1407	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/13/19	1714	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		11.6	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		790	50.0	200	ug/L	1.00	1					
Chromium		14.7	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.19	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		1010	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		333	110	300	ug/L	1.00	1					
Manganese	J	9.89	2.00	10.0	ug/L	1.00	1					
Nickel	J	3.61	1.50	5.00	ug/L	1.00	1					
Potassium		732	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		3900	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	9.19	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.0865	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2051	1934583	4
Uranium-238	J	0.0865	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1131	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-49-Dup	Project:	WNUC01519
Sample ID:	494717010	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730		1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730		1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411		1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-62
Sample ID: 494717011
Matrix: Ground Water
Collect Date: 22-OCT-19 08:55
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1409	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/13/19	1717	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		75.7	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		4420	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1660	110	300	ug/L	1.00	1					
Manganese	J	4.32	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.04	1.50	5.00	ug/L	1.00	1					
Potassium		1630	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		6540	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	6.66	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2053	1934583	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1133	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-62	Project:	WNUC01519
Sample ID:	494717011	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730		1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730		1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411		1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-63
Sample ID: 494717012
Matrix: Ground Water
Collect Date: 21-OCT-19 11:20
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1411	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/13/19	1720	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		70.9	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		12600	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		3440	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1770	110	300	ug/L	1.00	1					
Manganese		259	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		5280	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		73900	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.57	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.123	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2055	1934583	4
Uranium-238	J	0.123	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1135	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-63	Project:	WNUC01519
Sample ID:	494717012	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-68
Sample ID: 494717013
Matrix: Ground Water
Collect Date: 22-OCT-19 13:54
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1412	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/13/19	1722	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		92.9	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		4530	50.0	200	ug/L	1.00	1					
Chromium	J	2.69	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	J	30.1	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1850	110	300	ug/L	1.00	1					
Manganese	J	2.94	2.00	10.0	ug/L	1.00	1					
Nickel	J	2.30	1.50	5.00	ug/L	1.00	1					
Potassium		1410	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		6980	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	6.54	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2057	1934583	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1137	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-68	Project:	WNUC01519
Sample ID:	494717013	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730		1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730		1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411		1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-69
Sample ID: 494717014
Matrix: Ground Water
Collect Date: 23-OCT-19 09:10
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1414	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/13/19	1725	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		68.9	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		2480	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		8.08	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		4120	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		794	110	300	ug/L	1.00	1					
Manganese		412	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.94	1.50	5.00	ug/L	1.00	1					
Potassium		840	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		13600	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	14.4	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2058	1934583	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1139	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-69	Project:	WNUC01519
Sample ID:	494717014	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-70
Sample ID: 494717015
Matrix: Ground Water
Collect Date: 23-OCT-19 10:20
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1416	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	LS	11/13/19	1728	1934587	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		91.2	1.00	5.00	ug/L	1.00	1					
Beryllium	J	1.17	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		3170	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		9.91	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	J	38.5	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1410	110	300	ug/L	1.00	1					
Manganese		90.4	2.00	10.0	ug/L	1.00	1					
Nickel	J	4.49	1.50	5.00	ug/L	1.00	1					
Potassium		2190	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		3580	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	12.2	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2100	1934583	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1141	1934583	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-70 Project: WNUC01519
Sample ID: 494717015 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934586			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934581			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-71
Sample ID: 494717016
Matrix: Ground Water
Collect Date: 23-OCT-19 11:25
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1417	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1705	1934589	2
Antimony	J	7.15	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		22.0	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		4300	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		5910	30.0	100	ug/L	1.00	1					
Lead	J	5.18	3.30	20.0	ug/L	1.00	1					
Magnesium		745	110	300	ug/L	1.00	1					
Manganese		81.6	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		7080	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.73	1.00	5.00	ug/L	1.00	1					
Sodium		10800	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	U	ND	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	J	0.165	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	1946	1934585	4
Uranium-238	J	0.165	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1019	1934585	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-71	Project:	WNUC01519
Sample ID:	494717016	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730		1934588			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730		1934584			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411		1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-85
Sample ID: 494717017
Matrix: Ground Water
Collect Date: 23-OCT-19 12:55
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1419	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1728	1934589	2
Antimony	J	6.48	3.50	20.0	ug/L	1.00	1					
Arsenic	J	7.94	5.00	30.0	ug/L	1.00	1					
Barium		236	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		9410	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	2.69	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		23900	30.0	100	ug/L	1.00	1					
Lead	J	7.16	3.30	20.0	ug/L	1.00	1					
Magnesium		3970	110	300	ug/L	1.00	1					
Manganese		242	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		1620	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		46200	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.57	1.00	5.00	ug/L	1.00	1					
Zinc	J	3.73	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	1958	1934585	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1031	1934585	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-85	Project:	WNUC01519
Sample ID:	494717017	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730		1934588			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730		1934584			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411		1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-86	Project:	WNUC01519
Sample ID:	494717018	Client ID:	WNUC009
Matrix:	Ground Water		
Collect Date:	23-OCT-19 14:05		
Receive Date:	30-OCT-19		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1421	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		419	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1731	1934589	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	J	5.58	5.00	30.0	ug/L	1.00	1					
Barium		101	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		2060	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	3.99	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		7810	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1180	110	300	ug/L	1.00	1					
Manganese		39.6	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.64	1.50	5.00	ug/L	1.00	1					
Potassium		174	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.44	1.00	5.00	ug/L	1.00	1					
Sodium		51000	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.10	1.00	5.00	ug/L	1.00	1					
Zinc	J	3.59	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2000	1934585	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1033	1934585	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-86	Project:	WNUC01519
Sample ID:	494717018	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934588			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934584			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-88
Sample ID: 494717019
Matrix: Ground Water
Collect Date: 22-OCT-19 11:53
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1422	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1734	1934589	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		90.5	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		5450	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.08	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1840	110	300	ug/L	1.00	1					
Manganese	J	6.10	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.54	1.50	5.00	ug/L	1.00	1					
Potassium		2010	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		6330	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	10.3	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2002	1934585	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1035	1934585	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-88	Project:	WNUC01519
Sample ID:	494717019	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934588			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934584			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-89
Sample ID: 494717020
Matrix: Ground Water
Collect Date: 22-OCT-19 10:40
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1427	1939142	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1738	1934589	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		94.0	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		4380	50.0	200	ug/L	1.00	1					
Chromium	J	2.85	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.08	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1940	110	300	ug/L	1.00	1					
Manganese	J	7.45	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		1680	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		3430	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	U	ND	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2004	1934585	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1037	1934585	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-89	Project:	WNUC01519
Sample ID:	494717020	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934588			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934584			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1411	1939141			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-90
Sample ID: 494717021
Matrix: Ground Water
Collect Date: 22-OCT-19 12:45
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1649	1939132	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1742	1934589	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		101	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		3540	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.62	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	J	4.88	3.30	20.0	ug/L	1.00	1					
Magnesium		1300	110	300	ug/L	1.00	1					
Manganese		16.5	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		1710	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		6810	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	6.93	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2005	1934585	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1039	1934585	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Certificate of Analysis

Report Date: November 26, 2019

Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-90	Project:	WNUC01519
Sample ID:	494717021	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934588			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934584			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1410	1939131			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-01-102219
Sample ID: 494717022
Matrix: Ground Water
Collect Date: 22-OCT-19 09:48
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1651	1939132	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1746	1934589	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium	U	ND	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium	U	ND	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium	U	ND	110	300	ug/L	1.00	1					
Manganese	U	ND	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium	U	ND	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium	U	ND	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	3.89	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2007	1934585	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1041	1934585	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-01-102219 Project: WNUC01519
Sample ID: 494717022 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934588			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934584			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1410	1939131			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-10-102419
Sample ID: 494717023
Matrix: Ground Water
Collect Date: 24-OCT-19 09:20
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1327	1939132	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1750	1934589	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	J	5.04	5.00	30.0	ug/L	1.00	1					
Barium	U	ND	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium	U	ND	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	J	4.91	3.30	20.0	ug/L	1.00	1					
Magnesium	U	ND	110	300	ug/L	1.00	1					
Manganese	U	ND	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium	U	ND	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	J	1.09	1.00	5.00	ug/L	1.00	1					
Sodium	U	ND	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	U	ND	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2009	1934585	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1043	1934585	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-10-102419 Project: WNUC01519
Sample ID: 494717023 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934588			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934584			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1410	1939131			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: WSW-02
Sample ID: 494717024
Matrix: Ground Water
Collect Date: 22-OCT-19 10:45
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1328	1939132	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1802	1934589	2
Antimony	J	5.89	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		27.1	1.00	5.00	ug/L	1.00	1					
Beryllium	J	1.26	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		1990	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	U	ND	1.00	5.00	ug/L	1.00	1					
Copper		26.3	3.00	20.0	ug/L	1.00	1					
Iron		7050	30.0	100	ug/L	1.00	1					
Lead	J	3.91	3.30	20.0	ug/L	1.00	1					
Magnesium		970	110	300	ug/L	1.00	1					
Manganese		106	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.74	1.50	5.00	ug/L	1.00	1					
Potassium		1020	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		5130	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc	J	13.4	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium	U	ND	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2010	1934585	4
Uranium-238	U	ND	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1045	1934585	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: WSW-02 Project: WNUC01519
Sample ID: 494717024 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934588			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934584			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1410	1939131			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: WSW-03
Sample ID: 494717025
Matrix: Ground Water
Collect Date: 24-OCT-19 12:35
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1330	1939132	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1806	1934589	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium	J	2.78	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		330	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	4.45	1.00	5.00	ug/L	1.00	1					
Copper		22.2	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	J	5.63	3.30	20.0	ug/L	1.00	1					
Magnesium	J	157	110	300	ug/L	1.00	1					
Manganese	J	3.95	2.00	10.0	ug/L	1.00	1					
Nickel		5.23	1.50	5.00	ug/L	1.00	1					
Potassium		582	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		1740	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc		37.0	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.776	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2012	1934585	4
Uranium-238		0.776	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1047	1934585	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Company :	Westinghouse Electric Company, LLC
Address :	PO Drawer R
	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	WSW-03	Project:	WNUC01519
Sample ID:	494717025	Client ID:	WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934588			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934584			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1410	1939131			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: WSW-04
Sample ID: 494717026
Matrix: Ground Water
Collect Date: 24-OCT-19 13:30
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	AXS5	11/18/19	1332	1939132	1
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	78.3	68.0	200	ug/L	1.00	1	JWJ	11/13/19	1809	1934589	2
Antimony	U	ND	3.50	20.0	ug/L	1.00	1					
Arsenic	U	ND	5.00	30.0	ug/L	1.00	1					
Barium		7.43	1.00	5.00	ug/L	1.00	1					
Beryllium	U	ND	1.00	5.00	ug/L	1.00	1					
Cadmium	U	ND	1.00	5.00	ug/L	1.00	1					
Calcium		288	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	3.66	1.00	5.00	ug/L	1.00	1					
Copper		33.2	3.00	20.0	ug/L	1.00	1					
Iron	U	ND	30.0	100	ug/L	1.00	1					
Lead	J	5.14	3.30	20.0	ug/L	1.00	1					
Magnesium	J	190	110	300	ug/L	1.00	1					
Manganese	J	4.84	2.00	10.0	ug/L	1.00	1					
Nickel		5.64	1.50	5.00	ug/L	1.00	1					
Potassium		879	50.0	150	ug/L	1.00	1					
Selenium	U	ND	6.00	30.0	ug/L	1.00	1					
Silver	U	ND	1.00	5.00	ug/L	1.00	1					
Sodium		1140	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	U	ND	1.00	5.00	ug/L	1.00	1					
Zinc		116	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
Calculation for Total U "See Parent Products"												
Total Uranium		0.482	0.067	0.200	ug/L			BAJ	11/26/19	1032	1943299	3
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	11/23/19	2014	1934585	4
Uranium-238		0.482	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	11/24/19	1049	1934585	5

