

Bottle Chart, Rev 04

Issued 2-22-2018

Analysis	Matrix ¹	NP Method	Bottle Type ²	Preservation	Min Vol (mL) ³	Holding Time
General						
Acidity	DW/NP/HW	SM 2310 B	Polyethylene Qt	Cool to < 6°C	300	14 days
Alkalinity (as CaCO ₃)	DW/NP	SM 2320 B	Polyethylene Qt	Cool to < 6°C	300	14 days
	NP/HW	EPA 310.1				
Ammonia (as N)	DW/NP/HW	EPA 350.1 2	Polyethylene 250 mL	H ₂ SO ₄ to pH <2, Cool to < 6°C	100	28 days
	HW/S		Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
Biochemical Oxygen Demand (BOD ₅)	NP/HW	SM 5210 B	Polyethylene 1/2 gal	Cool to < 6°C	500	48 hours
BOD Carbonaceous	NP/HW	SM 5210 B	Polyethylene 1/2 gal	Cool to < 6°C	500	48 hours
Bromate/Chlorate	DW	EPA 300.1	Polyethylene, 250 mL Amber	12.5 mg EDA, Cool to < 6°C	25	28 days
Chemical Oxygen Demand	NP/HW	SM 5220 D	Polyethylene 250 mL	H ₂ SO ₄ to pH <2	100	28 days
Cl ₂ Residual, Total (Onsite)	NP/HW	SM 4500-Cl F/SM 4500-Cl G	Polyethylene or Glass	None Required	100	Analyze Immediately (w/in 15 minutes)
Chlorite	DW	EPA 300.1	Polyethylene, 250 mL Amber	12.5 mg EDA, Cool to < 6°C	25	14 days
Color	DW/NP/HW	SM 2120 B	Glass Qt, Amber	Cool to < 6°C	1000	48 hours
Cyanide	DW/NP	SM 4500-CN ⁻ E-	Polyethylene 250 mL/ amber	NaOH to pH >12, Cool to < 6°C	100	14 days
	NP/HW	EPA 9014				
Cyanide, Amenable	DW/NP	SM 4500-CN ⁻ G	Polyethylene 250 mL/ amber	NaOH to pH >12, Cool to < 6°C	500 (14 days
	NP/HW	EPA 9014				
Dissolved Oxygen (Onsite)	NP	SM 4500-O G	Glass	None Required	100	Analyze Immediately (w/in 15 minutes)
	NP/HW	SM 4500-O G /EPA 360.1				
DOC	DW/NP	SM 5310 C	Glass Qt, Amber	Cool to < 6°C	1000	48 hours
Hexavalent Chromium	NP	SM 3500-Cr B	Polyethylene Qt	Cool to < 6°C	100	24 hours
	NP/HW	EPA 7196A				
IC Parameters (Bromide, Chloride, Fluoride, Sulfate)	DW/NP	EPA 300.0 2.1	Polyethylene Qt	Cool to < 6°C	25	28 days
	NP/HW	EPA 9056	Glass 4 oz w/Teflon lined lid			
	HW/S	EPA 9056				
IC Parameters (Nitrate-N, Nitrite-N, Nitrate-Nitrite N, Ortho-P)	DW/NP	EPA 300.0 2.1	Polyethylene Qt	Cool to < 6°C	25	2 days
	NP/HW	EPA 9056	Glass 4 oz w/Teflon lined lid			
	HW/S	EPA 9056				
IC Parameters (Nitrate-Nitrite N)	DW/NP	EPA 300.0 2.1	Polyethylene 250 mL	H ₂ SO ₄ to pH <2, Cool to < 6°C	25	28 days
	NP/HW	EPA 9056	Polyethylene 250 mL	H ₂ SO ₄ to pH <2, Cool to < 6°C	25	
Metals (Except Cr+6 and Hg)	DW/NP	EPA 200.8 / EPA 200.7	Polyethylene 500 mL	HNO ₃ to pH <2, Cool to < 6°C	100	180 days
	NP/HW	EPA 6010C / EPA 6020A				
	HW/S	EPA 6010C / EPA 6020A	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
MBAS (Surfactant/Foaming Agents)	DW/NP	SM 5540 C	Polyethylene 1/2 gal	Cool to < 6°C	500	48 hours
Mercury, Total	DW/NP	EPA 245.1 3	Polyethylene 500 mL	HNO ₃ to pH <2, Cool to < 6°C	100	28 days
	NP/HW	EPA 7470A				
	HW/S	EPA 7471A	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
Mercury, Total (low level)	DW/NP/HW	EPA 245.7 2	Glass /clean metals	5mL/L 12 N HCl, Cool to < 6°C	500	28 days
Nitrogen, Total Organic (as N)	NP/HW	Calculation	Polyethylene 250 mL	H ₂ SO ₄ to pH <2, Cool to < 6°C	250	28 days
	HW/S	Calculation	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		28 days
Odor	DW	SM 2150 B	Glass Qt, Amber	Cool to < 6°C	1000	48 hours
Oil and Grease (HEM)	NP	EPA 1664B	Glass Qt w/Teflon lined lid ⁴	H ₂ SO ₄ to pH <2, Cool to < 6°C	1000	28 days
	NP/HW	EPA 9070A				
	HW/S	EPA 9071B	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
ortho-Phosphate as Phosphorus	NP/HW	EPA 365.3	Polyethylene 250 mL	Cool to < 6°C	300	48 hours
Perchlorate	DW/NP/HW	EPA 314.0	Polyethylene 250 mL	Cool to < 6°C	25	28 days
	DW/NP	EPA 331.0	Polyethylene 250 mL	Cool to < 6°C	25	28 days
	HW/S	EPA 6850	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		28 days
pH (Onsite)	DW/NP	SM 4500-H+ B	Polyethylene or Glass	None Required	100	Analyze Immediately (w/in 15 minutes)
	NP/HW	EPA 9040C				
pH - solid	HW/S	EPA 9045D	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		180 days
Phenolics, Total Recoverable	NP	EPA 420.4 1	Glass 250 mL, Amber	H ₂ SO ₄ to pH <2, Cool to < 6°C	100	28 days
	NP/HW	EPA 9065				
	HW/S	EPA 9065	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		

