



Analytical Methods Recommended for Drinking Water Compliance Monitoring of Secondary Contaminants

Analysis for the following contaminants may be conducted with the methods in the following table, or their equivalent as determined by EPA. Methods for copper, fluoride and pH are listed in 40 CFR 141.23 and methods for the remaining contaminants are in 40 CFR 143.4. Additional methods are listed in Appendix A to Subpart C of Part 141. The recommended monitoring for these contaminants is specified in 40 CFR 143.4.

The CFR is the legal reference for approved methods and takes precedence over this table. The table should accurately reflect the analytical methods information published in 40 CFR 141 and 143.

Secondary Contaminants:

Aluminum

Criteria for analyzing water samples for aluminum, copper, iron, manganese, silver and zinc with digestion or directly, without digestion, and other recommended procedures are contained in *Technical Notes on Drinking Water Methods* (EPA/600/R-94/173), available through EPA’s digital publications National Environmental Publications Internet Site ([EPA/600/R-94/173](https://www.epa.gov/epa600/epa600r94173)).

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
200.5, Rev. 4.2	EPA	<i>Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma – Atomic Emission Spectrometry</i>	October 2003	EPA/600-R-06/115	EPA/600-R-06/115
200.7, Rev. 4.4	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
200.8, Rev. 5.4	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
200.9, Rev. 2.2	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
3111 D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods

3111 D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3111 D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3111 D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3111 D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3111 D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods

3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3111 D-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods
3113 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods
3113 B-04	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2004		Standard Methods
3113 B-10	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2010		Standard Methods
3120 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits.	1999		Standard Methods

		Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.			
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Chloride

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
D4327-97	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	1997		ASTM International
D4327-03	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	2003		ASTM International
D4327-11	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	2011		ASTM International
D4327-17	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	2017		ASTM International
D512-89 B	ASTM International	<i>Standard Test Method for Chloride Ion in Water – Silver Nitrate Titration</i>	1989		ASTM International
D512-04 B	ASTM International	<i>Standard Test Method for Chloride Ion in Water – Silver Nitrate Titration</i>	2004		ASTM International
D512-12 B	ASTM International	<i>Standard Test Method for Chloride Ion in Water – Silver Nitrate Titration</i>	2012		ASTM International
300.0, Rev. 2.1	EPA	<i>In Methods for the Determination of Inorganic Substances in Environmental Samples</i>	August 1993	EPA/600/R-93/100	National Environmental Methods Index
300.1, Rev. 1.0	EPA	<i>In Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Vol. 1</i>	August 2000	EPA 815-R-00-014	National Environmental Methods Index
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods

4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
4500-CI B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
4500-CI B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4500-CI B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4500-CI B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4500-CI B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4500-CI B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4500-CI B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods

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4500-CI D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
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4500-CI D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4500-CI D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
4110 B-00	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2000		Standard Methods
4500-CI B-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1997		Standard Methods
4500-CI D-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1997		Standard Methods

Method D6508, Rev. 2	Waters Corporation	<i>Test Method for Determination of Dissolved Inorganic Anions in Aqueous Matrices Using Capillary Ion Electrophoresis and Chromate Electrolyte</i>			Waters Corporation
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Color

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
2120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
2120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
2120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
2120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
2120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
2120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
2120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
2120 B-01	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2001		Standard Methods

Copper

Criteria for analyzing water samples for aluminum, copper, iron, manganese, silver and zinc with digestion or directly, without digestion, and other recommended procedures are contained in *Technical Notes on Drinking Water Methods* (EPA/600/R-94/173), available through EPA's digital publications National Environmental Publications Internet Site ([EPA/600/R-94/173](http://www.epa.gov/600/R-94/173)).

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
D1688-95 A	ASTM International	<i>Standard Test Methods for Copper in Water – Atomic Absorption, Direct</i>	1995		ASTM International
D1688-02 A	ASTM International	<i>Standard Test Methods for Copper in Water – Atomic Absorption, Direct</i>	2002		ASTM International
D1688-07 A	ASTM International	<i>Standard Test Methods for Copper in Water – Atomic Absorption, Direct</i>	2007		ASTM International
D1688-12 A	ASTM International	<i>Standard Test Methods for Copper in Water – Atomic Absorption, Direct</i>	2012		ASTM International
D1688-17 A	ASTM International	<i>Standard Test Methods for Copper in Water – Atomic Absorption, Direct</i>	2017		ASTM International
D1688-95 C	ASTM International	<i>Standard Test Method for Copper in Water – Atomic Absorption, Graphite Furnace</i>	1995		ASTM International
D1688-02 C	ASTM International	<i>Standard Test Method for Copper in Water – Atomic Absorption, Graphite Furnace</i>	2002		ASTM International
D1688-07 C	ASTM International	<i>Standard Test Method for Copper in Water – Atomic Absorption, Graphite Furnace</i>	2007		ASTM International
D1688-12 C	ASTM International	<i>Standard Test Method for Copper in Water – Atomic Absorption, Graphite Furnace</i>	2012		ASTM International
D1688-17 C	ASTM International	<i>Standard Test Method for Copper in Water – Atomic Absorption, Graphite Furnace</i>	2017		ASTM International
200.5, Rev. 4.2	EPA	<i>Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled</i>	October 2003	EPA/600-R-06/115	EPA/600-R-06/115

