

Envirotech Lab Services 2016

Analytical Services - Organics

Analyte	Method
BTEX, MTBE, Naphthalenes	EPA Method 8021B/8260B
C Range Distribution (C6 to C40)	EPA Method 8015B-GRO/DRO/ORO
Chlorinated Hydrocarbons (8010 list)	EPA Method 624/8260B
Lead Scavengers (1,2-DCA, EDB)	EPA Method 624/8260B
Total Petroleum Hydrocarbons (as Oil & Grease)	EPA Method 413.2/418.1
Oxygenates (MTBE, TAME, DIPE, ETBE, TBA)	EPA Method 8260B
TPH-E DRO (Diesel Range Organics)	EPA Method 8015B-DRO
TPH-E ORO (Oil Range Organics)	EPA Method 8015B-ORO
TPH-P GRO (Gasoline Range Organics)	EPA Method 8015B-GRO
Volatile Organic Compounds (VOCs)	EPA Method 624/8260B

Common Organic Group Name	Method
TCLP-Organics	
TCLP (Volatiles) 11 regulated	EPA Method 1311 / 8260B
TCLP (Semivolatiles) 13 regulated	EPA Method 1311 / 8270C
TCLP (Pesticides)	EPA Method 1311 / 8081A
TCLP (Herbicides)	EPA Method 1311 / 8151A
Dissolved gasses (methane, ethane, ethene, propane)	RSK-175
Oxygenated additives (MTBE, TAME, DIPE, ETBE, TBA)	EPA Method 8260B

Analytical Services - Inorganics

Analyte	Method
Acidity, Total (As CaCO ₃ @ pH 8.3)	SM2310B
Alkalinity, Bicarbonate (as CaCO ₃)	SM2320B / Calculated
Alkalinity, Carbonate (as CaCO ₃)	SM2320B / Calculated
Alkalinity, Hydroxide (as CaCO ₃)	SM2320B / Calculated
Alkalinity, Total (as CaCO ₃ @ pH 4.5)	SM2320B
Anions (Fl, Cl, NO ₃ -N, Br, NO ₂ -N, PO ₄ -P, SO ₄)	EPA Method 300.0 / 9056A
Bromide (Br)	EPA Method 300.0 / 9056A
Chemical Oxygen Demand (COD)	EPA Method 410.4 / SM5220D
Chromium, Hexavalent (Cr ⁶⁺)	EPA 7196A / 3060 / SM3500Cr B
Conductivity	EPA Method 120.1/SM2510B/9050A
Corrosivity (pH determined)	EPA Method 9040C / 9045D
Cyanide, Total	SM4500CN C / SM4500CN E
Cyanide, Amenable	SM4500CN C / SM4500CN G
Cyanide, Weak Acid Dissociable (WAD)	SM4500CN C / SM4500CN I
Fluoride (Fl)	EPA Method 300.0 / 9056A
Hardness, Calcium (as CaCO ₃)	SM2340B / Calculated
Hardness, Magnesium (as CaCO ₃)	SM2340B / Calculated
Hardness, Total (as CaCO ₃)	SM2340B / Calculated
Ignitability (Flash point)	EPA Method 1010 / ASTM 93-10a
Iron, Ferrous (Fe ²⁺)	SM3500Fe B
Nitrate -N (NO ₃ -N)	EPA Method 300.0 / 9056A
Nitrite-N (NO ₂ -N)	EPA Method 300.0 / 9056A
Total Nitrate/Nitrite	EPA Method 300.0 / 9056A
Nitrogen, Ammonia	SM4500NH ₃ D
Nitrogen, Inorganic	(NO ₃ + NO ₂ + NH ₃) Calculation
Nitrogen, Organic	(TKN - NH ₃) Calculation

Nitrogen, Total Kjeldahl	SM4500Norg C / SM4500NH3 D
Nitrogen, Total as N	(TKN + NO ₂ + NO ₃) Calculation
Paint Filter Liquid Test	EPA Method 9095B
Percent Moisture	ASTM D2216
pH	Method 150.2/SM4500H B/9040C/9045D
Phosphate, ortho (PO ₄ -P)	EPA Method 300.0 / 9056A
Sodium Absorption Ration (SAR) (Ca, Mg, Na)	EPA Method 200.7 / 6010C Calculation
Resistivity	Calculation
Solids, Total (TS)	SM2540B
Solids, Total Dissolved (TDS)	SM2540C
Solids, Total Suspended (TSS)	SM2540D
Specific Conductance	EPA Method 120.1/SM2510B/9050A
Specific Gravity	SM2710F
Sulfate (SO ₄)	EPA Method 300.0 / 9056A
Sulfide	SM4500S D

