



October 22, 2019

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

Re: ENV-CONSENTA  
Work Order: 485262

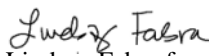
Dear Ms. Logsdon:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on July 18, 2019. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. Rev02: This data package is revised to include the original Tc99 analysis.

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](http://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,

  
Lindsay Fabra 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 Date: September 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: SW-22	Project: WNUC01519
Sample ID: 485262001	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 15-JUL-19 13:15	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
SW846 9056A Fluoride "As Received"												
Fluoride		0.432	0.033	0.100	mg/L		1	JLD1	08/06/19	0208	1903827	1
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1328	1904592	2
<b>Metals Analysis-ICP</b>												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	102	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1144	1899016	3
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		34.5	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		3760	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		844	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1110	110	300	ug/L	1.00	1					
Manganese		189	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.83	1.50	5.00	ug/L	1.00	1					
Potassium		1420	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		3810	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	6.12	3.30	20.0	ug/L	1.00	1					
<b>Nutrient Analysis</b>												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.187	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1149	1899832	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831

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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-22

Project: WNUC01519

Sample ID: 485262001

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	SW846 3005A for 6010D			SXW1	07/26/19		0522		1899015		
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid			AXS5	08/07/19		1414		1904590		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9056A		
2	SW846 7470A		
3	SW846 3005A/6010D		
4	EPA 350.1		

### 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

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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: SED-22	Project: WNUC01519
Sample ID: 485262002	Client ID: WNUC009
Matrix: Soil	
Collect Date: 15-JUL-19 13:30	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 70%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride		4.64	1.07	3.14	mg/kg	9.41	1	LXA2	08/08/19	2119	1903814	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury		113	12.6	37.7	ug/kg	56.5	1	MTM1	08/08/19	1528	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		25800000	21300	62600	ug/kg	93.8	1	TXT1	08/12/19	1736	1899047	3
Antimony	U	ND	1030	6260	ug/kg	93.8	1					
Arsenic	J	4620	1560	9390	ug/kg	93.8	1					
Barium		209000	313	1560	ug/kg	93.8	1					
Beryllium		2020	313	1560	ug/kg	93.8	1					
Cadmium	J	374	313	1560	ug/kg	93.8	1					
Calcium		872000	25000	78200	ug/kg	93.8	1					
Chromium		35100	469	3130	ug/kg	93.8	1					
Cobalt		16600	469	1560	ug/kg	93.8	1					
Copper		33100	939	6260	ug/kg	93.8	1					
Iron		32500000	25000	78200	ug/kg	93.8	1					
Lead		37400	1030	6260	ug/kg	93.8	1					
Magnesium		2180000	26600	93900	ug/kg	93.8	1					
Manganese		389000	626	3130	ug/kg	93.8	1					
Nickel		43300	469	1560	ug/kg	93.8	1					
Potassium		1410000	20000	78200	ug/kg	93.8	1					
Selenium	J	3290	1560	9390	ug/kg	93.8	1					
Silver	U	ND	313	1560	ug/kg	93.8	1					
Sodium	J	69700	21900	78200	ug/kg	93.8	1					
Vanadium		73700	313	1560	ug/kg	93.8	1					
Zinc		138000	1250	6260	ug/kg	93.8	1					
Thallium	U	ND	15600	62600	ug/kg	93.8	10	TXT1	08/12/19	1747	1899047	4
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	J	22.0	6.66	33.3	ug/kg	99.8	2	PRB	08/12/19	0056	1898996	5
Uranium-235		2230	33.3	233	ug/kg	99.8	10	PRB	08/12/19	1223	1898996	6
Uranium-238		80700	220	666	ug/kg	99.8	10					

Nutrient Analysis

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Address : PO Drawer R

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-22 Project: WNUC01519  
Sample ID: 485262002 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		978	14.4	40.1	mg/kg	48.1	5	KLP1	08/08/19	1254	1899590	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	08/08/19	1039	1903812

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6010D	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	EPA 350.1 Modified	

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-21	Project: WNUC01519
Sample ID: 485262003	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 15-JUL-19 16:00	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
SW846 9056A Fluoride "As Received"												
Fluoride		0.433	0.033	0.100	mg/L		1	JLD1	08/06/19	0338	1903827	1
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1340	1904592	2
<b>Metals Analysis-ICP</b>												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	116	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1200	1899016	3
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		28.3	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		3480	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		612	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1020	110	300	ug/L	1.00	1					
Manganese		107	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.86	1.50	5.00	ug/L	1.00	1					
Potassium		1310	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		3590	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	5.61	3.30	20.0	ug/L	1.00	1					
<b>Nutrient Analysis</b>												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.244	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1150	1899832	4

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831

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Address : PO Drawer R

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-21

Project: WNUC01519

Sample ID: 485262003

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 3005A	SW846 3005A for 6010D			SXW1	07/26/19		0522		1899015		
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid			AXS5	08/07/19		1414		1904590		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9056A		
2	SW846 7470A		
3	SW846 3005A/6010D		
4	EPA 350.1		

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID:	SED-21	Project:	WNUC01519
Sample ID:	485262004	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	15-JUL-19 16:00		
Receive Date:	18-JUL-19		
Collector:	Client		
Moisture:	67.7%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride	J	2.17	1.01	2.97	mg/kg	9.57	1	LXA2	08/08/19	2353	1903814	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury		75.8	11.3	33.6	ug/kg	54.2	1	MTM1	08/08/19	1537	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		31200000	20400	60000	ug/kg	96.7	1	TXT1	08/12/19	1805	1899047	3
Antimony	U	ND	989	6000	ug/kg	96.7	1					
Arsenic	J	6380	1500	8990	ug/kg	96.7	1					
Barium		250000	300	1500	ug/kg	96.7	1					
Beryllium		2390	300	1500	ug/kg	96.7	1					
Cadmium	U	ND	300	1500	ug/kg	96.7	1					
Calcium		484000	24000	74900	ug/kg	96.7	1					
Chromium		40000	450	3000	ug/kg	96.7	1					
Cobalt		18900	450	1500	ug/kg	96.7	1					
Copper		29800	899	6000	ug/kg	96.7	1					
Iron		25900000	24000	74900	ug/kg	96.7	1					
Lead		25000	989	6000	ug/kg	96.7	1					
Magnesium		3320000	25500	89900	ug/kg	96.7	1					
Manganese		345000	600	3000	ug/kg	96.7	1					
Nickel		18700	450	1500	ug/kg	96.7	1					
Potassium		1890000	19200	74900	ug/kg	96.7	1					
Selenium	J	1510	1500	8990	ug/kg	96.7	1					
Silver	U	ND	300	1500	ug/kg	96.7	1					
Sodium		119000	21000	74900	ug/kg	96.7	1					
Vanadium		100000	300	1500	ug/kg	96.7	1					
Zinc		73100	1200	6000	ug/kg	96.7	1					
Thallium	U	ND	15000	60000	ug/kg	96.7	10	TXT1	08/12/19	1807	1899047	4
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	6.15	30.8	ug/kg	99.2	2	PRB	08/12/19	0107	1898996	5
Uranium-235	J	27.8	6.15	43.1	ug/kg	99.2	2	PRB	08/12/19	1235	1898996	6
Uranium-238		2840	40.6	123	ug/kg	99.2	2					
<b>Nutrient Analysis</b>												

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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-21 Project: WNUC01519  
Sample ID: 485262004 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		532	12.9	35.9	mg/kg	46.3	5	KLP1	08/08/19	1257	1899590	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	08/08/19	1039	1903812

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6010D	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	EPA 350.1 Modified	

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID:	SED-15	Project:	WNUC01519
Sample ID:	485262005	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	16-JUL-19 11:20		
Receive Date:	18-JUL-19		
Collector:	Client		
Moisture:	19.9%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride		2.09	0.399	1.17	mg/kg	9.41	1	LXA2	08/09/19	1914	1905737	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury	J	5.46	4.57	13.6	ug/kg	54.6	1	MTM1	08/08/19	1539	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		3510000	8240	24200	ug/kg	97.1	1	TXT1	08/12/19	1809	1899047	3
Antimony	U	ND	400	2420	ug/kg	97.1	1					
Arsenic	U	ND	606	3630	ug/kg	97.1	1					
Barium		15900	121	606	ug/kg	97.1	1					
Beryllium	J	258	121	606	ug/kg	97.1	1					
Cadmium	J	140	121	606	ug/kg	97.1	1					
Calcium		452000	9690	30300	ug/kg	97.1	1					
Chromium		6910	182	1210	ug/kg	97.1	1					
Cobalt		1520	182	606	ug/kg	97.1	1					
Copper		2750	363	2420	ug/kg	97.1	1					
Iron		4630000	9690	30300	ug/kg	97.1	1					
Lead		3740	400	2420	ug/kg	97.1	1					
Magnesium		194000	10300	36300	ug/kg	97.1	1					
Manganese		54800	242	1210	ug/kg	97.1	1					
Nickel		2210	182	606	ug/kg	97.1	1					
Potassium		200000	7750	30300	ug/kg	97.1	1					
Selenium	U	ND	606	3630	ug/kg	97.1	1					
Silver	U	ND	121	606	ug/kg	97.1	1					
Sodium		41400	8480	30300	ug/kg	97.1	1					
Thallium	U	ND	606	2420	ug/kg	97.1	1					
Vanadium		10500	121	606	ug/kg	97.1	1					
Zinc		50800	485	2420	ug/kg	97.1	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	2.47	12.4	ug/kg	99.0	2	PRB	08/12/19	0108	1898996	4
Uranium-235		51.2	2.47	17.3	ug/kg	99.0	2	PRB	08/12/19	1237	1898996	5
Uranium-238		5790	16.3	49.4	ug/kg	99.0	2					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-15 Project: WNUC01519  
Sample ID: 485262005 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		49.0	1.08	3.00	mg/kg	48.1	1	KLP1	08/08/19	1115	1899590	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/09/19	1419	1905736

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	EPA 350.1 Modified	

### 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

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## Certificate of Analysis

Report Date: September 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: SW-18	Project: WNUC01519
Sample ID: 485262006	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 16-JUL-19 12:30	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "As Received"</b>												
Fluoride		0.309	0.033	0.100	mg/L		1	JLD1	08/06/19	0408	1903827	1
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1342	1904592	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3005A/6010D Metals Scan Liquid "As Received"</b>												
Aluminum		721	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1202	1899016	3
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		91.8	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		8150	50.0	200	ug/L	1.00	1					
Chromium	J	1.19	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		1260	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		2140	110	300	ug/L	1.00	1					
Manganese		41.0	2.00	10.0	ug/L	1.00	1					
Nickel		14.8	1.50	5.00	ug/L	1.00	1					
Potassium		2280	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		9550	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.84	1.00	5.00	ug/L	1.00	1					
Zinc	J	15.3	3.30	20.0	ug/L	1.00	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3010A/6020B "As Received"</b>												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1747	1899001	4
Uranium-238		0.304	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0013	1899001	5
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SW-18

Project: WNUC01519

Sample ID: 485262006

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.208	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1151	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7470A	
3	SW846 3005A/6010D	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	
6	EPA 350.1	

### 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: September 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: SED-18	Project: WNUC01519
Sample ID: 485262007	Client ID: WNUC009
Matrix: Soil	
Collect Date: 16-JUL-19 12:30	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 21.9%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride	U	ND	0.415	1.22	mg/kg	9.55	1	LXA2	08/09/19	2044	1905737	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury	U	ND	4.38	13.1	ug/kg	51.1	1	MTM1	08/08/19	1540	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		401000	8620	25300	ug/kg	99.0	1	TXT1	08/12/19	1814	1899047	3
Antimony	U	ND	418	2530	ug/kg	99.0	1					
Arsenic	U	ND	634	3800	ug/kg	99.0	1					
Barium		4900	127	634	ug/kg	99.0	1					
Beryllium	U	ND	127	634	ug/kg	99.0	1					
Cadmium	U	ND	127	634	ug/kg	99.0	1					
Calcium	J	21700	10100	31700	ug/kg	99.0	1					
Chromium	J	606	190	1270	ug/kg	99.0	1					
Cobalt	U	ND	190	634	ug/kg	99.0	1					
Copper	U	ND	380	2530	ug/kg	99.0	1					
Iron		217000	10100	31700	ug/kg	99.0	1					
Lead	J	476	418	2530	ug/kg	99.0	1					
Magnesium	J	15000	10800	38000	ug/kg	99.0	1					
Manganese		12300	253	1270	ug/kg	99.0	1					
Nickel	J	492	190	634	ug/kg	99.0	1					
Potassium		90700	8110	31700	ug/kg	99.0	1					
Selenium	U	ND	634	3800	ug/kg	99.0	1					
Silver	U	ND	127	634	ug/kg	99.0	1					
Sodium	J	13500	8870	31700	ug/kg	99.0	1					
Thallium	U	ND	634	2530	ug/kg	99.0	1					
Vanadium		1600	127	634	ug/kg	99.0	1					
Zinc	J	1000	507	2530	ug/kg	99.0	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	2.39	12.0	ug/kg	93.5	2	PRB	08/12/19	0110	1898996	4
Uranium-235	J	5.00	2.39	16.7	ug/kg	93.5	2	PRB	08/12/19	1239	1898996	5
Uranium-238		265	15.8	47.8	ug/kg	93.5	2					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-18 Project: WNUC01519  
Sample ID: 485262007 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		3.48	0.758	2.11	mg/kg	32.9	1	KLP1	08/08/19	1116	1899590	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/09/19	1419	1905736

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	EPA 350.1 Modified	

### 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: September 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: SW-20 Project: WNUC01519  
Sample ID: 485262008 Client ID: WNUC009  
Matrix: Surface Water  
Collect Date: 16-JUL-19 14:00  
Receive Date: 18-JUL-19  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "As Received"												
Fluoride		0.494	0.033	0.100	mg/L		1	JLD1	08/06/19	0437	1903827	1
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1344	1904592	2
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum		234	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1204	1899016	3
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		66.3	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		7450	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		4710	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1720	110	300	ug/L	1.00	1					
Manganese		642	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.70	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		4200	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	7.65	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
SW846 3010A/6020B "As Received"												
Uranium-235	J	0.0274	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1759	1899001	4
Uranium-238		1.11	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0023	1899001	5
Nutrient Analysis												

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## Certificate of Analysis

Report Date: September 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: SW-20 Project: WNUC01519  
Sample ID: 485262008 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.640	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1152	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9056A		
2	SW846 7470A		
3	SW846 3005A/6010D		
4	SW846 3010A/6020B		
5	SW846 3010A/6020B		
6	EPA 350.1		

### 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

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## Certificate of Analysis

Report Date: September 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: SED-20	Project: WNUC01519
Sample ID: 485262009	Client ID: WNUC009
Matrix: Soil	
Collect Date: 16-JUL-19 14:00	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 84.1%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride		15.7	2.13	6.28	mg/kg	10.0	1	LXA2	08/09/19	2114	1905737	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury		121	21.8	65.1	ug/kg	51.8	1	MTM1	08/08/19	1542	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		11000000	39700	117000	ug/kg	92.9	1	TXT1	08/12/19	1820	1899047	3
Antimony	U	ND	1930	11700	ug/kg	92.9	1					
Arsenic	J	4210	2920	17500	ug/kg	92.9	1					
Barium		140000	584	2920	ug/kg	92.9	1					
Beryllium	J	1140	584	2920	ug/kg	92.9	1					
Cadmium	U	ND	584	2920	ug/kg	92.9	1					
Calcium		3550000	46700	146000	ug/kg	92.9	1					
Chromium		13600	875	5840	ug/kg	92.9	1					
Cobalt		6310	875	2920	ug/kg	92.9	1					
Copper		19500	1750	11700	ug/kg	92.9	1					
Iron		10200000	46700	146000	ug/kg	92.9	1					
Lead		25500	1930	11700	ug/kg	92.9	1					
Magnesium		751000	49600	175000	ug/kg	92.9	1					
Manganese		246000	1170	5840	ug/kg	92.9	1					
Nickel		15500	875	2920	ug/kg	92.9	1					
Potassium		664000	37300	146000	ug/kg	92.9	1					
Selenium	U	ND	2920	17500	ug/kg	92.9	1					
Silver	U	ND	584	2920	ug/kg	92.9	1					
Sodium	J	109000	40800	146000	ug/kg	92.9	1					
Thallium	U	ND	2920	11700	ug/kg	92.9	1					
Vanadium		41000	584	2920	ug/kg	92.9	1					
Zinc		63800	2330	11700	ug/kg	92.9	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	J	12.7	11.5	57.6	ug/kg	91.7	2	PRB	08/12/19	0112	1898996	4
Uranium-235		1310	57.6	403	ug/kg	91.7	10	PRB	08/12/19	1240	1898996	5
Uranium-238		49700	380	1150	ug/kg	91.7	10					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-20 Project: WNUC01519  
Sample ID: 485262009 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		1600	18.6	51.6	mg/kg	32.9	5	KLP1	08/08/19	1258	1899590	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/09/19	1419	1905736

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	EPA 350.1 Modified	

### 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: September 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: SW-23	Project: WNUC01519
Sample ID: 485262010	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 16-JUL-19 15:45	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "As Received"</b>												
Fluoride		4.94	0.066	0.200	mg/L		2	JLD1	08/06/19	1731	1903827	1
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1345	1904592	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3005A/6010D Metals Scan Liquid "As Received"</b>												
Aluminum		203	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1206	1899016	3
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		84.4	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		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	J	69.7	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		4800	110	300	ug/L	1.00	1					
Manganese		73.3	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.68	1.50	5.00	ug/L	1.00	1					
Potassium		6320	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		48900	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.03	1.00	5.00	ug/L	1.00	1					
Zinc	J	4.54	3.30	20.0	ug/L	1.00	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3010A/6020B "As Received"</b>												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1801	1899001	4
Uranium-238	J	0.0673	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0025	1899001	5
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SW-23 Project: WNUC01519  
Sample ID: 485262010 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.459	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1153	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7470A	
3	SW846 3005A/6010D	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	
6	EPA 350.1	