		<i>Plasma – Atomic Emission Spectrometry</i>			
200.7, Rev. 4.4	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
200.8, Rev. 5.4	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
200.9, Rev. 2.2	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
Hach 8026, Rev. 1.2	Hach Company	<i>Spectrophotometric Measurement of Copper in Finished Drinking Water</i>	December 2015		Hach 8026, Rev. 1.2
Hach 10272, Rev. 1.2	Hach Company	<i>Spectrophotometric Measurement of Copper in Finished Drinking Water</i>	December 2015		Hach 10272, Rev. 1.2
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
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3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
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3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3111 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods
3113 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits.	1999		Standard Methods

		Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.			
3113 B-04	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2004		Standard Methods
3113 B-10	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2010		Standard Methods
3120 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods

Fluoride

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
D1179-93 B	ASTM International	<i>Standard Test Methods for Fluoride in Water – Ion Selective Electrode</i>	1993		ASTM International
D1179-99 B	ASTM International	<i>Standard Test Methods for Fluoride in Water – Ion Selective Electrode</i>	1999		ASTM International
D1179-04 B	ASTM International	<i>Standard Test Methods for Fluoride in Water – Ion Selective Electrode</i>	2004		ASTM International
D1179-10 B	ASTM International	<i>Standard Test Methods for Fluoride in Water – Ion Selective Electrode</i>	2010		ASTM International

D1179-16 B	ASTM International	<i>Standard Test Methods for Fluoride in Water – Ion Selective Electrode</i>	2010		ASTM International
D4327-97	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	1997		ASTM International
D4327-03	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	2003		ASTM International
D4327-11	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	2011		ASTM International
D4327-17	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	2017		ASTM International
129-71W	Bran + Luebbe	<i>Fluoride in Water and Wastewater</i>	December 1972		Seal Analytical
380-75WE	Bran + Luebbe	<i>Fluoride in Water and Wastewater</i>	February 1976		Seal Analytical
300.0, Rev. 2.1	EPA	<i>In Methods for the Determination of Inorganic Substances in Environmental Samples</i>	August 1993	EPA/600/R-93/100	National Environmental Methods Index
300.1, Rev. 1.0	EPA	<i>In Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Vol. 1</i>	August 2000	EPA 815-R-00-014	National Environmental Methods Index
Hach 10225, Rev. 2.0	Hach Company	<i>Hach Company SPADNS 2 (Arsenic-free) Fluoride Method 10225 – Spectrophotometric Measurement of Fluoride in Water and Wastewater</i>	January 2011		Hach 10225, Rev. 2.0
Hach 10312, Rev. 1.0	Hach Company	<i>Hach Method 10312 - Spectrophotometric Measurement of Fluoride in Finished Drinking Water Aluminum-Chromeazurol S complex (AL-CAS) Using Planar Reagent-filled Cuvettes</i>	August 2022		Hach 10312, Rev. 1.0
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods

4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
4500-F B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
4500-F B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4500-F B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4500-F B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4500-F B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4500-F B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4500-F B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods

4500-F C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
4500-F C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4500-F C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4500-F C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4500-F C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4500-F C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4500-F C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
4500-F D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
4500-F D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4500-F D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4500-F D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4500-F D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4500-F D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods

4500-F D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
4500-F E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
4500-F E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4500-F E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4500-F E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4500-F E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4500-F E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4500-F E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
4110 B-00	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2000		Standard Methods
4500-F B-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1997		Standard Methods
4500-F C-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to	1997		Standard Methods

		Subpart C of Part 141 are approved.			
4500-F D-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1977		Standard Methods
4500-F E-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1997		Standard Methods
D6508, Rev. 2	Waters Corp.	<i>Test Method for Determination of Dissolved Inorganic Anions in Aqueous Matrices Using Capillary Ion Electrophoresis and Chromate Electrolyte</i>			Waters Corporation

Foaming Agent

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
5540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
5540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
5540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
5540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
5540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods

5540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
5540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
5540 C-00	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2000		Standard Methods

Iron

Criteria for analyzing water samples for aluminum, copper, iron, manganese, silver and zinc with digestion or directly, without digestion, and other recommended procedures are contained in *Technical Notes on Drinking Water Methods* (EPA/600/R-94/173), available through EPA's digital publications National Environmental Publications Internet Site ([EPA/600/R-94/173](#)).

