



**Blue Can Bacteria Test Results 2018**

## Blue Can Testing Qualifiers and Descriptors

**Blue Can bacteria tests as shown come back consistently ND (None Detected) or 1 cfu.**

Even though bacteria such as Heterotrophic Plate Count (HPC) is harmless, as health authorities, state, and federal regulatory agencies agree, Blue Can uses several industry methodologies for disinfection and sterilization to provide purified water that meets or exceeds FDA minimum regulation standards for cleanliness, purity and taste.

Blue Can sends samples to a federally regulated laboratory to perform Analysis. All tests are measured by MDL (Method Detection Limit), which is a statistically derived number that is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.

Below are the tests done and frequency they are performed:

### Weekly:

- **Total coliform** - A bacteria that are found in the soil, in water that has been influenced by surface water, and in human or animal waste. The most basic test for bacterial contamination of a water supply is the test for total coliform bacteria. Total coliform counts give a general indication of the sanitary condition of water.

### Monthly:

- **HPC** - Heterotrophic plate count is a method that measures colony formation of heterotrophic bacteria in drinking water. Heterotrophic bacteria decomposes organic matter. The HPC test (also known as Standard Plate Count) is used to measure the overall bacteriological quality of drinking water.

### Quarterly:

- **Environmental Swab** – The bottling machine and an empty can and lid are tested for Total Coliform bacteria.

### Annually:

- **Radioactivity** - The emission of ionizing radiation or particles caused by the spontaneous disintegration of atomic nuclei.
- **Bacteria** - Unicellular microorganisms
- **Disinfection Byproducts** - Chemical, organic and inorganic substances that can form during a reaction of a disinfectant.
- **Metals**
- **Mercury**
- **Pesticides**
- **Herbicides**
- **Acids**
- **Chemical Substances**

**\* ACCORDING TO THE EPA \***

**HPC has no health effects; it is an analytic method used to measure the variety of bacteria that are common in water.**

<https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations>

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 Tel: (626) 386-1100  
 Fax: (866) 988-3757  
 1 800 566 LABS (1 800 566 5227)

**Client:** Blue Can Water

SOQ = Standard of Quality per FDA or California  
 ND = Not detected at the specified limit  
 All results reported in milligrams per liter

**Investigation:** Analysis per Title 21, Federal Code of Regulations 165.110 - California Limits

**ANALYTICAL RESULTS**

**GROUB VIa  
 BACTERIOLOGICAL**

**Colony Forming Units per mL**

Parameter	Method	Reporting Limit	Dilution	Result	SOQ
<b>Sample Id:</b> 010518-WK <b>Date Sampled:</b> 01/05/2018				<b>Report Date:</b> 01/16/2018 <b>Date Received:</b> 01/05/2018 <b>Sample No:</b> 90755	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2
<b>Sample Id:</b> 011218-WK <b>Date Sampled:</b> 01/12/2018				<b>Report Date:</b> 01/23/2018 <b>Date Received:</b> 01/12/2018 <b>Sample No:</b> 90877	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2
<b>Sample Id:</b> 2/14/18 1350 0218-HPC <b>Date Sampled:</b> 02/15/2018				<b>Report Date:</b> 02/19/2018 <b>Date Received:</b> 02/15/2018 <b>Sample No:</b> 201802151074	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2
<b>Sample Id:</b> 030218-WK <b>Date Sampled:</b> 03/02/2018				<b>Report Date:</b> 03/09/2018 <b>Date Received:</b> 03/03/2018 <b>Sample No:</b> 201803030270	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2
<b>Sample Id:</b> 030918-WK <b>Date Sampled:</b> 03/09/2018				<b>Report Date:</b> 03/15/2018 <b>Date Received:</b> 03/09/2018 <b>Sample No:</b> 201803120255	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2
<b>Sample Id:</b> 032418-WK <b>Date Sampled:</b> 03/24/2018				<b>Report Date:</b> 03/28/2018 <b>Date Received:</b> 03/24/2018 <b>Sample No:</b> 201803260063	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2
<b>Sample Id:</b> 033018-WK <b>Date Sampled:</b> 03/30/2018				<b>Report Date:</b> 04/04/2018 <b>Date Received:</b> 03/30/2018 <b>Sample No:</b> 201803300601	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2