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

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Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: WSW-04 Project: WNUC01519
Sample ID: 494717026 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time	Batch	Method
SW846 3005A		SW846 3005A for 6010D		HH1	11/08/19		1730	1934588			
SW846 3010A		SW 846 3010 Acid Digestion		HH1	11/08/19		1730	1934584			
SW846 7470A Prep		EPA 7470A Mercury Prep Liquid		AXS5	11/15/19		1410	1939131			

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7470A	
2	SW846 3005A/6010D	
3	SW846 6020	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-15
Sample ID: 494717001
Matrix: Ground Water
Collect Date: 21-OCT-19 09:05
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/16/19	1045	1934004	1
Uranium-233/234	U	0.0108	+/-0.123	0.261	0.500	pCi/L							
Uranium-235/236	U	0.162	+/-0.191	0.207	0.500	pCi/L							
Uranium-238	U	0.0531	+/-0.122	0.193	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.351	+/-1.83	4.35	5.00	pCi/L			HXB2	11/14/19	1512	1934407	2
Beta		170	+/-10.2	3.85	5.00	pCi/L							
Alpha	U	-0.133	+/-2.26	4.86	5.00	pCi/L			HXB2	11/15/19	1002	1934407	3
Beta		177	+/-10.3	4.02	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	-19.1	+/-299	541	700	pCi/L			EW3	11/07/19	2010	1934529	4
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		253	+/-28.4	37.7	50.0	pCi/L			JJ3	11/13/19	1115	1934513	5

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	EPA 906.0 Modified	
5	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			83.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			87.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

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Company :	Westinghouse Electric Company, LLC
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	Columbia, South Carolina 29205
Contact:	Ms. Cynthia Logsdon
Project:	ENV-CONSENTA

Client Sample ID:	W-15	Project:	WNUC01519
Sample ID:	494717001	Client ID:	WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-16
Sample ID: 494717002
Matrix: Ground Water
Collect Date: 21-OCT-19 10:30
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/16/19	1054	1934004	1
Uranium-233/234	U	0.168	+/-0.173	0.225	0.500	pCi/L							
Uranium-235/236	U	0.0107	+/-0.112	0.234	0.500	pCi/L							
Uranium-238	U	0.0718	+/-0.142	0.240	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.421	+/-1.88	3.97	5.00	pCi/L			HXB2	11/14/19	1512	1934407	2
Beta		10.6	+/-2.87	2.86	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	12.8	+/-312	560	700	pCi/L			EW3	11/07/19	2032	1934529	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-4.45	+/-27.0	47.1	50.0	pCi/L			JJ3	11/12/19	0802	1934513	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			91.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			90.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-17
Sample ID: 494717003
Matrix: Ground Water
Collect Date: 21-OCT-19 09:24
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/16/19	1054	1934004	1
Uranium-233/234	U	0.209	+/-0.199	0.252	0.500	pCi/L							
Uranium-235/236	U	0.0726	+/-0.143	0.198	0.500	pCi/L							
Uranium-238	U	0.0507	+/-0.116	0.185	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.40	+/-2.75	4.20	5.00	pCi/L			HXB2	11/14/19	1512	1934407	2
Beta		540	+/-16.6	3.27	5.00	pCi/L							
Alpha	U	3.32	+/-3.34	3.93	5.00	pCi/L			HXB2	11/15/19	1002	1934407	3
Beta		535	+/-17.9	3.67	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		820	+/-37.9	35.5	50.0	pCi/L			JJ3	11/13/19	1148	1934513	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 900.0/SW846 9310	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			88.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			91.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-19B
Sample ID: 494717004
Matrix: Ground Water
Collect Date: 21-OCT-19 13:35
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.197	+/-0.207	0.273	0.500	pCi/L							
Uranium-235/236	U	0.125	+/-0.181	0.218	0.500	pCi/L							
Uranium-238	U	0.0559	+/-0.128	0.204	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.26	+/-2.15	3.26	5.00	pCi/L			HXB2	11/14/19	1512	1934407	2
Beta	U	-0.0894	+/-1.72	3.33	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-3.26	+/-26.3	45.7	50.0	pCi/L			JJ3	11/12/19	0846	1934513	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			79	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			89.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-42
Sample ID: 494717005
Matrix: Ground Water
Collect Date: 22-OCT-19 14:15
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/19/19	1007	1934004	1
Uranium-233/234	U	-0.00113	+/-0.211	0.471	0.500	pCi/L							
Uranium-235/236	U	0.110	+/-0.252	0.400	0.500	pCi/L							
Uranium-238	U	0.0468	+/-0.210	0.410	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.753	+/-1.64	3.11	5.00	pCi/L			HXB2	11/14/19	1512	1934407	2
Beta	U	3.16	+/-2.36	3.74	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	5.77	+/-23.3	39.9	50.0	pCi/L			JJ3	11/13/19	1220	1934513	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			64.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			82.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-46
Sample ID: 494717006
Matrix: Ground Water
Collect Date: 21-OCT-19 12:00
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.317	+/-0.327	0.428	0.500	pCi/L							
Uranium-235/236	U	-0.103	+/-0.167	0.530	0.500	pCi/L							
Uranium-238	U	0.0325	+/-0.210	0.429	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.656	+/-2.53	4.85	5.00	pCi/L			HXB2	11/14/19	1513	1934407	2
Beta		40.4	+/-4.20	3.05	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99		62.8	+/-23.3	37.1	50.0	pCi/L			JJ3	11/13/19	1253	1934513	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			59.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			87.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-48
Sample ID: 494717007
Matrix: Ground Water
Collect Date: 21-OCT-19 12:56
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.0449	+/-0.155	0.298	0.500	pCi/L							
Uranium-235/236	U	0.106	+/-0.168	0.232	0.500	pCi/L							
Uranium-238	U	0.0109	+/-0.124	0.263	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.460	+/-2.48	4.72	5.00	pCi/L			HXB2	11/14/19	1513	1934407	2
Beta		9.32	+/-2.53	2.82	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	87.4	+/-323	569	700	pCi/L			EW3	11/07/19	2053	1934529	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	13.1	+/-26.5	45.2	50.0	pCi/L			JJ3	11/12/19	0953	1934513	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			95.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			90.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-48-Dup
Sample ID: 494717008
Matrix: Ground Water
Collect Date: 21-OCT-19 12:56
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.231	+/-0.209	0.251	0.500	pCi/L							
Uranium-235/236	U	0.0663	+/-0.152	0.242	0.500	pCi/L							
Uranium-238	U	0.00988	+/-0.103	0.216	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.929	+/-1.57	4.15	5.00	pCi/L			HXB2	11/14/19	1521	1934407	2
Beta		7.64	+/-2.70	3.30	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid "As Received"													
Tritium	U	190	+/-330	568	700	pCi/L			EW3	11/07/19	2114	1934529	3
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	14.9	+/-27.2	46.3	50.0	pCi/L			JJ3	11/12/19	1015	1934513	4