Bottle Chart, Rev 04

Issued 2-22-2018

Analysis	Matrix ¹	NP Method	Bottle Type ²	Preservation	Min Vol (mL) ³	Holding Time
Phosphorus (as P), total	NP	SM 4500-P E	Polyethylene 250 mL	H2SO4 to pH <2, Cool to < 6°C	50	28 days
	NP/HW	EPA 365.3				
Residue, Total	DW/NP/HW	SM 2540 B	Polyethylene Qt	Cool to < 6°C	100	7 days
Settleable Solids	NP/HW	SM 2540 F	Polyethylene Qt	Cool to < 6°C	100	7 days
SGT - HEM (TPH)	NP	EPA 1664B (SGT-HEM)	Glass Qt w/Teflon lined lid ⁴	H2SO4 to pH <2, Cool to < 6°C	1000	28 days
	NP/HW	EPA 9070A				
	HW/S	EPA 9071B	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
Silica	NP	EPA 200.7 4.4 - Calc	Polyethylene 500 mL	HNO3 to pH <2, Cool to < 6°C	100	180 days
	NP/HW	EPA 6010C - Calc				
Specific Conductance	DW/NP	SM 2510 B	Polyethylene Qt	Cool to < 6°C	200	28 days
	NP/HW	EPA 9050A				
	HW/S	EPA 9050A	Glass 4 oz w/Teflon lined lid	Cool to < 6°C	28 day	
Sulfate	NP	EPA 300.0 2.1	Polyethylene Qt	Cool to < 6°C	25	28 days
	NP/HW	EPA 9056				
Sulfide	NP	SM 4500-S ²⁻ D	Polyethylene 250 mL	NaOH to pH >9 and Zinc Acetate, Cool to < 6°C	500	7 days
	NP/HW	EPA 376.2		Cool to < 6°C		
	HW/S	EPA 9031	Glass 4 oz w/Teflon lined lid	Cool to < 6°C	14 days	
SUVA/U254 (includes DOC, see above)	DW/NP	SM 5910 B	Glass Qt, Amber	Cool to < 6°C	1000	48 hours
Sulfite (Onsite)	NP/HW	SM 4500-SO ₃ ²⁻ B/ EPA 377.1	Polyethylene or Glass	None Required	100	Analyze Immediately (w/in 15 minutes)
Total Dissolved Solids	DW/NP	SM 2540 C	Polyethylene Qt	Cool to < 6°C	100	7 days
	NP/HW	EPA 160.1				
Total Hardness (as CaCO3)	DW/NP/HW	SM 2340 B	Polyethylene 500 mL	HNO3 to pH <2, Cool to < 6°C		180 days
		SM 2340 C				
Total Kjeldahl Nitrogen	NP/HW	EPA 351.2 2	Polyethylene 250 mL	H2SO4 to pH <2, Cool to < 6°C	100	28 days
	HW/S		Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
Total Organic Carbon	DW/NP	SM 5310 C	Glass 250 mL, Amber	H2SO4 to pH <2, Cool to < 6°C	100	28 days
	NP/HW	EPA 9060				
	HW/S	Walkley Black	Glass 4 oz w/Teflon lined lid	Cool to < 6°C	28 days	
Total Solids	HW/S	SM2540 G/MOD	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		7 days
Total Suspended Solids	DW/NP/HW	SM 2540 D	Polyethylene 1/2 gal	Cool to < 6°C	1000	7 days
