



BIOLOGICAL CONSULTING SERVICES
OF NORTH FLORIDA, INC.

June 28, 2021

Caryn Benjamin
Louisiana Department of Health
PO Box 4489
Baton Rouge LA 70821
225-342-7499
Caryn.Benjamin@la.gov

Client ID: RAW-001 Water Intake, POE-051 134 Munson Dr, TCR-005 401 Suthon Ave, TCR-025 18 Dallas Dr,
TCR-047 1829 Bayou Dularge Rd

BCS ID: 2106237, 2106238, 2106239, 2106240, 2106241

Dear Caryn Benjamin,

We have completed the analysis of the submitted samples as outlined below.

Project Name: Houma Water Treatment PWSID LA1109001

| Analysis | Method |
|---------------------------------|---|
| Naegleria Fowleri (Culture/PCR) | CDC method; BCS SOP A-1 (NOT ISO17025 & NOT TNI Accredited) |

Following, you will find our report on the results of the analysis conducted on the referenced samples.
Should you have any questions, please do not hesitate to contact me.

Sincerely,

Bonnie Mull, MPH
Laboratory Operations Manager

BCS LABORATORIES, INC. – GAINESVILLE
4609 NW 6TH STREET, STE. A, GAINESVILLE, FLORIDA 32609
TEL. (352) 377-9272, FAX. (352) 377-5630
WWW.MICROBIOSERVICES.COM

FLDOH E82924, ISO 17025:2017 L2422, PADEP: 68-03950, AZDHS:AZ0820, EPA FLO1147
THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF BCS LABORATORIES



Client: Louisiana Department of Health
Analysis: *Naegleria Fowleri (Culture/PCR)*
Project Name: Houma Water Treatment PWSID LA1109001
Client Sample ID: RAW-001 Water Intake Sample Date/Time: June 17, 2021 9:30
BCS Sample ID: 2106237 Sample Description: Rexeed 25S Ultrafilter
Date Received: June 19, 2021 11:15 Amount Submitted: 10 L % Solids: N/A
Amount Analyzed: 10.0 L Receipt Temperature: 26.0 deg C Preserved: No
Analysis Start: June 21, 2021 11:01 Analysis Stop Date: June 28, 2021 15:11
Analyst: Simon D'Alton, Ph.D. Qualifier: #
Primary Value: 1.0 Visual presence of Amoeba Trophozoites (0 for absence/1.0 for presence)
Secondary Value: 0 *Naegleria fowleri* DNA detection (0 for absence/1.0 for presence)
Analysis Notes: Active amoeba trophozoites visually detected. *N. fowleri* PCR assay was negative. *N. fowleri* was not detected in submitted sample.

Client: Louisiana Department of Health
Analysis: *Naegleria Fowleri (Culture/PCR)*
Project Name: Houma Water Treatment PWSID LA1109001
Client Sample ID: POE-051 134 Munson Dr Sample Date/Time: June 17, 2021 10:15
BCS Sample ID: 2106238 Sample Description: Rexeed 25S Ultrafilter
Date Received: June 19, 2021 11:15 Amount Submitted: 100 L % Solids: N/A
Amount Analyzed: 100.0 L Receipt Temperature: 26.0 deg C Preserved: No
Analysis Start: June 21, 2021 11:03 Analysis Stop Date: June 28, 2021 15:11
Analyst: Simon D'Alton, Ph.D. Qualifier: #
Primary Value: 0 Visual presence of Amoeba Trophozoites (0 for absence/1.0 for presence)
Secondary Value: 0 *Naegleria fowleri* DNA detection (0 for absence/1.0 for presence)
Analysis Notes: Active amoeba trophozoites were not visually detected. *N. fowleri* PCR assay was negative. *N. fowleri* was not detected in submitted sample.

BCS LABORATORIES, INC. – GAINESVILLE
4609 NW 6TH STREET, STE. A, GAINESVILLE, FLORIDA 32609
TEL. (352) 377-9272, FAX. (352) 377-5630
WWW.MICROBIOSERVICES.COM

FLDOH E82924, ISO 17025:2017 L2422, PADEP: 68-03950, AZDHS:AZ0820, EPA FLO1147
THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF BCS LABORATORIES



Client: Louisiana Department of Health
 Analysis: *Naegleria Fowleri (Culture/PCR)*
 Project Name: Houma Water Treatment PWSID LA1109001
 Client Sample ID: TCR-005 401 Suthon Ave Sample Date/Time: June 17, 2021 13:50
 BCS Sample ID: 2106239 Sample Description: Rexeed 25S Ultrafilter
 Date Received: June 19, 2021 11:15 Amount Submitted: 100 L % Solids: N/A
 Amount Analyzed: 100.0 L Receipt Temperature: 26.0 deg C Preserved: No
 Analysis Start: June 21, 2021 11:05 Analysis Stop Date: June 28, 2021 15:11
 Analyst: Simon D'Alton, Ph.D. Qualifier: #
 Primary Value: 0 Visual presence of Amoeba Trophozoites (0 for absence/1.0 for presence)
 Secondary Value: 0 Naegleria fowleri DNA detection (0 for absence/1.0 for presence)
 Analysis Notes: Active amoeba trophozoites were not visually detected. N. fowleri PCR assay was negative. N. fowleri was not detected in submitted sample.