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	EPA 906.0 Modified	
4	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			79.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			90.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-49
Sample ID: 494717009
Matrix: Ground Water
Collect Date: 24-OCT-19 11:20
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.154	+/-0.222	0.312	0.500	pCi/L							
Uranium-235/236	U	0.0321	+/-0.178	0.342	0.500	pCi/L							
Uranium-238	U	0.038	+/-0.142	0.240	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.196	+/-1.73	3.68	5.00	pCi/L			HXB2	11/14/19	1527	1934407	2
Beta	U	4.34	+/-3.06	4.83	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-2.03	+/-26.5	46.1	50.0	pCi/L			JJ3	11/12/19	1037	1934513	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			70	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			92	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-49-Dup
Sample ID: 494717010
Matrix: Ground Water
Collect Date: 24-OCT-19 11:20
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/19/19	0852	1934004	1
Uranium-233/234		0.432	+/-0.319	0.351	0.500	pCi/L							
Uranium-235/236	U	0.0321	+/-0.207	0.424	0.500	pCi/L							
Uranium-238	U	0.026	+/-0.168	0.343	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.80	+/-2.06	3.38	5.00	pCi/L			HXB2	11/14/19	1527	1934407	2
Beta	U	0.719	+/-2.17	3.89	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-9.86	+/-27.1	47.6	50.0	pCi/L			JJ3	11/12/19	1059	1934513	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			74.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			89.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-62
Sample ID: 494717011
Matrix: Ground Water
Collect Date: 22-OCT-19 08:55
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.0178	+/-0.142	0.296	0.500	pCi/L							
Uranium-235/236	U	0.0998	+/-0.171	0.150	0.500	pCi/L							
Uranium-238	U	0.142	+/-0.180	0.224	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	-0.106	+/-1.26	3.13	5.00	pCi/L			HXB2	11/14/19	1527	1934407	2
Beta		4.85	+/-2.84	4.29	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-17.3	+/-26.6	47.2	50.0	pCi/L			JJ3	11/12/19	1122	1934513	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			72	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			88.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-63
Sample ID: 494717012
Matrix: Ground Water
Collect Date: 21-OCT-19 11:20
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/19/19	0852	1934004	1
Uranium-233/234	U	0.266	+/-0.239	0.314	0.500	pCi/L							
Uranium-235/236	U	0.0677	+/-0.156	0.247	0.500	pCi/L							
Uranium-238	U	0.264	+/-0.229	0.279	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.22	+/-2.06	3.79	5.00	pCi/L			HXB2	11/14/19	1527	1934407	2
Beta	U	3.32	+/-2.73	4.38	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-21	+/-26.6	47.4	50.0	pCi/L			JJ3	11/12/19	1206	1934513	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			89.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			89.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-68
Sample ID: 494717013
Matrix: Ground Water
Collect Date: 22-OCT-19 13:54
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.204	+/-0.205	0.258	0.500	pCi/L							
Uranium-235/236	U	0.0452	+/-0.127	0.136	0.500	pCi/L							
Uranium-238	U	0.0102	+/-0.107	0.223	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.922	+/-1.47	2.63	5.00	pCi/L			HXB2	11/14/19	1527	1934407	2
Beta	U	2.33	+/-2.87	4.84	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-31.1	+/-25.7	46.5	50.0	pCi/L			JJ3	11/12/19	1144	1934513	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			82.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			89.4	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-69
Sample ID: 494717014
Matrix: Ground Water
Collect Date: 23-OCT-19 09:10
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/19/19	0852	1934004	1
Uranium-233/234		0.366	+/-0.260	0.266	0.500	pCi/L							
Uranium-235/236	U	0.118	+/-0.188	0.260	0.500	pCi/L							
Uranium-238	U	0.201	+/-0.200	0.232	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.31	+/-2.49	3.93	5.00	pCi/L			HXB2	11/14/19	1527	1934407	2
Beta	U	1.94	+/-2.85	4.86	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	-5.87	+/-22.8	40.2	50.0	pCi/L			JJ3	11/12/19	0837	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			74.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			97.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-70
Sample ID: 494717015
Matrix: Ground Water
Collect Date: 23-OCT-19 10:20
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.188	+/-0.224	0.342	0.500	pCi/L							
Uranium-235/236	U	-0.0415	+/-0.0961	0.285	0.500	pCi/L							
Uranium-238	U	0.0615	+/-0.121	0.168	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.0198	+/-1.43	3.31	5.00	pCi/L			HXB2	11/14/19	1527	1934407	2
Beta	U	1.37	+/-2.55	4.45	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	21.4	+/-24.5	41.2	50.0	pCi/L			JJ3	11/12/19	0859	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			89.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			97.2	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-71
Sample ID: 494717016
Matrix: Ground Water
Collect Date: 23-OCT-19 11:25
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.228	+/-0.205	0.258	0.500	pCi/L							
Uranium-235/236	U	0.0113	+/-0.118	0.246	0.500	pCi/L							
Uranium-238	U	0.0743	+/-0.131	0.199	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.983	+/-1.85	3.45	5.00	pCi/L			HXB2	11/14/19	1310	1937254	2
Beta		8.11	+/-3.24	4.46	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	12.2	+/-22.9	39.0	50.0	pCi/L			JJ3	11/12/19	0921	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			82.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			99.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-85
Sample ID: 494717017
Matrix: Ground Water
Collect Date: 23-OCT-19 12:55
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.0494	+/-0.132	0.237	0.500	pCi/L							
Uranium-235/236	U	0.0621	+/-0.143	0.226	0.500	pCi/L							
Uranium-238	U	0.0502	+/-0.115	0.183	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	1.42	+/-2.62	4.90	5.00	pCi/L			HXB2	11/14/19	1310	1937254	2
Beta	U	1.23	+/-2.81	4.93	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	19.3	+/-25.6	43.3	50.0	pCi/L			JJ3	11/12/19	0943	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			84	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			89.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-86
Sample ID: 494717018
Matrix: Ground Water
Collect Date: 23-OCT-19 14:05
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.125	+/-0.206	0.334	0.500	pCi/L							
Uranium-235/236	U	0.130	+/-0.207	0.286	0.500	pCi/L							
Uranium-238	U	0.137	+/-0.187	0.255	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.317	+/-2.17	4.84	5.00	pCi/L			HXB2	11/14/19	1310	1937254	2
Beta		7.12	+/-3.12	4.40	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	8.88	+/-22.1	37.8	50.0	pCi/L			JJ3	11/12/19	1005	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			69.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			99.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-88
Sample ID: 494717019
Matrix: Ground Water
Collect Date: 22-OCT-19 11:53
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.107	+/-0.172	0.274	0.500	pCi/L							
Uranium-235/236	U	0.0449	+/-0.154	0.285	0.500	pCi/L							
Uranium-238	U	0.185	+/-0.184	0.213	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	2.50	+/-2.32	3.53	5.00	pCi/L			HXB2	11/14/19	1310	1937254	2
Beta	U	2.05	+/-2.35	3.90	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	6.34	+/-25.0	43.1	50.0	pCi/L			JJ3	11/12/19	1027	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			77.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			88.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-89
Sample ID: 494717020
Matrix: Ground Water
Collect Date: 22-OCT-19 10:40
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			MP2	11/17/19	1014	1934004	1
Uranium-233/234	U	0.209	+/-0.223	0.311	0.500	pCi/L							
Uranium-235/236	U	-0.011	+/-0.0947	0.219	0.500	pCi/L							
Uranium-238	U	-0.0178	+/-0.0786	0.205	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.498	+/-1.84	3.71	5.00	pCi/L			HXB2	11/14/19	1310	1937254	2
Beta	U	-0.799	+/-2.53	4.84	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	27.5	+/-28.7	48.1	50.0	pCi/L			JJ3	11/12/19	1049	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			85.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			81	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
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Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: W-90
Sample ID: 494717021
Matrix: Ground Water
Collect Date: 22-OCT-19 12:45
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/15/19	0940	1934005	1
Uranium-233/234	U	0.037	+/-0.141	0.272	0.500	pCi/L							
Uranium-235/236	U	0.0653	+/-0.150	0.238	0.500	pCi/L							
Uranium-238	U	-0.0139	+/-0.130	0.301	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.889	+/-1.43	2.57	5.00	pCi/L			HXB2	11/14/19	1310	1937254	2
Beta		23.1	+/-4.29	4.84	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	6.68	+/-24.1	41.5	50.0	pCi/L			JJ3	11/12/19	1111	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			81	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			91.8	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-01-102219
Sample ID: 494717022
Matrix: Ground Water
Collect Date: 22-OCT-19 09:48
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/15/19	0940	1934005	1
Uranium-233/234	U	0.119	+/-0.271	0.484	0.500	pCi/L							
Uranium-235/236	U	0.00266	+/-0.197	0.439	0.500	pCi/L							
Uranium-238	U	0.0431	+/-0.193	0.378	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.307	+/-1.74	3.63	5.00	pCi/L			HXB2	11/14/19	1310	1937254	2
Beta	U	1.87	+/-2.30	3.85	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	22.8	+/-26.9	45.3	50.0	pCi/L			JJ3	11/12/19	1133	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			64.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			85.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: EB-10-102419
Sample ID: 494717023
Matrix: Ground Water
Collect Date: 24-OCT-19 09:20
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/15/19	0940	1934005	1
Uranium-233/234	U	0.169	+/-0.213	0.309	0.500	pCi/L							
Uranium-235/236	U	-0.0239	+/-0.106	0.275	0.500	pCi/L							
Uranium-238	U	0.101	+/-0.161	0.223	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.296	+/-1.40	2.74	5.00	pCi/L			HXB2	11/14/19	1310	1937254	2
Beta	U	3.29	+/-2.94	4.84	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	27.0	+/-25.3	42.2	50.0	pCi/L			JJ3	11/12/19	1155	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			73.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			87.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
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Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: WSW-02
Sample ID: 494717024
Matrix: Ground Water
Collect Date: 22-OCT-19 10:45
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/15/19	0940	1934005	1
Uranium-233/234	U	0.0341	+/-0.135	0.263	0.500	pCi/L							
Uranium-235/236	U	0.104	+/-0.165	0.228	0.500	pCi/L							
Uranium-238	U	0.0506	+/-0.116	0.184	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha	U	0.876	+/-1.57	2.91	5.00	pCi/L			HXB2	11/14/19	1310	1937254	2
Beta		8.80	+/-3.47	4.89	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	0.279	+/-25.6	44.5	50.0	pCi/L			JJ3	11/12/19	1217	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			90.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			88.1	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: WSW-03
Sample ID: 494717025
Matrix: Ground Water
Collect Date: 24-OCT-19 12:35
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/15/19	0940	1934005	1
Uranium-233/234	U	0.286	+/-0.312	0.429	0.500	pCi/L							
Uranium-235/236	U	0.0518	+/-0.194	0.327	0.500	pCi/L							
Uranium-238		0.788	+/-0.435	0.337	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		3.63	+/-2.51	3.50	5.00	pCi/L			HXB2	11/14/19	1310	1937254	2
Beta	U	2.05	+/-2.79	4.72	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	0.857	+/-23.8	41.4	50.0	pCi/L			JJ3	11/13/19	0515	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			54.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			94.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 26, 2019

Company : Westinghouse Electric Company, LLC
Address : PO Drawer R

Columbia, South Carolina 29205
Contact: Ms. Cynthia Logsdon
Project: ENV-CONSENTA

Client Sample ID: WSW-04
Sample ID: 494717026
Matrix: Ground Water
Collect Date: 24-OCT-19 13:30
Receive Date: 30-OCT-19
Collector: Client

Project: WNUC01519
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Liquid "As Received"													
Pct Uranium-235	U	0.00				percent			EXC2	11/15/19	0940	1934005	1
Uranium-233/234	U	0.236	+/-0.257	0.329	0.500	pCi/L							
Uranium-235/236	U	0.0774	+/-0.213	0.369	0.500	pCi/L							
Uranium-238		0.342	+/-0.272	0.147	0.500	pCi/L							
Rad Gas Flow Proportional Counting													
GFPC, Gross Alpha Liquid "As Received"													
Alpha		7.11	+/-2.76	2.91	5.00	pCi/L			HXB2	11/14/19	1311	1937254	2
Beta	U	2.69	+/-2.96	4.93	5.00	pCi/L							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Liquid "As Received"													
Technetium-99	U	8.56	+/-24.5	42.1	50.0	pCi/L			JJ3	11/13/19	0537	1934514	3

