ANALYTICAL REPORT

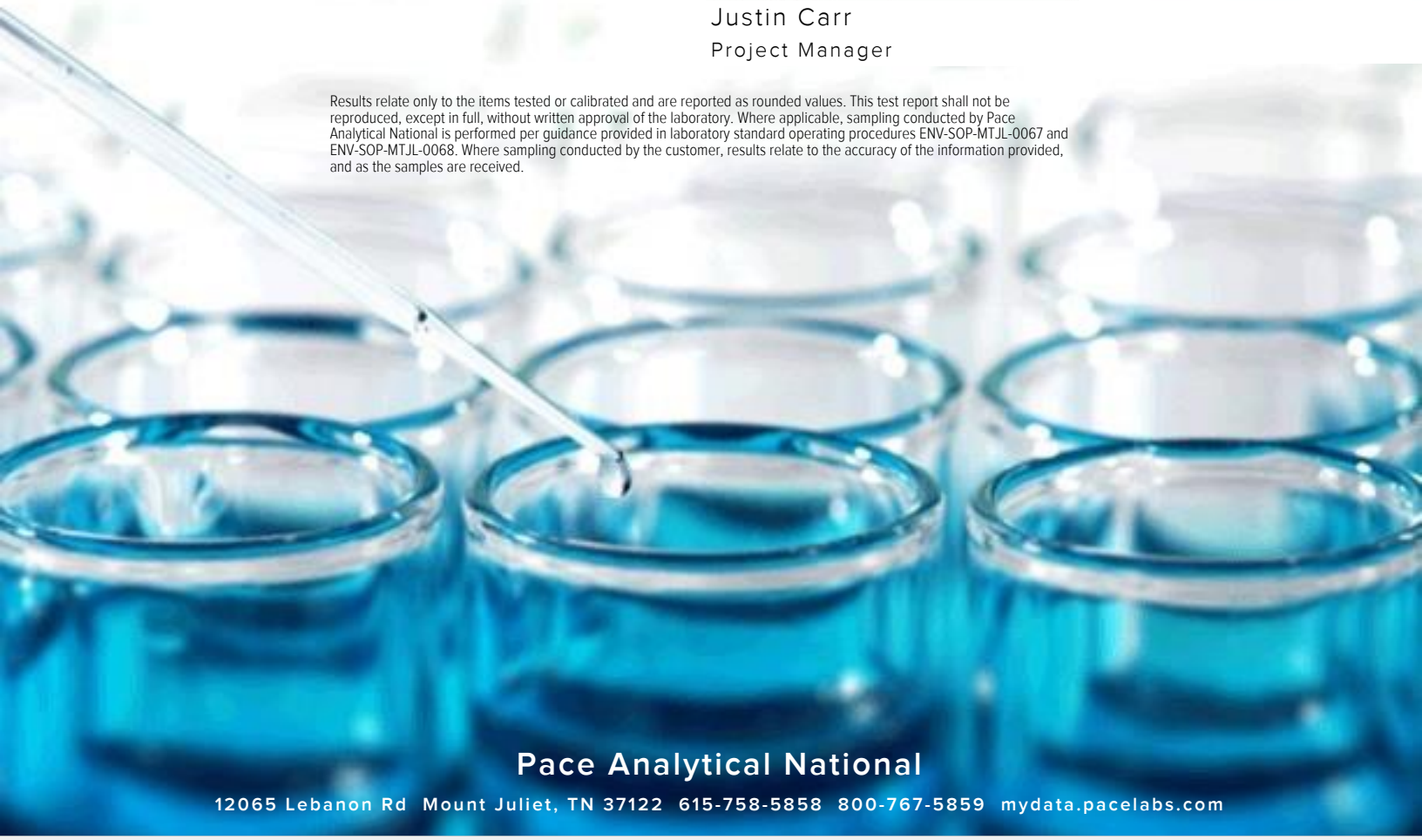
May 07, 2025

CTEH - ER

Sample Delivery Group:	L1853804
Samples Received:	05/01/2025
Project Number:	PROJ-054017
Description:	Bishop Loss of Containment Incident
Report To:	CTEH
	5120 North Shore Drive
	North Little Rock, AR 72118

Entire Report Reviewed By:

