



<b>Customer Name:</b>	U.S. Micro Solutions, Inc.	<b>Sample Date:</b>	August 16, 2017
<b>Customer Address:</b>	1075 South Main Street, Suite 104 Greensburg, PA 15601	<b>Date Received:</b>	August 17, 2017
<b>Customer Phone:</b>	(877) 876-4276	<b>Date of Report:</b>	August 24, 2017
<b>PO Number:</b>		<b>Fax:</b>	(724) 853-4047
<b>Project Name/Number:</b>	Sample Non-NY Legionella Report	<b>Attention:</b>	
		<b>Analysis Date:</b>	August 17, 2017
		<b>Sample Time:</b>	10:00am
		<b>Analysis Time (hrs):</b>	29.3

Customer sample numbers below are uniquely identified by prefixing Laboratory # 12345-17

**Water/Liquid Sample(s) for Legionella Culture - Analytical Method USMS-B007**

Sample Number	Media	Sample Description	Results of Microbial Analysis
1	BCYE/GPCV	Cooling Tower 1	Not Detected
AS = 10 CFU/mL (Volume examined: 0.4 mL)			
2	BCYE/GPCV	Cooling Tower 2	Positive - 10 CFU/mL Legionella pneumophila Serogroup 2-14
AS = 10 CFU/mL (Volume examined: 0.4 mL)			
3	BCYE/GPCV	Faucet	Positive - 10 CFU/mL Legionella pneumophila Serogroup 1
AS = <1 CFU/mL (Volume examined: 100 mL)			
4	BCYE/GPCV	Shower	Not Detected
AS = <1 CFU/mL (Volume examined: 100 mL)			

Notes:

# Sample Report

**CFU/mL = colony forming units per milliliter, AS = analytical sensitivity.**  
 Results are reported as Positive or Not Detected.  
 Chlorine levels are reported as ppm (parts per million)

A negative culture for Legionella spp. from a sample does not necessarily rule out its presence.  
 Results relate only to the samples tested. Results are reported as calculated. For biological data, the first and/or second digit should be considered significant.

When providing duplicates of this report, the document should be provided in total and not in section in accordance with AIHA-LAP, LLC. Any unauthorized or improper disclosure, copying, distribution, use, or falsification of these results is prohibited. USMS shall have no liability to the Customer or the Customer's customer for opinions stated, recommendations made, actions taken, or conduct implemented based on the test results reported.

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Contact: Sharon Fanchalsky, Laboratory Supervisor: 877-876-4276

## Interpretation of Legionella Culture Results

(not applicable for New York samples)

There are no federal action levels for *Legionella*, however some states, agencies, and organizations have published interpretive guidelines for *Legionella* quantitative culture results. The full text of the guidelines below can be found by accessing the provided links. It is ultimately the responsibility of a qualified professional to select actions that are appropriate for the situation being evaluated.

### OSHA Guidelines

OSHA Technical Manual, Section III, Chap. 7, Legionnaire's Disease (which was adapted from George K. Morris, PhD, and Brian G. Shelton, Pathcon Technical Bulletin 1.3, Legionella in Environmental Samples: Hazard Analysis and Suggested Remedial Actions, June 1991) <https://www.osha.gov/dts/osta/otm/legionnaires/sampling.html>, accessed 8-18-17

Legionella colony forming units per milliliter (CFU/mL)			
Action	Cooling Tower/Evaporative Condenser	Potable Water	Humidifiers & Misters
1	≥100	≥10	≥1
2	≥1000	≥100	≥10

**Action 1:** Cleaning followed by biocide treatment of the system, if appropriate.

**Action 2:** Cleaning and/or biocide treatment. Take immediate steps to prevent employee exposure.

### AWT Guidelines

Legionella 2003: An Update and Statement by the Association of Water Technologies (AWT), <https://www.awt.org/pub/035C2942-03BE-3BFF-08C3-4C686FB7395C>, accessed 8-18-17

Cooling Tower Legionella Count, colony forming units per milliliter (CFU/mL)			
>0-10	>10-100	>100-1000	>1000
A	B	C	D

- A. Increase biocide addition/s
- B. Increase biocides; review program, retest till <10
- C. Disinfect/clean within 30 days; review program
- D. Disinfect/clean within 7 days; review program