

Requirements For Containers, Storage and Holding Times For Analytical Methods



Waters

Parameter	Method	Container	Number of Containers	Preservation & Storage	Holding Time
ORGANICS					
Volatile Organic Compounds	EPA 8021/8260	40mL glass vial (VOA)	3	HCl pH<2, 4° C	14 days
Semivolatile Organic Compounds	EPA 8270	1 liter amber	2	4° C	7 days
Chlorinated Pesticides	EPA 8081	1 liter amber	2	4° C	7 days
Chlorinated Herbicides	EPA 8151	1 liter amber	2	4° C	7 days
Organophosphorus Pesticides	EPA 8270	1 liter amber	2	4° C	7 days
PCBs	EPA 8082	1 liter amber	2	4° C	None
EDB	EPA 8011	40mL glass vial (VOA)	2	HCl pH<2, 4° C	14 days
Dissolved Gases	RSK 175	40mL glass vial (VOA)	2	HCl pH<2, 4° C	14 days
Ethylene Glycol	EPA 8015M	40mL glass vial (VOA)	2	4° C	7 days
Dioxins/Furans	EPA 1613/8290	1 liter amber	2	4° C	30 days
UST PARAMETERS					
Hydrocarbon Identification	NWTPH-HCID	500mL amber 40mL glass vial (VOA)	2 each	HCl pH<2, 4° (both)	14 days
Gasoline Range Organics/VPH	NWTPH-Gx/VPH	40mL glass vial (VOA)	3	HCl pH<2, 4° C	14 days
Diesel Range Organics	NWTPH-Dx	500mL amber	2	HCl pH<2, 4° C	14 days
Extractable Petroleum Hydrocarbons	EPH	1 liter amber	2	HCl pH<2, 4° C	14 days
INORGANICS					
Metals (total/dissolved - field filter)	EPA 200.7/200.8	500mL HDPE	1	HNO ₃ pH<2, 4° C	6 months
Metals (dissolved - lab filtered)	EPA 200.7/200.8	500mL HDPE	1	4° C	6 months
Mercury (Hg)	EPA 7470	500mL HDPE	1	HNO ₃ pH<2, 4° C	28 days
Hexavalent Chromium	SM 3500-Cr	500mL HDPE	1	4° C	24 hours

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Waters (cont.)

Parameter	Method	Container	Number of Containers	Preservation & Storage	Holding Time
GENERAL CHEMISTRY					
Alkalinity	EPA 310.2/SM 2320B	250mL HDPE	1	4° C	14 days
Biochemical Oxygen Demand	SM 5210B	1 liter HDPE	1	4° C	48 hours
Chemical Oxygen Demand	EPA 410.4	250mL HDPE	1	H ₂ SO ₄ pH<2, 4° C	28 days
Chloride	SM 4500-Cl	250mL HDPE	1	4° C	28 days
Conductivity	EPA 120.1	250mL HDPE	1	4° C	28 days
Cyanide, total	EPA 335.4/SM 4500-CN	1 liter HDPE	1	NaOH pH>12, 4° C	14 days
Fluoride	SM 4500-F	500mL HDPE	1	4° C	28 days
Hardness	EPA 6010B/SM 2340B	500mL HDPE	1	HNO ₃ pH<2, 4° C	6 months
Nitrogen, Ammonia	SM 4500-NH ₃	250mL HDPE	1	H ₂ SO ₄ pH<2, 4° C	28 days
Nitrogen, Nitrite	SM 4500-NO ₂	250mL HDPE	1	4° C	48 hours
Nitrogen, Nitrate	EPA 353.2	250mL HDPE	1	4° C	48 hours
Nitrogen, Nitrate + Nitrite	EPA 353.2	250mL HDPE	1	H ₂ SO ₄ pH<2, 4° C	28 days
Nitrogen, Total Kjeldahl (TKN)	EPA 351.2	500mL HDPE	1	H ₂ SO ₄ pH<2, 4° C	28 days
Oil and Grease (HEM)	EPA 1664	1 liter clear WM	2	HCl pH<2, 4° C	28 days
pH	SM 4500-H	60mL HDPE	1	4° C	ASAP
Phenols, total	EPA 420.4	1 liter amber	1	H ₂ SO ₄ pH<2, 4° C	28 days
Phosphate, ortho	EPA 365.1/365.3	250mL HDPE	1	4° C	48 hours
Phosphorus, total	EPA 365.1	250mL HDPE	1	H ₂ SO ₄ pH<2, 4° C	28 days
Solids, Total Dissolved (TDS)	SM 2540C	250mL HDPE	1	4° C	7 days
Solids, Total Suspended (TSS)	SM 2540D	250mL HDPE	1	4° C	7 days
Solids, Total	SM 2540B	1 liter HDPE	1	4° C	7 days
Solids, Total Volatile (TVS)	SM 2540E	250mL HDPE	1	4° C	7 days
Solids, Settleable (SS)	SM 2540F	1 liter HDPE	1	4° C	48 hours
Sulfate	ASTM D516-02	250mL HDPE	1	4° C	28 days
Sulfide	SM 4500-S ₂	500mL HDPE	1	Add zinc acetate NaOH pH>9, 4° C	7 days
Total Halogens (TX)	EPA 9076	500mL HDPE	1	H ₂ SO ₄ pH<2, 4° C	28 days
Total Organic Halides (TOX)	EPA 9020	500mL HDPE	1	H ₂ SO ₄ pH<2, 4° C	28 days
Total Organic Carbon (TOC)	SM 5310B	250mL HDPE	1	HCl pH<2, 4° C	28 days
Turbidity	EPA 180.1	250mL HDPE	1	4° C	48 hours