Turbidity	DW/NP/HW	SM 2130 B	Polyethylene Qt	Cool to < 6°C	50	48 hours
Volatile Suspended Solids	NP/HW	EPA 160.4	Polyethylene 1/2 gal	Cool to < 6°C	1000	7 days
Microbiology						
E. coli/Total Coliform (Presence/Absence)	DW	SM 9223 B (Colilert-18)	100 mL Polystyrene (Sterilized)	Na2S2O3 (0.008%) , Cool to < 10°C	100	30 hours
E. coli/Total Coliform (Quantitative - MPN)	NP/HW	SM 9223 B (Colilert-18 QT)	100 mL Polystyrene (Sterilized)	Na2S2O3 (0.008%) , Cool to < 10°C	100	8 hours
Fecal Coliform (MPN)	NP/HW	SM 9221 E + C	100 mL Polystyrene (Sterilized)	Na2S2O3 (0.008%) , Cool to < 10°C	100	8 hours
	S	SM 9221 E + C	Glass 4 oz w/Teflon lined lid	Cool to < 10°C	100	24 hours
Heterotrophic Plate Count (MPN)	DW/NP	IDEXX Sim Plate	100 mL Polystyrene (Sterilized)	Na2S2O3 (0.008%) , Cool to < 10°C	100	24 hours
Organics (ALWAYS GLASS)						
Acrolein/Acrylonitrile Exp.	NP	EPA 624	Glass Vial 40 mL (ZHE) ⁵	Cool to < 6°C	40	3 days
	NP/HW	EPA 8260B	Glass Vial 40 mL (ZHE) ⁵	HCl to pH <2, Cool to < 6°C	40	14 days
BTEX by GC	NP	EPA 602	Glass Vial 40 mL (ZHE) ⁵	Na2S2O3 (0.008%), Cool to < 6°C	40	7 days
	NP/HW	EPA 8021 B	Glass Vial 40 mL (ZHE) ⁵	HCl to pH <2, Cool to < 6°C	40	14 days
	HW/S	EPA 8021B	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
BTEX by GC/MS	NP	EPA 624	Glass Vial 40 mL (ZHE) ⁵	Na2S2O3 (0.008%), Cool to < 6°C	40	7 days
	NP/HW	EPA 8260B	Glass Vial 40 mL (ZHE) ⁵	HCl to pH <2, Cool to < 6°C	40	14 days
	HW/S	EPA 8260B	Glass 4 oz w/Teflon lined lid ⁸	Cool to < 6°C		14 days
Butyltin Expansion	NP/HW	TX 1001	Amber Glass Qt ⁴ w/Teflon lined lid	Cool to < 6°C	1000	14 days to extract, 40 days to analyze
Carbaryl/Diuron	NP	EPA 632	Amber Glass Qt ⁴ w/Teflon lined lid	Cool to < 6°C	1000	7 days to extract, 40 days to analyze
	NP/HW	EPA 8321B				
	HW/S	EPA 8321B	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
Dicofol/Methoxychlor/Mirex	NP	EPA 617	Amber Glass Qt ⁴ w/Teflon lined lid	Cool to < 6°C	1000	7 days to extract, 40 days to analyze
	NP/HW	EPA 8081A				
EDB & DBCP	DW	EPA 504.1	Glass Vial 40 mL (ZHE) ⁵	Cool to < 6°C	40	14 days
Haloacetic Acid (HAA5)	DW	EPA 552.2	Amber glass, 250 mL	0.025 mg NH4Cl, Cool <4°C	250	14 days

