

Bacteriological Analysis Sample Summary

1. Please fill out the Bacteriological Analysis Individual Samples page if you have a total coliform positive sample and repeat samples to report.

2. Submit this form and the final report from the certified lab that analyzed your samples to SCDES no later than ten (10) days after the end of the compliance period.

3. Report results to BacteriologicalRpts@des.sc.gov

SC										PWSID-(7-digit permit #)
									PWS NAME	
									COMPLIANCE PERIOD (Mon-Year OR Qtr-Year) [i.e.; Aug-2018 or 2nd Q- 2018]	
QUARTERLY			MONTHLY							CYCLE (select one)

					CHLORINE RESIDUAL
					LABID (5-digit code for the certified lab analyzing the chlorine residual)
					TOTAL # OF SAMPLES COLLECTED AND ANALYZED
					# OF INITIAL ROUTINE TC+ SAMPLES
					# OF INITIAL ROUTINE EC+ SAMPLES
					METHOD CODE FOR TOTAL COLIFORM ANALYSIS
					METHOD CODE FOR <i>E. COLI</i> ANALYSIS
					LABID (5-digit code for the certified lab analyzing the samples)

					PREPARED BY
					DATE

The D-1974 form and the final report from the certified lab that analyzed your sample(s) is due to be reported to SCDES on the 10th of each month. After the 10th of the month, your report is late, and a monitoring and reporting violation could be issued. You should report your results to BacteriologicalRpts@des.sc.gov.

More than one occurrence of failure to submit your reporting form within a 12-month period could result in Enforcement action and stipulated penalties.

Format your subject line of your email: SC##### Water System Name – Month/Year, which helps identify, track and/or search for the public water system’s 7-digit permit number, water system name and month/year you are reporting for compliance. I.E.: Subject line if reporting monthly and reporting August 2018 results would be formatted as: SC1234567 ABC Water System – August 2018; Subject line if reporting quarterly and reporting 3rd quarter 2018 results would be formatted as: SC1234567 ABC Water System –3rd Q 2018

Within 24 hours of learning of a total coliform-positive (TC+) sample result, REPEAT samples must be collected and analyzed for total coliforms:

- One REPEAT sample must be collected from the same tap as the TC+ sample.
- One REPEAT sample must be collected within five service connections upstream of the TC+ sample.
- One REPEAT sample must be collected within five service connections downstream of the TC+ sample.
- If the system is served by Groundwater, then a Triggered Source sample must be collected prior to treatment from each source in use at the time the total coliform-positive sample was collected.

The number of samples taken PER WELL must equal the number of positive TC samples. If you collected three TC+ samples, then three well samples must be taken at EACH WELL that was in service at the time.

The triggered source water sample must be analyzed for the presence of *E. coli*. If any triggered source water sample is *E. coli*-positive, the Groundwater system (GWS) must either take corrective action, as directed by the state, or the GWS must take 5 additional source water samples within 24 hours.

If the GW system Purchases some or all their water, they must notify the wholesale system(s) within 24 hours

If any **REPEAT sample is TC+**

- The system must analyze that total coliform-positive culture for *E. coli*.
- The system must collect another set of REPEAT samples, as before, **unless** the *E. coli* MCL has been violated or an assessment has been triggered.

For a system on quarterly monitoring, a TC+ result requires a minimum of three ROUTINE samples be collected the following month.

CALL SCDES on the same day you learn of an EC+ result or no later than the end of the next business day if the result(s) were reported from the lab to the water system after business hours.



PWSID		SC3910003		Reporting Period		01/2025
PWS Name		Liberty, City of			This form is intended for use by a PWS purchasing surface water.	
Certified Lab #		04108		Certified Lab # for lab conducting HPC analyses:		
	a	b	c	d	e	f
Day	No. of Sites Disinfectant Residual was Measured	No. of Sites Disinfect. Residual NOT Measured, but HPC Measured	No. of Sites where Disinfectant Residual NOT Detected & HPC NOT Measured	No. of Sites where Disinfectant Residual was NOT Detected and HPC > 500/mL	No. of Sites Disinfectant Residual NOT Measured and HPC > 500/mL	Average Disinfectant Residual (mg/L)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28	9	0	0	0	0	0.71
29						
30						
31						
Total	9	0	0	0	0	
	a	b	c	d	e	f
					Sum of Average Disinfectant Residual Results (g)	0.71
					# of Days Measured in the Month (h)	1
					Average Residual (g/h)	0.71
Compliance with Distribution System Disinfectant Residual Criteria $V = (c + d + e) / (a + b) \times 100 =$ <input type="text" value="0"/> For Previous Month: V = <input type="text" value="0"/>						
Prepared by (Signature/Title/Date): Amy L. Anderson, Laboratory Director, 1/30/25						