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	EPA 900.0/SW846 9310	
3	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			71.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			92.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

QC Summary

Report Date: November 26, 2019

Westinghouse Electric Company, LLC
PO Drawer R
Columbia, South Carolina

Contact: **Ms. Cynthia Logsdon**

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 1934583										
QC1204422588 LCS										
Uranium-235	0.360			0.357	ug/L		99.1	(80%-120%)	PRB	11/23/19 20:21
Uranium-238	49.6			49.1	ug/L		99	(80%-120%)		
QC1204422592 LCS										
Uranium-234	0.550			0.569	ug/L		103	(80%-120%)		11/24/19 10:57
QC1204422587 MB										
Uranium-234			U	ND	ug/L					11/24/19 10:55
Uranium-235			U	ND	ug/L					11/23/19 20:19
Uranium-238			U	ND	ug/L					
QC1204422589 494717004 MS										
Uranium-235	0.360	U	ND	0.342	ug/L		94.9	(75%-125%)		11/23/19 20:29
Uranium-238	49.6	U	ND	48.0	ug/L		96.6	(75%-125%)		
QC1204422593 494717004 MS										
Uranium-234	0.550	U	ND	0.562	ug/L		102	(75%-125%)		11/24/19 11:07
QC1204422590 494717004 MSD										
Uranium-235	0.360	U	ND	0.355	ug/L	3.76	98.6	(0%-20%)		11/23/19 20:31
Uranium-238	49.6	U	ND	48.7	ug/L	1.55	98.1	(0%-20%)		
QC1204422594 494717004 MSD										
Uranium-234	0.550	U	ND	0.589	ug/L	4.69	107	(0%-20%)		11/24/19 11:09

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 1934583										
QC1204422591 494717004 SDILT										
Uranium-234	U	ND	U	ND	ug/L	N/A		(0%-20%)	PRB	11/24/19 11:11
Uranium-235	U	ND	U	ND	ug/L	N/A		(0%-20%)		11/23/19 20:34
Uranium-238	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Batch 1934585										
QC1204422596 LCS										
Uranium-235	0.360			0.361	ug/L		100	(80%-120%)	PRB	11/23/19 19:45
Uranium-238	49.6			49.2	ug/L		99	(80%-120%)		
QC1204422600 LCS										
Uranium-234	0.550			0.580	ug/L		105	(80%-120%)		11/24/19 10:17
QC1204422595 MB										
Uranium-234			U	ND	ug/L					11/24/19 10:15
Uranium-235			U	ND	ug/L					11/23/19 19:43
Uranium-238			U	ND	ug/L					
QC1204422597 494717016 MS										
Uranium-235	0.360 U	ND		0.380	ug/L		105	(75%-125%)		11/23/19 19:48
Uranium-238	49.6 J	0.165		50.4	ug/L		101	(75%-125%)		
QC1204422601 494717016 MS										
Uranium-234	0.550 U	ND		0.593	ug/L		108	(75%-125%)		11/24/19 10:21
QC1204422598 494717016 MSD										
Uranium-235	0.360 U	ND		0.372	ug/L	2.29	103	(0%-20%)		11/23/19 19:50

QC Summary

Workorder: **494717**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS												
Batch 1934585												
Uranium-238	49.6	J	0.165		50.8	ug/L	0.816	102	(0%-20%)	PRB	11/23/19	19:50
QC1204422602 494717016 MSD												
Uranium-234	0.550	U	ND		0.571	ug/L	3.78	104	(0%-20%)		11/24/19	10:23
QC1204422599 494717016 SDILT												
Uranium-234		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/24/19	10:25
Uranium-235		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/23/19	19:53
Uranium-238		J	0.165	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-ICP												
Batch 1934587												
QC1204422604 LCS												
Aluminum	5000				4720	ug/L		94.5	(80%-120%)	LS	11/13/19	16:24
Antimony	500				478	ug/L		95.6	(80%-120%)			
Arsenic	500				452	ug/L		90.5	(80%-120%)			
Barium	500				471	ug/L		94.2	(80%-120%)			
Beryllium	500				478	ug/L		95.6	(80%-120%)			
Cadmium	500				471	ug/L		94.2	(80%-120%)			
Calcium	5000				4750	ug/L		94.9	(80%-120%)			
Chromium	500				468	ug/L		93.7	(80%-120%)			

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1934587										
Cobalt	500			487	ug/L		97.4	(80%-120%)	LS	11/13/19 16:24
Copper	500			467	ug/L		93.4	(80%-120%)		
Iron	5000			4870	ug/L		97.4	(80%-120%)		
Lead	500			467	ug/L		93.3	(80%-120%)		
Magnesium	5000			4630	ug/L		92.6	(80%-120%)		
Manganese	500			461	ug/L		92.3	(80%-120%)		
Nickel	500			491	ug/L		98.2	(80%-120%)		
Potassium	5000			4780	ug/L		95.7	(80%-120%)		
Selenium	500			449	ug/L		89.8	(80%-120%)		
Silver	100			94.8	ug/L		94.8	(80%-120%)		
Sodium	5000			4770	ug/L		95.4	(80%-120%)		
Thallium	500			471	ug/L		94.2	(80%-120%)		
Vanadium	500			473	ug/L		94.7	(80%-120%)		
Zinc	500			462	ug/L		92.5	(80%-120%)		
QC1204422603 MB										
Aluminum			U	ND	ug/L					11/13/19 16:21

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1934587											
Antimony			U	ND	ug/L				LS	11/13/19	16:21
Arsenic			U	ND	ug/L						
Barium			U	ND	ug/L						
Beryllium			U	ND	ug/L						
Cadmium			U	ND	ug/L						
Calcium			U	ND	ug/L						
Chromium			U	ND	ug/L						
Cobalt			U	ND	ug/L						
Copper			U	ND	ug/L						
Iron			U	ND	ug/L						
Lead			U	ND	ug/L						
Magnesium			U	ND	ug/L						
Manganese			U	ND	ug/L						
Nickel			U	ND	ug/L						
Potassium			U	ND	ug/L						

QC Summary

Workorder: **494717**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1934587												
Selenium				U	ND	ug/L				LS	11/13/19	16:21
Silver				U	ND	ug/L						
Sodium				U	ND	ug/L						
Thallium				U	ND	ug/L						
Vanadium				U	ND	ug/L						
Zinc				U	ND	ug/L						
QC1204422605 494717004 MS												
Aluminum	5000	U	ND		4680	ug/L		93.6	(75%-125%)		11/13/19	16:29
Antimony	500	U	ND		472	ug/L		94.4	(75%-125%)			
Arsenic	500	J	5.32		451	ug/L		89.2	(75%-125%)			
Barium	500		84.8		537	ug/L		90.4	(75%-125%)			
Beryllium	500	U	ND		466	ug/L		93.2	(75%-125%)			
Cadmium	500	U	ND		462	ug/L		92.2	(75%-125%)			
Calcium	5000		4330		9000	ug/L		93.5	(75%-125%)			
Chromium	500	J	2.27		456	ug/L		90.7	(75%-125%)			
Cobalt	500	U	ND		475	ug/L		94.9	(75%-125%)			

QC Summary

Workorder: **494717**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1934587												
Copper	500	U	ND		460	ug/L		91.9	(75%-125%)	LS	11/13/19	16:29
Iron	5000	U	ND		4790	ug/L		95.7	(75%-125%)			
Lead	500	U	ND		459	ug/L		91.9	(75%-125%)			
Magnesium	5000		1520		5980	ug/L		89.2	(75%-125%)			
Manganese	500	U	ND		450	ug/L		89.7	(75%-125%)			
Nickel	500	J	1.95		480	ug/L		95.5	(75%-125%)			
Potassium	5000		1510		6020	ug/L		90.1	(75%-125%)			
Selenium	500	U	ND		448	ug/L		89.4	(75%-125%)			
Silver	100	U	ND		95.0	ug/L		95	(75%-125%)			
Sodium	5000		7420		11600	ug/L		82.6	(75%-125%)			
Thallium	500	U	ND		471	ug/L		94.3	(75%-125%)			
Vanadium	500	U	ND		463	ug/L		92.5	(75%-125%)			
Zinc	500	J	7.00		455	ug/L		89.6	(75%-125%)			
QC1204422606 494717004 MSD												
Aluminum	5000	U	ND		4680	ug/L	0.032	93.6	(0%-20%)		11/13/19	16:31
Antimony	500	U	ND		494	ug/L	4.57	98.9	(0%-20%)			

QC Summary

Workorder: **494717**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1934587												
Arsenic	500	J	5.32		471	ug/L	4.4	93.2	(0%-20%)	LS	11/13/19	16:31
Barium	500		84.8		567	ug/L	5.46	96.4	(0%-20%)			
Beryllium	500	U	ND		493	ug/L	5.49	98.4	(0%-20%)			
Cadmium	500	U	ND		484	ug/L	4.78	96.7	(0%-20%)			
Calcium	5000		4330		8950	ug/L	0.606	92.4	(0%-20%)			
Chromium	500	J	2.27		482	ug/L	5.67	96	(0%-20%)			
Cobalt	500	U	ND		501	ug/L	5.3	100	(0%-20%)			
Copper	500	U	ND		487	ug/L	5.77	97.4	(0%-20%)			
Iron	5000	U	ND		4780	ug/L	0.289	95.5	(0%-20%)			
Lead	500	U	ND		482	ug/L	4.79	96.4	(0%-20%)			
Magnesium	5000		1520		6030	ug/L	0.795	90.1	(0%-20%)			
Manganese	500	U	ND		476	ug/L	5.57	94.8	(0%-20%)			
Nickel	500	J	1.95		480	ug/L	0.00834	95.5	(0%-20%)			
Potassium	5000		1510		6710	ug/L	10.9	104	(0%-20%)			
Selenium	500	U	ND		466	ug/L	3.94	93	(0%-20%)			

