



Westinghouse Electric Company  
Nuclear Fuel  
Columbia Fuel Fabrication Facility  
5801 Bluff Road  
Hopkins, South Carolina 29061  
USA

SCDHEC, BLWM  
Kim Kuhn  
2600 Bull Street  
Columbia, SC 29201

Direct tel: 803.647.1920  
Direct fax: 803.695.3964  
e-mail: joynerdp@westinghouse.com  
Your ref:  
Our ref: LTR-RAC-20-47

May 12, 2020

Subject: April 2020 CA Progress Report

Ms. Kuhn:

In accordance with Item 19 of Consent Agreement (CA) 19-02-HW, this progress report is being submitted to you, including the following requested information:

- (a) a brief description of the actions which Westinghouse has taken toward achieving compliance with the Consent Agreement during the previous month;
- (b) results of sampling and tests, in tabular summary format received by Westinghouse during the reporting period;
- (c) a brief description of all actions which are scheduled for the next month to achieve compliance with the Consent Agreement, and other information relating to the progress of the work as deemed necessary or requested by the Department; and
- (d) information regarding the percentage of work completed and any delays encountered or anticipated that may affect the approved schedule for implementation of the terms of the Consent Agreement, and a description of efforts made to mitigate delays or avoid anticipated delays.

In response to the above requirements, the following is being reported to the Department since the last progress report on **April 8, 2020**:

- (a) Actions during the previous month:  
Westinghouse began implementation of the Final Remedial Investigation (RI) Work Plan on 6/10/19. To comply with **Item 4** of the CA, the following actions were completed this month.
  - Executed Phase II of the Technetium-99 (Tc-99) Source Investigation in accordance with the approved work plan submitted on 1/30/2020 (LTR-RAC-20-11).
  - Executed Hydrofluoric Acid Spiking Station #1 (HFSS#1) Soil Sampling on May 4-6, 2020 in accordance with the approved work plan submitted in LTR-RAC-20-31.

- Completed Solvent Extraction (SOLX) uranium recovery process modifications begun in April 2020 to replace use of perchloroethylene and kerosene with dodecane; Start-up of the modified process began on May 12, 2020.
  - Completed the following activities to support the Southern Storage Area (SSA) Operable Unit (OU) Work Plan:
    - Conducted soil sampling under intermodal containers removed in March 2020 per Department-approved Operable Unit Intermodal Container Work Plan (LTR-RAC-19-87).
    - Resumed wet combustible material (WCM) drum removal from 1 of the 11 remaining intermodal containers that have been on hold; segregated and stored drums potentially containing perchloroethylene
- (b) Results of sampling and tests:
- In April of 2020, soil sampling was conducted under a group of intermodal containers (WEC-400, WEC-500, WEC-700, WEC-800, WEC-1000, WEC-1001, C-42, C-45, C-53, C-57, C-63, C-66, S-16) removed from the SSAOU in March 2020. Analytical results of the soil sampling, along with a graphic, are included in this monthly report as Attachments A-B.
    - Systematic and bias soil sampling was conducted in accordance with the approved SSAOU Soil Sampling Work Plan.
    - All soil samples collected were below residential screening levels, including the bias sampling locations
  - Tabulated results of Tc-99 Source Investigation Work Plan- Phase I are included in Attachment C. The associated laboratory report is included as Attachment D.
- (c) Brief description of all actions which are scheduled for the next month:
- In accordance with **Item 4** of the CA, Westinghouse will continue to implement the Work Plan to include the following actions:
    - Host webinar to discuss SCDHEC comments on the Interim RI Data Summary Report and propose scope for the RI Phase II Work Plan
    - Assess Tc-99 Source Investigation Work Plan Results - Phase I and Phase II and begin report preparations during May and June
    - Submit a consolidated SSAOU report that includes all data collected to date
    - Continue WCM drum removal from the 10 remaining intermodal containers; segregate and store drums potentially containing perchloroethylene
- (d) Percentage of work completed and any delays encountered or anticipated:
- Assessment activities identified in the Final Remedial Investigation Work Plan and associated addendums have been completed, with a summary report submitted.

Respectfully,

A handwritten signature in blue ink, appearing to read "Diana P. Joyner". The signature is fluid and cursive, with the first name "Diana" being the most prominent.

Diana P. Joyner  
Principal Environmental Engineer  
Westinghouse Electric Company, CFFF  
803.497.7062 (m)

Cc: N. Parr, Environmental Manager  
J. Ferguson, EH&S Manager  
J. Grant, AECOM Project Manager  
ENOVIA Records

## Attachment A

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### Southern Storage Area Operable Unit Soil Sampling Results

Tabulated Soil Sampling Results for the following Intermodal Containers/Sealands:

WEC-1000	WEC-500	WEC-700	WEC-800
WEC-400	WEC-1001	C-45	C-42
C-53	C-63	C-66	C-57
			S-16

Drawing with Soil Sampling Results

Sample ID	Analyte (pCi/g)								SOF	SOF	mg/kg	
	U-234		U-235 DL	U-235	U-238	Sum U		Tc-99 DL	Tc-99	Resid.		Ind.
WEC1000-1	1.42	<	0.254	0.115	1.33	2.87	<	3.66	0	0.22	0.01	11.7
WEC1000-2	0.991	<	0.381	0	1.11	2.10	<	3.76	0	0.16	0.01	5.54
WEC1000-3	1.86	<	0.177	0.175	1.10	3.14	<	3.91	2.43	0.37	0.01	3.08
WEC500-1	0.946	<	0.563	0	1.12	2.07	<	4.01	0.0546	0.16	0.01	3.13
WEC500-2	1.13	<	0.473	0.0445	1.23	2.40	<	3.69	0	0.18	0.01	1.16
WEC500-3	2.59	<	0.312	0.0857	0.755	3.43	<	3.98	0	0.26	0.01	3.46
WEC700-1	1.27			0.119	0.841	2.23	<	3.99	0.289	0.19	0.01	1.18
WEC700-2	0.715	<	0.357	0.0407	0.794	1.55	<	4.20	0	0.12	0.01	13.0
WEC700-3	0.754	<	0.311	0.142	1.26	2.16	<	3.98	0.125	0.17	0.01	1.06
WEC800-1	0.806	<	0.213	0	1.10	1.91	<	4.23	1.01	0.19	0.01	1.49
WEC800-2	1.31	<	0.198	0.0726	1.08	2.46	<	3.85	0	0.19	0.01	1.80
WEC800-3	1.52	<	0.257	0.0958	1.06	2.68	<	3.66	0.584	0.24	0.01	9.08
WEC400-1	0.894	<	0.247	0.0517	1.18	2.13	<	4.14	0	0.16	0.01	2.72
WEC400-2	1.93	<	0.123	0.204	1.33	3.46	<	4.00	0	0.27	0.01	3.78
WEC400-3	2.05	<	0.226	0.0845	1.56	3.69	<	3.54	0	0.28	0.01	2.89
WEC1001-1	1.06	<	0.178	0.0652	0.788	1.91	<	3.84	0	0.15	0.01	1.73
WEC1001-2	2.13			0.0989	0.941	3.17	<	4.06	0.306	0.26	0.01	3.92
WEC1001-3	5.77			0.243	1.64	7.65	<	3.69	1.08	0.65	0.02	1.56
C-45-1	1.18			0.122	0.961	2.26	<	4.08	0.176	0.18	0.01	1.11
C-45-2	1.39	<	0.256	0.0938	0.864	2.35	<	3.86	0	0.18	0.01	< 0.380
C-45-3	1.04	<	0.189	0.0695	1.14	2.25	<	3.48	0.425	0.19	0.01	0.807
C-45-4	1.29	<	0.293	0	0.720	2.01	<	3.45	0.997	0.20	0.00	0.841
C-45-5	1.51	<	0.231	0.147	0.836	2.49	<	3.59	0	0.19	0.01	0.552
C-42-1	2.48	<	0.230	0.105	1.26	3.85	<	3.62	0	0.29	0.01	0.782
C-42-2	1.43			0.124	0.981	2.54	<	3.38	0.0987	0.20	0.01	< 0.383
C-42-3	1.02	<	0.304	0.0781	0.677	1.78	<	3.62	0	0.14	0.01	0.550
C-42-4	0.839	<	0.246	0.0675	0.819	1.73	<	3.28	0	0.13	0.01	0.565
C-42-5	1.27	<	0.163	0.0597	0.810	2.14	<	3.26	0	0.16	0.01	0.589
C-53-1	1.05	<	0.187	0.108	0.829	1.99	<	3.75	0	0.15	0.01	0.572
C-53-2	1.15	<	0.225	0.158	0.902	2.21	<	3.58	0	0.17	0.01	0.519
C-53-3	1.38	<	0.277	0.0581	0.994	2.43	<	3.46	0.221	0.20	0.01	0.853
C-53-4	1.39	<	0.137	0.0458	1.16	2.60	<	3.49	0.152	0.20	0.01	1.08
C-53-5	0.795	<	0.211	0.183	1.35	2.33	<	3.90	0.639	0.21	0.01	0.903
C-63-1	1.50	<	0.170	0.134	0.957	2.59	<	3.36	0	0.20	0.01	0.513
C-63-2	1.37			0.111	0.814	2.30	<	3.27	1.36	0.25	0.01	0.736
C-63-3	1.21	<	0.183	0.0290	0.958	2.20	<	3.21	0	0.17	0.01	1.14
C-63-4	1.73			0.148	1.05	2.93	<	3.52	0	0.23	0.01	1.03
C-63-5	2.84	<	0.210	0.121	1.24	4.20	<	3.54	1.12	0.38	0.01	0.984
C-66-1	1.67	<	0.189	0.0299	0.822	2.52	<	3.58	0	0.19	0.01	0.724
C-66-2	4.26	<	0.264	0.105	0.951	5.32	<	3.46	1.16	0.47	0.01	0.972
C-66-3	2.14	<	0.298	0	1.49	3.63	<	4.08	0.416	0.29	0.01	0.928
C-66-4	6.08			0.376	2.42	8.88	<	4.04	0	0.69	0.02	8.84
C-66-5	7.08			0.314	2.36	9.75	<	4.00	0	0.75	0.02	2.72
C-57-1	0.842	<	0.183	0.143	0.472	1.46	<	3.93	0.411	0.14	0.01	< 0.371
C-57-2	1.01	<	0.221	0.118	0.622	1.75	<	3.98	0	0.14	0.01	< 0.365
C-57-3	1.73	<	0.281	0.105	0.561	2.40	<	4.08	0	0.19	0.01	0.689
C-57-4	1.53	<	0.131	0.0873	0.857	2.47	<	4.16	0	0.19	0.01	2.33
C-57-5	0.981	<	0.221	0.119	0.647	1.75	<	4.40	0	0.14	0.01	0.490
C-57-6	2.08	<	0.277	0.102	0.948	3.13	<	4.09	0	0.24	0.01	0.850
C-57-7	3.64			0.302	1.11	5.05	<	4.20	0.999	0.45	0.02	0.898
C-57-8	0.624	<	0.169	0.0268	0.570	1.22	<	4.10	0.316	0.11	0.00	1.71

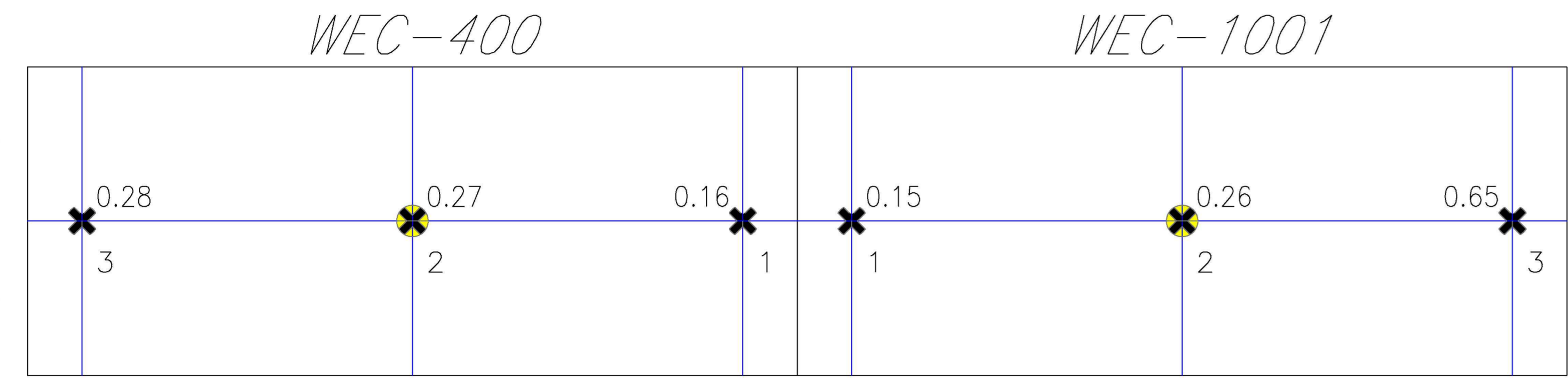
Sample ID	Analyte (pCi/g)								SOF Resid.	SOF Ind.	mg/kg Fluoride	
	U-234		U-235 DL	U-235	U-238	Sum U		Tc-99 DL				Tc-99
S-16-1	1.12	<	0.107	0.0710	1.13	2.32	<	4.22	0	0.18	0.01	7.10
S-16-2	1.31	<	0.203	0.160	1.10	2.57	<	4.31	0	0.20	0.01	3.07
S-16-3	1.58	<	0.114	0.0378	1.57	3.19	<	4.29	0	0.24	0.01	9.51

Notes:

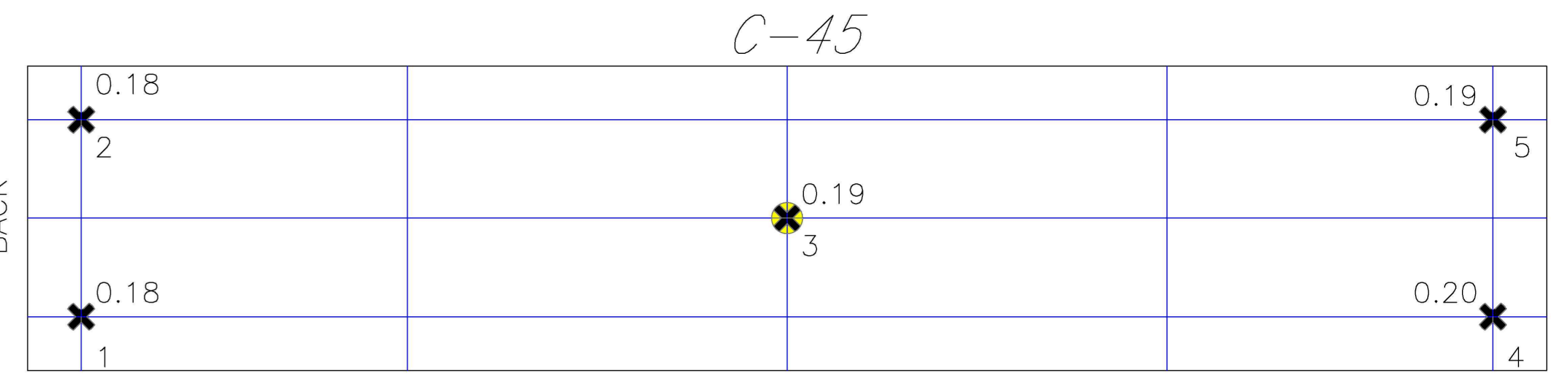
Negative values reflected as zero

**Residential Limits in Soil (per RA-433)**

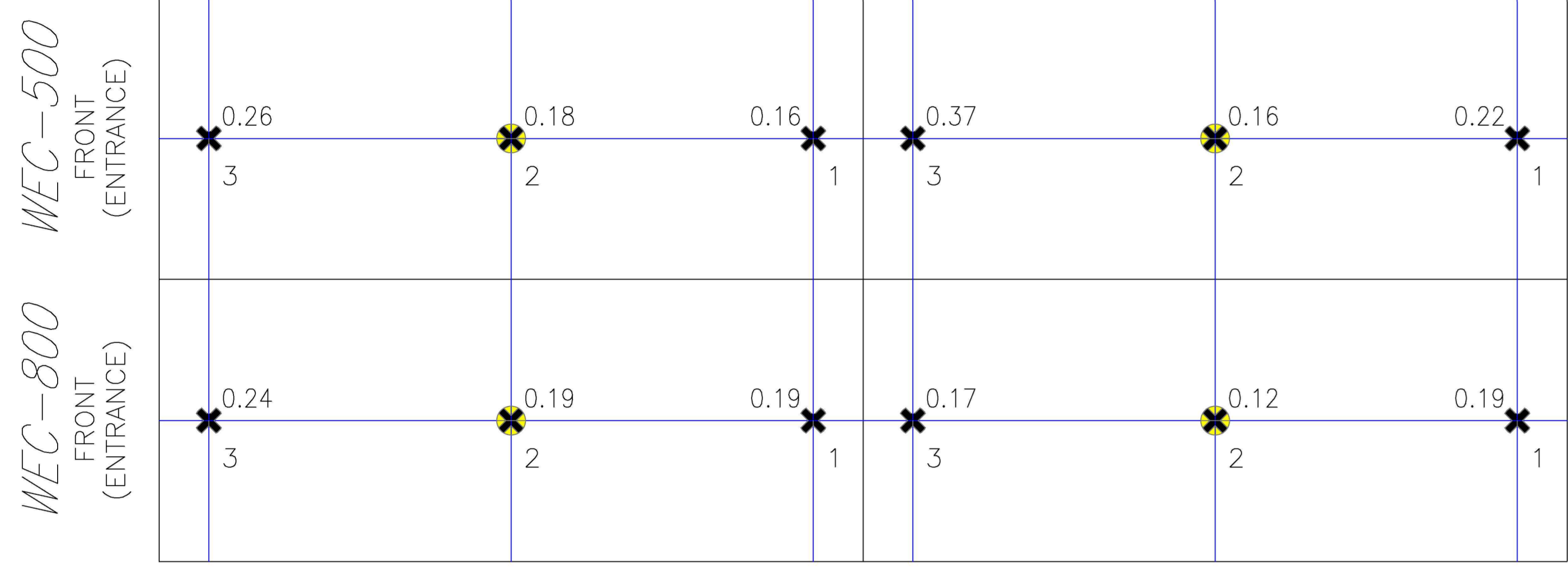
U234	13 pCi/g
U235	8 pCi/g
U238	14 pCi/g
Tc-99	19 pCi/g
Fluoride	600 mg/kg
PCE	0.0023 mg/kg



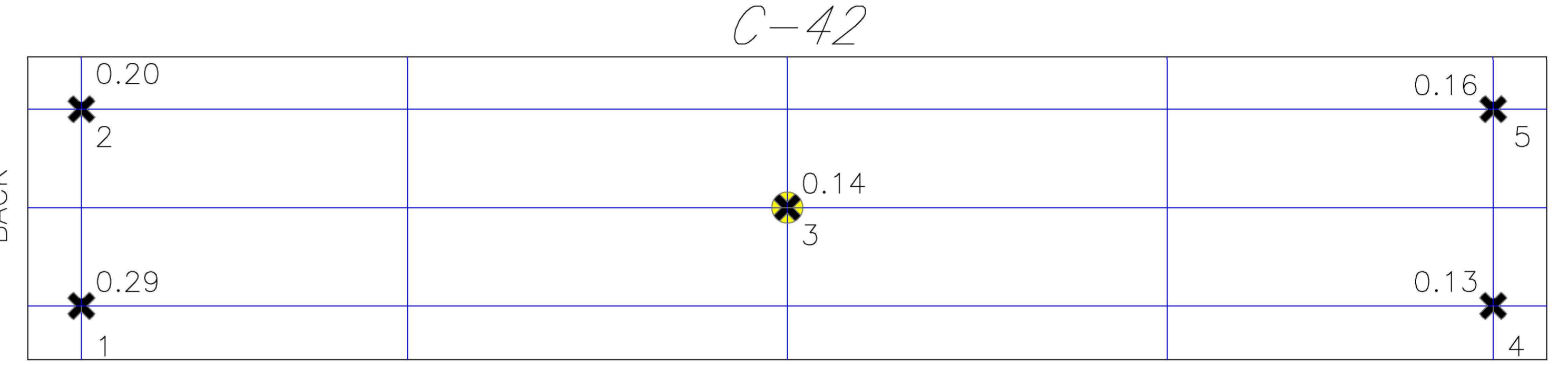
WEC-1001



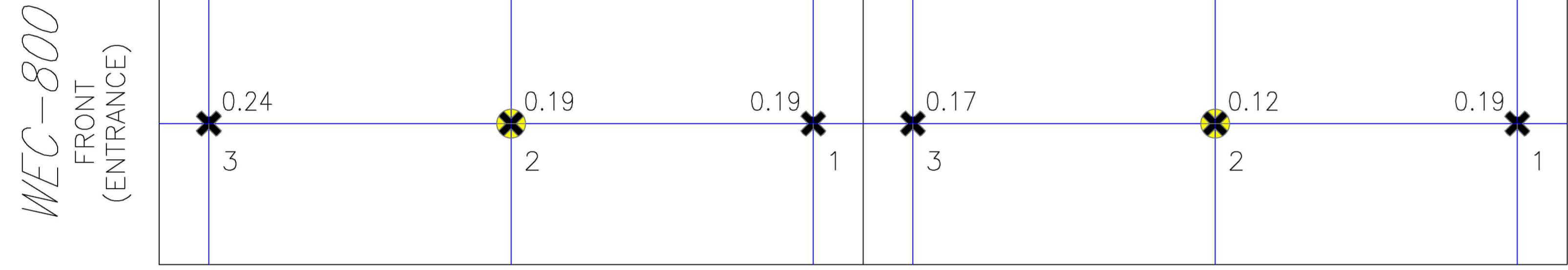
C-45



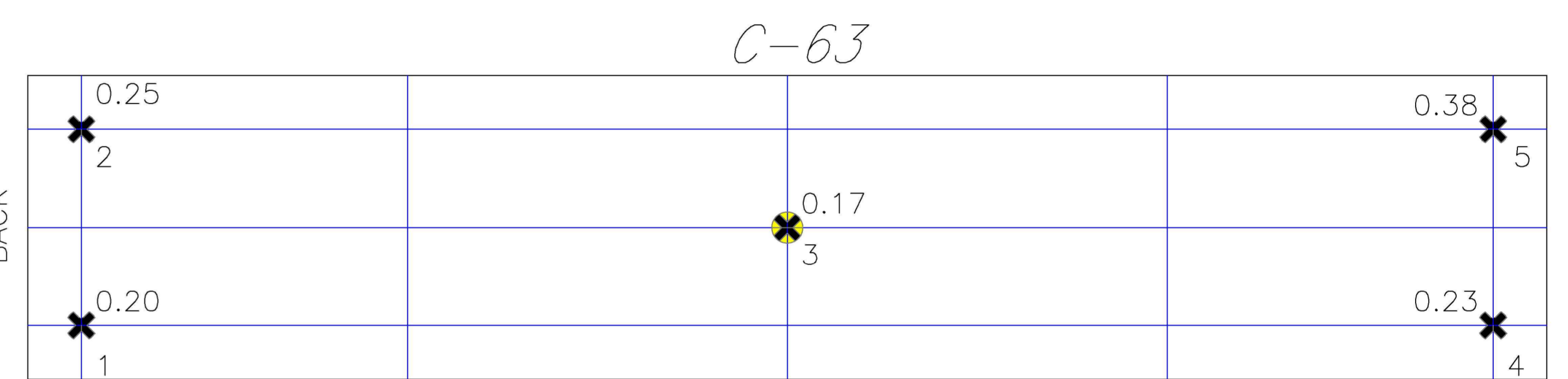
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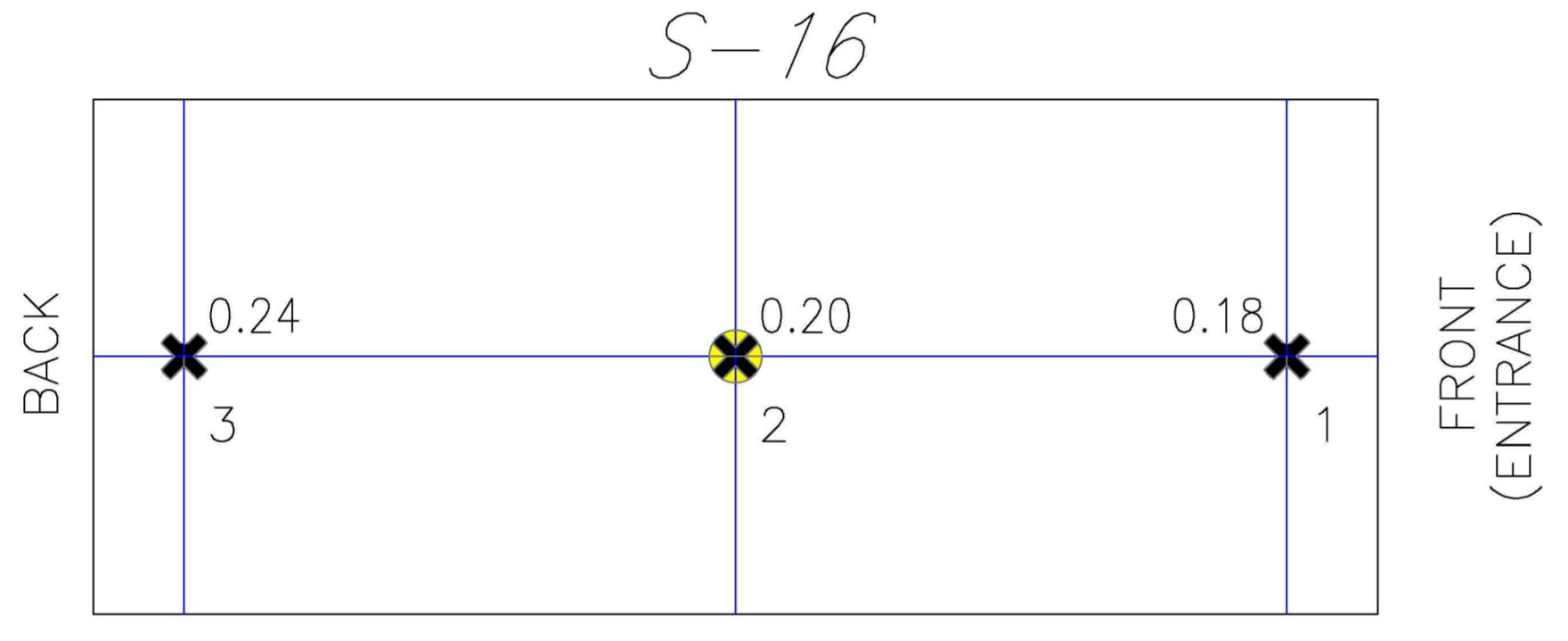
C-42



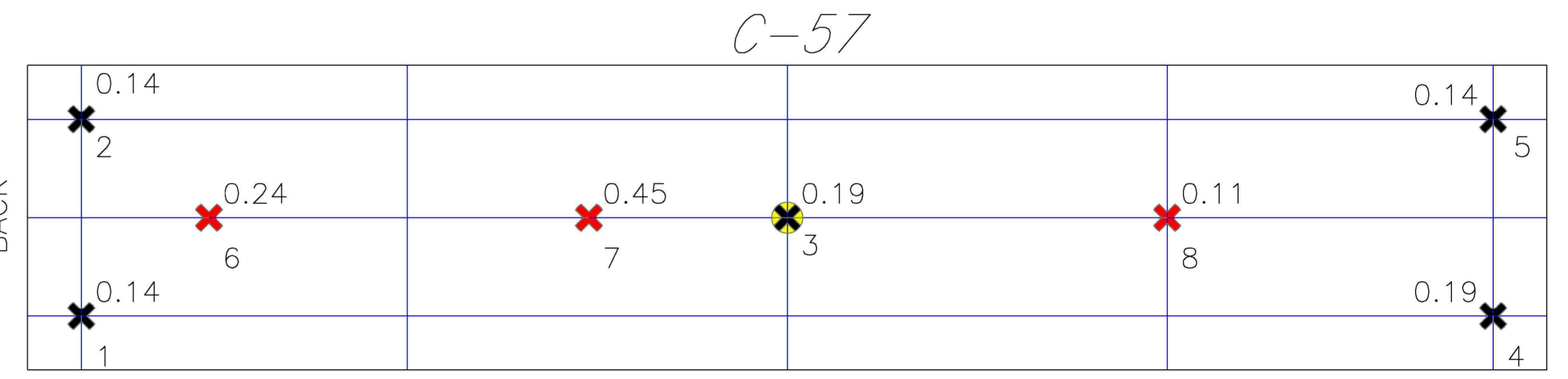
WEC-800



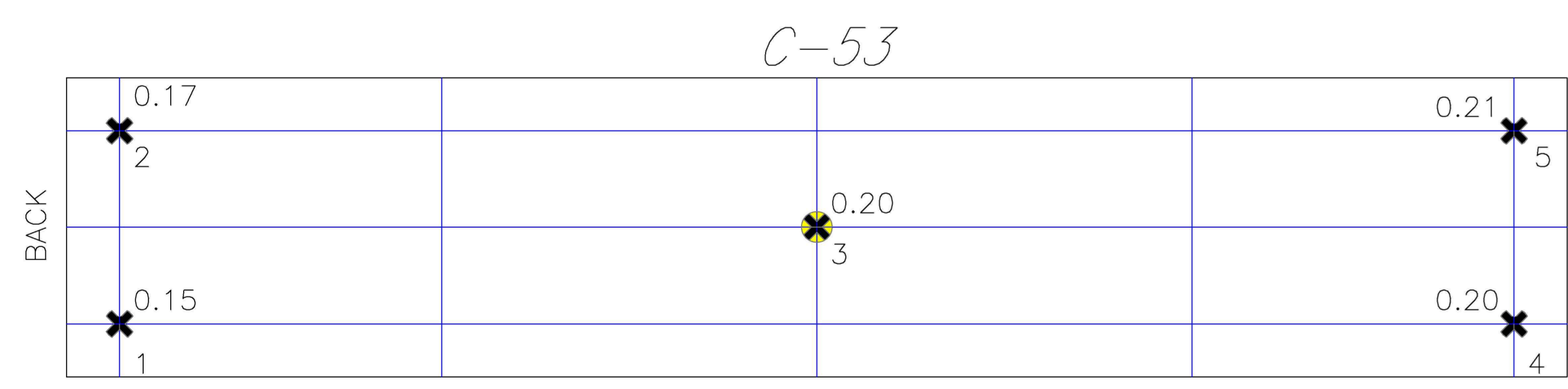
C-63



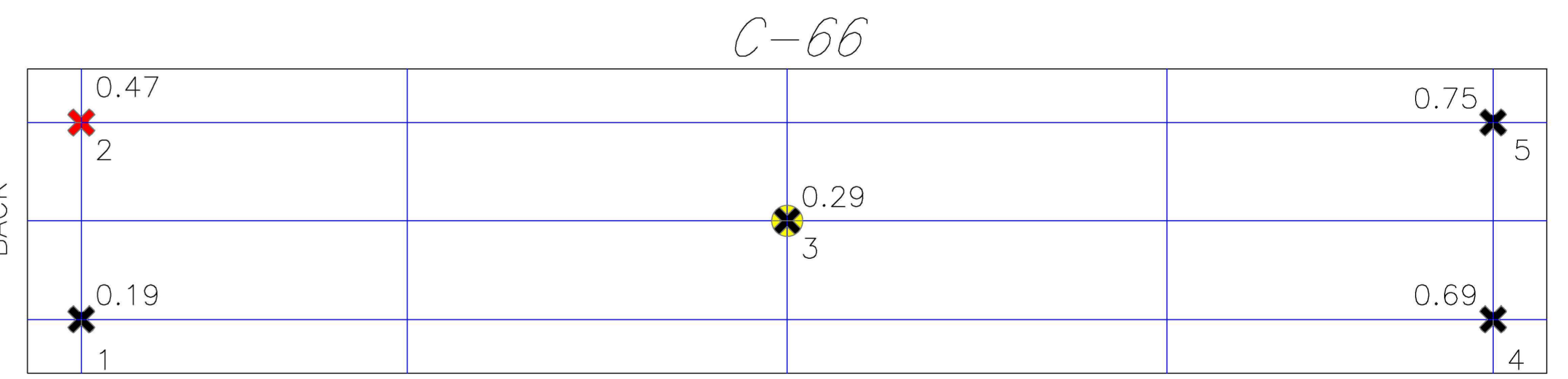
S-16



C-57



C-53



C-66

- ✖ BIAS SAMPLE
- ✖** SYSTEMATIC SAMPLE
- ✖** SYSTEMATIC SAMPLE WITH VOC
- CONTAMINATED SOIL REMOVED TO 2 FEET DEPTH

<b>WESTINGHOUSE PROPRIETARY CLASS 2</b>		DFTM	W.D. HERLONG	01/28		ELECTRIC COMPANY LLC - NUCLEAR FUEL	
THIS DOCUMENT CONTAINS INFORMATION PROPRIETARY TO WESTINGHOUSE ELECTRIC COMPANY LLC - NUCLEAR FUEL.		CHKD		2020		COLUMBIA, S.C. USA	
IT IS SUBMITTED IN CONFIDENCE AND IS TO BE USED SOLELY FOR THE PURPOSE FOR WHICH IT IS FURNISHED. WHEN RETURNED UPON REQUEST, THIS DOCUMENT AND SUCH INFORMATION IS NOT TO BE REPRODUCED, TRANSMITTED, DISCLOSED OR USED OTHERWISE IN WHOLE OR IN PART WITHOUT PRIOR WRITTEN AUTHORIZATION OF THE WESTINGHOUSE ELECTRIC COMPANY LLC - NUCLEAR FUEL.		APPD			AREA / PROCESS	TITLE	
		APPD			SUM OF FRACTIONS OF ISOTOPIC URANIUM ININ SOIL BENEATH SEA-LANDS		
SIZE	REGN NO	DWG NO	REV		SCALE	N/A	1
F		N/A			DWG TYPE	N/A	SHEET 01 of 01 SHEETS
							1

## Attachment B

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### Southern Storage Area Operable Unit Soil Sampling- GEL Analytical Results

#### Initial Sampling Event

WEC-1000	WEC-500	WEC-700	WEC-800
WEC-400	WEC-1001	C-45	C-42
C-53	C-63	C-66	C-57
			S-16

GEL Analytical Results  
Sampling conducted: April 9-10, 2020  
GEL Work Order: 509497  
Report Date: May 6, 2020





May 06, 2020

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

Re: ENV-CONSENTA-4500778461  
Work Order: 509497

Dear Ms. Logsdon:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 15, 2020. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

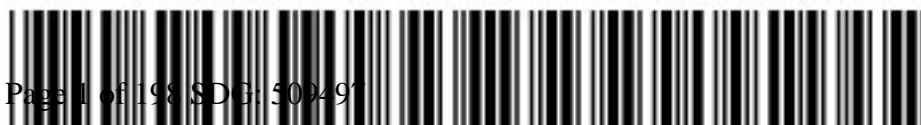
Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at [www.gel.com](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. 4707.