Bottle Chart, Rev 04

Issued 2-22-2018

Analysis	Matrix ¹	NP Method	Bottle Type ²	Preservation	Min Vol (mL) ³	Holding Time
Herbicides by GC	DW	EPA 515.1	Amber Glass Qt ⁴ W/Teflon lined lid	50 mg Na2S2O3, Cool to < 6°C	1000	14 days
	NP	EPA 615		Cool to < 6°C		7 days to extract, 40 days to analyze
	NP/HW	EPA 8151A	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
	HW/S	EPA 8151A				
Hexachlorophene Expansion	NP	EPA 604.1	Amber Glass Qt ⁴ W/Teflon lined lid	Cool to < 6°C	1000	7 days to extract, 40 days to analyze
	NP/HW	EPA 8321B				
Naptha Cut (204C)	NP/HW	ASTM D 4929	Glass Qt	Cool to < 6°C	1000	180 days
Nonylphenol	NP/HW	ASTM D7065-11	Glass Qt ⁴	H2SO4 to pH <2, Cool to < 6°C	1000	28 days to extract, 40 days to analyze
Organic Chloride in Oil	NP/HW	ASTM D4929	Glass Qt	Cool to < 6°C	1000	
	HW/S		Glass 4 oz w/Teflon lined lid			
Organic Halogens Aqueous	NP/HW	EPA 9020B	Amber Glass	H2SO4 to pH <2, Cool to < 6°C	1000	28 days
Organophosphorous Pesticides	NP	EPA 614 /622	Amber Glass Qt ⁴ W/Teflon lined lid	Cool to < 6°C	1000	7 days to extract, 40 days to analyze
	NP/HW	EPA 8141A				
	HW/S	EPA 8141A	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
Oxamyl/Carbofuran	DW	EPA 531.1	Glass Vial 60 mL (ZHE) ⁵	Monochloroacetic acid Buffer, Cool to < 6°C	60	14 days
PCB in Oil Expansion	NP/HW	EPA 8082	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		30 days
Pesticides - Chlordane/Toxaphene	DW	EPA 508	Amber Glass Qt ⁴ W/Teflon lined lid	Cool to < 6°C	1000	7 days
Pesticides by GC	NP	EPA 608	Amber Glass Qt ⁴ W/Teflon lined lid	Cool to < 6°C	1000	7 days to extract, 40 days to analyze
	NP/HW	EPA 8081A				
	HW/S	EPA 8081A	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
Polychlorinated Biphenyls	NP	EPA 608	Amber Glass Qt ³ W/Teflon lined lid	Cool to < 6°C	1000	7 days to extract, 40 days to analyze
	NP/HW	EPA 8082				
	HW/S	EPA 8082	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
Semivolatiles Hydrocarbons/ Pesticides	DW	EPA 525.2	Amber Glass Qt ⁴ W/Teflon lined lid	50 mg Na2S2O3, Cool to < 6°C	1000	14 days
Semivolatiles Hydrocarbons	NP	EPA 625	Amber Glass Qt ⁴ W/Teflon lined lid	Na2S2O3 (0.008%), Cool to < 6°C	1000	7 days to extract, 40 days to analyze