Justin Carr
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

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SAMPLE SUMMARY

GACO0430STW002 L1853804-01 Non-Potable Water

Collected by: M. Beck
Collected date/time: 04/30/25 14:30
Received date/time: 05/01/25 13:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2504314	1	05/02/25 12:10	05/06/25 21:45	DDD	Mt. Juliet, TN
Radiochemistry by Method D5174	WG2504730	1	05/01/25 15:57	05/02/25 16:59	CAB	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2505210	1	05/02/25 11:13	05/05/25 19:46	ZRG	Mt. Juliet, TN

GACO0430STF001 L1853804-02 Non-Potable Water

Collected by: M. Beck
Collected date/time: 04/30/25 14:15
Received date/time: 05/01/25 13:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2504314	1	05/02/25 12:10	05/06/25 21:45	DDD	Mt. Juliet, TN
Radiochemistry by Method D5174	WG2504730	1	05/01/25 15:57	05/02/25 17:01	CAB	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2505210	1	05/02/25 11:13	05/05/25 19:46	ZRG	Mt. Juliet, TN

CASE NARRATIVE

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Justin Carr
Project Manager

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.856	J	0.931	0.974	1.56	0.464	05/06/2025 21:45	WG2504314
(T) Barium	*51.5*					*30.0-143*	*05/06/2025 21:45*	WG2504314
(T) Yttrium	*106*					*30.0-136*	*05/06/2025 21:45*	WG2504314

Radiochemistry by Method D5174

Analyte	Result	Qualifier	Uncertainty	RDL	Analysis Date	Batch
	ug/l		+ / -	ug/l	date / time	
Uranium	ND			1.00	05/02/2025 16:59	WG2504730

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	0.247	J	0.248	0.319	0.321	0.105	05/05/2025 19:46	WG2505210
(T) Barium-133	*99.9*					*30.0-143*	*05/05/2025 19:46*	WG2505210

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-228	0.592	J	0.475	0.511	0.779	0.230	05/06/2025 21:45	WG2504314
(T) Barium	*71.3*					*30.0-143*	*05/06/2025 21:45*	WG2504314
(T) Yttrium	*106*					*30.0-136*	*05/06/2025 21:45*	WG2504314

Radiochemistry by Method D5174

Analyte	Result	Qualifier	Uncertainty	RDL	Analysis Date	Batch
	ug/l		+ / -	ug/l	date / time	
Uranium	ND			1.00	05/02/2025 17:01	WG2504730

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	2 sigma CE	TPU	MDA	Lc	Analysis Date	Batch
	pCi/l		+ / -	+ / -	pCi/l	pCi/l	date / time	
RADIUM-226	-0.0319	U	0.171	0.200	0.360	0.121	05/05/2025 19:46	WG2505210
(T) Barium-133	*101*					*30.0-143*	*05/05/2025 19:46*	WG2505210

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4211359-1 05/06/25 21:45

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-228	0.238	U	0.345	0.586	0.175
(T) Barium	*79.4*		*79.4*		
(T) Yttrium	*95.6*		*95.6*		

L1847775-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1847775-02 05/06/25 21:45 • (DUP) R4211359-5 05/06/25 21:45

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.224	1.04	1.79	0.543	0.418	0.998	1.71	0.517	60.6	0.135	U	20	3
(T) Barium	*67.1*				*64.6*	*64.6*							
(T) Yttrium	*108*				*103*	*103*							

Laboratory Control Sample (LCS)

(LCS) R4211359-2 05/06/25 21:45

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.92	118	80.0-120	
(T) Barium			*78.9*		
(T) Yttrium			*98.1*		

L1853830-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1853830-01 05/06/25 21:45 • (MS) R4211359-3 05/06/25 21:45 • (MSD) R4211359-4 05/06/25 21:45

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.930	20.4	20.8	116	119	1	70.0-130			2.28		20
(T) Barium		*69.1*			*79.7*	*72.3*							
(T) Yttrium		*107*			*102*	*105*							

QUALITY CONTROL SUMMARY

L1853804-01,02

Method Blank (MB)

(MB) R4210385-1 05/02/25 16:45

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Uranium	U		1.00	1.00

L1853865-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1853865-02 05/02/25 17:34 • (DUP) R4210385-5 05/02/25 16:58

Analyte	Original Result ug/l	DUP Result ug/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Uranium	92.3	91.8	1	0.547		20

Laboratory Control Sample (LCS)

(LCS) R4210385-2 05/02/25 16:50

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Uranium	30.0	30.8	103	80.0-120	