### 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: September 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: SED-23	Project: WNUC01519
Sample ID: 485262011	Client ID: WNUC009
Matrix: Soil	
Collect Date: 16-JUL-19 15:45	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 32.5%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride		38.1	0.482	1.42	mg/kg	9.57	1	LXA2	08/09/19	2144	1905737	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury		40.3	5.55	16.6	ug/kg	55.9	1	MTM1	08/08/19	1544	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		1980000	9770	28700	ug/kg	96.9	1	TXT1	08/12/19	1825	1899047	3
Antimony	U	ND	474	2870	ug/kg	96.9	1					
Arsenic	J	3360	718	4310	ug/kg	96.9	1					
Barium		127000	144	718	ug/kg	96.9	1					
Beryllium		2090	144	718	ug/kg	96.9	1					
Cadmium	J	209	144	718	ug/kg	96.9	1					
Calcium		770000	11500	35900	ug/kg	96.9	1					
Chromium		29300	215	1440	ug/kg	96.9	1					
Cobalt		11800	215	718	ug/kg	96.9	1					
Copper		18500	431	2870	ug/kg	96.9	1					
Iron		2950000	11500	35900	ug/kg	96.9	1					
Lead		14400	474	2870	ug/kg	96.9	1					
Magnesium		2980000	12200	43100	ug/kg	96.9	1					
Manganese		268000	287	1440	ug/kg	96.9	1					
Nickel		11500	215	718	ug/kg	96.9	1					
Potassium		2010000	9190	35900	ug/kg	96.9	1					
Selenium	U	ND	718	4310	ug/kg	96.9	1					
Silver	U	ND	144	718	ug/kg	96.9	1					
Sodium		130000	10100	35900	ug/kg	96.9	1					
Vanadium		70500	144	718	ug/kg	96.9	1					
Zinc		46000	574	2870	ug/kg	96.9	1					
Thallium	U	ND	7180	28700	ug/kg	96.9	10	TXT1	08/12/19	1827	1899047	4
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	2.88	14.4	ug/kg	97.3	2	PRB	08/12/19	0113	1898996	5
Uranium-235	J	18.3	2.88	20.2	ug/kg	97.3	2	PRB	08/12/19	1242	1898996	6
Uranium-238		2250	19.0	57.7	ug/kg	97.3	2					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-23

Project: WNUC01519

Sample ID: 485262011

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		214	5.75	16.0	mg/kg	43.1	5	KLP1	08/08/19	1302	1899590	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/09/19	1419	1905736

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6010D	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	EPA 350.1 Modified	

### 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: September 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: SED-24	Project: WNUC01519
Sample ID: 485262012	Client ID: WNUC009
Matrix: Soil	
Collect Date: 16-JUL-19 16:15	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 37.6%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride		49.2	0.509	1.50	mg/kg	9.35	1	LXA2	08/09/19	2213	1905737	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury		25.8	6.14	18.3	ug/kg	57.1	1	MTM1	08/08/19	1549	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		10500000	9980	29400	ug/kg	91.6	1	TXT1	08/12/19	1834	1899047	3
Antimony	U	ND	484	2940	ug/kg	91.6	1					
Arsenic	U	ND	734	4400	ug/kg	91.6	1					
Barium		76800	147	734	ug/kg	91.6	1					
Beryllium		896	147	734	ug/kg	91.6	1					
Cadmium	U	ND	147	734	ug/kg	91.6	1					
Calcium		606000	11700	36700	ug/kg	91.6	1					
Chromium		15200	220	1470	ug/kg	91.6	1					
Cobalt		5000	220	734	ug/kg	91.6	1					
Copper		7790	440	2940	ug/kg	91.6	1					
Iron		10100000	11700	36700	ug/kg	91.6	1					
Lead		8690	484	2940	ug/kg	91.6	1					
Magnesium		1220000	12500	44000	ug/kg	91.6	1					
Manganese		123000	294	1470	ug/kg	91.6	1					
Nickel		5450	220	734	ug/kg	91.6	1					
Potassium		846000	9390	36700	ug/kg	91.6	1					
Selenium	J	885	734	4400	ug/kg	91.6	1					
Silver	U	ND	147	734	ug/kg	91.6	1					
Sodium		94700	10300	36700	ug/kg	91.6	1					
Vanadium		33500	147	734	ug/kg	91.6	1					
Zinc		22800	587	2940	ug/kg	91.6	1					
Thallium	U	ND	7340	29400	ug/kg	91.6	10	TXT1	08/12/19	1836	1899047	4
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	3.17	15.9	ug/kg	99.0	2	PRB	08/12/19	0115	1898996	5
Uranium-235	J	15.9	3.17	22.2	ug/kg	99.0	2	PRB	08/12/19	1244	1898996	6
Uranium-238		1680	20.9	63.5	ug/kg	99.0	2					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-24 Project: WNUC01519  
Sample ID: 485262012 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		70.5	0.962	2.67	mg/kg	33.3	1	KLP1	08/08/19	1122	1899590	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/09/19	1419	1905736

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6010D	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	EPA 350.1 Modified	

### 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: September 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: SW-19	Project: WNUC01519
Sample ID: 485262013	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 17-JUL-19 08:45	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "As Received"</b>												
Fluoride		0.154	0.033	0.100	mg/L		1	JLD1	08/06/19	0537	1903827	1
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1347	1904592	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3005A/6010D Metals Scan Liquid "As Received"</b>												
Aluminum		337	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1209	1899016	3
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		67.1	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		4010	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt		5.38	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		3890	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1270	110	300	ug/L	1.00	1					
Manganese		528	2.00	10.0	ug/L	1.00	1					
Nickel	J	3.17	1.50	5.00	ug/L	1.00	1					
Potassium		3010	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		918	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	8.82	3.30	20.0	ug/L	1.00	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3010A/6020B "As Received"</b>												
Uranium-235	J	0.0174	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1803	1899001	4
Uranium-238		0.507	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0026	1899001	5
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SW-19 Project: WNUC01519  
Sample ID: 485262013 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.376	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1153	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7470A	
3	SW846 3005A/6010D	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	
6	EPA 350.1	

### 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: September 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: SED-19	Project: WNUC01519
Sample ID: 485262014	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 08:45	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 51.6%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride		3.51	0.652	1.92	mg/kg	9.28	1	LXA2	08/09/19	2243	1905737	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury		34.6	7.79	23.2	ug/kg	56.3	1	MTM1	08/08/19	1550	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		3600000	12800	37500	ug/kg	90.9	1	TXT1	08/12/19	1839	1899047	3
Antimony	U	ND	620	3750	ug/kg	90.9	1					
Arsenic	U	ND	939	5630	ug/kg	90.9	1					
Barium		50200	188	939	ug/kg	90.9	1					
Beryllium	J	361	188	939	ug/kg	90.9	1					
Cadmium	U	ND	188	939	ug/kg	90.9	1					
Calcium		375000	15000	46900	ug/kg	90.9	1					
Chromium		5320	282	1880	ug/kg	90.9	1					
Cobalt		3920	282	939	ug/kg	90.9	1					
Copper		5330	563	3750	ug/kg	90.9	1					
Iron		3770000	15000	46900	ug/kg	90.9	1					
Lead		8300	620	3750	ug/kg	90.9	1					
Magnesium		238000	16000	56300	ug/kg	90.9	1					
Manganese		123000	375	1880	ug/kg	90.9	1					
Nickel		8680	282	939	ug/kg	90.9	1					
Potassium		205000	12000	46900	ug/kg	90.9	1					
Selenium	U	ND	939	5630	ug/kg	90.9	1					
Silver	U	ND	188	939	ug/kg	90.9	1					
Sodium	J	19900	13100	46900	ug/kg	90.9	1					
Thallium	U	ND	939	3750	ug/kg	90.9	1					
Vanadium		13300	188	939	ug/kg	90.9	1					
Zinc		32400	751	3750	ug/kg	90.9	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	J	4.27	3.88	19.4	ug/kg	94.0	2	PRB	08/12/19	0117	1898996	4
Uranium-235		451	19.4	136	ug/kg	94.0	10	PRB	08/12/19	1245	1898996	5
Uranium-238		16200	128	388	ug/kg	94.0	10					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-19 Project: WNUC01519  
Sample ID: 485262014 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		401	7.49	20.8	mg/kg	40.3	5	KLP1	08/08/19	1303	1899590	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/09/19	1419	1905736

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	EPA 350.1 Modified	

### 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: September 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: SW-16	Project: WNUC01519
Sample ID: 485262015	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 17-JUL-19 10:30	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "As Received"</b>												
Fluoride		1.69	0.033	0.100	mg/L		1	JLD1	08/06/19	0607	1903827	1
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1349	1904592	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3005A/6010D Metals Scan Liquid "As Received"</b>												
Aluminum	J	155	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1211	1899016	3
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		12.3	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		4690	50.0	200	ug/L	1.00	1					
Chromium	J	2.64	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		614	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		326	110	300	ug/L	1.00	1					
Manganese		26.8	2.00	10.0	ug/L	1.00	1					
Nickel	J	3.50	1.50	5.00	ug/L	1.00	1					
Potassium		816	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		1090	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		44.6	3.30	20.0	ug/L	1.00	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3010A/6020B "As Received"</b>												
Uranium-235	J	0.0682	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1804	1899001	4
Uranium-238		1.71	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0028	1899001	5
<b>Nutrient Analysis</b>												

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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-16

Project: WNUC01519

Sample ID: 485262015

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		4.35	0.085	0.250	mg/L	1.00	5	KLP1	07/25/19	1215	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7470A	
3	SW846 3005A/6010D	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	
6	EPA 350.1	

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-16	Project: WNUC01519
Sample ID: 485262016	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 10:30	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 21.1%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride		8.73	0.396	1.17	mg/kg	9.20	1	LXA2	08/10/19	0013	1905737	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury	U	ND	5.01	14.9	ug/kg	58.9	1	MTM1	08/08/19	1552	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		682000	8350	24600	ug/kg	96.9	1	TXT1	08/12/19	1844	1899047	3
Antimony	J	447	405	2460	ug/kg	96.9	1					
Arsenic	U	ND	614	3690	ug/kg	96.9	1					
Barium		5100	123	614	ug/kg	96.9	1					
Beryllium	U	ND	123	614	ug/kg	96.9	1					
Cadmium	U	ND	123	614	ug/kg	96.9	1					
Calcium		117000	9830	30700	ug/kg	96.9	1					
Chromium		1770	184	1230	ug/kg	96.9	1					
Cobalt	U	ND	184	614	ug/kg	96.9	1					
Copper	J	1000	369	2460	ug/kg	96.9	1					
Iron		1070000	9830	30700	ug/kg	96.9	1					
Lead	J	1260	405	2460	ug/kg	96.9	1					
Magnesium	J	22300	10400	36900	ug/kg	96.9	1					
Manganese		3720	246	1230	ug/kg	96.9	1					
Nickel	J	568	184	614	ug/kg	96.9	1					
Potassium		139000	7860	30700	ug/kg	96.9	1					
Selenium	U	ND	614	3690	ug/kg	96.9	1					
Silver	U	ND	123	614	ug/kg	96.9	1					
Sodium	J	12900	8600	30700	ug/kg	96.9	1					
Thallium	U	ND	614	2460	ug/kg	96.9	1					
Vanadium		2810	123	614	ug/kg	96.9	1					
Zinc		6090	491	2460	ug/kg	96.9	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	2.40	12.0	ug/kg	94.7	2	PRB	08/12/19	0118	1898996	4
Uranium-235		114	2.40	16.8	ug/kg	94.7	2	PRB	08/12/19	1247	1898996	5
Uranium-238		3310	15.8	48.0	ug/kg	94.7	2					
<b>Nutrient Analysis</b>												

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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-16 Project: WNUC01519  
Sample ID: 485262016 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		13.5	0.935	2.60	mg/kg	41.0	1	KLP1	08/08/19	1124	1899590	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/09/19	1419	1905736

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	EPA 350.1 Modified	

### 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: September 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: SW-14	Project: WNUC01519
Sample ID: 485262017	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 17-JUL-19 11:00	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
SW846 9056A Fluoride "As Received"												
Fluoride		0.234	0.033	0.100	mg/L		1	JLD1	08/06/19	0637	1903827	1
<b>Mercury Analysis-CVAA</b>												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1350	1904592	2
<b>Metals Analysis-ICP</b>												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	91.3	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1213	1899016	3
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		66.0	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		6570	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		1180	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1240	110	300	ug/L	1.00	1					
Manganese		275	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		4530	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	13.0	3.30	20.0	ug/L	1.00	1					
<b>Metals Analysis-ICP-MS</b>												
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1806	1899001	4
Uranium-238		0.297	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0030	1899001	5
<b>Nutrient Analysis</b>												

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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: SW-14 Project: WNUC01519  
Sample ID: 485262017 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.233	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1155	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9056A		
2	SW846 7470A		
3	SW846 3005A/6010D		
4	SW846 3010A/6020B		
5	SW846 3010A/6020B		
6	EPA 350.1		

### 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: September 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: SED-14	Project: WNUC01519
Sample ID: 485262018	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 11:00	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 20.9%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride	U	ND	0.412	1.21	mg/kg	9.59	1	LXA2	08/10/19	0043	1905737	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury	U	ND	4.26	12.7	ug/kg	50.3	1	MTM1	08/08/19	1554	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		502000	8170	24000	ug/kg	95.1	1	TXT1	08/12/19	1850	1899047	3
Antimony	J	511	397	2400	ug/kg	95.1	1					
Arsenic	U	ND	601	3610	ug/kg	95.1	1					
Barium		5160	120	601	ug/kg	95.1	1					
Beryllium	U	ND	120	601	ug/kg	95.1	1					
Cadmium	U	ND	120	601	ug/kg	95.1	1					
Calcium		142000	9610	30000	ug/kg	95.1	1					
Chromium		1240	180	1200	ug/kg	95.1	1					
Cobalt	J	269	180	601	ug/kg	95.1	1					
Copper	J	386	361	2400	ug/kg	95.1	1					
Iron		581000	9610	30000	ug/kg	95.1	1					
Lead	J	865	397	2400	ug/kg	95.1	1					
Magnesium		91500	10200	36100	ug/kg	95.1	1					
Manganese		15600	240	1200	ug/kg	95.1	1					
Nickel	J	341	180	601	ug/kg	95.1	1					
Potassium		84400	7690	30000	ug/kg	95.1	1					
Selenium	U	ND	601	3610	ug/kg	95.1	1					
Silver	U	ND	120	601	ug/kg	95.1	1					
Sodium	J	18800	8410	30000	ug/kg	95.1	1					
Thallium	U	ND	601	2400	ug/kg	95.1	1					
Vanadium		1740	120	601	ug/kg	95.1	1					
Zinc		5640	481	2400	ug/kg	95.1	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	2.42	12.1	ug/kg	95.6	2	PRB	08/12/19	0120	1898996	4
Uranium-235	J	5.32	2.42	16.9	ug/kg	95.6	2	PRB	08/12/19	1249	1898996	5
Uranium-238		260	16.0	48.3	ug/kg	95.6	2					
<b>Nutrient Analysis</b>												

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Address : PO Drawer R

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-14 Project: WNUC01519  
Sample ID: 485262018 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		6.43	0.981	2.72	mg/kg	43.1	1	KLP1	08/08/19	1125	1899590	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/09/19	1419	1905736

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	EPA 350.1 Modified	

### 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: September 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: SW-13	Project: WNUC01519
Sample ID: 485262019	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 17-JUL-19 12:00	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "As Received"</b>												
Fluoride		0.226	0.033	0.100	mg/L		1	LXA2	08/09/19	2132	1905773	1
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1352	1904592	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3005A/6010D Metals Scan Liquid "As Received"</b>												
Aluminum		212	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1220	1899016	3
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		7900	50.0	200	ug/L	1.00	1					
Chromium	J	1.25	1.00	10.0	ug/L	1.00	1					
Cobalt	J	2.35	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		3820	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1490	110	300	ug/L	1.00	1					
Manganese		1860	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		1850	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		3780	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	1.79	1.00	5.00	ug/L	1.00	1					
Zinc	J	11.4	3.30	20.0	ug/L	1.00	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3010A/6020B "As Received"</b>												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1808	1899001	4
Uranium-238	J	0.134	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0031	1899001	5
<b>Nutrient Analysis</b>												

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: September 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: SW-13 Project: WNUC01519  
Sample ID: 485262019 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.249	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1156	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7470A	
3	SW846 3005A/6010D	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	
6	EPA 350.1	

### 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: September 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: SED-13	Project: WNUC01519
Sample ID: 485262020	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 12:00	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 39.7%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride	J	1.45	0.522	1.54	mg/kg	9.26	1	LXA2	08/10/19	0112	1905737	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury	J	15.7	5.78	17.2	ug/kg	52.0	1	MTM1	08/08/19	1555	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		8230000	10200	30000	ug/kg	90.6	1	TXT1	08/12/19	1856	1899047	3
Antimony	U	ND	496	3000	ug/kg	90.6	1					
Arsenic	J	2140	751	4510	ug/kg	90.6	1					
Barium		131000	150	751	ug/kg	90.6	1					
Beryllium		1020	150	751	ug/kg	90.6	1					
Cadmium	U	ND	150	751	ug/kg	90.6	1					
Calcium		620000	12000	37600	ug/kg	90.6	1					
Chromium		18400	225	1500	ug/kg	90.6	1					
Cobalt		11600	225	751	ug/kg	90.6	1					
Copper		8830	451	3000	ug/kg	90.6	1					
Iron		1500000	12000	37600	ug/kg	90.6	1					
Lead		13900	496	3000	ug/kg	90.6	1					
Magnesium		1240000	12800	45100	ug/kg	90.6	1					
Manganese		332000	300	1500	ug/kg	90.6	1					
Nickel		7330	225	751	ug/kg	90.6	1					
Potassium		538000	9620	37600	ug/kg	90.6	1					
Selenium	U	ND	751	4510	ug/kg	90.6	1					
Silver	U	ND	150	751	ug/kg	90.6	1					
Sodium	J	32500	10500	37600	ug/kg	90.6	1					
Vanadium		36500	150	751	ug/kg	90.6	1					
Zinc		33800	601	3000	ug/kg	90.6	1					
Thallium	U	ND	7510	30000	ug/kg	90.6	10	TXT1	08/12/19	1858	1899047	4
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	3.08	15.4	ug/kg	92.9	2	PRB	08/12/19	0125	1898996	5
Uranium-235	J	13.8	3.08	21.6	ug/kg	92.9	2	PRB	08/12/19	1348	1898996	6
Uranium-238		1360	20.3	61.7	ug/kg	92.9	2					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-13 Project: WNUC01519  
Sample ID: 485262020 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		98.5	1.33	3.70	mg/kg	44.6	1	KLP1	08/08/19	1126	1899590	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/09/19	1419	1905736

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6010D	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	EPA 350.1 Modified	

### 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: September 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:	SW-11	Project:	WNUC01519
Sample ID:	485262021	Client ID:	WNUC009
Matrix:	Surface Water		
Collect Date:	17-JUL-19 13:45		
Receive Date:	18-JUL-19		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "As Received"</b>												
Fluoride		0.146	0.033	0.100	mg/L		1	LXA2	08/10/19	0006	1905773	1
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	J	0.081	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1354	1904592	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3005A/6010D Metals Scan Liquid "As Received"</b>												
Aluminum		634	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1223	1899016	3
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		113	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		3380	50.0	200	ug/L	1.00	1					
Chromium	J	1.47	1.00	10.0	ug/L	1.00	1					
Cobalt	J	3.96	1.00	5.00	ug/L	1.00	1					
Copper	J	3.37	3.00	20.0	ug/L	1.00	1					
Iron		2410	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1030	110	300	ug/L	1.00	1					
Manganese		944	2.00	10.0	ug/L	1.00	1					
Nickel	J	1.82	1.50	5.00	ug/L	1.00	1					
Potassium		1920	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		1980	100	300	ug/L	1.00	1					
Thallium	U	ND	5.00	20.0	ug/L	1.00	1					
Vanadium	J	4.62	1.00	5.00	ug/L	1.00	1					
Zinc	J	15.2	3.30	20.0	ug/L	1.00	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3010A/6020B "As Received"</b>												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1809	1899001	4
Uranium-238		0.365	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0033	1899001	5
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SW-11 Project: WNUC01519  
Sample ID: 485262021 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.546	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1201	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7470A	
3	SW846 3005A/6010D	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	
6	EPA 350.1	