QC Summary

Workorder: **494717**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1934587												
Silver	100	U	ND		98.0	ug/L	3.06	98	(0%-20%)	LS	11/13/19	16:31
Sodium	5000		7420		11700	ug/L	1.11	85.2	(0%-20%)			
Thallium	500	U	ND		489	ug/L	3.58	97.7	(0%-20%)			
Vanadium	500	U	ND		488	ug/L	5.2	97.4	(0%-20%)			
Zinc	500	J	7.00		482	ug/L	5.68	94.9	(0%-20%)			
QC1204422607 494717004 SDILT												
Aluminum		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/13/19	16:36
Antimony		U	ND	U	ND	ug/L	N/A		(0%-20%)			
Arsenic		J	5.32	U	ND	ug/L	N/A		(0%-20%)			
Barium			84.8		17.0	ug/L	.205		(0%-20%)			
Beryllium		U	ND	U	ND	ug/L	N/A		(0%-20%)			
Cadmium		U	ND	U	ND	ug/L	N/A		(0%-20%)			
Calcium			4330		904	ug/L	4.51		(0%-20%)			
Chromium		J	2.27	U	ND	ug/L	N/A		(0%-20%)			
Cobalt		U	ND	U	ND	ug/L	N/A		(0%-20%)			
Copper		U	ND	U	ND	ug/L	N/A		(0%-20%)			

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1934587											
Iron	U	ND	U	ND	ug/L	N/A		(0%-20%)	LS	11/13/19	16:36
Lead	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Magnesium		1520		314	ug/L	3.17		(0%-20%)			
Manganese	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Nickel	J	1.95	U	ND	ug/L	N/A		(0%-20%)			
Potassium		1510		164	ug/L	46		(0%-20%)			
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Silver	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium		7420		1430	ug/L	3.76		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Vanadium	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Zinc	J	7.00	U	ND	ug/L	N/A		(0%-20%)			
Batch 1934589											
QC1204422609 LCS											
Aluminum	5000			4640	ug/L		92.8	(80%-120%)	JWJ	11/13/19	17:02
Antimony	500			495	ug/L		99	(80%-120%)			
Arsenic	500			469	ug/L		93.8	(80%-120%)			

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1934589										
Barium	500			475	ug/L		95	(80%-120%)	JWJ	11/13/19 17:02
Beryllium	500			486	ug/L		97.3	(80%-120%)		
Cadmium	500			464	ug/L		92.8	(80%-120%)		
Calcium	5000			4690	ug/L		93.9	(80%-120%)		
Chromium	500			462	ug/L		92.3	(80%-120%)		
Cobalt	500			509	ug/L		102	(80%-120%)		
Copper	500			459	ug/L		91.8	(80%-120%)		
Iron	5000			4770	ug/L		95.5	(80%-120%)		
Lead	500			476	ug/L		95.2	(80%-120%)		
Magnesium	5000			4790	ug/L		95.8	(80%-120%)		
Manganese	500			448	ug/L		89.5	(80%-120%)		
Nickel	500			468	ug/L		93.5	(80%-120%)		
Potassium	5000			4890	ug/L		97.8	(80%-120%)		
Selenium	500			457	ug/L		91.3	(80%-120%)		
Silver	100			99.1	ug/L		99.1	(80%-120%)		

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP											
Batch 1934589											
Sodium	5000			4570	ug/L		91.3	(80%-120%)	JWJ	11/13/19	17:02
Thallium	500			492	ug/L		98.4	(80%-120%)			
Vanadium	500			461	ug/L		92.3	(80%-120%)			
Zinc	500			456	ug/L		91.2	(80%-120%)			
QC1204422608 MB											
Aluminum			U	ND	ug/L					11/13/19	16:58
Antimony			J	5.10	ug/L						
Arsenic			U	ND	ug/L						
Barium			U	ND	ug/L						
Beryllium			U	ND	ug/L						
Cadmium			U	ND	ug/L						
Calcium			U	ND	ug/L						
Chromium			U	ND	ug/L						
Cobalt			U	ND	ug/L						
Copper			U	ND	ug/L						
Iron			U	ND	ug/L						

QC Summary

Workorder: **494717**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1934589												
Lead				U	ND	ug/L				JWJ	11/13/19	16:58
Magnesium				U	ND	ug/L						
Manganese				U	ND	ug/L						
Nickel				U	ND	ug/L						
Potassium				U	ND	ug/L						
Selenium				U	ND	ug/L						
Silver				U	ND	ug/L						
Sodium				U	ND	ug/L						
Thallium				U	ND	ug/L						
Vanadium				U	ND	ug/L						
Zinc				U	ND	ug/L						
QC1204422610 494717016 MS												
Aluminum	5000	U	ND		5010	ug/L		98.9	(75%-125%)		11/13/19	17:08
Antimony	500	J	7.15		493	ug/L		97.2	(75%-125%)			
Arsenic	500	U	ND		467	ug/L		92.5	(75%-125%)			
Barium	500		22.0		486	ug/L		92.8	(75%-125%)			

QC Summary

Workorder: **494717**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1934589												
Beryllium	500	U	ND		477	ug/L		95.4	(75%-125%)	JWJ	11/13/19	17:08
Cadmium	500	U	ND		461	ug/L		92.2	(75%-125%)			
Calcium	5000		4300		8750	ug/L		89	(75%-125%)			
Chromium	500	U	ND		456	ug/L		91.1	(75%-125%)			
Cobalt	500	U	ND		498	ug/L		99.6	(75%-125%)			
Copper	500	U	ND		456	ug/L		91.1	(75%-125%)			
Iron	5000		5910		10200	ug/L		85.8	(75%-125%)			
Lead	500	J	5.18		462	ug/L		91.3	(75%-125%)			
Magnesium	5000		745		5390	ug/L		93	(75%-125%)			
Manganese	500		81.6		523	ug/L		88.3	(75%-125%)			
Nickel	500	U	ND		458	ug/L		91.7	(75%-125%)			
Potassium	5000		7080		11700	ug/L		91.6	(75%-125%)			
Selenium	500	U	ND		459	ug/L		91.7	(75%-125%)			
Silver	100	J	1.73		95.6	ug/L		93.8	(75%-125%)			
Sodium	5000		10800		14100	ug/L		64.7*	(75%-125%)			

QC Summary

Workorder: **494717**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP												
Batch 1934589												
Thallium	500	U	ND		471	ug/L		94.2	(75%-125%)	JWJ	11/13/19	17:08
Vanadium	500	U	ND		463	ug/L		92.4	(75%-125%)			
Zinc	500	U	ND		455	ug/L		90.9	(75%-125%)			
QC1204422611 494717016 MSD												
Aluminum	5000	U	ND		5060	ug/L	1.06	99.9	(0%-20%)		11/13/19	17:11
Antimony	500	J	7.15		493	ug/L	0.00406	97.2	(0%-20%)			
Arsenic	500	U	ND		467	ug/L	0.171	92.3	(0%-20%)			
Barium	500		22.0		492	ug/L	1.22	93.9	(0%-20%)			
Beryllium	500	U	ND		484	ug/L	1.53	96.8	(0%-20%)			
Cadmium	500	U	ND		466	ug/L	0.964	93.1	(0%-20%)			
Calcium	5000		4300		8940	ug/L	2.22	92.9	(0%-20%)			
Chromium	500	U	ND		462	ug/L	1.16	92.2	(0%-20%)			
Cobalt	500	U	ND		502	ug/L	0.736	100	(0%-20%)			
Copper	500	U	ND		460	ug/L	0.92	92	(0%-20%)			
Iron	5000		5910		10400	ug/L	1.89	89.7	(0%-20%)			
Lead	500	J	5.18		467	ug/L	1.1	92.3	(0%-20%)			

QC Summary

Workorder: **494717**

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 1934589											
Magnesium	5000		745		5510	ug/L	2.11	95.3	(0%-20%)	JWJ	11/13/19 17:11
Manganese	500		81.6		529	ug/L	1.09	89.4	(0%-20%)		
Nickel	500	U	ND		463	ug/L	1.11	92.7	(0%-20%)		
Potassium	5000		7080		11800	ug/L	0.854	93.6	(0%-20%)		
Selenium	500	U	ND		459	ug/L	0.0654	91.8	(0%-20%)		
Silver	100	J	1.73		96.3	ug/L	0.743	94.6	(0%-20%)		
Sodium	5000		10800		14300	ug/L	1.53	69.1*	(0%-20%)		
Thallium	500	U	ND		473	ug/L	0.373	94.6	(0%-20%)		
Vanadium	500	U	ND		468	ug/L	1.11	93.5	(0%-20%)		
Zinc	500	U	ND		459	ug/L	1.09	91.9	(0%-20%)		
QC1204431102 494717016 PS											
Sodium	5000		10800		14400	ug/L		72.3*	(75%-125%)		11/13/19 17:14
QC1204422612 494717016 SDILT											
Aluminum		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/13/19 17:17
Antimony		J	7.15	U	ND	ug/L	N/A		(0%-20%)		
Arsenic		U	ND	U	ND	ug/L	N/A		(0%-20%)		
Barium			22.0	J	4.68	ug/L	6.16		(0%-20%)		

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 1934589										
Beryllium	U	ND	U	ND	ug/L	N/A		(0%-20%)	JWJ	11/13/19 17:17
Cadmium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Calcium		4300		908	ug/L	5.6		(0%-20%)		
Chromium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Cobalt	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Copper	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Iron		5910		1220	ug/L	3.23		(0%-20%)		
Lead	J	5.18	J	3.71	ug/L	257		(0%-20%)		
Magnesium		745	J	158	ug/L	6.2		(0%-20%)		
Manganese		81.6		19.7	ug/L	20.4		(0%-20%)		
Nickel	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Potassium		7080		1520	ug/L	7.54		(0%-20%)		
Selenium	U	ND	U	ND	ug/L	N/A		(0%-20%)		
Silver	J	1.73	U	ND	ug/L	N/A		(0%-20%)		
Sodium		10800		2330	ug/L	7.53		(0%-20%)		

QC Summary

Workorder: **494717**

Parmname			NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-ICP														
Batch 1934589														
Thallium				U	ND	U	ND	ug/L	N/A		(0%-20%)	JWJ	11/13/19	17:17
Vanadium				U	ND	U	ND	ug/L	N/A		(0%-20%)			
Zinc				U	ND	U	ND	ug/L	N/A		(0%-20%)			
Metals Analysis-Mercury														
Batch 1939132														
QC1204432685	493850001	DUP												
Mercury				U	ND	U	ND	ug/L	N/A			CW2	11/18/19	11:54
QC1204432684		LCS												
Mercury			2.00				2.26	ug/L		113	(80%-120%)		11/18/19	11:49
QC1204432683		MB												
Mercury						U	ND	ug/L					11/18/19	11:18
QC1204432686	493850001	MS												
Mercury			2.00	U	ND		2.32	ug/L		113	(75%-125%)		11/18/19	11:56
QC1204432687	493850001	SDILT												
Mercury				U	ND	U	ND	ug/L	N/A		(0%-10%)		11/18/19	11:57
Batch 1939142														
QC1204432724	494717004	DUP												
Mercury				U	ND	U	ND	ug/L	N/A			AXS5	11/18/19	13:49
QC1204432723		LCS												
Mercury			2.00				2.06	ug/L		103	(80%-120%)		11/18/19	13:37
QC1204432722		MB												
Mercury						U	ND	ug/L					11/18/19	13:35