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
200.5, Rev. 4.2	EPA	<i>Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma-Atomic Emission Spectrometry</i>	October 2003	EPA/600-R-06/115	EPA/600-R-06/115
200.7, Rev. 4.4	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
200.9, Rev. 2.2	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
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3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods

3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods

3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3111 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods
3113 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods
3113 B-04	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2004		Standard Methods
3113 B-10	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2010		Standard Methods
3120 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods

Manganese

Criteria for analyzing water samples for aluminum, copper, iron, manganese, silver and zinc with digestion or directly, without digestion, and other recommended procedures are contained in *Technical Notes on Drinking Water Methods* (EPA/600/R-94/173), available through EPA's digital publications National Environmental Publications Internet Site ([EPA/600/R-94/173](https://www.epa.gov/epa600/epa600r94173)).

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
200.5, Rev. 4.2	EPA	<i>Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma – Atomic Emission Spectrometry</i>	October 2003	EPA/600-R-06/115	EPA/600-R-06/115
200.7, Rev. 4.4	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
200.8, Rev. 5.4	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
200.9, Rev. 2.2	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods

3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3111 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits.	1999		Standard Methods

		Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.			
3113 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods
3113 B-04	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2004		Standard Methods
3113 B-10	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2010		Standard Methods
3120 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods

Odor

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
2150 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
2150 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods

2150 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
2150 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
2150 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
2150 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
2150 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
2150 B-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1997		Standard Methods

pH

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
D1293-95	ASTM International	<i>Standard Test Methods for pH of Water</i>	1995		ASTM International
D1293-99	ASTM International	<i>Standard Test Methods for pH of Water</i>	1999		ASTM International
D1293-12	ASTM International	<i>Standard Test Methods for pH of Water</i>	2012		ASTM International
D1293-18	ASTM International	<i>Standard Test Methods for pH of Water</i>	2018		ASTM International
150.1	EPA	<i>In Methods for Chemical Analysis of Water and Wastes</i>	March 1983	EPA/600/4-79/020	National Environmental Methods Index
150.2	EPA	<i>In Methods for Chemical Analysis of Water and Wastes</i>	March 1983	EPA/600/4-79/020	National Environmental Methods Index
150.3	EPA	<i>Determination of pH in Drinking Water</i>	February 2017	EPA-815-B-17-001	EPA-815-B-17-001

4500-H⁺ B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
4500-H⁺ B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4500-H⁺ B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4500-H⁺ B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4500-H⁺ B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4500-H⁺ B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4500-H⁺ B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
4500-H⁺ B-00	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2000		Standard Methods

Silver

Criteria for analyzing water samples for aluminum, copper, iron, manganese, silver and zinc with digestion or directly, without digestion, and other recommended procedures are contained in *Technical Notes on Drinking Water Methods* (EPA/600/R-94/173), available through EPA's digital publications National Environmental Publications Internet Site ([EPA/600/R-94/173](#)).

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
200.5, Rev. 4.2	EPA	<i>Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma – Atomic Emission Spectrometry</i>	October 2003	EPA/600-R-06/115	EPA/600-R-06/115

200.7, Rev. 4.4	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
200.8, Rev. 5.4	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
200.9, Rev. 2.2	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods

3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3113 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3111 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods
3113 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods
3113 B-04	Standard Methods Online	Online version. Approval year is designated by the last 2 digits.	2004		Standard Methods

		Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.			
3113 B-10	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2010		Standard Methods
3120 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods
I-3720-85	U.S. Geological Survey	In <i>Methods for Determination of Inorganic Substances in Water and Fluvial Sediments</i> , USGS Series: Techniques of Water-Resource Investigation Report; edited by Fishman, M.J. and Friedman, L.C.	1989		USGS