Common Inorganic Group Name	Method
Anions (Cl, F, NO ₃ , NO ₂ , PO ₄ , SO ₄)	EPA Method 300.0 / 9056A
RCI (Reactivity, Corrosivity, Ignitability)	EPA Method 1010 / 9040C / 9045D
Nitrogen Group (Total-N, Inorganic-N, Organic-N, TKN, Ammonia)	Various

Analytical Services - Metals

Analyte	Method
Aluminum (Al) (Total, Dissolved)	EPA Method 200.7 / 6010C
Arsenic (As) (Total, Dissolved)	EPA Method 200.7 / 6010C
Barium (Ba) (Total, Dissolved)	EPA Method 200.7 / 6010C
Boron (B) (Total, Dissolved)	EPA Method 200.7 / 6010C
Cadmium (Cd) (Total, Dissolved)	EPA Method 200.7 / 6010C
Calcium (Ca) (Total, Dissolved)	EPA Method 200.7 / 6010C
Chromium (Cr) (Total, Dissolved)	EPA Method 200.7 / 6010C
Cobalt (Co) (Total, Dissolved)	EPA Method 200.7 / 6010C
Copper (Cu) (Total, Dissolved)	EPA Method 200.7 / 6010C
Iron (Fe) (Total, Dissolved)	EPA Method 200.7 / 6010C
Lead (Pb) (Total, Dissolved)	EPA Method 200.7 / 6010C
Magnesium (Mg) (Total, Dissolved)	EPA Method 200.7 / 6010C
Manganese (Mn) (Total, Dissolved)	EPA Method 200.7 / 6010C
Mercury (Hg) (Total, Dissolved)	EPA Method 200.7 / 6010C
Molybdenum (Mo) (Total, Dissolved)	EPA Method 200.7 / 6010C
Nickel (Ni) (Total, Dissolved)	EPA Method 200.7 / 6010C
Phosphorus (P) (Total, Dissolved)	EPA Method 200.7 / 6010C
Potassium (K) (Total, Dissolved)	EPA Method 200.7 / 6010C
Selenium (Se) (Total, Dissolved)	EPA Method 200.7 / 6010C
Silicon (Si) (Total, Dissolved)	EPA Method 200.7 / 6010C
Silver (Ag) (Total, Dissolved)	EPA Method 200.7 / 6010C
Sodium (Na) (Total, Dissolved)	EPA Method 200.7 / 6010C
Strontium (Sr) (Total, Dissolved)	EPA Method 200.7 / 6010C
Vanadium (V) (Total, Dissolved)	EPA Method 200.7 / 6010C
Zinc (Zn) (Total, Dissolved)	EPA Method 200.7 / 6010C

Mercury (Hg) (Total, Dissolved)	EPA Method 245.1 / 7470 A / 7471B
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Common Metals Group Name	Method
Cations (Ca, Fe, Mg, K, Na)	EPA Method 200.7 / 6010C
RCRA 8 Metals (As, Ba, Cd, Cr, Hg, Pb, Se, Ag)	EPA Method 6010C / 7470A / 7471B
TCLP 8 Metals (As, Ba, Cd, Cr, Hg, Pb, Se, Ag)	EPA 1311 / 6010C / 7470A
Iron Group (Total Fe, Fe(II), Fe(III))	Method 6010C / SM3500Fe B calculated
Chromium Group (Total Cr, Cr(VI), Cr(III))	Method 6010C / 7196A calculated

Analytical Services - Analytical Packages

Common Group Name (Cations / Anions)	Method
Cations - Dissolved (Ca, Fe, Mg, K, Na)	EPA Method 200.7 / 6010C in-house leaching
Anions (Cl, F, NO ₃ -N, NO ₂ -N, PO ₄ -P, SO ₄)	EPA Method 300.0 / 9056C in-house leaching
Alkalinity, Bicarbonate (as CaCO ₃) calculated	SM2320B
Alkalinity, Carbonate (as CaCO ₃) calculated	SM2320B
Alkalinity, Hydroxide (as CaCO ₃) calculated	SM2320B
Alkalinity, Total (as CaCO ₃ @ pH 4.5)	SM2320B
Specific Conductance	EPA Method 120.1/SM2510B/9050A
pH	Method 150.2/SM4500H B/9040C/9045D
Sodium Absorption Ration (SAR) (Ca, Mg, Na)	EPA Method 200.7 / 6010C / Calculated
Solids, Total Dissolved (TDS)	SM2540C