Sincerely,

Katelyn Gray  
Project Manager

Purchase Order: 4500778461  
Enclosures



**GEL LABORATORIES LLC**

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

**Certificate of Analysis Report  
for**

WNUC009 Westinghouse Electric Co, LLC

Client SDG: 509497 GEL Work Order: 509497

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- J See case narrative for an explanation
- J Value is estimated
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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



Reviewed by \_\_\_\_\_

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1000-1      Project: WNUC00901  
Sample ID: 509497001      Client ID: WNUC009  
Matrix: Soil  
Collect Date: 09-APR-20 08:56  
Receive Date: 15-APR-20  
Collector: Client  
Moisture: 9.02%

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		11.7	0.375	1.10	mg/kg	10.0	1	LXA2	04/18/20	1008	1990493	1
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium-234/235/238 "Dry Weight Corrected"												
Uranium-235	J	8.58	2.19	15.4	ug/kg	99.8	2	PRB	05/06/20	1118	1990468	2
Uranium-238		1050	14.5	43.9	ug/kg	99.8	2					
Uranium-234	U	ND	2.19	11.0	ug/kg	99.8	2	PRB	05/06/20	1203	1990468	3

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HH1	04/20/20	1700	1990467
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 3050B/6020B	
3	SW846 3050B/6020B	

### Notes:

Column headers are defined as follows:

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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1000-2	Project: WNUC00901
Sample ID: 509497002	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:00	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 10.8%	

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		5.54	0.383	1.13	mg/kg	10.1	1	LXA2	04/18/20	1242	1990493	1
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.270	0.811	ug/kg	0.724	1	JP1	04/21/20	2044	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.270	0.811	ug/kg	0.724	1					
1,1,2-Trichloroethane	U	ND	0.270	0.811	ug/kg	0.724	1					
1,1-Dichloroethane	U	ND	0.270	0.811	ug/kg	0.724	1					
1,1-Dichloroethylene	U	ND	0.270	0.811	ug/kg	0.724	1					
1,2,3-Trichlorobenzene	U	ND	0.270	0.811	ug/kg	0.724	1					
1,2,4-Trichlorobenzene	U	ND	0.270	0.811	ug/kg	0.724	1					
1,2-Dibromo-3-chloropropane	U	ND	0.406	0.811	ug/kg	0.724	1					
1,2-Dibromoethane	U	ND	0.270	0.811	ug/kg	0.724	1					
1,2-Dichlorobenzene	U	ND	0.270	0.811	ug/kg	0.724	1					
1,2-Dichloroethane	U	ND	0.270	0.811	ug/kg	0.724	1					
1,2-Dichloropropane	U	ND	0.270	0.811	ug/kg	0.724	1					
1,3-Dichlorobenzene	U	ND	0.270	0.811	ug/kg	0.724	1					
1,4-Dichlorobenzene	U	ND	0.270	0.811	ug/kg	0.724	1					
1,4-Dioxane	U	ND	13.5	40.6	ug/kg	0.724	1					
2-Butanone	U	ND	1.35	4.06	ug/kg	0.724	1					
2-Hexanone	U	ND	1.35	4.06	ug/kg	0.724	1					
4-Methyl-2-pentanone	U	ND	1.35	4.06	ug/kg	0.724	1					
Acetone	J	1.55	1.35	4.06	ug/kg	0.724	1					
Benzene	U	ND	0.270	0.811	ug/kg	0.724	1					
Bromochloromethane	U	ND	0.270	0.811	ug/kg	0.724	1					
Bromodichloromethane	U	ND	0.270	0.811	ug/kg	0.724	1					
Bromoform	U	ND	0.270	0.811	ug/kg	0.724	1					
Bromomethane	U	ND	0.270	0.811	ug/kg	0.724	1					
Carbon disulfide	U	ND	1.35	4.06	ug/kg	0.724	1					
Carbon tetrachloride	U	ND	0.270	0.811	ug/kg	0.724	1					
Chlorobenzene	U	ND	0.270	0.811	ug/kg	0.724	1					
Chloroethane	U	ND	0.270	0.811	ug/kg	0.724	1					
Chloroform	U	ND	0.270	0.811	ug/kg	0.724	1					
Chloromethane	U	ND	0.270	0.811	ug/kg	0.724	1					
Cyclohexane	U	ND	0.270	0.811	ug/kg	0.724	1					
Dibromochloromethane	U	ND	0.270	0.811	ug/kg	0.724	1					
Dichlorodifluoromethane	U	ND	0.270	0.811	ug/kg	0.724	1					

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1000-2  
Sample ID: 509497002

Project: WNUC00901  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.270	0.811	ug/kg	0.724	1					
Isopropylbenzene	U	ND	0.270	0.811	ug/kg	0.724	1					
Methyl acetate	U	ND	1.35	4.06	ug/kg	0.724	1					
Methylcyclohexane	U	ND	0.270	0.811	ug/kg	0.724	1					
Methylene chloride	U	ND	1.35	4.06	ug/kg	0.724	1					
Styrene	U	ND	0.270	0.811	ug/kg	0.724	1					
Tetrachloroethylene	U	ND	0.270	0.811	ug/kg	0.724	1					
Toluene	U	ND	0.270	0.811	ug/kg	0.724	1					
Trichloroethylene	U	ND	0.270	0.811	ug/kg	0.724	1					
Trichlorofluoromethane	U	ND	0.270	0.811	ug/kg	0.724	1					
Trichlorotrifluoroethane	U	ND	1.35	4.06	ug/kg	0.724	1					
Vinyl chloride	U	ND	0.270	0.811	ug/kg	0.724	1					
cis-1,2-Dichloroethylene	U	ND	0.270	0.811	ug/kg	0.724	1					
cis-1,3-Dichloropropylene	U	ND	0.270	0.811	ug/kg	0.724	1					
m,p-Xylenes	U	ND	0.541	1.62	ug/kg	0.724	1					
o-Xylene	U	ND	0.270	0.811	ug/kg	0.724	1					
tert-Butyl methyl ether	U	ND	0.270	0.811	ug/kg	0.724	1					
trans-1,2-Dichloroethylene	U	ND	0.270	0.811	ug/kg	0.724	1					
trans-1,3-Dichloropropylene	U	ND	0.270	0.811	ug/kg	0.724	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/09/20	0900	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	43.4 ug/kg	50.0	107	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	41.2 ug/kg	50.0	102	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	39.1 ug/kg	50.0	97	(81%-120%)

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## Certificate of Analysis

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

Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1000-2  
Sample ID: 509497002

Project: WNUC00901  
Client ID: WNUC009

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	WEC1000-3	Project:	WNUC00901
Sample ID:	509497003	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 09:03		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	8.27%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		3.08	0.374	1.10	mg/kg	10.1	1	LXA2	04/18/20	1415	1990493	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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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Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	WEC500-1	Project:	WNUC00901
Sample ID:	509497004	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 09:11		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	8.43%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		3.13	0.371	1.09	mg/kg	10.0	1	LXA2	04/18/20	1446	1990493	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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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Report Date: May 6, 2020

Company : Westinghouse Electric Company, LLC  
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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	WEC500-2	Project:	WNUC00901
Sample ID:	509497005	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 09:14		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	9.69%		

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		1.16	0.373	1.10	mg/kg	9.90	1	LXA2	04/17/20	0718	1990493	1
Volatile Organics												
SW846 8260D Volatiles, Solid "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	0.275	0.826	ug/kg	0.746	1	JP1	04/21/20	2114	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.275	0.826	ug/kg	0.746	1					
1,1,2-Trichloroethane	U	ND	0.275	0.826	ug/kg	0.746	1					
1,1-Dichloroethane	U	ND	0.275	0.826	ug/kg	0.746	1					
1,1-Dichloroethylene	U	ND	0.275	0.826	ug/kg	0.746	1					
1,2,3-Trichlorobenzene	U	ND	0.275	0.826	ug/kg	0.746	1					
1,2,4-Trichlorobenzene	U	ND	0.275	0.826	ug/kg	0.746	1					
1,2-Dibromo-3-chloropropane	U	ND	0.413	0.826	ug/kg	0.746	1					
1,2-Dibromoethane	U	ND	0.275	0.826	ug/kg	0.746	1					
1,2-Dichlorobenzene	U	ND	0.275	0.826	ug/kg	0.746	1					
1,2-Dichloroethane	U	ND	0.275	0.826	ug/kg	0.746	1					
1,2-Dichloropropane	U	ND	0.275	0.826	ug/kg	0.746	1					
1,3-Dichlorobenzene	U	ND	0.275	0.826	ug/kg	0.746	1					
1,4-Dichlorobenzene	U	ND	0.275	0.826	ug/kg	0.746	1					
1,4-Dioxane	U	ND	13.8	41.3	ug/kg	0.746	1					
2-Butanone	U	ND	1.38	4.13	ug/kg	0.746	1					
2-Hexanone	U	ND	1.38	4.13	ug/kg	0.746	1					
4-Methyl-2-pentanone	U	ND	1.38	4.13	ug/kg	0.746	1					
Acetone		6.75	1.38	4.13	ug/kg	0.746	1					
Benzene	U	ND	0.275	0.826	ug/kg	0.746	1					
Bromochloromethane	U	ND	0.275	0.826	ug/kg	0.746	1					
Bromodichloromethane	U	ND	0.275	0.826	ug/kg	0.746	1					
Bromoform	U	ND	0.275	0.826	ug/kg	0.746	1					
Bromomethane	U	ND	0.275	0.826	ug/kg	0.746	1					
Carbon disulfide	U	ND	1.38	4.13	ug/kg	0.746	1					
Carbon tetrachloride	U	ND	0.275	0.826	ug/kg	0.746	1					
Chlorobenzene	U	ND	0.275	0.826	ug/kg	0.746	1					
Chloroethane	U	ND	0.275	0.826	ug/kg	0.746	1					
Chloroform	U	ND	0.275	0.826	ug/kg	0.746	1					
Chloromethane	U	ND	0.275	0.826	ug/kg	0.746	1					
Cyclohexane	U	ND	0.275	0.826	ug/kg	0.746	1					
Dibromochloromethane	U	ND	0.275	0.826	ug/kg	0.746	1					
Dichlorodifluoromethane	U	ND	0.275	0.826	ug/kg	0.746	1					

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## Certificate of Analysis

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC500-2  
Sample ID: 509497005

Project: WNUC00901  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.275	0.826	ug/kg	0.746	1					
Isopropylbenzene	U	ND	0.275	0.826	ug/kg	0.746	1					
Methyl acetate	U	ND	1.38	4.13	ug/kg	0.746	1					
Methylcyclohexane	U	ND	0.275	0.826	ug/kg	0.746	1					
Methylene chloride	U	ND	1.38	4.13	ug/kg	0.746	1					
Styrene		1.40	0.275	0.826	ug/kg	0.746	1					
Tetrachloroethylene	U	ND	0.275	0.826	ug/kg	0.746	1					
Toluene	U	ND	0.275	0.826	ug/kg	0.746	1					
Trichloroethylene	U	ND	0.275	0.826	ug/kg	0.746	1					
Trichlorofluoromethane	U	ND	0.275	0.826	ug/kg	0.746	1					
Trichlorotrifluoroethane	U	ND	1.38	4.13	ug/kg	0.746	1					
Vinyl chloride	U	ND	0.275	0.826	ug/kg	0.746	1					
cis-1,2-Dichloroethylene	U	ND	0.275	0.826	ug/kg	0.746	1					
cis-1,3-Dichloropropylene	U	ND	0.275	0.826	ug/kg	0.746	1					
m,p-Xylenes	U	ND	0.551	1.65	ug/kg	0.746	1					
o-Xylene	U	ND	0.275	0.826	ug/kg	0.746	1					
tert-Butyl methyl ether	U	ND	0.275	0.826	ug/kg	0.746	1					
trans-1,2-Dichloroethylene	U	ND	0.275	0.826	ug/kg	0.746	1					
trans-1,3-Dichloropropylene	U	ND	0.275	0.826	ug/kg	0.746	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/09/20	0914	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	44.5 ug/kg	50.0	108	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	44.0 ug/kg	50.0	107	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	40.2 ug/kg	50.0	97	(81%-120%)

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC500-2  
Sample ID: 509497005

Project: WNUC00901  
Client ID: WNUC009

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	WEC500-3	Project:	WNUC00901
Sample ID:	509497006	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 09:19		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	11%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		3.46	0.386	1.14	mg/kg	10.1	1	LXA2	04/17/20	0748	1990493	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	WEC700-1	Project:	WNUC00901
Sample ID:	509497007	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 09:22		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	11.2%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		1.18	0.385	1.13	mg/kg	10.1	1	LXA2	04/17/20	0819	1990493	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC700-2	Project: WNUC00901
Sample ID: 509497008	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:26	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.41%	

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		13.0	0.381	1.12	mg/kg	10.2	1	LXA2	04/17/20	0850	1990493	1
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.283	0.849	ug/kg	0.769	1	JP1	04/21/20	2144	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.283	0.849	ug/kg	0.769	1					
1,1,2-Trichloroethane	U	ND	0.283	0.849	ug/kg	0.769	1					
1,1-Dichloroethane	U	ND	0.283	0.849	ug/kg	0.769	1					
1,1-Dichloroethylene	U	ND	0.283	0.849	ug/kg	0.769	1					
1,2,3-Trichlorobenzene	U	ND	0.283	0.849	ug/kg	0.769	1					
1,2,4-Trichlorobenzene	U	ND	0.283	0.849	ug/kg	0.769	1					
1,2-Dibromo-3-chloropropane	U	ND	0.425	0.849	ug/kg	0.769	1					
1,2-Dibromoethane	U	ND	0.283	0.849	ug/kg	0.769	1					
1,2-Dichlorobenzene	U	ND	0.283	0.849	ug/kg	0.769	1					
1,2-Dichloroethane	U	ND	0.283	0.849	ug/kg	0.769	1					
1,2-Dichloropropane	U	ND	0.283	0.849	ug/kg	0.769	1					
1,3-Dichlorobenzene	U	ND	0.283	0.849	ug/kg	0.769	1					
1,4-Dichlorobenzene	U	ND	0.283	0.849	ug/kg	0.769	1					
1,4-Dioxane	U	ND	14.2	42.5	ug/kg	0.769	1					
2-Butanone	U	ND	1.42	4.25	ug/kg	0.769	1					
2-Hexanone	U	ND	1.42	4.25	ug/kg	0.769	1					
4-Methyl-2-pentanone	U	ND	1.42	4.25	ug/kg	0.769	1					
Acetone	U	ND	1.42	4.25	ug/kg	0.769	1					
Benzene	U	ND	0.283	0.849	ug/kg	0.769	1					
Bromochloromethane	U	ND	0.283	0.849	ug/kg	0.769	1					
Bromodichloromethane	U	ND	0.283	0.849	ug/kg	0.769	1					
Bromoform	U	ND	0.283	0.849	ug/kg	0.769	1					
Bromomethane	U	ND	0.283	0.849	ug/kg	0.769	1					
Carbon disulfide	U	ND	1.42	4.25	ug/kg	0.769	1					
Carbon tetrachloride	U	ND	0.283	0.849	ug/kg	0.769	1					
Chlorobenzene	U	ND	0.283	0.849	ug/kg	0.769	1					
Chloroethane	U	ND	0.283	0.849	ug/kg	0.769	1					
Chloroform	U	ND	0.283	0.849	ug/kg	0.769	1					
Chloromethane	U	ND	0.283	0.849	ug/kg	0.769	1					
Cyclohexane	U	ND	0.283	0.849	ug/kg	0.769	1					
Dibromochloromethane	U	ND	0.283	0.849	ug/kg	0.769	1					
Dichlorodifluoromethane	U	ND	0.283	0.849	ug/kg	0.769	1					

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC700-2	Project: WNUC00901
Sample ID: 509497008	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatil Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.283	0.849	ug/kg	0.769	1					
Isopropylbenzene	U	ND	0.283	0.849	ug/kg	0.769	1					
Methyl acetate	U	ND	1.42	4.25	ug/kg	0.769	1					
Methylcyclohexane	U	ND	0.283	0.849	ug/kg	0.769	1					
Methylene chloride	U	ND	1.42	4.25	ug/kg	0.769	1					
Styrene	U	ND	0.283	0.849	ug/kg	0.769	1					
Tetrachloroethylene	U	ND	0.283	0.849	ug/kg	0.769	1					
Toluene	U	ND	0.283	0.849	ug/kg	0.769	1					
Trichloroethylene	U	ND	0.283	0.849	ug/kg	0.769	1					
Trichlorofluoromethane	U	ND	0.283	0.849	ug/kg	0.769	1					
Trichlorotrifluoroethane	U	ND	1.42	4.25	ug/kg	0.769	1					
Vinyl chloride	U	ND	0.283	0.849	ug/kg	0.769	1					
cis-1,2-Dichloroethylene	U	ND	0.283	0.849	ug/kg	0.769	1					
cis-1,3-Dichloropropylene	U	ND	0.283	0.849	ug/kg	0.769	1					
m,p-Xylenes	U	ND	0.566	1.70	ug/kg	0.769	1					
o-Xylene	U	ND	0.283	0.849	ug/kg	0.769	1					
tert-Butyl methyl ether	U	ND	0.283	0.849	ug/kg	0.769	1					
trans-1,2-Dichloroethylene	U	ND	0.283	0.849	ug/kg	0.769	1					
trans-1,3-Dichloropropylene	U	ND	0.283	0.849	ug/kg	0.769	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/09/20	0926	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	46.0 ug/kg	50.0	108	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	43.6 ug/kg	50.0	103	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	41.5 ug/kg	50.0	98	(81%-120%)

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC700-2  
Sample ID: 509497008

Project: WNUC00901  
Client ID: WNUC009

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	WEC700-3	Project:	WNUC00901
Sample ID:	509497009	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 09:30		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	9.14%		

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	1.06	0.373	1.10	mg/kg	9.98	1	LXA2	04/17/20	0921	1990493	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	WEC800-1	Project:	WNUC00901
Sample ID:	509497010	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 09:33		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	8.91%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		1.49	0.376	1.11	mg/kg	10.1	1	LXA2	04/17/20	0952	1990493	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC800-2 Project: WNUC00901  
Sample ID: 509497011 Client ID: WNUC009  
Matrix: Soil  
Collect Date: 09-APR-20 09:36  
Receive Date: 15-APR-20  
Collector: Client  
Moisture: 8.74%

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		1.80	0.370	1.09	mg/kg	9.93	1	LXA2	04/17/20	1023	1990493	1
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium-234/235/238 "Dry Weight Corrected"												
Uranium-235	J	9.54	2.05	14.3	ug/kg	93.5	2	PRB	05/06/20	1130	1990468	2
Uranium-238		1110	13.5	41.0	ug/kg	93.5	2					
Uranium-234	U	ND	2.05	10.2	ug/kg	93.5	2	PRB	05/06/20	1216	1990468	3
Volatile Organics												
SW846 8260D Volatiles, Solid "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	0.279	0.836	ug/kg	0.763	1	JP1	04/21/20	2214	1991627	4
1,1,2,2-Tetrachloroethane	U	ND	0.279	0.836	ug/kg	0.763	1					
1,1,2-Trichloroethane	U	ND	0.279	0.836	ug/kg	0.763	1					
1,1-Dichloroethane	U	ND	0.279	0.836	ug/kg	0.763	1					
1,1-Dichloroethylene	U	ND	0.279	0.836	ug/kg	0.763	1					
1,2,3-Trichlorobenzene	U	ND	0.279	0.836	ug/kg	0.763	1					
1,2,4-Trichlorobenzene	U	ND	0.279	0.836	ug/kg	0.763	1					
1,2-Dibromo-3-chloropropane	U	ND	0.418	0.836	ug/kg	0.763	1					
1,2-Dibromoethane	U	ND	0.279	0.836	ug/kg	0.763	1					
1,2-Dichlorobenzene	U	ND	0.279	0.836	ug/kg	0.763	1					
1,2-Dichloroethane	U	ND	0.279	0.836	ug/kg	0.763	1					
1,2-Dichloropropane	U	ND	0.279	0.836	ug/kg	0.763	1					
1,3-Dichlorobenzene	U	ND	0.279	0.836	ug/kg	0.763	1					
1,4-Dichlorobenzene	U	ND	0.279	0.836	ug/kg	0.763	1					
1,4-Dioxane	U	ND	13.9	41.8	ug/kg	0.763	1					
2-Butanone	U	ND	1.39	4.18	ug/kg	0.763	1					
2-Hexanone	U	ND	1.39	4.18	ug/kg	0.763	1					
4-Methyl-2-pentanone	U	ND	1.39	4.18	ug/kg	0.763	1					
Acetone	J	2.57	1.39	4.18	ug/kg	0.763	1					
Benzene	U	ND	0.279	0.836	ug/kg	0.763	1					
Bromochloromethane	U	ND	0.279	0.836	ug/kg	0.763	1					
Bromodichloromethane	U	ND	0.279	0.836	ug/kg	0.763	1					
Bromoform	U	ND	0.279	0.836	ug/kg	0.763	1					
Bromomethane	U	ND	0.279	0.836	ug/kg	0.763	1					
Carbon disulfide	U	ND	1.39	4.18	ug/kg	0.763	1					
Carbon tetrachloride	U	ND	0.279	0.836	ug/kg	0.763	1					
Chlorobenzene	U	ND	0.279	0.836	ug/kg	0.763	1					

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC800-2  
Sample ID: 509497011

Project: WNUC00901  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Chloroethane	U	ND	0.279	0.836	ug/kg	0.763	1					
Chloroform	U	ND	0.279	0.836	ug/kg	0.763	1					
Chloromethane	U	ND	0.279	0.836	ug/kg	0.763	1					
Cyclohexane	U	ND	0.279	0.836	ug/kg	0.763	1					
Dibromochloromethane	U	ND	0.279	0.836	ug/kg	0.763	1					
Dichlorodifluoromethane	U	ND	0.279	0.836	ug/kg	0.763	1					
Ethylbenzene	U	ND	0.279	0.836	ug/kg	0.763	1					
Isopropylbenzene	U	ND	0.279	0.836	ug/kg	0.763	1					
Methyl acetate	U	ND	1.39	4.18	ug/kg	0.763	1					
Methylcyclohexane	U	ND	0.279	0.836	ug/kg	0.763	1					
Methylene chloride	U	ND	1.39	4.18	ug/kg	0.763	1					
Styrene	U	ND	0.279	0.836	ug/kg	0.763	1					
Tetrachloroethylene	U	ND	0.279	0.836	ug/kg	0.763	1					
Toluene	J	0.410	0.279	0.836	ug/kg	0.763	1					
Trichloroethylene	U	ND	0.279	0.836	ug/kg	0.763	1					
Trichlorofluoromethane	U	ND	0.279	0.836	ug/kg	0.763	1					
Trichlorotrifluoroethane	U	ND	1.39	4.18	ug/kg	0.763	1					
Vinyl chloride	U	ND	0.279	0.836	ug/kg	0.763	1					
cis-1,2-Dichloroethylene	U	ND	0.279	0.836	ug/kg	0.763	1					
cis-1,3-Dichloropropylene	U	ND	0.279	0.836	ug/kg	0.763	1					
m,p-Xylenes	U	ND	0.558	1.67	ug/kg	0.763	1					
o-Xylene	U	ND	0.279	0.836	ug/kg	0.763	1					
tert-Butyl methyl ether	U	ND	0.279	0.836	ug/kg	0.763	1					
trans-1,2-Dichloroethylene	U	ND	0.279	0.836	ug/kg	0.763	1					
trans-1,3-Dichloropropylene	U	ND	0.279	0.836	ug/kg	0.763	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HH1	04/20/20	1700	1990467
SW846 5035	5035 Prep	JP1	04/09/20	0936	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

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## Certificate of Analysis

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Address : PO Drawer R

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC800-2  
Sample ID: 509497011

Project: WNUC00901  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9056A		
2	SW846 3050B/6020B		
3	SW846 3050B/6020B		
4	SW846 8260D		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	44.8 ug/kg	50.0	107	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	49.2 ug/kg	50.0	118	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	40.9 ug/kg	50.0	98	(81%-120%)

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

---

Client Sample ID:	WEC800-3	Project:	WNUC00901
Sample ID:	509497012	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 09:40		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	8.28%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		9.08	0.371	1.09	mg/kg	10.0	1	LXA2	04/17/20	1053	1990493	1

The following Prep Methods were performed:

---

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

---

Client Sample ID:	WEC400-1	Project:	WNUC00901
Sample ID:	509497013	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 09:51		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	10.3%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		2.72	0.381	1.12	mg/kg	10.1	1	LXA2	04/17/20	1124	1990493	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC400-2	Project: WNUC00901
Sample ID: 509497014	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:55	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.14%	

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		3.78	0.373	1.10	mg/kg	9.98	1	LXA2	04/17/20	1155	1990493	1
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.275	0.825	ug/kg	0.750	1	JP1	04/21/20	2245	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.275	0.825	ug/kg	0.750	1					
1,1,2-Trichloroethane	U	ND	0.275	0.825	ug/kg	0.750	1					
1,1-Dichloroethane	U	ND	0.275	0.825	ug/kg	0.750	1					
1,1-Dichloroethylene	U	ND	0.275	0.825	ug/kg	0.750	1					
1,2,3-Trichlorobenzene	U	ND	0.275	0.825	ug/kg	0.750	1					
1,2,4-Trichlorobenzene	U	ND	0.275	0.825	ug/kg	0.750	1					
1,2-Dibromo-3-chloropropane	U	ND	0.412	0.825	ug/kg	0.750	1					
1,2-Dibromoethane	U	ND	0.275	0.825	ug/kg	0.750	1					
1,2-Dichlorobenzene	U	ND	0.275	0.825	ug/kg	0.750	1					
1,2-Dichloroethane	U	ND	0.275	0.825	ug/kg	0.750	1					
1,2-Dichloropropane	U	ND	0.275	0.825	ug/kg	0.750	1					
1,3-Dichlorobenzene	U	ND	0.275	0.825	ug/kg	0.750	1					
1,4-Dichlorobenzene	U	ND	0.275	0.825	ug/kg	0.750	1					
1,4-Dioxane	U	ND	13.8	41.2	ug/kg	0.750	1					
2-Butanone	U	ND	1.38	4.12	ug/kg	0.750	1					
2-Hexanone	U	ND	1.38	4.12	ug/kg	0.750	1					
4-Methyl-2-pentanone	U	ND	1.38	4.12	ug/kg	0.750	1					
Acetone	J	1.48	1.38	4.12	ug/kg	0.750	1					
Benzene	U	ND	0.275	0.825	ug/kg	0.750	1					
Bromochloromethane	U	ND	0.275	0.825	ug/kg	0.750	1					
Bromodichloromethane	U	ND	0.275	0.825	ug/kg	0.750	1					
Bromoform	U	ND	0.275	0.825	ug/kg	0.750	1					
Bromomethane	U	ND	0.275	0.825	ug/kg	0.750	1					
Carbon disulfide	U	ND	1.38	4.12	ug/kg	0.750	1					
Carbon tetrachloride	U	ND	0.275	0.825	ug/kg	0.750	1					
Chlorobenzene	U	ND	0.275	0.825	ug/kg	0.750	1					
Chloroethane	U	ND	0.275	0.825	ug/kg	0.750	1					
Chloroform	U	ND	0.275	0.825	ug/kg	0.750	1					
Chloromethane	U	ND	0.275	0.825	ug/kg	0.750	1					
Cyclohexane	U	ND	0.275	0.825	ug/kg	0.750	1					
Dibromochloromethane	U	ND	0.275	0.825	ug/kg	0.750	1					
Dichlorodifluoromethane	U	ND	0.275	0.825	ug/kg	0.750	1					



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## Certificate of Analysis

Report Date: May 6, 2020

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Address : PO Drawer R

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC400-2  
Sample ID: 509497014

Project: WNUC00901  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatil Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.275	0.825	ug/kg	0.750	1					
Isopropylbenzene	U	ND	0.275	0.825	ug/kg	0.750	1					
Methyl acetate	U	ND	1.38	4.12	ug/kg	0.750	1					
Methylcyclohexane	U	ND	0.275	0.825	ug/kg	0.750	1					
Methylene chloride	U	ND	1.38	4.12	ug/kg	0.750	1					
Styrene	U	ND	0.275	0.825	ug/kg	0.750	1					
Tetrachloroethylene	U	ND	0.275	0.825	ug/kg	0.750	1					
Toluene	U	ND	0.275	0.825	ug/kg	0.750	1					
Trichloroethylene	U	ND	0.275	0.825	ug/kg	0.750	1					
Trichlorofluoromethane	U	ND	0.275	0.825	ug/kg	0.750	1					
Trichlorotrifluoroethane	U	ND	1.38	4.12	ug/kg	0.750	1					
Vinyl chloride	U	ND	0.275	0.825	ug/kg	0.750	1					
cis-1,2-Dichloroethylene	U	ND	0.275	0.825	ug/kg	0.750	1					
cis-1,3-Dichloropropylene	U	ND	0.275	0.825	ug/kg	0.750	1					
m,p-Xylenes	U	ND	0.550	1.65	ug/kg	0.750	1					
o-Xylene	U	ND	0.275	0.825	ug/kg	0.750	1					
tert-Butyl methyl ether	U	ND	0.275	0.825	ug/kg	0.750	1					
trans-1,2-Dichloroethylene	U	ND	0.275	0.825	ug/kg	0.750	1					
trans-1,3-Dichloropropylene	U	ND	0.275	0.825	ug/kg	0.750	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/09/20	0955	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1708	1990488

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	45.4 ug/kg	50.0	110	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	42.0 ug/kg	50.0	102	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	39.2 ug/kg	50.0	95	(81%-120%)

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC400-2  
Sample ID: 509497014

Project: WNUC00901  
Client ID: WNUC009

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	WEC400-3	Project:	WNUC00901
Sample ID:	509497015	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 09:59		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	11%		

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		2.89	0.382	1.12	mg/kg	10.0	1	LXA2	04/17/20	1159	1990498	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	WEC1001-1	Project:	WNUC00901
Sample ID:	509497016	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 10:03		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	7.99%		

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		1.73	0.368	1.08	mg/kg	9.95	1	LXA2	04/17/20	1331	1990498	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1001-2	Project: WNUC00901
Sample ID: 509497017	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 10:05	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.02%	

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		3.92	0.371	1.09	mg/kg	9.93	1	LXA2	04/17/20	1504	1990498	1
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.270	0.809	ug/kg	0.736	1	JP1	04/21/20	2315	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.270	0.809	ug/kg	0.736	1					
1,1,2-Trichloroethane	U	ND	0.270	0.809	ug/kg	0.736	1					
1,1-Dichloroethane	U	ND	0.270	0.809	ug/kg	0.736	1					
1,1-Dichloroethylene	U	ND	0.270	0.809	ug/kg	0.736	1					
1,2,3-Trichlorobenzene	U	ND	0.270	0.809	ug/kg	0.736	1					
1,2,4-Trichlorobenzene	U	ND	0.270	0.809	ug/kg	0.736	1					
1,2-Dibromo-3-chloropropane	U	ND	0.405	0.809	ug/kg	0.736	1					
1,2-Dibromoethane	U	ND	0.270	0.809	ug/kg	0.736	1					
1,2-Dichlorobenzene	U	ND	0.270	0.809	ug/kg	0.736	1					
1,2-Dichloroethane	U	ND	0.270	0.809	ug/kg	0.736	1					
1,2-Dichloropropane	U	ND	0.270	0.809	ug/kg	0.736	1					
1,3-Dichlorobenzene	U	ND	0.270	0.809	ug/kg	0.736	1					
1,4-Dichlorobenzene	U	ND	0.270	0.809	ug/kg	0.736	1					
1,4-Dioxane	U	ND	13.5	40.5	ug/kg	0.736	1					
2-Butanone	U	ND	1.35	4.05	ug/kg	0.736	1					
2-Hexanone	U	ND	1.35	4.05	ug/kg	0.736	1					
4-Methyl-2-pentanone	U	ND	1.35	4.05	ug/kg	0.736	1					
Acetone	U	ND	1.35	4.05	ug/kg	0.736	1					
Benzene	U	ND	0.270	0.809	ug/kg	0.736	1					
Bromochloromethane	U	ND	0.270	0.809	ug/kg	0.736	1					
Bromodichloromethane	U	ND	0.270	0.809	ug/kg	0.736	1					
Bromoform	U	ND	0.270	0.809	ug/kg	0.736	1					
Bromomethane	U	ND	0.270	0.809	ug/kg	0.736	1					
Carbon disulfide	U	ND	1.35	4.05	ug/kg	0.736	1					
Carbon tetrachloride	U	ND	0.270	0.809	ug/kg	0.736	1					
Chlorobenzene	U	ND	0.270	0.809	ug/kg	0.736	1					
Chloroethane	U	ND	0.270	0.809	ug/kg	0.736	1					
Chloroform	U	ND	0.270	0.809	ug/kg	0.736	1					
Chloromethane	U	ND	0.270	0.809	ug/kg	0.736	1					
Cyclohexane	U	ND	0.270	0.809	ug/kg	0.736	1					
Dibromochloromethane	U	ND	0.270	0.809	ug/kg	0.736	1					
Dichlorodifluoromethane	U	ND	0.270	0.809	ug/kg	0.736	1					

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1001-2  
Sample ID: 509497017

