



Analytical Methods Recommended for Drinking Water Monitoring of Secondary Contaminants

Analysis for the following contaminants may be conducted in accordance 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 precedent over this table. The table should accurately reflect the analytical methods information published in 40 CFR 141.23, 143.4, and Appendix A to Subpart C of Part 141. If you find discrepancies, please notify The Safe Drinking Water Hotline (800-426-4791) so that EPA can correct the table.

Contaminant	Method Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Aluminum	Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).						
	EPA	200.5 Rev 4.2	Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma - Atomic Emission Spectrometry	October 2003	EPA/600/R-06/115		http://www.epa.gov/nerlcwww/ordmeth.htm
	EPA	200.7 Rev 4.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
	EPA	200.8 Rev 5.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
	EPA	200.9 Rev 2.2	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
	Standard Methods	3111 D	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
	Standard Methods	3111 D	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Aluminum		Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).				
Standard Methods	3111 D	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	3111 D-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Contaminant	Method	EPA	Publication	Publication	Publication
Organization	Number	Reference Title	Date	Number	Order
				Number	Number
					Source of Method
Aluminum		Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).			
Standard Methods Online	3113 B-04	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.			http://www.standardmethods.org/
Standard Methods Online	3113 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.			http://www.standardmethods.org/
Standard Methods Online	3120 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.			http://www.standardmethods.org/
Chloride					
ASTM International	D4327-03	Annual Book of ASTM Standards, Vol. 11.01			http://www.astm.org
ASTM International	D4327-97	Annual Book of ASTM Standards, Vol. 11.01			http://www.astm.org
ASTM International	D512-04 B	Annual Book of ASTM Standards, Vol. 11.01			http://www.astm.org
ASTM International	D512-89 B (Reapproved 1999)	Annual Book of ASTM Standards, Vol. 11.01			http://www.astm.org

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Chloride						
EPA	300.0 Rev 2.1	In Methods for the Determination of Inorganic Substances in Environmental Samples	August 1993	EPA/600/R-93/100	PB94-120821	http://www.nemi.gov
EPA	300.1 Rev 1.0	In Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1	August 2000	EPA 815-R-00-014	PB2000-106981	http://www.epa.gov/safewater/methods/analyticalmethods_ogwdw.html
Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-Cl- B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	4500-Cl- B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-Cl- B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl- B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods

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Chloride						
Standard Methods	4500-Cl- D	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	4500-Cl- D	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-Cl- D	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl- D	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	4110 B-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-Cl- B-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-Cl- D-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Chloride						
Waters Corporation	Method D6508, Revision 2	Test Method for Determination of Dissolved Inorganic Anions in Aqueous Matrices Using Capillary Ion Electrophoresis and Chromate Electrolyte				Waters Corporation
Color						
Standard Methods	2120 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	2120 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	2120 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	2120 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	2120 B-01	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Copper						
Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).						
ASTM International	D1688-02 A	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D1688-02 C	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org

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Copper		Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).				
ASTM International	D1688-07 A	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D1688-07 C	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D1688-90 A	Annual Book of ASTM Standards, Vol. 11.01				ASTM International (ASTM)
ASTM International	D1688-90 C	Annual Book of ASTM Standards, Vol. 11.01				ASTM International (ASTM)
ASTM International	D1688-95 A	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D1688-95 C	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
EPA	200.5 Rev 4.2	Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma - Atomic Emission Spectrometry	October 2003	EPA/600/R-06/115		http://www.epa.gov/nerlcwww/ordmeth.htm
EPA	200.7 Rev 4.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
EPA	200.8 Rev 5.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
EPA	200.9 Rev 2.2	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
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Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods

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Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	3111 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	3113 B-04	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	3113 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	3120 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Fluoride