### 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

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## Certificate of Analysis

Report Date: September 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: SED-11	Project: WNUC01519
Sample ID: 485262022	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 13:45	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 62.4%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride	J	1.35	0.860	2.53	mg/kg	9.52	1	LXA2	08/10/19	0142	1905737	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury		62.3	9.27	27.7	ug/kg	52.1	1	MTM1	08/08/19	1557	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		10400000	18000	52900	ug/kg	99.6	1	TXT1	08/12/19	1906	1899047	3
Antimony	U	ND	873	5290	ug/kg	99.6	1					
Arsenic	U	ND	1320	7940	ug/kg	99.6	1					
Barium		126000	265	1320	ug/kg	99.6	1					
Beryllium	J	718	265	1320	ug/kg	99.6	1					
Cadmium	U	ND	265	1320	ug/kg	99.6	1					
Calcium		1110000	21200	66100	ug/kg	99.6	1					
Chromium		9990	397	2650	ug/kg	99.6	1					
Cobalt		4340	397	1320	ug/kg	99.6	1					
Copper		7140	794	5290	ug/kg	99.6	1					
Iron		7610000	21200	66100	ug/kg	99.6	1					
Lead		24000	873	5290	ug/kg	99.6	1					
Magnesium		481000	22500	79400	ug/kg	99.6	1					
Manganese		230000	529	2650	ug/kg	99.6	1					
Nickel		4130	397	1320	ug/kg	99.6	1					
Potassium		300000	16900	66100	ug/kg	99.6	1					
Selenium	J	2380	1320	7940	ug/kg	99.6	1					
Silver	U	ND	265	1320	ug/kg	99.6	1					
Sodium	J	34800	18500	66100	ug/kg	99.6	1					
Thallium	U	ND	1320	5290	ug/kg	99.6	1					
Vanadium		25900	265	1320	ug/kg	99.6	1					
Zinc		38200	1060	5290	ug/kg	99.6	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	5.15	25.7	ug/kg	96.9	2	PRB	08/12/19	0127	1898996	4
Uranium-235	J	11.5	5.15	36.0	ug/kg	96.9	2	PRB	08/12/19	1350	1898996	5
Uranium-238		1320	34.0	103	ug/kg	96.9	2					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-11 Project: WNUC01519  
Sample ID: 485262022 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		723	11.7	32.6	mg/kg	49.0	5	KLP1	08/08/19	1304	1899590	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/09/19	1419	1905736

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	EPA 350.1 Modified	

### 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

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## Certificate of Analysis

Report Date: September 26, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

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Client Sample ID:	SW-22	Project:	WNUC01519
Sample ID:	485262023	Client ID:	WNUC009
Matrix:	Surface Water		
Collect Date:	17-JUL-19 14:05		
Receive Date:	18-JUL-19		
Collector:	Client		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1815	1899001	1
Uranium-238	J	0.199	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0038	1899001	2

The following Prep Methods were performed:

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Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	SW846 3010A/6020B	
2	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: September 26, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

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Client Sample ID:	SW-21	Project:	WNUC01519
Sample ID:	485262024	Client ID:	WNUC009
Matrix:	Surface Water		
Collect Date:	17-JUL-19 14:15		
Receive Date:	18-JUL-19		
Collector:	Client		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1816	1899001	1
Uranium-238	J	0.160	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0040	1899001	2

The following Prep Methods were performed:

---

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	SW846 3010A/6020B	
2	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

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## Certificate of Analysis

Report Date: September 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: SW-12 Project: WNUC01519  
Sample ID: 485262025 Client ID: WNUC009  
Matrix: Surface Water  
Collect Date: 17-JUL-19 15:15  
Receive Date: 18-JUL-19  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "As Received"												
Fluoride		0.296	0.033	0.100	mg/L		1	LXA2	08/10/19	0037	1905773	1
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1356	1904592	2
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	118	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1224	1899016	3
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		52.2	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		6540	50.0	200	ug/L	1.00	1					
Chromium	U	ND	1.00	10.0	ug/L	1.00	1					
Cobalt	J	1.01	1.00	5.00	ug/L	1.00	1					
Copper	U	ND	3.00	20.0	ug/L	1.00	1					
Iron		1110	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		1340	110	300	ug/L	1.00	1					
Manganese		1320	2.00	10.0	ug/L	1.00	1					
Nickel	U	ND	1.50	5.00	ug/L	1.00	1					
Potassium		1690	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		4860	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	5.55	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1818	1899001	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	08/12/19	0041	1899001	5
Nutrient Analysis												

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: September 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: SW-12

Project: WNUC01519

Sample ID: 485262025

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.228	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1202	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7470A	
3	SW846 3005A/6010D	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	
6	EPA 350.1	

### 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: September 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: SED-12	Project: WNUC01519
Sample ID: 485262026	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 15:15	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 62.6%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride	J	2.26	0.908	2.67	mg/kg	10.0	1	LXA2	08/12/19	1452	1905785	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury		56.8	10.4	30.9	ug/kg	57.9	1	MTM1	08/08/19	1559	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		10300000	16800	49300	ug/kg	92.3	1	TXT1	08/12/19	1911	1899047	3
Antimony	U	ND	813	4930	ug/kg	92.3	1					
Arsenic	U	ND	1230	7390	ug/kg	92.3	1					
Barium		118000	246	1230	ug/kg	92.3	1					
Beryllium	J	1130	246	1230	ug/kg	92.3	1					
Cadmium	U	ND	246	1230	ug/kg	92.3	1					
Calcium		1020000	19700	61600	ug/kg	92.3	1					
Chromium		8340	370	2460	ug/kg	92.3	1					
Cobalt		2970	370	1230	ug/kg	92.3	1					
Copper		5390	739	4930	ug/kg	92.3	1					
Iron		4320000	19700	61600	ug/kg	92.3	1					
Lead		28000	813	4930	ug/kg	92.3	1					
Magnesium		279000	20900	73900	ug/kg	92.3	1					
Manganese		150000	493	2460	ug/kg	92.3	1					
Nickel		3510	370	1230	ug/kg	92.3	1					
Potassium		263000	15800	61600	ug/kg	92.3	1					
Selenium	U	ND	1230	7390	ug/kg	92.3	1					
Silver	U	ND	246	1230	ug/kg	92.3	1					
Sodium	J	42000	17200	61600	ug/kg	92.3	1					
Thallium	U	ND	1230	4930	ug/kg	92.3	1					
Vanadium		21600	246	1230	ug/kg	92.3	1					
Zinc		23000	986	4930	ug/kg	92.3	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	5.13	25.6	ug/kg	96.0	2	PRB	08/12/19	0128	1898996	4
Uranium-235	J	16.0	5.13	35.9	ug/kg	96.0	2	PRB	08/12/19	1351	1898996	5
Uranium-238		1700	33.8	103	ug/kg	96.0	2					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-12 Project: WNUC01519  
Sample ID: 485262026 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		560	12.0	33.4	mg/kg	50.0	5	KLP1	08/08/19	1305	1899590	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/12/19	1039	1905784

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	EPA 350.1 Modified	

### 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: September 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-01-071819      Project: WNUC01519  
Sample ID: 485262027      Client ID: WNUC009  
Matrix: Surface Water  
Collect Date: 18-JUL-19 07:50  
Receive Date: 18-JUL-19  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	LXA2	08/10/19	0108	1905773	1
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1401	1904592	2
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1226	1899016	3
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	4.59	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1820	1899001	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	08/12/19	0043	1899001	5
Nutrient Analysis												

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## Certificate of Analysis

Report Date: September 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-01-071819  
Sample ID: 485262027

Project: WNUC01519  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.0978	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1203	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7470A	
3	SW846 3005A/6010D	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	
6	EPA 350.1	

### 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: September 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-02-071819 Project: WNUC01519  
Sample ID: 485262028 Client ID: WNUC009  
Matrix: Surface Water  
Collect Date: 18-JUL-19 08:00  
Receive Date: 18-JUL-19  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "As Received"												
Fluoride	U	ND	0.033	0.100	mg/L		1	LXA2	08/10/19	0139	1905773	1
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1402	1904592	2
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	U	ND	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1229	1899016	3
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	4.49	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1821	1899001	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	08/12/19	0045	1899001	5
Nutrient Analysis												

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## Certificate of Analysis

Report Date: September 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-02-071819  
Sample ID: 485262028

Project: WNUC01519  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.101	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1203	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7470A	
3	SW846 3005A/6010D	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	
6	EPA 350.1	

### 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: September 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: SED-25	Project: WNUC01519
Sample ID: 485262029	Client ID: WNUC009
Matrix: Soil	
Collect Date: 18-JUL-19 09:15	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 89.2%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride		53.3	2.90	8.52	mg/kg	9.22	1	LXA2	08/12/19	1625	1905785	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury		407	35.9	107	ug/kg	57.9	1	MTM1	08/08/19	1601	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		6570000	60400	178000	ug/kg	96.2	1	TXT1	08/12/19	1916	1899047	3
Antimony	J	5010	2930	17800	ug/kg	96.2	1					
Arsenic	U	ND	4440	26700	ug/kg	96.2	1					
Barium		103000	889	4440	ug/kg	96.2	1					
Beryllium	U	ND	889	4440	ug/kg	96.2	1					
Cadmium	J	2000	889	4440	ug/kg	96.2	1					
Calcium		10500000	71100	222000	ug/kg	96.2	1					
Chromium		35700	1330	8890	ug/kg	96.2	1					
Cobalt		8690	1330	4440	ug/kg	96.2	1					
Copper		418000	2670	17800	ug/kg	96.2	1					
Iron		12300000	71100	222000	ug/kg	96.2	1					
Lead		45900	2930	17800	ug/kg	96.2	1					
Magnesium		1180000	75500	267000	ug/kg	96.2	1					
Manganese		97200	1780	8890	ug/kg	96.2	1					
Nickel		86700	1330	4440	ug/kg	96.2	1					
Potassium		798000	56900	222000	ug/kg	96.2	1					
Selenium	J	4720	4440	26700	ug/kg	96.2	1					
Silver		323000	889	4440	ug/kg	96.2	1					
Sodium		919000	62200	222000	ug/kg	96.2	1					
Thallium	U	ND	4440	17800	ug/kg	96.2	1					
Vanadium		22200	889	4440	ug/kg	96.2	1					
Zinc		9070000	3550	17800	ug/kg	96.2	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234		225	17.9	89.4	ug/kg	96.7	2	PRB	08/12/19	0130	1898996	4
Uranium-238		646000	1180	3580	ug/kg	96.7	20	PRB	08/12/19	1353	1898996	5
Uranium-235		27100	894	6260	ug/kg	96.7	100	PRB	08/12/19	1355	1898996	6
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-25 Project: WNUC01519  
Sample ID: 485262029 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		2270	43.3	120	mg/kg	52.1	5	KLP1	08/08/19	1306	1899590	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/12/19	1039	1905784

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	EPA 350.1 Modified	

### 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: September 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: SED-26	Project: WNUC01519
Sample ID: 485262030	Client ID: WNUC009
Matrix: Soil	
Collect Date: 18-JUL-19 09:40	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 26.8%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride		4.61	0.451	1.33	mg/kg	9.71	1	LXA2	08/12/19	1656	1905785	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury		576	5.42	16.2	ug/kg	59.2	1	MTM1	08/08/19	1602	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		5540000	8850	26000	ug/kg	95.2	1	TXT1	08/12/19	1921	1899047	3
Antimony	J	1220	430	2600	ug/kg	95.2	1					
Arsenic	J	795	651	3910	ug/kg	95.2	1					
Barium		56000	130	651	ug/kg	95.2	1					
Beryllium	J	253	130	651	ug/kg	95.2	1					
Cadmium	J	610	130	651	ug/kg	95.2	1					
Calcium		3950000	10400	32500	ug/kg	95.2	1					
Chromium		49600	195	1300	ug/kg	95.2	1					
Cobalt		2950	195	651	ug/kg	95.2	1					
Copper		116000	391	2600	ug/kg	95.2	1					
Iron		2840000	10400	32500	ug/kg	95.2	1					
Lead		29300	430	2600	ug/kg	95.2	1					
Magnesium		679000	11100	39100	ug/kg	95.2	1					
Manganese		23000	260	1300	ug/kg	95.2	1					
Nickel		75100	195	651	ug/kg	95.2	1					
Potassium		170000	8330	32500	ug/kg	95.2	1					
Selenium	J	720	651	3910	ug/kg	95.2	1					
Sodium		90400	9110	32500	ug/kg	95.2	1					
Thallium	U	ND	651	2600	ug/kg	95.2	1					
Vanadium		7250	130	651	ug/kg	95.2	1					
Zinc		229000	521	2600	ug/kg	95.2	1					
Silver		544000	1300	6510	ug/kg	95.2	10	TXT1	08/12/19	1923	1899047	4
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234		129	2.57	12.9	ug/kg	94.2	2	PRB	08/12/19	0132	1898996	5
Uranium-235		14200	257	1800	ug/kg	94.2	200	PRB	08/12/19	1357	1898996	6
Uranium-238		487000	1700	5150	ug/kg	94.2	200					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-26

Project: WNUC01519

Sample ID: 485262030

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		167	4.05	11.2	mg/kg	32.9	5	KLP1	08/08/19	1307	1899590	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/12/19	1039	1905784

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6010D	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	EPA 350.1 Modified	

### 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: September 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: SED-27	Project: WNUC01519
Sample ID: 485262031	Client ID: WNUC009
Matrix: Soil	
Collect Date: 18-JUL-19 10:30	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 81%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		171	1.74	5.10	mg/kg	9.69	1	LXA2	08/12/19	1727	1905785	1
<b>Mercury Analysis-CVAA</b>												
7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"												
Mercury		287	20.2	60.2	ug/kg	57.1	1	MTM1	08/08/19	1604	1904595	2
<b>Metals Analysis-ICP</b>												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Aluminum		1860000	34900	103000	ug/kg	97.5	1	TXT1	08/12/19	1926	1899047	3
Antimony	J	4790	1690	10300	ug/kg	97.5	1					
Arsenic	U	ND	2570	15400	ug/kg	97.5	1					
Barium		723000	514	2570	ug/kg	97.5	1					
Beryllium	U	ND	514	2570	ug/kg	97.5	1					
Cadmium	U	ND	514	2570	ug/kg	97.5	1					
Calcium		253000000	41100	128000	ug/kg	97.5	1					
Chromium		78900	770	5140	ug/kg	97.5	1					
Cobalt	J	2000	770	2570	ug/kg	97.5	1					
Copper		20900	1540	10300	ug/kg	97.5	1					
Iron		4310000	41100	128000	ug/kg	97.5	1					
Lead		18500	1690	10300	ug/kg	97.5	1					
Magnesium		17200000	43700	154000	ug/kg	97.5	1					
Manganese		102000	1030	5140	ug/kg	97.5	1					
Nickel		255000	770	2570	ug/kg	97.5	1					
Potassium		308000	32900	128000	ug/kg	97.5	1					
Selenium	J	2580	2570	15400	ug/kg	97.5	1					
Silver		10500	514	2570	ug/kg	97.5	1					
Sodium		6330000	36000	128000	ug/kg	97.5	1					
Thallium	U	ND	2570	10300	ug/kg	97.5	1					
Vanadium		5710	514	2570	ug/kg	97.5	1					
Zinc		523000	2050	10300	ug/kg	97.5	1					
<b>Metals Analysis-ICP-MS</b>												
SW846 3050B/6020B "Dry Weight Corrected"												
Uranium-234	J	38.9	10.2	51.2	ug/kg	97.1	2	PRB	08/12/19	0133	1898996	4
Uranium-238		90900	338	1020	ug/kg	97.1	10	PRB	08/12/19	1402	1898996	5
Uranium-235		3970	102	716	ug/kg	97.1	20	PRB	08/12/19	1403	1898996	6
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-27 Project: WNUC01519  
Sample ID: 485262031 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		395	4.02	11.2	mg/kg	42.4	1	KLP1	08/08/19	1130	1899590	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/12/19	1039	1905784

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	EPA 350.1 Modified	

### 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: September 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: SED-28	Project: WNUC01519
Sample ID: 485262032	Client ID: WNUC009
Matrix: Soil	
Collect Date: 18-JUL-19 10:50	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 86%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride		39.3	2.39	7.02	mg/kg	9.85	1	LXA2	08/12/19	1757	1905785	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury		526	24.3	72.6	ug/kg	50.9	1	MTM1	08/08/19	1609	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		5790000	44600	131000	ug/kg	91.9	1	TXT1	08/12/19	1936	1899047	3
Antimony	J	6810	2160	13100	ug/kg	91.9	1					
Arsenic	U	ND	3280	19700	ug/kg	91.9	1					
Barium		1220000	655	3280	ug/kg	91.9	1					
Beryllium	U	ND	655	3280	ug/kg	91.9	1					
Cadmium	U	ND	655	3280	ug/kg	91.9	1					
Calcium		284000000	52400	164000	ug/kg	91.9	1					
Chromium		75300	983	6550	ug/kg	91.9	1					
Cobalt	J	2910	983	3280	ug/kg	91.9	1					
Copper		36400	1970	13100	ug/kg	91.9	1					
Iron		29100000	52400	164000	ug/kg	91.9	1					
Lead		91700	2160	13100	ug/kg	91.9	1					
Magnesium		16500000	55700	197000	ug/kg	91.9	1					
Manganese		149000	1310	6550	ug/kg	91.9	1					
Nickel		143000	983	3280	ug/kg	91.9	1					
Potassium		3650000	41900	164000	ug/kg	91.9	1					
Selenium	J	3690	3280	19700	ug/kg	91.9	1					
Silver		27600	655	3280	ug/kg	91.9	1					
Sodium		7260000	45900	164000	ug/kg	91.9	1					
Thallium	U	ND	3280	13100	ug/kg	91.9	1					
Vanadium		5670	655	3280	ug/kg	91.9	1					
Zinc		403000	2620	13100	ug/kg	91.9	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	J	57.2	13.3	66.5	ug/kg	93.3	2	PRB	08/12/19	0135	1898996	4
Uranium-235		6770	133	931	ug/kg	93.3	20	PRB	08/12/19	1405	1898996	5
Uranium-238		161000	878	2660	ug/kg	93.3	20					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-28 Project: WNUC01519  
Sample ID: 485262032 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		1560	31.5	87.4	mg/kg	49.0	5	KLP1	08/08/19	1308	1899590	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/12/19	1039	1905784

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	EPA 350.1 Modified	

### 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

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## Certificate of Analysis

Report Date: September 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: SW-17 Project: WNUC01519  
Sample ID: 485262033 Client ID: WNUC009  
Matrix: Surface Water  
Collect Date: 18-JUL-19 13:00  
Receive Date: 18-JUL-19  
Collector: Client