<b>Sample Id:</b> 041318-WK					<b>Report Date:</b> 04/04/2018	
<b>Date Sampled:</b> 04/13/2018					<b>Date Received:</b> 04/18/2018	
					<b>Sample No:</b> 2018041806	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 042018-WK					<b>Report Date:</b> 04/25/2018	
<b>Date Sampled:</b> 04/20/2018					<b>Date Received:</b> 04/21/2018	
					<b>Sample No:</b> 201804210210	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 050418-WK					<b>Report Date:</b> 05/14/2018	
<b>Date Sampled:</b> 05/04/2018					<b>Date Received:</b> 05/07/2018	
					<b>Sample No:</b> 201805080357	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 051818-WK					<b>Report Date:</b> 05/25/2018	
<b>Date Sampled:</b> 05/18/2018					<b>Date Received:</b> 05/19/2018	
					<b>Sample No:</b> 201805210213	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 052518-WK					<b>Report Date:</b> 06/01/2018	
<b>Date Sampled:</b> 05/25/2018					<b>Date Received:</b> 05/29/2018	
					<b>Sample No:</b> 201805290272	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 062918-WK					<b>Report Date:</b> 07/03/2018	
<b>Date Sampled:</b> 06/29/2018					<b>Date Received:</b> 06/30/2018	
					<b>Sample No:</b> 201805080357	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 070618-WK					<b>Report Date:</b> 07/13/2018	
<b>Date Sampled:</b> 07/06/2018					<b>Date Received:</b> 07/07/2018	
					<b>Sample No:</b> 201807070154	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 071318-WK					<b>Report Date:</b> 07/24/2018	
<b>Date Sampled:</b> 07/13/2018					<b>Date Received:</b> 07/13/2018	
					<b>Sample No:</b> 201807140201	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 072018-WK					<b>Report Date:</b> 07/26/2018	
<b>Date Sampled:</b> 07/20/2018					<b>Date Received:</b> 07/23/2018	
					<b>Sample No:</b> 201807230419	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 072718-WK					<b>Report Date:</b> 07/31/2018	
<b>Date Sampled:</b> 07/27/2018					<b>Date Received:</b> 07/27/2018	
					<b>Sample No:</b> 201807270457	
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	

<b>Sample Id:</b> 080318-WK						<b>Report Date:</b> 08/13/2018
<b>Date Sampled:</b> 08/03/2018						<b>Date Received:</b> 08/06/2018
						<b>Sample No:</b> 201808060263
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 081718-WK						<b>Report Date:</b> 08/29/2018
<b>Date Sampled:</b> 08/17/2018						<b>Date Received:</b> 08/18/2018
						<b>Sample No:</b> 201808200342
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 082418-WK						<b>Report Date:</b> 08/30/2018
<b>Date Sampled:</b> 08/24/2018						<b>Date Received:</b> 08/25/2018
						<b>Sample No:</b> 201808250262
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 092818-WK						<b>Report Date:</b> 10/05/2018
<b>Date Sampled:</b> 09/28/2018						<b>Date Received:</b> 09/29/2018
						<b>Sample No:</b> 201809290136
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 100518-WK						<b>Report Date:</b> 10/11/2018
<b>Date Sampled:</b> 10/05/2018						<b>Date Received:</b> 10/06/2018
						<b>Sample No:</b> 201810060223
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 101218-WK						<b>Report Date:</b> 10/17/2018
<b>Date Sampled:</b> 10/12/2018						<b>Date Received:</b> 10/15/2018
						<b>Sample No:</b> 201810150194
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 101918-WK						<b>Report Date:</b> 10/31/2018
<b>Date Sampled:</b> 10/16/2018						<b>Date Received:</b> 10/29/2018
						<b>Sample No:</b> 201810290198
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 102618-WK						<b>Report Date:</b> 10/31/2018
<b>Date Sampled:</b> 10/24/2018						<b>Date Received:</b> 10/29/2018
						<b>Sample No:</b> 201810290198
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	
<b>Sample Id:</b> 110218-WK						<b>Report Date:</b> 11/08/2018
<b>Date Sampled:</b> 10/31/2018						<b>Date Received:</b> 11/03/2018
						<b>Sample No:</b> 201811030006
E. Coli Bacteria	SM 9223	1.0	1	ND	1.1	
Total Coliform Bacteria	SM 9223	1.0	1	ND	2.2	

ND: Analyte was not detected in the sample at or above Method Detection Limit.

All tests were performed by a independent and certified laboratory facilitated by and acting in accordance with American Environmental Testing Laboratory Inc. or Eurofins Eaton Analytical



Client: Blue Can Water

SOQ = Standard of Quality per FDA or California  
 ND = Not detected at the specified limit  
 All results reported in milligrams per liter

Investigation: Analysis per Title 21, Federal Code of Regulations 165.110 - California Limits

Sample Id: 1000 EXPORTCOMPLIANCE  
 Date Sampled: 01/02/2018  
 Report Date: 01/17/2018  
 Date Received: 01/02/2018  
 Sample No: 201801020440

**ANALYTICAL RESULTS**

Parameter	Method	Reporting Limit	Dilution	Result	SOQ
<b>GROUP Vlb BACTERIOLOGICAL-HPC</b>					
<b>Colony Forming Units per mL</b>					
Heterotrophic Plate Count	SM 9215B	1.0	1	ND	no standard

