

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-20-54

June 15, 2020

Subject: May 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 May 12, 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.
 - Hosted a webinar on May 28, 2020 to discuss SCDHEC comments on the Interim RI Data Summary Report
 - Began preparing the report for the Tc-99 Source Investigation Work Plan Results Phase I and Phase II

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- Completed the following activities to support the Southern Storage Area (SSA) Operable Unit (OU) Work Plan:
 - Continued wet combustible material (WCM) drum removal from 3 intermodal containers (C-41, C-56, and C-23) that have been on hold. Drums potentially containing perchloroethylene were segregated and stored.
 - Intermodal container C-41 was safely emptied of its contents on 5/14/2020.
 - Intermodal container C-56 was safely emptied of its contents on 5/22/2020.
 - One sheet of plywood was removed from the floor of **C-56** and sampled. This plywood was from a secondary flooring added to the sealand. There is no evidence that any material penetrated this layer of plywood to the primary flooring. Bias sampling will be performed in the area once the sealand is removed.
 - Intermodal container C-23, was safely emptied of its contents on 6/2/2020.
 - Two sections of contaminated flooring were identified in C-23. The contaminated sections were painted over to "fix" the material in place so that it could not be transferred to other locations.
 - Four (4) of the original eleven (11) intermodal containers have been emptied since April 14, 2020.
- (b) Results of sampling and tests:
 - Tabulated results of Tc-99 Source Investigation Work Plan- Phase II are included in Attachment A. The associated laboratory report is included as Attachment B.
- (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:
 - o Host a webinar to discuss and propose the scope for the RI Phase II Work Plan
 - Submit an assessment report of the Tc-99 Source Investigation Work Plan Results -Phase I and Phase II
 - Based on discussion with DHEC, progress on removal of the sealands will continue to be submitted in the required monthly reports, and a consolidated report will be issued upon completion of the project.
 - Continue WCM drum removal from the 7 remaining intermodal containers; segregate and store drums potentially containing perchloroethylene
 - Submit data from the Hydrofluoric Acid Spiking Station #1 (HFSS#1) Soil Sampling conducted May 4-6, 2020 in accordance with the approved work plan submitted in LTR-RAC-20-31.
- (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,

Ma U

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

Tc-99 Source Investigation, Phase II Results - Tabulated

Sampling Event:	Tc-99 Investigation Phase 2-Liquid	Total Sample Count:	12
	re >> mvesugation r nase 2 Enquia	rotar Gumpic Gount.	12

		Analyte	(pCi/L)		Calculated	SOF	SOF
	U-234	U-235	U-238	Tc-99	(%)	Residiential	Industrial
Minimum Result:	0.1	0.0	0.1	0.0	4.2	0.0	0.0
Average Result:	128,559	5,834	17,931	133.5	5.9	11,906.2	288.6
Maximum Result:	513,000.0	21,700.0	75,100.0	449.0	15.0	47,541.4	1,130.9

#	Somalo ID	Gro	ss Analyte	Activity (pC	i/L)	Calculated	SOF	SOF
#	Sample ID	U-234	U-235	U-238	Tc-99	(%)	Residiential	Industrial
1	CL-1 Before	513,000	21,700	75,100	58.7	4.30	47,541.4	1,130.9
2	CL-1 After	32,900	1,600	5,480	50.1	4.40	3,124.8	81.6
3	CL-2 Before	282,000	12,900	32,900	449.0	5.80	25,678.4	599.8
4	CL-2 After	96,400	4,200	11,100	73.9	5.60	8,737.1	198.8
5	CL-3 Before	367,000	16,800	50,700	438.0	4.90	33,975.3	824.9
6	CL-3 After	30,900	1,390	4,000	16.4	5.20	2,837.3	67.3
7	CL-4 Before	174,000	9,220	28,300	142.0	4.90	16,566.0	447.1
8	CL-4 After	25,900	1,170	4,190	63.7	4.20	2,441.2	61.2
	Scrap Cage Monitor							
9	Discharge	20,600	1,030	3,400	201.0	4.50	1,966.8	51.6
10	W2	3.9	0.6	0.5	96.0	15.00	5.5	0.0
11	T-19 Ammonia	0.1	0.0	0.1	13.4		0.7	0.0
12	T-20 Ammonia	0.2	0.0	0.2	0.0		0.0	0.0

Sampling Event:	Tc-99 Investigation Phase 2-Solid	Total Sample Count:	3

		Analyte	(pCi/g)		Calculated	SOF	SOF
	U-234	U-235	U-238	Tc-99 (%)		Residiential	Industrial
Minimum Result:	16.3	0.7	2.4	0.5	4.4	1.5	0.0
Average Result:	175,509	7,486	25,070	8.7	4.5	16,227.5	385.0
Maximum Result:	523,000.0	22,300.0	74,700.0	22.1	4.6	48,355.1	1,147.1

#	Sample ID	Gro	ss Analyte	Activity (pC	Calculated	SOF	SOF	
#	Sample ID	U-234	U-235	U-238	Tc-99	(%)	Residiential	Industrial
1	WG-D46035	523,000	22,300	74,700	22.1	4.5	48,355.1	1,147.1
2	Calcium Flouride	16.3	0.7	2.4	0.5	4.4	1.5	0.0
	Sludge Dewatering							
3	D45671	3,510	156	507	3.5	4.6	325.9	7.9

Attachment B

Tc-99 Source Investigation, Phase II- GEL Analytical Results

GEL Analytical Results Sampling conducted: April 8-9, 2020 GEL Work Order: 510356 Report Date: May 13, 2020



a member of The GEL Group INC



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

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May 13, 2020

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

Re: ENV-CONSENTA-4500778461 Work Order: 510356

Dear Ms. Logsdon:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 29, 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.

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,

Mim Ame

Nina Gampe for Katelyn Gray Project Manager

Purchase Order: 4500775170 Enclosures



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Certificate of Analysis Report for

WNUC009 Westinghouse Electric Co, LLC

Client SDG: 510356 GEL Work Order: 510356

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.

Min Ange

Reviewed by

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Certificate of Analysis

						<u>, , , , , , , , , , , , , , , , , , , </u>			Report Da	ate:	May 13	, 2020
	Company : Address :	Westinghouse PO Drawer R	Electric Compa	any, LLC								
		Columbia, So	uth Carolina 29	205								
	Contact:	Ms. Cynthia I	Logsdon									
	Project:	ENV-CONSE	NTA-45007784	61								
	Client Sample ID:	CL-1 Before				Р	roject:		WNUC00901			
	Sample ID:	510356001				C	lient ID:		WNUC009			
	Matrix:	Misc Liquid										
	Collect Date:	09-APR-20 07	7:00									
	Receive Date:	29-APR-20										
	Collector:	Client										
Parameter High Rad 7	Quali	fier Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst Date	Tim	e Batch	Method
Alphaspec	U, Liquid As Rece	1ved 4 29				parcant			IVB7 05/12/20	1854	1006515	1
Uranium-233/	233	5.13E+05	+/-6850	242	1.00	percent pCi/L			JAD7 03/12/20	1054	1990313	1
Uranium-235/	236	21700	+/-1570	88.3	1.00	pCi/L						
Uranium-238		75100	+/-2620	167	1.00	pCi/L						
Liquid Scir	nt Tc99, Liquid "As	Received"										
Technetium-9	9	U 58.7	+/-77.2	130	5.00	pCi/L			AXM6 05/11/20	0853	1993870	2
The follow	ving Analytical Meth	nods were perfor	rmed:									
Method	Descr	iption					Analyst	Cor	nments			
1	DOE E	ML HASL-300, U-	02-RC Modified									
2	DOE E	ML HASL-300, Tc	-02-RC Modified									
Surrogate/7	Fracer Recovery	Test			R	Result	Nomina	1	Recovery%	Acce	ptable L	imits
Uranium-232	Tracer A	Alphaspec U, Liquic	l "As Received"						31.5	(1	5%-125%))
Technetium-9	9m Tracer I	Liquid Scint Tc99, I	iquid "As Received	"					90.1	(1	5%-125%))
Notes:	Incortainty is calcul	ated at the 05%	confidence lovel	1 (1 96 sig	ma)							

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

Column headers are defined as follows: DF. Dilution Factor

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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				-) 10 110			Re	eport Da	te:	May 13	, 2020
Compa Address	ny : s :	West PO E	inghous Drawer R	e Electric (Compan	y, LLC									
Contact	t:	Colu Ms. (ENV	mbia, So Cynthia I-CONSI	outh Carolin Logsdon ENTA-450	na 2920 077846)5									
Client	Sample ID:	CI -1	After		077010	-		p	roject		WNU	C00901			
Sample	ID.	5103	56002					ſ	lient ID		WNU	C009			
Matrix.	12.	Misc	Liquid					C	ment ID	•		2007			
Collect	Date:	09-A	PR-20.0	7.00											
Receive	e Date:	29-A	PR-20	1.00											
Collecto	or:	Clien	nt												
Demonstern	Orrali	£	Descult	I.I.a conta in	4 1			Lin:to	DE		A	at Data			Mathad
Parameter	Quan	ner	Result	Uncertain	ty .	MDC	KL	Units	PF	DF	Analy	st Date		Batch	Method
Rad Alpha Spec Ana	alysis														
Alphaspec U, Liquid	d "As Recei	ived"	4.24								DVA4	05/02/20	0926	1002007	1
Uranium-233/234			4.34	+/-4	47	25.7	0.500	percent pCi/L			БАА4	05/02/20	0830	1993987	1
Uranium-235/236			1600	+/-1	10	5.85	0.500	pCi/L							
Uranium-238			5480	+/-1	83	22.7	0.500	pCi/L							
Rad Liquid Scintilla	tion Analys	sis													
Liquid Scint Tc99, I	Liquid "As l	Receiv	red"												
Technetium-99		U	50.1	+/-30).8	51.1	5.00	pCi/L			JJ3	05/05/20	1341	1993585	2
The following Anal	ytical Meth	nods we	ere perfo	ormed:											
Method	Descri	iption							Analys	t Cor	nments				
1	DOE E	ML HAS	SL-300, U	-02-RC Modi	fied										
2	DOE E	ML HAS	SL-300, To	c-02-RC Mod	ified										
Surrogate/Tracer Re	covery	Test					R	lesult	Nomin	al	Recov	very%	Accep	table L	imits
Uranium-232 Tracer	A	Alphaspe	c U, Liqui	d "As Receive	ed"							89	(15	;%-125%))
Technetium-99m Tracer	L	Liquid Sc	cint Tc99,	Liquid "As Re	eceived"						9	98.9	(15	;%-125%))
Notes: Counting Uncertaint	ty is calcula	ated at	the 95%	confidence	e level (1.96-sigi	ma).								
Column headers are	e defined as	follow	/s:												
DF: Dilution Factor	•			Lc/LC: C	Critical I	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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									Re	eport Da	te:	May 13	, 2020
	Company : Address :	Westinghouse PO Drawer R	e Electric Com	pany, LLC									
	Contact:	Columbia, So	uth Carolina 2	29205									
	Project:	ENV-CONSE	ENTA-4500778	8461									
	Client Sample ID:	CL -2 Before				p	roject.		WNU	700901			
	Sample ID:	510356003				ſ	'lient ID		WNU	~009			
	Matrix:	Misc Liquid				C		•		2007			
	Collect Date:		7.00										
	Collect Date.	09-AFR-200	7.00										
	Collector:	29-AFK-20 Client											
	Concetor.	Chem											
Parameter	Quali	ifier Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Alpha	Spec Analysis												
Alphaspec	U, Liquid "As Rece	ived"											
Pct Uranium-	235	5.74				percent			BXA4	05/02/20	0836	1993987	1
Uranium-233/	/234	2.82E+05	+/-1990	55.6	0.500	pCi/L							
Uranium-235/	/236	12900	+/-472	13.5	0.500	pCi/L							
Uranium-238	Sointillation Analy	32900	+/-678	27.9	0.500	pCi/L							
	T Schullauon Analy	SIS											
Liquid Scii	nt 1099, Liquid As	Received	1/266	517	5.00	pCi/I			112	05/05/20	1547	1002585	2
The follow	ving Applytical Mat	449 hode ware parfo	+/-30.0	51.7	5.00	pci/L			112	03/03/20	1347	1993363	2
Mathod	Dosor	intion	med.				Analya	t Cor	mmonte				
1	DOE F	EML HASL-300. U-	02-RC Modified				Analys	i Coi	minents	,			
2	DOE E	EML HASL-300, To	-02-RC Modified										
Surrogate/7	Fracer Recovery	Test			R	lesult	Nomin	al	Recov	very%	Accep	otable L	imits
Uranium-232	Tracer	Alphaspec U, Liqui	d "As Received"						3	39.3	(15	5%-125%)
Technetium-9	99m Tracer I	Liquid Scint Tc99, I	Liquid "As Receive	ed"					ç	97.4	(15	5%-125%)
Notes:													
Counting U	Uncertainty is calculated	ated at the 95%	confidence lev	el (1.96-sign	ma).								
Column he	eaders are defined as	s follows:		-									
DE: Diluti	on Feator		Lo/I C. Criti	and Lowal									