Project: WNUC00901  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.270	0.809	ug/kg	0.736	1					
Isopropylbenzene	U	ND	0.270	0.809	ug/kg	0.736	1					
Methyl acetate	U	ND	1.35	4.05	ug/kg	0.736	1					
Methylcyclohexane	U	ND	0.270	0.809	ug/kg	0.736	1					
Methylene chloride	U	ND	1.35	4.05	ug/kg	0.736	1					
Styrene	U	ND	0.270	0.809	ug/kg	0.736	1					
Tetrachloroethylene	U	ND	0.270	0.809	ug/kg	0.736	1					
Toluene	U	ND	0.270	0.809	ug/kg	0.736	1					
Trichloroethylene	U	ND	0.270	0.809	ug/kg	0.736	1					
Trichlorofluoromethane	U	ND	0.270	0.809	ug/kg	0.736	1					
Trichlorotrifluoroethane	U	ND	1.35	4.05	ug/kg	0.736	1					
Vinyl chloride	U	ND	0.270	0.809	ug/kg	0.736	1					
cis-1,2-Dichloroethylene	U	ND	0.270	0.809	ug/kg	0.736	1					
cis-1,3-Dichloropropylene	U	ND	0.270	0.809	ug/kg	0.736	1					
m,p-Xylenes	U	ND	0.540	1.62	ug/kg	0.736	1					
o-Xylene	U	ND	0.270	0.809	ug/kg	0.736	1					
tert-Butyl methyl ether	U	ND	0.270	0.809	ug/kg	0.736	1					
trans-1,2-Dichloroethylene	U	ND	0.270	0.809	ug/kg	0.736	1					
trans-1,3-Dichloropropylene	U	ND	0.270	0.809	ug/kg	0.736	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/09/20	1005	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	44.5 ug/kg	50.0	110	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	44.0 ug/kg	50.0	109	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	39.3 ug/kg	50.0	97	(81%-120%)

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1001-2  
Sample ID: 509497017

Project: WNUC00901  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	WEC1001-3	Project:	WNUC00901
Sample ID:	509497018	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 10:09		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	8.4%		

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		1.56	0.377	1.11	mg/kg	10.2	1	LXA2	04/17/20	1535	1990498	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	C-45-1	Project:	WNUC00901
Sample ID:	509497019	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 10:54		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	11.5%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	1.11	0.382	1.12	mg/kg	9.95	1	LXA2	04/17/20	1712	1990498	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
 Project: ENV-CONSENTA-4500778461

Client Sample ID: C-45-2	Project: WNUC00901
Sample ID: 509497020	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 11:00	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 13.2%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	U	ND	0.380	1.12	mg/kg	9.71	1	LXA2	04/17/20	0339	1990498	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

**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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-45-3	Project: WNUC00901
Sample ID: 509497021	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 11:04	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.58%	

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	0.807	0.378	1.11	mg/kg	10.1	1	LXA2	04/17/20	0410	1990498	1
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B Uranium-234/235/238 "Dry Weight Corrected"</b>												
Uranium-235	J	8.70	2.15	15.0	ug/kg	97.1	2	PRB	05/06/20	1132	1990468	2
Uranium-238		1000	14.2	42.9	ug/kg	97.1	2					
Uranium-234	U	ND	2.15	10.7	ug/kg	97.1	2	PRB	05/06/20	1217	1990468	3
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.305	0.915	ug/kg	0.828	1	JP1	04/21/20	2345	1991627	4
1,1,2,2-Tetrachloroethane	U	ND	0.305	0.915	ug/kg	0.828	1					
1,1,2-Trichloroethane	U	ND	0.305	0.915	ug/kg	0.828	1					
1,1-Dichloroethane	U	ND	0.305	0.915	ug/kg	0.828	1					
1,1-Dichloroethylene	U	ND	0.305	0.915	ug/kg	0.828	1					
1,2,3-Trichlorobenzene	U	ND	0.305	0.915	ug/kg	0.828	1					
1,2,4-Trichlorobenzene	U	ND	0.305	0.915	ug/kg	0.828	1					
1,2-Dibromo-3-chloropropane	U	ND	0.458	0.915	ug/kg	0.828	1					
1,2-Dibromoethane	U	ND	0.305	0.915	ug/kg	0.828	1					
1,2-Dichlorobenzene	U	ND	0.305	0.915	ug/kg	0.828	1					
1,2-Dichloroethane	U	ND	0.305	0.915	ug/kg	0.828	1					
1,2-Dichloropropane	U	ND	0.305	0.915	ug/kg	0.828	1					
1,3-Dichlorobenzene	U	ND	0.305	0.915	ug/kg	0.828	1					
1,4-Dichlorobenzene	U	ND	0.305	0.915	ug/kg	0.828	1					
1,4-Dioxane	U	ND	15.3	45.8	ug/kg	0.828	1					
2-Butanone	U	ND	1.53	4.58	ug/kg	0.828	1					
2-Hexanone	U	ND	1.53	4.58	ug/kg	0.828	1					
4-Methyl-2-pentanone	U	ND	1.53	4.58	ug/kg	0.828	1					
Acetone	U	ND	1.53	4.58	ug/kg	0.828	1					
Benzene	U	ND	0.305	0.915	ug/kg	0.828	1					
Bromochloromethane	U	ND	0.305	0.915	ug/kg	0.828	1					
Bromodichloromethane	U	ND	0.305	0.915	ug/kg	0.828	1					
Bromoform	U	ND	0.305	0.915	ug/kg	0.828	1					
Bromomethane	U	ND	0.305	0.915	ug/kg	0.828	1					
Carbon disulfide	U	ND	1.53	4.58	ug/kg	0.828	1					
Carbon tetrachloride	U	ND	0.305	0.915	ug/kg	0.828	1					
Chlorobenzene	U	ND	0.305	0.915	ug/kg	0.828	1					

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-45-3	Project: WNUC00901
Sample ID: 509497021	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Chloroethane	U	ND	0.305	0.915	ug/kg	0.828	1					
Chloroform	U	ND	0.305	0.915	ug/kg	0.828	1					
Chloromethane	U	ND	0.305	0.915	ug/kg	0.828	1					
Cyclohexane	U	ND	0.305	0.915	ug/kg	0.828	1					
Dibromochloromethane	U	ND	0.305	0.915	ug/kg	0.828	1					
Dichlorodifluoromethane	U	ND	0.305	0.915	ug/kg	0.828	1					
Ethylbenzene	U	ND	0.305	0.915	ug/kg	0.828	1					
Isopropylbenzene	U	ND	0.305	0.915	ug/kg	0.828	1					
Methyl acetate	U	ND	1.53	4.58	ug/kg	0.828	1					
Methylcyclohexane	U	ND	0.305	0.915	ug/kg	0.828	1					
Methylene chloride	U	ND	1.53	4.58	ug/kg	0.828	1					
Styrene	U	ND	0.305	0.915	ug/kg	0.828	1					
Tetrachloroethylene	U	ND	0.305	0.915	ug/kg	0.828	1					
Toluene	U	ND	0.305	0.915	ug/kg	0.828	1					
Trichloroethylene	U	ND	0.305	0.915	ug/kg	0.828	1					
Trichlorofluoromethane	U	ND	0.305	0.915	ug/kg	0.828	1					
Trichlorotrifluoroethane	U	ND	1.53	4.58	ug/kg	0.828	1					
Vinyl chloride	U	ND	0.305	0.915	ug/kg	0.828	1					
cis-1,2-Dichloroethylene	U	ND	0.305	0.915	ug/kg	0.828	1					
cis-1,3-Dichloropropylene	U	ND	0.305	0.915	ug/kg	0.828	1					
m,p-Xylenes	U	ND	0.611	1.83	ug/kg	0.828	1					
o-Xylene	U	ND	0.305	0.915	ug/kg	0.828	1					
tert-Butyl methyl ether	U	ND	0.305	0.915	ug/kg	0.828	1					
trans-1,2-Dichloroethylene	U	ND	0.305	0.915	ug/kg	0.828	1					
trans-1,3-Dichloropropylene	U	ND	0.305	0.915	ug/kg	0.828	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HH1	04/20/20	1700	1990467
SW846 5035	5035 Prep	JP1	04/09/20	1104	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-45-3

Project: WNUC00901

Sample ID: 509497021

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 3050B/6020B	
3	SW846 3050B/6020B	
4	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	50.2 ug/kg	50.0	110	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	53.3 ug/kg	50.0	116	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	46.3 ug/kg	50.0	101	(81%-120%)

### 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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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

---

Client Sample ID:	C-45-4	Project:	WNUC00901
Sample ID:	509497022	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 11:10		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	12.1%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.841	0.387	1.14	mg/kg	10.0	1	LXA2	04/17/20	0441	1990498	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

---

Client Sample ID:	C-45-5	Project:	WNUC00901
Sample ID:	509497023	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 11:13		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	12.1%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.552	0.381	1.12	mg/kg	9.85	1	LXA2	04/17/20	0512	1990498	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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Address : PO Drawer R

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

---

Client Sample ID: C-42-1 Project: WNUC00901  
Sample ID: 509497024 Client ID: WNUC009  
Matrix: Soil  
Collect Date: 09-APR-20 11:27  
Receive Date: 15-APR-20  
Collector: Client  
Moisture: 12.3%

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.782	0.388	1.14	mg/kg	10.0	1	LXA2	04/17/20	0543	1990498	1

The following Prep Methods were performed:

---

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	SW846 9056A	

### 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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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

---

Client Sample ID:	C-42-2	Project:	WNUC00901
Sample ID:	509497025	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 11:31		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	10.4%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	U	ND	0.383	1.13	mg/kg	10.1	1	LXA2	04/17/20	0614	1990498	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-42-3	Project: WNUC00901
Sample ID: 509497026	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 11:35	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.7%	

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	0.550	0.377	1.11	mg/kg	10.0	1	LXA2	04/17/20	0645	1990498	1
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.279	0.839	ug/kg	0.758	1	JP1	04/22/20	0016	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.279	0.839	ug/kg	0.758	1					
1,1,2-Trichloroethane	U	ND	0.279	0.839	ug/kg	0.758	1					
1,1-Dichloroethane	U	ND	0.279	0.839	ug/kg	0.758	1					
1,1-Dichloroethylene	U	ND	0.279	0.839	ug/kg	0.758	1					
1,2,3-Trichlorobenzene	U	ND	0.279	0.839	ug/kg	0.758	1					
1,2,4-Trichlorobenzene	U	ND	0.279	0.839	ug/kg	0.758	1					
1,2-Dibromo-3-chloropropane	U	ND	0.419	0.839	ug/kg	0.758	1					
1,2-Dibromoethane	U	ND	0.279	0.839	ug/kg	0.758	1					
1,2-Dichlorobenzene	U	ND	0.279	0.839	ug/kg	0.758	1					
1,2-Dichloroethane	U	ND	0.279	0.839	ug/kg	0.758	1					
1,2-Dichloropropane	U	ND	0.279	0.839	ug/kg	0.758	1					
1,3-Dichlorobenzene	U	ND	0.279	0.839	ug/kg	0.758	1					
1,4-Dichlorobenzene	U	ND	0.279	0.839	ug/kg	0.758	1					
1,4-Dioxane	U	ND	14.0	41.9	ug/kg	0.758	1					
2-Butanone	U	ND	1.40	4.19	ug/kg	0.758	1					
2-Hexanone	U	ND	1.40	4.19	ug/kg	0.758	1					
4-Methyl-2-pentanone	U	ND	1.40	4.19	ug/kg	0.758	1					
Acetone	J	4.04	1.40	4.19	ug/kg	0.758	1					
Benzene	U	ND	0.279	0.839	ug/kg	0.758	1					
Bromochloromethane	U	ND	0.279	0.839	ug/kg	0.758	1					
Bromodichloromethane	U	ND	0.279	0.839	ug/kg	0.758	1					
Bromoform	U	ND	0.279	0.839	ug/kg	0.758	1					
Bromomethane	U	ND	0.279	0.839	ug/kg	0.758	1					
Carbon disulfide	U	ND	1.40	4.19	ug/kg	0.758	1					
Carbon tetrachloride	U	ND	0.279	0.839	ug/kg	0.758	1					
Chlorobenzene	U	ND	0.279	0.839	ug/kg	0.758	1					
Chloroethane	U	ND	0.279	0.839	ug/kg	0.758	1					
Chloroform	U	ND	0.279	0.839	ug/kg	0.758	1					
Chloromethane	U	ND	0.279	0.839	ug/kg	0.758	1					
Cyclohexane	U	ND	0.279	0.839	ug/kg	0.758	1					
Dibromochloromethane	U	ND	0.279	0.839	ug/kg	0.758	1					
Dichlorodifluoromethane	U	ND	0.279	0.839	ug/kg	0.758	1					

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-42-3	Project: WNUC00901
Sample ID: 509497026	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.279	0.839	ug/kg	0.758	1					
Isopropylbenzene	U	ND	0.279	0.839	ug/kg	0.758	1					
Methyl acetate	U	ND	1.40	4.19	ug/kg	0.758	1					
Methylcyclohexane	U	ND	0.279	0.839	ug/kg	0.758	1					
Methylene chloride	U	ND	1.40	4.19	ug/kg	0.758	1					
Styrene	U	ND	0.279	0.839	ug/kg	0.758	1					
Tetrachloroethylene	U	ND	0.279	0.839	ug/kg	0.758	1					
Toluene	U	ND	0.279	0.839	ug/kg	0.758	1					
Trichloroethylene	U	ND	0.279	0.839	ug/kg	0.758	1					
Trichlorofluoromethane	U	ND	0.279	0.839	ug/kg	0.758	1					
Trichlorotrifluoroethane	U	ND	1.40	4.19	ug/kg	0.758	1					
Vinyl chloride	U	ND	0.279	0.839	ug/kg	0.758	1					
cis-1,2-Dichloroethylene	U	ND	0.279	0.839	ug/kg	0.758	1					
cis-1,3-Dichloropropylene	U	ND	0.279	0.839	ug/kg	0.758	1					
m,p-Xylenes	U	ND	0.560	1.68	ug/kg	0.758	1					
o-Xylene	U	ND	0.279	0.839	ug/kg	0.758	1					
tert-Butyl methyl ether	U	ND	0.279	0.839	ug/kg	0.758	1					
trans-1,2-Dichloroethylene	U	ND	0.279	0.839	ug/kg	0.758	1					
trans-1,3-Dichloropropylene	U	ND	0.279	0.839	ug/kg	0.758	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/09/20	1135	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	46.7 ug/kg	50.0	111	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	44.0 ug/kg	50.0	105	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	40.8 ug/kg	50.0	97	(81%-120%)

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Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

---

Client Sample ID:	C-42-3	Project:	WNUC00901
Sample ID:	509497026	Client ID:	WNUC009

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### 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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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

---

Client Sample ID:	C-42-4	Project:	WNUC00901
Sample ID:	509497027	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 11:38		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	11.4%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.565	0.374	1.10	mg/kg	9.76	1	LXA2	04/17/20	0716	1990498	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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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Address : PO Drawer R

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

---

Client Sample ID:	C-42-5	Project:	WNUC00901
Sample ID:	509497028	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 11:43		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	15.5%		

---

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.589	0.393	1.15	mg/kg	9.76	1	LXA2	04/17/20	0746	1990498	1

---

The following Prep Methods were performed:

---

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1733	1990495

---

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	SW846 9056A	

---

### 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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Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

---

Client Sample ID:	C-53-1	Project:	WNUC00901
Sample ID:	509497029	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 12:04		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	9.3%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.572	0.366	1.08	mg/kg	9.76	1	JLD1	04/16/20	2132	1990501	1

The following Prep Methods were performed:

---

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

---

Method	Description	Analyst Comments
1	SW846 9056A	

### 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-4500778461

Client Sample ID:	C-53-2	Project:	WNUC00901
Sample ID:	509497030	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 12:07		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	14.6%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.519	0.399	1.17	mg/kg	10.0	1	JLD1	04/16/20	2301	1990501	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

**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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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-53-3	Project: WNUC00901
Sample ID: 509497031	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:12	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.53%	

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	0.853	0.375	1.10	mg/kg	9.98	1	JLD1	04/17/20	0031	1990501	1
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B Uranium-234/235/238 "Dry Weight Corrected"</b>												
Uranium-235	J	14.8	2.17	15.2	ug/kg	98.2	2	PRB	05/06/20	1133	1990468	2
Uranium-238		1260	14.3	43.4	ug/kg	98.2	2					
Uranium-234	U	ND	2.17	10.9	ug/kg	98.2	2	PRB	05/06/20	1219	1990468	3
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.294	0.884	ug/kg	0.800	1	JP1	04/22/20	0046	1991627	4
1,1,2,2-Tetrachloroethane	U	ND	0.294	0.884	ug/kg	0.800	1					
1,1,2-Trichloroethane	U	ND	0.294	0.884	ug/kg	0.800	1					
1,1-Dichloroethane	U	ND	0.294	0.884	ug/kg	0.800	1					
1,1-Dichloroethylene	U	ND	0.294	0.884	ug/kg	0.800	1					
1,2,3-Trichlorobenzene	U	ND	0.294	0.884	ug/kg	0.800	1					
1,2,4-Trichlorobenzene	U	ND	0.294	0.884	ug/kg	0.800	1					
1,2-Dibromo-3-chloropropane	U	ND	0.442	0.884	ug/kg	0.800	1					
1,2-Dibromoethane	U	ND	0.294	0.884	ug/kg	0.800	1					
1,2-Dichlorobenzene	U	ND	0.294	0.884	ug/kg	0.800	1					
1,2-Dichloroethane	U	ND	0.294	0.884	ug/kg	0.800	1					
1,2-Dichloropropane	U	ND	0.294	0.884	ug/kg	0.800	1					
1,3-Dichlorobenzene	U	ND	0.294	0.884	ug/kg	0.800	1					
1,4-Dichlorobenzene	U	ND	0.294	0.884	ug/kg	0.800	1					
1,4-Dioxane	U	ND	14.7	44.2	ug/kg	0.800	1					
2-Butanone	U	ND	1.47	4.42	ug/kg	0.800	1					
2-Hexanone	U	ND	1.47	4.42	ug/kg	0.800	1					
4-Methyl-2-pentanone	U	ND	1.47	4.42	ug/kg	0.800	1					
Acetone		12.0	1.47	4.42	ug/kg	0.800	1					
Benzene	U	ND	0.294	0.884	ug/kg	0.800	1					
Bromochloromethane	U	ND	0.294	0.884	ug/kg	0.800	1					
Bromodichloromethane	U	ND	0.294	0.884	ug/kg	0.800	1					
Bromoform	U	ND	0.294	0.884	ug/kg	0.800	1					
Bromomethane	U	ND	0.294	0.884	ug/kg	0.800	1					
Carbon disulfide	U	ND	1.47	4.42	ug/kg	0.800	1					
Carbon tetrachloride	U	ND	0.294	0.884	ug/kg	0.800	1					
Chlorobenzene	U	ND	0.294	0.884	ug/kg	0.800	1					

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID: C-53-3	Project: WNUC00901
Sample ID: 509497031	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Chloroethane	U	ND	0.294	0.884	ug/kg	0.800	1					
Chloroform	U	ND	0.294	0.884	ug/kg	0.800	1					
Chloromethane	U	ND	0.294	0.884	ug/kg	0.800	1					
Cyclohexane	U	ND	0.294	0.884	ug/kg	0.800	1					
Dibromochloromethane	U	ND	0.294	0.884	ug/kg	0.800	1					
Dichlorodifluoromethane	U	ND	0.294	0.884	ug/kg	0.800	1					
Ethylbenzene	U	ND	0.294	0.884	ug/kg	0.800	1					
Isopropylbenzene	U	ND	0.294	0.884	ug/kg	0.800	1					
Methyl acetate	U	ND	1.47	4.42	ug/kg	0.800	1					
Methylcyclohexane	U	ND	0.294	0.884	ug/kg	0.800	1					
Methylene chloride	U	ND	1.47	4.42	ug/kg	0.800	1					
Styrene	U	ND	0.294	0.884	ug/kg	0.800	1					
Tetrachloroethylene	U	ND	0.294	0.884	ug/kg	0.800	1					
Toluene	U	ND	0.294	0.884	ug/kg	0.800	1					
Trichloroethylene	U	ND	0.294	0.884	ug/kg	0.800	1					
Trichlorofluoromethane	U	ND	0.294	0.884	ug/kg	0.800	1					
Trichlorotrifluoroethane	U	ND	1.47	4.42	ug/kg	0.800	1					
Vinyl chloride	U	ND	0.294	0.884	ug/kg	0.800	1					
cis-1,2-Dichloroethylene	U	ND	0.294	0.884	ug/kg	0.800	1					
cis-1,3-Dichloropropylene	U	ND	0.294	0.884	ug/kg	0.800	1					
m,p-Xylenes	U	ND	0.590	1.77	ug/kg	0.800	1					
o-Xylene	U	ND	0.294	0.884	ug/kg	0.800	1					
tert-Butyl methyl ether	U	ND	0.294	0.884	ug/kg	0.800	1					
trans-1,2-Dichloroethylene	U	ND	0.294	0.884	ug/kg	0.800	1					
trans-1,3-Dichloropropylene	U	ND	0.294	0.884	ug/kg	0.800	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HH1	04/20/20	1700	1990467
SW846 5035	5035 Prep	JP1	04/09/20	1212	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-53-3

Project: WNUC00901

Sample ID: 509497031

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9056A		
2	SW846 3050B/6020B		
3	SW846 3050B/6020B		
4	SW846 8260D		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	48.5 ug/kg	50.0	110	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	46.7 ug/kg	50.0	106	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	43.5 ug/kg	50.0	98	(81%-120%)

### 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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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	C-53-4	Project:	WNUC00901
Sample ID:	509497032	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 12:17		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	10.2%		

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	1.08	0.378	1.11	mg/kg	9.98	1	JLD1	04/17/20	1107	1990501	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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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Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
 Project: ENV-CONSENTA-4500778461

Client Sample ID: C-53-5	Project: WNUC00901
Sample ID: 509497033	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:19	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.79%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.903	0.378	1.11	mg/kg	10.0	1	JLD1	04/17/20	0230	1990501	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

**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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Address : PO Drawer R

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	C-63-1	Project:	WNUC00901
Sample ID:	509497034	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 12:31		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	10.6%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.513	0.382	1.12	mg/kg	10.1	1	JLD1	04/17/20	0300	1990501	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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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Report Date: May 6, 2020

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Address : PO Drawer R

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	C-63-2	Project:	WNUC00901
Sample ID:	509497035	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 12:35		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	10.7%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.736	0.383	1.13	mg/kg	10.1	1	JLD1	04/17/20	0330	1990501	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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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Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-63-3	Project: WNUC00901
Sample ID: 509497036	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:40	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.6%	

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		1.14	0.370	1.09	mg/kg	9.83	1	JLD1	04/17/20	1137	1990501	1
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.278	0.836	ug/kg	0.755	1	JP1	04/22/20	0116	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.278	0.836	ug/kg	0.755	1					
1,1,2-Trichloroethane	U	ND	0.278	0.836	ug/kg	0.755	1					
1,1-Dichloroethane	U	ND	0.278	0.836	ug/kg	0.755	1					
1,1-Dichloroethylene	U	ND	0.278	0.836	ug/kg	0.755	1					
1,2,3-Trichlorobenzene	U	ND	0.278	0.836	ug/kg	0.755	1					
1,2,4-Trichlorobenzene	U	ND	0.278	0.836	ug/kg	0.755	1					
1,2-Dibromo-3-chloropropane	U	ND	0.418	0.836	ug/kg	0.755	1					
1,2-Dibromoethane	U	ND	0.278	0.836	ug/kg	0.755	1					
1,2-Dichlorobenzene	U	ND	0.278	0.836	ug/kg	0.755	1					
1,2-Dichloroethane	U	ND	0.278	0.836	ug/kg	0.755	1					
1,2-Dichloropropane	U	ND	0.278	0.836	ug/kg	0.755	1					
1,3-Dichlorobenzene	U	ND	0.278	0.836	ug/kg	0.755	1					
1,4-Dichlorobenzene	U	ND	0.278	0.836	ug/kg	0.755	1					
1,4-Dioxane	U	ND	13.9	41.8	ug/kg	0.755	1					
2-Butanone	U	ND	1.39	4.18	ug/kg	0.755	1					
2-Hexanone	U	ND	1.39	4.18	ug/kg	0.755	1					
4-Methyl-2-pentanone	U	ND	1.39	4.18	ug/kg	0.755	1					
Acetone		6.17	1.39	4.18	ug/kg	0.755	1					
Benzene	U	ND	0.278	0.836	ug/kg	0.755	1					
Bromochloromethane	U	ND	0.278	0.836	ug/kg	0.755	1					
Bromodichloromethane	U	ND	0.278	0.836	ug/kg	0.755	1					
Bromoform	U	ND	0.278	0.836	ug/kg	0.755	1					
Bromomethane	U	ND	0.278	0.836	ug/kg	0.755	1					
Carbon disulfide	U	ND	1.39	4.18	ug/kg	0.755	1					
Carbon tetrachloride	U	ND	0.278	0.836	ug/kg	0.755	1					
Chlorobenzene	U	ND	0.278	0.836	ug/kg	0.755	1					
Chloroethane	U	ND	0.278	0.836	ug/kg	0.755	1					
Chloroform	J	0.326	0.278	0.836	ug/kg	0.755	1					
Chloromethane	U	ND	0.278	0.836	ug/kg	0.755	1					
Cyclohexane	U	ND	0.278	0.836	ug/kg	0.755	1					
Dibromochloromethane	U	ND	0.278	0.836	ug/kg	0.755	1					
Dichlorodifluoromethane	U	ND	0.278	0.836	ug/kg	0.755	1					



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## Certificate of Analysis

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-63-3	Project: WNUC00901
Sample ID: 509497036	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.278	0.836	ug/kg	0.755	1					
Isopropylbenzene	U	ND	0.278	0.836	ug/kg	0.755	1					
Methyl acetate	U	ND	1.39	4.18	ug/kg	0.755	1					
Methylcyclohexane	U	ND	0.278	0.836	ug/kg	0.755	1					
Methylene chloride	U	ND	1.39	4.18	ug/kg	0.755	1					
Styrene	U	ND	0.278	0.836	ug/kg	0.755	1					
Tetrachloroethylene	U	ND	0.278	0.836	ug/kg	0.755	1					
Toluene	U	ND	0.278	0.836	ug/kg	0.755	1					
Trichloroethylene	U	ND	0.278	0.836	ug/kg	0.755	1					
Trichlorofluoromethane	U	ND	0.278	0.836	ug/kg	0.755	1					
Trichlorotrifluoroethane	U	ND	1.39	4.18	ug/kg	0.755	1					
Vinyl chloride	U	ND	0.278	0.836	ug/kg	0.755	1					
cis-1,2-Dichloroethylene	U	ND	0.278	0.836	ug/kg	0.755	1					
cis-1,3-Dichloropropylene	U	ND	0.278	0.836	ug/kg	0.755	1					
m,p-Xylenes	U	ND	0.557	1.67	ug/kg	0.755	1					
o-Xylene	U	ND	0.278	0.836	ug/kg	0.755	1					
tert-Butyl methyl ether	U	ND	0.278	0.836	ug/kg	0.755	1					
trans-1,2-Dichloroethylene	U	ND	0.278	0.836	ug/kg	0.755	1					
trans-1,3-Dichloropropylene	U	ND	0.278	0.836	ug/kg	0.755	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/09/20	1240	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	46.1 ug/kg	50.0	110	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	45.2 ug/kg	50.0	108	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	41.1 ug/kg	50.0	98	(81%-120%)

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Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-63-3

Sample ID: 509497036

Project: WNUC00901

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### 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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Address : PO Drawer R

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Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID:	C-63-4	Project:	WNUC00901
Sample ID:	509497037	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 12:46		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	8.98%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	1.03	0.368	1.08	mg/kg	9.85	1	JLD1	04/17/20	0430	1990501	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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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Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	C-63-5	Project:	WNUC00901
Sample ID:	509497038	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 12:48		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	9.65%		

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.984	0.378	1.11	mg/kg	10.1	1	JLD1	04/17/20	0500	1990501	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	C-66-1	Project:	WNUC00901
Sample ID:	509497039	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 13:22		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	10.7%		

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.724	0.382	1.12	mg/kg	10.0	1	JLD1	04/17/20	0530	1990501	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-66-2	Project: WNUC00901
Sample ID: 509497040	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 13:25	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 11.1%	

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	J	0.972	0.371	1.09	mg/kg	9.71	1	JLD1	04/17/20	0600	1990501	1
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.272	0.817	ug/kg	0.727	1	JP1	04/22/20	0146	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.272	0.817	ug/kg	0.727	1					
1,1,2-Trichloroethane	U	ND	0.272	0.817	ug/kg	0.727	1					
1,1-Dichloroethane	U	ND	0.272	0.817	ug/kg	0.727	1					
1,1-Dichloroethylene	U	ND	0.272	0.817	ug/kg	0.727	1					
1,2,3-Trichlorobenzene	U	ND	0.272	0.817	ug/kg	0.727	1					
1,2,4-Trichlorobenzene	U	ND	0.272	0.817	ug/kg	0.727	1					
1,2-Dibromo-3-chloropropane	U	ND	0.409	0.817	ug/kg	0.727	1					
1,2-Dibromoethane	U	ND	0.272	0.817	ug/kg	0.727	1					
1,2-Dichlorobenzene	U	ND	0.272	0.817	ug/kg	0.727	1					
1,2-Dichloroethane	U	ND	0.272	0.817	ug/kg	0.727	1					
1,2-Dichloropropane	U	ND	0.272	0.817	ug/kg	0.727	1					
1,3-Dichlorobenzene	U	ND	0.272	0.817	ug/kg	0.727	1					
1,4-Dichlorobenzene	U	ND	0.272	0.817	ug/kg	0.727	1					
1,4-Dioxane	U	ND	13.6	40.9	ug/kg	0.727	1					
2-Butanone	U	ND	1.36	4.09	ug/kg	0.727	1					
2-Hexanone	U	ND	1.36	4.09	ug/kg	0.727	1					
4-Methyl-2-pentanone	U	ND	1.36	4.09	ug/kg	0.727	1					
Acetone	J	1.67	1.36	4.09	ug/kg	0.727	1					
Benzene	U	ND	0.272	0.817	ug/kg	0.727	1					
Bromochloromethane	U	ND	0.272	0.817	ug/kg	0.727	1					
Bromodichloromethane	U	ND	0.272	0.817	ug/kg	0.727	1					
Bromoform	U	ND	0.272	0.817	ug/kg	0.727	1					
Bromomethane	U	ND	0.272	0.817	ug/kg	0.727	1					
Carbon disulfide	U	ND	1.36	4.09	ug/kg	0.727	1					
Carbon tetrachloride	U	ND	0.272	0.817	ug/kg	0.727	1					
Chlorobenzene	U	ND	0.272	0.817	ug/kg	0.727	1					
Chloroethane	U	ND	0.272	0.817	ug/kg	0.727	1					
Chloroform	U	ND	0.272	0.817	ug/kg	0.727	1					
Chloromethane	U	ND	0.272	0.817	ug/kg	0.727	1					
Cyclohexane	U	ND	0.272	0.817	ug/kg	0.727	1					
Dibromochloromethane	U	ND	0.272	0.817	ug/kg	0.727	1					
Dichlorodifluoromethane	U	ND	0.272	0.817	ug/kg	0.727	1					

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-66-2	Project: WNUC00901
Sample ID: 509497040	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.272	0.817	ug/kg	0.727	1					
Isopropylbenzene	U	ND	0.272	0.817	ug/kg	0.727	1					
Methyl acetate	U	ND	1.36	4.09	ug/kg	0.727	1					
Methylcyclohexane	U	ND	0.272	0.817	ug/kg	0.727	1					
Methylene chloride	U	ND	1.36	4.09	ug/kg	0.727	1					
Styrene	U	ND	0.272	0.817	ug/kg	0.727	1					
Tetrachloroethylene	U	ND	0.272	0.817	ug/kg	0.727	1					
Toluene	U	ND	0.272	0.817	ug/kg	0.727	1					
Trichloroethylene	U	ND	0.272	0.817	ug/kg	0.727	1					
Trichlorofluoromethane	U	ND	0.272	0.817	ug/kg	0.727	1					
Trichlorotrifluoroethane	U	ND	1.36	4.09	ug/kg	0.727	1					
Vinyl chloride	U	ND	0.272	0.817	ug/kg	0.727	1					
cis-1,2-Dichloroethylene	U	ND	0.272	0.817	ug/kg	0.727	1					
cis-1,3-Dichloropropylene	U	ND	0.272	0.817	ug/kg	0.727	1					
m,p-Xylenes	U	ND	0.545	1.63	ug/kg	0.727	1					
o-Xylene	U	ND	0.272	0.817	ug/kg	0.727	1					
tert-Butyl methyl ether	U	ND	0.272	0.817	ug/kg	0.727	1					
trans-1,2-Dichloroethylene	U	ND	0.272	0.817	ug/kg	0.727	1					
trans-1,3-Dichloropropylene	U	ND	0.272	0.817	ug/kg	0.727	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/09/20	1325	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	46.5 ug/kg	50.0	114	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	41.8 ug/kg	50.0	102	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	39.2 ug/kg	50.0	96	(81%-120%)

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	C-66-2	Project:	WNUC00901
Sample ID:	509497040	Client ID:	WNUC009

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-66-3	Project: WNUC00901
Sample ID: 509497041	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 13:32	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 11.3%	