January 29, 2025

City of Liberty
119 West Front Street
Liberty, SC 29657

Re: Laboratory Workorder 2501138

Dear Sir / Madam:

Goldie Associates (GA) appreciates the opportunity to provide your laboratory services. Attached is the original data report for the sample(s) referenced above; the report has been prepared and reviewed in accordance with GA's standard operating procedures. The report may include subcontract analytical report(s), which are included in full and are an incorporated component of the full GA report. This report may only be reproduced in full.

Unless noted otherwise within the Qualifiers/Notes section(s) of the Certificate of Analysis or in an attached Project Case Narrative, no problems were encountered during the analyses and all associated Quality Controls were within established limits. Our certifications are as follows:

SC Laboratory ID: 04108001

Please note that any reported flow and/or subsequent mass calculations are provided as a convenience to the Client and are not considered certifiable laboratory parameters; it is the Client's responsibility to verify the accuracy and reporting requirements for any such reported data.

Please contact us if you have questions or require any additional information.

Sincerely,
Goldie Associates



Amy L. Anderson
Laboratory Manager

Certificate of Analysis

Laboratory ID: SC04108001

Report Date: 01/29/25 11:45

Client:	City of Liberty	Sample ID:	2501138A
Facility:	Liberty, City of	Collected:	01/28/25 10:10
Project:	1842.001.00	Matrix:	Drinking Water
Site:	13 Cooper St.	Subtype:	

Analyte	Result	Qual	MDL	RL	Unit	Batch	DF	Date Analyzed	Analyst
SM 9223 B-2016									
E. coli	Absent					2025-139	1	01/28/25 16:42	BPL
Total Coliform	Absent					2025-140	1	01/28/25 16:42	BPL
SM 4500CL G-2011									
Residual Chlorine	0.66		0.05	0.05	mg/L		1	01/28/25 10:13	BPL

Certificate of Analysis

Laboratory ID: SC04108001

Report Date: 01/29/25 11:45

Client:	City of Liberty	Sample ID:	2501138B
Facility:	Liberty, City of	Collected:	01/28/25 10:30
Project:	1842.001.00	Matrix:	Drinking Water
Site:	115 Maplecroft St.	Subtype:	

Analyte	Result	Qual	MDL	RL	Unit	Batch	DF	Date Analyzed	Analyst
SM 9223 B-2016									
E. coli	Absent					2025-139	1	01/28/25 16:42	BPL
Total Coliform	Absent					2025-140	1	01/28/25 16:42	BPL
SM 4500CL G-2011									
Residual Chlorine	1.43		0.05	0.05	mg/L		1	01/28/25 10:33	BPL

Certificate of Analysis

Laboratory ID: SC04108001

Report Date: 01/29/25 11:45

Client:	City of Liberty	Sample ID:	2501138C
Facility:	Liberty, City of	Collected:	01/28/25 10:45
Project:	1842.001.00	Matrix:	Drinking Water
Site:	6 Wilson Ave.	Subtype:	

Analyte	Result	Qual	MDL	RL	Unit	Batch	DF	Date Analyzed	Analyst
SM 9223 B-2016									
E. coli	Absent					2025-139	1	01/28/25 16:42	BPL
Total Coliform	Absent					2025-140	1	01/28/25 16:42	BPL
SM 4500CL G-2011									
Residual Chlorine	0.76		0.05	0.05	mg/L		1	01/28/25 10:48	BPL

Certificate of Analysis

Laboratory ID: SC04108001

Report Date: 01/29/25 11:45

Client:	City of Liberty	Sample ID:	2501138D
Facility:	Liberty, City of	Collected:	01/28/25 11:00
Project:	1842.001.00	Matrix:	Drinking Water
Site:	5 Clay St.	Subtype:	

Analyte	Result	Qual	MDL	RL	Unit	Batch	DF	Date Analyzed	Analyst
SM 9223 B-2016									
E. coli	Absent					2025-139	1	01/28/25 16:42	BPL
Total Coliform	Absent					2025-140	1	01/28/25 16:42	BPL
SM 4500CL G-2011									
Residual Chlorine	0.98		0.05	0.05	mg/L		1	01/28/25 11:03	BPL