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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							<i>y</i> = <u></u>			Re	eport Da	te:	May 13	, 2020
	Company : Address :	We PO	stinghouse Drawer R	Electric Comp	oany, LLC									
	Contact: Project:	Col Ms. EN	umbia, Sou Cynthia L V-CONSE	uth Carolina 2 ogsdon NTA-4500778	9205 461									
	Client Sample 1	D: CL-	2 After				Р	roiect:		WNU	200901			
	Sample ID:	510	356004				C	lient ID:		WNU	2009			
	Matrix:	Mis	c Liquid				-							
	Collect Date:	09-	APR-20.07	2:00										
	Receive Date:	29-	APR-20											
	Collector:	Clie	ent											
Parameter	O1	alifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	e Batch	Method
Rad Alpha S	Spec Analysis													
Alphaspec I	Liquid "As Re	eceived"												
Pct Uranium-23	35	eer veu	5.54				percent			BXA4	05/02/20	0836	1993987	1
Uranium-233/2	34		96400	+/-836	35.8	0.500	pCi/L							
Uranium-235/2	36		4200	+/-194	28.7	0.500	pCi/L							
Uranium-238			11100	+/-284	20.9	0.500	pCi/L							
Rad Liquid S	Scintillation An	alysis												
Liquid Scint	Tc99, Liquid ".	As Recei	ved"											
Technetium-99			73.9	+/-30.9	50.7	5.00	pCi/L			JJ3	05/05/20	1753	1993585	2
The followi	ng Analytical M	lethods v	vere perfor	med:										
Method	De	scription	l					Analyst	Cor	nments				
1	DO	E EML H	ASL-300, U-0	02-RC Modified										
2	DO	E EML H	ASL-300, Tc-	02-RC Modified										
Surrogate/Tr	racer Recovery	Test				R	lesult	Nomina	ıl	Recov	very%	Accep	ptable L	imits
Uranium-232 T Technetium-99	racer m Tracer	Alphasj Liquid	pec U, Liquid Scint Tc99, L	"As Received" iquid "As Receive	ed"					ç	77.9 99.9	(1) (1)	5%-125%) 5%-125%))
Notes: Counting Ur	ncertainty is calo	culated a	t the 95% o	confidence lev	el (1.96-sigi	na).								
Column hea	ders are defined	l as follo	ws:	Lc/LC: Critic	al Level									

DI Dilution Factor C: Critical Level PF: Prep Factor DL: Detection Limit MDA: Minimum Detectable Activity RL: Reporting Limit MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

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						•			Re	eport Dat	te:	May 13	, 2020
	Company : Address :	Westinghouse E PO Drawer R	Electric Comp	oany, LLC									
	Contact:	Columbia, Sout Ms. Cynthia Lo	h Carolina 2 gsdon	9205									
	Client Somula ID:	CL 2 Defere	1A-4300776			n	maiaati		WNILI	700001			
	Sample ID:	510256005				P C	liont ID		WNU	200901			
	Sample ID.	Mise Liquid				C		•	WINUV	2009			
	Maura.	OO ADD 20.07.	00										
	Collect Date:	09-APR-20 07:0)0										
	Collector:	Client											
Parameter	Ouali	fier Result U	ncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Alpha	Spec Analysis												
Alphaspec	U Liquid "As Recei	ived"											
Pct Uranium-2	235	4.90				percent			BXA4	05/02/20	0836	1993987	1
Uranium-233/	/234	3.67E+05	+/-2730	103	0.500	pCi/L							
Uranium-235/	/236	16800	+/-650	50.1	0.500	pCi/L							
Uranium-238	~	50700	+/-1020	76.2	0.500	pCi/L							
Rad Liquid	Scintillation Analys	sis											
Liquid Scir	nt Tc99, Liquid "As	Received"											
Technetium-9	9	438	+/-36.0	51.0	5.00	pCi/L			JJ3	05/05/20	2000	1993585	2
The follow	ving Analytical Meth	nods were perform	ned:										
Method	Descri	iption					Analyst	Cor	nments				
1	DOE E	ML HASL-300, U-02	-RC Modified										
2	DOE E	ML HASL-300, Tc-02	2-RC Modified										
Surrogate/7	Fracer Recovery	Test			R	lesult	Nomina	al	Recov	ery%	Accep	table L	imits
Uranium-232	Tracer A	Alphaspec U, Liquid ".	As Received"						2	27.3	(15	5%-125%))
Technetium-9	9m Tracer L	liquid Scint Tc99, Liq	uid "As Receive	ed"						100	(15	5%-125%))
Notes:													
Counting U	Jncertainty is calcula	ated at the 95% co	onfidence leve	el (1.96-sigi	ma).								
Column be	- aders are defined as	follows			*								
DE: Diluti	on Factor	10110 10 5.	C. C. Critic	al Laval									

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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) 10 - 10			Re	eport Da	te:	May 13	, 2020
Co Ad	ompany : ldress :	Westin PO Dr	nghouse awer R	e Electric Co	mpany, LLC									
		Colun	nbia, So	uth Carolina	29205									
Co	ontact:	Ms. C	ynthia I	Logsdon										
Pre	oject:	ENV-	CONSE	ENTA-45007	78461									
Cli	ient Sample ID:	CL-3 /	After				P	roject:		WNU	C00901			
Sa	mple ID:	51035	6006				C	lient ID	:	WNU	C009			
Ma	atrix:	Misc I	Liquid											
Co	llect Date:	09-AP	R-20 0	7:00										
Re	ceive Date:	29-AP	R-20											
Co	llector:	Client												
Parameter	Quali	ifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Alpha Spe	c Analysis													
Alphaspec U, L	iquid "As Rece	ived"												
Pct Uranium-235			5.12				percent			BXA4	05/02/20	0836	1993987	1
Uranium-233/234			30900	+/-439	27.7	0.500	pCi/L							
Uranium-235/236			1390	+/-104	15.4	0.500	pCi/L							
Rad Liquid Sci	ntillation Analy	cic	4000	+/-158	23.4	0.500	pC1/L							
Liquid Soint To	00 Liquid "As	Deceive	<i>a</i> "											
Technetium-99	199, Liquid As	U	u 16.4	⊥/ <u>-</u> 32.2	54.4	5.00	nCi/I			113	05/05/20	2206	1003585	2
The fellowing	Applytical Math	ode wee	norfo		54.4	5.00	pei/L			33.5	05/05/20	2200	1775505	2
The following	Anarytical Met	ious wei	e perio	meu.				A 1	C					
Method	Descr	iption	200 U	02 BC Modifier	4			Analyst	Cor	nments				
2	DOE E DOE E	EML HASI	L-300, U- L-300, Tc	-02-RC Modified	:d									
Surrogate/Trace	er Recovery	Test				F	Result	Nomina	al	Recov	very%	Accep	table L	imits
Uranium-232 Trace	er A	Alphaspec	U, Liquio	d "As Received"						ç	94.9	(15	%-125%))
Technetium-99m T	racer I	Liquid Scir	nt Tc99, I	Liquid "As Rece	ived"					9	93.6	(15	%-125%))
Notes: Counting Unce	rtainty is calcula	ated at th	ne 95%	confidence le	evel (1.96-sign	na).								
Column header	rs are defined as	follows			-									
DF: Dilution F	actor	10110 110	<u> </u>	Lc/LC: Cri	tical Level									

 $\frac{Cc}{D}$ 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

						<i></i>		R	eport Da	te: N	/lay 13.	, 2020
	Company : Address :	Westinghouse PO Drawer R	Electric Comp	pany, LLC								
		Columbia, Sou	th Carolina 2	9205								
	Contact:	Ms. Cynthia Lo	ogsdon									
	Project:	ENV-CONSEN	NTA-4500778	461								
	Client Sample ID:	CL-4 Before				Р	roject:	WNU	C00901			
	Sample ID:	510356007				C	lient ID:	WNU	C009			
	Matrix:	Misc Liquid										
	Collect Date:	09-APR-20 07:	00									
	Receive Date:	29-APR-20										
	Collector:	Client										
Parameter	Qual	ifier Result U	Jncertainty	MDC	RL	Units	PF D	F Analy	vst Date	Time	Batch	Method
Rad Alpha	Spec Analysis											
Alphaspec	U, Liquid "As Rece	eived"										
Pct Uranium-2	235	4.82				percent		BXA4	05/02/20	0836 1	1993987	1
Uranium-233/	/234	1.74E+05	+/-1460	42.8	0.500	pCi/L						
Uranium-235/	/236	9220	+/-374	48.4	0.500	pCi/L						
Ded Liquid	Sointillation Analy	28300	+/-588	45.8	0.500	pCi/L						
	T Schullauon Analy	Bis Deceived"										
Liquid Scii	nt I C99, Liquid As	Received	1/22.5	51.9	5.00	nCi/I		112	05/06/20	0012 1	1002585	2
The feller		142 1	+/-32.3	51.6	5.00	pci/L		112	03/00/20	0012	.993363	2
The follow	analytical Met	nods were perform	ned:				1 1					
Method	Desci	ription	DCM-4:E-4				Analyst C	omment	S			
2	DOE I DOE I	EML HASL-300, U-0. EML HASL-300, Tc-0	2-RC Modified									
Surrogate/7	Fracer Recovery	Test			R	esult	Nominal	Reco	very%	Accept	able Li	imits
Uranium-232	Tracer	Alphaspec U, Liquid '	'As Received"						40.8	(15%	6-125%))
Technetium-9	99m Tracer	Liquid Scint Tc99, Lie	quid "As Receive	ed"					97.9	(15%	6-125%)	1
Notes:												
Counting U	Jncertainty is calcul	ated at the 95% c	onfidence lev	el (1.96-sign	na).							
Column he	eaders are defined as	s follows:										
DE Diluti	on Factor		L c/L C · Critic	al Level								

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

							<i>j iz 1.</i>			R	eport Da	te:	May 13	, 2020
	Company : Address :	Wes PO	stinghous Drawer R	e Electric Con	npany, LLC									
		Col	umbia, So	outh Carolina	29205									
	Contact:	Ms.	Cynthia	Logsdon										
	Project:	EN	V-CONSI	ENTA-450077	8461									
	Client Sample I	D: CL-	4 After				Р	roject:		WNU	C00901			
	Sample ID:	510	356008				C	lient ID:		WNU	C009			
	Matrix:	Mis	c Liquid											
	Collect Date:	09-7	APR-200	7:00										
	Receive Date:	29-7	APR-20											
	Collector:	Clie	ent											
		1.0							<u> </u>					
Parameter	Qu	alifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Alpha S	Spec Analysis													
Alphaspec U	J, Liquid "As Re	eceived"												
Pct Uranium-22	35		4.15	1 202			percent			BXA4	05/02/20	0836	1993987	1
Uranium-233/2	234		25900	+/-385	23.2	0.500	pCi/L							
Uranium-238	230		4190	+/-91.4	14.3	0.500	pCi/L pCi/L							
Rad Liquid	Scintillation Ana	alvsis		1, 100	1.110	0.000	pend							
Liquid Scint	t Tc99. Liquid "	As Recei	ved"											
Technetium-99)	10 100001	63.7	+/-31.8	52.5	5.00	pCi/L			JJ3	05/06/20	0219	1993585	2
The followi	ing Analytical M	[ethods v	vere perfo	ormed:			•							
Method	<u> </u>	scription	1					Analyst	Cor	nments				
1	DO	E EML HA	ASL-300, U	-02-RC Modified				1 11111 9 50	001		·			
2	DO	E EML HA	ASL-300, To	e-02-RC Modified	l									
Surrogate/Ti	racer Recovery	Test				R	lesult	Nomina	1	Recov	very%	Accep	otable L	imits
Uranium-232 T	Fracer	Alphasp	bec U, Liqui	d "As Received"						:	37.7	(15	5%-125%))
Technetium-99	m Tracer	Liquid S	Scint Tc99,	Liquid "As Receiv	ved"					(97.5	(15	5%-125%)
Notes: Counting U	ncertainty is cald	ulated a	t the 95%	confidence le	vel (1.96-sigi	na).								
Column hea	aders are defined	as follo	ws:											
DF: Dilutio	n Factor			Lc/LC: Crit	ical 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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							•/			Re	eport Da	te:	May 13	, 2020
	Company : Address :	Westing PO Drav	ghouse wer R	e Electric Comp	oany, LLC									
	_	Columb	oia, So	uth Carolina 2	9205									
	Contact:	Ms. Cyi	nthia I	Logsdon	4.61									
	Project:	ENV-C	ONSE	2NTA-4500778	461									
	Client Sample ID:	Scrap C	age M	Ionitor Dischar	ge		P	roject:		WNU	C00901			
	Sample ID:	5103560	009				C	lient ID	:	WNU	C009			
	Matrix:	Misc Li	quid											
	Collect Date:	09-APR	2-20 0°	7:00										
	Receive Date:	29-APR	2-20											
	Collector:	Client												
Parameter	Quali	fier R	esult	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Pad Alpha	Space Apolycic		court	encertainty	MDC	ILL .	Cints	11		7 mary	st Dute		Daten	method
Alphaepaa	U Liquid "As Pass	wed"												
Pet Uranium.	0, Liquid As Rece.	lveu	4 50				nercent			BX44	05/06/20	1029	1994754	1
Uranium-233/	/234		20600	+/-2530	517	0.500	percent pCi/L			Dimin	05/00/20	102)	1771751	1
Uranium-235/	/236		1030	+/-677	566	0.500	pCi/L							
Uranium-238			3400	+/-1050	478	0.500	pCi/L							
Rad Liquid	Scintillation Analys	sis												
Liquid Scir	nt Tc99, Liquid "As	Received'												
Technetium-9	9		201	+/-38.0	59.6	5.00	pCi/L			JJ3	05/06/20	0537	1993585	2
The follow	ving Analytical Meth	nods were	perfo	rmed:										
Method	Descr	iption						Analys	t Coi	nments				
1	DOE E	ML HASL-	300, U-	02-RC Modified										
2	DOE E	ML HASL-	300, Tc	-02-RC Modified										
Surrogate/7	Fracer Recovery	Test				R	esult	Nomin	al	Recov	very%	Accep	table L	imits
Uranium-232	Tracer A	Alphaspec U	, Liquio	d "As Received"						9	94.8	(15	%-125%)	1
Technetium-9	9m Tracer I	Liquid Scint	Tc99, I	Liquid "As Receive	ed"					5	84.6	(15	%-125%)	1
Notes: Counting U	Incertainty is calcula	ated at the	95%	confidence leve	el (1.96-sigi	na).								
Column he	eaders are defined as	follows:		Lc/LC: Critic	al Level									