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch 1939142											
QC1204432725 494717004 MS											
Mercury	2.00 U	ND		2.05	ug/L		103	(75%-125%)	AXS5	11/18/19	13:50
QC1204432726 494717004 SDILT											
Mercury	U	ND	U	ND	ug/L	N/A		(0%-10%)		11/18/19	13:52

Notes:

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

QC Summary

Report Date: November 26, 2019

Westinghouse Electric Company, LLC
PO Drawer R
Columbia, South Carolina

Contact: **Ms. Cynthia Logsdon**

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Alpha Spec											
Batch 1934004											
QC1204421129 494717004 DUP											
Pct Uranium-235	U	0.00	U	0.00	percent	N/A		N/A	MP2	11/17/19	10:14
Uranium-233/234	U	0.197	U	0.0937	pCi/L	N/A		N/A			
	Uncertainty	+/-0.207		+/-0.162							
Uranium-235/236	U	0.125	U	0.0574	pCi/L	N/A		N/A			
	Uncertainty	+/-0.181		+/-0.158							
Uranium-238	U	0.0559	U	0.0479	pCi/L	N/A		N/A			
	Uncertainty	+/-0.128		+/-0.150							
QC1204421130 LCS											
Pct Uranium-235				1.01	percent					11/17/19	10:14
Uranium-233/234				12.9	pCi/L						
	Uncertainty			+/-1.27							
Uranium-235/236				0.867	pCi/L						
	Uncertainty			+/-0.375							
Uranium-238	13.6			13.3	pCi/L		97.3	(75%-125%)			
	Uncertainty			+/-1.28							
QC1204421128 MB											
Pct Uranium-235			U	0.00	percent					11/17/19	10:14
Uranium-233/234			U	-0.00891	pCi/L						
	Uncertainty			+/-0.0936							
Uranium-235/236			U	0.0715	pCi/L						
	Uncertainty			+/-0.140							
Uranium-238			U	-0.0158	pCi/L						
	Uncertainty			+/-0.0697							

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 1934005										
QC1204421132 494717021 DUP										
Pct Uranium-235	U	0.00	U	0.00	percent	N/A		N/A	EXC2	11/15/19 09:40
Uranium-233/234	U	0.037	U	-0.0322	pCi/L	N/A		N/A		
	Uncertainty	+/-0.141		+/-0.125						
Uranium-235/236	U	0.0653	U	0.00	pCi/L	N/A		N/A		
	Uncertainty	+/-0.150		+/-0.105						
Uranium-238	U	-0.0139	U	0.0421	pCi/L	N/A		N/A		
	Uncertainty	+/-0.130		+/-0.118						
QC1204421133 LCS										
Pct Uranium-235				0.781	percent					11/15/19 09:37
Uranium-233/234				14.5	pCi/L					
	Uncertainty			+/-1.55						
Uranium-235/236				0.823	pCi/L					
	Uncertainty			+/-0.431						
Uranium-238	13.6			16.2	pCi/L		119	(75%-125%)		
	Uncertainty			+/-1.64						
QC1204421131 MB										
Pct Uranium-235			U	0.00	percent					11/15/19 09:40
Uranium-233/234			U	0.0245	pCi/L					
	Uncertainty			+/-0.147						
Uranium-235/236			U	0.011	pCi/L					
	Uncertainty			+/-0.115						
Uranium-238			U	0.112	pCi/L					
	Uncertainty			+/-0.141						
Rad Gas Flow										
Batch 1934407										
QC1204422119 494717004 DUP										
Alpha	U	2.26	U	0.591	pCi/L	N/A		N/A	HXB2	11/14/19 15:27
	Uncertainty	+/-2.15		+/-1.48						

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1934407										
Beta	U	-0.0894	U	1.73	pCi/L	N/A		N/A	HXB2	11/14/19 15:27
	Uncertainty	+/-1.72		+/-2.83						
QC1204422122 LCS										
Alpha	125			145	pCi/L		116	(75%-125%)		11/14/19 15:27
	Uncertainty			+/-13.3						
Beta	461			499	pCi/L		108	(75%-125%)		
	Uncertainty			+/-18.1						
QC1204422118 MB										
Alpha			U	0.154	pCi/L					11/14/19 15:26
	Uncertainty			+/-1.63						
Beta			U	0.693	pCi/L					
	Uncertainty			+/-2.63						
QC1204422120 494717004 MS										
Alpha	501 U	2.26		504	pCi/L		100	(75%-125%)		11/14/19 15:27
	Uncertainty	+/-2.15		+/-48.7						
Beta	1840 U	-0.0894		1860	pCi/L		101	(75%-125%)		
	Uncertainty	+/-1.72		+/-67.7						
QC1204422121 494717004 MSD										
Alpha	501 U	2.26		591	pCi/L	15.9	118	(0%-20%)		11/14/19 15:27
	Uncertainty	+/-2.15		+/-50.9						
Beta	1840 U	-0.0894		1910	pCi/L	2.26	103	(0%-20%)		
	Uncertainty	+/-1.72		+/-68.4						
Batch 1937254										
QC1204428424 494717019 DUP										
Alpha	U	2.50	U	1.28	pCi/L	N/A		N/A	HXB2	11/14/19 15:09
	Uncertainty	+/-2.32		+/-1.71						
Beta	U	2.05	U	-1.27	pCi/L	N/A		N/A		
	Uncertainty	+/-2.35		+/-1.69						
QC1204428427 LCS										
Alpha	125			128	pCi/L		102	(75%-125%)		11/14/19 15:02
	Uncertainty			+/-11.8						
Beta	461			486	pCi/L		106	(75%-125%)		
	Uncertainty			+/-17.4						

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 1937254										
QC1204428423 MB										
Alpha			U	0.532	pCi/L				HXB2	11/14/19 15:09
	Uncertainty			+/-1.50						
Beta			U	-0.721	pCi/L					
	Uncertainty			+/-1.97						
QC1204428425 494717019 MS										
Alpha	501 U	2.50		529	pCi/L		106	(75%-125%)		11/14/19 15:02
	Uncertainty	+/-2.32		+/-49.1						
Beta	1840 U	2.05		1750	pCi/L		94.9	(75%-125%)		
	Uncertainty	+/-2.35		+/-67.3						
QC1204428426 494717019 MSD										
Alpha	501 U	2.50		446	pCi/L	17.1	88.9	(0%-20%)		11/14/19 15:02
	Uncertainty	+/-2.32		+/-45.3						
Beta	1840 U	2.05		1890	pCi/L	7.62	102	(0%-20%)		
	Uncertainty	+/-2.35		+/-70.5						
Rad Liquid Scintillation										
Batch 1934513										
QC1204422368 494717004 DUP										
Technetium-99	U	-3.26	U	5.81	pCi/L	N/A		N/A	JJ3	11/12/19 12:51
	Uncertainty	+/-26.3		+/-26.6						
QC1204422369 LCS										
Technetium-99	854			922	pCi/L		108	(75%-125%)		11/12/19 13:13
	Uncertainty			+/-48.8						
QC1204422367 MB										
Technetium-99			U	-4.2	pCi/L					11/12/19 12:29
	Uncertainty			+/-27.2						
Batch 1934514										
QC1204422372 494717014 DUP										
Technetium-99	U	-5.87	U	12.3	pCi/L	N/A		N/A	JJ3	11/13/19 06:21
	Uncertainty	+/-22.8		+/-23.9						
QC1204422373 LCS										
Technetium-99	854			872	pCi/L		102	(75%-125%)		11/13/19 06:43
	Uncertainty			+/-49.3						

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 1934514										
QC1204422371 MB										
Technetium-99			U	15.7	pCi/L				JJ3	11/13/19 05:59
	Uncertainty			+/-25.9						
Batch 1934529										
QC1204422410 494717001 DUP										
Tritium	U	-19.1	U	301	pCi/L	N/A		N/A	EW3	11/07/19 21:56
	Uncertainty	+/-299		+/-329						
QC1204422412 LCS										
Tritium	5860			5620	pCi/L		95.9	(75%-125%)		11/07/19 22:38
	Uncertainty			+/-611						
QC1204422409 MB										
Tritium			U	5.69	pCi/L					11/07/19 21:35
	Uncertainty			+/-299						
QC1204422411 494717001 MS										
Tritium	5880 U	-19.1		5480	pCi/L		93.3	(75%-125%)		11/07/19 22:17
	Uncertainty	+/-299		+/-602						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

**	Analyte is a Tracer compound
<	Result is less than value reported
>	Result is greater than value reported
BD	Results are either below the MDC or tracer recovery is low
FA	Failed analysis.
H	Analytical holding time was exceeded
J	See case narrative for an explanation
J	Value is estimated
K	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
M	M if above MDC and less than LLD
M	REMP Result > MDC/CL and < RDL
N/A	RPD or %Recovery limits do not apply.
N1	See case narrative
ND	Analyte concentration is not detected above the detection limit
NJ	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

QC Summary

Workorder: **494717**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.

R Sample results are rejected

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

UI Gamma Spectroscopy--Uncertain identification

UJ Gamma Spectroscopy--Uncertain identification

UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

Y Other specific qualifiers were required to properly define the results. Consult case narrative.

