

**BACTERIOLOGY**

Drinking Water	Description	Method	Sample Size/Container	Preservative- Lab Acceptance Policy ≤ 10 °C	Holding Time
Coliform: Total Coliform / Fecal Coliform / E. coli (Enumeration / Presence&Absence)	MTF1	SM 9221 B,C,E,F	100 mL / Plastic Sterile	4-6 °C; sodium thiosulfate for chlorinated water	30 hrs
Coliform: Total Coliform / E. coli (Presence&Absence)	Colilert	SM 9223 B Colilert	100 mL / Plastic Sterile	4-6 °C; sodium thiosulfate for chlorinated water	30 hrs
Coliform: Total Coliform / E. coli (Enumeration)	Colilert QuantiTray	SM 9223 B Colilert	100 mL / Plastic Sterile	4-6 °C; sodium thiosulfate for chlorinated water	30 hrs
Coliform: Total Coliform / E. coli / Presence&Absence)	(Enumeration) Membrane Filtration	EPA 1604	100 mL / Plastic Sterile	4-6 °C; sodium thiosulfate for chlorinated water	30 hrs
Enterococci	Membrane Filtration	EPA 1600	100 mL / Plastic Sterile	4-6 °C; sodium thiosulfate for chlorinated water	30 hrs
Enterococci	Enterolert Quantitray	SM 9230 D	100 mL / Plastic Sterile	4-6 °C; sodium thiosulfate for chlorinated water	30 hrs
Heterotrophic Bacteria	Plate Count (Pour Plate)	SM 9215 B	100 mL / Plastic Sterile	4-6 °C; sodium thiosulfate for chlorinated water	30 hrs
75bc75	Description	Method	Sample Size/Container	Preservative Lab Acceptance Policy ≤ 10 °C	Holding Time
Campylobacter (Presence&Absence)	Membrane Filtration	BAM Modified	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Coliform: Fecal Coliform (Enumeration)	MTF	EPA 1680	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Coliform: Total Coliform / E. coli / Presence&Absence)	(Enumeration) Membrane Filtration	EPA 1604	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Coliform: Total Coliform / E. coli (Enumeration)	Colilert QuantiTray	SM 9223 B Colilert	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Coliform: Total Coliform / E. coli (Presence&Absence)	Colilert	SM 9223 B Colilert	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Coliform: Total Coliform / Fecal Coliform / E. coli (Enumeration / Presence&Absence)	MTF	SM 9221 B,C,E,F	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Coliform: Total Coliform and E. coli adapted for swab	Swab MTF	SM 9221 B,E	Swab	4-6 °C	8-24 hrs
E. coli O157:H7	Membrane Filtration	BAM Modified	150 mL / Plastic Sterile	4-6 °C	8-24 hrs
Enterococci	Enterolert Quantitray	SM 9230 D	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Enterococci	Membrane Filtration	EPA 1600	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Heterotrophic Bacteria	Plate Count (Spread Plate)	SM 9215 C	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Legionella	Legiolert	Idexx	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Listeria sp.	Membrane Filtration	BAM Modified	150 mL / Plastic Sterile	4-6 °C	8-24 hrs
Pseudomonas sp.	Membrane Filtration	BAM Modified	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Shigella (Presence&Absence)	Membrane Filtration	BAM Modified	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Vibrio cholerae	Membrane Filtration	BAM Modified	100 mL / Plastic Sterile	4-6 °C	8-24 hrs

**BIOSOLID**

	Description	Method	Sample Size/Container	Preservative Lab Acceptance Policy ≤ 10 °C	Holding Time
% Total Solid	Dried at 103-105°C	SM 2540 B	10 g wet weight	4-6 °C (Do Not Freeze)	48 hrs
Enteric Virus	Plaque Assay	ASTM D4994-19	8 g dried weight	Frozen	up to 2 weeks
Fecal Coliform	Multiple Tube	EPA 1681	30 g wet weight	4-6 °C (Do Not Freeze)	8 hrs
Helminth Ova	Direct Microscopic Exam	EPA 625/R-92/013	8 g dried weight	4-6 °C (Do Not Freeze)	up to 1 month
Salmonella	Multiple Tube	EPA 1682	30 g wet weight	4-6 °C (Do Not Freeze)	8 hrs

**MICROBIAL SOURCE TRACKING (MST) FOR SURFACE WATER**

	Description	Method	Sample Size/Container	Preservative	Holding Time
Canine marker	qPCR-DNA Amplification	EPA Method B-SIPP Manual_DogBact_qPCR	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Horse Marker	qPCR-DNA Amplification	EPA Method B-SIPP Manual PCR	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Human Marker	qPCR-DNA Amplification	EPA Method B-HF183_qPCR/Bach_qPCR	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Ruminant /Gull/Geese/UiDA	qPCR-DNA Amplification	SIPP Manual/In-house methods qPCR	100 mL / Plastic Sterile	4-6 °C	8-24 hrs
Total Bacteroidales	qPCR-DNA Amplification	EPA Method B	100 mL / Plastic Sterile	4-6 °C	8-24 hrs