 $\frac{Cc}{DI}$ 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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										R	eport Da	te:	May 13	, 2020
	Company : Address :	West PO D	inghouse Prawer R	e Electric Comj	pany, LLC									
	_	Colui	mbia, So	outh Carolina 2	9205									
	Contact:	Ms. C	Cynthia l	Logsdon										
	Project:	ENV	-CONSE	ENTA-4500778	3461									
	Client Sample ID:	W2					P	roject:		WNU	C00901			
	Sample ID:	51035	56010				C	lient ID	:	WNU	C009			
	Matrix:	Misc	Liquid											
	Collect Date:	09-A	PR-200	8:00										
	Receive Date:	29-A	PR-20											
	Collector:	Clien	t											
Parameter	Quali	fier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Alpha	Spec Analysis													
Alphaspec	U, Liquid "As Recei	ived"												
Pct Uranium-2	235		15.0				percent			BXA4	05/09/20	0959	1995388	1
Uranium-233/	/234		3.93	+/-0.980	0.997	0.500	pCi/L							
Uranium-235/	/236		0.613	+/-0.394	0.167	0.500	pCi/L							
Uranium-238		. U	0.541	+/-0.433	0.604	0.500	pC1/L							
Rad Liquid	Scintillation Analys	S1S												
Liquid Scir	nt Tc99, Liquid "As I	Receiv	ed"											
Technetium-9	9		96.0	+/-32.3	52.5	5.00	pCi/L			JJ3	05/06/20	0744	1993585	2
The follow	ving Analytical Meth	nods we	ere perfo	rmed:										
Method	Descri	iption						Analyst	Cor	nments	3			
1	DOE E	ML HAS	SL-300, U-	02-RC Modified										
2	DOE E	ML HAS	SL-300, Tc	e-02-RC Modified										
Surrogate/7	Fracer Recovery	Test				R	lesult	Nomina	al	Recov	/ery%	Accep	table L	imits
Uranium-232	Tracer A	Alphaspe	c U, Liqui	d "As Received"							99.9	(15	5%-125%))
Technetium-9	9m Tracer L	liquid Sc	int Tc99, I	Liquid "As Receive	ed"					9	95.6	(15	5%-125%))
Notes: Counting U	Incertainty is calcula	ated at t	the 95%	confidence lev	el (1.96-sig	ma).								
Column he	eaders are defined as	follow	's:											
DF: Dilutio	on Factor			Lc/LC: Critic	al Level									
DL: Detect	tion Limit			PF: Prep Fac	tor									

MDA: Minimum Detectable Activity RL: Reporting Limit SQL: Sample Quantitation Limit MDC: Minimum Detectable Concentration

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									Re	eport Da	te:	May 13	, 2020
Company : Address :	We PC	estinghouse) Drawer R	e Electric Com	pany, LLC									
	Co	olumbia, So	uth Carolina	29205									
Contact:	Ms	s. Cynthia I	Logsdon										
Project:	EN	V-CONSE	ENTA-450077	8461									
Client Samp	ole ID: T-	19 Ammon	ia			Р	roject:		WNU	200901			
Sample ID:	51	0356011				С	lient ID		WNU	2009			
Matrix:	Mi	sc Liquid											
Collect Date	e: 09	-APR-20.08	8:00										
Receive Dat	te 29	-APR-20											
Collector:	Cl	ient											
	0.110	k	T T 4 • 4			TT •	DE		A 1		— .	D . 1	
Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	st Date	Time	Batch	Method
Rad Alpha Spec Analysi	S												
Alphaspec U, Liquid "A	s Received	11											
Pct Uranium-235	U	0.000	10.200	0.500	0.500	percent			MXS2	05/06/20	0951	1994758	1
Uranium-233/234	U	0.0545	+/-0.309	0.580	0.500	pCi/L							
Uranium-238	U	-0.0304	+/-0.221	0.482	0.500	pCi/L							
Rad Liquid Scintillation	Analysis	0.122	17 0.210	0.570	0.500	pere							
Liquid Scint Tc99 Liqui	id "As Rece	eived"											
Technetium-99	U III III U	13.4	+/-83.4	142	5.00	pCi/L			JJ3	05/06/20	0951	1993585	2
The following Analytics	al Methods	were perfo	rmed:			I - ·							
Method	Descriptio	n					Analyst	Cor	nmente				
1	DOE EML H	11 IASL-300. U-	02-RC Modified				Anaryst		mients	1			
2	DOE EML H	IASL-300, Tc	-02-RC Modified										
Surrogate/Tracer Recove	ery Test				R	esult	Nomina	al	Recov	erv%	Accer	table L	imits
Uranium-232 Tracer	Alpha	spec U, Liquio	d "As Received"						3	32.8	(15	-125%))
Technetium-99m Tracer	Liquid	l Scint Tc99, I	Liquid "As Receiv	ed"					3	35.8	(15	5%-125%)
Notes: Counting Uncertainty is	calculated	at the 95%	confidence lev	vel (1.96-sigi	na).								
Column headers are def	ined as foll	ows:											
DF: Dilution Factor			Lc/LC: Criti	cal Level									

C D 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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) 10 110		R	eport Da	te:	May 13	, 2020
Company : Address :	We PO	estinghouse Drawer R	Electric Com	pany, LLC								
	Co	lumbia, Sou	th Carolina 2	29205								
Contact:	Ms	. Cynthia L	ogsdon									
Project:	EN	V-CONSE	NTA-4500778	8461								
Client Samp	le ID: T-2	20 Ammoni	a			Р	roject:	WNU	C00901			
Sample ID:	510)356012				C	lient ID:	WNU	C009			
Matrix:	Mi	sc Liquid										
Collect Date	: 09-	APR-20 08	:00									
Receive Date	e: 29-	APR-20										
Collector:	Cli	ent										
Demonster	Onalifian	Desult		MDC	זמ	I.I.a.:4a		7 Amela	at Data	T :	D : (1	Mathad
Parameter	Quaimer	Result	Uncertainty	MDC	KL	Units	PF DI	- Analy	st Date	Time	Batch	Method
Rad Alpha Spec Analysis	5											
Alphaspec U, Liquid "As	Received"	0.000						MARCO	05/00/20	1207	100 1750	1
Pct Uranium-235	U	0.000	±/-0 258	0 391	0.500	percent pCi/I		MXS2	05/09/20	1307	1994/58	1
Uranium-235/236	U	-0.0535	+/-0.165	0.340	0.500	pCi/L pCi/L						
Uranium-238	Ū	0.167	+/-0.205	0.275	0.500	pCi/L						
Rad Liquid Scintillation	Analysis											
Liquid Scint Tc99, Liqui	d "As Rece	ived"										
Technetium-99	U	-28.5	+/-134	228	5.00	pCi/L		JJ3	05/06/20	1159	1993585	2
The following Analytica	1 Methods	were perfor	med:									
Method	Description	1					Analyst Co	omments	5			
1	DOE EML H	ASL-300, U-0	2-RC Modified									
2	DOE EML H	ASL-300, Tc-	02-RC Modified									
Surrogate/Tracer Recover	ry Test				R	lesult	Nominal	Recov	very%	Accep	table L	imits
Uranium-232 Tracer Technetium-99m Tracer	Alphas Liquid	pec U, Liquid Scint Tc99, L	"As Received" iquid "As Receive	ed"					36.4 22.3	(15 (15	%-125%) %-125%))
Notes: Counting Uncertainty is a	calculated a	at the 95% o	confidence lev	el (1.96-sig	ma).							
Column headers are defined of the column headers are defined of the column factor of the column headers are defined on the column headers are	ned as follo	ows:	Lc/LC: Critic	cal Level								