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "As Received"												
Fluoride		0.460	0.033	0.100	mg/L		1	LXA2	08/10/19	0210	1905773	1
Mercury Analysis-CVAA												
7470 Cold Vapor Mercury, Liquid "As Received"												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1404	1904592	2
Metals Analysis-ICP												
SW846 3005A/6010D Metals Scan Liquid "As Received"												
Aluminum	J	144	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1232	1899016	3
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		85.3	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		10000	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		715	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		2280	110	300	ug/L	1.00	1					
Manganese		86.5	2.00	10.0	ug/L	1.00	1					
Nickel		33.4	1.50	5.00	ug/L	1.00	1					
Potassium		2710	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		11300	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	15.6	3.30	20.0	ug/L	1.00	1					
Metals Analysis-ICP-MS												
SW846 3010A/6020B "As Received"												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1823	1899001	4
Uranium-238		0.246	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0046	1899001	5
Nutrient Analysis												

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## Certificate of Analysis

Report Date: September 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: SW-17 Project: WNUC01519  
Sample ID: 485262033 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.290	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1204	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7470A	
3	SW846 3005A/6010D	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	
6	EPA 350.1	

### 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: September 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: SED-17	Project: WNUC01519
Sample ID: 485262034	Client ID: WNUC009
Matrix: Soil	
Collect Date: 18-JUL-19 13:00	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 15.5%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride	J	0.908	0.395	1.16	mg/kg	9.83	1	LXA2	08/12/19	1828	1905785	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury	U	ND	4.75	14.2	ug/kg	59.9	1	MTM1	08/08/19	1611	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		459000	7840	23100	ug/kg	97.5	1	TXT1	08/12/19	1940	1899047	3
Antimony	J	482	381	2310	ug/kg	97.5	1					
Arsenic	U	ND	577	3460	ug/kg	97.5	1					
Barium		4920	115	577	ug/kg	97.5	1					
Beryllium	U	ND	115	577	ug/kg	97.5	1					
Cadmium	U	ND	115	577	ug/kg	97.5	1					
Calcium		48500	9230	28800	ug/kg	97.5	1					
Chromium	J	1020	173	1150	ug/kg	97.5	1					
Cobalt	J	175	173	577	ug/kg	97.5	1					
Copper	U	ND	346	2310	ug/kg	97.5	1					
Iron		257000	9230	28800	ug/kg	97.5	1					
Lead	J	439	381	2310	ug/kg	97.5	1					
Magnesium		35700	9800	34600	ug/kg	97.5	1					
Manganese		18000	231	1150	ug/kg	97.5	1					
Nickel		773	173	577	ug/kg	97.5	1					
Potassium		87400	7380	28800	ug/kg	97.5	1					
Selenium	U	ND	577	3460	ug/kg	97.5	1					
Silver	U	ND	115	577	ug/kg	97.5	1					
Sodium	J	14100	8070	28800	ug/kg	97.5	1					
Thallium	U	ND	577	2310	ug/kg	97.5	1					
Vanadium		1180	115	577	ug/kg	97.5	1					
Zinc		2420	461	2310	ug/kg	97.5	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	2.19	11.0	ug/kg	92.6	2	PRB	08/12/19	0137	1898996	4
Uranium-235	J	6.57	2.19	15.3	ug/kg	92.6	2	PRB	08/12/19	1407	1898996	5
Uranium-238		401	14.5	43.8	ug/kg	92.6	2					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: SED-17 Project: WNUC01519  
Sample ID: 485262034 Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		4.15	0.740	2.05	mg/kg	34.7	1	KLP1	08/08/19	1136	1899590	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/12/19	1039	1905784

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	EPA 350.1 Modified	

### 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: September 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:	DUP-01-071819	Project:	WNUC01519
Sample ID:	485262035	Client ID:	WNUC009
Matrix:	Surface Water		
Collect Date:	18-JUL-19 12:00		
Receive Date:	18-JUL-19		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "As Received"</b>												
Fluoride		0.471	0.033	0.100	mg/L		1	LXA2	08/10/19	0240	1905773	1
<b>Mercury Analysis-CVAA</b>												
<b>7470 Cold Vapor Mercury, Liquid "As Received"</b>												
Mercury	U	ND	0.067	0.200	ug/L	1.00	1	MTM1	08/08/19	1406	1904592	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3005A/6010D Metals Scan Liquid "As Received"</b>												
Aluminum	J	141	68.0	200	ug/L	1.00	1	TXT1	08/01/19	1234	1899016	3
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		81.8	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		9770	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		682	30.0	100	ug/L	1.00	1					
Lead	U	ND	3.30	20.0	ug/L	1.00	1					
Magnesium		2130	110	300	ug/L	1.00	1					
Manganese		82.9	2.00	10.0	ug/L	1.00	1					
Nickel		31.4	1.50	5.00	ug/L	1.00	1					
Potassium		2640	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		11200	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	14.7	3.30	20.0	ug/L	1.00	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3010A/6020B "As Received"</b>												
Uranium-235	U	ND	0.010	0.070	ug/L	1.00	1	PRB	08/11/19	1825	1899001	4
Uranium-238		0.229	0.067	0.200	ug/L	1.00	1					
Uranium-234	U	ND	0.010	0.050	ug/L	1.00	1	PRB	08/12/19	0048	1899001	5
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: DUP-01-071819  
Sample ID: 485262035

Project: WNUC01519  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "As Received"												
Nitrogen, Ammonia		0.290	0.017	0.050	mg/L	1.00	1	KLP1	07/25/19	1205	1899832	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.1 Prep	EPA 350.1 Ammonia Nitrogen Prep	KLP1	07/25/19	0952	1899831
SW846 3005A	SW846 3005A for 6010D	SXW1	07/26/19	0522	1899015
SW846 3010A	SW 846 3010 Acid Digestion	SXW1	07/26/19	0607	1899000
SW846 7470A Prep	EPA 7470A Mercury Prep Liquid	AXS5	08/07/19	1414	1904590

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7470A	
3	SW846 3005A/6010D	
4	SW846 3010A/6020B	
5	SW846 3010A/6020B	
6	EPA 350.1	

### 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: September 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: DUP-01-071819	Project: WNUC01519
Sample ID: 485262036	Client ID: WNUC009
Matrix: Soil	
Collect Date: 18-JUL-19 12:00	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 17.8%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
<b>SW846 9056A Fluoride "Dry Weight Corrected"</b>												
Fluoride	J	0.814	0.402	1.18	mg/kg	9.71	1	LXA2	08/12/19	2001	1905785	1
<b>Mercury Analysis-CVAA</b>												
<b>7471 Cold Vapor Mercury, Solid "Dry Weight Corrected"</b>												
Mercury	U	ND	4.47	13.3	ug/kg	54.8	1	MTM1	08/08/19	1612	1904595	2
<b>Metals Analysis-ICP</b>												
<b>SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"</b>												
Aluminum		340000	7590	22300	ug/kg	91.7	1	TXT1	08/12/19	1946	1899047	3
Antimony	J	512	368	2230	ug/kg	91.7	1					
Arsenic	U	ND	558	3350	ug/kg	91.7	1					
Barium		4610	112	558	ug/kg	91.7	1					
Beryllium	U	ND	112	558	ug/kg	91.7	1					
Cadmium	U	ND	112	558	ug/kg	91.7	1					
Calcium		32900	8930	27900	ug/kg	91.7	1					
Chromium	J	576	167	1120	ug/kg	91.7	1					
Cobalt	J	326	167	558	ug/kg	91.7	1					
Copper	U	ND	335	2230	ug/kg	91.7	1					
Iron		217000	8930	27900	ug/kg	91.7	1					
Lead	J	420	368	2230	ug/kg	91.7	1					
Magnesium	J	14400	9490	33500	ug/kg	91.7	1					
Manganese		11900	223	1120	ug/kg	91.7	1					
Nickel	J	442	167	558	ug/kg	91.7	1					
Potassium		95400	7140	27900	ug/kg	91.7	1					
Selenium	U	ND	558	3350	ug/kg	91.7	1					
Silver	U	ND	112	558	ug/kg	91.7	1					
Sodium	J	17100	7810	27900	ug/kg	91.7	1					
Thallium	U	ND	558	2230	ug/kg	91.7	1					
Vanadium		1430	112	558	ug/kg	91.7	1					
Zinc	J	1240	447	2230	ug/kg	91.7	1					
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B "Dry Weight Corrected"</b>												
Uranium-234	U	ND	2.36	11.8	ug/kg	96.9	2	PRB	08/12/19	0138	1898996	4
Uranium-235	J	2.90	2.36	16.5	ug/kg	96.9	2	PRB	08/12/19	1409	1898996	5
Uranium-238		140	15.6	47.2	ug/kg	96.9	2					
<b>Nutrient Analysis</b>												

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## Certificate of Analysis

Report Date: September 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: DUP-01-071819  
Sample ID: 485262036

Project: WNUC01519  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Nutrient Analysis												
EPA 350.1 Nitrogen, Ammonia "Dry Weight Corrected"												
Nitrogen, Ammonia		3.66	0.842	2.34	mg/kg	38.5	1	KLP1	08/08/19	1137	1899590	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
EPA 350.2 Modified Prep	EPA 350.1 Mod. Ammonia Nitrogen Prep	AXH3	08/08/19	0830	1899589
SW846 3050B	ICP-MS 3050BS PREP	HH1	07/30/19	1650	1898995
SW846 3050B	SW846 3050B Prep	SXW1	07/27/19	0814	1899045
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/07/19	1610	1904594
SW846 9056A	SW846 9056A Total Anions in Soil	LXA2	08/12/19	1039	1905784

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 7471A	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	EPA 350.1 Modified	

### 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: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-22 Project: WNUC01519  
Sample ID: 485262002 Client ID: WNUC009  
Matrix: Soil  
Collect Date: 15-JUL-19 13:30  
Receive Date: 18-JUL-19  
Collector: Client  
Moisture: 70%

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Soil/Veg "Dry Weight Corrected"													
Uranium-233/234		117	+/-4.47	0.404	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236		4.98	+/-1.04	0.305	0.500	pCi/g							
Uranium-238		28.0	+/-2.19	0.329	0.500	pCi/g							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	-3.44	+/-13.1	23.4	50.0	pCi/g			LXB3	08/04/19	1241	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			68.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.8	(15%-125%)

### Notes:

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

Column headers are defined as follows:

DF: Dilution Factor                      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

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-21	Project: WNUC01519
Sample ID: 485262004	Client ID: WNUC009
Matrix: Soil	
Collect Date: 15-JUL-19 16:00	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 67.7%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Soil/Veg "Dry Weight Corrected"</b>													
Uranium-233/234		1.86	+/-0.504	0.283	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236	U	0.104	+/-0.165	0.229	0.500	pCi/g							
Uranium-238		1.96	+/-0.518	0.280	0.500	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	4.12	+/-10.4	17.9	50.0	pCi/g			LXB3	08/04/19	1257	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			78.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "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	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

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-15	Project: WNUC01519
Sample ID: 485262005	Client ID: WNUC009
Matrix: Soil	
Collect Date: 16-JUL-19 11:20	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 19.9%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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**Rad Alpha Spec Analysis**

**Alphaspec U, Soil/Veg "Dry Weight Corrected"**

Uranium-233/234		2.58	+/-0.549	0.234	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236		0.181	+/-0.175	0.109	0.500	pCi/g							
Uranium-238		2.05	+/-0.489	0.206	0.500	pCi/g							

**Rad Liquid Scintillation Analysis**

**Liquid Scint Tc99, Soil "As Received"**

Technetium-99	U	5.62	+/-13.1	22.6	50.0	pCi/g			LXB3	08/04/19	1313	1898807	2
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**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			92.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98.9	(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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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-18 Project: WNUC01519  
Sample ID: 485262006 Client ID: WNUC009  
Matrix: Surface Water  
Collect Date: 16-JUL-19 12:30  
Receive Date: 18-JUL-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### Rad Alpha Spec Analysis

#### Alphaspec U, Liquid "As Received"

Pct Uranium-235	U	0.00				percent		MP2	07/24/19	2142	1898796	1	
Uranium-233/234	U	0.285	+/-0.274	0.380	0.500	pCi/L							
Uranium-235/236	U	0.0501	+/-0.143	0.150	0.500	pCi/L							
Uranium-238	U	0.159	+/-0.203	0.283	0.500	pCi/L							

### Rad Liquid Scintillation Analysis

#### Liquid Scint Tc99, Liquid "As Received"

Technetium-99	U	1.29	+/-27.9	48.4	50.0	pCi/L		JJ3	08/04/19	1017	1899271	2
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			46.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			86.7	(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

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-18	Project: WNUC01519
Sample ID: 485262007	Client ID: WNUC009
Matrix: Soil	
Collect Date: 16-JUL-19 12:30	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 21.9%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Soil/Veg "Dry Weight Corrected"</b>													
Uranium-233/234		0.219	+/-0.177	0.208	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236	U	0.0173	+/-0.0963	0.185	0.500	pCi/g							
Uranium-238		0.298	+/-0.193	0.178	0.500	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-1.94	+/-10.2	18.1	50.0	pCi/g			LXB3	08/04/19	1329	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			102	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96.8	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-20	Project: WNUC01519
Sample ID: 485262008	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 16-JUL-19 14:00	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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**Rad Alpha Spec Analysis**

**Alphaspec U, Liquid "As Received"**

Pct Uranium-235		2.96				percent			MP2	07/24/19	2142 1898796	1
Uranium-233/234		2.35	+/-0.560	0.271	0.500	pCi/L						
Uranium-235/236		0.123	+/-0.163	0.123	0.500	pCi/L						
Uranium-238		0.626	+/-0.301	0.231	0.500	pCi/L						

**Rad Liquid Scintillation Analysis**

**Liquid Scint Tc99, Liquid "As Received"**

Technetium-99	U	-0.321	+/-26.6	46.2	50.0	pCi/L			JJ3	08/04/19	1039 1899271	2
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			87.6	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-20	Project: WNUC01519
Sample ID: 485262009	Client ID: WNUC009
Matrix: Soil	
Collect Date: 16-JUL-19 14:00	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 84.1%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Soil/Veg "Dry Weight Corrected"</b>													
Uranium-233/234		62.5	+/-2.92	0.335	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236		3.12	+/-0.732	0.242	0.500	pCi/g							
Uranium-238		14.9	+/-1.43	0.248	0.500	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-8.57	+/-16.7	30.1	50.0	pCi/g			LXB3	08/04/19	1345	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			74	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "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

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-23 Project: WNUC01519  
Sample ID: 485262010 Client ID: WNUC009  
Matrix: Surface Water  
Collect Date: 16-JUL-19 15:45  
Receive Date: 18-JUL-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Liquid "As Received"</b>													
Pct Uranium-235	U	0.00				percent		MP2		07/24/19	2142	1898796	1
Uranium-233/234	U	0.0557	+/-0.162	0.300	0.500	pCi/L							
Uranium-235/236	U	-0.0558	+/-0.0975	0.295	0.500	pCi/L							
Uranium-238	U	0.103	+/-0.143	0.196	0.500	pCi/L							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Liquid "As Received"</b>													
Technetium-99	U	13.6	+/-21.6	36.7	50.0	pCi/L		JJ3		08/05/19	0659	1899271	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			73.9	(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 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: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-23	Project: WNUC01519
Sample ID: 485262011	Client ID: WNUC009
Matrix: Soil	
Collect Date: 16-JUL-19 15:45	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 32.5%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Soil/Veg "Dry Weight Corrected"</b>													
Uranium-233/234		1.35	+/-0.561	0.443	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236	U	0.00261	+/-0.193	0.429	0.500	pCi/g							
Uranium-238		1.69	+/-0.605	0.347	0.500	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99		50.8	+/-13.6	19.8	50.0	pCi/g			LXB3	08/04/19	1401	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			57.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			101	(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: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-24	Project: WNUC01519
Sample ID: 485262012	Client ID: WNUC009
Matrix: Soil	
Collect Date: 16-JUL-19 16:15	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 37.6%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Soil/Veg "Dry Weight Corrected"</b>													
Uranium-233/234		1.14	+/-0.360	0.192	0.500	pCi/g			MP2	08/02/19	1020	1898800	1
Uranium-235/236	U	0.0608	+/-0.120	0.166	0.500	pCi/g							
Uranium-238		0.944	+/-0.325	0.134	0.500	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99		35.8	+/-15.4	24.0	50.0	pCi/g			LXB3	08/04/19	1418	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			91.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			100	(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: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID:	SW-19	Project:	WNUC01519
Sample ID:	485262013	Client ID:	WNUC009
Matrix:	Surface Water		
Collect Date:	17-JUL-19 08:45		
Receive Date:	18-JUL-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### Rad Alpha Spec Analysis

#### Alphaspec U, Liquid "As Received"

Pct Uranium-235	U	0.00				percent		MP2	07/24/19	2142	1898796	1	
Uranium-233/234		0.587	+/-0.255	0.219	0.500	pCi/L							
Uranium-235/236	U	0.0192	+/-0.0884	0.159	0.500	pCi/L							
Uranium-238	U	0.168	+/-0.147	0.170	0.500	pCi/L							

### Rad Liquid Scintillation Analysis

#### Liquid Scint Tc99, Liquid "As Received"

Technetium-99	U	-0.621	+/-24.7	43.0	50.0	pCi/L		JJ3	08/04/19	1123	1899271	2
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			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	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: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-19	Project: WNUC01519
Sample ID: 485262014	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 08:45	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 51.6%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Soil/Veg "Dry Weight Corrected"</b>													
Uranium-233/234		32.5	+/-1.75	0.234	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236		2.30	+/-0.521	0.0908	0.500	pCi/g							
Uranium-238		8.18	+/-0.881	0.190	0.500	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	6.28	+/-15.7	27.0	50.0	pCi/g			LXB3	08/04/19	1434	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			110	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98.7	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID:	SW-16	Project:	WNUC01519
Sample ID:	485262015	Client ID:	WNUC009
Matrix:	Surface Water		
Collect Date:	17-JUL-19 10:30		
Receive Date:	18-JUL-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### Rad Alpha Spec Analysis

#### Alphaspec U, Liquid "As Received"

Pct Uranium-235		3.07				percent		MP2	07/24/19	2142	1898796	1	
Uranium-233/234		3.34	+/-0.557	0.202	0.500	pCi/L							
Uranium-235/236		0.145	+/-0.141	0.087	0.500	pCi/L							
Uranium-238		0.710	+/-0.262	0.147	0.500	pCi/L							

### Rad Liquid Scintillation Analysis

#### Liquid Scint Tc99, Liquid "As Received"

Technetium-99	U	-3.1	+/-24.1	42.0	50.0	pCi/L		JJ3	08/04/19	1145	1899271	2
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			95.7	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-16	Project: WNUC01519
Sample ID: 485262016	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 10:30	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 21.1%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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**Rad Alpha Spec Analysis**

**Alphaspec U, Soil/Veg "Dry Weight Corrected"**

Uranium-233/234		14.9	+/-1.32	0.231	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236		0.678	+/-0.322	0.113	0.500	pCi/g							
Uranium-238		2.77	+/-0.573	0.146	0.500	pCi/g							