For other species specific markers please contact the lab

**VIROLOGY FOR DRINKING AND WASTEWATER**

	Description	Method	Sample Size/Container	Preservative Lab Acceptance Policy ≤ 10 °C	Holding Time
Bacteriophage - Male Specific and/or Somatic	Presence / Absence	EPA 1601	1000 mL / Plastic Sterile	4-6 °C; sodium thiosulfate for chlorinated water	48 hrs
Bacteriophage - Male Specific and/or Somatic	Plaque Assay	EPA 1602	100 mL / Plastic Sterile	4-6 °C; sodium thiosulfate for chlorinated water	48 hrs
Bacteriophage - Male Specific and/or Somatic	Plaque Assay	Double Layer Adams 1959	100 mL / Plastic Sterile	4-6 °C; sodium thiosulfate for chlorinated water	48 hrs
Adenovirus	MPN	EPA 1615 Modified (WRF Protocol)	Nanoceram filter (contact lab)	4-6 °C	72 hrs
Enteric Virus Panel (Enterovirus/Adenovirus/Norovirus)	qPCR / RT-qPCR4	EPA 1615 / 1615 Modified	Contact lab	4-6 °C	72 hrs
Pepper Mottle Virus	qPCR	In-house	Contact lab	4-6 °C	72 hrs
SARS-COV2	Concentration / RNA Extraction / RT-qPCR	WRF Protocol	100 ml-1L WW (contact lab to determine Volume for treated WW)	4-6 °C	72 hrs
Total Culturable Virus for Enteric Viruses	MPN	EPA 1615	Nanoceram filter (contact lab)	4-6 °C	72 hrs

**PARASITOLOGY FOR DRINKING AND WASTEWATER**

	Description	Method	Sample Size/Container	Preservative Lab Acceptance Policy ≤ 20 °C	Holding Time
Cryptosporidium and Giardia	Filtration / IMS2 / FA3	EPA 1623.1	10 L cubitainer or Envirochek filter (contact lab)	4-6 °C	96 hrs
Cryptosporidium and Giardia	Centrifugation / Concentration	EPA 1693 Modified (WRF Protocol)	1 L / Pre clean Container	4-6 °C	72 hrs

**Abbreviation:**

1 MPN = Most Probable Number

2 IMS = immunomagnetic separation

3 FA = Fluorescence Assay

4 RT-qPCR = Reverse transcriptase-quantitative polymerase chain reaction

DRINKING WATER	Method	Sample Size/Container	Preservative	Holding Time
Hardness	SM 2340 C-1997	250 ml / P,G	cool ≤ 6 °C	
Hydrogen Ion (pH)	SM 4500-H+ B-2000	50 ml / P,G	analyze immediately	0.25 hrs
Nitrate (as N)	SM 4500-NO3- E-2000	100 ml / P,G	cool ≤ 6 °C	48 hrs
Nitrite (as N)	SM 4500-NO3- E-2000	250 ml / P,G	analyze immediately or; cool ≤ 6 °C	
Residue, Filterable TDS	SM 2540 C-1997	500-250 ml / P(A),G(A)	cool ≤ 6 °C	24 hrs
Specific Conductance	SM 2510 B-1997	500 ml / P,G	cool ≤ 6 °C	28 days

NON-POTABLE WATER	Method	Sample Size/Container	Preservative	Holding Time
Alkalinity	SM 2320 B-2011	250 ml / P,G(B),	cool ≤ 6 °C	24 hrs
Biochemical Oxygen Demand	SM 5210 B-2011	1000 ml / P,G	cool ≤ 6 °C	6 hrs
Carbonaceous BOD	SM 5210 B-2011			
Chemical Oxygen Demand	Hach 8000	100 ml / P,G	analyze immediately or; add H2SO4 to pH <2 & cool ≤ 6 °C	7 days
Hardness	SM 2340 C-2011	250 ml / P,G	cool ≤ 6 °C	
Hydrogen Ion (pH)	SM 4500-H+ B-2011	50 ml / P,G	analyze immediately	0.25 hrs
Nitrite (as N)	Hach 8507	250 ml / P,G	analyze immediately or; cool ≤ 6 °C	48 hrs
Oxygen, Dissolved	SM 4500-O G-2011	300 ml / G BOD Bottle	analyze immediately	0.25 hrs
Phosphate, Ortho (as P)	SM 4500-P E-2011	100 ml / P, G	analyze immediately or; filter and cool ≤ 6 °C	0.25 hrs
Specific Conductance	SM 2510 B-2011	500 ml / P,G	cool ≤ 6 °C	28 days

Method information displayed is provided for informational purposes only.

**Reference:**

Standard Method of Examination of water and waste water 22 th edition 2012  
 SW846 Manual:<http://www.epa.gov/osw/hazard/testmethods/sw846/online/>

**Abbreviations**

P = Plastic (polyethylene or equivalent)  
 P (A) = Plastic rinsed with 1+1 HNO3  
 G(B) = Glass Borosilicate  
 G(A) = glass rinsed with 1+1 HNO3  
 ml = milliliter  
 DW = Drinking water  
 SW = Stormwater  
 WW-wastewater  
 NA = not applicable  
 Hrs. = hours