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	0.928	0.378	1.11	mg/kg	9.88	1	JLD1	04/17/20	0629	1990501	1
<b>Metals Analysis-ICP-MS</b>												
<b>SW846 3050B/6020B Uranium-234/235/238 "Dry Weight Corrected"</b>												
Uranium-235		89.6	2.12	14.8	ug/kg	94.0	2	PRB	05/06/20	1135	1990468	2
Uranium-238		4310	14.0	42.4	ug/kg	94.0	2					
Uranium-234	U	ND	2.12	10.6	ug/kg	94.0	2	PRB	05/06/20	1221	1990468	3
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.285	0.856	ug/kg	0.760	1	JP1	04/22/20	0217	1991627	4
1,1,2,2-Tetrachloroethane	U	ND	0.285	0.856	ug/kg	0.760	1					
1,1,2-Trichloroethane	U	ND	0.285	0.856	ug/kg	0.760	1					
1,1-Dichloroethane	U	ND	0.285	0.856	ug/kg	0.760	1					
1,1-Dichloroethylene	U	ND	0.285	0.856	ug/kg	0.760	1					
1,2,3-Trichlorobenzene	U	ND	0.285	0.856	ug/kg	0.760	1					
1,2,4-Trichlorobenzene	U	ND	0.285	0.856	ug/kg	0.760	1					
1,2-Dibromo-3-chloropropane	U	ND	0.428	0.856	ug/kg	0.760	1					
1,2-Dibromoethane	U	ND	0.285	0.856	ug/kg	0.760	1					
1,2-Dichlorobenzene	U	ND	0.285	0.856	ug/kg	0.760	1					
1,2-Dichloroethane	U	ND	0.285	0.856	ug/kg	0.760	1					
1,2-Dichloropropane	U	ND	0.285	0.856	ug/kg	0.760	1					
1,3-Dichlorobenzene	U	ND	0.285	0.856	ug/kg	0.760	1					
1,4-Dichlorobenzene	U	ND	0.285	0.856	ug/kg	0.760	1					
1,4-Dioxane	U	ND	14.3	42.8	ug/kg	0.760	1					
2-Butanone	J	1.82	1.43	4.28	ug/kg	0.760	1					
2-Hexanone	U	ND	1.43	4.28	ug/kg	0.760	1					
4-Methyl-2-pentanone	U	ND	1.43	4.28	ug/kg	0.760	1					
Acetone		28.3	1.43	4.28	ug/kg	0.760	1					
Benzene	U	ND	0.285	0.856	ug/kg	0.760	1					
Bromochloromethane	U	ND	0.285	0.856	ug/kg	0.760	1					
Bromodichloromethane	U	ND	0.285	0.856	ug/kg	0.760	1					
Bromoform	U	ND	0.285	0.856	ug/kg	0.760	1					
Bromomethane	U	ND	0.285	0.856	ug/kg	0.760	1					
Carbon disulfide	U	ND	1.43	4.28	ug/kg	0.760	1					
Carbon tetrachloride	U	ND	0.285	0.856	ug/kg	0.760	1					
Chlorobenzene	U	ND	0.285	0.856	ug/kg	0.760	1					

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID: C-66-3	Project: WNUC00901
Sample ID: 509497041	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Chloroethane	U	ND	0.285	0.856	ug/kg	0.760	1					
Chloroform	U	ND	0.285	0.856	ug/kg	0.760	1					
Chloromethane	U	ND	0.285	0.856	ug/kg	0.760	1					
Cyclohexane	U	ND	0.285	0.856	ug/kg	0.760	1					
Dibromochloromethane	U	ND	0.285	0.856	ug/kg	0.760	1					
Dichlorodifluoromethane	U	ND	0.285	0.856	ug/kg	0.760	1					
Ethylbenzene	U	ND	0.285	0.856	ug/kg	0.760	1					
Isopropylbenzene	U	ND	0.285	0.856	ug/kg	0.760	1					
Methyl acetate	U	ND	1.43	4.28	ug/kg	0.760	1					
Methylcyclohexane	U	ND	0.285	0.856	ug/kg	0.760	1					
Methylene chloride	U	ND	1.43	4.28	ug/kg	0.760	1					
Styrene	U	ND	0.285	0.856	ug/kg	0.760	1					
Tetrachloroethylene	U	ND	0.285	0.856	ug/kg	0.760	1					
Toluene	J	0.394	0.285	0.856	ug/kg	0.760	1					
Trichloroethylene	U	ND	0.285	0.856	ug/kg	0.760	1					
Trichlorofluoromethane	U	ND	0.285	0.856	ug/kg	0.760	1					
Trichlorotrifluoroethane	U	ND	1.43	4.28	ug/kg	0.760	1					
Vinyl chloride	U	ND	0.285	0.856	ug/kg	0.760	1					
cis-1,2-Dichloroethylene	U	ND	0.285	0.856	ug/kg	0.760	1					
cis-1,3-Dichloropropylene	U	ND	0.285	0.856	ug/kg	0.760	1					
m,p-Xylenes	U	ND	0.571	1.71	ug/kg	0.760	1					
o-Xylene	U	ND	0.285	0.856	ug/kg	0.760	1					
tert-Butyl methyl ether	U	ND	0.285	0.856	ug/kg	0.760	1					
trans-1,2-Dichloroethylene	U	ND	0.285	0.856	ug/kg	0.760	1					
trans-1,3-Dichloropropylene	U	ND	0.285	0.856	ug/kg	0.760	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HH1	04/20/20	1700	1990467
SW846 5035	5035 Prep	JP1	04/09/20	1332	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-66-3

Project: WNUC00901

Sample ID: 509497041

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9056A		
2	SW846 3050B/6020B		
3	SW846 3050B/6020B		
4	SW846 8260D		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	45.2 ug/kg	50.0	106	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	44.2 ug/kg	50.0	103	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	41.5 ug/kg	50.0	97	(81%-120%)

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-66-4	Project: WNUC00901
Sample ID: 509497042	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 13:36	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.01%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		8.84	0.366	1.08	mg/kg	9.80	1	JLD1	04/17/20	1207	1990501	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1750	1990499

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	C-66-5	Project:	WNUC00901
Sample ID:	509497043	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 13:39		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	9.77%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		2.72	0.376	1.11	mg/kg	9.98	1	LXA2	04/18/20	0324	1990504	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	C-57-1	Project:	WNUC00901
Sample ID:	509497044	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 13:53		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	9.25%		

---

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	U	ND	0.371	1.09	mg/kg	9.90	1	LXA2	04/18/20	0445	1990504	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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

**Certificate of Analysis**

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID: C-57-2	Project: WNUC00901
Sample ID: 509497045	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 13:56	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 11%	

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	U	ND	0.365	1.07	mg/kg	9.55	1	LXA2	04/17/20	0251	1990504	1

The following Prep Methods were performed:

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Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

The following Analytical Methods were performed:

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Method	Description	Analyst Comments
1	SW846 9056A	

**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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-3	Project: WNUC00901
Sample ID: 509497046	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 14:00	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 8.8%	

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	0.689	0.367	1.08	mg/kg	9.85	1	LXA2	04/17/20	0318	1990504	1
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.297	0.893	ug/kg	0.814	1	JP1	04/22/20	0247	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.297	0.893	ug/kg	0.814	1					
1,1,2-Trichloroethane	U	ND	0.297	0.893	ug/kg	0.814	1					
1,1-Dichloroethane	U	ND	0.297	0.893	ug/kg	0.814	1					
1,1-Dichloroethylene	U	ND	0.297	0.893	ug/kg	0.814	1					
1,2,3-Trichlorobenzene	U	ND	0.297	0.893	ug/kg	0.814	1					
1,2,4-Trichlorobenzene	U	ND	0.297	0.893	ug/kg	0.814	1					
1,2-Dibromo-3-chloropropane	U	ND	0.446	0.893	ug/kg	0.814	1					
1,2-Dibromoethane	U	ND	0.297	0.893	ug/kg	0.814	1					
1,2-Dichlorobenzene	U	ND	0.297	0.893	ug/kg	0.814	1					
1,2-Dichloroethane	U	ND	0.297	0.893	ug/kg	0.814	1					
1,2-Dichloropropane	U	ND	0.297	0.893	ug/kg	0.814	1					
1,3-Dichlorobenzene	U	ND	0.297	0.893	ug/kg	0.814	1					
1,4-Dichlorobenzene	U	ND	0.297	0.893	ug/kg	0.814	1					
1,4-Dioxane	U	ND	14.9	44.6	ug/kg	0.814	1					
2-Butanone	U	ND	1.49	4.46	ug/kg	0.814	1					
2-Hexanone	U	ND	1.49	4.46	ug/kg	0.814	1					
4-Methyl-2-pentanone	U	ND	1.49	4.46	ug/kg	0.814	1					
Acetone	J	3.55	1.49	4.46	ug/kg	0.814	1					
Benzene	U	ND	0.297	0.893	ug/kg	0.814	1					
Bromochloromethane	U	ND	0.297	0.893	ug/kg	0.814	1					
Bromodichloromethane	U	ND	0.297	0.893	ug/kg	0.814	1					
Bromoform	U	ND	0.297	0.893	ug/kg	0.814	1					
Bromomethane	U	ND	0.297	0.893	ug/kg	0.814	1					
Carbon disulfide	U	ND	1.49	4.46	ug/kg	0.814	1					
Carbon tetrachloride	U	ND	0.297	0.893	ug/kg	0.814	1					
Chlorobenzene	U	ND	0.297	0.893	ug/kg	0.814	1					
Chloroethane	U	ND	0.297	0.893	ug/kg	0.814	1					
Chloroform	U	ND	0.297	0.893	ug/kg	0.814	1					
Chloromethane	U	ND	0.297	0.893	ug/kg	0.814	1					
Cyclohexane	U	ND	0.297	0.893	ug/kg	0.814	1					
Dibromochloromethane	U	ND	0.297	0.893	ug/kg	0.814	1					
Dichlorodifluoromethane	U	ND	0.297	0.893	ug/kg	0.814	1					



# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-3	Project: WNUC00901
Sample ID: 509497046	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.297	0.893	ug/kg	0.814	1					
Isopropylbenzene	U	ND	0.297	0.893	ug/kg	0.814	1					
Methyl acetate	U	ND	1.49	4.46	ug/kg	0.814	1					
Methylcyclohexane	U	ND	0.297	0.893	ug/kg	0.814	1					
Methylene chloride	U	ND	1.49	4.46	ug/kg	0.814	1					
Styrene	U	ND	0.297	0.893	ug/kg	0.814	1					
Tetrachloroethylene	U	ND	0.297	0.893	ug/kg	0.814	1					
Toluene	U	ND	0.297	0.893	ug/kg	0.814	1					
Trichloroethylene	U	ND	0.297	0.893	ug/kg	0.814	1					
Trichlorofluoromethane	U	ND	0.297	0.893	ug/kg	0.814	1					
Trichlorotrifluoroethane	U	ND	1.49	4.46	ug/kg	0.814	1					
Vinyl chloride	U	ND	0.297	0.893	ug/kg	0.814	1					
cis-1,2-Dichloroethylene	U	ND	0.297	0.893	ug/kg	0.814	1					
cis-1,3-Dichloropropylene	U	ND	0.297	0.893	ug/kg	0.814	1					
m,p-Xylenes	U	ND	0.596	1.79	ug/kg	0.814	1					
o-Xylene	U	ND	0.297	0.893	ug/kg	0.814	1					
tert-Butyl methyl ether	U	ND	0.297	0.893	ug/kg	0.814	1					
trans-1,2-Dichloroethylene	U	ND	0.297	0.893	ug/kg	0.814	1					
trans-1,3-Dichloropropylene	U	ND	0.297	0.893	ug/kg	0.814	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/09/20	1400	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	50.3 ug/kg	50.0	113	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	45.3 ug/kg	50.0	101	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	43.2 ug/kg	50.0	97	(81%-120%)

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-3

Sample ID: 509497046

Project: WNUC00901

Client ID: WNUC009

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	C-57-4	Project:	WNUC00901
Sample ID:	509497047	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 14:04		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	9.67%		

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		2.33	0.379	1.12	mg/kg	10.1	1	LXA2	04/17/20	0345	1990504	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-5  
Sample ID: 509497048  
Matrix: Soil  
Collect Date: 09-APR-20 14:10  
Receive Date: 15-APR-20  
Collector: Client  
Moisture: 9.1%

Project: WNUC00901  
Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride	J	0.490	0.366	1.08	mg/kg	9.78	1	LXA2	04/17/20	0412	1990504	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-6	Project: WNUC00901
Sample ID: 509497049	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 14:15	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 8.42%	

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	0.850	0.369	1.09	mg/kg	9.95	1	LXA2	04/17/20	0439	1990504	1
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.281	0.843	ug/kg	0.772	1	JP1	04/22/20	0742	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.281	0.843	ug/kg	0.772	1					
1,1,2-Trichloroethane	U	ND	0.281	0.843	ug/kg	0.772	1					
1,1-Dichloroethane	U	ND	0.281	0.843	ug/kg	0.772	1					
1,1-Dichloroethylene	U	ND	0.281	0.843	ug/kg	0.772	1					
1,2,3-Trichlorobenzene	U	ND	0.281	0.843	ug/kg	0.772	1					
1,2,4-Trichlorobenzene	U	ND	0.281	0.843	ug/kg	0.772	1					
1,2-Dibromo-3-chloropropane	U	ND	0.421	0.843	ug/kg	0.772	1					
1,2-Dibromoethane	U	ND	0.281	0.843	ug/kg	0.772	1					
1,2-Dichlorobenzene	U	ND	0.281	0.843	ug/kg	0.772	1					
1,2-Dichloroethane	U	ND	0.281	0.843	ug/kg	0.772	1					
1,2-Dichloropropane	U	ND	0.281	0.843	ug/kg	0.772	1					
1,3-Dichlorobenzene	U	ND	0.281	0.843	ug/kg	0.772	1					
1,4-Dichlorobenzene	U	ND	0.281	0.843	ug/kg	0.772	1					
1,4-Dioxane	U	ND	14.0	42.1	ug/kg	0.772	1					
2-Butanone	U	ND	1.40	4.21	ug/kg	0.772	1					
2-Hexanone	U	ND	1.40	4.21	ug/kg	0.772	1					
4-Methyl-2-pentanone	U	ND	1.40	4.21	ug/kg	0.772	1					
Acetone		6.50	1.40	4.21	ug/kg	0.772	1					
Benzene	U	ND	0.281	0.843	ug/kg	0.772	1					
Bromochloromethane	U	ND	0.281	0.843	ug/kg	0.772	1					
Bromodichloromethane	U	ND	0.281	0.843	ug/kg	0.772	1					
Bromoform	U	ND	0.281	0.843	ug/kg	0.772	1					
Bromomethane	U	ND	0.281	0.843	ug/kg	0.772	1					
Carbon disulfide	U	ND	1.40	4.21	ug/kg	0.772	1					
Carbon tetrachloride	U	ND	0.281	0.843	ug/kg	0.772	1					
Chlorobenzene	U	ND	0.281	0.843	ug/kg	0.772	1					
Chloroethane	U	ND	0.281	0.843	ug/kg	0.772	1					
Chloroform	U	ND	0.281	0.843	ug/kg	0.772	1					
Chloromethane	U	ND	0.281	0.843	ug/kg	0.772	1					
Cyclohexane	U	ND	0.281	0.843	ug/kg	0.772	1					
Dibromochloromethane	U	ND	0.281	0.843	ug/kg	0.772	1					
Dichlorodifluoromethane	U	ND	0.281	0.843	ug/kg	0.772	1					

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-6	Project: WNUC00901
Sample ID: 509497049	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatil Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.281	0.843	ug/kg	0.772	1					
Isopropylbenzene	U	ND	0.281	0.843	ug/kg	0.772	1					
Methyl acetate	U	ND	1.40	4.21	ug/kg	0.772	1					
Methylcyclohexane	U	ND	0.281	0.843	ug/kg	0.772	1					
Methylene chloride	U	ND	1.40	4.21	ug/kg	0.772	1					
Styrene	U	ND	0.281	0.843	ug/kg	0.772	1					
Tetrachloroethylene	U	ND	0.281	0.843	ug/kg	0.772	1					
Toluene	U	ND	0.281	0.843	ug/kg	0.772	1					
Trichloroethylene	U	ND	0.281	0.843	ug/kg	0.772	1					
Trichlorofluoromethane	U	ND	0.281	0.843	ug/kg	0.772	1					
Trichlorotrifluoroethane	U	ND	1.40	4.21	ug/kg	0.772	1					
Vinyl chloride	U	ND	0.281	0.843	ug/kg	0.772	1					
cis-1,2-Dichloroethylene	U	ND	0.281	0.843	ug/kg	0.772	1					
cis-1,3-Dichloropropylene	U	ND	0.281	0.843	ug/kg	0.772	1					
m,p-Xylenes	U	ND	0.562	1.69	ug/kg	0.772	1					
o-Xylene	U	ND	0.281	0.843	ug/kg	0.772	1					
tert-Butyl methyl ether	U	ND	0.281	0.843	ug/kg	0.772	1					
trans-1,2-Dichloroethylene	U	ND	0.281	0.843	ug/kg	0.772	1					
trans-1,3-Dichloropropylene	U	ND	0.281	0.843	ug/kg	0.772	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/09/20	1415	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	45.0 ug/kg	50.0	107	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	42.6 ug/kg	50.0	101	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	40.3 ug/kg	50.0	96	(81%-120%)

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-6

Sample ID: 509497049

Project: WNUC00901

Client ID: WNUC009

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### Notes:

Column headers are defined as follows:

DF: Dilution Factor

DL: Detection Limit

MDA: Minimum Detectable Activity

MDC: Minimum Detectable Concentration

Lc/LC: Critical Level

PF: Prep Factor

RL: Reporting Limit

SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-7	Project: WNUC00901
Sample ID: 509497050	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 14:19	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 8.02%	

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	0.898	0.367	1.08	mg/kg	9.93	1	LXA2	04/17/20	0506	1990504	1
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.280	0.840	ug/kg	0.773	1	JP1	04/22/20	0812	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.280	0.840	ug/kg	0.773	1					
1,1,2-Trichloroethane	U	ND	0.280	0.840	ug/kg	0.773	1					
1,1-Dichloroethane	U	ND	0.280	0.840	ug/kg	0.773	1					
1,1-Dichloroethylene	U	ND	0.280	0.840	ug/kg	0.773	1					
1,2,3-Trichlorobenzene	U	ND	0.280	0.840	ug/kg	0.773	1					
1,2,4-Trichlorobenzene	U	ND	0.280	0.840	ug/kg	0.773	1					
1,2-Dibromo-3-chloropropane	U	ND	0.420	0.840	ug/kg	0.773	1					
1,2-Dibromoethane	U	ND	0.280	0.840	ug/kg	0.773	1					
1,2-Dichlorobenzene	U	ND	0.280	0.840	ug/kg	0.773	1					
1,2-Dichloroethane	U	ND	0.280	0.840	ug/kg	0.773	1					
1,2-Dichloropropane	U	ND	0.280	0.840	ug/kg	0.773	1					
1,3-Dichlorobenzene	U	ND	0.280	0.840	ug/kg	0.773	1					
1,4-Dichlorobenzene	U	ND	0.280	0.840	ug/kg	0.773	1					
1,4-Dioxane	U	ND	14.0	42.0	ug/kg	0.773	1					
2-Butanone	U	ND	1.40	4.20	ug/kg	0.773	1					
2-Hexanone	U	ND	1.40	4.20	ug/kg	0.773	1					
4-Methyl-2-pentanone	U	ND	1.40	4.20	ug/kg	0.773	1					
Acetone	J	3.45	1.40	4.20	ug/kg	0.773	1					
Benzene	U	ND	0.280	0.840	ug/kg	0.773	1					
Bromochloromethane	U	ND	0.280	0.840	ug/kg	0.773	1					
Bromodichloromethane	U	ND	0.280	0.840	ug/kg	0.773	1					
Bromoform	U	ND	0.280	0.840	ug/kg	0.773	1					
Bromomethane	U	ND	0.280	0.840	ug/kg	0.773	1					
Carbon disulfide	U	ND	1.40	4.20	ug/kg	0.773	1					
Carbon tetrachloride	U	ND	0.280	0.840	ug/kg	0.773	1					
Chlorobenzene	U	ND	0.280	0.840	ug/kg	0.773	1					
Chloroethane	U	ND	0.280	0.840	ug/kg	0.773	1					
Chloroform	U	ND	0.280	0.840	ug/kg	0.773	1					
Chloromethane	U	ND	0.280	0.840	ug/kg	0.773	1					
Cyclohexane	U	ND	0.280	0.840	ug/kg	0.773	1					
Dibromochloromethane	U	ND	0.280	0.840	ug/kg	0.773	1					
Dichlorodifluoromethane	U	ND	0.280	0.840	ug/kg	0.773	1					



# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-7	Project: WNUC00901
Sample ID: 509497050	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.280	0.840	ug/kg	0.773	1					
Isopropylbenzene	U	ND	0.280	0.840	ug/kg	0.773	1					
Methyl acetate	U	ND	1.40	4.20	ug/kg	0.773	1					
Methylcyclohexane	U	ND	0.280	0.840	ug/kg	0.773	1					
Methylene chloride	U	ND	1.40	4.20	ug/kg	0.773	1					
Styrene	U	ND	0.280	0.840	ug/kg	0.773	1					
Tetrachloroethylene	U	ND	0.280	0.840	ug/kg	0.773	1					
Toluene	U	ND	0.280	0.840	ug/kg	0.773	1					
Trichloroethylene	U	ND	0.280	0.840	ug/kg	0.773	1					
Trichlorofluoromethane	U	ND	0.280	0.840	ug/kg	0.773	1					
Trichlorotrifluoroethane	U	ND	1.40	4.20	ug/kg	0.773	1					
Vinyl chloride	U	ND	0.280	0.840	ug/kg	0.773	1					
cis-1,2-Dichloroethylene	U	ND	0.280	0.840	ug/kg	0.773	1					
cis-1,3-Dichloropropylene	U	ND	0.280	0.840	ug/kg	0.773	1					
m,p-Xylenes	U	ND	0.560	1.68	ug/kg	0.773	1					
o-Xylene	U	ND	0.280	0.840	ug/kg	0.773	1					
tert-Butyl methyl ether	U	ND	0.280	0.840	ug/kg	0.773	1					
trans-1,2-Dichloroethylene	U	ND	0.280	0.840	ug/kg	0.773	1					
trans-1,3-Dichloropropylene	U	ND	0.280	0.840	ug/kg	0.773	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/09/20	1419	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	43.9 ug/kg	50.0	104	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	42.7 ug/kg	50.0	102	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	39.6 ug/kg	50.0	94	(81%-120%)

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-7

Sample ID: 509497050

Project: WNUC00901

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-8	Project: WNUC00901
Sample ID: 509497051	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 14:22	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.63%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Ion Chromatography</b>												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		1.71	0.376	1.11	mg/kg	10.0	1	LXA2	04/17/20	0533	1990504	1
<b>Metals Analysis-ICP-MS</b>												
SW846 3050B/6020B Uranium-234/235/238 "Dry Weight Corrected"												
Uranium-235	J	6.58	2.07	14.5	ug/kg	93.5	2	PRB	05/06/20	1137	1990468	2
Uranium-238		842	13.7	41.4	ug/kg	93.5	2					
Uranium-234	U	ND	2.07	10.3	ug/kg	93.5	2	PRB	05/06/20	1223	1990468	3
<b>Volatile Organics</b>												
SW846 8260D Volatiles, Solid "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	0.277	0.833	ug/kg	0.753	1	JP1	04/22/20	0843	1991627	4
1,1,2,2-Tetrachloroethane	U	ND	0.277	0.833	ug/kg	0.753	1					
1,1,2-Trichloroethane	U	ND	0.277	0.833	ug/kg	0.753	1					
1,1-Dichloroethane	U	ND	0.277	0.833	ug/kg	0.753	1					
1,1-Dichloroethylene	U	ND	0.277	0.833	ug/kg	0.753	1					
1,2,3-Trichlorobenzene	U	ND	0.277	0.833	ug/kg	0.753	1					
1,2,4-Trichlorobenzene	U	ND	0.277	0.833	ug/kg	0.753	1					
1,2-Dibromo-3-chloropropane	U	ND	0.417	0.833	ug/kg	0.753	1					
1,2-Dibromoethane	U	ND	0.277	0.833	ug/kg	0.753	1					
1,2-Dichlorobenzene	U	ND	0.277	0.833	ug/kg	0.753	1					
1,2-Dichloroethane	U	ND	0.277	0.833	ug/kg	0.753	1					
1,2-Dichloropropane	U	ND	0.277	0.833	ug/kg	0.753	1					
1,3-Dichlorobenzene	U	ND	0.277	0.833	ug/kg	0.753	1					
1,4-Dichlorobenzene	U	ND	0.277	0.833	ug/kg	0.753	1					
1,4-Dioxane	U	ND	13.9	41.7	ug/kg	0.753	1					
2-Butanone	U	ND	1.39	4.17	ug/kg	0.753	1					
2-Hexanone	U	ND	1.39	4.17	ug/kg	0.753	1					
4-Methyl-2-pentanone	U	ND	1.39	4.17	ug/kg	0.753	1					
Acetone	U	ND	1.39	4.17	ug/kg	0.753	1					
Benzene	U	ND	0.277	0.833	ug/kg	0.753	1					
Bromochloromethane	U	ND	0.277	0.833	ug/kg	0.753	1					
Bromodichloromethane	U	ND	0.277	0.833	ug/kg	0.753	1					
Bromoform	U	ND	0.277	0.833	ug/kg	0.753	1					
Bromomethane	U	ND	0.277	0.833	ug/kg	0.753	1					
Carbon disulfide	U	ND	1.39	4.17	ug/kg	0.753	1					
Carbon tetrachloride	U	ND	0.277	0.833	ug/kg	0.753	1					
Chlorobenzene	U	ND	0.277	0.833	ug/kg	0.753	1					

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-8	Project: WNUC00901
Sample ID: 509497051	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Chloroethane	U	ND	0.277	0.833	ug/kg	0.753	1					
Chloroform	U	ND	0.277	0.833	ug/kg	0.753	1					
Chloromethane	U	ND	0.277	0.833	ug/kg	0.753	1					
Cyclohexane	U	ND	0.277	0.833	ug/kg	0.753	1					
Dibromochloromethane	U	ND	0.277	0.833	ug/kg	0.753	1					
Dichlorodifluoromethane	U	ND	0.277	0.833	ug/kg	0.753	1					
Ethylbenzene	U	ND	0.277	0.833	ug/kg	0.753	1					
Isopropylbenzene	U	ND	0.277	0.833	ug/kg	0.753	1					
Methyl acetate	U	ND	1.39	4.17	ug/kg	0.753	1					
Methylcyclohexane	U	ND	0.277	0.833	ug/kg	0.753	1					
Methylene chloride	U	ND	1.39	4.17	ug/kg	0.753	1					
Styrene	U	ND	0.277	0.833	ug/kg	0.753	1					
Tetrachloroethylene	U	ND	0.277	0.833	ug/kg	0.753	1					
Toluene	U	ND	0.277	0.833	ug/kg	0.753	1					
Trichloroethylene	U	ND	0.277	0.833	ug/kg	0.753	1					
Trichlorofluoromethane	U	ND	0.277	0.833	ug/kg	0.753	1					
Trichlorotrifluoroethane	U	ND	1.39	4.17	ug/kg	0.753	1					
Vinyl chloride	U	ND	0.277	0.833	ug/kg	0.753	1					
cis-1,2-Dichloroethylene	U	ND	0.277	0.833	ug/kg	0.753	1					
cis-1,3-Dichloropropylene	U	ND	0.277	0.833	ug/kg	0.753	1					
m,p-Xylenes	U	ND	0.556	1.67	ug/kg	0.753	1					
o-Xylene	U	ND	0.277	0.833	ug/kg	0.753	1					
tert-Butyl methyl ether	U	ND	0.277	0.833	ug/kg	0.753	1					
trans-1,2-Dichloroethylene	U	ND	0.277	0.833	ug/kg	0.753	1					
trans-1,3-Dichloropropylene	U	ND	0.277	0.833	ug/kg	0.753	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HH1	04/20/20	1700	1990467
SW846 5035	5035 Prep	JP1	04/09/20	1422	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

# GEL LABORATORIES LLC

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-8

Project: WNUC00901

Sample ID: 509497051

Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
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The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 9056A		
2	SW846 3050B/6020B		
3	SW846 3050B/6020B		
4	SW846 8260D		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	44.2 ug/kg	50.0	106	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	43.0 ug/kg	50.0	103	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	40.5 ug/kg	50.0	97	(81%-120%)

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	S-16-1	Project:	WNUC00901
Sample ID:	509497052	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	10-APR-20 08:28		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	13.2%		

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		7.10	0.397	1.17	mg/kg	10.1	1	LXA2	04/17/20	0600	1990504	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: S-16-2	Project: WNUC00901
Sample ID: 509497053	Client ID: WNUC009
Matrix: Soil	
Collect Date: 10-APR-20 08:36	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 10%	

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		3.07	0.382	1.12	mg/kg	10.1	1	LXA2	04/17/20	0627	1990504	1
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
1,1,1-Trichloroethane	U	ND	0.256	0.769	ug/kg	0.692	1	JP1	04/22/20	0912	1991627	2
1,1,2,2-Tetrachloroethane	U	ND	0.256	0.769	ug/kg	0.692	1					
1,1,2-Trichloroethane	U	ND	0.256	0.769	ug/kg	0.692	1					
1,1-Dichloroethane	U	ND	0.256	0.769	ug/kg	0.692	1					
1,1-Dichloroethylene	U	ND	0.256	0.769	ug/kg	0.692	1					
1,2,3-Trichlorobenzene	U	ND	0.256	0.769	ug/kg	0.692	1					
1,2,4-Trichlorobenzene	U	ND	0.256	0.769	ug/kg	0.692	1					
1,2-Dibromo-3-chloropropane	U	ND	0.384	0.769	ug/kg	0.692	1					
1,2-Dibromoethane	U	ND	0.256	0.769	ug/kg	0.692	1					
1,2-Dichlorobenzene	U	ND	0.256	0.769	ug/kg	0.692	1					
1,2-Dichloroethane	U	ND	0.256	0.769	ug/kg	0.692	1					
1,2-Dichloropropane	U	ND	0.256	0.769	ug/kg	0.692	1					
1,3-Dichlorobenzene	U	ND	0.256	0.769	ug/kg	0.692	1					
1,4-Dichlorobenzene	U	ND	0.256	0.769	ug/kg	0.692	1					
1,4-Dioxane	U	ND	12.8	38.4	ug/kg	0.692	1					
2-Butanone	U	ND	1.28	3.84	ug/kg	0.692	1					
2-Hexanone	U	ND	1.28	3.84	ug/kg	0.692	1					
4-Methyl-2-pentanone	U	ND	1.28	3.84	ug/kg	0.692	1					
Acetone		17.8	1.28	3.84	ug/kg	0.692	1					
Benzene	U	ND	0.256	0.769	ug/kg	0.692	1					
Bromochloromethane	U	ND	0.256	0.769	ug/kg	0.692	1					
Bromodichloromethane	U	ND	0.256	0.769	ug/kg	0.692	1					
Bromoform	U	ND	0.256	0.769	ug/kg	0.692	1					
Bromomethane	U	ND	0.256	0.769	ug/kg	0.692	1					
Carbon disulfide	U	ND	1.28	3.84	ug/kg	0.692	1					
Carbon tetrachloride	U	ND	0.256	0.769	ug/kg	0.692	1					
Chlorobenzene	U	ND	0.256	0.769	ug/kg	0.692	1					
Chloroethane	U	ND	0.256	0.769	ug/kg	0.692	1					
Chloroform	U	ND	0.256	0.769	ug/kg	0.692	1					
Chloromethane	U	ND	0.256	0.769	ug/kg	0.692	1					
Cyclohexane	U	ND	0.256	0.769	ug/kg	0.692	1					
Dibromochloromethane	U	ND	0.256	0.769	ug/kg	0.692	1					
Dichlorodifluoromethane	U	ND	0.256	0.769	ug/kg	0.692	1					

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: S-16-2	Project: WNUC00901
Sample ID: 509497053	Client ID: WNUC009

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Volatile Organics</b>												
<b>SW846 8260D Volatiles, Solid "Dry Weight Corrected"</b>												
Ethylbenzene	U	ND	0.256	0.769	ug/kg	0.692	1					
Isopropylbenzene	U	ND	0.256	0.769	ug/kg	0.692	1					
Methyl acetate	U	ND	1.28	3.84	ug/kg	0.692	1					
Methylcyclohexane	U	ND	0.256	0.769	ug/kg	0.692	1					
Methylene chloride	U	ND	1.28	3.84	ug/kg	0.692	1					
Styrene	U	ND	0.256	0.769	ug/kg	0.692	1					
Tetrachloroethylene	U	ND	0.256	0.769	ug/kg	0.692	1					
Toluene	U	ND	0.256	0.769	ug/kg	0.692	1					
Trichloroethylene	U	ND	0.256	0.769	ug/kg	0.692	1					
Trichlorofluoromethane	U	ND	0.256	0.769	ug/kg	0.692	1					
Trichlorotrifluoroethane	U	ND	1.28	3.84	ug/kg	0.692	1					
Vinyl chloride	U	ND	0.256	0.769	ug/kg	0.692	1					
cis-1,2-Dichloroethylene	U	ND	0.256	0.769	ug/kg	0.692	1					
cis-1,3-Dichloropropylene	U	ND	0.256	0.769	ug/kg	0.692	1					
m,p-Xylenes	U	ND	0.513	1.54	ug/kg	0.692	1					
o-Xylene	U	ND	0.256	0.769	ug/kg	0.692	1					
tert-Butyl methyl ether	U	ND	0.256	0.769	ug/kg	0.692	1					
trans-1,2-Dichloroethylene	U	ND	0.256	0.769	ug/kg	0.692	1					
trans-1,3-Dichloropropylene	U	ND	0.256	0.769	ug/kg	0.692	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035	5035 Prep	JP1	04/10/20	0836	1991626
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	
2	SW846 8260D	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	40.0 ug/kg	50.0	104	(81%-124%)
Bromofluorobenzene	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	38.6 ug/kg	50.0	100	(70%-130%)
Toluene-d8	SW846 8260D Volatiles, Solid "Dry Weight Corrected"	37.2 ug/kg	50.0	97	(81%-120%)



# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205  
Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	S-16-2	Project:	WNUC00901
Sample ID:	509497053	Client ID:	WNUC009

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
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### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	S-16-3	Project:	WNUC00901
Sample ID:	509497054	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	10-APR-20 08:47		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	10.7%		

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Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography												
SW846 9056A Fluoride "Dry Weight Corrected"												
Fluoride		9.51	0.387	1.14	mg/kg	10.2	1	LXA2	04/17/20	0654	1990504	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 9056A	SW846 9056A Total Anions in Soil	CJ2	04/16/20	1829	1990503