Sample Id: 2/14/18 1350 0218-HPC  
 Date Sampled: 02/15/2018  
 Report Date: 02/19/2018  
 Date Received: 02/15/2018  
 Sample No: 201802151074

**ANALYTICAL RESULTS**

Parameter	Method	Reporting Limit	Dilution	Result	SOQ
<b>GROUP Vlb BACTERIOLOGICAL-HPC</b>					
<b>Colony Forming Units per mL</b>					
Heterotrophic Plate Count	SM 9215B	1.0	1	ND	no standard

Sample Id: 3/09/18 12:13pm 0318-HPC  
 Date Sampled: 03/24/2018  
 Report Date: 03/30/2018  
 Date Received: 03/24/2018  
 Sample No: 201803260064

**ANALYTICAL RESULTS**

Parameter	Method	Reporting Limit	Dilution	Result	SOQ
<b>GROUP Vlb BACTERIOLOGICAL-HPC</b>					
<b>Colony Forming Units per mL</b>					
Heterotrophic Plate Count	SM 9215B	1.0	1	ND	no standard

Sample Id: 0418-HPC  
 Date Sampled: 04/21/2018  
 Report Date: 04/25/2018  
 Date Received: 04/21/2018  
 Sample No: 201804210211

**ANALYTICAL RESULTS**

Parameter	Method	Reporting Limit	Dilution	Result	SOQ
<b>GROUP Vlb BACTERIOLOGICAL-HPC</b>					
<b>Colony Forming Units per mL</b>					
Heterotrophic Plate Count	SM 9215B	1.0	1	ND	no standard

Sample Id: 070618-WK  
 Date Sampled: 07/06/2018  
 Report Date: 07/13/2018  
 Date Received: 07/07/2018  
 Sample No: 201807070154

**ANALYTICAL RESULTS**

Parameter	Method	Reporting Limit	Dilution	Result	SOQ
<b>GROUP Vlb BACTERIOLOGICAL-HPC</b>					
<b>Colony Forming Units per mL</b>					
Heterotrophic Plate Count	SM 9215B	1.0	1	ND	no standard

Sample Id: 081018-HPC  
Date Sampled: 08/10/2018

Report Date: 08/10/2018  
Date Received: 08/21/2018  
Sample No: 93719.01

**ANALYTICAL RESULTS**

Parameter	Method	Reporting Limit	Dilution	Result	SOQ
<b>GROUP VIb BACTERIOLOGICAL-HPC</b>					
<b>Colony Forming Units per mL</b>					
Heterotrophic Plate Count	SM 9215B	1.0	1	ND	no standard

Sample Id: 0918-HPC-BC  
Date Sampled: 09/26/2018

Report Date: 10/12/2018  
Date Received: 10/06/2018  
Sample No: 201810060223

**ANALYTICAL RESULTS**

Parameter	Method	Reporting Limit	Dilution	Result	SOQ
<b>GROUP VIb BACTERIOLOGICAL-HPC</b>					
<b>Colony Forming Units per mL</b>					
Heterotrophic Plate Count	SM 9215B	1.0	1	ND	no standard

Sample Id: 1018-HPC  
Date Sampled: 10/31/2018

Report Date: 11/08/2018  
Date Received: 11/03/2018  
Sample No: 201811030006

**ANALYTICAL RESULTS**

Parameter	Method	Reporting Limit	Dilution	Result	SOQ
<b>GROUP VIb BACTERIOLOGICAL-HPC</b>					
<b>Colony Forming Units per mL</b>					
Heterotrophic Plate Count	SM 9215B	1.0	1	ND	no standard

ND: Analyte was not detected in the sample at or above Method Detection Limit.

All tests were performed by a independent and certified laboratory facilitated by and acting in accordance with American Environmental Testing Laboratory Inc. or Eurofins Eaton Analytical



AT-1807

## Regulation of Heterotrophic Plate Count Bacteria

Leading health authorities, state, and federal regulatory agencies agree that Heterotrophic Plate Count (HPC) bacteria found in water are harmless. In fact, the bacteria do not present a health or safety issue even when present at very high levels.