C D 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: \$10356013 Client ID: WNUC00901 Sample ID: \$10356013 Client ID: WNUC009 Matrix: Sludge Collect Date: 09-APR-20 08:00 Receive Date: 29-APR-20 Collect To: Client Time Batch Method Parameter Qualifier Result Uncertainty MDC RL Units PF DF Analyst Date Time Batch Method High Rad Testing Liqui Scint Tc99, S01 "As Received" Technetium 99 U 22.1 #/29.5 49.6 5.00 pClig JXB7 05/10/20 0707 194804 1 Alphaspee U, Solid "Dry Weight Corrected" 392 1.00 pClig JXB7 05/10/20 0707 194804 2 Urnature.23/24 2/21/00 #/230 264 1.00 pClig JXB7 05/12/20 1854 <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th></th> <th>∎ ∎</th> <th></th> <th>Repor</th> <th>t Date</th> <th>: I</th> <th>May 13</th> <th>, 2020</th>					-			∎ ∎		Repor	t Date	: I	May 13	, 2020
Columbia, South Carolina 29205 Contact: Ms. Cynthia Logsdon Project: ENV-CONSENTA-4500778461 Client Sample ID: 510356013 Client ID: WNUC00901 Sample ID: 510356013 Client ID: WNUC009 Matrix: Sludge Collect Date: 09-APR-20 08:00 Receive Date: 29-APR-20 Collector: Client Parameter Qualifier Result Uncertainty MDC RL Units PF DF Analyst Date Time Batch Method High Rad Testing Liquid Scint Te99, Soil "As Received" Technetium-99 U 22.1 +/-29.5 49.6 5.00 pCi/g AXM6 05/10/20 0707 1994804 1 Alphaspec U, Solid "Dry Weight Corrected" Unaium-235/236 22300 +/-2020 264 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Unaium-235/236 22300 +/-2020 264 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Unaium-235/236 22300 +/-2020 264 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Unaium-235/236 27300 +/-2030 270 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Unaium-235/236 27300 +/-2030 270 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Unaium-235/236 74700 +/-3330 270 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Unaium-235/236 74700 +/-3330 270 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Unaium-235/236 74700 +/-3330 270 JL00 pCi/g JXB7 05/12/20 1854 1996516 2 Unaium-235/236 74700 +/-3330 270 JL00 pCi/g JXB7 05/12/20 1854 1996516 2 Unaium-235/236 74700 +/-3330 270 JL00 pCi/g JXB7 05/12/20 1854 1996516 2 Doe EML HASL-300, U-02-RC Modified JC-100 pCi/g JXB7 05/12/20 1854 1996516 2 DOE EML HASL-300, U-02-RC Modified JC-100 pCi/g JXB7 05/12/20 1854 1996516 2 DOE EML HASL-300, U-02-RC Modified JC-100 pCi/g JXB7 05/12/20 1854 1996516 2 Urginum-252 JXB Theore Japita Received" J1.8 (15%-125%) Info following Analytical Methods were performed: Method Description Analyst Omments 1 DOE EML HASL-300, U-02-RC Modified JC-100 pCi/g JXB7 05/12/20 100 pCi/g		Company : Address :	We PO	stinghous Drawer R	e Electric C	ompany, LL	С							
Client Sample ID: WG-D46035 Project: WNUC00901 Sample ID: 510356013 Client ID: WNUC009 Matrix: Sludge Collect Date: 09-APR-20 08:00 Receive Date: 29-APR-20 Collect Date: 29-APR-20 Collect Date: 29-APR-20 Collect Date: 29-APR-20 Collector: Client Client Time Batch Method High Rad Testing Elquid Scint Tc99, Soil "As Received" AXM6 05/10/20 0707 1994804 1 Alphaspec U, Solid "Dry Weight Corrected" 1-4/29.5 49.6 5.00 pCi/g JXB7 05/12/20 1854 1996516 2 Uranium-233/234 5.23E+05 +/-8800 392 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Uranium-233/235 22200 +/-2020 264 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Uranium-238/236 74700 +/-3330 270 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Uranium-238 74700 +/-3330 270 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 The following Prep Methods were perf		Contact: Project:	Col Ms. EN	umbia, Sc . Cynthia 1 V-CONSI	outh Carolin Logsdon ENTA-4500	a 29205 0778461								
ParameterQualifierResultUncertaintyMDCRLUnitsPFDFAnalystDateTimeBatchMethodHigh Rad TestingLiquid Scint Tc99, Soil "As Received"Technetium-99U22.1+/-29.549.65.00pCi/gAXM605/10/20070719948041Alphaspec U, Solid "Dry Weight Corrected"Uranium-233/2345.23E+05+/-88003921.00pCi/gJXB705/12/20185419965162Uranium-235/23622300+/-20202641.00pCi/g1185419965162Uranium-23874700+/-33302701.00pCi/g1185419965162The following Prep Methods were performed:Note1119948011Dry Soil PrepDry Soil Prep GL-RAD-A-021AXM605/05/20171919948011The following Analytical Methods were performed:AnalystComments1MethodDescriptionAnalystAnalystComments11DOE EML HASL-300, U-02-RC Modified200E EML HASL-300, U-02-RC Modified71.8(15%-125%)Surrogate/Tracer RecoveryTestResultNominalRecovery%Acceptable LimitsTechnetium-99m TracerLiquid Scint Tc99, Soil "As Received"71.8(15%-125%)Uranium-232 TracerAlphaspec U, Soil "Dry Weight Corrected"63(15%-125%) <td< th=""><th></th><th>Client Sample ID Sample ID: Matrix: Collect Date: Receive Date: Collector:</th><th>: WC 510 Sluc 09 29 Clie</th><th>G-D46035 356013 dge APR-20 0 APR-20 ent</th><th>8:00</th><th></th><th></th><th>P</th><th>roject: lient ID:</th><th>WNUC00 WNUC00</th><th>901 9</th><th></th><th></th><th></th></td<>		Client Sample ID Sample ID: Matrix: Collect Date: Receive Date: Collector:	: WC 510 Sluc 09 29 Clie	G-D46035 356013 dge APR-20 0 APR-20 ent	8:00			P	roject: lient ID:	WNUC00 WNUC00	901 9			
High Rad Testing Liquid Scint Tc99, Soil "As Received" Technetium-99 U 22.1 $+/29.5$ 49.6 5.00 pCi/g AXM6 05/10/20 0707 1994804 1 Alphaspec U, Solid "Dry Weight Corrected" Uranium-233/234 5.23E+05 $+/.8800$ 392 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Uranium-233/236 22300 $+/.2020$ 264 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Uranium-238 74700 $+/.3330$ 270 1.00 pCi/g Time Prep Batch	Parameter	Qua	lifier	Result	Uncertaint	y MDC	RL	Units	PF DI	7 Analyst E	ate '	Time	Batch	Method
Liquid Scint Tc99, Soil "As Received" Technetium-99 U 22.1 +/-29.5 49.6 5.00 pCi/g AXM6 05/10/20 0707 1994804 1 Alphaspec U, Solid "Dry Weight Corrected" Uranium-233/234 5.23E+05 +/-8800 392 1.00 pCi/g JXB7 05/12/20 1854 1996516 2 Uranium-238 74700 +/-3330 270 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 05/05/20 1719 1994801 The following Analytical Methods were performed: Method Description AXM6 05/05/20 1719 1994801 The following Analytical Methods were performed: Method Description Analyst Comments 1 DOE EML HASL-300, Tc-02-RC Modified 2 DOE EML HASL-300, Tc-02-RC Modified 2 DOE EML HASL-300, U-02-RC Modified 2 NOTE A Aphaspec U, Solid "Dry Weight Corrected" Notes: Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma). Column here does one defined to following	High Rad Te	sting												
Alphaspec U, Solid "Dry Weight Corrected"Uranium-233/2345.23E+05+/-88003921.00pCi/gJXB705/12/20185419965162Uranium-235/23622300+/-20202641.00pCi/g100pCi/g100pCi/gThe following Prep Methods were performed:AnalystDateTimePrep BatchDry Soil PrepDry Soil Prep GL-RAD-A-021AXM605/05/2017191994801The following Analytical Methods were performed:MethodDescriptionAnalystComments1DOE EML HASL-300, Tc-02-RC Modified2DOE EML HASL-300, U-02-RC Modified3Calum-99m TracerLiquid Scint Tc99, Soil "As Received"1DOE EML HASL-300, U-12-RC Modified2DOE EML HASL-300, U-2-RC Modified3Calum-99m TracerLiquid Scint Tc99, Soil "As Received"1Uranium-232 TracerAlphaspec U, Solid "Dry Weight Corrected"63(Liquid Scint Technetium-99	Tc99, Soil "As R	eceive U	d" 22.1	+/-29.	5 49.6	5.00) pCi/g		AXM6 05/	10/20	0707	1994804	1
The following Prep Methods were performed: Method Description Analyst Date Time Prep Batch Dry Soil Prep Dry Soil Prep GL-RAD-A-021 AXM6 05/05/20 1719 1994801 The following Analytical Methods were performed: Method Description Analyst Comments 1 DOE EML HASL-300, Tc-02-RC Modified 2 00E EML HASL-300, U-02-RC Modified 2 DOE EML HASL-300, U-02-RC Modified 2 71.8 (15%-125%) Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits Technetium-99m Tracer Liquid Scint Tc99, Soil "As Received" 71.8 (15%-125%) Uranium-232 Tracer Alphaspec U, Solid "Dry Weight Corrected" 63 (15%-125%) Notes: Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma). Confidence level for domain and for do	Alphaspec U Uranium-233/23 Uranium-235/23 Uranium-238	, Solid "Dry Wei 34 36	ght Co	rrected" 5.23E+05 22300 74700	+/-880 +/-202 +/-333	0 392 0 264 0 270	1.00 1.00 1.00) pCi/g) pCi/g) pCi/g		JXB7 05/	12/20	1854	1996516	2
Method Description Analyst Date Time Prep Batch Dry Soil Prep Dry Soil Prep GL-RAD-A-021 AXM6 05/05/20 1719 1994801 The following Analytical Methods were performed:	The followin	g Prep Methods	were p	erformed:										
Method Description Analyst Comments 1 DOE EML HASL-300, Tc-02-RC Modified 2 2 DOE EML HASL-300, U-02-RC Modified 2 Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits Technetium-99m Tracer Liquid Scint Tc99, Soil "As Received" 71.8 (15%-125%) Uranium-232 Tracer Alphaspec U, Solid "Dry Weight Corrected" 63 (15%-125%) Notes: Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma). Columna Columna	Method Dry Soil Prep	Des Dry S	cription Soil Prep	n o GL-RAD-A	A-021		Analyst AXM6	Date 05/05/2	Tim 0 1719	e Prep E 199480	atch			
Method Description Analyst Comments 1 DOE EML HASL-300, Tc-02-RC Modified 2 2 DOE EML HASL-300, U-02-RC Modified 2 Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits Technetium-99m Tracer Liquid Scint Tc99, Soil "As Received" 71.8 (15%-125%) Uranium-232 Tracer Alphaspec U, Solid "Dry Weight Corrected" 63 (15%-125%) Notes: Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma). Columna has done and efined as follows:	The following	ng Analytical Me	thods v	were perfo	ormed:									
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" 71.8 (15%-125%) Uranium-232 Tracer Alphaspec U, Solid "Dry Weight Corrected" 63 (15%-125%) Notes: Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma). Columns has done and defined as follows:	Method	Desc	ription	I					Analyst Co	mments				
Surrogate/Tracer Recovery Test Result Nominal Recovery% Acceptable Limits Technetium-99m Tracer Liquid Scint Tc99, Soil "As Received" 71.8 (15%-125%) Uranium-232 Tracer Alphaspec U, Solid "Dry Weight Corrected" 63 (15%-125%) Notes: Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma). Column Column	1 2	DOE DOE	EML HA	ASL-300, To ASL-300, U	c-02-RC Modi -02-RC Modif	fied ied								
Technetium-99m Tracer Liquid Scint Tc99, Soil "As Received" 71.8 (15%-125%) Uranium-232 Tracer Alphaspec U, Solid "Dry Weight Corrected" 63 (15%-125%) Notes: Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).	Surrogate/Tr	acer Recovery	Test					Result	Nominal	Recovery	% A	Accep	table Li	imits
Notes: Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).	Technetium-99r Uranium-232 Tr	n Tracer racer	Liquid Alphas	Scint Tc99, Spec U, Solid	Soil "As Recei "Dry Weight (ved" Corrected"				71.8 63		(159 (159	%-125%) %-125%))
LOUIDD DEADERS ARE DELIDED AS LOUOWS'	Notes: Counting Un	certainty is calcu	lated a	t the 95%	confidence	level (1.96-	sigma).							

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

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Certificate of Analysis

							•			R	eport Da	te:	May 13	, 2020
	Company : Address :	We PO	stinghous Drawer R	e Electric Com	pany, LLO	2								
		Col	lumbia, So	outh Carolina 2	29205									
	Contact:	Ms	. Cynthia	Logsdon										
	Project:	EN	V-CONSI	ENTA-4500778	8461									
	Client Sample ID	: Cal	cium Fluc	oride			P	oject:		WNU	C00901			
	Sample ID:	510)356014				С	lient II	D:	WNU	C009			
	Matrix:	Sol	id											
	Collect Date:	09-	APR-20.0)8·00										
	Receive Date:	29-	APR_20											
	Collector:	Cli	ont											
	concetor.	CII	ent											
Parameter	Qua	lifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analy	vst Date	Time	Batch	Method
Rad Alpha	Spec Analysis													
Alphaspec	U, Solid "Dry Wei	ght Co	orrected"											
Uranium-233/	/234	C	16.3	+/-1.10	0.178	1.00	pCi/g			BXA4	05/04/20	1643	1993662	1
Uranium-235/	/236		0.703	+/-0.266	0.181	1.00	pCi/g							
Uranium-238			2.40	+/-0.428	0.166	1.00	pCi/g							
Rad Liquid	Scintillation Anal	ysis												
Liquid Scir	nt Tc99, Soil "As R	leceive	ed"											
Technetium-9	9	U	0.473	+/-2.48	4.30	5.00	pCi/g			JJ3	05/05/20	0555	1993830	2
The follow	ing Prep Methods	were p	erformed:											
Method	Des	criptio	n			Analyst	Date		Time	e Pr	ep Batch			
Dry Soil Prep	Dry	Soil Prep	p GL-RAD-A	A-021		CXC1	04/30/20)	0951	19	93645			
The follow	ing Analytical Me	thods	were perfo	ormed:										
Method	Desc	ription	1					Analy	st Cor	nment	s			
1	DOE	EML H	ASL-300, U	-02-RC Modified										
2	DOE	EML H	ASL-300, T	c-02-RC Modified										
Surrogate/7	Fracer Recovery	Test					Result	Nomi	nal	Reco	very%	Accep	otable L	imits
Uranium-232	Tracer	Alphas	pec U, Solid	"Dry Weight Corre	ected"						90.2	(15	5%-125%))
Technetium-9	9m Tracer	Liquid	Scint Tc99,	Soil "As Received"	'						87.9	(15	5%-125%))
Notes:														
Counting U	Incertainty is calcu	lated a	at the 95%	confidence lev	rel (1.96-s	igma).								
Column he	eaders are defined a	as folle	ows:											
DF: Dilutio	on Factor			Lc/LC: Critic	cal 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

											R	eport Da	te:	May 13	, 2020
	Company : Address :	We PO	stingho Drawe	ouse er R	e Electric Comp	any, LLC	2								
	Contact: Project:	Col Ms EN	lumbia, . Cynth V-CON	, Sou ia L NSE	uth Carolina 29 Logsdon ENTA-45007784	9205 461									
	Client Sample ID Sample ID: Matrix:	: Slu 510 Sol	dge De)35601: id	wat 5 0 1/	tering D45671			P C	Project: Client I	: D:	WNU WNU	C00901 C009			
	Reasive Date:	20	A D D 2	014	+.00										
	Collector:	29- Cliv	$AI K^{-2}$	0											
	Collector.	Cin	ciit												
Parameter	Qua	lifier	Resi	ılt	Uncertainty	MDC	RL	Units	PF	DF	Analy	vst Date	Time	Batch	Method
Rad Alpha	Spec Analysis														
Alphaspec	U, Solid "Dry Weig	ght Co	orrected	["											
Uranium-233/	/234		3	510	+/-113	4.72	1.00	pCi/g	;		BXA4	05/04/20	1715	1993662	, 1
Uranium-235/	/236			156	+/-26.7	5.49	1.00	pCi/g	;						
Uranium-238				507	+/-43.1	4.80	1.00	pC1/g	5						
	Scintillation Analy	/S1S													
Liquid Scii	nt Tc99, Soil "As R	eceive	ed"		1250	4.00	5.00	- C: /-			112	05/05/20	0(11	1002020	
Technenum-9		U	c :	5.52	+/-2.30	4.22	5.00	pC1/g	5		112	05/05/20	0611	1993830	Z
The follow	ing Prep Methods v	vere p	erform	ed:				Data			D	D . (. 1			
Method	Desc	criptio	n CL DA	D 4	021		Analyst	Date	0	Time	$\frac{Pr}{10}$	ep Batch			
Dry Soil Prep	Dry S	Soil Prep	p GL-RA	D-A	-021		CXCI	04/30/2	0	0951	19	93645			
The follow	ving Analytical Met	thods v	were pe	erfoi	rmed:										
Method	Desc	riptior	1						Analy	yst Cor	nment	s			
1	DOE	EML H	ASL-300), U-(02-RC Modified										
2	DOE	EML H.	ASL-300), IC·	-02-RC Modified										
Surrogate/	Tracer Recovery	Test						Result	Nom	inal	Reco	very%	Accer	stable L	imits
Uranium-232	Tracer	Alphas	pec U, S	olid '	"Dry Weight Correc	cted"						16.5	(15	5%-125%)
rechnetium-9	9m Tracer	Liquid	Scint Te	99, S	Soll "As Received"							90.3	(15)%-125%))
Notes:															
Counting U	Incertainty is calcul	lated a	t the 95	5% (confidence leve	l (1.96-s	igma).								
Column he	eaders are defined a	s follo	ows:												
DE Diluti	on Factor				L c/L C · Critics	al Level									