Client: Louisiana Department of Health
 Analysis: *Naegleria Fowleri (Culture/PCR)*
 Project Name: Houma Water Treatment PWSID LA1109001
 Client Sample ID: TCR-025 18 Dallas Dr Sample Date/Time: June 17, 2021 12:50
 BCS Sample ID: 2106240 Sample Description: Rexeed 25S Ultrafilter
 Date Received: June 19, 2021 11:15 Amount Submitted: 100 L % Solids: N/A
 Amount Analyzed: 100.0 L Receipt Temperature: 26.0 deg C Preserved: No
 Analysis Start: June 21, 2021 11:07 Analysis Stop Date: June 28, 2021 15:11
 Analyst: Simon D'Alton, Ph.D. Qualifier: #
 Primary Value: 1.0 Visual presence of Amoeba Trophozoites (0 for absence/1.0 for presence)
 Secondary Value: 0 Naegleria fowleri DNA detection (0 for absence/1.0 for presence)
 Analysis Notes: Active amoeba trophozoites visually detected. N. fowleri PCR assay was negative. N. fowleri was not detected in submitted sample.

BCS LABORATORIES, INC. – GAINESVILLE
 4609 NW 6TH STREET, STE. A, GAINESVILLE, FLORIDA 32609
 TEL. (352) 377-9272, FAX. (352) 377-5630
 WWW.MICROBIOSERVICES.COM

FLDOH E82924, ISO 17025:2017 L2422, PADEP: 68-03950, AZDHS:AZ0820, EPA FLO1147
 THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF BCS LABORATORIES



Client: Louisiana Department of Health
Analysis: *Naegleria Fowleri* (Culture/PCR)
Project Name: Houma Water Treatment PWSID LA1109001
Client Sample ID: TCR-047 1829 Bayou Dularge Rd Sample Date/Time: June 17, 2021 11:35
BCS Sample ID: 2106241 Sample Description: Raxed 25S Ultrafilter
Date Received: June 19, 2021 11:15 Amount Submitted: 100 L % Solids: N/A
Amount Analyzed: 100.0 L Receipt Temperature: 26.0 deg C Preserved: No
Analysis Start: June 21, 2021 11:09 Analysis Stop Date: June 28, 2021 15:11
Analyst: Simon D'Alton, Ph.D. Qualifier: #
Primary Value: 0 Visual presence of Amoeba Trophozoites (0 for absence/1.0 for presence)
Secondary Value: 0 *Naegleria fowleri* DNA detection (0 for absence/1.0 for presence)
Analysis Notes: Active amoeba trophozoites were not visually detected. *N. fowleri* PCR assay was negative. *N. fowleri* was not detected in submitted sample.

BCS LABORATORIES, INC. – GAINESVILLE
4609 NW 6TH STREET, STE. A, GAINESVILLE, FLORIDA 32609
TEL. (352) 377-9272, FAX. (352) 377-5630
WWW.MICROBIOSERVICES.COM

FLDOH E82924, ISO 17025:2017 L2422, PADEP: 68-03950, AZDHS:AZ0820, EPA FL01147
THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF BCS LABORATORIES



Client: Louisiana Department of Health

Project: Houma Water Treatment PWSID LA1109001

Method Detection Limit: 1 microorganism/ unit weight or volume analyzed

Practical Quantitation Limit: 1 microorganism/ unit weight or volume analyzed

Report Notes: Custody Seal Condition: Not Present

Sample(s) were received well preserved and in excellent condition. Sample(s) were analyzed following receipt as per the described analytical methodology. End of report notes.