FDA has not established a standard for HPC bacteria because it is not an organism of public health concern. Section 410 of the Federal Food, Drug, and Cosmetic Act (FFDCA) requires that FDA's bottled water regulations be at least as stringent and protective of the public health as the requirements for municipal drinking water quality administered by the EPA under the Safe Drinking Water Act, except that FDA does not have to regulate any contaminants if it finds that such a regulation is not necessary to protect the public health. <sup>1/</sup> FDA reviewed the need to regulate HPC and stated that "when bottled waters are free of microorganisms that are of public health significance (i.e., indicated by the absence of coliforms) and are bottled under sanitary conditions in compliance with the current good manufacturing practice regulations, the presence of heterotrophic bacteria that are part of the natural flora in those bottled water normally will not pose a health risk because these organisms do not colonize the digestive tract of humans." <sup>2/</sup>

Additionally, in determining not to regulate the presence of HPC in bottled water, FDA stated:

[I]n some instances, FDA believes that a heterotrophic bacteria level of 10,000 or more per mL in a bottled water product may be a cause for concern because it could indicate either possible insanitary conditions in the plant or inadequately treated water from a contaminated water source. Conversely, FDA would not necessarily view a level in excess of 10,000 heterotrophic bacteria per mL in a bottled water product with concern in cases where the agency can establish that the bottler has taken appropriate steps to ensure that the finished product does not contain pathogenic organisms (i.e., as indicated by the absence of coliforms), and that the bottled water product has been produced in accordance with part 129. When these criteria are met, FDA believes that the heterotrophic bacteria are part of the natural flora of the bottled water and are innocuous. <sup>3/</sup>

The presence of HPC bacteria, even if found at levels in excess of 10,000 cfu/mL in finished product are, as recognized by FDA, "part of the natural flora of the bottled water and are innocuous."

The Environmental Protection Agency (EPA) similarly has recognized that HPC bacteria do not present a health or safety issue. EPA does use a measure of the plate count, however, as one of the tests that can be used to measure indirectly the efficacy of the municipal water treatment facility's disinfection levels. EPA has established a treatment technique target level for HPC of 500 cfu/mL as a non-health-related standard. <sup>4/</sup> EPA established this level as an alternative method of determining disinfectant residual levels because the number of HPC bacteria is an indicator of whether there is enough disinfectant in the distribution system. <sup>5/</sup> EPA's website states: "HPC has

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<sup>1/</sup> 21 U.S.C. § 349.

<sup>2/</sup> 58 Fed. Reg. 52042, 52047 (Oct. 6, 1993).

<sup>3/</sup> 58 Fed. Reg. at 52047.

<sup>4/</sup> 40 C.F.R. § 141.72(a)(4)(i), (b)(3)(i)

<sup>5/</sup> 67 Fed. Reg. 1811, 1838 (Jan. 14, 2002); see also 54 Fed. Reg. 27486–27541 (June 29, 1989).



no health effects; it is an analytic method used to measure the variety of bacteria that are common in water.” [6/](#) Moreover, both EPA and Massachusetts have stated: “The bacteria detected by [HPC] are not necessarily harmful. HPC is simply an alternative method of determining disinfectant residual levels. The number of such bacteria is an indicator of whether there is enough disinfectant in the distribution system.” [7/](#)

The World Health Organization (WHO) has stated: “There is no evidence, either from epidemiological studies or from correlation with occurrence of waterborne pathogens, that HPC values alone directly relate to health risk. They are therefore unsuitable for public health target setting or as sole justification for issuing “boil water” advisories.” [8/](#) Furthermore, the WHO also found that “there is no direct relationship between HPC values in ingested water and human health effects in the population at large. This conclusion is also supported indirectly by evidence from exposures to HPC in foodstuffs, where there is no evidence for a health effects link in the absence of pathogen contamination.” [9/](#) WHO has offered the following additional comments about HPC bacteria.

- These studies all suggested that high bacterial counts from bacteria developing in tap water or bottled water were not contributing to an increase of gastrointestinal illnesses in a normal population (i.e., a population composed of individuals of all ages and normally healthy). [10/](#)
- In conclusion, we have been unable to identify any unequivocal epidemiological evidence that HPC bacteria in drinking-water can cause disease in the general population. In particular, high HPC counts are not associated with an increased risk of gastrointestinal illness.” [11/](#)
- There do not appear to have been any outbreaks of infectious illness associated with high concentrations of HPC bacteria in bottled waters. [12/](#)

Therefore, a review of the comments from FDA, EPA, the Massachusetts Department of Health, and WHO all establish that HPC bacteria do not present a health or safety issue, even when present at high levels in tap or bottled water.

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[6/](#) <http://water.epa.gov/drink/contaminants/index.cfm#Microorganisms>.

[7/](#) 67 Fed. Reg. at 1838; 310 Mass. Code Regs. 22.16.

[8/](#) J Bartram, J Cotruvo, M Exner, C Fricker, A Glasmacher. “Heterotrophic Plate Counts and Drinking-water Safety: *The Significance of HPCs for Water Quality and Human Health*” at 4. World Health Organization 2003 (hereinafter “WHO Report”).

[9/](#) WHO Report at 7-8.

[10/](#) *Id.* at 39.

[11/](#) *Id.* at 132.

[12/](#) *Id.* at 237.