**Rad Liquid Scintillation Analysis**

**Liquid Scint Tc99, Soil "As Received"**

Technetium-99	U	4.94	+/-11.4	19.6	50.0	pCi/g			LXB3	08/04/19	1450	1898807	2
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**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			93.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "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	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

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-14	Project: WNUC01519
Sample ID: 485262017	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 17-JUL-19 11:00	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Liquid "As Received"</b>													
Pct Uranium-235	U	0.00				percent			MP2	07/24/19	2142	1898796	1
Uranium-233/234		0.575	+/-0.280	0.220	0.500	pCi/L							
Uranium-235/236	U	0.101	+/-0.155	0.203	0.500	pCi/L							
Uranium-238	U	0.0793	+/-0.144	0.236	0.500	pCi/L							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Liquid "As Received"</b>													
Technetium-99	U	3.73	+/-24.3	41.9	50.0	pCi/L			JJ3	08/04/19	1208	1899271	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			74.2	(15%-125%)
Technetium-99m Tracer		Liquid Scint Tc99, Liquid "As Received"			96	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-14	Project: WNUC01519
Sample ID: 485262018	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 11:00	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 20.9%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Soil/Veg "Dry Weight Corrected"</b>													
Uranium-233/234		1.42	+/-0.478	0.283	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236	U	0.025	+/-0.139	0.266	0.500	pCi/g							
Uranium-238		0.389	+/-0.254	0.117	0.500	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.0243	+/-12.0	21.1	50.0	pCi/g			LXB3	08/04/19	1506	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			77.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.2	(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



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-13	Project: WNUC01519
Sample ID: 485262019	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 17-JUL-19 12:00	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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**Rad Alpha Spec Analysis**

**Alphaspec U, Liquid "As Received"**

Pct Uranium-235	U	0.00				percent			MP2	07/24/19	2142	1898796	1
Uranium-233/234	U	0.0159	+/-0.133	0.275	0.500	pCi/L							
Uranium-235/236	U	0.00	+/-0.0812	0.117	0.500	pCi/L							
Uranium-238	U	-0.0139	+/-0.101	0.240	0.500	pCi/L							

**Rad Liquid Scintillation Analysis**

**Liquid Scint Tc99, Liquid "As Received"**

Technetium-99	U	-6.9	+/-24.4	42.8	50.0	pCi/L			JJ3	08/04/19	1230	1899271	2
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			72.9	(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	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

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-13	Project: WNUC01519
Sample ID: 485262020	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 12:00	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 39.7%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Soil/Veg "Dry Weight Corrected"</b>													
Uranium-233/234		1.67	+/-0.450	0.252	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236	U	0.156	+/-0.179	0.223	0.500	pCi/g							
Uranium-238		1.33	+/-0.393	0.0886	0.500	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-1.04	+/-13.2	23.3	50.0	pCi/g			LXB3	08/04/19	1522	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			85.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.9	(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

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-11	Project: WNUC01519
Sample ID: 485262021	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 17-JUL-19 13:45	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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**Rad Alpha Spec Analysis**

**Alphaspec U, Liquid "As Received"**

Pct Uranium-235	U	0.00				percent			MP2	07/24/19	2142	1898796	1
Uranium-233/234		0.296	+/-0.221	0.271	0.500	pCi/L							
Uranium-235/236	U	0.0959	+/-0.147	0.193	0.500	pCi/L							
Uranium-238	U	0.105	+/-0.148	0.223	0.500	pCi/L							

**Rad Liquid Scintillation Analysis**

**Liquid Scint Tc99, Liquid "As Received"**

Technetium-99	U	-1.83	+/-26.1	45.4	50.0	pCi/L			JJ3	08/04/19	1252	1899271	2
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			66.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			90.2	(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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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-11	Project: WNUC01519
Sample ID: 485262022	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 13:45	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 62.4%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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**Rad Alpha Spec Analysis**

**Alphaspec U, Soil/Veg "Dry Weight Corrected"**

Uranium-233/234		1.14	+/-0.390	0.231	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236	U	0.00159	+/-0.118	0.262	0.500	pCi/g							
Uranium-238		0.742	+/-0.317	0.212	0.500	pCi/g							

**Rad Liquid Scintillation Analysis**

**Liquid Scint Tc99, Soil "As Received"**

Technetium-99	U	-1.84	+/-17.1	30.2	50.0	pCi/g			LXB3	08/04/19	1538	1898807	2
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**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			92.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98.2	(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

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-22 Project: WNUC01519  
Sample ID: 485262023 Client ID: WNUC009  
Matrix: Surface Water  
Collect Date: 17-JUL-19 14:05  
Receive Date: 18-JUL-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
<b>Rad Alpha Spec Analysis</b>												
<b>Alphaspec U, Liquid "As Received"</b>												
Pct Uranium-235	U	0.00				percent		MP2		07/24/19	2142 1898796	1
Uranium-233/234	U	0.187	+/-0.197	0.281	0.500	pCi/L						
Uranium-235/236	U	0.00	+/-0.0787	0.113	0.500	pCi/L						
Uranium-238	U	0.0611	+/-0.106	0.0917	0.500	pCi/L						
<b>Rad Liquid Scintillation Analysis</b>												
<b>Liquid Scint Tc99, Liquid "As Received"</b>												
Technetium-99	U	-9.94	+/-23.7	41.8	50.0	pCi/L		JJ3		08/04/19	1314 1899271	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			64.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			98.2	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
 Project: ENV-CONSENTA

Client Sample ID: SW-21	Project: WNUC01519
Sample ID: 485262024	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 17-JUL-19 14:15	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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**Rad Alpha Spec Analysis**

**Alphaspec U, Liquid "As Received"**

Pct Uranium-235	U	0.00				percent			MP2	07/24/19	2142	1898796	1
Uranium-233/234	U	0.0905	+/-0.222	0.404	0.500	pCi/L							
Uranium-235/236	U	0.0804	+/-0.174	0.260	0.500	pCi/L							
Uranium-238	U	0.0508	+/-0.143	0.248	0.500	pCi/L							

**Rad Liquid Scintillation Analysis**

**Liquid Scint Tc99, Liquid "As Received"**

Technetium-99	U	-13	+/-24.5	43.3	50.0	pCi/L		JJ3	08/04/19	1337	1899271	2
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			51.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			95.9	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID:	SW-12	Project:	WNUC01519
Sample ID:	485262025	Client ID:	WNUC009
Matrix:	Surface Water		
Collect Date:	17-JUL-19 15:15		
Receive Date:	18-JUL-19		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### Rad Alpha Spec Analysis

#### Alphaspec U, Liquid "As Received"

Pct Uranium-235	U	0.00				percent		MP2	07/24/19	2142	1898796	1	
Uranium-233/234	U	0.0491	+/-0.148	0.277	0.500	pCi/L							
Uranium-235/236	U	0.00914	+/-0.0989	0.204	0.500	pCi/L							
Uranium-238	U	0.101	+/-0.146	0.228	0.500	pCi/L							

### Rad Liquid Scintillation Analysis

#### Liquid Scint Tc99, Liquid "As Received"

Technetium-99	U	-3.49	+/-25.6	44.6	50.0	pCi/L		JJ3	08/04/19	1359	1899271	2
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			75.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			91.2	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-12	Project: WNUC01519
Sample ID: 485262026	Client ID: WNUC009
Matrix: Soil	
Collect Date: 17-JUL-19 15:15	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 62.6%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Soil/Veg "Dry Weight Corrected"</b>													
Uranium-233/234		0.925	+/-0.368	0.284	0.500	pCi/g			MP2	08/01/19	0819	1898800	1
Uranium-235/236	U	0.0647	+/-0.171	0.307	0.500	pCi/g							
Uranium-238		1.17	+/-0.402	0.235	0.500	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-1.55	+/-14.4	25.4	50.0	pCi/g			LXB3	08/04/19	1555	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			91.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95	(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



# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: October 22, 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-01-071819  
Sample ID: 485262027  
Matrix: Surface Water  
Collect Date: 18-JUL-19 07:50  
Receive Date: 18-JUL-19  
Collector: Client

Project: WNUC01519  
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### Rad Alpha Spec Analysis

#### Alphaspec U, Liquid "As Received"

Pct Uranium-235	U	0.00				percent		MP2	07/24/19	2142	1898796	1	
Uranium-233/234	U	-0.0792	+/-0.103	0.302	0.500	pCi/L							
Uranium-235/236	U	0.0313	+/-0.162	0.322	0.500	pCi/L							
Uranium-238	U	-0.0326	+/-0.0729	0.211	0.500	pCi/L							

### Rad Liquid Scintillation Analysis

#### Liquid Scint Tc99, Liquid "As Received"

Technetium-99	U	-27.4	+/-26.1	47.1	50.0	pCi/L		JJ3	08/04/19	1421	1899271	2
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			88	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: October 22, 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-02-071819      Project: WNUC01519  
Sample ID: 485262028      Client ID: WNUC009  
Matrix: Surface Water  
Collect Date: 18-JUL-19 08:00  
Receive Date: 18-JUL-19  
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
<b>Rad Alpha Spec Analysis</b>												
<b>Alphaspec U, Liquid "As Received"</b>												
Pct Uranium-235	U	0.00				percent		MP2		07/24/19	2142 1898796	1
Uranium-233/234	U	0.094	+/-0.126	0.198	0.500	pCi/L						
Uranium-235/236	U	0.0578	+/-0.104	0.159	0.500	pCi/L						
Uranium-238	U	0.0361	+/-0.109	0.203	0.500	pCi/L						
<b>Rad Liquid Scintillation Analysis</b>												
<b>Liquid Scint Tc99, Liquid "As Received"</b>												
Technetium-99	U	-7.06	+/-23.6	41.4	50.0	pCi/L		JJ3		08/04/19	1443 1899271	2

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			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      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: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-25 Project: WNUC01519  
Sample ID: 485262029 Client ID: WNUC009  
Matrix: Soil  
Collect Date: 18-JUL-19 09:15  
Receive Date: 18-JUL-19  
Collector: Client  
Moisture: 89.2%

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Soil/Veg "Dry Weight Corrected"													
Uranium-233/234		907	+/-17.9	0.715	0.500	pCi/g			MP2	08/01/19	0820	1898800	1
Uranium-235/236		41.1	+/-4.24	0.340	0.500	pCi/g							
Uranium-238		149	+/-7.25	0.768	0.500	pCi/g							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	8.55	+/-17.9	30.8	50.0	pCi/g			LXB3	08/04/19	1611	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			39.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			100	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-26	Project: WNUC01519
Sample ID: 485262030	Client ID: WNUC009
Matrix: Soil	
Collect Date: 18-JUL-19 09:40	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 26.8%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Soil/Veg "Dry Weight Corrected"</b>													
Uranium-233/234		222	+/-6.24	0.424	0.500	pCi/g			MP2	08/01/19	0820	1898800	1
Uranium-235/236		11.0	+/-1.55	0.270	0.500	pCi/g							
Uranium-238		46.9	+/-2.87	0.368	0.500	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	1.68	+/-15.3	26.7	50.0	pCi/g			LXB3	08/04/19	1627	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			75.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.7	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-27	Project: WNUC01519
Sample ID: 485262031	Client ID: WNUC009
Matrix: Soil	
Collect Date: 18-JUL-19 10:30	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 81%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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**Rad Alpha Spec Analysis**

**Alphaspec U, Soil/Veg "Dry Weight Corrected"**

Uranium-233/234		225	+/-3.73	0.183	0.500	pCi/g			MP2	08/01/19	1303	1898804	1
Uranium-235/236		11.9	+/-0.955	0.159	0.500	pCi/g							
Uranium-238		37.4	+/-1.52	0.0483	0.500	pCi/g							

**Rad Liquid Scintillation Analysis**

**Liquid Scint Tc99, Soil "As Received"**

Technetium-99	U	-10.7	+/-21.6	38.6	50.0	pCi/g			LXB3	08/04/19	1749	1898805	2
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**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0947	1898481

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			76	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "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	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

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-28	Project: WNUC01519
Sample ID: 485262032	Client ID: WNUC009
Matrix: Soil	
Collect Date: 18-JUL-19 10:50	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 86%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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**Rad Alpha Spec Analysis**

**Alphaspec U, Soil/Veg "Dry Weight Corrected"**

Uranium-233/234		254	+/-4.06	0.152	0.500	pCi/g			MP2	08/01/19	1303	1898804	1
Uranium-235/236		12.4	+/-0.999	0.182	0.500	pCi/g							
Uranium-238		44.6	+/-1.70	0.148	0.500	pCi/g							

**Rad Liquid Scintillation Analysis**

**Liquid Scint Tc99, Soil "As Received"**

Technetium-99	U	5.75	+/-21.8	37.7	50.0	pCi/g			LXB3	08/04/19	1805	1898805	2
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**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0947	1898481

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			80.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96.5	(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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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SW-17	Project: WNUC01519
Sample ID: 485262033	Client ID: WNUC009
Matrix: Surface Water	
Collect Date: 18-JUL-19 13:00	
Receive Date: 18-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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**Rad Alpha Spec Analysis**

**Alphaspec U, Liquid "As Received"**

Pct Uranium-235	U	0.00				percent			MP2	07/24/19	2142	1898796	1
Uranium-233/234	U	0.145	+/-0.218	0.362	0.500	pCi/L							
Uranium-235/236	U	-0.0293	+/-0.094	0.255	0.500	pCi/L							
Uranium-238	U	0.150	+/-0.179	0.250	0.500	pCi/L							

**Rad Liquid Scintillation Analysis**

**Liquid Scint Tc99, Liquid "As Received"**

Technetium-99	U	-8.19	+/-25.5	44.7	50.0	pCi/L			JJ3	08/04/19	1506	1899271	2
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			57	(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	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

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: SED-17	Project: WNUC01519
Sample ID: 485262034	Client ID: WNUC009
Matrix: Soil	
Collect Date: 18-JUL-19 13:00	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 15.5%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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**Rad Alpha Spec Analysis**

**Alphaspec U, Soil/Veg "Dry Weight Corrected"**

Uranium-233/234		0.658	+/-0.349	0.370	0.500	pCi/g			MP2	08/01/19	0820	1898800	1
Uranium-235/236	U	0.0235	+/-0.130	0.250	0.500	pCi/g							
Uranium-238		0.302	+/-0.229	0.223	0.500	pCi/g							

**Rad Liquid Scintillation Analysis**

**Liquid Scint Tc99, Soil "As Received"**

Technetium-99	U	7.50	+/-14.9	25.5	50.0	pCi/g			LXB3	08/04/19	1643	1898807	2
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**The following Prep Methods were performed:**

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

**The following Analytical Methods were performed:**

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			93.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.2	(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



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: DUP-01-071819  
Sample ID: 485262035  
Matrix: Surface Water  
Collect Date: 18-JUL-19 12:00  
Receive Date: 18-JUL-19  
Collector: Client

Project: WNUC01519  
Client ID: WNUC009

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### Rad Alpha Spec Analysis

#### Alphaspec U, Liquid "As Received"

Pct Uranium-235	U	0.00				percent		MP2	07/24/19	2142	1898796	1	
Uranium-233/234	U	0.204	+/-0.220	0.310	0.500	pCi/L							
Uranium-235/236	U	0.00	+/-0.0931	0.134	0.500	pCi/L							
Uranium-238	U	0.0925	+/-0.168	0.275	0.500	pCi/L							

### Rad Liquid Scintillation Analysis

#### Liquid Scint Tc99, Liquid "As Received"

Technetium-99	U	-1.49	+/-25.7	44.6	50.0	pCi/L		JJ3	08/04/19	1528	1899271	2
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	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"			54.2	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: October 22, 2019

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA

Client Sample ID: DUP-01-071819	Project: WNUC01519
Sample ID: 485262036	Client ID: WNUC009
Matrix: Soil	
Collect Date: 18-JUL-19 12:00	
Receive Date: 18-JUL-19	
Collector: Client	
Moisture: 17.8%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Soil/Veg "Dry Weight Corrected"</b>													
Uranium-233/234		1.07	+/-0.410	0.285	0.500	pCi/g			MP2	08/01/19	0820	1898800	1
Uranium-235/236	U	0.104	+/-0.184	0.278	0.500	pCi/g							
Uranium-238		0.354	+/-0.267	0.320	0.500	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-10.6	+/-14.9	27.2	50.0	pCi/g			LXB3	08/04/19	1659	1898807	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXC1	07/23/19	0950	1898477

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, U-02-RC Modified	
2	DOE EML HASL-300, Tc-02-RC Modified	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Soil/Veg "Dry Weight Corrected"			98.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			100	(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

# GEL LABORATORIES LLC

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

## QC Summary

Report Date: September 26, 2019

Page 1 of 22

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

Contact: Ms. Cynthia Logsdon

Workorder: 485262

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	1903814										
QC1204349313	485262002	DUP									
Fluoride		4.64		6.12	mg/kg	27.5 ^		(+/-3.20)	LXA2	08/08/19	21:50
QC1204349312	LCS										
Fluoride	24.0			25.4	mg/kg		106	(90%-110%)		08/08/19	20:48
QC1204349311	MB										
Fluoride			U	ND	mg/kg					08/08/19	20:17
QC1204349315	485262002	MS									
Fluoride	81.7	4.64		35.4	mg/kg		37.6*	(75%-125%)		08/08/19	22:21
Batch	1903827										
QC1204349352	486599001	DUP									
Fluoride		J	0.637	U	ND	mg/L	200 ^		JLD1	08/06/19	07:37
QC1204349351	LCS										
Fluoride	2.50			2.29	mg/L		91.7	(90%-110%)		08/06/19	01:38
QC1204349350	MB										
Fluoride			U	ND	mg/L					08/06/19	01:08
QC1204349353	486599001	PS									
Fluoride	2.50	J	0.0637	2.41	mg/L		93.8	(90%-110%)		08/06/19	08:07
Batch	1905737										
QC1204353692	485262005	DUP									
Fluoride			2.09	2.05	mg/kg	2 ^		(+/-1.19)	LXA2	08/09/19	19:44
QC1204353691	LCS										
Fluoride	24.7			24.3	mg/kg		98.4	(90%-110%)		08/09/19	18:45

# GEL LABORATORIES LLC

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

## QC Summary

Workorder: 485262

Page 2 of 22

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	1905737										
QC1204353690		MB									
Fluoride			U	ND	mg/kg				LXA2	08/09/19	18:15
QC1204353693	485262005	MS									
Fluoride	31.0	2.09		24.7	mg/kg		72.9*	(75%-125%)		08/09/19	20:14
Batch	1905773										
QC1204353790	485262019	DUP									
Fluoride		0.226		0.220	mg/L	2.6 ^		(+/-0.100)	LXA2	08/09/19	22:03
QC1204353789	LCS										
Fluoride	2.50			2.53	mg/L		101	(90%-110%)		08/09/19	20:30
QC1204353788	MB										
Fluoride			U	ND	mg/L					08/09/19	19:59
QC1204353791	485262019	PS									
Fluoride	2.50	0.226		2.71	mg/L		99.2	(90%-110%)		08/09/19	22:34
Batch	1905785										
QC1204353777	485262026	DUP									
Fluoride	J	2.26	J	2.38	mg/kg	5.03 ^		(+/-2.63)	LXA2	08/12/19	15:23
QC1204353776	LCS										
Fluoride	24.2			25.4	mg/kg		105	(90%-110%)		08/12/19	14:21
QC1204353775	MB										
Fluoride			U	ND	mg/kg					08/12/19	13:51
QC1204353779	485262026	MS									
Fluoride	64.0	J	2.26	17.5	mg/kg		23.9*	(75%-125%)		08/12/19	15:54