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

	Westinghouse E	lectric Company, LLC	<u>(</u>	<u>2C S</u>	Summai	<u>ry</u>		Report Da	ate: May 13, 2020	Page 1 of 8
Contact:	PO Drawer R Columbia, Soutl Ms. Cynthia Log	n Carolina gsdon								C
Workorder:	510356									
Parmname		NOM	Sample	Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
High Rad Testing Batch 1	.993870 —									
QC120455424 Technetium-99	6 510356001 DU	PU	58.7	U	-36.0	pCi/L	N/A		N/AAXM6	05/11/20 10:54
QC120455424 Technetium-99	7 LCS	7560			7720	pCi/L		102	(75%-125%)	05/10/20 23:04
QC120455424 Technetium-99	5 MB			U	54.7	pCi/L				05/10/20 19:01
Batch 1	994804 —									
QC120455616 Technetium-99	0 510356013 DU	PU	22.1	U	-31.5	pCi/g	N/A		N/AAXM6	05/10/20 11:09
QC120455616 Technetium-99	1 LCS	2210			2140	pCi/g		96.8	(75%-125%)	05/10/20 13:10
QC120455615 Technetium-99	9 MB			U	-11.6	pCi/g				05/10/20 09:08
Batch 1	996515 —									
QC120455980 Pct Uranium-235	2 510356001 DU 5	Ρ	4.29		4.34	percent	1.18		(0%-20%) JXB7	05/12/20 18:54
Uranium-233/23	4		5.13E+05		2.62E+05	pCi/L	64.7*		(0%-20%)	
Uranium-235/23	6		21700		11300	pCi/L	62.9*		(0%-20%)	
Uranium-238			75100		38600	pCi/L	64.1*		(0%-20%)	

Workorder:	510356										Page 2 of 8
Parmname		NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing Batch 19	996515										
QC1204559803 Pct Uranium-235	3 LCS				1.16	percent				JXB7	05/12/20 18:54
Uranium-233/234	ļ				2420	pCi/L					
Uranium-235/236	5				198	pCi/L					
Uranium-238		2730			2620	pCi/L		96.1	(75%-125%)		
QC1204559801 Pct Uranium-235	MB			U	0.000	percent					05/12/20 18:54
Uranium-233/234	ţ			U	8.34	pCi/L					
Uranium-235/236	5			U	-2.49	pCi/L					
Uranium-238				U	-3.69	pCi/L					
Batch 19	996516 ——										
QC1204559805 Uranium-233/234	5 510356013 DUP 4		5.23E+05		5.05E+05	pCi/g	3.43		(0%-20%)	JXB7	05/12/20 18:54
Uranium-235/236	5		22300		21700	pCi/g	2.77		(0%-20%)		
Uranium-238			74700		73300	pCi/g	1.86		(0%-20%)		
QC1204559806 Uranium-233/234	5 LCS 4				8330	pCi/g					05/12/20 18:54
Uranium-235/236	5			U	232	pCi/g					
Uranium-238		9080			7990	pCi/g		88	(75%-125%)		

Workorder: 510356										Page 3 of 8
Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
High Rad Testing Batch 1996516										
QC1204559804 MB Uranium-233/234			U	-111	pCi/g				JXB7	05/12/20 18:54
Uranium-235/236			U	16.0	pCi/g					
Uranium-238			U	-47.8	pCi/g					
Rad Alpha Spec Batch 1993662										
QC1204553781 510356014 DUP Uranium-233/234		16.3		14.0	pCi/g	15.4		(0%-20%)	BXA4	05/04/20 16:43
Uranium-235/236		0.703		0.677	pCi/g	3.84		(0%-20%))	
Uranium-238		2.40		2.75	pCi/g	13.4		(0%-20%))	
QC1204553782 LCS Uranium-233/234				13.8	pCi/g					05/04/20 16:43
Uranium-235/236				0.853	pCi/g					
Uranium-238	12.6			14.1	pCi/g		112	(75%-125%))	
QC1204553780 MB Uranium-233/234				0.394	pCi/g					05/04/20 16:43
Uranium-235/236			U	0.0837	pCi/g					
Uranium-238			U	0.0171	pCi/g					
Batch 1993987										
Pct Uranium-235		4.34		4.32	percent	0.398		(0%-20%)	BXA4	05/02/20 08:36

Workorder: 510356								Page 4 of 8
Parmname	NOM	Sample Qual	QC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Alpha Spec Batch 1993987								
Uranium-233/234		32900	32600	pCi/L	1.06		(0%-20%) BXA	A4 05/02/20 08:36
Uranium-235/236		1600	1560	pCi/L	2.29		(0%-20%)	
Uranium-238		5480	5360	pCi/L	2.12		(0%-20%)	
QC1204554513 LCS Pct Uranium-235			0.777	percent				05/02/20 08:36
Uranium-233/234			2900	pCi/L				
Uranium-235/236			144	pCi/L				
Uranium-238	2730		2850	pCi/L		105	(75%-125%)	
QC1204554511 MB Pct Uranium-235			4.24	percent				05/02/20 08:36
Uranium-233/234			85.2	pCi/L				
Uranium-235/236			5.88	pCi/L				
Uranium-238			20.6	pCi/L				
Batch 1994754 QC1204556076 510356009 DUP								
Pct Uranium-235		4.50	7.23	percent	46.6		(0%-20%) BXA	A4 05/06/20 09:16
Uranium-233/234		20600	18100	pCi/L	13.3		(0%-20%)	
Uranium-235/236		1030	1510	pCi/L	37.8		(0% - 100%)	

QC Summary

Workorder: 510356		<u> </u>						
Parmname	NOM	Sample Oual	OC	Units	RPD%	REC%	Range Anlst	Date Time
Rad Alpha Spec Batch 1994754								
Uranium-238		3400	3010	pCi/L	12.1		(0%-20%) BXA	4 05/06/20 09:16
QC1204556077 LCS Pct Uranium-235			0.716	percent				05/06/20 09:16
Uranium-233/234			14100	pCi/L				
Uranium-235/236			582	pCi/L				
Uranium-238	13600		12500	pCi/L		92	(75%-125%)	
QC1204556075 MB Pct Uranium-235		U	0.000	percent				05/06/20 09:16
Uranium-233/234		U	62.8	pCi/L				
Uranium-235/236		U	115	pCi/L				
Uranium-238		U	32.2	pCi/L				
Batch 1994758 —								
QC1204556079 510356010 DUP Pct Uranium-235		6.31	5.38	percent	15.9		(0%-20%) MXS	2 05/06/20 09:51
Uranium-233/234		39.3	3.94	pCi/L	164*		(0%-20%)	
Uranium-235/236		3.02	0.340	pCi/L	160*		(0%-20%)	
Uranium-238		6.96	0.928	pCi/L	153*		(0%-20%)	

Workorder: 510356										Page 6 of 8
Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec Batch 1994758										
QC1204556080 LCS Pct Uranium-235				0.987	percent				MXS2	05/06/20 09:51
Uranium-233/234				27.9	pCi/L					
Uranium-235/236				1.84	pCi/L					
Uranium-238	27.3			28.7	pCi/L		105	(75%-125%)		
QC1204556078 MB Pct Uranium-235			U	0.000	percent					05/06/20 09:51
Uranium-233/234			U	0.128	pCi/L					
Uranium-235/236			U	0.0744	pCi/L					
Uranium-238			U	0.0301	pCi/L					
Batch 1995388										
QC1204557480 510356010 DUP Pct Uranium-235		15.0	U	0.000	percent	200		(0%-20%)	BXA4	05/09/20 09:59
Uranium-233/234		3.93		5.17	pCi/L	27.1*		(0%-20%)		
Uranium-235/236		0.613	U	0.227	pCi/L	33.9		(0% - 100%)		
Uranium-238	U	0.541	U	0.598	pCi/L	N/A		N/A	A	
QC1204557481 LCS Pct Uranium-235				0.631	percent					05/09/20 09:59
Uranium-233/234				66.7	pCi/L					

QC Summary

Workorder: 5	510356						Page 7 c								
Parmname			NOM	Sampl	e Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time			
Rad Alpha Spec Batch 199	95388														
Uranium-235/236						2.98	pCi/L				BXA4	05/09/20 09:59			
Uranium-238			68.1			72.9	pCi/L		107	(75%-125%)				
QC1204557479 Pct Uranium-235	MB				U	0.000	percent					05/09/20 09:59			
Uranium-233/234					U	-0.216	pCi/L								
Uranium-235/236					U	0.0575	pCi/L								
Uranium-238					U	-0.140	pCi/L								
Rad Liquid Scintilla Batch 199	ition 93585														
QC1204553577 Technetium-99	510356002	DUP	τ	J 50.	1 U	33.9	pCi/L	N/A		N/	A JJ3	05/06/20 16:13			
QC1204553578 Technetium-99	LCS		2520			2270	pCi/L		90.2	(75%-125%)	05/06/20 18:19			
QC1204553576 Technetium-99	MB				U	-6.52	pCi/L					05/06/20 14:06			
Batch 199	93830														
QC1204554189 Technetium-99	510356014	DUP	τ	U 0.47	3 U	0.920	pCi/g	N/A		N/	A JJ3	05/05/20 06:45			
QC1204554190 Technetium-99	LCS		55.6			57.8	pCi/g		104	(75%-125%)	05/05/20 07:02			
QC1204554188 Technetium-99	MB				U	0.428	pCi/g					05/05/20 06:28			

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QC Summary

Workor	rder: 51035	6											Pag	e 8 of 8
Parmna	me			NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Notes:														
The Qu	alifiers in this r	eport are d	lefined as fo	ollows:										
**	Analyte is a T	racer comp	pound											
<	Result is less t	han value	reported											
>	Result is great	er than val	lue reported	l										
BD	Results are eit	her below	the MDC o	r tracer recov	very is low									
FA	Failed analysi	s.												
Н	Analytical hol	ding time	was exceed	ed										
J	See case narra	tive for an	explanation	n										
J	Value is estim	ated												
Κ	Analyte preser	nt. Reporte	ed value ma	y be biased h	igh. Actual	value is e	xpected to	be lower.						
L	Analyte preser	nt. Reporte	ed value ma	y be biased l	ow. Actual	value is ex	pected to b	e higher.						
М	M if above MDC and less than LLD													
М	REMP Result	> MDC/C	L and < RD	DL										
N/A	RPD or %Rec	overy limi	ts do not ap	ply.										
N1	See case narra	tive												
ND	Analyte conce	ntration is	not detecte	d above the	letection lir	nit								
NJ	Consult Case	Narrative,	Data Summ	nary package	, or Project	Manager c	oncerning	this qualifi	er					
Q	One or more q	uality con	trol criteria	have not bee	en met. Refe	er to the ap	plicable na	rrative or I	DER.					
R	Sample results	s are reject	ed											
U	Analyte was a	nalyzed fo	or, but not de	etected above	e the MDL,	MDA, MI	DC or LOD).						
UI	Gamma Spect	roscopyU	Uncertain id	entification										
UJ	Gamma Spect	roscopyU	Uncertain id	entification										
UL	Not considered	d detected.	. The associ	ated number	is the repor	ted concer	ntration, wl	nich may b	e inaccurate	due to a low	bias.			
Х	Consult Case	Narrative,	Data Summ	nary package	, or Project	Manager c	oncerning	this qualifi	er					
Y	Other specific	qualifiers	were requir	ed to proper	ly define the	e results. C	Consult case	e narrative.						
۸	RPD of sampl	e and dupl	licate evalua	ated using +/-	-RL. Conce	entrations a	are <5X the	e RL. Qual	ifier Not Ap	plicable for	Radiochem	istry.		
h	Preparation or	preservati	ion holding	time was exc	ceeded									
N/A ind ^ The R five tim	dicates that spike Relative Percent nes (5X) the con	e recovery Difference tract requir	limits do ne e (RPD) obt red detectio	ot apply whe ained from tl n limit (RL).	n sample co ne sample d In cases wl	oncentratio uplicate (I here either	n exceeds DUP) is ev the sample	spike conc. aluated aga e or duplica	by a factor ainst the acce ate value is le	of 4 or more eptance criter ess than 5X t	or %RPD 1 ria when the he RL, a co	not applica e sample i ontrol limi	able. s greater t of +/- th	than ne

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 #: 510356

Product: Alphaspec U, Liquid Analytical Method: DOE EML HASL-300, U-02-RC Modified **Analytical Procedure:** GL-RAD-A-011 REV# 27 **Analytical Batch:** 1996515

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

<u>GEL Sample ID#</u>	Client Sample Identification
510356001	CL-1 Before
1204559801	Method Blank (MB)
1204559802	510356001(CL-1 Before) Sample Duplicate (DUP)
1204559803	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

Duplication Criteria between QC Sample and Duplicate Sample

The Sample and Duplicate, (see below), did not meet the duplication criteria list below due to the extremely small aliquot size used not being a true representation of the samples and due to the non-homogenous matrix of the samples. The aliquots were reduced due to the high levels of activity in the samples.

Sample	Analyte	Value
1204559802 (CL-1 BeforeDUP)	Uranium-233/234	RPD 64.7* (0.00%-20.00%)
	Uranium-235/236	RPD 62.9* (0.00%-20.00%)
	Uranium-238	RPD 64.1* (0.00%-20.00%)

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					
1204559801 (MB)	Uranium-233/234	Result 8.34 < MDA 67 > RDL 1 pCi/L					

Uranium-235/236	Result -2.49 < MDA 49.8 > RDL 1 pCi/L
Uranium-238	Result -3.69 < MDA 62.1 > RDL 1 pCi/L

Technical Information

Sample Re-prep/Re-analysis

Samples were reprepped due to low carrier/tracer yield. The re-analysis is being reported.