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 9056A	

### 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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1000-1	Project: WNUC00901
Sample ID: 509497001	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 08:56	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.02%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.42	+/-0.466	0.272	1.00	pCi/g			EXC2	04/21/20	1210	1990418	1
Uranium-235/236	U	0.115	+/-0.183	0.254	1.00	pCi/g							
Uranium-238		1.33	+/-0.449	0.244	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.863	+/-2.06	3.66	5.00	pCi/g			JJ3	04/26/20	0522	1990515	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			76.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.9	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1000-2	Project: WNUC00901
Sample ID: 509497002	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:00	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 10.8%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.991	+/-0.466	0.357	1.00	pCi/g			EXC2	04/21/20	1210	1990418	1
Uranium-235/236	U	-0.0449	+/-0.136	0.381	1.00	pCi/g							
Uranium-238		1.11	+/-0.475	0.151	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.824	+/-2.12	3.76	5.00	pCi/g		JJ3	04/26/20	0538	1990515		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			58.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "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

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Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1000-3	Project: WNUC00901
Sample ID: 509497003	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:03	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 8.27%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.86	+/-0.472	0.216	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	0.175	+/-0.179	0.177	1.00	pCi/g							
Uranium-238		1.10	+/-0.367	0.209	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	2.43	+/-2.34	3.91	5.00	pCi/g		JJ3	04/26/20	0555	1990515		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			88.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.6	(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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Report Date: May 6, 2020

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Address : PO Drawer R

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC500-1	Project: WNUC00901
Sample ID: 509497004	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:11	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 8.43%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.946	+/-0.530	0.471	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	-0.0161	+/-0.241	0.563	1.00	pCi/g							
Uranium-238		1.12	+/-0.559	0.397	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.0546	+/-2.30	4.01	5.00	pCi/g		JJ3	04/26/20	0611	1990515		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			49.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			94.8	(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

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC500-2	Project: WNUC00901
Sample ID: 509497005	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:14	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.69%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.13	+/-0.615	0.612	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	0.0445	+/-0.247	0.473	1.00	pCi/g							
Uranium-238		1.23	+/-0.611	0.485	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-2.31	+/-2.02	3.69	5.00	pCi/g			JJ3	04/26/20	0628	1990515	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			49.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			96.9	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

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

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Report Date: May 6, 2020

Company : Westinghouse Electric Company, LLC  
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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC500-3 Project: WNUC00901  
Sample ID: 509497006 Client ID: WNUC009  
Matrix: Soil  
Collect Date: 09-APR-20 09:19  
Receive Date: 15-APR-20  
Collector: Client  
Moisture: 11%

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		2.59	+/-0.694	0.373	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	0.0857	+/-0.197	0.312	1.00	pCi/g							
Uranium-238		0.755	+/-0.394	0.337	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.380	+/-2.26	3.98	5.00	pCi/g			JJ3	04/26/20	0644	1990515	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			67	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			94.8	(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



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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC700-1	Project: WNUC00901
Sample ID: 509497007	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:22	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 11.2%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.27	+/-0.413	0.262	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236		0.119	+/-0.156	0.119	1.00	pCi/g							
Uranium-238		0.841	+/-0.333	0.195	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.289	+/-2.30	3.99	5.00	pCi/g			JJ3	04/26/20	0701	1990515	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			83.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			94.1	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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-4500778461

Client Sample ID: WEC700-2	Project: WNUC00901
Sample ID: 509497008	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:26	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.41%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.715	+/-0.385	0.405	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	0.0407	+/-0.182	0.357	1.00	pCi/g							
Uranium-238		0.794	+/-0.372	0.251	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.510	+/-2.39	4.20	5.00	pCi/g		JJ3	04/26/20	0717	1990515		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			76.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			89.2	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

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

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Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC700-3	Project: WNUC00901
Sample ID: 509497009	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:30	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.14%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.754	+/-0.391	0.325	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	0.142	+/-0.225	0.311	1.00	pCi/g							
Uranium-238		1.26	+/-0.491	0.319	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.125	+/-2.29	3.98	5.00	pCi/g		JJ3	04/26/20	0734	1990515		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			71.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			92.5	(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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Company : Westinghouse Electric Company, LLC  
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Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC800-1	Project: WNUC00901
Sample ID: 509497010	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:33	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 8.91%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.806	+/-0.370	0.349	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	-0.0107	+/-0.0919	0.213	1.00	pCi/g							
Uranium-238		1.10	+/-0.399	0.199	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	1.01	+/-2.47	4.23	5.00	pCi/g		JJ3	04/26/20	0750	1990515		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			78.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			91.5	(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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Address : PO Drawer R

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC800-2	Project: WNUC00901
Sample ID: 509497011	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:36	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 8.74%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.31	+/-0.425	0.249	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	0.0726	+/-0.143	0.198	1.00	pCi/g							
Uranium-238		1.08	+/-0.383	0.204	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.0618	+/-2.20	3.85	5.00	pCi/g		JJ3	04/26/20	0807	1990515		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			83.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.8	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC800-3	Project: WNUC00901
Sample ID: 509497012	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:40	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 8.28%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.52	+/-0.470	0.324	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	0.0958	+/-0.169	0.257	1.00	pCi/g							
Uranium-238		1.06	+/-0.384	0.208	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.584	+/-2.13	3.66	5.00	pCi/g		JJ3	04/26/20	0823	1990515		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			86.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.9	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC400-1	Project: WNUC00901
Sample ID: 509497013	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:51	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 10.3%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.894	+/-0.366	0.319	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	0.0517	+/-0.142	0.247	1.00	pCi/g							
Uranium-238		1.18	+/-0.402	0.264	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.543	+/-2.35	4.14	5.00	pCi/g		JJ3	04/26/20	0840	1990515		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			87	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			94.3	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC400-2	Project: WNUC00901
Sample ID: 509497014	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:55	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.14%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.93	+/-0.512	0.288	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236		0.204	+/-0.197	0.123	1.00	pCi/g							
Uranium-238		1.33	+/-0.421	0.202	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.984	+/-2.25	4.00	5.00	pCi/g			JJ3	04/26/20	0856	1990515	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			87.6	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC400-3	Project: WNUC00901
Sample ID: 509497015	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 09:59	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 11%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		2.05	+/-0.500	0.256	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	0.0845	+/-0.149	0.226	1.00	pCi/g							
Uranium-238		1.56	+/-0.438	0.242	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.294	+/-2.02	3.54	5.00	pCi/g		JJ3	04/26/20	0913	1990515		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			84.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			97.9	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1001-1	Project: WNUC00901
Sample ID: 509497016	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 10:03	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 7.99%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.06	+/-0.363	0.228	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	0.0652	+/-0.128	0.178	1.00	pCi/g							
Uranium-238		0.788	+/-0.312	0.183	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.925	+/-2.16	3.84	5.00	pCi/g			JJ3	04/26/20	0929	1990515	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			86.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98.6	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1001-2	Project: WNUC00901
Sample ID: 509497017	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 10:05	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.02%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		2.13	+/-0.477	0.215	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236		0.0989	+/-0.130	0.0989	1.00	pCi/g							
Uranium-238		0.941	+/-0.319	0.163	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.306	+/-2.34	4.06	5.00	pCi/g			JJ3	04/26/20	0946	1990515	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			96.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			95.3	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: WEC1001-3	Project: WNUC00901
Sample ID: 509497018	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 10:09	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 8.4%	

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

**Alphaspec U, Solid "Dry Weight Corrected"**

Uranium-233/234		5.77	+/-0.877	0.265	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236		0.243	+/-0.220	0.202	1.00	pCi/g							
Uranium-238		1.64	+/-0.468	0.102	1.00	pCi/g							

**Rad Liquid Scintillation Analysis**

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

Technetium-99	U	1.08	+/-2.16	3.69	5.00	pCi/g			JJ3	04/26/20	1002	1990515	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	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			71.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			93.7	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-45-1	Project: WNUC00901
Sample ID: 509497019	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 10:54	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 11.5%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.18	+/-0.403	0.258	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236		0.122	+/-0.160	0.122	1.00	pCi/g							
Uranium-238		0.961	+/-0.359	0.200	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.176	+/-2.34	4.08	5.00	pCi/g			JJ3	04/26/20	1019	1990515	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			88	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			92.7	(15%-125%)

### Notes:

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

Column headers are defined as follows:

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

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-45-2	Project: WNUC00901
Sample ID: 509497020	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 11:00	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 13.2%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.39	+/-0.502	0.327	1.00	pCi/g			EXC2	04/21/20	1637	1990418	1
Uranium-235/236	U	0.0938	+/-0.184	0.256	1.00	pCi/g							
Uranium-238		0.864	+/-0.399	0.284	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.681	+/-2.19	3.86	5.00	pCi/g		JJ3	04/26/20	1035	1990515		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1335	1990411

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, Solid "Dry Weight Corrected"			66.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.7	(15%-125%)

### Notes:

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

Column headers are defined as follows:

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

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-45-3	Project: WNUC00901
Sample ID: 509497021	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 11:04	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.58%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.04	+/-0.371	0.229	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.0695	+/-0.137	0.189	1.00	pCi/g							
Uranium-238		1.14	+/-0.388	0.224	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.425	+/-2.01	3.48	5.00	pCi/g		JJ3	04/28/20	0629	1990516		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			83.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99.6	(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

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-45-4	Project: WNUC00901
Sample ID: 509497022	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 11:10	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 12.1%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.29	+/-0.426	0.265	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	-0.00837	+/-0.126	0.293	1.00	pCi/g							
Uranium-238		0.720	+/-0.320	0.207	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.997	+/-2.02	3.45	5.00	pCi/g			JJ3	04/28/20	0645	1990516	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			98.9	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-45-5 Project: WNUC00901  
Sample ID: 509497023 Client ID: WNUC009  
Matrix: Soil  
Collect Date: 09-APR-20 11:13  
Receive Date: 15-APR-20  
Collector: Client  
Moisture: 12.1%

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

#### Alphaspec U, Solid "Dry Weight Corrected"

Uranium-233/234		1.51	+/-0.465	0.312	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.147	+/-0.186	0.231	1.00	pCi/g							
Uranium-238		0.836	+/-0.346	0.236	1.00	pCi/g							

### Rad Liquid Scintillation Analysis

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

Technetium-99	U	-0.0318	+/-2.05	3.59	5.00	pCi/g			JJ3	04/28/20	0702	1990516	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	CXB7	04/16/20	1338	1990412

#### 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, Solid "Dry Weight Corrected"			96.5	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-42-1	Project: WNUC00901
Sample ID: 509497024	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 11:27	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 12.3%	

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

#### Alphaspec U, Solid "Dry Weight Corrected"

Uranium-233/234		2.48	+/-0.580	0.284	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.105	+/-0.167	0.230	1.00	pCi/g							
Uranium-238		1.26	+/-0.419	0.249	1.00	pCi/g							

### Rad Liquid Scintillation Analysis

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

Technetium-99	U	-0.321	+/-2.06	3.62	5.00	pCi/g			JJ3	04/28/20	0718	1990516	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	CXB7	04/16/20	1338	1990412

#### 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, Solid "Dry Weight Corrected"			91.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			102	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-42-2	Project: WNUC00901
Sample ID: 509497025	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 11:31	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 10.4%	

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

**Alphaspec U, Solid "Dry Weight Corrected"**

Uranium-233/234		1.43	+/-0.447	0.273	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236		0.124	+/-0.163	0.124	1.00	pCi/g							
Uranium-238		0.981	+/-0.367	0.205	1.00	pCi/g							

**Rad Liquid Scintillation Analysis**

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

Technetium-99	U	0.0987	+/-1.94	3.38	5.00	pCi/g			JJ3	04/28/20	0735	1990516	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	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			80.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			104	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-42-3	Project: WNUC00901
Sample ID: 509497026	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 11:35	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.7%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.02	+/-0.406	0.350	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.0781	+/-0.177	0.304	1.00	pCi/g							
Uranium-238		0.677	+/-0.317	0.215	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.729	+/-2.04	3.62	5.00	pCi/g			JJ3	04/28/20	0751	1990516	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			93.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			104	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-42-4	Project: WNUC00901
Sample ID: 509497027	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 11:38	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 11.4%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.839	+/-0.360	0.266	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.0675	+/-0.155	0.246	1.00	pCi/g							
Uranium-238		0.819	+/-0.354	0.252	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.548	+/-1.85	3.28	5.00	pCi/g			JJ3	04/28/20	0807	1990516	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			93.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			99	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-42-5	Project: WNUC00901
Sample ID: 509497028	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 11:43	
Receive Date: 15-APR-20	
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, Solid "Dry Weight Corrected"**

Uranium-233/234		1.27	+/-0.387	0.272	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.0597	+/-0.117	0.163	1.00	pCi/g							
Uranium-238		0.810	+/-0.300	0.152	1.00	pCi/g							

**Rad Liquid Scintillation Analysis**

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

Technetium-99	U	-0.489	+/-1.85	3.26	5.00	pCi/g			JJ3	04/28/20	0824	1990516	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	CXB7	04/16/20	1338	1990412

**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, Solid "Dry Weight Corrected"			98.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			106	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-53-1	Project: WNUC00901
Sample ID: 509497029	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:04	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.3%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.05	+/-0.372	0.238	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.108	+/-0.155	0.187	1.00	pCi/g							
Uranium-238		0.829	+/-0.328	0.193	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-1.08	+/-2.10	3.75	5.00	pCi/g			JJ3	04/28/20	0840	1990516	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			89.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98	(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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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-53-2	Project: WNUC00901
Sample ID: 509497030	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:07	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 14.6%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.15	+/-0.386	0.286	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.158	+/-0.180	0.225	1.00	pCi/g							
Uranium-238		0.902	+/-0.332	0.182	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-1.75	+/-1.98	3.58	5.00	pCi/g		JJ3	04/28/20	0857	1990516		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			94.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			104	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-53-3	Project: WNUC00901
Sample ID: 509497031	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:12	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.53%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.38	+/-0.470	0.356	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.0581	+/-0.160	0.277	1.00	pCi/g							
Uranium-238		0.994	+/-0.397	0.296	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.221	+/-1.99	3.46	5.00	pCi/g		JJ3	04/28/20	0913	1990516		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			77.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			102	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-53-4	Project: WNUC00901
Sample ID: 509497032	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:17	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 10.2%	

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

**Alphaspec U, Solid "Dry Weight Corrected"**

Uranium-233/234		1.39	+/-0.468	0.321	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.0458	+/-0.129	0.137	1.00	pCi/g							
Uranium-238		1.16	+/-0.419	0.226	1.00	pCi/g							

**Rad Liquid Scintillation Analysis**

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

Technetium-99	U	0.152	+/-2.00	3.49	5.00	pCi/g			JJ3	04/28/20	0930	1990516	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	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			84.2	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-53-5	Project: WNUC00901
Sample ID: 509497033	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:19	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.79%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.795	+/-0.312	0.242	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.183	+/-0.182	0.211	1.00	pCi/g							
Uranium-238		1.35	+/-0.394	0.226	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.639	+/-2.26	3.90	5.00	pCi/g			JJ3	04/28/20	0946	1990516	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			92.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			92.1	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-63-1	Project: WNUC00901
Sample ID: 509497034	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:31	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 10.6%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.50	+/-0.419	0.221	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.134	+/-0.158	0.170	1.00	pCi/g							
Uranium-238		0.957	+/-0.334	0.176	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.183	+/-1.92	3.36	5.00	pCi/g		JJ3		04/28/20	1002	1990516	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			91.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			104	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-63-2	Project: WNUC00901
Sample ID: 509497035	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:35	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 10.7%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.37	+/-0.410	0.237	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236		0.111	+/-0.146	0.111	1.00	pCi/g							
Uranium-238		0.814	+/-0.316	0.182	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	1.36	+/-1.93	3.27	5.00	pCi/g		JJ3	04/28/20	1019	1990516		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			88.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			104	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-63-3	Project: WNUC00901
Sample ID: 509497036	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:40	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.6%	

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

**Alphaspec U, Solid "Dry Weight Corrected"**

Uranium-233/234		1.21	+/-0.394	0.244	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.0290	+/-0.109	0.183	1.00	pCi/g							
Uranium-238		0.958	+/-0.343	0.0927	1.00	pCi/g							

**Rad Liquid Scintillation Analysis**

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

Technetium-99	U	-0.831	+/-1.80	3.21	5.00	pCi/g			JJ3	04/28/20	1035	1990516	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	CXB7	04/16/20	1338	1990412

**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, Solid "Dry Weight Corrected"			81.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			103	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-63-4 Project: WNUC00901  
Sample ID: 509497037 Client ID: WNUC009  
Matrix: Soil  
Collect Date: 09-APR-20 12:46  
Receive Date: 15-APR-20  
Collector: Client  
Moisture: 8.98%

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.73	+/-0.458	0.236	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236		0.148	+/-0.163	0.111	1.00	pCi/g							
Uranium-238		1.05	+/-0.357	0.182	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.153	+/-2.01	3.52	5.00	pCi/g			JJ3	04/28/20	1052	1990516	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			92.7	(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

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-63-5	Project: WNUC00901
Sample ID: 509497038	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 12:48	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.65%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		2.84	+/-0.633	0.274	1.00	pCi/g			MXS2	04/21/20	0730	1990419	1
Uranium-235/236	U	0.121	+/-0.174	0.210	1.00	pCi/g							
Uranium-238		1.24	+/-0.424	0.233	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	1.12	+/-2.07	3.54	5.00	pCi/g		JJ3	04/28/20	1108	1990516		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			78.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			98.5	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-66-1	Project: WNUC00901
Sample ID: 509497039	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 13:22	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 10.7%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.67	+/-0.464	0.229	1.00	pCi/g			MXS2	04/21/20	1206	1990419	1
Uranium-235/236	U	0.0299	+/-0.112	0.189	1.00	pCi/g							
Uranium-238		0.822	+/-0.332	0.223	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.0309	+/-2.05	3.58	5.00	pCi/g		JJ3	04/28/20	1125	1990516		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			84.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			104	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-66-2	Project: WNUC00901
Sample ID: 509497040	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 13:25	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 11.1%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		4.26	+/-0.714	0.241	1.00	pCi/g			MXS2	04/21/20	1206	1990419	1
Uranium-235/236	U	0.105	+/-0.170	0.264	1.00	pCi/g							
Uranium-238		0.951	+/-0.344	0.186	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	1.16	+/-2.03	3.46	5.00	pCi/g		JJ3	04/28/20	1141	1990516		2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1338	1990412

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, Solid "Dry Weight Corrected"			107	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "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

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	C-66-3	Project:	WNUC00901
Sample ID:	509497041	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 13:32		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	11.3%		

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

#### Alphaspec U, Solid "Dry Weight Corrected"

Uranium-233/234		2.14	+/-0.555	0.343	1.00	pCi/g			MP2	04/21/20	1206	1990421	1
Uranium-235/236	U	-0.00850	+/-0.128	0.298	1.00	pCi/g							
Uranium-238		1.49	+/-0.453	0.210	1.00	pCi/g							

### Rad Liquid Scintillation Analysis

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

Technetium-99	U	0.416	+/-2.35	4.08	5.00	pCi/g			JJ3	04/26/20	0410	1990517	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	CXB7	04/16/20	1341	1990414

#### 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, Solid "Dry Weight Corrected"			91.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			86.6	(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

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-66-4	Project: WNUC00901
Sample ID: 509497042	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 13:36	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.01%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		6.08	+/-0.981	0.292	1.00	pCi/g			MP2	04/21/20	1207	1990421	1
Uranium-235/236		0.376	+/-0.297	0.277	1.00	pCi/g							
Uranium-238		2.42	+/-0.625	0.283	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.118	+/-2.31	4.04	5.00	pCi/g			JJ3	04/26/20	0427	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			79.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			88.9	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-66-5	Project: WNUC00901
Sample ID: 509497043	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 13:39	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.77%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		7.08	+/-1.11	0.422	1.00	pCi/g			MP2	04/21/20	1207	1990421	1
Uranium-235/236		0.314	+/-0.285	0.261	1.00	pCi/g							
Uranium-238		2.36	+/-0.642	0.244	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.0548	+/-2.29	4.00	5.00	pCi/g			JJ3	04/26/20	0443	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			62.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			91.5	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-1	Project: WNUC00901
Sample ID: 509497044	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 13:53	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.25%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.842	+/-0.333	0.232	1.00	pCi/g			MP2	04/21/20	1207	1990421	1
Uranium-235/236	U	0.143	+/-0.169	0.183	1.00	pCi/g							
Uranium-238		0.472	+/-0.251	0.189	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.411	+/-2.27	3.93	5.00	pCi/g			JJ3	04/26/20	0500	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			88.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			92.9	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID:	C-57-2	Project:	WNUC00901
Sample ID:	509497045	Client ID:	WNUC009
Matrix:	Soil		
Collect Date:	09-APR-20 13:56		
Receive Date:	15-APR-20		
Collector:	Client		
Moisture:	11%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.01	+/-0.360	0.280	1.00	pCi/g			MP2	04/21/20	1207	1990421	1
Uranium-235/236	U	0.118	+/-0.162	0.221	1.00	pCi/g							
Uranium-238		0.622	+/-0.276	0.178	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-1.51	+/-2.21	3.98	5.00	pCi/g			JJ3	04/26/20	0517	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			94.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			93	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-3	Project: WNUC00901
Sample ID: 509497046	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 14:00	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 8.8%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.73	+/-0.524	0.361	1.00	pCi/g			MP2	04/21/20	1207	1990421	1
Uranium-235/236	U	0.105	+/-0.185	0.281	1.00	pCi/g							
Uranium-238		0.561	+/-0.314	0.300	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.901	+/-2.30	4.08	5.00	pCi/g			JJ3	04/26/20	0533	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			77.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			89.2	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-4	Project: WNUC00901
Sample ID: 509497047	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 14:04	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.67%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.53	+/-0.477	0.307	1.00	pCi/g			MP2	04/21/20	1207	1990421	1
Uranium-235/236	U	0.0873	+/-0.150	0.131	1.00	pCi/g							
Uranium-238		0.857	+/-0.354	0.216	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.485	+/-2.36	4.16	5.00	pCi/g			JJ3	04/26/20	0550	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			87.9	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			94.4	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-5	Project: WNUC00901
Sample ID: 509497048	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 14:10	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.1%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.981	+/-0.351	0.251	1.00	pCi/g			MP2	04/21/20	1210	1990421	1
Uranium-235/236	U	0.119	+/-0.162	0.221	1.00	pCi/g							
Uranium-238		0.647	+/-0.290	0.237	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.476	+/-2.50	4.40	5.00	pCi/g			JJ3	04/26/20	0606	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			86.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			91.1	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-6	Project: WNUC00901
Sample ID: 509497049	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 14:15	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 8.42%	

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

**Alphaspec U, Solid "Dry Weight Corrected"**

Uranium-233/234		2.08	+/-0.630	0.333	1.00	pCi/g			MP2	04/21/20	1210	1990421	1
Uranium-235/236	U	0.102	+/-0.200	0.277	1.00	pCi/g							
Uranium-238		0.948	+/-0.432	0.285	1.00	pCi/g							

**Rad Liquid Scintillation Analysis**

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

Technetium-99	U	-1.68	+/-2.27	4.09	5.00	pCi/g			JJ3	04/26/20	0623	1990517	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	CXB7	04/16/20	1341	1990414

**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, Solid "Dry Weight Corrected"			55	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			89.6	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-7 Project: WNUC00901  
Sample ID: 509497050 Client ID: WNUC009  
Matrix: Soil  
Collect Date: 09-APR-20 14:19  
Receive Date: 15-APR-20  
Collector: Client  
Moisture: 8.02%

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec U, Solid "Dry Weight Corrected"													
Uranium-233/234		3.64	+/-0.663	0.243	1.00	pCi/g			MP2	04/21/20	1210	1990421	1
Uranium-235/236		0.302	+/-0.223	0.113	1.00	pCi/g							
Uranium-238		1.11	+/-0.370	0.187	1.00	pCi/g							
Rad Liquid Scintillation Analysis													
Liquid Scint Tc99, Soil "As Received"													
Technetium-99	U	0.999	+/-2.45	4.20	5.00	pCi/g			JJ3	04/26/20	0640	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			90.1	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			92.6	(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

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

## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: C-57-8	Project: WNUC00901
Sample ID: 509497051	Client ID: WNUC009
Matrix: Soil	
Collect Date: 09-APR-20 14:22	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 9.63%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.624	+/-0.281	0.228	1.00	pCi/g			MP2	04/21/20	1210	1990421	1
Uranium-235/236	U	0.0268	+/-0.100	0.169	1.00	pCi/g							
Uranium-238		0.570	+/-0.256	0.0855	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	0.316	+/-2.36	4.10	5.00	pCi/g			JJ3	04/26/20	0656	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			89.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			94.7	(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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: S-16-1	Project: WNUC00901
Sample ID: 509497052	Client ID: WNUC009
Matrix: Soil	
Collect Date: 10-APR-20 08:28	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 13.2%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.12	+/-0.366	0.230	1.00	pCi/g			MP2	04/21/20	1210	1990421	1
Uranium-235/236	U	0.0710	+/-0.122	0.107	1.00	pCi/g							
Uranium-238		1.13	+/-0.362	0.176	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.770	+/-2.38	4.22	5.00	pCi/g			JJ3	04/26/20	0713	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			100	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "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: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: S-16-2	Project: WNUC00901
Sample ID: 509497053	Client ID: WNUC009
Matrix: Soil	
Collect Date: 10-APR-20 08:36	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 10%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.31	+/-0.432	0.269	1.00	pCi/g			MP2	04/21/20	1210	1990421	1
Uranium-235/236	U	0.160	+/-0.188	0.203	1.00	pCi/g							
Uranium-238		1.10	+/-0.394	0.226	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-1.25	+/-2.42	4.31	5.00	pCi/g			JJ3	04/26/20	0730	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			84.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			92.8	(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

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## Certificate of Analysis

Report Date: May 6, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: S-16-3	Project: WNUC00901
Sample ID: 509497054	Client ID: WNUC009
Matrix: Soil	
Collect Date: 10-APR-20 08:47	
Receive Date: 15-APR-20	
Collector: Client	
Moisture: 10.7%	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>Rad Alpha Spec Analysis</b>													
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.58	+/-0.452	0.294	1.00	pCi/g			MP2	04/21/20	1210	1990421	1
Uranium-235/236	U	0.0378	+/-0.106	0.114	1.00	pCi/g							
Uranium-238		1.57	+/-0.438	0.187	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-1.02	+/-2.41	4.29	5.00	pCi/g			JJ3	04/26/20	0746	1990517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	CXB7	04/16/20	1341	1990414

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, Solid "Dry Weight Corrected"			86.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			93.1	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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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## QC Summary

Report Date: May 6, 2020

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Westinghouse Electric Company, LLC

PO Drawer R  
Columbia, South Carolina

Contact: Ms. Cynthia Logsdon

Workorder: 509497

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	1990493										
QC1204547034	509497001	DUP									
Fluoride		11.7		10.9	mg/kg	7.67		(0%-109%)	LXA2	04/18/20	10:39
QC1204547035	509497002	DUP									
Fluoride		5.54		7.12	mg/kg	25		(0%-109%)		04/18/20	13:13
QC1204547033	LCS										
Fluoride	25.3			25.8	mg/kg		102	(90%-110%)		04/18/20	09:37
QC1204547032	MB										
Fluoride			U	ND	mg/kg					04/18/20	09:06
QC1204547036	509497001	MS									
Fluoride	27.5	11.7		32.5	mg/kg		75.6	(75%-125%)		04/18/20	12:11
QC1204547037	509497002	MS									
Fluoride	28.0	5.54		18.7	mg/kg		47.1 *	(75%-125%)		04/18/20	13:44
<hr/>											
Batch	1990498										
QC1204547040	509497015	DUP									
Fluoride		2.89		2.47	mg/kg	15.9 ^		(+/-1.10)	LXA2	04/17/20	12:30
QC1204547041	509497016	DUP									
Fluoride		1.73		1.44	mg/kg	18.4 ^		(+/-1.10)		04/17/20	14:02
QC1204547039	LCS										
Fluoride	25.3			25.0	mg/kg		98.9	(90%-110%)		04/17/20	11:28
QC1204547038	MB										
Fluoride			U	ND	mg/kg					04/17/20	10:57

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## QC Summary

Workorder: 509497

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch 1990498											
QC1204547042	509497015	MS									
Fluoride	27.6	2.89		17.1	mg/kg		51.6*	(75%-125%)	LXA2	04/17/20	13:00
QC1204547043	509497016	MS									
Fluoride	26.5	1.73		17.3	mg/kg		58.9*	(75%-125%)		04/17/20	14:33
Batch 1990501											
QC1204547046	509497029	DUP									
Fluoride	J	0.572	J	0.682	mg/kg	17.5 ^		(+/-1.09)	JLD1	04/16/20	22:02
QC1204547047	509497030	DUP									
Fluoride	J	0.519	J	0.527	mg/kg	1.63 ^		(+/-1.18)		04/16/20	23:31
QC1204547045	LCS										
Fluoride	25.3			23.1	mg/kg		91.5	(90%-110%)		04/17/20	10:37
QC1204547044	MB										
Fluoride			U	ND	mg/kg					04/17/20	10:07
QC1204547048	509497029	MS									
Fluoride	27.2	J	0.572	5.91	mg/kg		19.7*	(75%-125%)		04/16/20	22:31
QC1204547049	509497030	MS									
Fluoride	29.1	J	0.519	5.44	mg/kg		16.9*	(75%-125%)		04/17/20	00:01
Batch 1990504											
QC1204547052	509497043	DUP									
Fluoride			2.72	3.00	mg/kg	9.76 ^		(+/-1.11)	LXA2	04/18/20	03:51
QC1204547051	LCS										
Fluoride	25.1			24.6	mg/kg		98.3	(90%-110%)		04/18/20	01:08
QC1204547050	MB										
Fluoride			U	ND	mg/kg					04/18/20	00:41

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## QC Summary

Workorder: 509497

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	1990504										
QC1204547054	509497043	MS									
Fluoride	27.8	2.72		16.1	mg/kg		48.2*	(75%-125%)	LXA2	04/18/20	04:18
<b>Metals Analysis - ICPMS</b>											
Batch	1990468										
QC1204547019	LCS										
Uranium-235	35.9			37.4	ug/kg		104	(80%-120%)	PRB	05/06/20	11:16
Uranium-238	4950			5160	ug/kg		104	(80%-120%)			
QC1204547423	LCS										
Uranium-234	53.8			49.7	ug/kg		92.4	(80%-120%)		05/06/20	12:01
QC1204547018	MB										
Uranium-234			U	ND	ug/kg					05/06/20	12:00
Uranium-235			U	ND	ug/kg					05/06/20	11:15
Uranium-238			U	ND	ug/kg						
QC1204547020	509497001	MS									
Uranium-235	38.5	J	8.58	49.7	ug/kg		107	(75%-125%)		05/06/20	11:20
Uranium-238	5310		1050	6450	ug/kg		102	(75%-125%)			
QC1204547424	509497001	MS									
Uranium-234	58.6	U	ND	55.8	ug/kg		95.3	(75%-125%)		05/06/20	12:05
QC1204547021	509497001	MSD									
Uranium-235	38.8	J	8.58	47.1	ug/kg	5.3	99.3	(0%-20%)		05/06/20	11:21
Uranium-238	5350		1050	6450	ug/kg	0.105	101	(0%-20%)			

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## QC Summary

Workorder: 509497

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Metals Analysis - ICPMS</b>											
Batch 1990468											
QC1204547425 509497001 MSD											
Uranium-234	58.3	U	ND	53.0	ug/kg	5.07	90.9	(0%-20%)	PRB	05/06/20	12:07
QC1204547022 509497001 SDILT											
Uranium-234		U	ND	U	ND	ug/L	N/A	(0%-20%)		05/06/20	12:10
Uranium-235		J	0.0391	U	ND	ug/L	N/A	(0%-20%)		05/06/20	11:25
Uranium-238			4.79		0.974	ug/L	1.73	(0%-20%)			
<b>Volatile-GC/MS</b>											
Batch 1991627											
QC1204549472 LCS											
1,1,1-Trichloroethane	50.0			55.8	ug/kg		112	(70%-130%)	JP1	04/21/20	16:42
1,1,2,2-Tetrachloroethane	50.0			49.2	ug/kg		98	(70%-130%)			
1,1,2-Trichloroethane	50.0			50.5	ug/kg		101	(70%-130%)			
1,1-Dichloroethane	50.0			52.7	ug/kg		105	(70%-130%)			
1,1-Dichloroethylene	50.0			51.0	ug/kg		102	(70%-130%)			
1,2,3-Trichlorobenzene	50.0			51.6	ug/kg		103	(70%-130%)			
1,2,4-Trichlorobenzene	50.0			53.4	ug/kg		107	(70%-130%)			
1,2-Dibromo-3-chloropropane	50.0			55.9	ug/kg		112	(70%-130%)			
1,2-Dibromoethane	50.0			56.1	ug/kg		112	(70%-130%)			
1,2-Dichlorobenzene	50.0			50.7	ug/kg		101	(70%-130%)			

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## QC Summary

Workorder: 509497

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
1,2-Dichloroethane	50.0			52.3	ug/kg		105	(70%-130%)	JP1	04/21/20	16:42
1,2-Dichloropropane	50.0			50.2	ug/kg		100	(70%-130%)			
1,3-Dichlorobenzene	50.0			50.5	ug/kg		101	(70%-130%)			
1,4-Dichlorobenzene	50.0			50.2	ug/kg		100	(70%-130%)			
2-Butanone	250			294	ug/kg		117	(70%-130%)			
2-Hexanone	250			285	ug/kg		114	(70%-130%)			
4-Methyl-2-pentanone	250			277	ug/kg		111	(70%-130%)			
Acetone	250			303	ug/kg		121	(70%-130%)			
Benzene	50.0			47.9	ug/kg		96	(70%-130%)			
Bromochloromethane	50.0			52.1	ug/kg		104	(70%-130%)			
Bromodichloromethane	50.0			54.9	ug/kg		110	(70%-130%)			
Bromoform	50.0			53.0	ug/kg		106	(70%-130%)			
Bromomethane	50.0			55.5	ug/kg		111	(70%-130%)			
Carbon disulfide	250			277	ug/kg		111	(70%-130%)			
Carbon tetrachloride	50.0			57.0	ug/kg		114	(70%-130%)			