	NP/HW	EPA 8270C		Cool to < 6°C		
	HW/S	EPA 8270C	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		
THM (when not part of VOC)	DW	EPA 524.2	Glass Vial 40 mL (ZHE) ⁵	Na2S2O3 (0.008%), Cool to < 6°C	40	14 days
TPH Expansion - C36	NP/HW	TX Method 1005	125mL Glass vial (ZHE) ⁵	HCl to pH <2, Cool to < 6°C	125	7 days to extract, 40 days to analyze
	HW/S	EPA 8015B Mod	Glass 4 oz w/Teflon lined lid ⁸	Cool to < 6°C		14 days
TPH Expansion - 1006	NP/HW	TX Method 1006	125mL Glass vial (ZHE) ⁵	HCl to pH <2, Cool to < 6°C	125	7 days to extract, 40 days to analyze
	HW/S	EPA 8015B Mod	Glass 4 oz w/Teflon lined lid ⁸	Cool to < 6°C		14 days
TPH DRO Expansion	NP/HW	EPA 8015B *MOD	125mL Glass vial (ZHE) ⁵	HCl to pH <2, Cool to < 6°C	125	7 days to extract, 40 days to analyze
TPH GRO/Gas Expansion	NP/HW	EPA 8015B Mod	125mL Glass vial (ZHE) ⁵	HCl to pH <2, Cool to < 6°C	125	7 days to extract, 40 days to analyze
	HW/S	EPA 8015B Mod	Glass 4 oz w/Teflon lined lid ⁸	Cool to < 6°C		14 days
Volatiles by GC/MS	DW	EPA 524.2	Glass Vial 40 mL (ZHE) ⁵	HCl to pH <2, Cool to < 6°C, Cool to < 6°C (If Cl2 is suspected to be present, dechlorinate with Na2S2O3 prior to acidification)	40	14 days
	NP	EPA 624	Glass Vial 40 mL (ZHE) ⁵	Na2S2O3 (0.008%), Cool to < 6°C	40	7 days
	NP/HW	EPA 8260B	Glass Vial 40 mL (ZHE) ⁵	HCl to pH <2, Cool to < 6°C	40	14 days
	S/HW	EPA 8260B	Glass 4 oz w/Teflon lined lid ⁸	Cool to < 6°C		14 days
Hazardous Waste Determination						
TCLP	NP/HW	EPA 1311	Glass Qt	Cool to < 6°C	7 qts	14 days
TCLP (solid)	HW/S	EPA 1311	Glass Qt	Cool to < 6°C	1 qt ⁷	14 days
Reactivity Cyanide (total)	HW/S	EPA 9014 MOD	Glass 8 oz w/Teflon lined lid	Cool to < 6°C		14 days
Reactivity with Water	HW/S	Ana-Lab Method	Glass 8 oz w/Teflon lined lid	Cool to < 6°C		180 days
Sulfide Screen		ASTM D 4978-95/ EPA 9031	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		1 day
Corrosion to Steel	NP/HW	EPA 1110A	Glass Qt w/Teflon lined lid	Cool to < 6°C		
Corrosivity (Solids by pH)	HW/S	EPA 9045D	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		180 days
Flashpoint	HW/S	EPA 1010A	Glass Qt w/Teflon lined lid	Cool to < 6°C	100	14 Days
Ignitability	HW/S	EPA 1030	Glass 4 oz w/Teflon lined lid	Cool to < 6°C		28 days