BCS LABORATORIES, INC. – GAINESVILLE
4609 NW 6TH STREET, STE. A, GAINESVILLE, FLORIDA 32609
TEL. (352) 377-9272, FAX. (352) 377-5630
WWW.MICROBIOSERVICES.COM

FLDOH E82924, ISO 17025:2017 L2422, PADEP: 68-03950, AZDHS:AZ0820, EPA FL01147
THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF BCS LABORATORIES



I certify that I have examined and I am familiar with the information submitted herein. The results pertain only to sample(s) identified and their condition at time of receipt. Based on my inquiry of the individuals responsible for the analysis, I believe the data to be true, accurate, and complete. Sampling and field data was obtained from submitted documents. The analysis was authorized and commissioned by the client. The resulting data are representative of the analysis conducted on the material/samples/articles provided by the client (or client's representative) and it's/their condition at the time of analysis. The sample(s) were analyzed in accordance with the appropriate method , however due to the inherent limitations of the methods, microorganisms may avoid detection. BCS Laboratories offers no express or implied warranties concerning the quality, safety, and/or purity of any sample, batch, source, or the process they are derived from. Quality assurance controls were performed as outlined in the method and as per Good Laboratory Practices. The analysis and results presented in this report meet the requirements of the standards of The NELAC Institute (TNI), ISO 17025, and the FL DOH Environmental Laboratory Certification Program, as applicable unless otherwise noted.



Signature of Laboratory Director/Authorized Rep. _____

Date: June 28, 2021

BCS LABORATORIES, INC. – GAINESVILLE
4609 NW 6TH STREET, STE. A, GAINESVILLE, FLORIDA 32609
TEL. (352) 377-9272, FAX. (352) 377-5630
WWW.MICROBIOSERVICES.COM

FLDOH E82924, ISO 17025:2017 L2422, PADEP: 68-03950, AZDHS:AZ0820, EPA FLO1147
THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF BCS LABORATORIES



| DATA QUALIFIER CODES | |
|----------------------|--|
| SYMBOL | MEANING |
| B | Results based on counts outside the acceptable range. |
| X | Sample received without prior notification or delayed delivery. Analysis performed outside of associated method required QC data set (1 QC data set per 20 samples per 168 hours). |
| I | Value is between the laboratory method detection limit & the practical quantitation limit. |
| J1 | The sample matrix interfered with the ability to make any accurate determination. |
| J2 | No Quality Control criteria exist for the component. |
| J3 | The data are questionable because of improper laboratory or field protocols. |
| L | Off scale high. Actual value is known to be greater than value given. |
| N | Presumptive evidence for the presence of material. There is an indication that the analyte is present, but the confirmation requirement was not met. |
| O | Sampled, but analysis not performed. |
| Q | Sample held beyond the accepted holding time. |
| U | Indicates that the compound was analyzed for but not detected. The specified component was not detected. The reported value is the method detection limit. |
| V | Analyte was detected in both sample and the method blank. Data may not be accurate. |
| Y | Laboratory analysis was from an improperly preserved sample; the data may not be accurate |
| Z | Too many colonies present (TNTC); the numeric value given represents the upper end of the value that can be determined based on the volume. |
| ? | Data are rejected and should not be used. QC data for analyte did not meet acceptance criteria. Presence or absence of analyte could not be confirmed. |
| ** | Not reported due to interference. |
| ^ | Sampling container supplied by client. Sterility can not be confirmed by BCS. |
| # | BCS Lab specific qualifier. See laboratory analysis notes. |

BCS LABORATORIES, INC. – GAINESVILLE
 4609 NW 6TH STREET, STE. A, GAINESVILLE, FLORIDA 32609
 TEL. (352) 377-9272, FAX. (352) 377-5630
 WWW.MICROBIOSERVICES.COM

FLDOH E82924, ISO 17025:2017 L2422, PADEP: 68-03950, AZDHS:AZ0820, EPA FL01147
 THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF BCS LABORATORIES



BCS Laboratories
 4609 NW 6th Street, Building/Ste A
 Gainesville, FL 32609
 FY21 PO# 2000477095

CHAIN OF CUSTODY RECORD

ATTN: Bonnie Mull, MPH PHONE: 352-377-9272

CLIENT NAME: LOUISIANA DEPARTMENT OF HEALTH
Naegleria fowleri Analysis
 ADDRESS: Engineering Services - SDWP
 P.O. Box 4489
 Baton Rouge, LA 70821
 PROJECT MANAGER: Caryn Benjamin

PROJECT: PWSID LA1109001
 HOUMA WATER TREATMENT SERVICE AREA
 PHONE: 225-337-0511
 FAX:
 EMAIL: caryn.benjamin@la.gov