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	1898996										
QC1204337698		LCS									
Uranium-235	35.6			33.6	ug/kg		94.4	(80%-120%)	PRB	08/12/19	12:22
Uranium-238	4910			4710	ug/kg		96.1	(80%-120%)			
QC1204337703		LCS									
Uranium-234	52.3			61.6	ug/kg		118	(80%-120%)		08/12/19	00:55
QC1204337697		MB									
Uranium-234			U	ND	ug/kg					08/12/19	00:53
Uranium-235			U	ND	ug/kg					08/12/19	12:20
Uranium-238			U	ND	ug/kg						
QC1204337699		485262002	MS								
Uranium-235	112	2230		2190	ug/kg		N/A	(75%-125%)		08/12/19	12:25
Uranium-238	15400	80700		90600	ug/kg		N/A	(75%-125%)			
QC1204337704		485262002	MS								
Uranium-234	167	J	22.0	227	ug/kg		123	(75%-125%)		08/12/19	00:58
QC1204337700		485262002	MSD								
Uranium-235	110	2230		2220	ug/kg	1.25	N/A	(0%-20%)		08/12/19	12:27
Uranium-238	15200	80700		88700	ug/kg	2.16	N/A	(0%-20%)			
QC1204343458		485262002	MSD								
Uranium-234	168	J	22.0	227	ug/kg	0.279	123	(0%-20%)		08/12/19	01:00
QC1204337701		485262002	SDILT								
Uranium-234		J	0.033	U	ND	ug/L	N/A	(0%-20%)		08/12/19	01:02

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch	1898996										
Uranium-235		0.671		0.125	ug/L	6.87		(0%-20%)	PRB	08/12/19	12:30
Uranium-238		24.3		4.78	ug/L	1.54		(0%-20%)			
Batch	1899001										
QC1204337716	485262006 DUP										
Uranium-234	U	ND	U	ND	ug/L	N/A			PRB	08/12/19	00:14
Uranium-235	U	ND	U	ND	ug/L	N/A				08/11/19	17:49
Uranium-238		0.304		0.250	ug/L	19.4 ^		(+/-0.200)			
QC1204337714	LCS										
Uranium-235		0.360		0.353	ug/L		98.2	(80%-120%)		08/11/19	17:45
Uranium-238		49.6		48.1	ug/L		97	(80%-120%)			
QC1204337715	LCS										
Uranium-234		0.550		0.622	ug/L		113	(80%-120%)		08/12/19	00:11
QC1204337713	MB										
Uranium-234			U	ND	ug/L					08/12/19	00:09
Uranium-235			U	ND	ug/L					08/11/19	17:44
Uranium-238			U	ND	ug/L						
QC1204337717	485262006 MS										
Uranium-235	0.360 U	ND		0.363	ug/L		99.2	(75%-125%)		08/11/19	17:51
Uranium-238	49.6	0.304		48.9	ug/L		97.8	(75%-125%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch 1899001											
QC1204337718 485262006 MS											
Uranium-234	0.550	U	ND	0.660	ug/L		120	(75%-125%)	PRB	08/12/19	00:16
QC1204337719 485262006 SDILT											
Uranium-234		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/12/19	00:18
Uranium-235		U	ND	U	ND	ug/L	N/A	(0%-20%)		08/11/19	17:54
Uranium-238			0.304	J	0.0917	ug/L	50.8	(0%-20%)			
<b>Metals Analysis-ICP</b>											
Batch 1899016											
QC1204337752 LCS											
Aluminum	5000			4860	ug/L		97.2	(80%-120%)	TXT1	08/01/19	11:42
Antimony	500			471	ug/L		94.1	(80%-120%)			
Arsenic	500			469	ug/L		93.9	(80%-120%)			
Barium	500			485	ug/L		97	(80%-120%)			
Beryllium	500			482	ug/L		96.4	(80%-120%)			
Cadmium	500			483	ug/L		96.7	(80%-120%)			
Calcium	5000			4910	ug/L		98.2	(80%-120%)			
Chromium	500			482	ug/L		96.5	(80%-120%)			
Cobalt	500			488	ug/L		97.6	(80%-120%)			
Copper	500			478	ug/L		95.5	(80%-120%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899016										
Iron	5000			4860	ug/L		97.2	(80%-120%)	TXT1	08/01/19	11:42
Lead	500			479	ug/L		95.8	(80%-120%)			
Magnesium	5000			4940	ug/L		98.7	(80%-120%)			
Manganese	500			483	ug/L		96.5	(80%-120%)			
Nickel	500			486	ug/L		97.2	(80%-120%)			
Potassium	5000			4740	ug/L		94.9	(80%-120%)			
Selenium	500			456	ug/L		91.2	(80%-120%)			
Silver	100			97.1	ug/L		97.1	(80%-120%)			
Sodium	5000			4700	ug/L		94	(80%-120%)			
Thallium	500			478	ug/L		95.5	(80%-120%)			
Vanadium	500			484	ug/L		96.9	(80%-120%)			
Zinc	500			477	ug/L		95.5	(80%-120%)			
QC1204337751 MB											
Aluminum			U	ND	ug/L					08/01/19	11:39
Antimony			U	ND	ug/L						
Arsenic			U	ND	ug/L						



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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899016										
Barium			U	ND	ug/L				TXT1	08/01/19	11:39
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						
Selenium			U	ND	ug/L						
Silver			U	ND	ug/L						

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899016										
Sodium			U	ND	ug/L				TXT1	08/01/19	11:39
Thallium			U	ND	ug/L						
Vanadium			U	ND	ug/L						
Zinc			U	ND	ug/L						
QC1204337753 485262001 MS											
Aluminum	5000	J	102	4940	ug/L		96.7	(75%-125%)		08/01/19	11:46
Antimony	500	U	ND	464	ug/L		92.7	(75%-125%)			
Arsenic	500	U	ND	466	ug/L		92.8	(75%-125%)			
Barium	500		34.5	512	ug/L		95.6	(75%-125%)			
Beryllium	500	U	ND	475	ug/L		94.9	(75%-125%)			
Cadmium	500	U	ND	475	ug/L		95	(75%-125%)			
Calcium	5000		3760	8640	ug/L		97.5	(75%-125%)			
Chromium	500	U	ND	477	ug/L		95.2	(75%-125%)			
Cobalt	500	U	ND	482	ug/L		96.3	(75%-125%)			
Copper	500	U	ND	479	ug/L		95.8	(75%-125%)			
Iron	5000		844	5660	ug/L		96.4	(75%-125%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899016										
Lead	500	U	ND	473	ug/L		94.6	(75%-125%)	TXT1	08/01/19	11:46
Magnesium	5000		1110	5950	ug/L		96.9	(75%-125%)			
Manganese	500		189	666	ug/L		95.3	(75%-125%)			
Nickel	500	J	1.83	481	ug/L		95.8	(75%-125%)			
Potassium	5000		1420	6110	ug/L		93.8	(75%-125%)			
Selenium	500	U	ND	454	ug/L		90.8	(75%-125%)			
Silver	100	U	ND	95.5	ug/L		95.5	(75%-125%)			
Sodium	5000		3810	8440	ug/L		92.5	(75%-125%)			
Thallium	500	U	ND	469	ug/L		93.8	(75%-125%)			
Vanadium	500	U	ND	479	ug/L		95.8	(75%-125%)			
Zinc	500	J	6.12	475	ug/L		93.8	(75%-125%)			
QC1204337754 485262001 MSD											
Aluminum	5000	J	102	4860	ug/L	1.58	95.2	(0%-20%)		08/01/19	11:48
Antimony	500	U	ND	450	ug/L	3.1	89.9	(0%-20%)			
Arsenic	500	U	ND	442	ug/L	5.32	87.9	(0%-20%)			
Barium	500		34.5	495	ug/L	3.53	92	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899016										
Beryllium	500	U	ND	453	ug/L	4.62	90.7	(0%-20%)	TXT1	08/01/19	11:48
Cadmium	500	U	ND	463	ug/L	2.61	92.6	(0%-20%)			
Calcium	5000		3760	8320	ug/L	3.78	91.1	(0%-20%)			
Chromium	500	U	ND	461	ug/L	3.28	92.1	(0%-20%)			
Cobalt	500	U	ND	465	ug/L	3.47	93	(0%-20%)			
Copper	500	U	ND	464	ug/L	3.2	92.8	(0%-20%)			
Iron	5000		844	5500	ug/L	2.88	93.1	(0%-20%)			
Lead	500	U	ND	456	ug/L	3.74	91.2	(0%-20%)			
Magnesium	5000		1110	5720	ug/L	4.09	92.1	(0%-20%)			
Manganese	500		189	645	ug/L	3.15	91.2	(0%-20%)			
Nickel	500	J	1.83	466	ug/L	3.11	92.8	(0%-20%)			
Potassium	5000		1420	6030	ug/L	1.43	92	(0%-20%)			
Selenium	500	U	ND	440	ug/L	3.13	88	(0%-20%)			
Silver	100	U	ND	94.4	ug/L	1.2	94.3	(0%-20%)			
Sodium	5000		3810	8240	ug/L	2.35	88.5	(0%-20%)			

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899016										
Thallium	500	U	ND	460	ug/L	1.87	92.1	(0%-20%)	TXT1	08/01/19	11:48
Vanadium	500	U	ND	465	ug/L	3.14	92.9	(0%-20%)			
Zinc	500	J	6.12	460	ug/L	3.17	90.8	(0%-20%)			
QC1204337755 485262001 SDILT											
Aluminum		J	102	U	ND	ug/L	N/A	(0%-20%)		08/01/19	11:52
Antimony		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Arsenic		U	ND	U	ND	ug/L	N/A	(0%-20%)			
Barium			34.5		7.03	ug/L	1.78	(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			3760		774	ug/L	2.83	(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			844		173	ug/L	2.5	(0%-20%)			
Lead		U	ND	U	ND	ug/L	N/A	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899016										
Magnesium		1110	J	233	ug/L	5.1		(0%-20%)	TXT1	08/01/19	11:52
Manganese		189		38.8	ug/L	2.65		(0%-20%)			
Nickel	J	1.83	U	ND	ug/L	N/A		(0%-20%)			
Potassium		1420		334	ug/L	17.2		(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		3810		802	ug/L	5.13		(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	6.12	U	ND	ug/L	N/A		(0%-20%)			
<hr/>											
Batch	1899047										
	QC1204337823 LCS										
Aluminum	466000			411000	ug/kg		88.2	(80%-120%)	TXT1	08/12/19	17:29
Antimony	46600			41200	ug/kg		88.6	(80%-120%)			
Arsenic	46600			41600	ug/kg		89.3	(80%-120%)			
Barium	46600			42600	ug/kg		91.4	(80%-120%)			
Beryllium	46600			44700	ug/kg		95.9	(80%-120%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899047										
Cadmium	46600			41400	ug/kg		89	(80%-120%)	TXT1	08/12/19	17:29
Calcium	466000			412000	ug/kg		88.4	(80%-120%)			
Chromium	46600			42100	ug/kg		90.5	(80%-120%)			
Cobalt	46600			41900	ug/kg		90	(80%-120%)			
Copper	46600			43900	ug/kg		94.4	(80%-120%)			
Iron	466000			404000	ug/kg		86.9	(80%-120%)			
Lead	46600			41400	ug/kg		89	(80%-120%)			
Magnesium	466000			411000	ug/kg		88.3	(80%-120%)			
Manganese	46600			42100	ug/kg		90.3	(80%-120%)			
Nickel	46600			41700	ug/kg		89.5	(80%-120%)			
Potassium	466000			426000	ug/kg		91.5	(80%-120%)			
Selenium	46600			39700	ug/kg		85.2	(80%-120%)			
Silver	9310			8580	ug/kg		92.2	(80%-120%)			
Sodium	466000			412000	ug/kg		88.5	(80%-120%)			
Thallium	46600			41200	ug/kg		88.5	(80%-120%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899047										
Vanadium	46600			42800	ug/kg		91.9	(80%-120%)	TXT1	08/12/19	17:29
Zinc	46600			41300	ug/kg		88.6	(80%-120%)			
QC1204337822	MB										
Aluminum			U	ND	ug/kg					08/12/19	17:26
Antimony			J	319	ug/kg						
Arsenic			U	ND	ug/kg						
Barium			U	ND	ug/kg						
Beryllium			U	ND	ug/kg						
Cadmium			U	ND	ug/kg						
Calcium			U	ND	ug/kg						
Chromium			J	160	ug/kg						
Cobalt			U	ND	ug/kg						
Copper			U	ND	ug/kg						
Iron			U	ND	ug/kg						
Lead			U	ND	ug/kg						
Magnesium			U	ND	ug/kg						



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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899047										
Manganese			U	ND	ug/kg				TXT1	08/12/19	17:26
Nickel			U	ND	ug/kg						
Potassium			U	ND	ug/kg						
Selenium			U	ND	ug/kg						
Silver			U	ND	ug/kg						
Sodium			U	ND	ug/kg						
Thallium			U	ND	ug/kg						
Vanadium			U	ND	ug/kg						
Zinc			U	ND	ug/kg						
QC1204337824 485262002 MS											
Aluminum	1630000	25800000		41200000	ug/kg		N/A	(75%-125%)		08/12/19	17:38
Antimony	163000	U	ND	123000	ug/kg		75.2	(75%-125%)			
Arsenic	163000	J	4620	139000	ug/kg		82.9	(75%-125%)			
Barium	163000		209000	343000	ug/kg		82.5	(75%-125%)			
Beryllium	163000		2020	146000	ug/kg		88.5	(75%-125%)			
Cadmium	163000	J	374	135000	ug/kg		82.6	(75%-125%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899047										
Calcium	1630000	872000		2180000	ug/kg		80.4	(75%-125%)	TXT1	08/12/19	17:38
Chromium	163000	35100		171000	ug/kg		83.4	(75%-125%)			
Cobalt	163000	16600		152000	ug/kg		83.4	(75%-125%)			
Copper	163000	33100		185000	ug/kg		93.7	(75%-125%)			
Iron	1630000	32500000		34900000	ug/kg		N/A	(75%-125%)			
Lead	163000	37400		174000	ug/kg		84.2	(75%-125%)			
Magnesium	1630000	2180000		3580000	ug/kg		86.1	(75%-125%)			
Manganese	163000	389000		498000	ug/kg		67.2 *	(75%-125%)			
Nickel	163000	43300		177000	ug/kg		82.2	(75%-125%)			
Potassium	1630000	1410000		2990000	ug/kg		97.5	(75%-125%)			
Selenium	163000	J 3290		134000	ug/kg		80.6	(75%-125%)			
Silver	32500	U ND		27800	ug/kg		85.6	(75%-125%)			
Sodium	1630000	J 69700		1460000	ug/kg		85.7	(75%-125%)			
Thallium	163000	U ND		145000	ug/kg		88.7	(75%-125%)		08/12/19	17:50
Vanadium	163000	73700		209000	ug/kg		83.3	(75%-125%)		08/12/19	17:38

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899047										
Zinc	163000	138000		279000	ug/kg		86.9	(75%-125%)	TXT1	08/12/19	17:38
QC1204337825 485262002 MSD											
Aluminum	1590000	25800000		55600000	ug/kg	29.7*	N/A	(0%-20%)		08/12/19	17:41
Antimony	159000	U	ND	119000	ug/kg	3.09	74.6*	(0%-20%)			
Arsenic	159000	J	4620	138000	ug/kg	0.75	84.2	(0%-20%)			
Barium	159000		209000	355000	ug/kg	3.45	92.1	(0%-20%)			
Beryllium	159000		2020	147000	ug/kg	0.871	91.4	(0%-20%)			
Cadmium	159000	J	374	131000	ug/kg	2.47	82.5	(0%-20%)			
Calcium	1590000		872000	2220000	ug/kg	1.74	84.7	(0%-20%)			
Chromium	159000		35100	179000	ug/kg	4.55	90.3	(0%-20%)			
Cobalt	159000		16600	155000	ug/kg	1.65	86.9	(0%-20%)			
Copper	159000		33100	190000	ug/kg	2.44	98.8	(0%-20%)			
Iron	1590000		32500000	37900000	ug/kg	8.25	N/A	(0%-20%)			
Lead	159000		37400	174000	ug/kg	0.234	85.9	(0%-20%)			
Magnesium	1590000		2180000	3820000	ug/kg	6.59	103	(0%-20%)			
Manganese	159000		389000	520000	ug/kg	4.22	82.3	(0%-20%)			

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## QC Summary

Workorder: 485262

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899047										
Nickel	159000	43300		183000	ug/kg	3.38	87.9	(0%-20%)	TXT1	08/12/19	17:41
Potassium	1590000	1410000		3070000	ug/kg	2.75	105	(0%-20%)			
Selenium	159000	J 3290		129000	ug/kg	3.78	79.3	(0%-20%)			
Silver	31800	U ND		27400	ug/kg	1.34	86.4	(0%-20%)			
Sodium	1590000	J 69700		1450000	ug/kg	0.596	87.2	(0%-20%)			
Thallium	159000	U ND		138000	ug/kg	5.13	86.2	(0%-20%)		08/12/19	17:53
Vanadium	159000	73700		217000	ug/kg	3.58	90	(0%-20%)		08/12/19	17:41
Zinc	159000	138000		283000	ug/kg	1.3	91.2	(0%-20%)			
QC1204355559 485262002 PS											
Antimony	500	U ND		431	ug/L		85.8	(75%-125%)		08/12/19	17:43
Manganese	500	1240		1680	ug/L		87.7	(75%-125%)			
QC1204337826 485262002 SDILT											
Aluminum		82300		19600	ug/L	19.1		(0%-20%)		08/12/19	17:45
Antimony		U ND	U	ND	ug/L	N/A		(0%-20%)			
Arsenic		J 14.8	U	ND	ug/L	N/A		(0%-20%)			
Barium		668		149	ug/L	11.2		(0%-20%)			
Beryllium		6.46	J	1.73	ug/L	33.5		(0%-20%)			