L1853830-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1853830-01 05/06/25 12:22 • (MS) R4210385-6 05/06/25 12:19 • (MSD) R4210385-7 05/06/25 12:20

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Uranium	20.0	77.7	98.7	98.3	105	103	1	75.0-125			0.457	20

Method Blank (MB)

(MB) R4210392-1 05/05/25 19:46

Analyte	MB Result pCi/l	MB Qualifier	MB 2 sigma CE + / -	MB MDA pCi/l	MB Lc pCi/l
Radium-226	-0.0247	U	0.0312	0.0881	0.0288
(T) Barium-133	*89.2*		*89.2*		

L1848996-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1848996-02 05/05/25 19:46 • (DUP) R4210392-5 05/05/25 19:46

Analyte	Original Result pCi/l	Original 2 sigma CE + / -	Original MDA pCi/l	Original Lc pCi/l	DUP Result pCi/l	DUP 2 sigma CE + / -	DUP MDA pCi/l	DUP Lc pCi/l	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0202	0.188	0.382	0.116	0.106	0.155	0.233	0.0639	136	0.352	J	20	3
(T) Barium-133	*70.2*				*96.6*	*96.6*							

Laboratory Control Sample (LCS)

(LCS) R4210392-2 05/05/25 19:46

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.00	4.64	92.9	80.0-120	
(T) Barium-133			*106*		

L1853830-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1853830-01 05/05/25 19:46 • (MS) R4210392-3 05/05/25 19:46 • (MSD) R4210392-4 05/05/25 19:46

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0160	15.4	16.9	76.9	84.3	1	75.0-125			9.18		20
(T) Barium-133		*97.6*			*101*	*97.1*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
CTEH - ER

5120 North Shore Drive
North Little Rock, AR 72118

Billing Information:
Accounts Payable
10700 Prarie Lakes Drive
Eden Prairie, MN 55344

Pres Chk

Report to:
CTEH 501-801-8500

Email To:
labresults@cteh.com; kylelawrence@cteh.com; ecatlin@cteh.com; ahenault@cteh.com; tmcmullin@cteh.com; mklinkerman@cteh.com

Project Description:
Bishop Loss of Containment Incident

City/State Collected: **Galeton, CO**

Please Circle: PT (MT) CT ET

Regulatory Program (COC,RCRA,DW,etc):
NA

Client Project #
PROJ-054017

Lab Project #
CTEHER-054017

Collected by (print):
M. Beck

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately
Packed on Ice N ____ Y **X**

Rush? (Lab MUST Be Notified)
____Same Day __X__Five Day
____Next Day ____5 Day (Rad Only)
____Two Day ____10 Day (Rad Only)
____Three Day ____STD TaT

Date Results Needed

Quote #

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	*Anions, Alkalinity, pH 250ml HDPE-NoPres	CR6ICFFP 50mlTube/plungerPres	Hardness 250ml HDPE-HNO3	Diss. Metals 6020B 250ml HDPE-HNO3	MBAS 500ml HDPE-NoPres	PT,TKN, Ammonia 250ml HDPE-H2SO4	RA-226, RA-228, KPA-U 1L-HDPE-Add-HNO3	TDS 1L-HDPE NoPres	TOC 250ml Amb-HCl	TSS 1L-HDPE NoPres	Remarks	Sample # (lab only)
GAC004300STW002	G	SW	—	4-30-25	1430	2	—	—	—	—	—	—	X	—	—	—		-01
GAC004300STF001	G	SW	—	4-30-25	1415	2	—	—	—	—	—	—	X	—	—	—		-02

MB MB

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater **SW**- Surface Water
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
UPS ____UPS Courier _____
____FedEx____

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	4-30-25	1800	Pace
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No (No) HCL / MeoH TBR

Temp: °C Bottles Received: 18

TEMP 2.1 +0.4 = 2.5

Date: 5/1/25 Time: 1:00 pm

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE
MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1853804
D216

Acctnum: **CTEHER**
Template: **T271979**
Prelogin: **P1144451**
PM: **546 - Jared Starkey**
PB:

Shipped Via:

Sample Receipt Checklist
COC Seal Present/Intact: __NP X Y __N
COC Signed/Accurate: X Y __N
Bottles arrive intact: X Y __N
Correct bottles used: X Y __N
Sufficient volume sent: X Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: X Y __N
Rad Screen 0.5 mR/hr: X Y __N

PH – 10BDH0941
TRC – 4072A72

Hold:

Condition: NCF (OK)