<u>Product:</u> Alphaspec U, Solid <u>Analytical Method:</u> DOE EML HASL-300, U-02-RC Modified <u>Analytical Procedure:</u> GL-RAD-A-011 REV# 27 <u>Analytical Batch:</u> 1996516

Preparation Method: Dry Soil Prep **Preparation Procedure:** GL-RAD-A-021 REV# 23 **Preparation Batch:** 1994801

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

<u>GEL Sample ID#</u>	Client Sample Identification
510356013	WG-D46035
1204559804	Method Blank (MB)
1204559805	510356013(WG-D46035) Sample Duplicate (DUP)
1204559806	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.

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.

Sample	Analyte	Value
1204559804 (MB)	Uranium-233/234	Result -111 < MDA 284 > RDL 1 pCi/g
	Uranium-235/236	Result 16 < MDA 170 > RDL 1 pCi/g

Uranium-238	Result -47.8 < MDA 201 > RDL 1 pCi/g
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Technical Information

Sample Re-prep/Re-analysis

Samples were reprepped due to low carrier/tracer yield. The re-analysis is being reported.

Product: Alphaspec U, Solid <u>Analytical Method:</u> DOE EML HASL-300, U-02-RC Modified <u>Analytical Procedure:</u> GL-RAD-A-011 REV# 27 <u>Analytical Batch:</u> 1993662

<u>Preparation Method:</u> Dry Soil Prep <u>Preparation Procedure:</u> GL-RAD-A-021 REV# 23 <u>Preparation Batch:</u> 1993645

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

GEL Sample ID#	Client Sample Identification
510356014	Calcium Fluoride
510356015	Sludge Dewatering D45671
1204553780	Method Blank (MB)
1204553781	510356014(Calcium Fluoride) Sample Duplicate (DUP)
1204553782	Laboratory Control Sample (LCS)

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

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Method Blank Criteria

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

Sample	Analyte	Value
1204553780 (MB)	Uranium-233/234	Result: 0.394 pCi/g > MDA: 0.187 pCi/g <= RDL: 1.00 pCi/g

Product: Alphaspec U, Liquid Analytical Method: DOE EML HASL-300, U-02-RC Modified

Analytical Procedure: GL-RAD-A-011 REV# 27 Analytical Batch: 1993987

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
510356002	CL-1 After
510356003	CL-2 Before
510356004	CL-2 After
510356005	CL-3 Before
510356006	CL-3 After
510356007	CL-4 Before
510356008	CL-4 After
1204554511	Method Blank (MB)
1204554512	510356002(CL-1 After) Sample Duplicate (DUP)
1204554513	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Method Blank Criteria

The blank (See Below) activity is greater than the MDC but is less than five percent of the lowest activity in the batch.

Sample	Analyte	Value
1204554511 (MB)	Uranium-233/234	Result: 85.2 pCi/L > MDA: 19.8 pCi/L > RDL: 0.500 pCi/L
	Uranium-238	Result: 20.6 pCi/L > MDA: 15.2 pCi/L > RDL: 0.500 pCi/L

The blank activity is equal to the MDC but is less than five percent of the lowest activity in the batch.

Sample	Analyte	Value
1204554511 (MB)	Uranium-235/236	Result: 5.88 pCi/L > MDA: 5.88 pCi/L > RDL: 0.500 pCi/L

Technical Information

Sample Re-prep/Re-analysis

Samples were reprepped due to low carrier/tracer yield. The re-analysis is being reported.

<u>Product:</u> Alphaspec U, Liquid <u>Analytical Method:</u> DOE EML HASL-300, U-02-RC Modified <u>Analytical Procedure:</u> GL-RAD-A-011 REV# 27

Analytical Batch: 1994754

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

<u>GEL Sample ID#</u>	Client Sample Identification
510356009	Scrap Cage Monitor Discharge
1204556075	Method Blank (MB)
1204556076	510356009(Scrap Cage Monitor Discharge) Sample Duplicate (DUP)
1204556077	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplication Criteria between QC Sample and Duplicate Sample

The Sample and Duplicate, (see below), did not meet the duplication criteria list below due to the extremely small aliquot size used not being a true representation of the samples. The aliquots were reduced due to the high levels of activity in the samples. The duplication criteria was met for all other isotopes. A RER value cannot be calculated as a TPU value is not associated with Percent U-235.

Sample	Analyte	Value
1204556076 (Scrap Cage Monitor DischargeDUP)	Pct Uranium-235	46.6* (0%-20%)

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
1204556075 (MB)	Uranium-233/234	Result 62.8 < MDA 655 > RDL 0.5 pCi/L
	Uranium-235/236	Result 115 < MDA 616 > RDL 0.5 pCi/L
	Uranium-238	Result 32.2 < MDA 459 > RDL 0.5 pCi/L

Technical Information

Sample Re-prep/Re-analysis

Sample (insert smaple id) was reprepped twice due to a low tracer yield. The third analysis is being reported. 510356009 (Scrap Cage Monitor Discharge).

<u>Product:</u> Alphaspec U, Liquid <u>Analytical Method:</u> DOE EML HASL-300, U-02-RC Modified <u>Analytical Procedure:</u> GL-RAD-A-011 REV# 27

Analytical Batch: 1994758

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

<u>GEL Sample ID#</u>	Client Sample Identification	
510356011	T-19 Ammonia	
510356012	T-20 Ammonia	
1204556078	Method Blank (MB)	
1204556079	510356010(W2) Sample Duplicate (DUP)	
1204556080	Laboratory Control Sample (LCS)	

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplication Criteria between 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
1204556079 (W2DUP)	Uranium-235/236	RPD 160* (0.00%-20.00%) RER 2.26 (0-3)

The Sample and Duplicate, (See Below), did not meet the duplication criteria listed below due to the non-homogenous matrix of the samples.

Sample	Analyte	Value
1204556079 (W2DUP)	Uranium-233/234	RPD 164* (0.00%-20.00%)
	Uranium-238	RPD 153* (0.00%-20.00%)

RDL Met

Sample did not meet the detection limit due to low sample yield. The client yield requirement was met. The sample was counted the maximum count time in order to achieve the lowest possible MDAs.

Sample	Analyte	Value
510356011 (T-19 Ammonia)	Uranium-233/234	Result 0.0545 < MDA 0.58 > RDL 0.5 pCi/L

Technical Information

Sample Re-prep/Re-analysis

Samples 510356010 (W2), 510356011 (T-19 Ammonia) and 510356012 (T-20 Ammonia) were reprepped due to high blank activity. The re-analysis is being reported for 510356011 and 510356012. Sample 510356010 is being included for QC purposes only.

Recounts

Sample 510356012 (T-20 Ammonia) was recounted due to high MDC. The recount is reported.

Miscellaneous Information

Additional Comments

Sample 510356010 (W2) is being included for QC purposes only.

<u>Product:</u> Alphaspec U, Liquid <u>Analytical Method:</u> DOE EML HASL-300, U-02-RC Modified <u>Analytical Procedure:</u> GL-RAD-A-011 REV# 27 <u>Analytical Batch:</u> 1995388

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
510356010	W2
1204557479	Method Blank (MB)
1204557480	510356010(W2) Sample Duplicate (DUP)
1204557481	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplication Criteria between 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
1204557480 (W2DUP)	Uranium-233/234	RPD 27.1* (0.00%-20.00%) RER 1.54 (0-3)

The Percent Uranium-235 does not meet the relative percent difference requirements for the QC and DUP 1204557480 (W2DUP) and 510356010 (W2); however, the U-235/236 does meet the relative percent difference requirements with a value of 33.9%.

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
1204557479 (MB)	Uranium-233/234	Result -0.216 < MDA 0.705 > RDL 0.5 pCi/L
	Uranium-238	Result -0.14 < MDA 0.67 > RDL 0.5 pCi/L

Samples (See Below) did not meet the detection limits due to the small sample aliquots used. The aliquots were reduced due to the matrix of the samples. The samples were counted the maximum count time in order to achieve the lowest possible MDAs.

Sample	Analyte	Value
1204557480 (W2DUP)	Uranium-238	Result 0.598 < MDA 0.704 > RDL 0.5 pCi/L
510356010 (W2)	Uranium-238	Result 0.541 < MDA 0.604 > RDL 0.5 pCi/L

Technical Information

Sample Re-prep/Re-analysis

Sample 510356010 (W2) was reprepped once due to high MB activity and a second time due to low tracer yield recovery. The third analysis is being reported.

Product: Dry Weight Preparation Method: Dry Soil Prep **Preparation Procedure:** GL-RAD-A-021 REV# 23 **Preparation Batch:** 1993645

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

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
510356014	Calcium Fluoride
510356015	Sludge Dewatering D45671

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.

<u>Product:</u> Dry Weight <u>Preparation Method:</u> Dry Soil Prep <u>Preparation Procedure:</u> GL-RAD-A-021 REV# 23 <u>Preparation Batch:</u> 1994801

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

<u>GEL Sample ID#</u>	Client Sample Identification
510356013	WG-D46035

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, Liquid Analytical Method: DOE EML HASL-300, Tc-02-RC Modified Analytical Procedure: GL-RAD-A-059 REV# 5 Analytical Batch: 1993870

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

<u>GEL Sample ID#</u>	Client Sample Identification
510356001	CL-1 Before
1204554245	Method Blank (MB)
1204554246	510356001(CL-1 Before) Sample Duplicate (DUP)
1204554247	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 the small sample aliquots used. The aliquots were reduced due to the matrix of the samples. The samples were counted the maximum count time in order to achieve the lowest possible MDAs.

Sample	Analyte	Value
1204554245 (MB)	Technetium-99	Result 54.7 < MDA 143 > RDL 5 pCi/L
1204554246 (CL-1 BeforeDUP)	Technetium-99	Result -36 < MDA 134 > RDL 5 pCi/L
510356001 (CL-1 Before)	Technetium-99	Result 58.7 < MDA 130 > RDL 5 pCi/L

Technical Information

Recounts

Samples 1204554246 (CL-1 BeforeDUP) and 510356001 (CL-1 Before) were recounted due to high relative percent difference/relative error ratio. The recounts are reported.

Product: Liquid Scint Tc99, Soil <u>Analytical Method:</u> DOE EML HASL-300, Tc-02-RC Modified <u>Analytical Procedure:</u> GL-RAD-A-059 REV# 5 <u>Analytical Batch:</u> 1994804

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

<u>GEL Sample ID#</u>	Client Sample Identification
510356013	WG-D46035
1204556159	Method Blank (MB)
1204556160	510356013(WG-D46035) Sample Duplicate (DUP)
1204556161	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 the small sample aliquots used. The aliquots were reduced due to the matrix of the samples. The samples were counted the maximum count time in order to achieve the lowest possible MDAs.

Sample	Analyte	Value
1204556159 (MB)	Technetium-99	Result -11.6 < MDA 46.9 > RDL 5 pCi/g
1204556160 (WG-D46035DUP)	Technetium-99	Result -31.5 < MDA 43.6 > RDL 5 pCi/g
510356013 (WG-D46035)	Technetium-99	Result 22.1 < MDA 49.6 > 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:** 1993585 The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
510356002	CL-1 After
510356003	CL-2 Before
510356004	CL-2 After
510356005	CL-3 Before
510356006	CL-3 After
510356007	CL-4 Before
510356008	CL-4 After
510356009	Scrap Cage Monitor Discharge
510356010	W2
510356011	T-19 Ammonia
510356012	T-20 Ammonia
1204553576	Method Blank (MB)
1204553577	510356002(CL-1 After) Sample Duplicate (DUP)
1204553578	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

aliquot volumes were reduced due to the sample matrix.

Quality Control (QC) Information

RDL Met

Samples (See Below) did not meet the detection limits due to the small sample aliquots used. The aliquots were reduced due to the matrix of the samples. The samples were counted the maximum count time in order to achieve the lowest possible MDAs.

Sample	Analyte	Value
1204553576 (MB)	Technetium-99	Result -6.52 < MDA 50.5 > RDL 5 pCi/L
1204553577 (CL-1 AfterDUP)	Technetium-99	Result 33.9 < MDA 57.1 > RDL 5 pCi/L
510356002 (CL-1 After)	Technetium-99	Result 50.1 < MDA 51.1 > RDL 5 pCi/L
510356006 (CL-3 After)	Technetium-99	Result 16.4 < MDA 54.4 > RDL 5 pCi/L
510356011 (T-19 Ammonia)	Technetium-99	Result 13.4 < MDA 142 > RDL 5 pCi/L
510356012 (T-20 Ammonia)	Technetium-99	Result -28.5 < MDA 228 > RDL 5 pCi/L

Product: Liquid Scint Tc99, Soil

<u>Analytical Method:</u> DOE EML HASL-300, Tc-02-RC Modified <u>Analytical Procedure:</u> GL-RAD-A-059 REV# 5 <u>Analytical Batch:</u> 1993830

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

<u>GEL Sample ID#</u>	Client Sample Identification
510356014	Calcium Fluoride
510356015	Sludge Dewatering D45671
1204554188	Method Blank (MB)
1204554189	510356014(Calcium Fluoride) Sample Duplicate (DUP)
1204554190	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.