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## QC Summary

Workorder: 509497

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
Chlorobenzene	50.0			48.0	ug/kg		96	(70%-130%)	JP1	04/21/20	16:42
Chloroethane	50.0			53.3	ug/kg		107	(70%-130%)			
Chloroform	50.0			55.4	ug/kg		111	(70%-130%)			
Chloromethane	50.0			49.2	ug/kg		98	(70%-130%)			
Cyclohexane	50.0			51.8	ug/kg		104	(70%-130%)			
Dibromochloromethane	50.0			56.4	ug/kg		113	(70%-130%)			
Dichlorodifluoromethane	50.0			76.7	ug/kg		153*	(70%-130%)			
Ethylbenzene	50.0			50.5	ug/kg		101	(70%-130%)			
Isopropylbenzene	50.0			46.5	ug/kg		93	(70%-130%)			
Methyl acetate	250			298	ug/kg		119	(70%-130%)			
Methylcyclohexane	50.0			49.0	ug/kg		98	(70%-130%)			
Methylene chloride	50.0			47.6	ug/kg		95	(70%-130%)			
Styrene	50.0			50.0	ug/kg		100	(70%-130%)			
Tetrachloroethylene	50.0			49.2	ug/kg		98	(70%-130%)			
Toluene	50.0			48.2	ug/kg		96	(70%-130%)			

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## QC Summary

Workorder: 509497

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
Trichloroethylene	50.0			51.8	ug/kg		104	(70%-130%)	JP1	04/21/20	16:42
Trichlorofluoromethane	50.0			58.4	ug/kg		117	(70%-130%)			
Vinyl chloride	50.0			45.4	ug/kg		91	(70%-130%)			
cis-1,2-Dichloroethylene	50.0			45.4	ug/kg		91	(70%-130%)			
cis-1,3-Dichloropropylene	50.0			56.0	ug/kg		112	(70%-130%)			
m,p-Xylenes	100			95.6	ug/kg		96	(70%-130%)			
o-Xylene	50.0			46.4	ug/kg		93	(70%-130%)			
tert-Butyl methyl ether	50.0			49.4	ug/kg		99	(70%-130%)			
trans-1,2-Dichloroethylene	50.0			48.9	ug/kg		98	(70%-130%)			
trans-1,3-Dichloropropylene	50.0			55.9	ug/kg		112	(70%-130%)			
**1,2-Dichloroethane-d4	50.0			58.5	ug/L		117	(81%-124%)			
**Bromofluorobenzene	50.0			48.6	ug/L		97	(70%-130%)			
**Toluene-d8	50.0			49.3	ug/L		99	(81%-120%)			
QC1204550003 LCS											
1,1,1-Trichloroethane	50.0			54.1	ug/kg		108	(70%-130%)		04/22/20	05:11
1,1,2,2-Tetrachloroethane	50.0			58.9	ug/kg		118	(70%-130%)			

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## QC Summary

Workorder: 509497

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
1,1,2-Trichloroethane	50.0			51.6	ug/kg		103	(70%-130%)	JP1	04/22/20	05:11
1,1-Dichloroethane	50.0			52.1	ug/kg		104	(70%-130%)			
1,1-Dichloroethylene	50.0			49.3	ug/kg		99	(70%-130%)			
1,2,3-Trichlorobenzene	50.0			49.0	ug/kg		98	(70%-130%)			
1,2,4-Trichlorobenzene	50.0			46.9	ug/kg		94	(70%-130%)			
1,2-Dibromo-3-chloropropane	50.0			59.8	ug/kg		120	(70%-130%)			
1,2-Dibromoethane	50.0			56.5	ug/kg		113	(70%-130%)			
1,2-Dichlorobenzene	50.0			49.1	ug/kg		98	(70%-130%)			
1,2-Dichloroethane	50.0			51.7	ug/kg		103	(70%-130%)			
1,2-Dichloropropane	50.0			50.6	ug/kg		101	(70%-130%)			
1,3-Dichlorobenzene	50.0			46.3	ug/kg		93	(70%-130%)			
1,4-Dichlorobenzene	50.0			46.2	ug/kg		92	(70%-130%)			
2-Butanone	250			273	ug/kg		109	(70%-130%)			
2-Hexanone	250			271	ug/kg		108	(70%-130%)			
4-Methyl-2-pentanone	250			272	ug/kg		109	(70%-130%)			



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## QC Summary

Workorder: 509497

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
Acetone	250			280	ug/kg		112	(70%-130%)	JP1	04/22/20	05:11
Benzene	50.0			47.3	ug/kg		95	(70%-130%)			
Bromochloromethane	50.0			52.2	ug/kg		104	(70%-130%)			
Bromodichloromethane	50.0			54.3	ug/kg		109	(70%-130%)			
Bromoform	50.0			63.6	ug/kg		127	(70%-130%)			
Bromomethane	50.0			56.2	ug/kg		112	(70%-130%)			
Carbon disulfide	250			268	ug/kg		107	(70%-130%)			
Carbon tetrachloride	50.0			54.8	ug/kg		110	(70%-130%)			
Chlorobenzene	50.0			46.9	ug/kg		94	(70%-130%)			
Chloroethane	50.0			53.7	ug/kg		107	(70%-130%)			
Chloroform	50.0			54.4	ug/kg		109	(70%-130%)			
Chloromethane	50.0			41.9	ug/kg		84	(70%-130%)			
Cyclohexane	50.0			49.6	ug/kg		99	(70%-130%)			
Dibromochloromethane	50.0			57.2	ug/kg		114	(70%-130%)			
Dichlorodifluoromethane	50.0			61.5	ug/kg		123	(70%-130%)			

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
Ethylbenzene	50.0			48.4	ug/kg		97	(70%-130%)	JP1	04/22/20	05:11
Isopropylbenzene	50.0			54.3	ug/kg		109	(70%-130%)			
Methyl acetate	250			290	ug/kg		116	(70%-130%)			
Methylcyclohexane	50.0			45.6	ug/kg		91	(70%-130%)			
Methylene chloride	50.0			48.0	ug/kg		96	(70%-130%)			
Styrene	50.0			47.7	ug/kg		95	(70%-130%)			
Tetrachloroethylene	50.0			45.8	ug/kg		92	(70%-130%)			
Toluene	50.0			47.7	ug/kg		95	(70%-130%)			
Trichloroethylene	50.0			49.1	ug/kg		98	(70%-130%)			
Trichlorofluoromethane	50.0			55.0	ug/kg		110	(70%-130%)			
Vinyl chloride	50.0			39.7	ug/kg		79	(70%-130%)			
cis-1,2-Dichloroethylene	50.0			44.8	ug/kg		90	(70%-130%)			
cis-1,3-Dichloropropylene	50.0			54.3	ug/kg		109	(70%-130%)			
m,p-Xylenes	100			89.9	ug/kg		90	(70%-130%)			
o-Xylene	50.0			45.6	ug/kg		91	(70%-130%)			

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
tert-Butyl methyl ether	50.0			49.2	ug/kg		98	(70%-130%)	JP1	04/22/20	05:11
trans-1,2-Dichloroethylene	50.0			47.8	ug/kg		96	(70%-130%)			
trans-1,3-Dichloropropylene	50.0			54.9	ug/kg		110	(70%-130%)			
**1,2-Dichloroethane-d4	50.0			54.4	ug/L		109	(81%-124%)			
**Bromofluorobenzene	50.0			55.6	ug/L		111	(70%-130%)			
**Toluene-d8	50.0			48.8	ug/L		98	(81%-120%)			
QC1204549473 LCSD											
1,1,1-Trichloroethane	50.0			55.3	ug/kg	1	111	(0%-20%)		04/21/20	17:12
1,1,2,2-Tetrachloroethane	50.0			53.1	ug/kg	8	106	(0%-20%)			
1,1,2-Trichloroethane	50.0			50.4	ug/kg	0	101	(0%-20%)			
1,1-Dichloroethane	50.0			52.7	ug/kg	0	105	(0%-20%)			
1,1-Dichloroethylene	50.0			50.7	ug/kg	1	101	(0%-20%)			
1,2,3-Trichlorobenzene	50.0			52.0	ug/kg	1	104	(0%-20%)			
1,2,4-Trichlorobenzene	50.0			53.8	ug/kg	1	108	(0%-20%)			
1,2-Dibromo-3-chloropropane	50.0			57.7	ug/kg	3	115	(0%-20%)			
1,2-Dibromoethane	50.0			55.3	ug/kg	1	111	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
1,2-Dichlorobenzene	50.0			51.3	ug/kg	1	103	(0%-20%)	JP1	04/21/20	17:12
1,2-Dichloroethane	50.0			49.9	ug/kg	5	100	(0%-20%)			
1,2-Dichloropropane	50.0			50.8	ug/kg	1	102	(0%-20%)			
1,3-Dichlorobenzene	50.0			51.0	ug/kg	1	102	(0%-20%)			
1,4-Dichlorobenzene	50.0			50.6	ug/kg	1	101	(0%-20%)			
2-Butanone	250			269	ug/kg	9	107	(0%-20%)			
2-Hexanone	250			267	ug/kg	7	107	(0%-20%)			
4-Methyl-2-pentanone	250			263	ug/kg	5	105	(0%-20%)			
Acetone	250			276	ug/kg	10	110	(0%-20%)			
Benzene	50.0			48.1	ug/kg	0	96	(0%-20%)			
Bromochloromethane	50.0			51.3	ug/kg	1	103	(0%-20%)			
Bromodichloromethane	50.0			53.4	ug/kg	3	107	(0%-20%)			
Bromoform	50.0			57.2	ug/kg	8	114	(0%-20%)			
Bromomethane	50.0			58.3	ug/kg	5	117	(0%-20%)			
Carbon disulfide	250			278	ug/kg	0	111	(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>Volatile-GC/MS</b>											
Batch	1991627										
Carbon tetrachloride	50.0			56.4	ug/kg	1	113	(0%-20%)	JP1	04/21/20	17:12
Chlorobenzene	50.0			48.6	ug/kg	1	97	(0%-20%)			
Chloroethane	50.0			54.1	ug/kg	2	108	(0%-20%)			
Chloroform	50.0			54.4	ug/kg	2	109	(0%-20%)			
Chloromethane	50.0			45.3	ug/kg	8	91	(0%-20%)			
Cyclohexane	50.0			52.4	ug/kg	1	105	(0%-20%)			
Dibromochloromethane	50.0			55.9	ug/kg	1	112	(0%-20%)			
Dichlorodifluoromethane	50.0			70.1	ug/kg	9	140*	(0%-20%)			
Ethylbenzene	50.0			50.9	ug/kg	1	102	(0%-20%)			
Isopropylbenzene	50.0			52.0	ug/kg	11	104	(0%-20%)			
Methyl acetate	250			284	ug/kg	5	113	(0%-20%)			
Methylcyclohexane	50.0			50.0	ug/kg	2	100	(0%-20%)			
Methylene chloride	50.0			47.6	ug/kg	0	95	(0%-20%)			
Styrene	50.0			50.3	ug/kg	1	101	(0%-20%)			
Tetrachloroethylene	50.0			50.4	ug/kg	2	101	(0%-20%)			

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
Toluene	50.0			48.9	ug/kg	2	98	(0%-20%)	JP1	04/21/20	17:12
Trichloroethylene	50.0			51.1	ug/kg	1	102	(0%-20%)			
Trichlorofluoromethane	50.0			57.6	ug/kg	1	115	(0%-20%)			
Vinyl chloride	50.0			42.8	ug/kg	6	86	(0%-20%)			
cis-1,2-Dichloroethylene	50.0			45.5	ug/kg	0	91	(0%-20%)			
cis-1,3-Dichloropropylene	50.0			55.3	ug/kg	1	111	(0%-20%)			
m,p-Xylenes	100			96.0	ug/kg	0	96	(0%-20%)			
o-Xylene	50.0			47.2	ug/kg	2	94	(0%-20%)			
tert-Butyl methyl ether	50.0			48.0	ug/kg	3	96	(0%-20%)			
trans-1,2-Dichloroethylene	50.0			49.0	ug/kg	0	98	(0%-20%)			
trans-1,3-Dichloropropylene	50.0			55.3	ug/kg	1	111	(0%-20%)			
**1,2-Dichloroethane-d4	50.0			54.3	ug/L		109	(81%-124%)			
**Bromofluorobenzene	50.0			51.4	ug/L		103	(70%-130%)			
**Toluene-d8	50.0			49.0	ug/L		98	(81%-120%)			
QC1204549471 MB											
1,1,1-Trichloroethane			U	ND	ug/kg						04/21/20 19:13

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
1,1,2,2-Tetrachloroethane			U	ND	ug/kg				JP1	04/21/20	19:13
1,1,2-Trichloroethane			U	ND	ug/kg						
1,1-Dichloroethane			U	ND	ug/kg						
1,1-Dichloroethylene			U	ND	ug/kg						
1,2,3-Trichlorobenzene			U	ND	ug/kg						
1,2,4-Trichlorobenzene			U	ND	ug/kg						
1,2-Dibromo-3-chloropropane			U	ND	ug/kg						
1,2-Dibromoethane			U	ND	ug/kg						
1,2-Dichlorobenzene			U	ND	ug/kg						
1,2-Dichloroethane			U	ND	ug/kg						
1,2-Dichloropropane			U	ND	ug/kg						
1,3-Dichlorobenzene			U	ND	ug/kg						
1,4-Dichlorobenzene			U	ND	ug/kg						
1,4-Dioxane			U	ND	ug/kg						
2-Butanone			U	ND	ug/kg						

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## QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
2-Hexanone			U	ND	ug/kg				JP1	04/21/20	19:13
4-Methyl-2-pentanone			U	ND	ug/kg						
Acetone			U	ND	ug/kg						
Benzene			U	ND	ug/kg						
Bromochloromethane			U	ND	ug/kg						
Bromodichloromethane			U	ND	ug/kg						
Bromoform			U	ND	ug/kg						
Bromomethane			U	ND	ug/kg						
Carbon disulfide			U	ND	ug/kg						
Carbon tetrachloride			U	ND	ug/kg						
Chlorobenzene			U	ND	ug/kg						
Chloroethane			U	ND	ug/kg						
Chloroform			U	ND	ug/kg						
Chloromethane			U	ND	ug/kg						
Cyclohexane			U	ND	ug/kg						



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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
Dibromochloromethane			U	ND	ug/kg				JP1	04/21/20	19:13
Dichlorodifluoromethane			U	ND	ug/kg						
Ethylbenzene			U	ND	ug/kg						
Isopropylbenzene			U	ND	ug/kg						
Methyl acetate			U	ND	ug/kg						
Methylcyclohexane			U	ND	ug/kg						
Methylene chloride			U	ND	ug/kg						
Styrene			U	ND	ug/kg						
Tetrachloroethylene			U	ND	ug/kg						
Toluene			U	ND	ug/kg						
Trichloroethylene			U	ND	ug/kg						
Trichlorofluoromethane			U	ND	ug/kg						
Trichlorotrifluoroethane			U	ND	ug/kg						
Vinyl chloride			U	ND	ug/kg						
cis-1,2-Dichloroethylene			U	ND	ug/kg						

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
cis-1,3-Dichloropropylene			U	ND	ug/kg				JP1	04/21/20	19:13
m,p-Xylenes			U	ND	ug/kg						
o-Xylene			U	ND	ug/kg						
tert-Butyl methyl ether			U	ND	ug/kg						
trans-1,2-Dichloroethylene			U	ND	ug/kg						
trans-1,3-Dichloropropylene			U	ND	ug/kg						
**1,2-Dichloroethane-d4	50.0			52.5	ug/L		105	(81%-124%)			
**Bromofluorobenzene	50.0			49.5	ug/L		99	(70%-130%)			
**Toluene-d8	50.0			48.0	ug/L		96	(81%-120%)			
QC1204550002 MB											
1,1,1-Trichloroethane			U	ND	ug/kg					04/22/20	07:12
1,1,2,2-Tetrachloroethane			U	ND	ug/kg						
1,1,2-Trichloroethane			U	ND	ug/kg						
1,1-Dichloroethane			U	ND	ug/kg						
1,1-Dichloroethylene			U	ND	ug/kg						
1,2,3-Trichlorobenzene			U	ND	ug/kg						

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## QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
1,2,4-Trichlorobenzene			U	ND	ug/kg				JP1	04/22/20	07:12
1,2-Dibromo-3-chloropropane			U	ND	ug/kg						
1,2-Dibromoethane			U	ND	ug/kg						
1,2-Dichlorobenzene			U	ND	ug/kg						
1,2-Dichloroethane			U	ND	ug/kg						
1,2-Dichloropropane			U	ND	ug/kg						
1,3-Dichlorobenzene			U	ND	ug/kg						
1,4-Dichlorobenzene			U	ND	ug/kg						
1,4-Dioxane			U	ND	ug/kg						
2-Butanone			U	ND	ug/kg						
2-Hexanone			U	ND	ug/kg						
4-Methyl-2-pentanone			U	ND	ug/kg						
Acetone			U	ND	ug/kg						
Benzene			U	ND	ug/kg						
Bromochloromethane			U	ND	ug/kg						

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## QC Summary

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
Bromodichloromethane			U	ND	ug/kg				JP1	04/22/20	07:12
Bromoform			U	ND	ug/kg						
Bromomethane			U	ND	ug/kg						
Carbon disulfide			U	ND	ug/kg						
Carbon tetrachloride			U	ND	ug/kg						
Chlorobenzene			U	ND	ug/kg						
Chloroethane			U	ND	ug/kg						
Chloroform			U	ND	ug/kg						
Chloromethane			U	ND	ug/kg						
Cyclohexane			U	ND	ug/kg						
Dibromochloromethane			U	ND	ug/kg						
Dichlorodifluoromethane			U	ND	ug/kg						
Ethylbenzene			U	ND	ug/kg						
Isopropylbenzene			U	ND	ug/kg						
Methyl acetate			U	ND	ug/kg						

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
Methylcyclohexane			U	ND	ug/kg				JP1	04/22/20	07:12
Methylene chloride			U	ND	ug/kg						
Styrene			U	ND	ug/kg						
Tetrachloroethylene			U	ND	ug/kg						
Toluene			U	ND	ug/kg						
Trichloroethylene			U	ND	ug/kg						
Trichlorofluoromethane			U	ND	ug/kg						
Trichlorotrifluoroethane			U	ND	ug/kg						
Vinyl chloride			U	ND	ug/kg						
cis-1,2-Dichloroethylene			U	ND	ug/kg						
cis-1,3-Dichloropropylene			U	ND	ug/kg						
m,p-Xylenes			U	ND	ug/kg						
o-Xylene			U	ND	ug/kg						
tert-Butyl methyl ether			U	ND	ug/kg						
trans-1,2-Dichloroethylene			U	ND	ug/kg						

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Volatile-GC/MS</b>											
Batch	1991627										
trans-1,3-Dichloropropylene			U	ND	ug/kg				JP1	04/22/20	07:12
**1,2-Dichloroethane-d4	50.0			53.6	ug/L		107	(81%-124%)			
**Bromofluorobenzene	50.0			49.7	ug/L		99	(70%-130%)			
**Toluene-d8	50.0			47.9	ug/L		96	(81%-120%)			

### Notes:

The Qualifiers in this report are defined as follows:

- \*\* Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B The target analyte was detected in the associated blank.
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- E %difference of sample and SD is >10%. Sample concentration must meet flagging criteria
- E Concentration of the target analyte exceeds the instrument calibration range
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FB Mercury was found present at quantifiable concentrations in field blanks received with these samples. Data associated with the blank are deemed invalid for reporting to regulatory agencies
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- JNX Non Calibrated Compound
- N Metals--The Matrix spike sample recovery is not within specified control limits
- N Organics--Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- N Presumptive evidence based on mass spectral library search to make a tentative identification of the analyte (TIC). Quantitation is based on nearest internal standard response factor
- 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
P	Organics--	The concentrations between the primary and confirmation columns/detectors is >40% different. For HPLC, the difference is >70%.									
Q	One or more quality control criteria have not been met. Refer to the applicable narrative or DER.										
R	Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.										
R	Sample results are rejected										
U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.										
UJ	Compound cannot be extracted										
X	Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier										
Y	Other specific qualifiers were required to properly define the results. Consult case narrative.										
Y	QC Samples were not spiked with this compound										
Z	Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.										
^	RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.										
d	5-day BOD--The 2:1 depletion requirement was not met for this sample										
e	5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes										
h	Preparation or preservation holding time was exceeded										

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

\* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

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

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## QC Summary

Report Date: May 6, 2020

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Westinghouse Electric Company, LLC

PO Drawer R  
Columbia, South Carolina

Contact: Ms. Cynthia Logsdon

Workorder: 509497

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	1990493										
QC1204547034	509497001	DUP									
Fluoride		11.7		10.9	mg/kg	7.67		(0%-109%)	LXA2	04/18/20	10:39
QC1204547035	509497002	DUP									
Fluoride		5.54		7.12	mg/kg	25		(0%-109%)		04/18/20	13:13
QC1204547033	LCS										
Fluoride	25.3			25.8	mg/kg		102	(90%-110%)		04/18/20	09:37
QC1204547032	MB										
Fluoride			U	0.000	mg/kg					04/18/20	09:06
QC1204547036	509497001	MS									
Fluoride	27.5	11.7		32.5	mg/kg		75.6	(75%-125%)		04/18/20	12:11
QC1204547037	509497002	MS									
Fluoride	28.0	5.54		18.7	mg/kg		47.1 *	(75%-125%)		04/18/20	13:44
<hr/>											
Batch	1990498										
QC1204547040	509497015	DUP									
Fluoride		2.89		2.47	mg/kg	15.9 ^		(+/-1.10)	LXA2	04/17/20	12:30
QC1204547041	509497016	DUP									
Fluoride		1.73		1.44	mg/kg	18.4 ^		(+/-1.10)		04/17/20	14:02
QC1204547039	LCS										
Fluoride	25.3			25.0	mg/kg		98.9	(90%-110%)		04/17/20	11:28
QC1204547038	MB										
Fluoride			U	0.000	mg/kg					04/17/20	10:57



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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch	1990498										
QC1204547042	509497015	MS									
Fluoride	27.6	2.89		17.1	mg/kg		51.6*	(75%-125%)	LXA2	04/17/20	13:00
QC1204547043	509497016	MS									
Fluoride	26.5	1.73		17.3	mg/kg		58.9*	(75%-125%)		04/17/20	14:33
Batch	1990501										
QC1204547046	509497029	DUP									
Fluoride	J	0.572	J	0.682	mg/kg	17.5 ^		(+/-1.09)	JLD1	04/16/20	22:02
QC1204547047	509497030	DUP									
Fluoride	J	0.519	J	0.527	mg/kg	1.63 ^		(+/-1.18)		04/16/20	23:31
QC1204547045	LCS										
Fluoride	25.3			23.1	mg/kg		91.5	(90%-110%)		04/17/20	10:37
QC1204547044	MB										
Fluoride			U	0.000	mg/kg					04/17/20	10:07
QC1204547048	509497029	MS									
Fluoride	27.2	J	0.572	5.91	mg/kg		19.7*	(75%-125%)		04/16/20	22:31
QC1204547049	509497030	MS									
Fluoride	29.1	J	0.519	5.44	mg/kg		16.9*	(75%-125%)		04/17/20	00:01
Batch	1990504										
QC1204547052	509497043	DUP									
Fluoride		2.72		3.00	mg/kg	9.76 ^		(+/-1.11)	LXA2	04/18/20	03:51
QC1204547051	LCS										
Fluoride	25.1			24.6	mg/kg		98.3	(90%-110%)		04/18/20	01:08
QC1204547050	MB										
Fluoride			U	0.000	mg/kg					04/18/20	00:41

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## QC Summary

Workorder: 509497

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Ion Chromatography</b>											
Batch 1990504											
QC1204547054	509497043	MS									
Fluoride	27.8	2.72		16.1	mg/kg		48.2*	(75%-125%)	LXA2	04/18/20	04:18
<b>Rad Alpha Spec</b>											
Batch 1990418											
QC1204546938	509497001	DUP									
Uranium-233/234		1.42		1.27	pCi/g	11.1		(0%-20%)	EXC2	04/21/20	16:37
Uranium-235/236	U	0.115	U	0.0691	pCi/g	N/A		N/A			
Uranium-238		1.33		0.939	pCi/g	34.8*		(0%-20%)			
QC1204546939	LCS										
Uranium-233/234				12.2	pCi/g					04/21/20	16:37
Uranium-235/236				0.527	pCi/g						
Uranium-238	12.3			12.2	pCi/g		99.6	(75%-125%)			
QC1204546937	MB										
Uranium-233/234			U	0.0193	pCi/g					04/21/20	16:37
Uranium-235/236			U	-0.00840	pCi/g						
Uranium-238			U	-0.0136	pCi/g						
Batch 1990419											
QC1204546944	509497021	DUP									
Uranium-233/234		1.04		1.15	pCi/g	9.73		(0% - 100%)	MXS2	04/21/20	12:06
Uranium-235/236	U	0.0695	U	0.168	pCi/g	N/A		N/A			
Uranium-238		1.14		1.06	pCi/g	7.37		(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>Rad Alpha Spec</b>											
Batch	1990419										
QC1204546945	LCS										
Uranium-233/234				12.9	pCi/g				MXS2	04/21/20	12:06
Uranium-235/236				0.720	pCi/g						
Uranium-238	12.4			13.5	pCi/g		109	(75%-125%)			
QC1204546943	MB										
Uranium-233/234			U	-0.0755	pCi/g					04/21/20	12:06
Uranium-235/236			U	-0.0228	pCi/g						
Uranium-238			U	-0.00769	pCi/g						
Batch	1990421										
QC1204546953	509497041	DUP									
Uranium-233/234				2.14	pCi/g	4.88		(0%-20%)	MP2	04/21/20	12:10
Uranium-235/236		U		-0.00850	pCi/g	72.9		N/A			
Uranium-238				1.49	pCi/g	50.4*		(0%-20%)			
QC1204546954	LCS										
Uranium-233/234				11.7	pCi/g					04/21/20	12:10
Uranium-235/236				0.818	pCi/g						
Uranium-238	12.3			12.6	pCi/g		102	(75%-125%)			
QC1204546952	MB										
Uranium-233/234			U	-0.0383	pCi/g					04/21/20	12:10
Uranium-235/236			U	-0.00951	pCi/g						

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Alpha Spec</b>											
Batch	1990421										
Uranium-238			U	0.0808	pCi/g				MP2	04/21/20	12:10
<b>Rad Liquid Scintillation</b>											
Batch	1990515										
QC1204547066	509497001	DUP									
Technetium-99	U	-0.863	U	1.37	pCi/g	N/A		N/A	JJ3	04/26/20	11:08
QC1204547067	LCS										
Technetium-99	55.0			54.0	pCi/g		98.1	(75%-125%)		04/26/20	11:25
QC1204547065	MB										
Technetium-99			U	-1.22	pCi/g					04/26/20	10:52
Batch	1990516										
QC1204547069	509497021	DUP									
Technetium-99	U	0.425	U	0.274	pCi/g	N/A		N/A	JJ3	04/28/20	12:14
QC1204547070	LCS										
Technetium-99	54.6			49.3	pCi/g		90.3	(75%-125%)		04/28/20	12:30
QC1204547068	MB										
Technetium-99			U	1.44	pCi/g					04/28/20	11:58
Batch	1990517										
QC1204547072	509497041	DUP									
Technetium-99	U	0.416	U	-0.251	pCi/g	N/A		N/A	JJ3	04/26/20	08:19
QC1204547073	LCS										
Technetium-99	56.4			51.9	pCi/g		92.2	(75%-125%)		04/26/20	08:36
QC1204547071	MB										
Technetium-99			U	-0.694	pCi/g					04/26/20	08:03

Notes:

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## QC Summary

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
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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
- B The target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- E General Chemistry--Concentration of the target analyte exceeds the instrument calibration range
- FA Failed analysis.
- H Analytical holding time was exceeded
- J See case narrative for an explanation
- J Value is estimated
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD
- M REMP Result > MDC/CL and < RDL
- N/A RPD or %Recovery limits do not apply.
- N1 See case narrative
- ND Analyte concentration is not detected above the detection limit
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.
- R Per section 9.3.4.1 of Method 1664 Revision B, due to matrix spike recovery issues, this result may not be reported or used for regulatory compliance purposes.
- R Sample results are rejected
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
- UI Gamma Spectroscopy--Uncertain identification
- UJ Gamma Spectroscopy--Uncertain identification
- UL Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.
- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- Y Other specific qualifiers were required to properly define the results. Consult case narrative.
- Z Paint Filter Test--Particulates passed through the filter, however no free liquids were observed.
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- d 5-day BOD--The 2:1 depletion requirement was not met for this sample
- e 5-day BOD--Test replicates show more than 30% difference between high and low values. The data is qualified per the method and can be used for reporting purposes
- h Preparation or preservation holding time was exceeded

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## QC Summary

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<u>Parmname</u>	<u>NOM</u>	<u>Sample Qual</u>	<u>QC</u>	<u>Units</u>	<u>RPD%</u>	<u>REC%</u>	<u>Range</u>	<u>Anlst</u>	<u>Date</u>	<u>Time</u>
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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 #: 509497**

## **GC/MS Volatile**

**Product:** Volatile Organic Compounds (VOC) by Gas Chromatograph/Mass Spectrometer

**Analytical Method:** SW846 8260D

**Analytical Procedure:** GL-OA-E-038 REV# 28

**Analytical Batch:** 1991627

**Preparation Method:** SW846 5035

**Preparation Procedure:** GL-OA-E-039 REV# 13

**Preparation Batch:** 1991626

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>
509497002	WEC1000-2
509497005	WEC500-2
509497008	WEC700-2
509497011	WEC800-2
509497014	WEC400-2
509497017	WEC1001-2
509497021	C-45-3
509497026	C-42-3
509497031	C-53-3
509497036	C-63-3
509497040	C-66-2
509497041	C-66-3
509497046	C-57-3
509497049	C-57-6
509497050	C-57-7
509497051	C-57-8
509497053	S-16-2
1204549471	Method Blank (MB)
1204549472	Laboratory Control Sample (LCS)
1204549473	Laboratory Control Sample Duplicate (LCSD)
1204550002	Method Blank (MB)
1204550003	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.

### **Calibration Information**

#### **Continuing Calibration Verification Requirements**

All Calibration Verification Standards (CCV) did not meet the acceptance criteria as outlined in Method 8260D

for samples and the associated QC . However, the method allows for a designated number of outliers dependent on the requested analyte list. This SDG satisfied the 8260D outlier acceptance criteria. The results are reported.

### **Quality Control (QC) Information**

#### **Laboratory Control Sample (LCS) Recovery**

The LCS/and or LCSD (See Below) recoveries were not within the acceptance limits for all analytes. The unacceptable analytes were not detected in the samples associated with the laboratory control samples. Therefore, the data were reported.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1204549472 (LCS)	Dichlorodifluoromethane	153* (70%-130%)
1204549473 (LCSD)	Dichlorodifluoromethane	140* (70%-130%)

### **Miscellaneous Information**

#### **Additional Comments**

On 4-21-20 AM tune the LCS matrix was water and the LCSD matix was soil.

## **Metals**

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

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

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

**Analytical Batch:** 1990468

**Preparation Method:** SW846 3050B

**Preparation Procedure:** GL-MA-E-009 REV# 29

**Preparation Batch:** 1990467

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>
509497001	WEC1000-1
509497011	WEC800-2
509497021	C-45-3
509497031	C-53-3
509497041	C-66-3
509497051	C-57-8
1204547018	Method Blank (MB) <b>ICP-MS</b>
1204547019	Laboratory Control Sample (LCS)
1204547423	Laboratory Control Sample (LCS)
1204547022	509497001(WEC1000-1L) Serial Dilution (SD)
1204547020	509497001(WEC1000-1S) Matrix Spike (MS)
1204547424	509497001(WEC1000-1S) Matrix Spike (MS)
1204547021	509497001(WEC1000-1SD) Matrix Spike Duplicate (MSD)
1204547425	509497001(WEC1000-1SD) 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. The ICPMS solid samples in this SDG were diluted the standard two times.

Analyte	509497					
	001	011	021	031	041	051
Uranium-234	2X	2X	2X	2X	2X	2X
Uranium-235	2X	2X	2X	2X	2X	2X
Uranium-238	2X	2X	2X	2X	2X	2X

## General Chemistry

#### **Product: Ion Chromatography**

**Analytical Method:** SW846 9056A

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

**Analytical Batches:** 1990493 and 1990488

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>
509497001	WEC1000-1
509497002	WEC1000-2
509497003	WEC1000-3
509497004	WEC500-1
509497005	WEC500-2
509497006	WEC500-3
509497007	WEC700-1
509497008	WEC700-2
509497009	WEC700-3
509497010	WEC800-1
509497011	WEC800-2

509497012	WEC800-3
509497013	WEC400-1
509497014	WEC400-2
1204547032	Method Blank (MB)
1204547033	Laboratory Control Sample (LCS)
1204547034	509497001(WEC1000-1) Sample Duplicate (DUP)
1204547035	509497002(WEC1000-2) Sample Duplicate (DUP)
1204547036	509497001(WEC1000-1) Matrix Spike (MS)
1204547037	509497002(WEC1000-2) 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	1204547037 (WEC1000-2MS)	47.1* (75%-125%)

**Duplicate Relative Percent Difference (RPD) Statement**

The Relative Percent Difference (RPD) between the sample and duplicate falls outside of the established acceptance limits because of the heterogeneous matrix of the sample:

Analyte	Sample	Value
Fluoride	1204547035 (WEC1000-2DUP)	abs(7.12 - 5.54)* (+/-1.1 mg/kg)

**Technical Information**

**Sample Re-analysis**

Samples 1204547032 (MB), 1204547033 (LCS), 1204547034 (WEC1000-1DUP), 1204547035 (WEC1000-2DUP), 1204547036 (WEC1000-1MS), 1204547037 (WEC1000-2MS), 509497001 (WEC1000-1), 509497002 (WEC1000-2), 509497003 (WEC1000-3) and 509497004 (WEC500-1) 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:** 1990498 and 1990495

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
509497015	WEC400-3
509497016	WEC1001-1
509497017	WEC1001-2
509497018	WEC1001-3
509497019	C-45-1
509497020	C-45-2
509497021	C-45-3
509497022	C-45-4
509497023	C-45-5
509497024	C-42-1
509497025	C-42-2
509497026	C-42-3
509497027	C-42-4
509497028	C-42-5
1204547038	Method Blank (MB)
1204547039	Laboratory Control Sample (LCS)
1204547040	509497015(WEC400-3) Sample Duplicate (DUP)
1204547041	509497016(WEC1001-1) Sample Duplicate (DUP)
1204547042	509497015(WEC400-3) Matrix Spike (MS)
1204547043	509497016(WEC1001-1) 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.