SAMPLER: Matrix New World Engineering
Kaleb Deshotels

| DATE SAMPLED: | TIME SAMPLED: | VOLUME COLLECTED: | SMPL TYPE | SAMPLE IDENTIFICATION / SITE LOCATION: |
|---------------|---------------|-------------------|-----------|--|
|---------------|---------------|-------------------|-----------|--|

| | | | | |
|-----------|------|------|----|-------------------------------|
| 6/17/2021 | 0930 | 10L | SW | RAW-001 Water Intake |
| 6/17/2021 | 1015 | 100L | DW | POE-051 134 Munson Dr |
| 6/17/2021 | 1350 | 100L | DW | TCR-005 401 Suthon Ave |
| 6/17/2021 | 1250 | 100L | DW | TCR-025 18 Dallas Dr |
| 6/17/2021 | 1135 | 100L | DW | TCR-047 1829 Bayou Dularge Rd |

| Grab (G) or Ultrafilter (UF) | Number of Containers | FIELD ANALYSES: | | | | | | | Preserved w/ Na Thiosulfate? Y/N | Samples on Ice? Y/N |
|------------------------------|----------------------|--------------------------------|---------------------------------|------------------|-----------------|----------------------|------------------------|--------|----------------------------------|---------------------|
| | | Residual: Free chlorine (mg/L) | Residual: Total chlorine (mg/L) | Temperature (°C) | Turbidity (NTU) | Conductivity (µS/cm) | pH at time of sampling | Other: | | |
| UF | 1 | 0 | 0 | | | | | | Y | N |
| UF | 1 | 1.89 | 2.60 | | | | | | Y | N |
| UF | 1 | 0.14 | 0.29 | | | | | | Y | N |
| UF | 1 | 0.30 | 0.31 | | | | | | Y | N |
| UF | 1 | 0.41 | 0.59 | | | | | | Y | N |

| | | | | |
|--|--|--|--|--|
| Louisiana Department of Health RAW-001 2106237 06/19/2021 11:15 | Louisiana Department of Health POE-051 2106238 06/19/2021 11:15 | Louisiana Department of Health TCR-005 2106239 06/19/2021 11:15 | Louisiana Department of Health TCR-025 2106240 06/19/2021 11:15 | Louisiana Department of Health TCR-047 2106241 06/19/2021 11:15 |
|--|--|--|--|--|

| SIGNATURE: | PRINT NAME: | DATE: | TIME: | SAMPLE CONDITION: (FOR LAB USE ONLY) | SAMPLE TYPE CODE: |
|--------------------|-----------------|----------|----------|--|--|
| <i>[Signature]</i> | Kaleb Deshotels | 06/17/21 | 1800 | Actual Temperature: 25.2°C Received On Ice: 1214 Y / N | AQ=Aqueous NA= Non Aqueous SL= Sludge DW= Drinking Water WW= Waste Water RW= Rain/Runoff Water GW= Ground Water SW= Surface Water PW= Pool Water SO= Soil OT= Other Matrix |
| <i>[Signature]</i> | George Lukasik | 06/19/21 | 11:15 AM | Preserved: Y / N Seals Present: Y / N Container Intact: Y / N Preserved at Lab: Y / N | |

FOR NAEGLERIA FOWLERI TESTING--DO NOT SHIP SAMPLES ON ICE.

COMMENTS/FIELD OBSERVATIONS:

BCS Laboratories
 4609 NW 6th Street, Building A
 Gainesville, FL 32609

CHAIN OF CUSTODY RECORD

ATTN Bonnie Mull, MPH

HOUMA WATER TREATMENT SERVICE AREA

TIME OF COLLECTION

METER READINGS

ULTRAFILTRATION

| SAMPLE IDENTIFICATION / SITE LOCATION: | Date | TIME OF COLLECTION | | METER READINGS | | ULTRAFILTRATION | |
|--|-----------|--------------------|------|----------------|-----|----------------------------|-------------------|
| | | START | END | START | END | TOTAL VOLUME COLLECTED (L) | FLOW RATE (L/MIN) |
| RAW-001 Water Intake | 6/17/2021 | 0920 | 0936 | 0 | 10 | 10 | 1.20 |
| POE-051 134 Munson Dr | 6/17/2021 | 0940 | 1015 | 0 | 100 | 100 | 2.98 |
| TCR-005 401 Suthon Ave | 6/17/2021 | 1315 | 1350 | 0 | 100 | 100 | 2.98 |
| TCR-025 18 Dallas Dr | 6/17/2021 | 1200 | 1250 | 0 | 100 | 100 | 2.01 |
| TCR-047 1829 Bayou Dularge Rd | 6/17/2021 | 1055 | 1135 | 0 | 100 | 100 | 2.95 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

PLEASE SHIP SAMPLES ON ICE TO KEEP COLD DURING OVERNIGHT SHIPMENT

(EXCEPT FOR NAEGLERIA FOWLERI TESTING--FOR WHICH SAMPLES SHOULD BE SHIPPED NON-CHILLED)

COMMENTS/FIELD OBSERVATIONS:

Blank area for comments and field observations.