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Soils

Parameter	Method	Container	Number of Containers	Preservation & Storage	Holding Time
ORGANICS					
Volatile Organic Compounds ¹	EPA 8021/8260	4 oz. cwm <i>field preservation kit</i>	1	4° C	14 days
Semivolatile Organic Compounds	EPA 8270	8 oz. cwm	1	4° C	14 days
PCBs	EPA 8082	8 oz. cwm	1	4° C	None
Chlorinated Pesticides	EPA 8081	8 oz. cwm	1	4° C	14 days
Chlorinated Herbicides	EPA 8151	8 oz. cwm	1	4° C	14 days
Organophosphorus Pesticides	EPA 8270	8 oz. cwm	1	4° C	7 days
Dioxins/Furans	EPA 1613/8290	8 oz. cwm	1	4° C	30 days
UST PARAMETERS					
Hydrocarbon Identification	NWTPH-HCID	4 oz. cwm	1	4° C	14 days
Gasoline Range Organics/VPH ¹	NWTPH-Gx/VPH	4 oz. cwm <i>field preservation kit</i>	1	4° C	14 days
Diesel Range Organics	NWTPH-Dx	4 oz. cwm	1	4° C	14 days
Extractable Petroleum Hydrocarbons	EPH	4 oz. cwm	1	4° C	14 days
INORGANICS					
Metals	EPA 6010/6020	8 oz. cwm	1	4° C	6 months
Mercury (Hg)	EPA 7471	8 oz. cwm	1	4° C	28 days
Hexavalent Chromium	EPA 7196	8 oz. cwm	1	4° C	30 days
GENERAL CHEMISTRY					
Chloride	SM 4500-Cl	4 oz. cwm	1	4° C	28 days
Conductivity	EPA 120.1	4 oz. cwm	1	4° C	28 days
Cyanide, total	EPA 335.3	4 oz. cwm	1	4° C	14 days
Fluoride	SM 4500-F	4 oz. cwm	1	4° C	28 days
Nitrogen, Ammonia	EPA 350.3	4 oz. cwm	1	4° C	28 days
Nitrogen, Nitrite	EPA 353.2	4 oz. cwm	1	4° C	7 days
Nitrogen, Nitrate	EPA 353.2	4 oz. cwm	1	4° C	7 days
Nitrogen, Nitrate + Nitrite	EPA 353.2	4 oz. cwm	1	4° C	7 days
Nitrogen, Total Kjeldahl (TKN)	EPA 351.3/351.4	4 oz. cwm	1	4° C	28 days
pH	EPA 9045	4 oz. cwm	1	4° C	14 days
Phosphate, ortho	EPA 365.1	4 oz. cwm	1	4° C	28 days
Phosphorus, total	EPA 365.1	4 oz. cwm	1	4° C	28 days
Solids, Total	EPA 160.3	4 oz. cwm	1	4° C	14 days
Solids, Total Volatile (TVS)	EPA 160.4	4 oz. cwm	1	4° C	6 months
Sulfate	ASTM D516-02	4 oz. cwm	1	4° C	28 days
Sulfide	EPA 9030	2 oz. cwm ²	1	4° C	7 days
Total Halogens (TX)	EPA 9076	4 oz. cwm	1	4° C	28 days
Total Organic Halides (TOX)	EPA 9020	4 oz. cwm	1	4° C	28 days
Total Organic Carbon (TOC)	EPA 9060	4 oz. cwm	1	4° C	28 days

CWM - Clear Wide Mouth

¹ Contact your project manager for field preservation kit options.

² No Headspace.