^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.

h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Technical Case Narrative
Westinghouse Electric Co, LLC
SDG #: 494717

Metals

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3005A/6010D
Analytical Procedure: GL-MA-E-013 REV# 31
Analytical Batch: 1934587

Preparation Method: SW846 3005A
Preparation Procedure: GL-MA-E-006 REV# 14
Preparation Batch: 1934586

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717001	W-15
494717002	W-16
494717003	W-17
494717004	W-19B
494717005	W-42
494717006	W-46
494717007	W-48
494717008	W-48-Dup
494717009	W-49
494717010	W-49-Dup
494717011	W-62
494717012	W-63
494717013	W-68
494717014	W-69
494717015	W-70
1204422603	Method Blank (MB)**ICP**
1204422604	Laboratory Control Sample (LCS)
1204422607	494717004(W-19BL) Serial Dilution (SD)
1204422605	494717004(W-19BS) Matrix Spike (MS)
1204422606	494717004(W-19BSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3005A/6010D
Analytical Procedure: GL-MA-E-013 REV# 31

Analytical Batch: 1934589

Preparation Method: SW846 3005A
Preparation Procedure: GL-MA-E-006 REV# 14
Preparation Batch: 1934588

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717016	W-71
494717017	W-85
494717018	W-86
494717019	W-88
494717020	W-89
494717021	W-90
494717022	EB-01-102219
494717023	EB-10-102419
494717024	WSW-02
494717025	WSW-03
494717026	WSW-04
1204422608	Method Blank (MB)**ICP**
1204422609	Laboratory Control Sample (LCS)
1204422612	494717016(W-71L) Serial Dilution (SD)
1204422610	494717016(W-71S) Matrix Spike (MS)
1204422611	494717016(W-71SD) Matrix Spike Duplicate (MSD)
1204431102	494717016(W-71PS) Post Spike (PS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement
The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike also did not meet the required control limits; thus, confirming matrix interferences and/or sample non-homogeneity.

Sample	Analyte	Value
1204422610 (W-71MS)	Sodium	64.7* (75%-125%)
1204422611 (W-71MSD)	Sodium	69.1* (75%-125%)

Post Spike (PS) Recovery Statement
The percent recoveries (%R) obtained from the PS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The PS did not meet the recommended quality control acceptance criteria for percent recoveries for all applicable analytes and verifies the presence of matrix interferences.

Sample	Analyte	Value
1204431102 (W-71PS)	Sodium	72.3* (75%-125%)

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3010A/6020B
Analytical Procedure: GL-MA-E-014 REV# 33
Analytical Batch: 1934583

Preparation Method: SW846 3010A
Preparation Procedure: GL-MA-E-008 REV# 19
Preparation Batch: 1934581

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717001	W-15
494717002	W-16
494717003	W-17
494717004	W-19B
494717005	W-42
494717006	W-46
494717007	W-48
494717008	W-48-Dup
494717009	W-49
494717010	W-49-Dup
494717011	W-62
494717012	W-63
494717013	W-68
494717014	W-69
494717015	W-70
1204422587	Method Blank (MB)**ICP-MS**
1204422588	Laboratory Control Sample (LCS)
1204422592	Laboratory Control Sample (LCS)
1204422591	494717004(W-19BL) Serial Dilution (SD)
1204422589	494717004(W-19BS) Matrix Spike (MS)
1204422593	494717004(W-19BS) Matrix Spike (MS)
1204422590	494717004(W-19BSD) Matrix Spike Duplicate (MSD)
1204422594	494717004(W-19BSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3010A/6020B
Analytical Procedure: GL-MA-E-014 REV# 33
Analytical Batch: 1934585

Preparation Method: SW846 3010A
Preparation Procedure: GL-MA-E-008 REV# 19
Preparation Batch: 1934584

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717016	W-71
494717017	W-85
494717018	W-86
494717019	W-88
494717020	W-89
494717021	W-90
494717022	EB-01-102219
494717023	EB-10-102419
494717024	WSW-02
494717025	WSW-03
494717026	WSW-04
1204422595	Method Blank (MB)**ICP-MS**
1204422596	Laboratory Control Sample (LCS)
1204422600	Laboratory Control Sample (LCS)
1204422599	494717016(W-71L) Serial Dilution (SD)
1204422597	494717016(W-71S) Matrix Spike (MS)
1204422601	494717016(W-71S) Matrix Spike (MS)
1204422598	494717016(W-71SD) Matrix Spike Duplicate (MSD)
1204422602	494717016(W-71SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**

Analytical Method: SW846 7470A
Analytical Procedure: GL-MA-E-010 REV# 38
Analytical Batch: 1939132

Preparation Method: SW846 7470A Prep
Preparation Procedure: GL-MA-E-010 REV# 38
Preparation Batch: 1939131

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717021	W-90
494717022	EB-01-102219
494717023	EB-10-102419
494717024	WSW-02
494717025	WSW-03
494717026	WSW-04
1204432683	Method Blank (MB)**CVAA**
1204432684	Laboratory Control Sample (LCS)
1204432687	493850001(NonSDGL) Serial Dilution (SD)
1204432685	493850001(NonSDGD) Sample Duplicate (DUP)
1204432686	493850001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7470A
Analytical Procedure: GL-MA-E-010 REV# 38
Analytical Batch: 1939142

Preparation Method: SW846 7470A Prep
Preparation Procedure: GL-MA-E-010 REV# 38
Preparation Batch: 1939141

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717001	W-15
494717002	W-16
494717003	W-17
494717004	W-19B
494717005	W-42
494717006	W-46
494717007	W-48
494717008	W-48-Dup
494717009	W-49
494717010	W-49-Dup

494717011	W-62
494717012	W-63
494717013	W-68
494717014	W-69
494717015	W-70
494717016	W-71
494717017	W-85
494717018	W-86
494717019	W-88
494717020	W-89
1204432722	Method Blank (MB)**CVAA**
1204432723	Laboratory Control Sample (LCS)
1204432726	494717004(W-19BL) Serial Dilution (SD)
1204432724	494717004(W-19BD) Sample Duplicate (DUP)
1204432725	494717004(W-19BS) Matrix Spike (MS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Radiochemistry

Product: **Alphaspec U, Liquid**
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Procedure: GL-RAD-A-011 REV# 27
Analytical Batch: 1934004

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717001	W-15
494717002	W-16
494717003	W-17
494717004	W-19B
494717005	W-42
494717006	W-46
494717007	W-48
494717008	W-48-Dup
494717009	W-49
494717010	W-49-Dup
494717011	W-62
494717012	W-63
494717013	W-68
494717014	W-69
494717015	W-70
494717016	W-71
494717017	W-85
494717018	W-86
494717019	W-88

494717020	W-89
1204421128	Method Blank (MB)
1204421129	494717004(W-19B) Sample Duplicate (DUP)
1204421130	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Samples 494717010 (W-49-Dup) and 494717014 (W-69) were recounted to verify sample results. Recounts are reported. Samples 494717005 (W-42) and 494717012 (W-63) were recounted due to a suspected false positive. The recounts are reported.

Miscellaneous Information

Additional Comments
The tracer peak centroid for sample 494717014 (W-69) is greater than 50 keV from the expected library energy value for the tracer; however, the tracer yield requirement was met and the tracer peak is within the tracer region of interest.

Product: **Alphaspec U, Liquid**
Analytical Method: DOE EML HASL-300, U-02-RC Modified
Analytical Procedure: GL-RAD-A-011 REV# 27
Analytical Batch: 1934005

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717021	W-90
494717022	EB-01-102219
494717023	EB-10-102419
494717024	WSW-02
494717025	WSW-03
494717026	WSW-04
1204421131	Method Blank (MB)
1204421132	494717021(W-90) Sample Duplicate (DUP)
1204421133	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration,

continuing calibration, instrument controls and process controls where applicable.

Product: **GFPC, Gross Alpha Liquid**
Analytical Method: EPA 900.0/SW846 9310
Analytical Procedure: GL-RAD-A-001 REV# 20
Analytical Batch: 1934407

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717001	W-15
494717002	W-16
494717003	W-17
494717004	W-19B
494717005	W-42
494717006	W-46
494717007	W-48
494717008	W-48-Dup
494717009	W-49
494717010	W-49-Dup
494717011	W-62
494717012	W-63
494717013	W-68
494717014	W-69
494717015	W-70
1204422118	Method Blank (MB)
1204422119	494717004(W-19B) Sample Duplicate (DUP)
1204422120	494717004(W-19B) Matrix Spike (MS)
1204422121	494717004(W-19B) Matrix Spike Duplicate (MSD)
1204422122	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Recounts
Samples 494717001 (W-15) and 494717003 (W-17) were recounted to verify sample results. Both counts are reported.

Miscellaneous Information

Additional Comments
The matrix spike and matrix spike duplicate, 1204422120 (W-19BMS) and 1204422121 (W-19BMSD), aliquots were reduced to conserve sample volume.

Product: **GFPC, Gross Alpha Liquid**
Analytical Method: EPA 900.0/SW846 9310
Analytical Procedure: GL-RAD-A-001 REV# 20
Analytical Batch: 1937254

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717016	W-71
494717017	W-85
494717018	W-86
494717019	W-88
494717020	W-89
494717021	W-90
494717022	EB-01-102219
494717023	EB-10-102419
494717024	WSW-02
494717025	WSW-03
494717026	WSW-04
1204428423	Method Blank (MB)
1204428424	494717019(W-88) Sample Duplicate (DUP)
1204428425	494717019(W-88) Matrix Spike (MS)
1204428426	494717019(W-88) Matrix Spike Duplicate (MSD)
1204428427	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information

Additional Comments
The matrix spike and matrix spike duplicate, 1204428425 (W-88MS) and 1204428426 (W-88MSD), aliquots were reduced to conserve sample volume.

Product: **Liquid Scint Tc99, Liquid**
Analytical Method: DOE EML HASL-300, Tc-02-RC Modified
Analytical Procedure: GL-RAD-A-059 REV# 5
Analytical Batch: 1934513

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717001	W-15
494717002	W-16
494717003	W-17
494717004	W-19B
494717005	W-42
494717006	W-46
494717007	W-48
494717008	W-48-Dup
494717009	W-49
494717010	W-49-Dup
494717011	W-62
494717012	W-63
494717013	W-68
1204422367	Method Blank (MB)
1204422368	494717004(W-19B) Sample Duplicate (DUP)
1204422369	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Sample 494717005 (W-42) was recounted due to high MDC. The recount is reported. Samples 494717001 (W-15), 494717003 (W-17) and 494717006 (W-46) were recounted to verify sample results. Recounts are reported.