Certificate of Analysis

Laboratory ID: SC04108001

Report Date: 01/29/25 11:45

Client:	City of Liberty	Sample ID:	2501138E
Facility:	Liberty, City of	Collected:	01/28/25 11:10
Project:	1842.001.00	Matrix:	Drinking Water
Site:	15 Tillman St.	Subtype:	

Analyte	Result	Qual	MDL	RL	Unit	Batch	DF	Date Analyzed	Analyst
SM 9223 B-2016									
E. coli	Absent					2025-139	1	01/28/25 16:42	BPL
Total Coliform	Absent					2025-140	1	01/28/25 16:42	BPL
SM 4500CL G-2011									
Residual Chlorine	0.16		0.05	0.05	mg/L		1	01/28/25 11:13	BPL

Certificate of Analysis

Laboratory ID: SC04108001

Report Date: 01/29/25 11:45

Client:	City of Liberty	Sample ID:	2501138F
Facility:	Liberty, City of	Collected:	01/28/25 12:15
Project:	1842.001.00	Matrix:	Drinking Water
Site:	109 Griffin Cir.	Subtype:	

Analyte	Result	Qual	MDL	RL	Unit	Batch	DF	Date Analyzed	Analyst
SM 9223 B-2016									
E. coli	Absent					2025-139	1	01/28/25 16:42	BPL
Total Coliform	Absent					2025-140	1	01/28/25 16:42	BPL
SM 4500CL G-2011									
Residual Chlorine	0.49		0.05	0.05	mg/L		1	01/28/25 12:18	BPL

Certificate of Analysis

Laboratory ID: SC04108001

Report Date: 01/29/25 11:45

Client:	City of Liberty	Sample ID:	2501138G
Facility:	Liberty, City of	Collected:	01/28/25 12:25
Project:	1842.001.00	Matrix:	Drinking Water
Site:	118 Norman St.	Subtype:	

Analyte	Result	Qual	MDL	RL	Unit	Batch	DF	Date Analyzed	Analyst
SM 9223 B-2016									
E. coli	Absent					2025-139	1	01/28/25 16:42	BPL
Total Coliform	Absent					2025-140	1	01/28/25 16:42	BPL
SM 4500CL G-2011									
Residual Chlorine	1.66		0.05	0.05	mg/L		1	01/28/25 12:28	BPL

Certificate of Analysis

Laboratory ID: SC04108001

Report Date: 01/29/25 11:45

Client:	City of Liberty	Sample ID:	2501138H
Facility:	Liberty, City of	Collected:	01/28/25 12:40
Project:	1842.001.00	Matrix:	Drinking Water
Site:	324 Griffin Cir.	Subtype:	

Analyte	Result	Qual	MDL	RL	Unit	Batch	DF	Date Analyzed	Analyst
SM 9223 B-2016									
E. coli	Absent					2025-139	1	01/28/25 16:42	BPL
Total Coliform	Absent					2025-140	1	01/28/25 16:42	BPL
SM 4500CL G-2011									
Residual Chlorine	0.16		0.05	0.05	mg/L		1	01/28/25 12:43	BPL

Certificate of Analysis

Laboratory ID: SC04108001

Report Date: 01/29/25 11:45

Client:	City of Liberty	Sample ID:	2501138I
Facility:	Liberty, City of	Collected:	01/28/25 12:55
Project:	1842.001.00	Matrix:	Drinking Water
Site:	12 Clemson St.	Subtype:	

Analyte	Result	Qual	MDL	RL	Unit	Batch	DF	Date Analyzed	Analyst
SM 9223 B-2016									
E. coli	Absent					2025-139	1	01/28/25 16:42	BPL
Total Coliform	Absent					2025-140	1	01/28/25 16:42	BPL
SM 4500CL G-2011									
Residual Chlorine	0.08		0.05	0.05	mg/L		1	01/28/25 12:58	BPL

G&A Project Manager:

G&A Client/Project ID #: 1842.1

Client Name: City of Liberty

Address: _____ Phone: _____

Sampled Facility Name: _____ Email: _____

Collected by: Bryan Lewis (signature) Fax: _____

Goldie & Associates, Inc.