#### Calibration Information

##### **Calibration Verification Information (CCV)**

One or more of the calibration verification standards was above the required limits. The results for the following samples bracketed by the failing CCV are less than the MDL or are QC samples associated with these samples. Therefore, the data is deemed acceptable. 509497020 (C-45-2), 509497021 (C-45-3), 509497022 (C-45-4), 509497023 (C-45-5), 509497024 (C-42-1), 509497025 (C-42-2), 509497026 (C-42-3), 509497027 (C-42-4) and 509497028 (C-42-5).

#### Technical Information

##### **Sample Re-analysis**

Samples 1204547038 (MB), 1204547039 (LCS), 1204547040 (WEC400-3DUP), 1204547041 (WEC1001-1DUP), 1204547042 (WEC400-3MS), 1204547043 (WEC1001-1MS), 509497015 (WEC400-3), 509497016 (WEC1001-1), 509497017 (WEC1001-2), 509497018 (WEC1001-3) and 509497019 (C-45-1) 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:** 1990501 and 1990499

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
509497029	C-53-1
509497030	C-53-2
509497031	C-53-3
509497032	C-53-4
509497033	C-53-5
509497034	C-63-1
509497035	C-63-2
509497036	C-63-3
509497037	C-63-4
509497038	C-63-5
509497039	C-66-1
509497040	C-66-2
509497041	C-66-3
509497042	C-66-4
1204547044	Method Blank (MB)
1204547045	Laboratory Control Sample (LCS)
1204547046	509497029(C-53-1) Sample Duplicate (DUP)
1204547047	509497030(C-53-2) Sample Duplicate (DUP)
1204547048	509497029(C-53-1) Matrix Spike (MS)
1204547049	509497030(C-53-2) 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.

**Calibration Information**

**Calibration Verification Information (CCV)**

One or more of the calibration verification standards was above the required limits. The results for the following samples bracketed by the failing CCV are less than the MDL or are QC samples associated with these samples. Therefore, the data is deemed acceptable. 1204547046 (C-53-1DUP), 1204547047 (C-53-2DUP), 1204547048 (C-53-1MS), 1204547049 (C-53-2MS), 509497029 (C-53-1), 509497030 (C-53-2), 509497031 (C-53-3), 509497033 (C-53-5), 509497034 (C-63-1), 509497035 (C-63-2), 509497037 (C-63-4), 509497038 (C-63-5), 509497039 (C-66-1), 509497040 (C-66-2) and 509497041 (C-66-3).

**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	1204547048 (C-53-1MS)	19.7* (75%-125%)
	1204547049 (C-53-2MS)	16.9* (75%-125%)

**Technical Information**

**Sample Re-analysis**

Samples 1204547044 (MB), 509497032 (C-53-4), 509497036 (C-63-3) and 509497042 (C-66-4) 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:** 1990504 and 1990503

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>
509497043	C-66-5
509497044	C-57-1
509497045	C-57-2
509497046	C-57-3
509497047	C-57-4
509497048	C-57-5
509497049	C-57-6
509497050	C-57-7
509497051	C-57-8
509497052	S-16-1
509497053	S-16-2
509497054	S-16-3
1204547050	Method Blank (MB)
1204547051	Laboratory Control Sample (LCS)
1204547052	509497043(C-66-5) Sample Duplicate (DUP)
1204547054	509497043(C-66-5) 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.

<b>Analyte</b>	<b>Sample</b>	<b>Value</b>
Fluoride	1204547054 (C-66-5MS)	48.2* (75%-125%)

**Technical Information**

**Sample Re-analysis**

Samples 1204547050 (MB), 1204547051 (LCS), 1204547052 (C-66-5DUP), 1204547054 (C-66-5MS), 509497043 (C-66-5) and 509497044 (C-57-1) were re-analyzed due to CCV failure. The reanalysis data with passing instrument QC was reported.

**Radiochemistry****Product: Alphaspec U, Solid**

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

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

**Analytical Batch:** 1990418

**Preparation Method:** Dry Soil Prep

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

**Preparation Batch:** 1990411

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>
509497001	WEC1000-1
509497002	WEC1000-2
509497003	WEC1000-3
509497004	WEC500-1
509497005	WEC500-2
509497006	WEC500-3
509497007	WEC700-1
509497008	WEC700-2
509497009	WEC700-3
509497010	WEC800-1
509497011	WEC800-2
509497012	WEC800-3
509497013	WEC400-1
509497014	WEC400-2
509497015	WEC400-3
509497016	WEC1001-1
509497017	WEC1001-2
509497018	WEC1001-3
509497019	C-45-1
509497020	C-45-2
1204546937	Method Blank (MB)
1204546938	509497001(WEC1000-1) Sample Duplicate (DUP)
1204546939	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**

**Duplication Criteria between QC Sample and Duplicate Sample**

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1204546938 (WEC1000-1DUP)	Uranium-238	RPD 34.8* (0.00%-20.00%) RER 1.23 (0-3)

**Product: Alphaspec U, Solid**

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

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

**Analytical Batch:** 1990419

**Preparation Method:** Dry Soil Prep

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

**Preparation Batch:** 1990412

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>
509497021	C-45-3
509497022	C-45-4
509497023	C-45-5
509497024	C-42-1
509497025	C-42-2
509497026	C-42-3
509497027	C-42-4
509497028	C-42-5
509497029	C-53-1
509497030	C-53-2
509497031	C-53-3
509497032	C-53-4
509497033	C-53-5
509497034	C-63-1
509497035	C-63-2
509497036	C-63-3
509497037	C-63-4
509497038	C-63-5
509497039	C-66-1
509497040	C-66-2
1204546943	Method Blank (MB)
1204546944	509497021(C-45-3) Sample Duplicate (DUP)
1204546945	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: Alphaspec U, Solid**

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

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

**Analytical Batch:** 1990421

**Preparation Method:** Dry Soil Prep

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

**Preparation Batch:** 1990414

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>
509497041	C-66-3
509497042	C-66-4
509497043	C-66-5
509497044	C-57-1
509497045	C-57-2
509497046	C-57-3
509497047	C-57-4
509497048	C-57-5
509497049	C-57-6
509497050	C-57-7
509497051	C-57-8
509497052	S-16-1
509497053	S-16-2
509497054	S-16-3
1204546952	Method Blank (MB)
1204546953	509497041(C-66-3) Sample Duplicate (DUP)
1204546954	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**

**Duplication Criteria between QC Sample and Duplicate Sample**

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.



Sample	Analyte	Value
1204546953 (C-66-3DUP)	Uranium-238	RPD 50.4* (0.00%-20.00%) RER 1.86 (0-3)

**Product: Dry Weight**

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

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

**Preparation Batch:** 1990411

**Preparation Method:** Dry Soil Prep

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

**Preparation Batch:** 1990411

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>
509497001	WEC1000-1
509497002	WEC1000-2
509497003	WEC1000-3
509497004	WEC500-1
509497005	WEC500-2
509497006	WEC500-3
509497007	WEC700-1
509497008	WEC700-2
509497009	WEC700-3
509497010	WEC800-1
509497011	WEC800-2
509497012	WEC800-3
509497013	WEC400-1
509497014	WEC400-2
509497015	WEC400-3
509497016	WEC1001-1
509497017	WEC1001-2
509497018	WEC1001-3
509497019	C-45-1
509497020	C-45-2
1204546925	509497001(WEC1000-1) 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**

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

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

**Preparation Batch:** 1990412

**Preparation Method:** Dry Soil Prep

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

**Preparation Batch:** 1990412

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>
509497021	C-45-3
509497022	C-45-4
509497023	C-45-5
509497024	C-42-1
509497025	C-42-2
509497026	C-42-3
509497027	C-42-4
509497028	C-42-5
509497029	C-53-1
509497030	C-53-2
509497031	C-53-3
509497032	C-53-4
509497033	C-53-5
509497034	C-63-1
509497035	C-63-2
509497036	C-63-3
509497037	C-63-4
509497038	C-63-5
509497039	C-66-1
509497040	C-66-2
1204546929	509497021(C-45-3) 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**

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

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

**Preparation Batch:** 1990414

**Preparation Method:** Dry Soil Prep

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

**Preparation Batch:** 1990414

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>
509497041	C-66-3
509497042	C-66-4
509497043	C-66-5
509497044	C-57-1
509497045	C-57-2
509497046	C-57-3
509497047	C-57-4
509497048	C-57-5
509497049	C-57-6
509497050	C-57-7
509497051	C-57-8
509497052	S-16-1
509497053	S-16-2
509497054	S-16-3
1204546930	509497041(C-66-3) 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:** 1990515

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>
509497001	WEC1000-1
509497002	WEC1000-2
509497003	WEC1000-3
509497004	WEC500-1
509497005	WEC500-2
509497006	WEC500-3
509497007	WEC700-1
509497008	WEC700-2
509497009	WEC700-3
509497010	WEC800-1
509497011	WEC800-2

509497012	WEC800-3
509497013	WEC400-1
509497014	WEC400-2
509497015	WEC400-3
509497016	WEC1001-1
509497017	WEC1001-2
509497018	WEC1001-3
509497019	C-45-1
509497020	C-45-2
1204547065	Method Blank (MB)
1204547066	509497001(WEC1000-1) Sample Duplicate (DUP)
1204547067	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:** 1990516

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>
509497021	C-45-3
509497022	C-45-4
509497023	C-45-5
509497024	C-42-1
509497025	C-42-2
509497026	C-42-3
509497027	C-42-4
509497028	C-42-5
509497029	C-53-1
509497030	C-53-2
509497031	C-53-3
509497032	C-53-4
509497033	C-53-5
509497034	C-63-1
509497035	C-63-2
509497036	C-63-3
509497037	C-63-4
509497038	C-63-5
509497039	C-66-1
509497040	C-66-2
1204547068	Method Blank (MB)
1204547069	509497021(C-45-3) 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:** 1990517

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>
509497041	C-66-3
509497042	C-66-4
509497043	C-66-5
509497044	C-57-1
509497045	C-57-2
509497046	C-57-3
509497047	C-57-4
509497048	C-57-5
509497049	C-57-6
509497050	C-57-7
509497051	C-57-8
509497052	S-16-1
509497053	S-16-2
509497054	S-16-3
1204547071	Method Blank (MB)
1204547072	509497041(C-66-3) Sample Duplicate (DUP)
1204547073	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the

requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL Laboratories LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

GEL Laboratories LLC  
 Chemistry | Radiochemistry | Radiobiology | Specialty Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager:

GEL Work Order Number: Phone # 803.312.4171  
 Fax #  
 Client Name: Westinghouse Electric Co. LLC  
 Address: 5801 Bluff Rd. Hopkins SC 29001  
 Contact Name: R. Crews  
 Email: rcrew@westinghouse.com  
 Send Results To: logsdoc@westinghouse.com

Sample ID  
 \*For composites - indicate start and stop date/time\*

Sample ID	*Date Collected (mm-dd-yy)	Time Collected (Military) (hh:mm)	OC Code (b) (hh:mm)	Field Filtered (b)	Sample Matrix (c)	Should this sample be considered:	Total number of containers	isotopic info	radiative	possible hazards
WEC1000-1	04-09-20	0850	G		SO		1			
WEC1000-2	04-09-20	0900	G		SO		2			
WEC1000-3	04-09-20	0903	G		SO		1			
WEC500-1	04-09-20	0911	G		SO		1			
WEC500-2	04-09-20	0914	G		SO		2			
WEC500-3	04-09-20	0919	G		SO		1			
WEC700-1	04-09-20	0922	G		SO		1			
WEC700-2	04-09-20	0920	G		SO		2			
WEC700-3	04-09-20	0930	G		SO		1			
WEC800-1	04-09-20	0933	G		SO		1			

Chain of Custody Signatures  
 Relinquished By (Signed) Date Time Received by (signed) Date Time  
 R. Crews 4/15/20 0947 152602 Location 4/15/20 0947  
 256402 Location 4/15/20 1110 2100 4/15/20 1810  
 3 4/15/20 1810 3 4/15/20 1810  
 For sample shipping and delivery details, see Sample Receipt & Review form (SRR)

TAT Requested: Normal:  Rush:  Specify: 2 WEEKS (Subject to Surchage)  
 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  Central  Mountain  Other

- Chain of Custody Number = Client Determined
  - 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
  - Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
  - Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal
  - 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).
  - 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
- 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 (F, K, P and U-listed wastes), Waste code(s):  
 TSCA Regulated: PCB = Polychlorinated biphenyls
- RCRA Metals: As = Arsenic, Hg = Mercury, Ba = Barium, Se = Selenium, Cd = Cadmium, Ag = Silver, Cr = Chromium, MR = Miscellaneous
- 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.)

**GEL Laboratories LLC**  
 Chemistry | Radiochemistry | Radioassay | Specialty Analytics  
 Chain of Custody and Analytical Request  
 GEL Project Manager:

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Subject # 2 of 6  
 Quote # Sealand Soil Apr 20  
 Order Number (1)  
 Order Number: 450077846 Ln 1  
 Client Name: Westinghouse Electric Co. LLC  
 Project/Site Name: 5801 Bluff Rd. Hopkins SC 29001  
 Address: 5801 Bluff Rd. Hopkins SC 29001  
 Contacted By: R. Crews  
 Send Results To: logsdon@westinghouse.com  
 Phone # 803.312.4171  
 Fax #

Sample Analysis Requested (6) (Fill in the number of containers for each test)

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (3)	Field Filtered (4)	Sample Matrix (5)	Should this sample be considered: Isotopic info	Radioactive	Total number of containers	Preservative Type (6)	Comments
WEC800-2	04-09-20	0930	G		SD			2		VOC ISO U, & spec ISO U, ICMS TC. 99
WEC800-3	04-09-20	0940	G		SD			1		
WEC400-1	04-09-20	0951	G		SD			1		
WEC400-2	04-09-20	0955	G		SD			2		
WEC400-3	04-09-20	0959	G		SD			1		
WEC1001-1	04-09-20	1003	G		SD			1		
WEC1001-2	04-09-20	1005	G		SD			2		
WEC1001-3	04-09-20	1009	G		SD			1		
C-45-1	04-09-20	1054	G		SD			1		
C-45-2	04-09-20	1100	G		SD			1		

Chain of Custody Signatures  
 Relinquished By (Signed) \_\_\_\_\_ Date \_\_\_\_\_ Received by (signed) \_\_\_\_\_ Date \_\_\_\_\_  
 TAT Requested: Normal:  Rush:  Specify: 2 WEEKS (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: 0C  
 Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other

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=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added = leave field blank  
 7.) 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  
 (F, K, P and U-listed wastes)  
 Waste code(s):  
 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

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.)  
 Description:



# GEL Chain of Custody and Analytical Request

GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Page: 3 of 6  
 Project #: Sealand Soil Apr 20  
 GEL Quote #: \_\_\_\_\_  
 COC Number (1): \_\_\_\_\_  
 PO Number: 4500778461 LN1

GEL Work Order Number:

Client Name: Westinghouse Electric Co. LLC Phone #: 803.312.4171  
 Project/Site Name: \_\_\_\_\_ Fax #: \_\_\_\_\_

Address: 5801 Bluff Rd. Hopkins SC 29061

Collected by: R. Crews Send Results To: logsdcc@westinghouse.com

Sample ID	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:		Total number of containers	Sample Analysis Requested (5) (Fill in the number of containers for each test)						Comments	
						Radioactive	TSCA Regulated		VOC		150 ug, 10 ppm		150 ug, 10 ppm			Fluoride
C-45-3	04-09-20	1104	G		SO			2	X	X	X	X	X	X		
C-45-4	04-09-20	1110	G		SO			1	X	X	X	X	X	X		
C-45-5	04-09-20	1113	G		SO			1	X	X	X	X	X	X		
<del>C-42-1</del>	04-09-20	1127	G		SO			1	X	X	X	X	X	X		
C-42-2	04-09-20	1131	G		SO			1	X	X	X	X	X	X		
C-42-3	04-09-20	1135	G		SO			2	X	X	X	X	X	X		
C-42-4	04-09-20	1138	G		SO			1	X	X	X	X	X	X		
C-42-5	04-09-20	1143	G		SO			1	X	X	X	X	X	X		
C-53-1	04-09-20	1204	G		SO			1	X	X	X	X	X	X		
C-53-2	04-09-20	1207	G		SO			1	X	X	X	X	X	X		

TAT Requested: Normal: Rush: X Specify: 2000 (Subject to Surchage) Fax Results: Yes / No No  
 Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4  
 Sample Collection Time Zone: Eastern Eastern Pacific Central Other \_\_\_\_\_  
 Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Chain of Custody Signatures			Sample Shipping and Delivery Details		
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>R. Crews</u>	<u>4/15/20</u>	<u>0947</u>	<u>Sealand Electric</u>	<u>4/15/20</u>	<u>0947</u>
<u>Sealand Electric</u>	<u>4/15/20</u>	<u>1110</u>	<u>R. Crews</u>	<u>4/15/20</u>	<u>18:10</u>
<u>R. Crews</u>	<u>4/15/20</u>	<u>1810</u>	<u>R. Crews</u>	<u>4/15/20</u>	<u>18:10</u>

GEL PM: \_\_\_\_\_ Date Shipped: \_\_\_\_\_  
 Method of Shipment: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

For Lab Receiving Use Only  
 Custody Seal Intact? YES NO  
 Cooler Temp: C

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, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal  
 5. Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6. Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

Page: 4 of 6  
 Project #: Sealand soil Apr 20  
 GEL Quote #: \_\_\_\_\_  
 COC Number (1): \_\_\_\_\_  
 PO Number: 4500778461 LNI.  
 Client Name: Wistinghouse Electric Co. LLC Phone #: 803.312.4171  
 Project/Site Name: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Address: 5801 Bluff Rd. Hopkins SC 29061  
 Collected by: R. Crews Send Results To: logsdorj@westinghouse.com  
 GEL Work Order Number: \_\_\_\_\_  
 GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

Sample ID	*Date Collected (mm-dd-yy)	Time Collected (Military) (hhmm)	QC Code (1)	Field Filtered (2)	Sample Matrix (3)	Sample Analysis Requested (5) (Fill in the number of containers for each test)						Should this sample be considered:	Preservative Type (6)	Comments	
						TSCA Regulated	Radioactive	Total number of containers	ISO U, a spec	ISO U, cpm	Fluoride				TC. 99
C-53-3	04-09-20	1212	G		SO										
C-53-4	04-09-20	1217	G		SO										
C-53-5	04-09-20	1219	G		SO										
C-603-1	04-09-20	1231	G		SO										
C-603-2	04-09-20	1235	G		SO										
C-603-3	04-09-20	1240	G		SO										
C-603-4	04-09-20	1246	G		SO										
C-603-5	04-09-20	1248	G		SO										
C-606-1	04-09-20	1322	G		SO										
C-606-2	04-09-20	1325	G		SO										

TAT Requested: Normal: Rush:  Specify: 2 WEEKS (Subject to Surcharge) Fax Results: Yes / No  /   
 Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4  
 Sample Collection Time Zone: Eastern  Pacific \_\_\_\_\_ Other \_\_\_\_\_  
 Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Chain of Custody Signatures			Sample Shipping and Delivery Details		
Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
<u>R. Crews</u>	<u>4/15/20</u>	<u>0947</u>	<u>1. Sealand location</u>	<u>4/15/20</u>	<u>0947</u>
<u>2. Sealand location</u>	<u>4/15/20</u>	<u>1110</u>	<u>2. R. Crews</u>	<u>4/15/20</u>	<u>1310</u>
<u>3. R. Crews</u>	<u>4/15/20</u>	<u>1810</u>	<u>3. R. Crews</u>	<u>4/15/20</u>	<u>1810</u>

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, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal  
 5. Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6. Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 For Lab Receiving Use Only  
 Custody Seal Intact? YES / NO  
 Cooler Temp: C

WHITE = LABORATORY  
 YELLOW = FILE  
 PINK = CLIENT

Page: 5 of 6  
 Project #: Sealand soil Apr 20  
 GEL Quote #: \_\_\_\_\_  
 COC Number <sup>(1)</sup>: \_\_\_\_\_  
 PO Number: 4500778461 L1

**GEL Chain of Custody and Analytical Request**  
 GEL Laboratories, LLC  
 2040 Savage Road  
 Charleston, SC 29407  
 Phone: (843) 556-8171  
 Fax: (843) 766-1178

GEL Work Order Number: \_\_\_\_\_  
 Client Name: Westinghouse Electric Co. LLC Phone #: 803.312.4171  
 Project/Site Name: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Address: 5801 Bluff Rd. Hopkins SC 29001  
 Collected by: R. Crews Send Results To: logsdorj@westinghouse.com

Sample ID	*Date Collected (mm-dd-yy)	Time Collected (Military) (hhmm)	QC Code <sup>(2)</sup>	Field Filtered <sup>(3)</sup>	Sample Matrix <sup>(4)</sup>	Should this sample be considered:	Total number of containers	Sample Analysis Requested <sup>(5)</sup> (Fill in the number of containers for each test)	Preservative Type <sup>(6)</sup>	Comments
						Radioactive				
						TSCA Regulated				
C-60-3	04-09-20	1332	G		SO		2	X		VOC
C-60-4	04-09-20	1330	G		SO		1	X		150 u, & spec
C-60-5	04-09-20	1339	G		SO		1	X		150 u, ICPMS
C-57-1	04-09-20	1353	G		SO		1	X		Fluoride
C-57-2	04-09-20	1350	G		SO		1	X		Te-99
C-57-3	04-09-20	1400	G		SO		2	X		
C-57-4	04-09-20	1404	G		SO		1	X		
C-57-5	04-09-20	1410	G		SO		1	X		
C-57-6	04-09-20	1415	G		SO		2	X		
C-57-7	04-09-20	1419	G		SO		2	X		

TAT Requested: Normal:  Rush:  Specify: 2 weeks (Subject to Surcharge) Fax Results: Yes /  No  
 Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Sample Collection Time Zone: Pacific  
 Eastern Central Mountain  
 Sample Shipping and Delivery Details  
 GEL PM: \_\_\_\_\_ Date Shipped: \_\_\_\_\_  
 Method of Shipment: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_  
 Airbill #: \_\_\_\_\_

Chain of Custody Signatures  
 Relinquished By (Signed) Date Time Received by (signed) Date Time  
R. Crews 4/15/2020 0947 SECURE LOCATION 4/15/2020 0947  
SECURE LOCATION 4/15/2020 1110  
SECURE LOCATION 4/15/2020 1410  
 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, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=Nasal  
 5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7470A) and number of containers provided for each (i.e. 8260B - 3, 6010B/7470A - 1).  
 6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate. If no preservative is added = leave field blank  
 For Lab Receiving Use Only  
 Custody Seal Intact? YES NO  
 Cooler Temp: \_\_\_\_\_ C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT



KG

SAMPLE RECEIPT & REVIEW FORM

509497

Client: <u>WNUC</u>		SDG/AR/COC/Work Order:	
Received By: <u>JA</u>		Date Received: <del>4/16/20</del> <u>4/15/20</u>	
Carrier and Tracking Number		Circle Applicable: FedEx Express   FedEx Ground   UPS   Field Services <u>Courier</u> Other	
Suspected Hazard Information		Yes	No
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
C) Did the RSO classify the samples as radioactive?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
D) Did the client designate samples are hazardous?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
E) Did the RSO identify possible hazards?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample Receipt Criteria		Yes	NA
1 Shipping containers received intact and sealed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Chain of custody documents included with shipment?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Samples requiring cold preservation within (0 < 6 deg. C)?*		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 Daily check performed and passed on IR temperature gun?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 Sample containers intact and sealed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6 Samples requiring chemical preservation at proper pH?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7 Do any samples require Volatile Analysis?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8 Samples received within holding time?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9 Sample ID's on COC match ID's on bottles?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10 Date & time on COC match date & time on bottles?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
11 Number of containers received match number indicated on COC?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
12 Are sample containers identifiable as GEL provided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
13 COC form is properly signed in relinquished/received sections?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments (Use Continuation Form if needed):			

**List of current GEL Certifications as of 06 May 2020**

<b>State</b>	<b>Certification</b>
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122020-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-20-16
Utah NELAP	SC000122020-32
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

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**Tc-99 Source Investigation, Phase I Results - Tabulated**

Sampling Event: Tc-99 Investigation Phase 1

Total Sample Count: 17

	Analyte (pCi/g)				Calculated Enrichment (%)	SOF Residential	SOF Industrial
	U-234	U-235	U-238	Tc-99			
Minimum Result:	0.7	0.0	0.5	0.0	0.5	0.1	0.0
Average Result:	<b>8,861.7</b>	<b>437.9</b>	<b>1,381.2</b>	<b>75.5</b>	<b>2.8</b>	<b>839.0</b>	<b>21.6</b>
Maximum Result:	61,500.0	2,850.0	8,710.0	377.0	5.1	5,705.5	139.0

#	Sample ID	Gross Analyte Activity (pCi/g)				Calculated Enrichment (%)	SOF Residential	SOF Industrial
		U-234	U-235	U-238	Tc-99			
1	T-1166	95.2	5.1	15.5	271.0	4.9	<b>23.3</b>	0.2
2	T-1160A	23,700.0	1,070.0	3,590.0	305.0	4.5	<b>2,229.3</b>	<b>54.7</b>
3	T-1160B	50,100.0	2,850.0	8,300.0	377.0	5.1	<b>4,822.8</b>	<b>134.6</b>
4	T-1149	61,500.0	2,800.0	8,710.0	48.7	4.8	<b>5,705.5</b>	<b>139.0</b>
5	T-1189	2,050.0	117.0	339.0	4.7	5.1	<b>196.8</b>	<b>5.5</b>
6	EL-S-A	728.0	37.7	155.0	203.0	3.7	<b>82.5</b>	<b>2.1</b>
7	EL-S-B	1,360.0	61.2	262.0	52.4	3.6	<b>133.7</b>	<b>3.4</b>
8	EL-S-C	11,100.0	502.0	2,100.0	19.5	3.6	<b>1,067.6</b>	<b>28.0</b>
9	EL-SO-D-2'	1.9	0.1	1.6	0.0	0.8	0.3	0.0
10	EL-SO-D-4'	0.8	0.0	0.5	0.0	0.5	0.1	0.0
11	EL-SO-D-6'	0.8	0.0	0.8	1.1	0.9	0.2	0.0
12	EL-SO-E-2'	1.7	0.0	0.8	0.0	0.7	0.2	0.0
13	EL-SO-E-4'	3.0	0.1	1.4	0.9	1.5	0.4	0.0
14	EL-SO-E-6'	3.4	0.3	1.5	0.0	3.2	0.4	0.0
15	EL-SO-F-2'	2.7	0.1	1.1	0.3	1.4	0.3	0.0
16	EL-SO-F-4'	1.0	0.1	0.6	0.0	2.6	0.1	0.0
17	EL-SO-F-6'	0.7	0.0	0.7	0.0	0.8	0.1	0.0



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**Tc-99 Source Investigation, Phase I- GEL Analytical Results**

GEL Analytical Results  
Sampling conducted: March 9, 2020  
GEL Work Order: 506781  
Report Date: March 19, 2020



March 19, 2020

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

Re: ENV-CONSENTA-4500778461  
Work Order: 506781

Dear Ms. Logsdon:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on March 11, 2020. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. This package is revised to include the correct reporting limits.

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. 4707.

Sincerely,

Katelyn Gray  
Project Manager

Purchase Order: 4500778461  
Enclosures



**GEL LABORATORIES LLC**

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

**Certificate of Analysis Report  
for**

WNUC009 Westinghouse Electric Co, LLC

Client SDG: 506781 GEL Work Order: 506781

**The Qualifiers in this report are defined as follows:**

- \* A quality control analyte recovery is outside of specified acceptance criteria
- \*\* Analyte is a Tracer compound
- \*\* Analyte is a surrogate compound
- U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

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

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

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



Reviewed by \_\_\_\_\_

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	T-1166	Project:	WNUC00901
Sample ID:	506781001	Client ID:	WNUC009
Matrix:	Misc Liquid		
Collect Date:	09-MAR-20 09:19		
Receive Date:	11-MAR-20		
Collector:	Client		

---

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
Rad Alpha Spec Analysis												
Alphaspec U, Liquid "As Received"												
Pct Uranium-235		4.88				percent		MP2	03/14/20	0928	1979596	1
Uranium-233/234		95.2	+/-3.55	0.270	0.500	pCi/L						
Uranium-235/236		5.11	+/-0.919	0.235	0.500	pCi/L						
Uranium-238		15.5	+/-1.43	0.103	0.500	pCi/L						
Rad Liquid Scintillation Analysis												
Liquid Scint Tc99, Liquid "As Received"												
Technetium-99		271	+/-17.8	21.3	5.00	pCi/L		JJ3	03/17/20	0658	1979684	2

The following Analytical Methods were performed:

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

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Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			86.1	(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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID:	T-1160A	Project:	WNUC00901
Sample ID:	506781002	Client ID:	WNUC009
Matrix:	Misc Liquid		
Collect Date:	09-MAR-20 09:26		
Receive Date:	11-MAR-20		
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		4.42				percent		MP2	03/16/20	1410	1980559	1
Uranium-233/234		23700	+/-708	44.5	0.500	pCi/L						
Uranium-235/236		1070	+/-167	28.6	0.500	pCi/L						
Uranium-238		3590	+/-276	25.9	0.500	pCi/L						

### Rad Liquid Scintillation Analysis

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

Technetium-99		305	+/-18.5	21.5	5.00	pCi/L		JJ3	03/17/20	0901	1979684	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"			51.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "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

# GEL LABORATORIES LLC

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

## Certificate of Analysis

Report Date: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID:	T-1160B	Project:	WNUC00901
Sample ID:	506781003	Client ID:	WNUC009
Matrix:	Misc Liquid		
Collect Date:	09-MAR-20 09:27		
Receive Date:	11-MAR-20		
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		5.06				percent		MP2	03/16/20	1605	1980559	1	
Uranium-233/234		50100	+/-1530	91.2	0.500	pCi/L							
Uranium-235/236		2850	+/-407	45.2	0.500	pCi/L							
Uranium-238		8300	+/-624	51.2	0.500	pCi/L							

### Rad Liquid Scintillation Analysis

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

Technetium-99		377	+/-19.8	21.7	5.00	pCi/L		JJ3	03/17/20	1103	1979684	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"			28.2	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			94.8	(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: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

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Client Sample ID:	T-1149	Project:	WNUC00901
Sample ID:	506781004	Client ID:	WNUC009
Matrix:	Misc Liquid		
Collect Date:	09-MAR-20 09:29		
Receive Date:	11-MAR-20		
Collector:	Client		

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Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>High Rad Testing</b>													
<b>Alphaspec U, Liquid "As Received"</b>													
Pct Uranium-235		4.75				percent			JXB7	03/16/20	2330	1980586	1
Uranium-233/234		61500	+/-1460	71.5	1.00	pCi/L							
Uranium-235/236		2800	+/-347	33.4	1.00	pCi/L							
Uranium-238		8710	+/-550	59.4	1.00	pCi/L							
<b>Liquid Scint Tc99, Liquid "As Received"</b>													
Technetium-99	U	48.7	+/-52.6	88.3	5.00	pCi/L			AXM6	03/17/20	0743	1979703	2

The following Analytical Methods were performed:

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

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Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Uranium-232 Tracer	Alphaspec U, Liquid "As Received"			93.7	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			77	(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: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

---

Client Sample ID:	T-1189	Project:	WNUC00901
Sample ID:	506781005	Client ID:	WNUC009
Matrix:	Misc Liquid		
Collect Date:	09-MAR-20 09:33		
Receive Date:	11-MAR-20		
Collector:	Client		

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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		5.09				percent		MP2		03/16/20	1600	1980559	1
Uranium-233/234		2050	+/-121	16.3	0.500	pCi/L							
Uranium-235/236		117	+/-32.7	14.0	0.500	pCi/L							
Uranium-238		339	+/-49.3	12.2	0.500	pCi/L							

### Rad Liquid Scintillation Analysis

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

Technetium-99		4.70	+/-1.58	2.53	5.00	pCi/L		JJ3		03/17/20	1305	1979684	2
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The following Analytical Methods were performed:

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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"			79.6	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Liquid "As Received"			93.9	(15%-125%)

### Notes:

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

### Column headers are defined as follows:

DF: Dilution Factor	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: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: EL-S-A	Project: WNUC00901
Sample ID: 506781006	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 09:50	
Receive Date: 11-MAR-20	
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, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		728	+/-19.7	1.10	1.00	pCi/g			MP2	03/17/20	0910	1980800	1
Uranium-235/236		37.7	+/-5.00	0.779	1.00	pCi/g							
Uranium-238		155	+/-9.10	0.631	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99		203	+/-6.94	4.22	5.00	pCi/g			JJ3	03/17/20	0833	1979694	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	03/12/20	1414	1979613

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, Solid "Dry Weight Corrected"			102	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			92.9	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: EL-S-B	Project: WNUC00901
Sample ID: 506781007	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 09:55	
Receive Date: 11-MAR-20	
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, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1360	+/-32.5	1.58	1.00	pCi/g			MP2	03/17/20	0910	1980800	1
Uranium-235/236		61.2	+/-7.67	1.29	1.00	pCi/g							
Uranium-238		262	+/-14.3	1.14	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99		52.4	+/-4.08	4.20	5.00	pCi/g			JJ3	03/17/20	0850	1979694	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	03/12/20	1414	1979613

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, Solid "Dry Weight Corrected"			83.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			91.9	(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: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: EL-S-C	Project: WNUC00901
Sample ID: 506781008	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 10:00	
Receive Date: 11-MAR-20	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
<b>High Rad Testing</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99		19.5	+/-5.49	8.87	5.00	pCi/g			AXM6	03/17/20	0756	1979700	1
<b>Alphaspec U, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		11100	+/-171	4.38	1.00	pCi/g			JXB7	03/16/20	2330	1979706	2
Uranium-235/236		502	+/-40.4	4.68	1.00	pCi/g							
Uranium-238		2100	+/-74.3	3.28	1.00	pCi/g							