Product: **Liquid Scint Tc99, Liquid**
Analytical Method: DOE EML HASL-300, Tc-02-RC Modified

Analytical Procedure: GL-RAD-A-059 REV# 5
Analytical Batch: 1934514

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717014	W-69
494717015	W-70
494717016	W-71
494717017	W-85
494717018	W-86
494717019	W-88
494717020	W-89
494717021	W-90
494717022	EB-01-102219
494717023	EB-10-102419
494717024	WSW-02
494717025	WSW-03
494717026	WSW-04
1204422371	Method Blank (MB)
1204422372	494717014(W-69) Sample Duplicate (DUP)
1204422373	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **LSC, Tritium Dist, Liquid**
Analytical Method: EPA 906.0 Modified
Analytical Procedure: GL-RAD-A-002 REV# 23
Analytical Batch: 1934529

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
494717001	W-15
494717002	W-16
494717007	W-48
494717008	W-48-Dup
1204422409	Method Blank (MB)
1204422410	494717001(W-15) Sample Duplicate (DUP)
1204422411	494717001(W-15) Matrix Spike (MS)
1204422412	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Page: 1 of 4

Project #: ENV-CONSENTA
GEL Quote #: WNUC009
QC Number [1]:
PO Number: 4500778461-

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number: 494717

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Page 15 of 25 SDG: 494717

Client Name: Westinghouse Electric Company LLC — Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility — Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: R. Crews/ J. Leaphart — Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI: isotopic uranium (alpha spec)	NI: isotopic uranium (by individual isotope, ICP MS)	NI: gross alpha	NI: gross beta	NI: Tc-99	NI: Total U (by ICP-MS)	NI: TAL Metals	Tritium			<-- Preservative Type (6)
W-15	10/21/19	0905	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by J. Leaphart
W-16	10/21/19	1030	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by J. Leaphart
W-17	10/21/19	0924	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-19B	10/21/19	1335	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-19B-MS	10/21/19	1335	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-19B-MSD	10/21/19	1335	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-42	10/22/19	1415	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-46	10/21/19	1200	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-48	10/21/19	1256	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: X Rush: ____ Specify: ____
(Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable:
C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone
Eastern Pacific
Central Other ____
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
R. Crews	10/30/19	1023	Secure Location	10/30/19	1023
2 Secure Location	10/30/19	1050	2	10-30-19	1050
3	10-30-19	1511	3	10/30/19	15:11

Sample Shipping and Delivery Details

GEL PM: Hope Taylor
Method of Shipment: Date Shipped: N/A
Airbill #:
Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A**) and number of containers provided for each (i.e. *8260B* **- 3**, *6010B/7470A* **- 1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp: C

Page: 2 of 4

Project #: ENV-CONSENTA
GEL Quote #: WNUC009
QC Number [1]:
PO Number: 4500778461-

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Page 1 of 2 SDG: 480717

Client Name: Westinghouse Electric Company LLC — Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility — Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: R. Crews/ J. Leaphart — Send Results: joynerdp@westinghouse.com

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI: isotopic uranium (alpha spec)	NI: isotopic uranium (by individual isotope, ICP-MS)	NI: gross alpha	NI: gross beta	NI: Tc-99	NI: Total U (by ICP-MS)	NI: TAL Metals	NI: Tritium			<-- Preservative Type (6)	Comments
W-48-Dup	10/21/19	1256	G	N	GW			4	X	X	X	X	X	X	X	X			Sampled by R. Crews	Note: extra sample is required for sample specific QC
W-49	10/24/19	1120	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart/R. Crews	
W-49-Dup	10/24/19	1120	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart/R. Crews	
W-62	10/22/19	0855	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart	
W-63	10/21/19	1120	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews	
W-68	10/22/19	1354	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews	
W-69	10/23/19	0910	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart	
W-70	10/23/19	1020	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart	
W-71	10/23/19	1125	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart	

TAT Requested: Normal: X Rush: ____ Specify: ____ (Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: Eastern Pacific Central Other ____ Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 R. Crews	10/30/19	1023	Secure Location	10/30/19	1023
2 Secure Location	10/30/19	1050	2	10-30-19	1050
3	10/30/19	1541	3	10/30/19	15:11

Sample Shipping and Delivery Details

GEL PM: Hope Taylor

Method of Shipment: Date Shipped: N/A

Airbill #:

Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A**) and number of containers provided for each (i.e. *8260B* - **3**, *6010B/7470A* - **1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: ____ C

Page: 3 of 4

Project #: ENV-CONSENTA

GEL Quote #: WNUC009

COC Number (1):

PO Number: 4500778461-

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC — Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility — Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: R. Crews/ J. Leaphart — Send Results: joynerdp@westinghouse.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Should this sample be considered: Radioactive / TSCA Regulated

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Radioactive	TSCA Regulated	Total number of containers	isotopic uranium (alpha spec)	isotopic uranium (by individual isotope, ICP-MS)	gross alpha	gross beta	Tc-99	Total U (by ICP-MS)	TAL Metals	Tritium			Comments Note: extra sample is required for sample specific QC
<-- Preservative Type (6)									NI	NI	NI	NI	NI	NI	NI				
W-85	10/23/19	1255	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-86	10/23/19	1405	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
W-88	10/22/19	1153	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-89	10/22/19	1040	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
W-90	10/22/19	1245	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
EB-01-102219	10/22/19	0948	G	N	GW			3	X	X	X	X	X	X	X				Sampled by R. Crews
EB-10-102419	10/24/19	0920	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart/R. Crews
WSW-02	10/22/19	1045	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart
WSW-03	10/24/19	1235	G	N	GW			3	X	X	X	X	X	X	X				Sampled by J. Leaphart

TAT Requested: Normal: X Rush: ____ Specify: ________ (Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: Eastern, Pacific, Central, Other ________, Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
R. Crews [signature]	10/30/19	1023	Secure Location	10/30/19	1023
2 Secure Location	10/30/19	1050	2 [signature]	10-30-19	1050
3 [signature]	10-30-19	1511	3 [signature]	10/30/19	15:11

Sample Shipping and Delivery Details

GEL PM: Hope Taylor

Method of Shipment: — Date Shipped: N/A

Airbill #:

Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite

3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.

4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. *8260B* - 3, *6010B/7470A* - 1).

6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? *YES* *NO*

Cooler Temp: *C*

Page: 4 of 4

Project #: ENV-CONSENTA
GEL Quote #: WNUC009
COC Number (1):
PO Number: 4500778461-

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Westinghouse Electric Company LLC — Phone #: 803.647.1920

Project/Site Name: Columbia Fuel Fabrication Facility — Fax #: 803.695.3964

Address: 5801 Bluff Road, Hopkins, SC 29061

Collected by: R. Crews/ J. Leaphart — Send Results: joynerdp@westinghouse.com

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Total number of containers	NI: isotopic uranium (alpha spec)	NI: isotopic uranium (by individual isotope, ICP-MS)	NI: gross alpha	NI: gross beta	NI: Tc-99	NI: Total U (by ICP-MS)	NI: TAL Metals	NI: Tritium			<-- Preservative Type (6)
[redacted] WSW-04	10/24/19	1330	G	N	GW			3	X	X	X	X	X	X	X	X			Sampled by J. Leaphart

Comments
Note: extra sample is required for sample specific QC

TAT Requested: Normal: X Rush: ____ Specify: _____ (Subject to Surcharge)

Fax Results: Yes / No

Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: *Are there any known hazards applicable to these samples? If so, please list the hazards*

Sample Collection Time Zone: Eastern Pacific Central Other _____ Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1 R. Crews	10/30/19	1023	Secure Location	10/30/19	1023
2 Secure Location	10/30/19	1650	2	10-30-19	1950
3	10-30-19	1541	3	10/30/19	15:11

Sample Shipping and Delivery Details

GEL PM: Hope Taylor

Method of Shipment: Date Shipped: N/A

Airbill #:

Airbill #:

1.) Chain of Custody Number = Client Determined

2.) QC Codes: **N** = Normal Sample, **TB** = Trip Blank, **FD** = Field Duplicate, **EB** = Equipment Blank, **MS** = Matrix Spike Sample, **MSD** = Matrix Spike Duplicate Sample, **G** = Grab, **C** = Composite

3.) Field Filtered: For liquid matrices, indicate with a **- Y -** for yes the sample was field filtered or **- N -** for sample was not field filtered.

4.) Matrix Codes: **DW**=Drinking Water, **GW**=Groundwater, **SW**=Surface Water, **WW**=Waste Water, **W**=Water, ML=Misc Liquid, **SO**=Soil, **SD**=Sediment, **SL**=Sludge, **SS**=Solid Waste, **O**=Oil, **F**=Filter, **P**=Wipe, **U**=Urine, **F**=Fecal, **N**=Nasal

5.) Sample Analysis Requested: Analytical method requested (i.e. **8260B, 6010B/7470A**) and number of containers provided for each (i.e. *8260B* **- 3**, *6010B/7470A* **- 1**).

6.) Preservative Type: **HA** = Hydrochloric Acid, **NI** = Nitric Acid, **SH** = Sodium Hydroxide, **SA** = Sulfuric Acid, **AA** = Ascorbic Acid, **HX** = Hexane, **ST** = Sodium Thiosulfate, If no preservative is added = leave field blank

For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: _____ C

GEL Laboratories LLC

HT

SAMPLE RECEIPT & REVIEW FORM 494717

Client: WNUC	SDG/AR/COC/Work Order:
Received By: AA	Date Received: 10/30/19
Carrier and Tracking Number	Circle Applicable: FedEx Express FedEx Ground UPS Field Services (Courier) Other

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A)Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
D) Did the client designate samples are hazardous?		✓	COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?		✓	If D or E is yes, select Hazards below. PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other:

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	Samples requiring cold preservation within (0 ≤ 6 deg. C)?* AA 10/30	X	✓		Preservation Method: (Wet Ice) Ice Packs Dry ice (None) Other: *all temperatures are recorded in Celsius TEMP: rchem -23° metals -1°
4	Daily check performed and passed on IR temperature gun?	✓			Temperature Device Serial #: IR4-16 Secondary Temperature Device Serial # (If Applicable):
5	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
6	Samples requiring chemical preservation at proper pH?	✓			Sample ID's and Containers Affected: If Preservation added, Lot#:
7	Do any samples require Volatile Analysis?			✓	If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample ID's and containers affected:
8	Samples received within holding time?	✓			ID's and tests affected:
9	Sample ID's on COC match ID's on bottles?	✓			ID's and containers affected:
10	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
11	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Other (describe)
12	Are sample containers identifiable as GEL provided?			✓	
13	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials SH Date 10/31/19 Page 1 of 1

GL-CHL-SR-001 Rev 6

List of current GEL Certifications as of 26 November 2019

State	Certification
Alaska	17−018
Alaska Drinking Water	SC00012
Arkansas	88−0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH−0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330−15−00283, P330−15−00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C−SC−01
Kansas NELAP	E−10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M−SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE−OS−26−13
Nevada	SC000122020−1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R−158
Oklahoma	2019−165
Pennsylvania NELAP	68−00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235−19−15
Utah NELAP	SC000122019−29
Vermont	VT87156
Virginia NELAP	460202
Washington	C780