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899047										
Cadmium	J	1.20	U	ND	ug/L	N/A		(0%-20%)	TXT1	08/12/19	17:45
Calcium		2790		646	ug/L	16		(0%-20%)			
Chromium		112		25.6	ug/L	13.9		(0%-20%)			
Cobalt		53.2		11.8	ug/L	10.9		(0%-20%)			
Copper		106		20.3	ug/L	4.03		(0%-20%)			
Iron		104000		24400	ug/L	17.5		(0%-20%)			
Lead		119		27.4	ug/L	14.6		(0%-20%)			
Magnesium		6960		1620	ug/L	16.5		(0%-20%)			
Manganese		1240		280	ug/L	12.7		(0%-20%)			
Nickel		138		31.4	ug/L	13.3		(0%-20%)			
Potassium		4490		1050	ug/L	16.4		(0%-20%)			
Selenium	J	10.5	U	ND	ug/L	N/A		(0%-20%)			
Silver	U	ND	U	ND	ug/L	N/A		(0%-20%)			
Sodium	J	223	J	84.8	ug/L	90.4		(0%-20%)			
Thallium	U	ND	U	ND	ug/L	N/A		(0%-20%)		08/12/19	17:57

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## QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-ICP</b>											
Batch	1899047										
Vanadium		236		52.3	ug/L	11		(0%-20%)	TXT1	08/12/19	17:45
Zinc		441		98.4	ug/L	11.6		(0%-20%)			
<b>Metals Analysis-Mercury</b>											
Batch	1904592										
QC1204351034	485262001	DUP									
Mercury		U	ND	U	ND	ug/L	N/A		MTM1	08/08/19	13:30
QC1204351033	LCS										
Mercury	2.00			1.85	ug/L		92.5	(80%-120%)		08/08/19	13:27
QC1204351032	MB										
Mercury			U	ND	ug/L					08/08/19	13:25
QC1204351035	485262001	MS									
Mercury	2.00	U	ND	2.07	ug/L		101	(75%-125%)		08/08/19	13:32
QC1204351036	485262001	SDILT									
Mercury		U	ND	U	ND	ug/L	N/A	(0%-10%)		08/08/19	13:33
Batch	1904595										
QC1204351040	485262002	DUP									
Mercury			113	115	ug/kg	2.3 ^		(+/-37.2)	MTM1	08/08/19	15:30
QC1204351039	LCS										
Mercury	109			104	ug/kg		94.9	(80%-120%)		08/08/19	15:23
QC1204351038	MB										
Mercury			U	ND	ug/kg					08/08/19	15:22
QC1204351041	485262002	MS									
Mercury	342		113	438	ug/kg		95	(80%-120%)		08/08/19	15:32

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis-Mercury</b>											
Batch	1904595										
QC1204351042	485262002	SDILT									
Mercury		0.598	J	0.086	ug/L	28.1		(0%-10%)	MTM1	08/08/19	15:34
<b>Nutrient Analysis</b>											
Batch	1899590										
QC1204339197	485262002	DUP									
Nitrogen, Ammonia		978		895	mg/kg	8.92		(0%-20%)	KLP1	08/08/19	12:55
QC1204339196	LCS										
Nitrogen, Ammonia	50.0			47.2	mg/kg		94.4	(90%-110%)		08/08/19	11:11
QC1204339195	MB										
Nitrogen, Ammonia			J	1.91	mg/kg					08/08/19	11:10
QC1204339199	485262002	MS									
Nitrogen, Ammonia	160	978		1050	mg/kg		N/A	(90%-110%)		08/08/19	12:56
Batch	1899832										
QC1204339685	485556001	DUP									
Nitrogen, Ammonia		0.345		0.361	mg/L	4.53		(0%-20%)	KLP1	07/25/19	12:13
QC1204339690	LCS										
Nitrogen, Ammonia	1.00			1.04	mg/L		104	(90%-110%)		07/25/19	11:48
QC1204339689	MB										
Nitrogen, Ammonia			J	0.0356	mg/L					07/25/19	11:23
QC1204339687	485556001	MS									
Nitrogen, Ammonia	1.00	0.345		1.31	mg/L		96.5	(90%-110%)		07/25/19	12:14

**Notes:**

The Qualifiers in this report are defined as follows:

- < Result is less than value reported
- > Result is greater than value reported

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## QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
B											
E											
E											
FB											
H											
J											
J											
N											
N/A											
N1											
ND											
NJ											
Q											
R											
R											
U											
X											
Y											
Z											
^											
d											
e											
h											

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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## QC Summary

Report Date: September 26, 2019

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

Contact: Ms. Cynthia Logsdon

Workorder: 485262

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Alpha Spec</b>											
Batch	1898796										
QC1204337143	485262006 DUP										
Pct Uranium-235	U	0.00	U	0.00	percent	N/A		N/A	MP2	07/24/19	21:42
Uranium-233/234	U	0.285		0.272	pCi/L	33.1		(0% - 100%)			
	Uncertainty	+/-0.274		+/-0.195							
Uranium-235/236	U	0.0501	U	0.0242	pCi/L	N/A		N/A			
	Uncertainty	+/-0.143		+/-0.125							
Uranium-238	U	0.159	U	0.0429	pCi/L	N/A		N/A			
	Uncertainty	+/-0.203		+/-0.111							
QC1204337144	LCS										
Pct Uranium-235				1.07	percent					07/24/19	21:42
Uranium-233/234				12.3	pCi/L						
	Uncertainty			+/-1.17							
Uranium-235/236				0.971	pCi/L						
	Uncertainty			+/-0.378							
Uranium-238	13.6			13.9	pCi/L		102	(75%-125%)			
	Uncertainty			+/-1.25							
QC1204337142	MB										
Pct Uranium-235			U	0.00	percent					07/24/19	21:42
Uranium-233/234			U	-0.0617	pCi/L						
	Uncertainty			+/-0.0932							
Uranium-235/236			U	0.00794	pCi/L						
	Uncertainty			+/-0.0859							
Uranium-238			U	0.00642	pCi/L						
	Uncertainty			+/-0.0695							

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Alpha Spec</b>											
Batch	1898800										
QC1204337155	485262002	DUP									
Uranium-233/234		117		105	pCi/g	10.7		(0%-20%)	MP2	08/01/19	08:21
	Uncertainty	+/-4.47		+/-4.06							
Uranium-235/236		4.98		5.33	pCi/g	6.7		(0%-20%)			
	Uncertainty	+/-1.04		+/-1.03							
Uranium-238		28.0		25.5	pCi/g	9.4		(0%-20%)			
	Uncertainty	+/-2.19		+/-2.01							
QC1204337156	LCS										
Uranium-233/234				11.9	pCi/g					08/01/19	08:21
	Uncertainty			+/-1.26							
Uranium-235/236				0.330	pCi/g						
	Uncertainty			+/-0.252							
Uranium-238		12.3		12.4	pCi/g		100	(75%-125%)			
	Uncertainty			+/-1.28							
QC1204337154	MB										
Uranium-233/234				0.434	pCi/g					08/01/19	08:21
	Uncertainty			+/-0.326							
Uranium-235/236			U	0.161	pCi/g						
	Uncertainty			+/-0.233							
Uranium-238			U	0.036	pCi/g						
	Uncertainty			+/-0.135							
Batch	1898804										
QC1204337168	485262031	DUP									
Uranium-233/234		225		227	pCi/g	0.841		(0%-20%)	MP2	08/01/19	13:03
	Uncertainty	+/-3.73		+/-4.67							
Uranium-235/236		11.9		10.4	pCi/g	13.3		(0%-20%)			
	Uncertainty	+/-0.955		+/-1.11							
Uranium-238		37.4		36.3	pCi/g	3.08		(0%-20%)			
	Uncertainty	+/-1.52		+/-1.87							
QC1204337169	LCS										
Uranium-233/234				11.8	pCi/g					08/01/19	13:03
	Uncertainty			+/-1.46							
Uranium-235/236				0.427	pCi/g						
	Uncertainty			+/-0.344							

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## QC Summary

Workorder: 485262

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Alpha Spec</b>											
Batch	1898804										
Uranium-238	12.6			12.4	pCi/g		98.1	(75%-125%)	MP2	08/01/19	13:03
	Uncertainty			+/-1.49							
QC1204337167	MB										
Uranium-233/234			U	0.108	pCi/g					08/01/19	13:03
	Uncertainty			+/-0.117							
Uranium-235/236			U	-0.000573	pCi/g						
	Uncertainty			+/-0.0901							
Uranium-238			U	0.0537	pCi/g						
	Uncertainty			+/-0.0885							
<b>Rad Liquid Scintillation</b>											
Batch	1898805										
QC1204337171	485262032	DUP									
Technetium-99	U	5.75	U	12.0	pCi/g	N/A			N/A	LXB3	08/04/19 18:39
	Uncertainty	+/-21.8		+/-23.1							
QC1204337172	LCS										
Technetium-99	743			657	pCi/g		88.5	(75%-125%)			08/04/19 18:55
	Uncertainty			+/-41.4							
QC1204337170	MB										
Technetium-99			U	-1.02	pCi/g						08/04/19 18:22
	Uncertainty			+/-21.6							
Batch	1898807										
QC1204337177	485262002	DUP									
Technetium-99	U	-3.44	U	2.87	pCi/g	N/A			N/A	LXB3	08/04/19 17:32
	Uncertainty	+/-13.1		+/-13.3							
QC1204337178	LCS										
Technetium-99	464			389	pCi/g		83.8	(75%-125%)			08/04/19 17:48
	Uncertainty			+/-22.8							
QC1204337176	MB										
Technetium-99			U	10.4	pCi/g						08/04/19 17:15
	Uncertainty			+/-10.8							
Batch	1899271										
QC1204338359	485262010	DUP									
Technetium-99	U	13.6	U	19.6	pCi/L	N/A			N/A	JJ3	08/05/19 07:21
	Uncertainty	+/-21.6		+/-23.3							

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## QC Summary

Workorder: 485262

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Liquid Scintillation</b>											
Batch	1899271										
QC1204338360	LCS										
Technetium-99	854			779	pCi/L		91.2	(75%-125%)	JJ3	08/04/19	16:35
	Uncertainty			+/-45.9							
QC1204338358	MB										
Technetium-99			U	-9.04	pCi/L					08/04/19	15:50
	Uncertainty			+/-20.3							
Batch	1915173										
QC1204377126	485262003 DUP										
Technetium-99	U	6.54	U	-4.29	pCi/L	N/A		N/A	JJ3	09/22/19	07:34
	Uncertainty			+/-20.6							
QC1204377127	LCS										
Technetium-99	854			840	pCi/L		98.4	(75%-125%)		09/22/19	07:51
	Uncertainty			+/-48.4							
QC1204377125	MB										
Technetium-99			U	18.8	pCi/L					09/22/19	07:18
	Uncertainty			+/-21.1							

**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

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Q											
R											
U											
UI											
UJ											
UL											
X											
Y											
^											
h											

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 #: 485262**

**Metals**

**Product: Determination of Metals by ICP**

**Analytical Method: SW846 3005A/6010D**

**Analytical Procedure: GL-MA-E-013 REV# 31**

**Analytical Batch: 1899016**

**Preparation Method: SW846 3005A**

**Preparation Procedure: GL-MA-E-006 REV# 14**

**Preparation Batch: 1899015**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262001	SW-22
485262003	SW-21
485262006	SW-18
485262008	SW-20
485262010	SW-23
485262013	SW-19
485262015	SW-16
485262017	SW-14
485262019	SW-13
485262021	SW-11
485262025	SW-12
485262027	EB-01-071819
485262028	EB-02-071819
485262033	SW-17
485262035	DUP-01-071819
1204337751	Method Blank (MB) <b>ICP</b>
1204337752	Laboratory Control Sample (LCS)
1204337755	485262001(SW-22L) Serial Dilution (SD)
1204337753	485262001(SW-22S) Matrix Spike (MS)
1204337754	485262001(SW-22SD) 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 3050B/6010D**

**Analytical Procedure: GL-MA-E-013 REV# 31**

**Analytical Batch:** 1899047

**Preparation Method:** SW846 3050B

**Preparation Procedure:** GL-MA-E-009 REV# 28

**Preparation Batch:** 1899045

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262002	SED-22
485262004	SED-21
485262005	SED-15
485262007	SED-18
485262009	SED-20
485262011	SED-23
485262012	SED-24
485262014	SED-19
485262016	SED-16
485262018	SED-14
485262020	SED-13
485262022	SED-11
485262026	SED-12
485262029	SED-25
485262030	SED-26
485262031	SED-27
485262032	SED-28
485262034	SED-17
485262036	DUP-01-071819
1204337822	Method Blank (MB)ICP
1204337823	Laboratory Control Sample (LCS)
1204337826	485262002(SED-22L) Serial Dilution (SD)
1204337824	485262002(SED-22S) Matrix Spike (MS)
1204337825	485262002(SED-22SD) Matrix Spike Duplicate (MSD)
1204355559	485262002(SED-22PS) Post Spike (PS)

The samples in this SDG were analyzed on a "dry weight" 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 recoveries were within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recoveries may be attributed to possible sample matrix interference and/or non-homogeneity.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1204337824 (SED-22MS)	Manganese	67.2* (75%-125%)

1204337825 (SED-22MSD)	Antimony	74.6* (75%-125%)
------------------------	----------	------------------

**MS/MSD Relative Percent Difference (RPD) Statement**

The RPD values between qualifying analyte results in the MS and MSD were not within the acceptance limits. Sample non-homogeneity and/or possible matrix interferences may be suspected.

Sample	Analyte	Value
1204337824MS and 1204337825MSD (SED-22)	Aluminum	RPD 29.7* (0%-20%)

**Technical Information**

**Preparation/Analytical Method Verification**

Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

**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 required dilutions in order to minimize suppression of thallium due to matrix interferences. 485262002 (SED-22), 485262004 (SED-21), 485262011 (SED-23), 485262012 (SED-24) and 485262020 (SED-13). Sample was diluted to ensure that silver concentration was within the linear calibration range of the instrument. 485262030 (SED-26).

Analyte	485262					
	002	004	011	012	020	030
Silver	1X	1X	1X	1X	1X	10X
Thallium	10X	10X	10X	10X	10X	1X

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3050B/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 33

**Analytical Batch:** 1898996

**Preparation Method:** SW846 3050B

**Preparation Procedure:** GL-MA-E-009 REV# 28

**Preparation Batch:** 1898995

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
485262002	SED-22
485262004	SED-21
485262005	SED-15
485262007	SED-18
485262009	SED-20
485262011	SED-23
485262012	SED-24



485262014	SED-19
485262016	SED-16
485262018	SED-14
485262020	SED-13
485262022	SED-11
485262026	SED-12
485262029	SED-25
485262030	SED-26
485262031	SED-27
485262032	SED-28
485262034	SED-17
485262036	DUP-01-071819
1204337697	Method Blank (MB)ICP-MS
1204337698	Laboratory Control Sample (LCS)
1204337703	Laboratory Control Sample (LCS)
1204337701	485262002(SED-22L) Serial Dilution (SD)
1204337699	485262002(SED-22S) Matrix Spike (MS)
1204337704	485262002(SED-22S) Matrix Spike (MS)
1204337700	485262002(SED-22SD) Matrix Spike Duplicate (MSD)
1204343458	485262002(SED-22SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" 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**

**Preparation/Analytical Method Verification**

Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

**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 485262002 (SED-22), 485262009 (SED-20), 485262014 (SED-19), 485262029 (SED-25), 485262030 (SED-26), 485262031 (SED-27) and 485262032 (SED-28) were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument. The ICPMS solid samples in this SDG were diluted the standard two times.

Analyte	485262									
	002	004	005	007	009	011	012	014	016	018
Uranium-234	2X	2X	2X	2X	2X	2X	2X	2X	2X	2X
Uranium-235	10X	2X	2X	2X	10X	2X	2X	10X	2X	2X
Uranium-238	10X	2X	2X	2X	10X	2X	2X	10X	2X	2X

Analyte	485262								
	020	022	026	029	030	031	032	034	036
Uranium-234	2X	2X	2X	2X	2X	2X	2X	2X	2X
Uranium-235	2X	2X	2X	100X	200X	20X	20X	2X	2X
Uranium-238	2X	2X	2X	20X	200X	10X	20X	2X	2X

**Product: Determination of Metals by ICP-MS**

**Analytical Method:** SW846 3010A/6020B

**Analytical Procedure:** GL-MA-E-014 REV# 33

**Analytical Batch:** 1899001

**Preparation Method:** SW846 3010A

**Preparation Procedure:** GL-MA-E-008 REV# 19

**Preparation Batch:** 1899000

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262006	SW-18
485262008	SW-20
485262010	SW-23
485262013	SW-19
485262015	SW-16
485262017	SW-14
485262019	SW-13
485262021	SW-11
485262023	SW-22
485262024	SW-21
485262025	SW-12
485262027	EB-01-071819
485262028	EB-02-071819
485262033	SW-17
485262035	DUP-01-071819
1204337713	Method Blank (MB)ICP-MS
1204337714	Laboratory Control Sample (LCS)
1204337715	Laboratory Control Sample (LCS)
1204337719	485262006(SW-18L) Serial Dilution (SD)
1204337716	485262006(SW-18D) Sample Duplicate (DUP)
1204337717	485262006(SW-18S) Matrix Spike (MS)
1204337718	485262006(SW-18S) Matrix Spike (MS)

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# 36

**Analytical Batch:** 1904592

**Preparation Method:** SW846 7470A Prep

**Preparation Procedure:** GL-MA-E-010 REV# 36

**Preparation Batch:** 1904590

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262001	SW-22
485262003	SW-21
485262006	SW-18
485262008	SW-20
485262010	SW-23
485262013	SW-19
485262015	SW-16
485262017	SW-14
485262019	SW-13
485262021	SW-11
485262025	SW-12
485262027	EB-01-071819
485262028	EB-02-071819
485262033	SW-17
485262035	DUP-01-071819
1204351032	Method Blank (MB)CVAA
1204351033	Laboratory Control Sample (LCS)
1204351036	485262001(SW-22L) Serial Dilution (SD)
1204351034	485262001(SW-22D) Sample Duplicate (DUP)
1204351035	485262001(SW-22S) 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 7471A

**Analytical Procedure:** GL-MA-E-010 REV# 36

**Analytical Batch:** 1904595

**Preparation Method:** SW846 7471A Prep  
**Preparation Procedure:** GL-MA-E-010 REV# 36  
**Preparation Batch:** 1904594

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262002	SED-22
485262004	SED-21
485262005	SED-15
485262007	SED-18
485262009	SED-20
485262011	SED-23
485262012	SED-24
485262014	SED-19
485262016	SED-16
485262018	SED-14
485262020	SED-13
485262022	SED-11
485262026	SED-12
485262029	SED-25
485262030	SED-26
485262031	SED-27
485262032	SED-28
485262034	SED-17
485262036	DUP-01-071819
1204351038	Method Blank (MB)CVAA
1204351039	Laboratory Control Sample (LCS)
1204351042	485262002(SED-22L) Serial Dilution (SD)
1204351040	485262002(SED-22D) Sample Duplicate (DUP)
1204351041	485262002(SED-22S) Matrix Spike (MS)

The samples in this SDG were analyzed on a "dry weight" 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.