ASTM International	D1179-04 B	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
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Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Fluoride						
ASTM International	D1179-93 B	Annual Book of ASTM Standards, Vol. 11.01				ASTM International (ASTM)
ASTM International	D1179-99 B	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D4327-03	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D4327-97	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
Bran + Luebbe	129-71W	Fluoride in Water and Wastewater	December 1972			Bran+Luebbe
Bran + Luebbe	380-75WE	Fluoride in Water and Wastewater	February 1976			Bran+Luebbe
EPA	300.0 Rev 2.1	In Methods for the Determination of Inorganic Substances in Environmental Samples	August 1993	EPA/600/R-93/100	PB94-120821	http://www.nemi.gov
EPA	300.1 Rev 1.0	In Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1	August 2000	EPA 815-R-00-014	PB2000-106981	http://www.epa.gov/safewater/methods/analyticalmethods_ogwdw.html
Hach Co.	10225	Hach Company SPADNS 2 (Arsenite-Free) Fluoride Method 10225—Spectrophotometric Measurement of Fluoride in Water and Wastewater	January 2011			http://www.hach.com
Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods

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Fluoride							
	Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
	Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
	Standard Methods	4500-F- B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
	Standard Methods	4500-F- B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
	Standard Methods	4500-F- B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
	Standard Methods	4500-F- B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
	Standard Methods	4500-F- C	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
	Standard Methods	4500-F- C	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
	Standard Methods	4500-F- C	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
	Standard Methods	4500-F- C	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods

Contaminant	Method Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Fluoride							
	Standard Methods	4500-F- D	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
	Standard Methods	4500-F- D	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
	Standard Methods	4500-F- D	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
	Standard Methods	4500-F- D	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
	Standard Methods	4500-F- E	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
	Standard Methods	4500-F- E	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
	Standard Methods	4500-F- E	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
	Standard Methods	4500-F- E	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
	Standard Methods Online	4110 B-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

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Organization	Number					
Fluoride						
Standard Methods Online	4500-F- B-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-F- C-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-F- D-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-F- E-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Waters Corporation	Method D6508, Revision 2	Test Method for Determination of Dissolved Inorganic Anions in Aqueous Matrices Using Capillary Ion Electrophoresis and Chromate Electrolyte				Waters Corporation

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Foaming Agents	Standard Methods	5540 C	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
	Standard Methods	5540 C	Standard Methods for the Examination of Water and Wastewater, 19th Edition Supplement	1996			Standard Methods
	Standard Methods	5540 C	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
	Standard Methods	5540 C	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
	Standard Methods Online	5540 C-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Iron	Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).						
	EPA	200.5 Rev 4.2	Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma - Atomic Emission Spectrometry	October 2003	EPA/600/R-06/115		http://www.epa.gov/nerlcwww/ordmeth.htm
EPA	200.7 Rev 4.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472		http://www.nemi.gov