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Bollected By: Randy Crews PULLO F	Send Results To: logsdocj(@westinghe	ouse.con		30	۸įdo	Lags Jo.	[A Vd)	66				Note	Comments r extra sample is
90 Sample ID * For composites - indicate start and stop date (i	*Date Collected me (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (J	Field filtered	Sample Matrix (4)	('ojui oidoiosi) Aest blease sup	no nwond (\) eseH oldiesoq	U siqotosi	-DT					ired for sample specific QC
CL-1 Before	4/9/2020	0700	U	z	ML X			×	×					
CL-1 After	4/9/2020	0700	G	z	ML X			×	×					
CL-2 Before	4/9/2020	0700	G	Z	ML			×	×					
CL-2 After	4/9/2020	0100	U	z	ML X			×	×					
CL-3 Before	4/9/2020	0700	U	z	ML X			×	×					
CL-3 After	4/9/2020	0200	0	z	ML X		1	×	×					
CL-4 Before	4/9/2020	0200	IJ	z	ML X			×	×					
CL-4 After	4/9/2020	0700	υ	z	ML X		1	×	×					
Scrap Cage Monitor Discharge	4/9/2020	0200	U	z	ML X			×	×					
W2	4/9/2020	0800	ŋ	z	ML	12.00								
Cha	in of Custody Signatures					E	AT Requ	lested:	Nor	mal:	_Rush:	X Specif	y: 10 Day TAT (S)	ubject to Surcharge)
Relinquished By (Signed) Date Time	Received by (sig	ned) D	ate	Time		Fa	x Results:	[] Ye	s []	K] No				
1 Randy Crews W 4/29/2020 10 0.2	I Secure Location	n 4/2	9/2020	8	N	Se	lect Deliv	erable:	[]C°	fA [](C Summa	Iry [] level	I []Level 2 []Lev	el 3 [] Level 4
2 Secure Location 4/29/2020 105	D, Eull	4:2	2.72		050	Ad	ditional I	<u> emark</u>						
3. 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	C T Keview Jorm (SRR.)	× *	22	San San	mple Coll	r Lab Re ection Ti	ceiving me Zon	Use 0 e: []	nly:: Cust Eastern	ody Seal I	<i>utact?</i> [] Ye. ic [] Centr	s [] No Cooler Tem al [] Mountain []	p: <i>[b</i> . ℃ Other:
1.) Chain of Custody Number = Client Determined														
2.) QC Codes: $N = Normal Sample, TB = Trip Blank, FD = Field$	Duplicate, $\mathbf{EB} = \mathbf{Equipment Blank}$,	MS = Matrix S	pike Sampl	e, MSD = N	vlatrix Spike I	Duplicate Sa	mple, G = (Jrab, C =	Compo	site				
3.) Field Filtered: For fiquid matrices, indicate with $a - Y - for yes$	the sample was field filtered or - N -	for sample was	not field fi	tered.										
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=	Surface Water, WW=Waste Water,	W≃Water, ML	ªMisc Liqu	d, SO=Soi	l, SD=Sedime	nt, SL=Sluc	lge, SS=Sol	id Waste,	0=Oil,	F=Filter, P=	Wipe, U≕Ur	ine, F=Fecal, N=	Nasal	
5.) Sample Analysis Requested: Analytical method requested (i.e.	8260B, 6010B/7470A) and number of	of containers pro	wided for e	ach (i.e. 82	60B - 3, 601(- V0212 81	(1							
6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, 7. KNOWN OR POSSIBLE HAZABDS	SH = Sodium Hydroxide, SA = Sulfi T	uric Acid, AA =	Ascorbic /	cid, HX =	Hexane, ST	 Sodium Ti 	viosulfate, It	no prese	rvative is	s added = lea	ve field blan	k		
PCRA Metels	The state of the s	$\frac{\text{Listed}}{\text{LW} = \text{Li}}$	Vaste sted Was	le		<u>5</u> 5	her = Other /	Unkno	W				Please provide any a below regarding han	lditional details lling and/or disposal
As = Arsenic Hg= Mercury Ra = Rarium Sa= Salonium	RE = Reactive	Waste c	ode(s):	arcow ba	Ś	mix	sc. health	w pH. A	aspesto s. etc.)	os, beryllin	m, irritan	ts, other	concerns. (i.e.: Origi of site collected from,	n of sample(s). type odd matrices, etc.)
$\mathbf{C}\mathbf{d} = \mathbf{C}\mathbf{a}\mathbf{d}\mathbf{m}\mathbf{u}\mathbf{m} \mathbf{A}\mathbf{g} = \mathbf{S}\mathbf{i}\mathbf{l}\mathbf{v}\mathbf{e}\mathbf{r}$	SCA Regulated					De	scription:							
Cr = Chromium MR= Misc. RCRA metals Pb = Lead	CB = Polychlorinated hinhenvls													
	opputies													

b age: 2 of 2									GEL 1 a	boratories 110	
0Project # ENV-CONSENTA		п Б)		ab0	rator	Ies LL(2040 Sa	vage Road	
WELL QUORE #: WNUCOUS		gel.c		emistry I R	adiochemisti	y I Radiobioas	ay I Specialty And	lytics	Charlest	ton, SC 29407	
PD # 4500775170 GEL	L Work Order Numbe	Cha		ustody.	and An	alytical K	equest		Phone: ((843) 556-8171	
Glient Name: Westinghouse		Phone # 80	3.647.3	171		muger. Mai	torn or and Analy	(S) Domination (S)	/T:11:	3) 766-1178	
Project/Site Name: Te-99 Source Investigation Phase 2		Fax# 803.	695.396			Should this				Der OI CONTAINERS IN	or each test)
Address: 5801 Bluff Road, Hopkins, SC 29061						sample be	iners	<u>ч</u>			C Preservative Type (6)
Sollected By: Randy Crews & CAZU Send	d Results To: logsdocj	@westinghc	onse.coi	E E	31)	λ bjλ	by Alp (:				Comments
50 Sample ID * For composites - indicate start and stop date time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code ⁽²⁾	Field Filtered ⁽³⁾	Matrix (3) Matrix (3) Matrix (3)	ves, please sup (7) Known or (7) Known or	rotat number) U oiqotosl Dog2	2-DT			voue: extra sample is required for sample specific QC
T-19 Ammonia	4/9/2020	0800	U	z	ML		×	×			
T-20 Ammonia	4/9/2020	0800	U	z	ML		- X	×			
WG-D46035	4/9/2020	0800	Ğ	z	MLX		1 X	×			an bei an shi na sh
Calcium Fluoride	4/9/2020	0800	U	z	ML X		1 X	X			
Sludge Dewatering D45671	4/8/2020	1400	U	z	ML X		× -	x			
Chain of	f Custody Signatures					TAT	Requested:	Vormal: Rus	h: X Specify	: 10 Day TAT	(Subject to Surcharge)
Relinquished By (Signed) Date Time	Received by (sig	med) Da	ate	Time		Fax Ro	sults: [] Yes	[X] No			0
1 Randy Crews VLAT 4/26/2020 1003	1 Secure Location	n 4/29	9/2020		00 Z	Select	Deliverable: [C of A []QC Su	nmary []level]	I I Level 2 I 1	Level 3 [11 evel 4
2 Secure Location 4/29/2020	2 4/11	4.2		1 1	050	Additic	nal Remarks:				
3 a f f f f 2 2 2 2 5 5 > For sampte shipping and delivery details, see Sample R	Receipt & Review form (SRR.)	N V	20	Sell Sell	55 For Li uple Collecti	b Receiving U. m Time Zone .	ie Only: Custody Se [] Eastern [] P	acific [] Centra	[] No Cooler 1	Temp: <u>[6 °C</u> [10ther
1.) Chain of Custody Number = Client Determined											
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplic	icate, EB = Equipment Blank,	MS = Matrix S _f	ike Samp	e, MSD = N	1atrix Spike D	Juplicate Sample	G = Grab, C = Cc	mposite			
 Prediction for industries, indicate with a - Y - for yes the sar 4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface 	imple was field filtered or - N - ce Water WW=Waste Waster	for sample was W=Watar MI =	not field f	ltered.		5					
5.) Sample Analysis Requested: Analytical method requested (i.e. 8260B)	3, 6010B/7470A) and number of	of containers pro	vided for	ach (i e 82)	, 30-350100 808 - 3 6010	n, 51.=51udge, 1 <i>R/7170A</i> = 1)	5=Solid Waste, U	-Oil, F=Filter, P=Wipe, I	J≖Urine, F≡Fecal, N=N	Vasal	
6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = S	Sodium Hydroxide, SA = Sulfi	uric Acid, AA =	Ascorbic.	Acid, HX =	Hexane, ST =	Sodium Thiosu	fate, If no preserva	ive is added = leave field	blank		
7) KNOWN OR POSSIBLE HAZARDS Chara	acteristic Hazards	Listed W	Vaste		-	Other			VIBIN	Please provide as	w additional dataile
FL=1 RCRA Metals CO = (Flammable/Ignitable Corrosive	LW = Lis (F.K.P.a)	sted Was	te ted waste		OT = C	ther / Unknown		-	below regarding	handling and/or disposal
As = Arsenic Hg= Mercury RE = 1 Ra = Barium Sa= Salanium	Reactive	Waste co	de(s):			misc. h	gartow pri, usu salth hazards, e	resios, veryutum, irr tc.)	itants, other	concerns. (i.e.: U of site collected fi	Jrigin of sample(s), type com, odd matrices_etc.)
Cd = Cadmium Ag= Silver TSCA	A Regulated					Descri	tion:			n •	
Cr = Chromium MR= Misc. RCRA metals PCB =	 Polychlorinated 										
	biphenyls										
			19								

	SAMPLE REC
ent: UNIC	SDG/AR/COC/Work Orde
ΔΟ	

56356

Client: UNUC			SD	G/AR/COC/Work Order:	Re
Received Br. JUR			Da	te Received: 4-29.20	
Carrier and Tracking Number				Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other	
Suspected Hazard Information	Yes	No	*Ľ	Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further invo	estigation.
A iShipped as a DOT Hazardous?		r	Haz If U	ard Class Shipped: UN#: N2910, Is the Radioactive Shipment Survey Compliant? YesNo	
B) Did the client designate the samples are to be received as radioactive?	Barr		co	C notation or radioactive stickers on containers equal client designation.	
C) Did the RSO classify the samples as radioactive?	~		Max Cla	imum Net Counts Observed * (Observed Counts - Area Background Counts):CPM (mR/Hr) stified as Rad 1 Rad 2 Rad 3	
D) Did the client designate samples are hazardous?	1	1	COO	C notation or hazard labels on containers equal client designation.	
E) Did the RSO identify possible hazards?		V	PCE	's Flanunzble Foreign Soil RCRA Asbestos Beryllium Other:	
Sample Receipt Criteria	Yes	N.	N0 N	Comments/Qualifiers (Required for Non-Conforming Items)	
1 Shipping containers received intact and sealed?	L			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)	
2 Chain of custody documents included with shipment?				Circle Applicable: Client contacted and provided COC COC created upon receipt	
3 Samples requiring cold preservation within $(0 \le 6 \text{ deg. C})$?*		V		Preservation Method: Wet Ice Ice Packs Dry ice None Other: *all temperatures are recorded in Celsius	C
4 Daily check performed and passed on IR temperature gun?	V			Temperature Device Serial #:	
5 Sample containers intact and sealed?	V			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)	
6 Samples requiring chemical preservation at proper pH?				Sample ID's and Containers Affected: If Freservation added, Lot#:	
7 Do any samples require Volatile Analysis?			br	If Yes, are Encores or Soil Kits present for solids? Yes No NA (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes No NA (If unknown, select No) C liquid VOA vials free of headspace? Yes No NA Sample ID's and containers affected:	
8 Samples received within holding time?	V			D's and tests affected:	······································
9 Sample ID's on COC match ID's on bottles?	V			D's and containers affected:	-
Date & time on COC match date & time on bottles?	V			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)	
Number of containers received match number indicated on COC?	Ч			Circle Applicable: No container count on COC Other (describe)	
12 Are sample containers identifiable as GEL provided?			Jer		
COC form is properly signed in relinquished/received sections?	J			Circle Applicable: Not relinquished Other (describe)	
onunents (Use Continuation Form if needed): CL-Betore and All other sample	<u></u>	V	16 ma	-D46035 are both Rad-2 Trket Rad are Rad-1	
PM (or PMA) rev	iew:	Initia	is Date/////// Page of	

GL-CHL-SR-001 Rev 6

Westinghouse Proprietary Class 2

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations
 Print Date:
 04/15/2020

 Print Time:
 10:55

MISC_AQUEOUS_U Analytical Report

Lab Report No.	Date Sampled	Enrichment
2020047422	04/14/2020	4.25
EPN No.	Contract XCES50	Submitter Sample No. SCRAP CAGE AFTER

Para	meter	Units	Low Spec	High Spec		Sub Sample I	D & Analysis Res	ults	
	lando de la dela dela del				2020047422				*******
					SCRAP				
					SCRAP				
U	,	ppm			5.89				
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	and the second second								
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OC I	Disnos	ition By: Ca	andice Sing	latany 3820	18				
D	ate an	d Time: 04	/14/20 13:1	1 1	Page 1 c	of 1	Disposition:	ACCEPT	
				-					

Westinghouse Proprietary Class 2

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations
 Print Date:
 04/15/2020

 Print Time:
 10:53

MISC_AQUEOUS_U Analytical Report

Lab Report No.	Date Sampled	Enrichment
2020047420	04/14/2020	4.25
EPN No.	Contract XCES50	Submitter Sample No. CL-1 DC FILTER

