

## Method, Sample Container, Preservative, and Holding Time Table

Analysis	Matrix	Method	Sample Size/ Container	Preservative*	Holding Time (Days)	
					Extraction	Analysis
<b>INORGANICS</b>						
Alkalinity	W/WW	310.2	500 mL/P	Cool, 4°C		14
Ammonia	W/WW	220.3	500 mL/P	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> , pH < 2		28
Biochemical Oxygen Demand (BOD)	W/WW	405.1	500 mL/P	Cool, 4°C		2
Chloride	W/WW	300	500 mL/P	Cool, 4°C		28
	S/SW					
Chemical Oxygen Demand (COD)	W/WW	410.4	500 mL/P	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> , pH < 2		28
Conductivity	W/WW	120.1	500 mL/P	Cool, 4°C		28
Corrosivity	W/WW	1110	250 mL/P	Cool, 4°C		7
	S/SW		4 oz/P			
Cyanide	W/WW	335.3 9010A	1 L/P	NaOH, pH > 12		14
	S/SW		4 oz/P			
Fluoride	W/WW	340.2	500 mL/P	Cool, 4°C		28
Hardness	W/WW	130.2	500 mL/P	Cool, 4°C		180
Hexavalent Chromium	W/WW	7196A	500 mL/P	Cool, 4°C		1
	S/SW		4 oz/P			
Ignitability	W/WW	1010	500 mL/G	None		7
	S/SW		4 oz/G			
Mercury	W/WW	245.1/245.5 7470/7471	250 mL/P/G	HNO <sub>3</sub> , pH < 2		28
	S/SW		4 oz/P/G			
Metals ICP/GFAA/AA Including Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Tl, V, Zn	W/WW	200 Series 6010B 6020 7000 Series	500 mL/P	HNO <sub>3</sub> , pH < 2		180
	S/SW	6010B 6020 7000 Series	4 oz/P			
TCLP Metals (except Hg)	W/WW	1311	1 L/P	Cool, 4°C	180	180
	S/SW					
Nitrate	W/WW	353.2	250 mL/P	Cool, 4°C		2
Nitrate + Nitrite	W/WW	353.2	250 mL/P	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> , pH < 2		28
Nitrite	W/WW	353.2 Mod	125 mL/P	Cool, 4°C		2

Analysis	Matrix	Method	Sample Size/		Holding Time (Days)	
			Container	Preservative*	Extraction	Analysis
Oil & Grease	W/WW	413.2	1 L/AG	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> , pH < 2		28
	S/SW		8 oz/AG			
Ortho-Phosphorus	W/WW	365.1	125 mL/P	Cool, 4°C, Filter Immediately		2
pH	W/WW	150.1	500 mL/P	Cool, 4°C		ASAP
	S/SW	9040B	4 oz/P			
Phenolics	W/WW	420.2	1 L/AG	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> , pH < 2		28
	S/SW	9066	6 oz/G			
Reactive Cyanide	W/WW	7.3.3.2	500 mL/P	Cool, 4°C		7
	S/SW		4 oz/P			
Reactive Sulfide	W/WW	7.3.4.2	500 mL/P	Cool, 4°C		7
			4 oz/P			
Sulfide	W/WW	376.1	500 mL/P	Cool, 4°C, Zn Acetate/NaOH, pH > 9		7
	S/SW	9030A	4 oz/P			
Sulfate	W/WW	375.2	500 mL/P	Cool, 4°C		28
	S/SW	9036	4 oz/P			
Total Kjeldahl Nitrogen	W/WW	351.2	1 L/P	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> , pH < 2		28
Total Dissolved Solids	W/WW	160.1	500 mL/P	Cool, 4°C		7
Total Organic Carbon (TOC)	W/WW	415.1	250 mL/G	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> , pH < 2		28
	S/SW	9060	4 oz/G			
Total Phosphorus	W/WW	SM4500	125 mL/P	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> , pH < 2		28
Total Recoverable Petroleum Hydrocarbons (TRPH)	W/WW	418.1	1L/AG	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> , pH < 2		28
Total Solids Moisture	W/WW	160.3	500 mL/P	Cool, 4°C		7
	S/SW		4 oz/G			
Total Suspended Solids	W/WW	160.2	500 mL/P	Cool, 4°C		7
Total Volatile Solids	W/WW	160.4	250 mL/P	Cool, 4°C		7
Turbidity	W/WW	180.1	250 mL/P	Cool, 4°C		2
<b>ORGANICS</b>						
BTEX and VOCs in Water	W/WW	8260B	4 x 40 mL/G	Cool, 4°C, HCl, pH < 2		14
BTEX and VOCs in Soil	S/SW	8260B	Soils Kit	Cool, 4°C, Methanol		14
Herbicides	W/WW	8151A	1 L/AG	Cool, 4°C	7	40
	S/SW		6 oz/AG		14	40

Analysis	Matrix	Method	Sample Size/		Holding Time (Days)	
			Container	Preservative*	Extraction	Analysis
Organochlorine Pesticides	W/WW	8081	1 L/AG	Cool, 4°C, pH 5-9	7	40
	S/SW		6 oz/AG		14	40
Organophosphorus Pesticides	W/WW	8141A	1 L/AG	Cool, 4°C, pH 5-9	7	40
	S/SW		6 oz/AG		14	40
PCBs	W/WW	8082	1 L/AG	Cool, 4°C	7	40
			6 oz/AG		14	40
Polynuclear Aromatics (PNAs)	W/WW	8270	1 L/AG	Cool, 4°C	7	40
	S/SW		6 oz/AG		14	40
Semivolatile Organics	W/WW	8270	1 L/AG	Cool, 4°C	7	40
	S/SW		6 oz/AG		14	40
TCLP Semivolatiles, Pesticides, and Herbicides	W/WW	1311	6 oz/G	Cool, 4°C	7	40
	S/SW				14 (leach) 7 (extract)	40
TCLP Volatiles	W/WW	1311	6 oz/G	Cool, 4°C		14
	S/SW				14 (leach) 7 (extract)	14

\*Chemical Preservative on W/WW matrix only.

Abbreviations used in the previous table follow:

<u>Matrix</u>		<u>Container</u>		<u>Preservatives</u>	
W	Water	P	Plastic (HDPE)	HCl	Hydrochloric Acid
WW	Wastewater	AG	Amber Glass	HNO <sub>3</sub>	Nitric Acid
S	Soil/Sediment	G	Glass	NaOH	Sodium Hydroxide
SW	Solid Waste			H <sub>2</sub> SO <sub>4</sub>	Sulfuric Acid

**NOTES:**

1. Sample preservation should be performed during sample collection.
2. Soil samples can be collected in either glass jars (for organics) or plastic jars (for metals and inorganics).
3. Extraction holding times are from the date of sampling, and analysis holding times are from the date of extraction.
4. If analyzing for dissolved metals, the sample shall be field-filtered through a 0.45-µm filter immediately (within 15 minutes) after sample collection and prior to preservation.
5. Provide twice the number of containers listed when matrix spike, matrix duplicate, and matrix spike duplicate analyses are requested for the sample. Minimum frequency is one per 20 field samples.
6. This table includes the requirements of the U.S. Environmental Protection Agency, as published in the Code of Federal Regulations, Volume 49, Number 209, 40 CFR 136 dated October 26, 1984, page 43260.