Bottle Chart, Rev 04

Issued 2-22-2018

Analysis	Matrix ¹	NP Method	Bottle Type ²	Preservation	Min Vol (mL) ³	Holding Time
Commonly Subcontracted Testing (most common method listed)						
Asbestos	DW	EPA 100.2	Amber Glass Qt ⁴ W/Teflon lined lid	Cool to < 6°C	800	48 hours
Organics						
Adicarb Suite (full list)	DW	EPA 531.2	Glass Vial 60 mL (ZHE) ⁵	Potassium Dihydrogen citrate ⁶ , Cool to <6°C	60	14 days
Diquat/Paraquat	DW	EPA 549.1	500 mL HD Amber PVC	100 mg Na ₂ S ₂ O ₃ , Cool to <6°C	500	7 days
Dioxins/Furans	DW	EPA 1613	Amber Glass Qt ⁴ W/Teflon lined lid	Cool to < 6°C	1000	
Endothall	DW	EPA 548.1	Glass Vial 40 mL (ZHE) ⁵	Na ₂ S ₂ O ₃ (0.008%), Cool to < 6°C	40	14 days
PCBs	DW	EPA 505	Glass Vial 40 mL (ZHE) ⁵	100 mg Na ₂ S ₂ O ₃ , Cool to <6°C	40	14 days
PCBs/Pesticides	DW	EPA 508	Amber Glass Qt ⁴ W/Teflon lined lid	80 mg Na ₂ S ₂ O ₃ , Cool to < 6°C	1000	7 days
Radiologicals						
Gross Alpha	DW/NP	SM 7110 B / EPA 900	Polyethylene 500 mL (2)	HNO ₃ to pH <2, Cool to < 6°C	1000	180 days
Gross Beta	DW/NP	SM 7110 B / EPA 900	Polyethylene 500 mL (2)	HNO ₃ to pH <2, Cool to < 6°C	1000	180 days
Radium 226	DW/NP	SM 7500-Ra B	Polyethylene 500 mL (2)	HNO ₃ to pH <2, Cool to < 6°C	1000	180 days
Radium 228	DW/NP	SM 7500-Ra D / EPA 904	Polyethylene 500 mL (2)	HNO ₃ to pH <2, Cool to < 6°C	1000	180 days
Radon	DW/NP	SM 7500-Rn B	Glass Vial 40 mL (ZHE) ⁵ (2)	Cool to < 6°C	80	3 days
Footnotes:						
¹ DW= Drinking Water, NP = Non Potable (includes Wastewater, surface water, etc), HW = Hazardous Waste ² Table lists typical bottle provided by Ana-Lab. ³ The minimum volume does not allow for re-runs or QC specific (Duplicate, MS, MSD) analysis. ⁴ Three glass quarts (amber for organics) are required for MS/MSD analysis. ⁵ Three vials are required for MS/MSD analysis. ⁶ Bottle obtained from subcontractor ⁷ 100 g required for TCLP metals only, Complete TCLP may require up to 1500 g ⁸ Soil Samples require a 5035 Kit in most cases.						

Preservatives:

EDA	Ethylenediamine
EDTA	N,N'-1,2-Ethane dilybis-(N-(carboxymethyl)glycine)
HCL	Hydrochloric Acid
HNO3	Nitric Acid
H2SO4	Sulfuric Acid
Na2S2O3	Sodium Thiosulfate
Na2SO3	Sodium Sulfite
NaHSO4	Sodium Bisulfate
NaOH	Sodium Hydroxide
ZnAc	Zinc Acetate