

CTEH - ER

Sample Delivery Group: L1853837
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

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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

GACO0430W003 L1853837-01 Non-Potable Water

Collected by: M. Beck
 Collected date/time: 04/30/25 09:30
 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 17:29	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

¹Cp

²Tc

³Ss

⁴Cn

GACO0430F001 L1853837-02 Non-Potable Water

Collected by: M. Beck
 Collected date/time: 04/30/25 08:00
 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 17:31	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

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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	0.122	<u>U</u>	0.381	0.397	0.663	0.197	05/06/2025 21:45	WG2504314
(T) Barium	97.0					30.0-143	05/06/2025 21:45	WG2504314
(T) Yttrium	106					30.0-136	05/06/2025 21:45	WG2504314

1 Cp

2 Tc

3 Ss

Radiochemistry by Method D5174

Analyte	Result	Qualifier	Uncertainty	RDL	Analysis Date	Batch
	ug/l		+ / -	ug/l	date / time	
Uranium	116		7.46	1.00	05/02/2025 17:29	WG2504730

4 Cn

5 Sr

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	-0.0892	<u>U</u>	0.214	0.259	0.455	0.161	05/05/2025 19:46	WG2505210
(T) Barium-133	94.2					30.0-143	05/05/2025 19:46	WG2505210

6 Qc

7 Gl

8 Al

9 Sc

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	0.643	J	0.611	0.649	1.02	0.302	05/06/2025 21:45	WG2504314
(T) Barium	63.4					30.0-143	05/06/2025 21:45	WG2504314
(T) Yttrium	104					30.0-136	05/06/2025 21:45	WG2504314

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

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 17:31	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	0.0238	U	0.180	0.201	0.340	0.111	05/05/2025 19:46	WG2505210
(T) Barium-133	108					30.0-143	05/05/2025 19:46	WG2505210

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>U</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>U</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							

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

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

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
Uranium	U		1.00	1.00

¹Cp

²Tc

³Ss

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	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Uranium	92.3	91.8	1	0.547		20

⁴Cn

⁵Sr

Laboratory Control Sample (LCS)

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

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

⁶Qc

⁷Gl

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	Original Result	MS Result	MSD Result	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

⁸Al

⁹Sc

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>U</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	<u>J</u>	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							

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

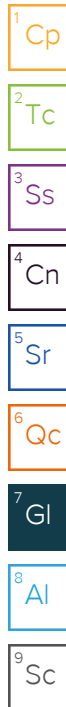
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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	LA000356
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.

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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
 Analysis / Container / Preservative

Chain of Custody Page 3 of 7

 PEOPLE ADVANCING SCIENCE
MT JULIET, TN
 12065 Lebanon Rd Mount Juliet, TN 37122
 Phone: 615-758-5858 Fax: 800-767-5839
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/rubric/pastandard-terms.pdf>

Report to:
CTEH 501-801-8500

Email To:
 labresults@cteh.com; kylelawrence@cteh.com; ecatlin@cteh.com;
 ahenault@cteh.com; tmcullin@cteh.com; mlinkerman@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):
 Client Project # **PROJ-054017**
 Lab Project # **CTEHER-054017**

P.O. #
 Quote #

Collected by (print): *Fresley Alaniz*
 Collected by (signature): *[Signature]*
 Immediately Packed on Ice N Y

Site/Facility ID #
 Rush? (Lab MUST Be Notified)
 Same Day Five Day
 Next Day 5 Day (Rad Only)
 Two Day 10 Day (Rad Only)
 Three Day STD TaT

Date Results Needed
 No. of Cntrs

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-HCI	TSS 1L-HDPE NoPres
GAC00430W003	G	SW	-	4/30/2025	0930	2	-	-	-	-	-	-	X	-	-	-
GAC00430F001	G	SW	-	04/30/2025	0930	2	-	-	-	-	-	-	X	-	-	-
<i>PA</i>																

SDG # **L1853837**
H066
 Acctnum: **CTEHER**
 Template: **T271979**
 Prelogin: **P1144451**
 PM: **546 - Jared Starkey**
 PB:
 Shipped Via:

* 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 # _____

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

Relinquished by: (Signature)
[Signature]

Date: **04/30/25** Time: **1800**

Received by: (Signature)
PACE

Trip Blank Received: Yes/No
 Yes No
 HCL / MeOH
 TBR

Relinquished by: (Signature)

Date: _____ Time: _____

Received by: (Signature)

Temp: **72.9** Bottles Received: **4**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: _____ Time: _____

Received for lab by: (Signature)
[Signature]

Date: **05/01/25** Time: **1300**

Hold: _____ Condition: **NCF / OK**