

METALS

SAMPLE CONTAINERS & HOLDING TIMES



Parameter	Matrix	Prep Method	Analytical Method	Holding Time ²	Minimum Volume	Water Sampling	
						Container	Preservative ³
Cations	Water	EPA 3010A	EPA 6010B	6 mo	100 mL	250mL P	HNO ₃
		EPA 200.7	EPA 200.7	6 mo	100 mL	250mL P	HNO ₃
		EPA 200.8	EPA 6020	6 mo	100 mL	250mL P	HNO ₃
		EPA 200.8	EPA 200.8	6 mo	100 mL	250mL P	HNO ₃
ICP Metals	Soil	EPA 3050B	EPA 6010B	6 mo	2 g		
		EPA 3050B	EPA 6020	6 mo	2 g		
ICP Metals	Water	EPA 3010A	EPA 6010B	6 mo	100 mL	250mL P	HNO ₃
		EPA 200.7	EPA 200.7	6 mo	100 mL	250mL P	HNO ₃
ICP-MS Metals	Soil	EPA 3050B	EPA 6010B	6 mo	2 g		
		EPA 3050B	EPA 6020	6 mo	2 g		
ICP-MS Metals	Water	EPA 200.8	EPA 6020	6 mo	100 mL	250mL P	HNO ₃
		EPA 200.8	EPA 200.8	6 mo	100 mL	250mL P	HNO ₃
Hexavalent Chromium	Soil	EPA 3050B	EPA 6020	6 mo	2 g		
		EPA 3050B	EPA 6020	6 mo	2 g		
Hexavalent Chromium	Water	METHOD ¹	EPA 7196A	24 hr	100 mL	500 mL P	None
		METHOD ¹	EPA 7199	24 hr	50 mL	250 mL P	None
Lead	Soil	METHOD ¹	EPA 7196A	30 days	40 g		
		METHOD ¹	EPA 7199	24 hr	50 mL	250 mL P	None
Lead	Water	EPA 3010A	EPA 6010B	6 mo	100 mL	250mL P	HNO ₃
		EPA 200.7	EPA 200.7	6 mo	100 mL	250mL P	HNO ₃
		EPA 200.8	EPA 6020	6 mo	100 mL	250mL P	HNO ₃
		EPA 200.8	EPA 200.8	6 mo	100 mL	250mL P	HNO ₃
Lead in High Volume Air Filters	Soil	EPA 3050B	EPA 6010B	6 mo	2 g		
		EPA 3050B	EPA 6020	6 mo	2 g		
Mercury	Air	METHOD ¹	EPA 7420	NS	Varies		
Mercury	Water	METHOD ¹	EPA 7470A	28 days	100 mL	250mL P	HNO ₃
		METHOD ¹	EPA 245.1	28 days	100 mL	250mL P	HNO ₃
Organic Lead	Soil	METHOD ¹	EPA 7471A	28 days	0.5 g		
		METHOD ¹	EPA 7471A	28 days	0.5 g		
Organic Lead	Water	CA LUFT ¹	CA LUFT ¹	14 days	100 mL	500mL P	None
		CA LUFT ¹	CA LUFT ¹	14 days	50 g		
Priority Pollutant Metals	Water	EPA 3010A/ Method ¹	EPA 6010B/7470	6 mo/28d ⁴	100 mL	500mL P	HNO ₃
		EPA 200.8/ Method ¹	EPA 6020/7470	6 mo/28d ⁴	100 mL	500mL P	HNO ₃
	Soil	EPA 3050B/ Method ¹	EPA 6010B/7471	6 mo/28d ⁴	5 g		
		EPA 3050B/ Method ¹	EPA 6020/7471	6 mo/28d ⁴	5 g		
RCRA (8) Metals	Water	EPA 3010A/ Method ¹	6010B/ 6020/ 7470	6 mo/28d ⁴	100 mL	500mL P	HNO ₃
		EPA 3050B/ Method ¹	6010B/ 6020/ 7471	6 mo/28d ⁴	5 g		
STLC Extraction for CA-W.E.T.	Soil	CA T26:22-66261	EPA 6010/6020/7470	6 mo/28d ⁴	50 g		
SPLP Extraction for Metals	Soil	EPA 1312	EPA 6010/6020/7470	6 mo/28d ⁴	100 g ⁵		
TCLP Extraction for Metals	Soil	EPA 1311	EPA 6010/6020/7470	6 mo/28d ⁴	100 g ⁵		
TCLP Extraction for Semivolatiles	Soil	EPA 1311	Various	14 days	100 g ⁵		
TCLP-ZHE Extraction for Volatiles	Soil	EPA 1311	Various	14 days	25 g		
CA Title 26 Metals (CAM 17)	Water	EPA 3010A/ Method ¹	EPA 6010B/ 7400	6 mo/28d ⁴	100 mL	500mL P	HNO ₃
		EPA 200.8/ Method ¹	EPA 6020/7400	6 mo/28d ⁴	100 mL	500mL P	HNO ₃
Tributyl Tin ("Organo-tin")	Soil	EPA 3050B/ Method ¹	EPA 6010B/ 7400	6 mo/28d ⁴	5 g		
		EPA 3050B/ Method ¹	EPA 6020/7400	6 mo/28d ⁴	5 g		
Tributyl Tin ("Organo-tin")	Water	EPA 3520C	GC/FPD	NS	1 L		
		EPA 3550B	GC/FPD	NS	10 g	1L P or G	None

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NOTES:

- 1.) "Method" indicates that the prep method is an integral part of the analytical method.
CA LUFT: California Department of Health Services Leaking Underground Fuel Tank Manual, October 1989
- 2.) Holding times specified in 40CFR 136.3 Table 2 (Clean Water Act/ NPDES) and SW-846 Table 2-36 Revision 3, Dec 1996.
- 3.) Samples should be kept at 4°C from time of collection until analysis. Preserved containers can be supplied by C&T.
HCL: hydrochloric acid to pH < 2, H₂SO₄: sulfuric acid to pH < 2, NaOH: sodium hydroxide to pH > 12,
HNO₃: nitric acid to pH < 2
- 4.) 28 day holding time for mercury; 6 month holding time for all other elements.
- 5.) 100g minimum for TCLP Extraction. 50g required for each analysis.

LEGEND:

- G: amber glass
P: Polyethylene