Common Group Name Colorado Oil and Gas Conservation Commission (COGCC 910-1 Table Metals only)	Method
Metals (Ag, As, Ba, Cd, Cr, Hg, Pb, Se, Cu, Ni, Zn)	EPA Method 200.7 / 6010C
Hot water soluble Boron (B) (Dissolved)	EPA Method 200.7 / 6010C in-house digestion
Sodium Absorption Ration (SAR) (Ca, Mg, Na)	EPA Method 200.7 / 6010C / Calculated

Common Group Name (COGCC 910-1 Table Water)	Method
Chloride (Cl)	EPA Method 300.0
Sulfate (SO ₄)	EPA Method 300.0
Solids, Total Dissolved (TDS)	SM2540C
BTEX	EPA Method 8021B/8260B

Common Group Name (COGCC Table 910-1 Table Soil)	Method
Specific Conductance	EPA Method 120.1/SM2510B/9050A
Metals - Total (Ag, As, Ba, Cd, Cr, Hg, Pb, Se, Cu, Ni, Zn)	EPA Method 6010C
Hot water soluble Boron (B) (Dissolved)	EPA Method 200.7 / 6010C / in-house digestion
Sodium Absorption Ration (SAR) - Dissolved (Ca, Mg, Na)	EPA Method 6010C/in-house leaching/Calculate
pH	Method 150.2/SM4500H B/9040C/9045D
TPH-E DRO (Diesel Range Organics)	EPA Method 8015B-DRO
TPH-P GRO (Gasoline Range Organics)	EPA Method 8015B-GRO
BTEX	EPA Method 8021B/8260B
Polynuclear Aromatic Hydrocarbons (PAH-SIM)	EPA Method 8270C-SIMS
Hexavalent Chromium (Cr (VI)) Optional	EPA Method 7196A / 3060A
TPH-E ORO (Oil Range Organics) - Optional	EPA Method 8015B-ORO

Common Group Name (Colorado 609-Aq Table Initial)	Method
Metals - Dissolved (Ba, B, Ca, Fe, Mg, Mn, P, K, Se, Na, Sr)	EPA Method 200.7
Alkalinity, Total (as CaCO ₃ @ pH 4.5)	SM2320B
Alkalinity, Carbonate (as CaCO ₃) calculated	SM2320B
Anions (Cl, Fl, NO ₃ -N, Br, NO ₂ -N, SO ₄)	EPA Method 300.0 / 9056A
BTEX	EPA Method 8021B/8260B
Specific Conductance	EPA Method 120.1/SM2510B/9050A
TPH-E DRO (Diesel Range Organics)	EPA Method 8015B-DRO
TPH-P GRO (Gasoline Range Organics)	EPA Method 8015B-GRO
pH	Method 150.2/SM4500H B/9040C/9045D
Solids, Total Dissolved (TDS)	SM2540C
Methane, Ethane, Propane	RSK-175
Bacteria, Iron related	BART

Bacteria, Slime producing	BART
Bacteria, Sulfate reducing	BART
TPH-E ORO (Oil Range Organics) - Optional	EPA Method 8015B-ORO

Common Group Name (CO 609-Aq Table Subsequent)	Method
Metals - Dissolved (Ca, Mg, K, Na)	EPA Method 200.7
Alkalinity, Total (as CaCO ₃ @ pH 4.5)	SM2320B
Alkalinity, Carbonate (as CaCO ₃) calculated	SM2320B
Anions (Cl, Fl, Br, SO ₄)	EPA Method 300.0 / 9056A
BTEX	EPA Method 8021B/8260B
TPH-E DRO (Diesel Range Organics)	EPA Method 8015B-DRO
TPH-P GRO (Gasoline Range Organics)	EPA Method 8015B-GRO
Solids, Total Dissolved (TDS)	SM2540C
Methane, Ethane, Propane	RSK-175
TPH-E ORO (Oil Range Organics) - Optional	EPA Method 8015B-ORO

Common Group Name (TCLP)	Method
TCLP (Volatiles) 11 regulated	EPA Method 1311 / 8260B
TCLP (Semivolatiles) 13 regulated	EPA Method 1311 / 8270C
TCLP (Metals) 7 regulated	EPA Method 1311 / 6010C
TCLP (Hg)	EPA Method 1311 / 7040A
TCLP (Pesticides)	EPA Method 1311 / 8081A
TCLP (Herbicides)	EPA Method 1311 / 8151A