Chain of Custody and Analytical Request

Goldie & Associates, Inc.
210 W. North 2nd Street
Seneca, SC 29678
Phone: (864) 882-8194, Fax: (864) 882-0851
www.goldieassociates.com

Goldie Laboratory ID	Sample Collection				Client Sample Identifier / Descriptor (Outfall 001, Aeration #2, etc)	Collection Type Grab (G) / Composite (C)	Sample Matrix ⁽¹⁾	Program Area ⁽²⁾	Sample Analysis Requested ⁽³⁾										Notes / Remarks: (additional space below) (for wastewater, note influent, effluent, process)	Temp on Receipt (°C)				
	Composite Start		Composite Harvest / Grab						# Containers and Type for Each Analysis, Plastic (P) / Glass (G) (Example: 2G)															
	Date	Time (military)	Date	Time (military)					ST															
<u>2501138A</u>			<u>1/24</u>	<u>1010</u>	<u>13 Cooper st</u>	<u>G</u>	<u>DW</u>	<u>DW</u>	<u>1P</u>														<u>11.9</u>	
<u>2501138B</u>			<u>1/24</u>	<u>1030</u>	<u>115 Maplecroft Dr</u>	<u>G</u>	<u>DW</u>	<u>DW</u>	<u>1P</u>															<u>12.1</u>
<u>2501138C</u>			<u>1/24</u>	<u>1045</u>	<u>6 Wilson st</u>	<u>G</u>	<u>DW</u>	<u>DW</u>	<u>1P</u>															<u>11.7</u>
<u>2501138D</u>			<u>1/24</u>	<u>1100</u>	<u>5 Clay st</u>	<u>G</u>	<u>DW</u>	<u>DW</u>	<u>1P</u>															<u>11.8</u>
<u>2501138E</u>			<u>1/24</u>	<u>1110</u>	<u>15 Tiltman st</u>	<u>G</u>	<u>DW</u>	<u>DW</u>	<u>1P</u>															<u>12.2</u>
<u>2501138F</u>			<u>1/24</u>	<u>1215</u>	<u>109 Griffin</u>	<u>G</u>	<u>DW</u>	<u>DW</u>	<u>1P</u>															<u>11.9</u>

Lab Use Only _____ Subcontract: _____

Special Instructions / Comments:

Chain of Custody Signatures				Turnaround Time	Cooler Used: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>
Relinquished By (Signed)	Date / Time	Received by (signed)	Date / Time		
<u>Bryan Lewis</u>	<u>1330 1/24</u>	<u>alin cotton</u>	<u>1/28/25 1330</u>	<input type="checkbox"/> Standard TAT (10-15 Business Days) <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 2 Business Days (Prior Authorization) <input type="checkbox"/> Next Business Day (Prior Authorization)	

1.) Matrix Codes: WW=Wastewater, DW=Drinking Water, SW=Surface Water, L=Other Liquid, SO=Soil, SD=Sediment, B=Biosolids/Sludge, O = Other (specify in notes)
 2.) Program Area Codes: CWA=Clean Water Act, DW=Safe Drinking Water Act, RCRA=Solid & Haz Waste, UR=Unregulated
 3.) Sample Analysis Requested: Parameter and Analytical method required by permit (Examples: VOC 8260B or NH3 4500NH3 C)
 4.) Preservative Type: H = Hydrochloric Acid, N = Nitric Acid, SH = Sodium Hydroxide, S = Sulfuric Acid, ST = Sodium Thiosulfate, I = Ice, U = Unpreserved.

LOT #
 H= Hydrochloric Acid _____ S= Sulfuric Acid _____
 N= Nitric Acid _____ ST= Sodium Thiosulfate CW015V
 SH= Sodium Hydroxide _____ U= Unpreserved _____

Page: 2 of 2

G&A Project Manager:

G&A Client/Project ID #: 1842.1

Client Name: City of Liberty

Address:

Sampled Facility Name:

Collected by (signature): Bryan Lewis

Goldie & Associates, Inc. Chain of Custody and Analytical Request

Goldie & Associates, Inc.
210 W. North 2nd Street
Seneca, SC 29678
Phone: (864) 882-8194, Fax: (864) 882-0851
www.goldieassociates.com

Results Delivery (circle one)
Hardcopy Email Fax

Phone:

Email:

Fax:

Collection Type
Grab (G) / Composite (C)

Sample Matrix (1)

Program Area (2)