**General Chemistry**

**Product:** Ion Chromatography  
**Analytical Method:** SW846 9056A  
**Analytical Procedure:** GL-GC-E-086 REV# 27  
**Analytical Batches:** 1903814 and 1903812

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262002	SED-22
485262004	SED-21
1204349311	Method Blank (MB)
1204349312	Laboratory Control Sample (LCS)

1204349313 485262002(SED-22) Sample Duplicate (DUP)  
1204349315 485262002(SED-22) Matrix Spike (MS)

The samples in this SDG were analyzed on a "dry weight" 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)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Fluoride	1204349315 (SED-22MS)	37.6* (75%-125%)

**Product: Ion Chromatography**

**Analytical Method:** SW846 9056A

**Analytical Procedure:** GL-GC-E-086 REV# 27

**Analytical Batch:** 1903827

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262001	SW-22
485262003	SW-21
485262006	SW-18
485262008	SW-20
485262010	SW-23
485262013	SW-19
485262015	SW-16
485262017	SW-14
1204349350	Method Blank (MB)
1204349351	Laboratory Control Sample (LCS)
1204349352	486599001(NonSDG) Sample Duplicate (DUP)
1204349353	486599001(NonSDG) 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.

**Technical Information**

**Sample Dilutions**

The following samples 1204349352 (Non SDG 486599001DUP), 1204349353 (Non SDG 486599001PS) and 485262010 (SW-23) were diluted because target analyte concentrations exceeded the calibration range. Samples 1204349352 (Non SDG 486599001DUP) and 1204349353 (Non SDG 486599001PS) were diluted based on historical data. 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.

Analyte	485262
	010
Fluoride	2X

**Sample Re-analysis**

Samples 1204349350 (MB), 1204349351 (LCS), 1204349352 (Non SDG 486599001DUP) and 1204349353 (Non SDG 486599001PS) were re-analyzed due to CCV failure. The reanalysis data with passing instrument QC was reported.

**Product: Ion Chromatography**

**Analytical Method:** SW846 9056A

**Analytical Procedure:** GL-GC-E-086 REV# 27

**Analytical Batches:** 1905737 and 1905736

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262005	SED-15
485262007	SED-18
485262009	SED-20
485262011	SED-23
485262012	SED-24
485262014	SED-19
485262016	SED-16
485262018	SED-14
485262020	SED-13
485262022	SED-11
1204353690	Method Blank (MB)
1204353691	Laboratory Control Sample (LCS)
1204353692	485262005(SED-15) Sample Duplicate (DUP)
1204353693	485262005(SED-15) Matrix Spike (MS)

The samples in this SDG were analyzed on a "dry weight" 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)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Fluoride	1204353693 (SED-15MS)	72.9* (75%-125%)

**Product: Ion Chromatography**

**Analytical Method:** SW846 9056A

**Analytical Procedure:** GL-GC-E-086 REV# 27

**Analytical Batch:** 1905773

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262019	SW-13
485262021	SW-11
485262025	SW-12
485262027	EB-01-071819
485262028	EB-02-071819
485262033	SW-17
485262035	DUP-01-071819
1204353788	Method Blank (MB)
1204353789	Laboratory Control Sample (LCS)
1204353790	485262019(SW-13) Sample Duplicate (DUP)
1204353791	485262019(SW-13) Post Spike (PS)

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: Ion Chromatography**

**Analytical Method:** SW846 9056A

**Analytical Procedure:** GL-GC-E-086 REV# 27

**Analytical Batches:** 1905785 and 1905784

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262026	SED-12
485262029	SED-25
485262030	SED-26
485262031	SED-27
485262032	SED-28
485262034	SED-17

485262036	DUP-01-071819
1204353775	Method Blank (MB)
1204353776	Laboratory Control Sample (LCS)
1204353777	485262026(SED-12) Sample Duplicate (DUP)
1204353779	485262026(SED-12) Matrix Spike (MS)

The samples in this SDG were analyzed on a "dry weight" 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)/Post Spike (PS) Recovery Statement**

The percent recoveries (%R) obtained from the spike analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The matrix spike recovered outside of the established acceptance limits due to matrix interference and/or non-homogeneity.

Analyte	Sample	Value
Fluoride	1204353779 (SED-12MS)	23.9* (75%-125%)

**Product: Ammonia Nitrogen**

**Preparation Method:** EPA 350.1 Modified

**Preparation Procedure:** GL-GC-E-106 REV# 10

**Preparation Batch:** 1899590

**Preparation Method:** EPA 350.2 Modified Prep

**Preparation Procedure:** GL-GC-E-072 REV# 17

**Preparation Batch:** 1899589

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262002	SED-22
485262004	SED-21
485262005	SED-15
485262007	SED-18
485262009	SED-20
485262011	SED-23
485262012	SED-24
485262014	SED-19
485262016	SED-16
485262018	SED-14
485262020	SED-13
485262022	SED-11
485262026	SED-12
485262029	SED-25



485262030	SED-26
485262031	SED-27
485262032	SED-28
485262034	SED-17
485262036	DUP-01-071819
1204339195	Method Blank (MB)
1204339196	Laboratory Control Sample (LCS)
1204339197	485262002(SED-22) Sample Duplicate (DUP)
1204339199	485262002(SED-22) Matrix Spike (MS)

The samples in this SDG were analyzed on a "dry weight" 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**

The following samples 1204339197 (SED-22DUP), 1204339199 (SED-22MS), 485262002 (SED-22), 485262004 (SED-21), 485262009 (SED-20), 485262011 (SED-23), 485262014 (SED-19), 485262022 (SED-11), 485262026 (SED-12), 485262029 (SED-25), 485262030 (SED-26) and 485262032 (SED-28) were diluted because target analyte concentrations exceeded the calibration range. 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.

Analyte	485262									
	002	004	009	011	014	022	026	029	030	032
Nitrogen, Ammonia	5X	5X	5X	5X	5X	5X	5X	5X	5X	5X

**Product: Ammonia Nitrogen**

**Preparation Method:** EPA 350.1

**Preparation Procedure:** GL-GC-E-106 REV# 10

**Preparation Batch:** 1899832

**Preparation Method:** EPA 350.1 Prep

**Preparation Procedure:** GL-GC-E-072 REV# 17

**Preparation Batch:** 1899831

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262001	SW-22
485262003	SW-21
485262006	SW-18
485262008	SW-20
485262010	SW-23
485262013	SW-19
485262015	SW-16

485262017	SW-14
485262019	SW-13
485262021	SW-11
485262025	SW-12
485262027	EB-01-071819
485262028	EB-02-071819
485262033	SW-17
485262035	DUP-01-071819
1204339685	485556001(NonSDG) Sample Duplicate (DUP)
1204339687	485556001(NonSDG) Matrix Spike (MS)
1204339689	Method Blank (MB)
1204339690	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 Dilutions**

The following sample 485262015 (SW-16) was diluted because target analyte concentrations exceeded the calibration range. 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.

Analyte	<b>485262</b>
	<b>015</b>
Nitrogen, Ammonia	5X

**Sample Re-analysis**

Sample 1204339690 (LCS) was re-analyzed due to instrument failure. The results from the reanalysis are reported. Samples 1204339690 (LCS), 485262001 (SW-22), 485262003 (SW-21), 485262006 (SW-18), 485262008 (SW-20), 485262010 (SW-23) and 485262013 (SW-19) were re-analyzed due to CCV failure. The reanalysis data with passing instrument QC was reported.

**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: 1898796**

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262006	SW-18
485262008	SW-20
485262010	SW-23

485262013	SW-19
485262015	SW-16
485262017	SW-14
485262019	SW-13
485262021	SW-11
485262023	SW-22
485262024	SW-21
485262025	SW-12
485262027	EB-01-071819
485262028	EB-02-071819
485262033	SW-17
485262035	DUP-01-071819
1204337142	Method Blank (MB)
1204337143	485262006(SW-18) Sample Duplicate (DUP)
1204337144	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: Alphaspec U, Soil/Veg**

**Analytical Method:** DOE EML HASL-300, U-02-RC Modified

**Analytical Procedure:** GL-RAD-A-011 REV# 27

**Analytical Batch:** 1898800

**Preparation Method:** Dry Soil Prep

**Preparation Procedure:** GL-RAD-A-021 REV# 23

**Preparation Batch:** 1898477

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262002	SED-22
485262004	SED-21
485262005	SED-15
485262007	SED-18
485262009	SED-20
485262011	SED-23
485262012	SED-24
485262014	SED-19
485262016	SED-16
485262018	SED-14
485262020	SED-13
485262022	SED-11
485262026	SED-12
485262029	SED-25

485262030	SED-26
485262034	SED-17
485262036	DUP-01-071819
1204337154	Method Blank (MB)
1204337155	485262002(SED-22) Sample Duplicate (DUP)
1204337156	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" 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**

**Method Blank Criteria**

The blank result (See Below) is greater than the MDC but less than the required detection limit.

Sample	Analyte	Value
1204337154 (MB)	Uranium-233/234	Result: 0.434 pCi/g > MDA: 0.369 pCi/g <= RDL: 0.500 pCi/g

**Technical Information**

**Recounts**

Sample 485262012 (SED-24) was recounted due to detector error. The recount is reported.

**Miscellaneous Information**

**Additional Comments**

The tracer peak centroid for sample 1204337156 (LCS) 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, Soil/Veg**

**Analytical Method:** DOE EML HASL-300, U-02-RC Modified

**Analytical Procedure:** GL-RAD-A-011 REV# 27

**Analytical Batch:** 1898804

**Preparation Method:** Dry Soil Prep

**Preparation Procedure:** GL-RAD-A-021 REV# 23

**Preparation Batch:** 1898481

The following samples were analyzed using the above methods and analytical procedure(s).

**GEL Sample ID#**

485262031

**Client Sample Identification**

SED-27

485262032	SED-28
1204337167	Method Blank (MB)
1204337168	485262031(SED-27) Sample Duplicate (DUP)
1204337169	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" 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: Dry Weight**

**Analytical Method:** ASTM D 2216 (Modified)

**Analytical Procedure:** GL-OA-E-020 REV# 13

**Analytical Batch:** 1898477

**Preparation Method:** Dry Soil Prep

**Preparation Procedure:** GL-RAD-A-021 REV# 23

**Preparation Batch:** 1898477

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262002	SED-22
485262004	SED-21
485262005	SED-15
485262007	SED-18
485262009	SED-20
485262011	SED-23
485262012	SED-24
485262014	SED-19
485262016	SED-16
485262018	SED-14
485262020	SED-13
485262022	SED-11
485262026	SED-12
485262029	SED-25
485262030	SED-26
485262034	SED-17
485262036	DUP-01-071819
1204336388	485262002(SED-22) Sample Duplicate (DUP)

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: Dry Weight**

**Analytical Method:** ASTM D 2216 (Modified)

**Analytical Procedure:** GL-OA-E-020 REV# 13

**Analytical Batch:** 1898481

**Preparation Method:** Dry Soil Prep

**Preparation Procedure:** GL-RAD-A-021 REV# 23

**Preparation Batch:** 1898481

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262031	SED-27
485262032	SED-28
1204336396	485262031(SED-27) Sample Duplicate (DUP)

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: Liquid Scint Tc99, Soil**

**Analytical Method:** DOE EML HASL-300, Tc-02-RC Modified

**Analytical Procedure:** GL-RAD-A-059 REV# 5

**Analytical Batch:** 1898805

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262031	SED-27
485262032	SED-28
1204337170	Method Blank (MB)
1204337171	485262032(SED-28) Sample Duplicate (DUP)
1204337172	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: Liquid Scint Tc99, Soil**

**Analytical Method:** DOE EML HASL-300, Tc-02-RC Modified

**Analytical Procedure:** GL-RAD-A-059 REV# 5

**Analytical Batch:** 1898807

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262002	SED-22
485262004	SED-21
485262005	SED-15
485262007	SED-18
485262009	SED-20
485262011	SED-23
485262012	SED-24
485262014	SED-19
485262016	SED-16
485262018	SED-14
485262020	SED-13
485262022	SED-11
485262026	SED-12
485262029	SED-25
485262030	SED-26
485262034	SED-17
485262036	DUP-01-071819
1204337176	Method Blank (MB)
1204337177	485262002(SED-22) Sample Duplicate (DUP)
1204337178	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 485262011 (SED-23) and 485262012 (SED-24) 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:** 1899271

The following samples were analyzed using the above methods and analytical procedure(s).

<b><u>GEL Sample ID#</u></b>	<b><u>Client Sample Identification</u></b>
485262006	SW-18
485262008	SW-20
485262010	SW-23
485262013	SW-19
485262015	SW-16
485262017	SW-14
485262019	SW-13
485262021	SW-11
485262023	SW-22
485262024	SW-21
485262025	SW-12
485262027	EB-01-071819
485262028	EB-02-071819
485262033	SW-17
485262035	DUP-01-071819
1204338358	Method Blank (MB)
1204338359	485262010(SW-23) Sample Duplicate (DUP)
1204338360	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 1204338359 (SW-23DUP) and 485262010 (SW-23) were recounted due to high relative percent difference/relative error ratio. The recounts are 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.







Project # 30595649.9 of A  
 GEL Quote #: \_\_\_\_\_  
 GEL Number (1): \_\_\_\_\_  
 GEL Work Order Number: \_\_\_\_\_  
 Client Name: Westinghouse  
 Project/Site Name: WNAEC00518  
 Address: 5801 Bluff Rd. Hopkins SC 29061  
 Phone # 803-647-1920  
 Fax # \_\_\_\_\_  
 GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Collected By: Benjamin Fritzel / James Leaphart  
 Sample ID: \_\_\_\_\_  
 Send Results To: Diana Joyner  
Wynner DPE White Hydroc. Com  
 Date Collected (mm-dd-yy): 2019  
 Collected (Military (hhmm)): \_\_\_\_\_  
 QC Code (2): \_\_\_\_\_  
 Field Filtered (3): \_\_\_\_\_  
 Sample Matrix (4): \_\_\_\_\_  
 \* For composites - indicate start and stop date/time

Sample ID	Date	Time	Received by (signed)	Date	Time	Radiative Isotopic info	Should this sample be considered:	Sample Analysis Requested (5) (Fill in the number of containers for each test)				Comments							
								SA	Metals	Fluoride	Technetium 99								
SW-11	07-17-19	1345	G	N	SW	N	OT	4	X	X	X	X	Ammonia	Ammonia	Ammonia	Technetium 99	Isotopic Analysis		
SED-11	07-17-19	1345	G	N	SD	N	OT	1											
SW-22	07-17-19	1405	G	N	SW	N	OT	1											
SW-21	07-17-19	1415	G	N	SW	N	OT	1											
SW-12	07-17-19	1515	G	N	SW	N	OT	4	X	X	X	X							
SED-12	07-17-19	1515	G	N	SD	N	OT	1											
ED-01-071819	07-18-19	0750	G	N	SW	N	OT	4	X	X	X	X							
ED-02-071819	07-18-19	0800	G	N	SW	N	OT	4	X	X	X	X							
SED-25	07-18-19	0915	G	N	SD	N	OT	1											
SED-26	07-18-19	0940	C	N	SD	N	OT	1											

Chain of Custody Signatures  
 Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date 7/18/19 Time 16:27  
 1. [Signature] 07-18-2019 16:27  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_  
 TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks: \_\_\_\_\_  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Mountain  Other: \_\_\_\_\_

For sample shipping and delivery details, see Sample Receipt & Review form (SRR).  
 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=Faecal, 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  
 7.) Are there any known or possible hazards associated with these samples?  
 Listed Waste: \_\_\_\_\_  
 Characteristic Hazards: \_\_\_\_\_  
 FL = Flammable/ignitable  
 CO = Corrosive  
 RE = Reactive  
 TSCA Regulated  
 PCB = Polychlorinated biphenyls  
 RCRA Metals: \_\_\_\_\_  
 As = Arsenic Hg = Mercury  
 Ba = Barium Se = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Miscellaneous  
 Pb = Lead RCRA metals  
 Other: \_\_\_\_\_  
 OT = Other / Unknown  
 (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Description: \_\_\_\_\_  
 Please provide any additional details below regarding handling and/or disposal concerns. (i.e.: Origin of sample(s), type of site collected from, odd matrices, etc.)



Client Name: Westinghouse Phone # 803-647-1990  
 Subject/Site Name: WVU00518 Fax #  
 Address: 5801 Blatt Rd, Hopkins S.C. 29061  
 Collected By: Benjamin Taylor Send Results To: Diana Joyce  
James Carpenter  
 Sample ID  
 \* For composites - indicate start and stop date/time

Sample ID	Date Collected (mm-dd-yy)	QC Code (Military (hhmm) (hhmm))	Field Filtered (Y/N)	Sample Matrix (SD)	Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)					Comments
						SA	NI	NI	NI	NI	
SED-27	07-18-19	1030 G	N	SD	1	Ammonia	Fluoride	Metals	Technetium 99	Isotopic Burnup	
SED-28	07-18-19	1050 G	N	SD	1	Ammonia	Fluoride	Metals	Technetium 99	Isotopic Burnup	
SW-17	07/18/19	1300 G	N	SW	4	X	X	X	X		
SED-17	07/18/19	1300 G	N	SD	1	Ammonia	Fluoride	Metals	Technetium 99	Isotopic Burnup	
DUP-01-071819	07/18/19	—	N	SW	4	X	X	X	X		
DUP-01-071819	07/18/19	—	N	SD	1	Ammonia	Fluoride	Metals	Technetium 99	Isotopic Burnup	

Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 1. Benjamin Taylor 07-18-2019 16:27 DA - Diana Joyce 7/18/19 16:27  
 2. \_\_\_\_\_  
 3. \_\_\_\_\_

Chain of Custody Signatures  
 TAT Requested: Normal:  Rush: \_\_\_\_\_ Specify: \_\_\_\_\_ (Subject to Surcharge)  
 Fax Results:  Yes  No  
 Select Deliverable:  C of A  QC Summary  Level 1  Level 2  Level 3  Level 4  
 Additional Remarks:  
 For Lab Receiving Use Only: Custody Seal Intact?  Yes  No Cooler Temp: \_\_\_\_\_ °C  
 Sample Collection Time Zone:  Eastern  Pacific  Mountain  Other:  
 For sample shipping and delivery details, see Sample Receipt & Review form (SRR).  
 Chain of Custody Number = Client Determined  
 1.) 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  
 2.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.  
 3.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Faecal, N=Nasal  
 4.) 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).  
 5.) 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  
 6.) Are there any known or possible hazards associated with these samples?  
 Characteristic Hazards: FL = Flammable/Ignitable, CO = Corrosive, RE = Reactive  
 Listed Waste: LW = Listed Waste  
 Waste code(s): (F, K, P and U-listed wastes.)  
 Other: OT = Other / Unknown  
 Description: (i.e.: High/low pH, asbestos, beryllium, irritants, other misc. health hazards, etc.)  
 Please provide any additional details below regarding handling and/or disposal of site collected from, odd matrices, etc.)  
 RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Miscellaneous, Pb = Lead, RCRA metals: biphenyls  
 TSCA Regulated: PCB = Polychlorinated biphenyls



**List of current GEL Certifications as of 26 September 2019**

<b>State</b>	<b>Certification</b>
Alaska	17-018
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
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	2019-013
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-19-15
Utah NELAP	SC000122019-28
Vermont	VT87156
Virginia NELAP	460202
Washington	C780