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Iron		Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).				
EPA	200.9 Rev 2.2	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Iron		Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).				
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	3111 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	3113 B-04	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	3113 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	3120 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Manganese		Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).				
EPA	200.5 Rev 4.2	Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma - Atomic Emission Spectrometry	October 2003	EPA/600/R-06/115		http://www.epa.gov/nerlewww/ordmeth.htm
EPA	200.7 Rev 4.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
EPA	200.8 Rev 5.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
EPA	200.9 Rev 2.2	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
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Manganese		Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).				
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
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Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
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Odor						
Standard Methods	2150 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	2150 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	2150 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	2150 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Odor						
Standard Methods Online	2150 B-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
pH						
ASTM International	D1293-84	Annual Book of ASTM Standards, Vol. 11.01				ASTM International (ASTM)
ASTM International	D1293-95	Annual Book of ASTM Standards, Vol. 11.01				ASTM International (ASTM)
ASTM International	D1293-99	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
EPA	150.1	In Methods for Chemical Analysis of Water and Wastes	March 1983	EPA/600/4-79/020	PB84-128677	http://www.nemi.gov
EPA	150.2	In Methods for Chemical Analysis of Water and Wastes	March 1983	EPA/600/4-79/020	PB84-128677	http://www.nemi.gov
Standard Methods	4500-H+ B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	4500-H+ B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-H+ B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-H+ B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
pH						
Standard Methods Online	4500-H+ B-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Silver		Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).				
EPA	200.5 Rev 4.2	Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma - Atomic Emission Spectrometry	October 2003	EPA/600/R-06/115		http://www.epa.gov/nerlcwww/ordmeth.htm
EPA	200.7 Rev 4.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
EPA	200.8 Rev 5.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
EPA	200.9 Rev 2.2	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Silver		Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).				
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3113 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	3111 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Silver		Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).				
Standard Methods Online	3113 B-04	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	3113 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	3120 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
U.S. Geological Survey	I-3720-85	In Methods for Determination of Inorganic Substances in Water and Fluvial Sediments, USGS Series: Techniques of Water-Resource Investigation Report; edited by Fishman, M.J. & Friedman, L.C.	1989		05-A1	http://infotrek.er.usgs.gov/pubs/
Sulfate						
ASTM International	D4327-03	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D4327-97	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Sulfate						
ASTM International	D516-02	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D516-07	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D516-90	Annual Book of ASTM Standards, Vol. 11.01				ASTM International (ASTM)
EPA	300.0 Rev 2.1	In Methods for the Determination of Inorganic Substances in Environmental Samples	August 1993	EPA/600/R-93/100	PB94-120821	http://www.nemi.gov
EPA	300.1 Rev 1.0	In Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1	August 2000	EPA 815-R-00-014	PB2000-106981	http://www.epa.gov/safewater/methods/analyticalmethods_ogwdw.html
EPA	375.2 Rev 2.0	In Methods for the Determination of Inorganic Substances in Environmental Samples	August 1993	EPA/600/R-93/100	PB94-120821	http://www.nemi.gov
Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4110 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-SO42- C	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Sulfate						
Standard Methods	4500-SO42- C	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-SO42- C	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-SO42- C	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-SO42- D	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	4500-SO42- D	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-SO42- D	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-SO42- D	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-SO42- E	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	4500-SO42- E	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-SO42- E	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Sulfate						
Standard Methods	4500-SO42- E	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-SO42- F	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	4500-SO42- F	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-SO42- F	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-SO42- F	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	4110 B-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-SO42- C-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Sulfate						
Standard Methods Online	4500-SO42- D-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-SO42- E-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-SO42- F-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Waters Corporation	Method D6508, Revision 2	Test Method for Determination of Dissolved Inorganic Anions in Aqueous Matrices Using Capillary Ion Electrophoresis and Chromate Electrolyte				Waters Corporation
TDS						
Standard Methods	2540 C	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	2540 C	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods

Contaminant	Method Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
TDS	Standard Methods	2540 C	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
	Standard Methods	2540 C	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
	Standard Methods Online	2540 C-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Zinc	Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).						
	EPA	200.5 Rev 4.2	Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma - Atomic Emission Spectrometry	October 2003	EPA/600/R-06/115		http://www.epa.gov/nerlcwww/ordmeth.htm
	EPA	200.7 Rev 4.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
	EPA	200.8 Rev 5.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov
	Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
	Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Zinc		Criteria for analyzing aluminum, copper, iron, manganese, silver, and zinc samples with digestion or directly without digestion, and other recommended procedures are contained in Section IV of Technical Notes on Drinking Water Methods (EPA/600/R-94/173) available through EPA's digital publications National Environmental Publications Internet Site (NEPIS) database (http://www.epa.gov/nscep/).				
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	3111 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	3120 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Contaminant	Method			EPA	Publication	
Organization	Number	Reference Title	Date	Publication	Order	Source of Method
				Number	Number	

Contact information for methods that are not available on the Internet are summarized in the report titled "Sources of Approved Analytical Methods for National Drinking Water Regulations."