Total Coliform

ST

Sample Analysis Requested (3)

Containers and Type for Each Analysis, Plastic (P) / Glass (G) (Example: 2G)

↓ ↓

← Preservative Type(4)

Notes / Remarks:
(additional space below)
(for wastewater, note influent, effluent, process)

Temp on Receipt (°C)

Goldie Laboratory ID	Sample Collection				Client Sample Identifier / Descriptor (Outfall 001, Aeration #2, etc)	Collection Type	Sample Matrix (1)	Program Area (2)	Total Coliform	# Containers and Type for Each Analysis, Plastic (P) / Glass (G) (Example: 2G)	Preservative Type(4)	Notes / Remarks: (additional space below) (for wastewater, note influent, effluent, process)	Temp on Receipt (°C)
	Composite Start		Composite Harvest / Grab										
	Date	Time (military)	Date	Time (military)									
<u>2501138G</u>			<u>1/28</u>	<u>1225</u>	<u>114 Norman</u>	<u>G</u>	<u>DW</u>	<u>DW</u>	<u>1P</u>				<u>11.6</u>
<u>2501138H</u>			<u>1/24</u>	<u>1240</u>	<u>324 Griffin</u>	<u>G</u>	<u>DW</u>	<u>DW</u>	<u>1P</u>				<u>11.5</u>
<u>2501138I</u>			<u>1/28</u>	<u>1255</u>	<u>12 Chapman</u>	<u>G</u>	<u>DW</u>	<u>DW</u>	<u>1P</u>				<u>11.4</u>

Lab Use Only Subcontract:

Special Instructions / Comments:

Chain of Custody Signatures				Turnaround Time	Cooler Used: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>
Relinquished By (Signed)	Date / Time	Received by (signed)	Date / Time		
<u>Bryan Lewis</u>	<u>1/28 1330</u>	<u>alieu cotton</u>	<u>1/28/25 1330</u>	<input type="checkbox"/> Standard TAT (10-15 Business Days) <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 2 Business Days (Prior Authorization) <input type="checkbox"/> Next Business Day (Prior Authorization)	

1.) Matrix Codes: WW=Wastewater, DW=Drinking Water, SW=Surface Water, L=Other Liquid, SO=Soil, SD=Sediment, B=Biosolids/Sludge, O = Other (specify in notes)
 2.) Program Area Codes: CWA=Clean Water Act, DW=Safe Drinking Water Act, RCRA=Solid & Haz Waste, UR=Unregulated
 3.) Sample Analysis Requested: Parameter and Analytical method required by permit (Examples: VOC 8260B or NH3 4500NH3 C)
 4.) Preservative Type: H = Hydrochloric Acid, N = Nitric Acid, SH = Sodium Hydroxide, S = Sulfuric Acid, ST = Sodium Thiosulfate, I = Ice, U = Unpreserved.

LOT #
 H= Hydrochloric Acid _____ S= Sulfuric Acid _____
 N= Nitric Acid _____ ST= Sodium Thiosulfate CW015V
 SH= Sodium Hydroxide _____ U= Unpreserved _____

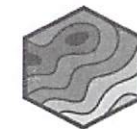
~~Free~~
Total Chlorine Worksheet

Daily Calibration Check Performed: Y / N

Client:	City of Liberty	DPD Lot #:	A4198	Date	1/28
Project #	1842.1	Meter ID	266659	Lab ID	SC04108

Time	Location / Sample Point	Results			Units	Comments (Note any dilutions needed or other factors affecting analysis)
		Normal	Duplicate	RPD (%)		
1013	13 Cooper st	0.66	0.69	4.44%	mg/L	2501138A ↓ B C D E F G H I
1033	115 Maplecroft dr	1.43	1.48	3.44%	mg/L	
1046	86 Wilson st	0.76	0.84	10.0%	mg/L	
1103	5 Clay st	0.99	1.03	4.98%	mg/L	
1113	15 Tillman	0.16	0.19	17.14%	mg/L	
1218	109 Griffin Cir	0.49	0.55	11.54%	mg/L	
1228	118 Norman st	1.66	1.71	2.97%	mg/L	
1243	324 Griffin Cir	0.16	0.19	17.14%	mg/L	
1258	12 Clemson st	0.08	0.09	11.76%	mg/L	
					mg/L	

Analyst Signature: Bryan Lewis



GOLDIE
- ASSOCIATES -