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AXM6	03/12/20	1653	1979695

The following Analytical Methods were performed:

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

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			78.1	(15%-125%)
Uranium-232 Tracer	Alphaspec U, Solid "Dry Weight Corrected"			51.7	(15%-125%)

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

Column headers are defined as follows:

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

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## Certificate of Analysis

Report Date: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: EL-SO-D-2'	Project: WNUC00901
Sample ID: 506781009	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 10:19	
Receive Date: 11-MAR-20	
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, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.87	+/-0.323	0.133	1.00	pCi/g			HAKB	03/16/20	1311	1979622	1
Uranium-235/236	U	0.0783	+/-0.0843	0.0959	1.00	pCi/g							
Uranium-238		1.60	+/-0.298	0.109	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-1.71	+/-2.16	3.91	5.00	pCi/g			JJ3	03/17/20	0906	1979694	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	03/12/20	1414	1979613

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, Solid "Dry Weight Corrected"			88.3	(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

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## Certificate of Analysis

Report Date: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: EL-SO-D-4'	Project: WNUC00901
Sample ID: 506781010	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 10:37	
Receive Date: 11-MAR-20	
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, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.812	+/-0.193	0.101	1.00	pCi/g			HAKB	03/16/20	1311	1979622	1
Uranium-235/236	U	0.0145	+/-0.0495	0.0917	1.00	pCi/g							
Uranium-238		0.465	+/-0.147	0.0873	1.00	pCi/g							

**Rad Liquid Scintillation Analysis**

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

Technetium-99	U	-0.386	+/-2.50	4.37	5.00	pCi/g			JJ3	03/17/20	1433	1979694	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	03/12/20	1414	1979613

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, Solid "Dry Weight Corrected"			94.4	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			92.3	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: EL-SO-D-6'	Project: WNUC00901
Sample ID: 506781011	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 10:54	
Receive Date: 11-MAR-20	
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, Solid "Dry Weight Corrected"**

Uranium-233/234		0.777	+/-0.202	0.102	1.00	pCi/g			HAKB	03/16/20	1311	1979622	1
Uranium-235/236	U	0.0442	+/-0.0636	0.0767	1.00	pCi/g							
Uranium-238		0.822	+/-0.205	0.0717	1.00	pCi/g							

**Rad Liquid Scintillation Analysis**

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

Technetium-99	U	1.12	+/-2.46	4.21	5.00	pCi/g			JJ3	03/17/20	1450	1979694	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	03/12/20	1414	1979613

**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, Solid "Dry Weight Corrected"			82.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			92.9	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: EL-SO-E-2'	Project: WNUC00901
Sample ID: 506781012	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 11:19	
Receive Date: 11-MAR-20	
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, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.66	+/-0.288	0.108	1.00	pCi/g			HAKB	03/16/20	1311	1979622	1
Uranium-235/236	U	0.0355	+/-0.0629	0.0952	1.00	pCi/g							
Uranium-238		0.842	+/-0.204	0.0605	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-1.08	+/-2.40	4.26	5.00	pCi/g			JJ3	03/17/20	1507	1979694	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	03/12/20	1414	1979613

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, Solid "Dry Weight Corrected"			87.3	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			93.1	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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-4500778461

Client Sample ID: EL-SO-E-4'	Project: WNUC00901
Sample ID: 506781013	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 11:24	
Receive Date: 11-MAR-20	
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, Solid "Dry Weight Corrected"**

Uranium-233/234		2.98	+/-0.380	0.103	1.00	pCi/g			HAKB	03/16/20	1311	1979622	1
Uranium-235/236		0.131	+/-0.0961	0.0852	1.00	pCi/g							
Uranium-238		1.37	+/-0.260	0.0964	1.00	pCi/g							

**Rad Liquid Scintillation Analysis**

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

Technetium-99	U	0.878	+/-2.38	4.08	5.00	pCi/g			JJ3	03/17/20	1523	1979694	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	03/12/20	1414	1979613

**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, Solid "Dry Weight Corrected"			86.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			94.6	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: EL-SO-E-6'	Project: WNUC00901
Sample ID: 506781014	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 11:33	
Receive Date: 11-MAR-20	
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, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		3.35	+/-0.469	0.134	1.00	pCi/g			HAKB	03/16/20	1311	1979622	1
Uranium-235/236		0.323	+/-0.169	0.115	1.00	pCi/g							
Uranium-238		1.54	+/-0.318	0.0932	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.714	+/-2.34	4.12	5.00	pCi/g			JJ3	03/17/20	1540	1979694	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	03/12/20	1414	1979613

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, Solid "Dry Weight Corrected"			72.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			92.5	(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: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: EL-SO-F-2'	Project: WNUC00901
Sample ID: 506781015	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 11:46	
Receive Date: 11-MAR-20	
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, Solid "Dry Weight Corrected"**

Uranium-233/234		2.69	+/-0.380	0.133	1.00	pCi/g			HAKB	03/16/20	1311	1979622	1
Uranium-235/236		0.0967	+/-0.0878	0.0805	1.00	pCi/g							
Uranium-238		1.12	+/-0.246	0.100	1.00	pCi/g							

**Rad Liquid Scintillation Analysis**

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

Technetium-99	U	0.317	+/-2.23	3.86	5.00	pCi/g			JJ3	03/17/20	1556	1979694	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	03/12/20	1414	1979613

**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, Solid "Dry Weight Corrected"			84.4	(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

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## Certificate of Analysis

Report Date: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: EL-SO-F-4'	Project: WNUC00901
Sample ID: 506781016	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 11:56	
Receive Date: 11-MAR-20	
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, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		1.02	+/-0.247	0.128	1.00	pCi/g			HAKB	03/16/20	1311	1979622	1
Uranium-235/236	U	0.100	+/-0.0953	0.101	1.00	pCi/g							
Uranium-238		0.600	+/-0.190	0.103	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-1.30	+/-2.19	3.90	5.00	pCi/g			JJ3	03/17/20	1613	1979694	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	03/12/20	1414	1979613

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, Solid "Dry Weight Corrected"			75.5	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			93.3	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

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

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## Certificate of Analysis

Report Date: March 19, 2020

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

Columbia, South Carolina 29205

Contact: Ms. Cynthia Logsdon  
Project: ENV-CONSENTA-4500778461

Client Sample ID: EL-SO-F-6'	Project: WNUC00901
Sample ID: 506781017	Client ID: WNUC009
Matrix: Solid	
Collect Date: 09-MAR-20 12:08	
Receive Date: 11-MAR-20	
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, Solid "Dry Weight Corrected"</b>													
Uranium-233/234		0.732	+/-0.217	0.103	1.00	pCi/g			HAKB	03/16/20	1311	1979622	1
Uranium-235/236	U	0.0347	+/-0.0681	0.0944	1.00	pCi/g							
Uranium-238		0.706	+/-0.212	0.0973	1.00	pCi/g							
<b>Rad Liquid Scintillation Analysis</b>													
<b>Liquid Scint Tc99, Soil "As Received"</b>													
Technetium-99	U	-0.0515	+/-2.38	4.16	5.00	pCi/g			JJ3	03/17/20	1629	1979694	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	03/12/20	1414	1979613

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, Solid "Dry Weight Corrected"			70.8	(15%-125%)
Technetium-99m Tracer	Liquid Scint Tc99, Soil "As Received"			92	(15%-125%)

**Notes:**

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

Column headers are defined as follows:

DF: Dilution Factor	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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## QC Summary

Report Date: March 19, 2020

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Westinghouse Electric Company, LLC

PO Drawer R  
Columbia, South Carolina

Contact: Ms. Cynthia Logsdon

Workorder: 506781

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>High Rad Testing</b>											
Batch	1979700										
QC1204523272	506781008	DUP									
Technetium-99		19.5		36.5	pCi/g	60.5		(0% - 100%)	AXM6	03/17/20	12:14
	Uncertainty	+/-5.49		+/-5.94							
QC1204523273	LCS										
Technetium-99	308			241	pCi/g		78.3	(75%-125%)		03/17/20	14:17
	Uncertainty			+/-19.8							
QC1204523271	MB										
Technetium-99			U	-0.263	pCi/g					03/17/20	10:04
	Uncertainty			+/-5.41							
Batch	1979703										
QC1204523283	506781004	DUP									
Technetium-99			U	48.7	pCi/L	N/A			N/AAXM6	03/17/20	11:57
	Uncertainty	+/-52.6		+/-53.8							
QC1204523284	LCS										
Technetium-99	3030			2890	pCi/L		95.4	(75%-125%)		03/17/20	14:00
	Uncertainty			+/-207							
QC1204523282	MB										
Technetium-99			U	53.6	pCi/L					03/17/20	09:51
	Uncertainty			+/-44.2							
Batch	1979706										
QC1204523290	506781008	DUP									
Uranium-233/234		11100		12100	pCi/g	8.31		(0%-20%)	JXB7	03/16/20	23:30
	Uncertainty	+/-171		+/-194							
Uranium-235/236		502		555	pCi/g	10		(0%-20%)			
	Uncertainty	+/-40.4		+/-46.4							
Uranium-238		2100		2460	pCi/g	15.7		(0%-20%)			
	Uncertainty	+/-74.3		+/-87.7							
QC1204523291	LCS										
Uranium-233/234				71.9	pCi/g					03/16/20	23:30
	Uncertainty			+/-9.15							
Uranium-235/236				2.88	pCi/g						
	Uncertainty			+/-2.20							

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## QC Summary

Workorder: 506781

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>High Rad Testing</b>											
Batch	1979706										
Uranium-238	74.8			77.6	pCi/g		104	(75%-125%)	JXB7	03/16/20	23:30
	Uncertainty			+/-9.50							
QC1204523289	MB										
Uranium-233/234			U	0.474	pCi/g					03/16/20	23:30
	Uncertainty			+/-0.902							
Uranium-235/236			U	-0.0597	pCi/g						
	Uncertainty			+/-0.515							
Uranium-238			U	-0.0965	pCi/g						
	Uncertainty			+/-0.427							
Batch	1980586										
QC1204525412	506781004 DUP										
Pct Uranium-235		4.75		4.32	percent	9.59		(0%-20%)	JXB7	03/16/20	23:30
Uranium-233/234		61500		66900	pCi/L	8.36		(0%-20%)			
	Uncertainty	+/-1460		+/-1550							
Uranium-235/236		2800		2970	pCi/L	5.82		(0%-20%)			
	Uncertainty	+/-347		+/-364							
Uranium-238		8710		10200	pCi/L	15.9		(0%-20%)			
	Uncertainty	+/-550		+/-607							
QC1204525413	LCS										
Pct Uranium-235				0.796	percent					03/16/20	23:30
Uranium-233/234				2620	pCi/L						
	Uncertainty			+/-293							
Uranium-235/236				134	pCi/L						
	Uncertainty			+/-78.6							
Uranium-238	2730			2590	pCi/L		95.1	(75%-125%)			
	Uncertainty			+/-288							
QC1204525411	MB										
Pct Uranium-235			U	0.000	percent					03/16/20	23:30
Uranium-233/234			U	6.04	pCi/L						
	Uncertainty			+/-29.4							

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## QC Summary

Workorder: **506781**

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>High Rad Testing</b>											
Batch	1980586										
Uranium-235/236			U	-2.50	pCi/L				JXB7	03/16/20	23:30
	Uncertainty			+/-21.6							
Uranium-238			U	12.8	pCi/L						
	Uncertainty			+/-29.4							
<b>Rad Alpha Spec</b>											
Batch	1979596										
QC1204523023	LCS										
Pct Uranium-235				1.09	percent				MP2	03/14/20	09:28
Uranium-233/234				14.0	pCi/L						
	Uncertainty			+/-1.33							
Uranium-235/236				1.03	pCi/L						
	Uncertainty			+/-0.409							
Uranium-238	13.6			14.6	pCi/L		107	(75%-125%)			
	Uncertainty			+/-1.35							
QC1204523834	LCSD										
Pct Uranium-235				0.670	percent	47.4				03/14/20	09:28
Uranium-233/234				12.6	pCi/L	10.7					
	Uncertainty			+/-1.25							
Uranium-235/236				0.566	pCi/L	58.4					
	Uncertainty			+/-0.313							
Uranium-238	13.6			13.0	pCi/L	11.1	95.7	(0%-20%)			
	Uncertainty			+/-1.27							
QC1204523021	MB										
Pct Uranium-235			U	0.000	percent					03/14/20	09:28
Uranium-233/234			U	0.223	pCi/L						
	Uncertainty			+/-0.223							
Uranium-235/236			U	0.0451	pCi/L						
	Uncertainty			+/-0.154							
Uranium-238			U	0.0464	pCi/L						
	Uncertainty			+/-0.145							

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## QC Summary

Workorder: **506781**

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Alpha Spec</b>											
Batch	1979622										
QC1204523078	506693001 DUP										
Uranium-233/234		1.64		1.93	pCi/g	16.1		(0%-20%)	HAKB	03/16/20	13:11
	Uncertainty	+/-0.294		+/-0.306							
Uranium-235/236	U	0.0618		0.0880	pCi/g	11		(0% - 100%)			
	Uncertainty	+/-0.0729		+/-0.0799							
Uranium-238		0.821		0.998	pCi/g	19.5		(0%-20%)			
	Uncertainty	+/-0.207		+/-0.220							
QC1204523079	LCS										
Uranium-233/234				4.98	pCi/g					03/16/20	13:11
	Uncertainty			+/-0.486							
Uranium-235/236				0.374	pCi/g						
	Uncertainty			+/-0.151							
Uranium-238	5.20			4.88	pCi/g		93.8	(75%-125%)			
	Uncertainty			+/-0.480							
QC1204523077	MB										
Uranium-233/234			U	0.0240	pCi/g					03/16/20	13:11
	Uncertainty			+/-0.0586							
Uranium-235/236			U	-0.00869	pCi/g						
	Uncertainty			+/-0.0384							
Uranium-238			U	0.0111	pCi/g						
	Uncertainty			+/-0.0417							
Batch	1980559										
QC1204525329	LCS										
Pct Uranium-235				1.24	percent				MP2	03/16/20	14:10
Uranium-233/234				470	pCi/L						
	Uncertainty			+/-54.3							
Uranium-235/236				39.6	pCi/L						
	Uncertainty			+/-18.0							
Uranium-238	545			490	pCi/L		89.9	(75%-125%)			
	Uncertainty			+/-55.4							
QC1204525330	LCSD										
Pct Uranium-235				0.869	percent	35.2				03/16/20	14:10



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## QC Summary

Workorder: 506781

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Alpha Spec</b>											
Batch	1980559										
Uranium-233/234				528	pCi/L	11.5			MP2	03/16/20	14:10
	Uncertainty			+/-63.9							
Uranium-235/236				31.9	pCi/L	21.4					
	Uncertainty			+/-18.0							
Uranium-238	545			565	pCi/L	14.3	104	(0%-20%)			
	Uncertainty			+/-66.0							
QC1204525328	MB										
Pct Uranium-235			U	0.000	percent					03/16/20	14:10
Uranium-233/234			U	2.01	pCi/L						
	Uncertainty			+/-7.64							
Uranium-235/236			U	2.31	pCi/L						
	Uncertainty			+/-6.49							
Uranium-238			U	0.0747	pCi/L						
	Uncertainty			+/-5.54							
Batch	1980800										
QC1204526063	506781006	DUP									
Uranium-233/234				728	pCi/g	8.68		(0%-20%)	MP2	03/17/20	09:10
	Uncertainty		+/-19.7	+/-21.9							
Uranium-235/236				37.7	pCi/g	23.3*		(0%-20%)			
	Uncertainty		+/-5.00	+/-5.18							
Uranium-238				155	pCi/g	10.7		(0%-20%)			
	Uncertainty		+/-9.10	+/-10.0							
QC1204526064	LCS										
Uranium-233/234				53.7	pCi/g					03/17/20	09:10
	Uncertainty			+/-6.37							
Uranium-235/236				3.13	pCi/g						
	Uncertainty			+/-1.77							
Uranium-238	52.4			55.6	pCi/g		106	(75%-125%)			
	Uncertainty			+/-6.47							
QC1204526062	MB										
Uranium-233/234			U	-0.0547	pCi/g					03/17/20	09:10
	Uncertainty			+/-0.502							

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## QC Summary

Workorder: 506781

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Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
<b>Rad Alpha Spec</b>											
Batch	1980800										
Uranium-235/236			U	0.110	pCi/g				MP2	03/17/20	09:10
	Uncertainty			+/-0.495							
Uranium-238			U	0.115	pCi/g						
	Uncertainty			+/-0.397							
<b>Rad Liquid Scintillation</b>											
Batch	1979684										
QC1204523240	LCS										
Technetium-99	151			156	pCi/L		103	(75%-125%)	JJ3	03/17/20	17:11
	Uncertainty			+/-9.30							
QC1204523603	LCSD										
Technetium-99	151			143	pCi/L	9.01	94.4	(0%-20%)		03/17/20	17:28
	Uncertainty			+/-8.60							
QC1204523238	MB										
Technetium-99			U	-0.549	pCi/L					03/17/20	15:08
	Uncertainty			+/-1.25							
Batch	1979694										
QC1204523258	506693001 DUP										
Technetium-99	U	-0.349	U	0.524	pCi/g	N/A		N/A	JJ3	03/17/20	17:02
	Uncertainty	+/-2.19		+/-2.52							
QC1204523259	LCS										
Technetium-99	56.8			56.3	pCi/g		99	(75%-125%)		03/17/20	17:19
	Uncertainty			+/-3.95							
QC1204523257	MB										
Technetium-99			U	-0.228	pCi/g					03/17/20	16:46
	Uncertainty			+/-2.24							

**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

# GEL LABORATORIES LLC

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## QC Summary

Workorder: 506781

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Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
J											
K											
L											
M											
M											
N/A											
N1											
ND											
NJ											
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.

**Radiochemistry  
Technical Case Narrative  
Westinghouse Electric Co, LLC  
SDG #: 506781**

**Product:** Alphaspec U, Solid

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

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

**Analytical Batch:** 1979706

**Preparation Method:** Dry Soil Prep

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

**Preparation Batch:** 1979695

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>
506781008	EL-S-C
1204523289	Method Blank (MB)
1204523290	506781008(EL-S-C) Sample Duplicate (DUP)
1204523291	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**

**RDL Met**

The blank (See Below) did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1204523289 (MB)	Uranium-233/234	Result 0.474 < MDA 1.5 > RDL 1 pCi/g
	Uranium-235/236	Result -0.0597 < MDA 1.19 > RDL 1 pCi/g
	Uranium-238	Result -0.0965 < MDA 1.11 > RDL 1 pCi/g

**Miscellaneous Information**

**Manual Integration**

Manual integrations of alpha spectroscopy spectra 1204523290 (EL-S-CDUP) and 506781008 (EL-S-C) were performed to fully separate counts in Regions of Interest which would have been biased.

**Additional Comments**

The tracer peak centroid for sample 506781008 (EL-S-C) is greater than 50 keV from the expected library

energy value for the tracer; however, the tracer yield requirement was met and the tracer peak is within the tracer region of interest.

**Product: Alphaspec U, Liquid**

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

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

**Analytical Batch:** 1980586

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>
506781004	T-1149
1204525411	Method Blank (MB)
1204525412	506781004(T-1149) Sample Duplicate (DUP)
1204525413	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Aliquot Reduced**

aliquots were reduced due to high activity based on Gamma data.

**Quality Control (QC) Information**

**RDL Met**

The blank (See Below) did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1204525411 (MB)	Uranium-233/234	Result 6.04 < MDA 58.1 > RDL 1 pCi/L
	Uranium-235/236	Result -2.5 < MDA 50 > RDL 1 pCi/L
	Uranium-238	Result 12.8 < MDA 46.7 > RDL 1 pCi/L

**Technical Information**

**Sample Re-prep/Re-analysis**

Sample 506781004 (T-1149) was re-prepped due to low carrier/tracer yield. The re-analysis is being reported.

**Product: Alphaspec U, Liquid**

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

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

**Analytical Batch:** 1979596

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>
506781001	T-1166
1204523021	Method Blank (MB)
1204523023	Laboratory Control Sample (LCS)
1204523834	Laboratory Control Sample Duplicate (LCSD)

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, Solid**

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

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

**Analytical Batch:** 1979622

**Preparation Method:** Dry Soil Prep

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

**Preparation Batch:** 1979613

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>
506781009	EL-SO-D-2'
506781010	EL-SO-D-4'
506781011	EL-SO-D-6'
506781012	EL-SO-E-2'
506781013	EL-SO-E-4'
506781014	EL-SO-E-6'
506781015	EL-SO-F-2'
506781016	EL-SO-F-4'
506781017	EL-SO-F-6'
1204523077	Method Blank (MB)
1204523078	506693001(FM-1-2') Sample Duplicate (DUP)
1204523079	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: Alphaspec U, Liquid**

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

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

**Analytical Batch:** 1980559

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>
506781002	T-1160A
506781003	T-1160B
506781005	T-1189
1204525328	Method Blank (MB)
1204525329	Laboratory Control Sample (LCS)
1204525330	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**RDL Met**

The blank (See Below) did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1204525328 (MB)	Uranium-233/234	Result 2.01 < MDA 14.8 > RDL 0.5 pCi/L
	Uranium-235/236	Result 2.31 < MDA 6.93 > RDL 0.5 pCi/L
	Uranium-238	Result 0.0747 < MDA 12.3 > RDL 0.5 pCi/L

**Technical Information**

**Sample Re-prep/Re-analysis**

Samples 506781002 (T-1160A), 506781003 (T-1160B) and 506781005 (T-1189) were re-prepped due to low carrier/tracer yield. The re-analysis is being reported.

**Product: Alphaspec U, Solid**

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

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

**Analytical Batch:** 1980800

**Preparation Method:** Dry Soil Prep

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

**Preparation Batch:** 1979613

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>
506781006	EL-S-A
506781007	EL-S-B
1204526062	Method Blank (MB)
1204526063	506781006(EL-S-A) Sample Duplicate (DUP)
1204526064	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**

**Duplication Criteria between QC Sample and Duplicate Sample**

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

<b>Sample</b>	<b>Analyte</b>	<b>Value</b>
1204526063 (EL-S-ADUP)	Uranium-235/236	RPD 23.3* (0.00%-20.00%) RER 1.52 (0-3)

**Technical Information**

**Sample Re-prep/Re-analysis**

Samples were re-prepped due to low carrier/tracer yield. The re-analysis is being reported.

**Product: Dry Weight**

**Preparation Method:** Dry Soil Prep

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

**Preparation Batch:** 1979613

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>
506781006	EL-S-A
506781007	EL-S-B
506781009	EL-SO-D-2'



506781010	EL-SO-D-4'
506781011	EL-SO-D-6'
506781012	EL-SO-E-2'
506781013	EL-SO-E-4'
506781014	EL-SO-E-6'
506781015	EL-SO-F-2'
506781016	EL-SO-F-4'
506781017	EL-SO-F-6'

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**

**Preparation Method:** Dry Soil Prep

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

**Preparation Batch:** 1979695

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>
506781008	EL-S-C

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:** 1979700

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>
506781008	EL-S-C
1204523271	Method Blank (MB)
1204523272	506781008(EL-S-C) Sample Duplicate (DUP)
1204523273	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Preparation Information**

Performed a double iron scavenge and all part 61 clean ups and rinses to reduce interferences.

**Quality Control (QC) Information**

**RDL Met**

The blank (See Below) did not meet the detection limit due to keeping the blank volume consistent with the other sample aliquots.

Sample	Analyte	Value
1204523271 (MB)	Technetium-99	Result -0.263 < MDA 9.21 > RDL 5 pCi/g

**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:** 1979703

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>
506781004	T-1149
1204523282	Method Blank (MB)
1204523283	506781004(T-1149) Sample Duplicate (DUP)
1204523284	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Preparation Information**

Performed a double iron scavenge and all part 61 clean ups and rinses to reduce interferences.

**Quality Control (QC) Information**

**RDL Met**

Samples (See Below) did not meet the detection limits due to limited sample volume. Samples were counted the maximum count time in order to achieve the lowest MDAs possible.

Sample	Analyte	Value
1204523282 (MB)	Technetium-99	Result 53.6 < MDA 73.8 > RDL 50 pCi/L
1204523283 (T-1149DUP)	Technetium-99	Result 38.3 < MDA 90.6 > RDL 50 pCi/L
506781004 (T-1149)	Technetium-99	Result 48.7 < MDA 88.3 > RDL 50 pCi/L

**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:** 1979684

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>
506781001	T-1166
506781002	T-1160A
506781003	T-1160B
506781005	T-1189
1204523238	Method Blank (MB)
1204523240	Laboratory Control Sample (LCS)
1204523603	Laboratory Control Sample Duplicate (LCSD)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information****Aliquot Reduced**

506781001 (T-1166), 506781002 (T-1160A) and 506781003 (T-1160B) aliquot volumes were reduced due to the sample matrix.

**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:** 1979694

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>
506781006	EL-S-A
506781007	EL-S-B
506781009	EL-SO-D-2'
506781010	EL-SO-D-4'
506781011	EL-SO-D-6'
506781012	EL-SO-E-2'
506781013	EL-SO-E-4'
506781014	EL-SO-E-6'
506781015	EL-SO-F-2'
506781016	EL-SO-F-4'
506781017	EL-SO-F-6'
1204523257	Method Blank (MB)
1204523258	506693001(FM-1-2') Sample Duplicate (DUP)
1204523259	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.



Sample ID <i>* For composites - indicate start and stop date/time</i>	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered:		Total number of containers	Isotopic U by Alpha Spec TC-99	Sample Analysis Requested (5) (Fill in the number of containers for each test)	Preservative Type (6)	Comments
						Yes, please supply isotopic info.)	(7) Known or possible hazards					
EL-SO-D-6'	3/9/2020	1054	G	N	SO			1	X			Note: extra sample is required for sample specific QC
EL-SO-E-2'	3/9/2020	1119	G	N	SO			1	X			
EL-SO-E-4'	3/9/2020	1124	G	N	SO			1	X			
EL-SO-E-6'	3/9/2020	1133	G	N	SO			1	X			
EL-SO-F-2'	3/9/2020	1146	G	N	SO			1	X			
EL-SO-F-4'	3/9/2020	1156	G	N	SO			1	X			
EL-SO-F-6'	3/9/2020	1208	G	N	SO			1	X			

Collected By: Randy Crews *Randy Crews* Send Results To: logsdocj@westinghouse.com

Relinquished By (Signed) \_\_\_\_\_ Date 3/11/2020 Time 10:11

Received by (signed) \_\_\_\_\_ Date 3/11/2020 Time 10:11

1. Randy Crews *Randy Crews*

2. Secure Location 3/11/2020 10:11

3. *M. M. M. 3/11/20 10:35*

TAT Requested: Normal: \_\_\_\_\_ Rush:  Specify: 5 day (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: 2 °C

Sample Collection Time Zone:  Eastern  Pacific  Central  Mountain  Other:

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.) **KNOWN OR POSSIBLE HAZARDS**

RCRA Metals  
 As = Arsenic Hg = Mercury  
 Ba = Barium Se = Selenium  
 Cd = Cadmium Ag = Silver  
 Cr = Chromium MR = Misc. RCRA metals  
 Pb = Lead

Characteristic Hazards  
 FL = Flammable/Ignitable  
 CO = Corrosive  
 RE = Reactive

Listed Waste  
 LW = Listed Waste  
 (F, K, P and U-listed wastes.)  
 Waste code(s): \_\_\_\_\_

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.)



# Nuclear Material RECEIPT/SHIPMENT Request

Fill in ALL shaded areas  
Submit Completed Form to EH&S Safeguards Coordinator

FORM NO.:	NMM-CP-620-1
REVISION:	1
PAGE:	1 OF 1
EFFECTIVE DATE:	04-10-08

<input checked="" type="checkbox"/> TO BE SHIPPED
<input type="checkbox"/> TO BE RECEIVED

<b>REQUESTER:</b>
Name <u>Cynthia Logsdon</u>
Department <u>EHS Environmental Engineering</u>
Phone <u>x3171</u>
Date of Request <u>03-11-2020</u>

<b>SHIPPER/RECEIVER IS:</b>
DOMESTIC? <u>x</u> Yes
FOREIGN? <u>    </u> Yes

**FACILITY NAME & ADDRESS**

C/O GEL courier  
GEL Laboratories  
2040 Savage Road, Charleston, SC 29407

**CONTACT NAME / PHONE / FAX**

Katelyn Gray, Project Manager  
Office Direct: 843.852.5814 | Office Main: 843.556.8171 ext.4707 | Fax: 843.766.1178  
E-Mail: [Katelyn.gray@gel.com](mailto:Katelyn.gray@gel.com)

**DESCRIPTION OF MATERIAL REQUESTED TO BE RECEIVED**

MATERIAL TYPE	MATERIAL FORM	CONTAINER TYPE	NO. OF CONTAINERS
<input type="checkbox"/> Depleted (<0.711 %U235)	(Powder, Pellets, Rods, etc.)	(Drum, Pail, Box, etc.)	Total 17 containers in 1 cooler
<input type="checkbox"/> Natural (=0.711 %U235)	Contamination	Samples	
<input checked="" type="checkbox"/> Enriched (>0.711 %U235)			

**MATERIAL QUANTITIES (TOTAL)**

Net Weight	Grams Uranium	Grams U235	%U235
6000.583 grams		0.017820353	

**SPECIAL INSTRUCTIONS/COMMENTS**

These samples include three samples of sludge from the East Lagoon, five liquid samples from wastewater treatment process tanks, and nine soil samples. The U235 quantity for the East Lagoon sludge samples is based on sample results received from GEL during the East Lagoon sludge sampling campaign in October 2019. The sample result was based on dried material, whereas this net weight is of wet samples.

Liquid sample U235 quantities are based on calculations derived from Chem Lab ppm U sample results received on 3-10-2020. The soil samples are assumed non-radioactive.

These samples are being sent to a laboratory that is licensed to receive radiological samples for Tc-99 and Isotopic Uranium characterization analyses.

APPROVALS	COMMENTS	DATE
n/a	Not being shipped; pickup by lab courier service	n/a
U.S. Transport Operations		
EH&S Item Control Coordinator		03-11-2020
EH&S Measurement Control Coordinator		03-11-2020

Denotes Change

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# Nuclear Material RECEIPT/SHIPMENT Request

FORM NO.:	NMM-CP-620-1
REVISION:	1
PAGE:	2 OF 1
EFFECTIVE DATE:	04-10-08

Fill in ALL shaded areas  
Submit Completed Form to EH&S Safeguards Coordinator

<hr/> EH&S Safeguards Coordinator		03-11-2020
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SAMPLE RECEIPT & REVIEW FORM

506781

Client: <u>WNUC</u>	SDG/AR/COC/Work Order:
Received By: <u>TVE</u>	Date Received: <u>3/11/20</u>
Carrier and Tracking Number	Circle Applicable: FedEx Express    FedEx Ground    UPS    Field Services <u>Courier</u> Other

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?		<input checked="" type="checkbox"/>	Hazard Class Shipped: _____ UN#: _____ (If UN2910, Is the Radioactive Shipment Survey Compliant? Yes ___ No ___)
B) Did the client designate the samples are to be received as radioactive?		<input checked="" type="checkbox"/>	COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?	<input checked="" type="checkbox"/>		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): <u>0</u> CPM / mR/HR Classified as: <u>Rad 1</u> <u>Rad 2</u> <u>Rad 3</u>
D) Did the client designate samples are hazardous?	<input checked="" type="checkbox"/>		COC notation or hazard labels on containers equal client designation.
E) Did the RSO identify possible hazards?	<input checked="" type="checkbox"/>		If D or E is yes, select Hazards below. PCB's    Flammable    Foreign Soil    RCRA    Asbestos    Beryllium    Other: _____

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1 Shipping containers received intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
2 Chain of custody documents included with shipment?	<input checked="" type="checkbox"/>			Circle Applicable: Client contacted and provided COC    COC created upon receipt
3 Samples requiring cold preservation within (0 ≤ 6 deg. C)?*	<input checked="" type="checkbox"/>			Preservation Method: <u>Wet Ice</u> Ice Packs    Dry Ice    None    Other: _____ *all temperatures are recorded in Celsius
4 Daily check performed and passed on IR temperature gun?	<input checked="" type="checkbox"/>			Temperature Device Serial #: <u>374-18</u> TEMP: <u>2°C</u> Secondary Temperature Device Serial # (If Applicable): _____
5 Sample containers intact and sealed?	<input checked="" type="checkbox"/>			Circle Applicable: Seals broken    Damaged container    Leaking container    Other (describe)
6 Samples requiring chemical preservation at proper pH?	<input checked="" type="checkbox"/>			Sample ID's and Containers Affected: _____
7 Do any samples require Volatile Analysis?	<input checked="" type="checkbox"/>			If Preservation added, Lot#: _____
				If Yes, are Encores or Soil Kits present for solids? Yes <input checked="" type="checkbox"/> No ___ NA ___ (If yes, take to VOA Freezer)
				Are liquid VOA vials contain acid preservation? Yes ___ No ___ NA ___ (If unknown, select No)
8 Samples received within holding time?	<input checked="" type="checkbox"/>			Sample ID's and containers affected: _____
9 Sample ID's on COC match ID's on bottles?	<input checked="" type="checkbox"/>			ID's and containers affected: _____
10 Date & time on COC match date & time on bottles?	<input checked="" type="checkbox"/>			Circle Applicable: No dates on containers    No times on containers    COC missing info    Other (describe)
11 Number of containers received match number indicated on COC?	<input checked="" type="checkbox"/>			Circle Applicable: No container count on COC    Other (describe)
12 Are sample containers identifiable as GEL provided?	<input checked="" type="checkbox"/>			
13 COC form is properly signed in relinquished/received sections?	<input checked="" type="checkbox"/>			Circle Applicable: Not relinquished    Other (describe)

Comments (Use Continuation Form if needed):

**List of current GEL Certifications as of 19 March 2020**

<b>State</b>	<b>Certification</b>
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approv	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122020-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2019-165
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of L	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-20-16
Utah NELAP	SC000122020-32
Vermont	VT87156
Virginia NELAP	460202
Washington	C780