

| Parameter | Matrix | Prep Method | Analytical Method | Holding Time ⁵ | Minimum Volume | Water Sampling | |
|--|---------------|-----------------------|-------------------|---------------------------|----------------|----------------|---------------------------|
| | | | | | | Container | Preservative ⁷ |
| TPH/Gasoline ² | Water | EPA 5030 | EPA 8015 | 14 days | 40 mL | 3 x 40mL VOA | HCL ⁸ |
| | | EPA 5030 | 8260mod | 14 days | 40 mL | 3 x 40mL VOA | HCL ⁸ |
| | Soil | EPA 5035 ⁸ | EPA 8015 | 14 days | 5 g | | |
| | | EPA 5035 ⁸ | EPA 8015 | 7 days | 5 g | | Frozen |
| Alcohols (Methanol, Ethanol) | Water | Direct Inject | EPA 8015 | 14 days | 40 mL | 2 x 40mL VOA | None |
| BTXE ¹ | Water | EPA 5030 | EPA 8021 | 14 days | 40 mL | 3 x 40mL VOA | HCL ⁸ |
| | Soil | EPA 5035 ⁸ | EPA 8021 | 14 days | 5 g | | |
| Carbon Dioxide (dissolved) | Water | METHOD ⁴ | RSK-175 | 14 days | 40 mL | 3 x 20mL vial | None |
| Dissolved Gasses (except CO ₂) | Water | METHOD ⁴ | RSK-175 | 14 days | 40 mL | 3 x 40mL VOA | HCL |
| Dissolved Gasses (CO ₂) | Water | METHOD ⁴ | RSK-175 | 14 days | 40 mL | 3 x 40mL VOA | None |
| Gasoline Oxygenates | Water | EPA 5030 | EPA 8260 | 14 days | 40 mL | 3 x 40mL VOA | HCL ⁸ |
| | Soil | EPA 5035 ⁸ | EPA 8260 | 14 days | 5 g | | |
| Halogenated VOCs (old 8010 list) | Water | EPA 5030 | EPA 8260 | 14 days | 40 mL | 3 x 40mL VOA | HCL ⁸ |
| | Soil | EPA 5035 ⁸ | EPA 8260 | 14 days | 5 g | | |
| MTBE (Methyl tert-Butyl Ether) | Water | EPA 5030 | EPA 8021 | 14 days | 40 mL | 3 x 40mL VOA | HCL ⁸ |
| | | EPA 5030 | EPA 8260 | 14 days | 40 mL | 3 x 40mL VOA | HCL ⁸ |
| | Soil | EPA 5035 ⁹ | EPA 8021 | 14 days | 5 g | | |
| | | EPA 5035 ⁹ | EPA 8260 | 14 days | 5 g | | |
| TCLP-ZHE Extraction for Volatiles | Soil | EPA 1311 | Various | 14 days | 25 g | | |
| Volatile Organics | Water | EPA 5030 | EPA 8260 | 14 days | 40 mL | 3 x 40mL VOA | HCL ⁸ |
| | | EPA 624 | EPA 624 | 14 days | 40 mL | 3 x 40mL VOA | HCL ⁸ |
| | TCLP Leachate | EPA 5030 | EPA 8260 | 14 days | 40 mL | | None |
| | Soil | EPA 5035 ⁸ | EPA 8260 | 14 days | 5 g | | |
| | | EPA 5035 ⁸ | EPA 8260 | 7 days | 5 g | | Frozen |

Notes:

1. Benzene, Toluene, Ethylbenzene, and Xylenes; MTBE (Methyl tert-Butyl Ether) may be added upon request.
2. Total Petroleum Hydrocarbons as Gasoline: JP-4, Aviation Gas, Mineral spirits, or Stoddard solvent may be added upon request. Reporting limits may be higher for fuels other than gasoline.

Legend:

- mg/L milligrams per liter (ppm)
 µg/L micrograms per liter (ppb)
 mg/Kg milligrams per kilogram (ppm)

3. Total Petroleum Hydrocarbons as Diesel; motor oil, commercial jet fuel, JP-5, hydraulic oil, or Bunker C fuel oil
May be added upon request. Reporting limits may be higher for fuels other than diesel.
4. CA LUFT: California Department of Health Services Leaking Underground Fuel Tank Manual 1989
5. Holding time specified in 40CFR136 Table 2 (Clean Water Act/ NPDES 2012) and SW-846 Table 2-36 (1996)
6. X / Y: X days from sample collection to extraction, then Y days from extraction to analysis.
7. Samples should be kept at $\leq 6^{\circ}\text{C}$ from time of collection until analysis. Containers can be supplied by C&T.
HCL: Hydrochloric Acid to $\text{pH} < 2$
ZnAc: Zinc Acetate
8. Free chlorine should be neutralized with 0.008% $\text{Na}_2\text{S}_2\text{O}_3$ at time of sampling.
9. Prep method EPA 5035 using Encore or similar sampling devices should be used for collecting soil.
Three aliquots of each sample should be submitted for analysis. Samples should be frozen or chemically preserved within 48 hours of collection. Freezing extends the holding time to 7 days; chemical preservation extends the holding time to 14 days but may create matrix interferences.
10. 100g minimum for TCLP Extraction; 50g required for each analysis.
11. California LUFT Manual allows a 14 day holding time for extraction of TPH-Diesel/Motor Oil from water samples, however for projects located outside California (or associated with a Federal or Department of Defense project), the holding time is 7 days.

$\mu\text{g}/\text{Kg}$ micrograms per kilogram (ppb)

VOA 40mL Amber VOA Vial

G Amber Glass

P Polyethylene

Vial 20mL Amber RSK Vial