Parame	ter Units	Low Spec	High Spec		Cub Carriet		······································	·····
L			La oheo		Sub Sample I	U & Analysis Res	sults	
no ana ing kanala sa		-		2020047420				
				CL-1 DC				
				CL-1 DC				
U	ppm			8.59				
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QC Dis	position By: C	andice Single	etary, 38208	3				
Date	e and Time: 04	/14/20 13:0	8	Page 1 of	1	Disposition:	ACCEPT	

Westinghouse Proprietary Class 2

 Print Date:
 04/15/2020

 Print Time:
 12:32

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations

MISC_AQUEOUS_U Analytical Report

Lab Report No. 2020047941	Date Sampled 04/15/2020	Enrichment 4.25
EPN No.	Contract XCES50	Submitter Sample No. CL2 AFTER
Remarks:		
Parameter Units Low Spec Hi	igh Spec Sub Sample	ID & Analysis Results

	2020047941	
	Prof Million and a subsection of the subsection	
	CL2 AFTER	
and the second se	19.60	
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Shaneedra Calvin, 3	38287	
04/15/20 12:10	Page 1 of 1	Disposition: ACCEP
	Shaneedra Calvin, 04/15/20 12:10	19.60 Shaneedra Calvin, 38287 04/15/20 12:10 Page 1 of 1

Westinghouse Proprietary Class 2

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations
 Print Date:
 04/15/2020

 Print Time:
 10:55

MISC_AQUEOUS_U Analytical Report

Lab Report No.	Date Sampled	Enrichment
2020047421	04/14/2020	4.25
EPN No.	Contract XCES50	Submitter Sample No. CL3 AFTER

Parar	neter	Units	Low Spec	High Spec	[Sub Sample II	D & Analysis Res	ulite
		•••••••••	L		2020047404			
					2020047421			
					CL3 AFTER			1
		na statunda diskolarana kwa morana na wasila Jawang			CL-3 AFTER			
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	isposi	tion By: Ca	ndice Singl	etary, 3820	8			
Da	ate and	d Time: 04/	14/20 13:1	0	Page 1 c	of 1	Disposition:	ACCEPT

Westinghouse Proprietary Class 2

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations
 Print Date:
 04/15/2020

 Print Time:
 10:54

MISC_AQUEOUS_U Analytical Report

Lab F	Report No.	Date Sampled	Enrichment
202	0047423	04/14/2020	4.25
EF	'N No.	Contract XCES50	Submitter Sample No. CL4 AFTER

Parar	neter	Units	Low Spec	High Spec	[Sub Sample	ID & Analysis Da		
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					2020047423				
					CL4 AFTER				
Part and a strength					CL-4 AFTER				
υ		ppm			13.36				
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Da	te and	1 Time: 04/	14/20 13·1	etary, 3820 3	D Parie 1 of	4	Disposition	ACCEPT	
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Westinghouse Proprietary Class 2

 Print Date:
 04/15/2020

 Print Time:
 10:40

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations

MISC_AQUEOUS_U Analytical Report

Lab Report No.	Date Sampled	Enrichment
2020046809	04/13/2020	4.25
EPN No.	Contract XCES50	

Remarks: CL1BEFORE

Param	eter	Units	Low Spec	High Spec		Sub Sample	ID & Analysis Resu	lts
					2020046809			
denision strandis-					CL1BEFORE			
Series Zielungen eines Statistica erste					CL1BEFORE			
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D	ate ar	nd Time: 04	4/13/20 15::	25	Page 1 of	1	Disposition:	ACCEPT
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Westinghouse Proprietary Class 2

 Print Date:
 04/15/2020

 Print Time:
 10:40

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations

MISC_AQUEOUS_U Analytical Report

Lab Report No.	Date Sampled	Enrichment
2020046811	04/13/2020	4.25
EPN No.	Contract XCES50	Submitter Sample No. CL2 BEFORE

Remarks: CL2BEFORE

Paran	neter	Units	Low Spec	High Spec	[Sub S	ample ID & Ar	alysis Res	ults	
			••••••••	••••••••	2020046811]				
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and the second					<u>CL2</u>					
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a da organización de la defensa										
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QC [Dispos	ition By: Ar	ngenett McF	adden, 302	204					
D	ate an	id Time: 04	/13/20 15:2	25	Page 1	of 1	Dis	position:	ACCEPT	

Westinghouse Proprietary Class 2

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations
 Print Date:
 04/15/2020

 Print Time:
 10:40

MISC_AQUEOUS_U Analytical Report

Lab Report No.	Date Sampled	Enrichment
2020046812	04/13/2020	4.25
EPN No.	Contract XCES50	Submitter Sample No. CL3 BEFORE

Remarks: CL3 BEFORE

Parameter	Units	Low Spec	High Spec	[Sub Sample	ID & Analysis Reg	sulte	
	- ••••••••••••••••••••••••••••••••••••	L	L	000004004=]			
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QC Dispo	sition By: Ar	ngenett McF	adden, 302	04				
Date a	nd Time: 04,	/13/20 15:2	6	Page 1 o	of 1	Disposition:	ACCEPT	
			- 			*******		

Westinghouse Proprietary Class 2

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations
 Print Date:
 04/15/2020

 Print Time:
 11:26

MISC_AQUEOUS_U Analytical Report

Lab Report No.	Date Sampled	Enrichment
2020047402	04/14/2020	4.25
EPN No.	Contract XCES50	Submitter Sample No. CL4-BEFORE

Remarks: CL4-BEFORE

- aram		Onits	Low Spec	High Spec	L	Sub Sample	ID & Analysis Res	sults	
					2020047402				
					CL4-BEFOR				
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			****	: :					
QC Dis Dat	sposit e and	tion By: A	Angenett McF	adden, 302	04	• ·			
			14/20 12:30	u	Page 1 o	f1	Disposition:	ACCEPT	

Westinghouse Proprietary Class 2

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations
 Print Date:
 04/15/2020

 Print Time:
 10:42

MISC_AQUEOUS_U Analytical Report

Lab Report No.	Date Sampled	Enrichment	
2020047406	04/14/2020	4.25	
EPN No.	Contract XCES50		

Remarks:

Parar	neter	Unite	s	Low Spec	High Spec	<u> </u>	Sub Campia	D & Analysis D	
L	-	L	l	L		2020047406		ιυ α Analysis Res	SUIIS
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Page 50 of 57 SDG: 510356

Westinghouse Proprietary Class 2

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations

 Print Date:
 04/15/2020

 Print Time:
 10:42

MISC_AQUEOUS_U Analytical Report

 Lab Report No.	Date Sampled	Enrichment
2020047405	04/14/2020	4.25
EPN No.	Contract XCES50	

Parar	neter	Units	Low Spec	High Spec		Sub Carriel	D 0 August m		
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Westinghouse Proprietary Class 2

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations
 Print Date:
 04/15/2020

 Print Time:
 10:44

MISC_AQUEOUS_U Analytical Report

Lab Report No.	Date Sampled	Enrichment
2020047404	04/14/2020	4.25
EPN No.	Contract XCES50	Submitter Sample No. WEST 2

Param	eter	Units	Low Spec	High Spec		Sub Sample ID & Analysis Posulto
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					2020047404	
				2 	WEST 2	
r					URRS	
U		ppm			0.03	
						1

Allowed Control of States						
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QC Dis	sposil	ion Bv: Rid	kel Murrav	36695		
Dat	e and	Time: 04/	14/20 14:0	0	Page 1 of	f 1 Disposition: ACCEPT
					<u> </u>	

Weight (g)	T	T	1	1	Т	1	<u> </u>				
Tare (liquid)	60.85	<u> </u>		+	+				Plant Nomina	al	
West 2	1040.25	-		+				9	<u>6 U235 by We</u>	ight	1
T-19	1049.25	B	PPIVI/U =		0.03	=	0.03	mgU	4.254	0.001276	mg U-235
T_20	910.45	g	PPM/0 =	<	0.01	=	0.01	. mgU	4.254	0.000425	mg U-235
Conversion U. A.D.C	923.05	g	PPM/U =	<	0.01	=	0.01	mgU	4.254	0.000425	mg 11-235
Conversion Line 1 Before	1008.48	g	PPM/U =		250	=	250	mgU	4.254	10 635	mg 11-225
Conversion Line 2 Before	944.29	g	PPM/U =		110	=	110	meU	4 254	1 6704	mg 11 225
Conversion Line 3 Before	989.39	g	PPM/U =		210	=	210	mall	1.254	9.0224	mg 0-235
Conversion Line 4 Before	945.71	g	PPM/U =	1	40	=	10	mall	4.254	0.9334	mg U-235
Conversion Line 1 After	950.16	g	PPM/U =	†	8.50	-	0 50	mall	4.254	1.7016	mg U-235
Conversion Line 2 After	972.67	g g	PPM/II=		10.6		0.59	Imgu	4.254	0.365419	mg U-235
Conversion Line 3 After	917.64	0 0	PPN/11-		10.70		19.60	ImgU	4.254	0.833784	mg U-235
Conversion Line 4 After	05.9 00	<u>5</u>			19.79	=	19.79	mgU	4.254	0.841867	mg U-235
Scrap Cage Monitor	1022.01	<u>5</u>	PPW/0 =		13.36	=	13.36	mgU	4.254	0.568334	mg U-235
Biocolide	1032.91	g	PPIM/U =		5.89	=	5.89	mgU	4.254	0.250561	mg U-235
Motorglass asks	49.05	<u>g</u>	PPM/U =		211.1	=	211.10	mgU	4.254	8.980194	mg U-235
waterglass cake	153.79	g	PPM/U =		33794	=	33794	mgU	4.254	1437 597	mg 11-235
Calcium Fluoride	171.93	g	PPM/U =		8.96	=	8.96	mgU	4,254	0 381158	mg 11 225
TOTALS	11983.67	g				TOTALS:	34691.34	mgU		1475.77	mg U-235
							34.69	gU	1	1.47577	g U-235

Westinghouse Proprietary Class 2

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations
 Print Date:
 04/15/2020

 Print Time:
 10:50

CALCIUM_FLUORIDE Analytical Report

Lab Report No.	Date Sampled	Enrichment
2020047844	04/15/2020	4.25
EPN No.	Contract XCES50	

Blend/Lot No.

U Parameters &
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phin
2020047844 Calcium Fluoride 8 96
QC Disposition By: Laurie Harvey 35793
Date and Time: 04/15/20 10:48 Page 1 of 1 Disposition

Westinghouse Proprietary Class 2

 Print Date:
 04/15/2020

 Print Time:
 12:30

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations

MISC_SOLID Analytical Report

Lab Report No. 2020047950	Date Sampled 04/15/2020	Enrichment
EPN No.	Contract XCES50	4.25 Submitter Sample No. D45671 SLUDGE DEWATER

Blend/Lot No. D45671

	Sample ID		Paramete	rs & Analysis Results	
		U			
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020047950	D45671 SLUDGE	211.10			
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Dienooit	on Dur Made Kales	04700			
Data and	Ju by: Mark Krissing	er, 31766			

Westinghouse Proprietary Class 2

Westinghouse Electric Company - Nuclear Fuel Columbia Plant - Product Assurance Chemical Operations

Print Date: 04/15/2020 Print Time: 12:02

MISC_SOLID Analytical Report

Lab Report No. 2020046788	Date Sampled 04/13/2020	Enrichment
EPN No.	Contract XCES50	Submitter Sample No. D46035 waterglass

Blend/Lot No. D46035

Remarks: D46035

	Sample ID		Parameter	rs & Analysis Results	
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		ppm			
20046788 D4	6035 waterglass	33794			
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and the second se					
		-			

Page 1 of 1

Disposition: ACCEPT

State	Certification		
Alaska	17–018		
Alaska Drinking Water	SC00012		
Arkansas	88-0651		
CLIA	42D0904046		
California	2940		
Colorado	SC00012		
Connecticut	PH-0169		
DoD ELAP/ ISO17025 A2LA	2567.01		
Florida NELAP	E87156		
Foreign Soils Permit	P330-15-00283, P330-15-00253		
Georgia	SC00012		
Georgia SDWA	967		
Hawaii	SC00012		
Idaho	SC00012		
Illinois NELAP	200029		
Indiana	C-SC-01		
Kansas NELAP	E-10332		
Kentucky SDWA	90129		
Kentucky Wastewater	90129		
Louisiana Drinking Water	LA024		
Louisiana NELAP	03046 (AI33904)		
Maine	2019020		
Maryland	270		
Massachusetts	M-SC012		
Massachusetts PFAS Approv	Letter		
Michigan	9976		
Mississippi	SC00012		
Nebraska	NE-OS-26-13		
Nevada	SC000122020-1		
New Hampshire NELAP	2054		
New Jersey NELAP	SC002		
New Mexico	SC00012		
New York NELAP	11501		
North Carolina	233		
North Carolina SDWA	45709		
North Dakota	R-158		
Oklahoma	2019–165		
Pennsylvania NELAP	68-00485		
Puerto Rico	SC00012		
S. Carolina Radiochem	10120002		
Sanitation Districts of L	9255651		
South Carolina Chemistry	10120001		
Tennessee	TN 02934		
Texas NELAP	T104704235-20-16		
Utah NELAP	SC000122020-32		
Vermont	VT87156		
Virginia NELAP	460202		
Washington	C780		
<u>v</u>			

List of current GEL Certifications as of 13 May 2020