Sulfate

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
D4327-97	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	1997		ASTM International
D4327-03	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	2003		ASTM International
D4327-11	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	2011		ASTM International
D4327-17	ASTM International	<i>Standard Test Method for Anions in Water by Suppressed Ion Chromatography</i>	2017		ASTM International
D516-90	ASTM International	<i>Standard Test Method for Sulfate Ion in Water</i>	1990		ASTM International

D516-02	ASTM International	<i>Standard Test Method for Sulfate Ion in Water</i>	2002		ASTM International
D516-07	ASTM International	<i>Standard Test Method for Sulfate Ion in Water</i>	2007		ASTM International
D516-11	ASTM International	<i>Standard Test Method for Sulfate Ion in Water</i>	2011		ASTM International
D516-16	ASTM International	<i>Standard Test Method for Sulfate ion in Water</i>	2016		ASTM International
300.0, Rev. 2.1	EPA	<i>In Methods for the Determination of Inorganic Substances in Environmental Samples</i>	August 1993	EPA/600/R-93/100	National Environmental Methods Index
300.1, Rev. 1.0	EPA	<i>In Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Vol. 1</i>	August 2000	EPA 815-R-00-014	National Environmental Methods Index
375.2, Rev. 2.0	EPA	<i>In Methods for the Determination of Inorganic Substances in Environmental Samples</i>	August 1993	EPA/600/R-93/100	National Environmental Methods Index
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4110 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods

4500-SO ₄ ²⁻ C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
4500-SO ₄ ²⁻ C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4500-SO ₄ ²⁻ C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4500-SO ₄ ²⁻ C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4500-SO ₄ ²⁻ C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4500-SO ₄ ²⁻ C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4500-SO ₄ ²⁻ C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
4500-SO ₄ ²⁻ D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
4500-SO ₄ ²⁻ D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4500-SO ₄ ²⁻ D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4500-SO ₄ ²⁻ D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4500-SO ₄ ²⁻ D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4500-SO ₄ ²⁻ D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods

4500-SO₄²⁻ D	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
4500-SO₄²⁻ E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
4500-SO₄²⁻ E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4500-SO₄²⁻ E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4500-SO₄²⁻ E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4500-SO₄²⁻ E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
4500-SO₄²⁻ E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4500-SO₄²⁻ E	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
4500-SO₄²⁻ F	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
4500-SO₄²⁻ F	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
4500-SO₄²⁻ F	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
4500-SO₄²⁻ F	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
4500-SO₄²⁻ F	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods

4500-SO₄²⁻ F	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
4500-SO₄²⁻ F	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
4110 B-00	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	2000		Standard Methods
4500-SO₄²⁻ C-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1997		Standard Methods
4500-SO₄²⁻ D-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1997		Standard Methods
4500-SO₄²⁻ E-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1997		Standard Methods
4500-SO₄²⁻ F-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1997		Standard Methods
D6508, Rev. 2	Waters Corp.	<i>Test Method for Determination of Dissolved Inorganic Anions in Aqueous Matrices Using Capillary Ion Electrophoresis and Chromate Electrolyte</i>			Waters Corporation

Total Dissolved Solids

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
2540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
2540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
2540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
2540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
2540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
2540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
2540 C	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
2540 C-97	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1997		Standard Methods

Zinc

Criteria for analyzing water samples for aluminum, copper, iron, manganese, silver and zinc with digestion or directly, without digestion, and other recommended procedures are contained in *Technical Notes on Drinking Water Methods* (EPA/600/R-94/173), available through EPA’s digital publications National Environmental Publications Internet Site ([EPA/600/R-94/173](#)).

Method	Organization	Reference Title	Date	EPA Publication Number	Source of Method
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200.5, Rev. 4.2	EPA	<i>Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma – Atomic Emission Spectrometry</i>	October 2003	EPA/600-R-06/115	EPA/600-R-06/115
200.7, Rev. 4.4	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
200.8, Rev. 5.4	EPA	<i>In Methods for the Determination of Metals in Environmental Samples, Supplement I</i>	May 1994	EPA/600/R-94/111	National Environmental Methods Index
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3111 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 18th Edition</i>	1992		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 19th Edition</i>	1995		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 20th Edition</i>	1998		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 21st Edition</i>	2005		Standard Methods

3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 22nd Edition</i>	2012		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 23rd Edition</i>	2017		Standard Methods
3120 B	Standard Methods	<i>Standard Methods for the Examination of Water and Wastewater, 24th Edition</i>	2023		Standard Methods
3111 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods
3120 B-99	Standard Methods Online	Online version. Approval year is designated by the last 2 digits. Only online versions cited in the regulations or in Appendix A to Subpart C of Part 141 are approved.	1999		Standard Methods