

Drinking Water Chromatography

| Method / Analysis | Description |
|-------------------|---|
| 505 | PCBs by L-LE and GC-ECD |
| 505 | OC Pesticides and PCBs by L-LE and GC-ECD |
| 515.3 | OC Acidic Herbicides by L-LE, Derivatization & GC-ECD |
| 524.2 | HVOCs by P&T and GC-MS |
| 524.2 | TTHMs (Total Trihalomethanes) by P&T and GC-MS |
| 524.2 | VOCs by P&T and GC-MS |
| 524.2 | VOCs by P&T and GC-MS, Open Scan (+ \$15 Per identified peak) |
| 524.2 | 1,2,3,TCP by SRL524m (low level 0.005 μg/L) |
| 524.3 | EDB & DBCP by GC-MS |
| 524.3 | TTHMs (Total Trihalomethanes) by P&T and GC-MS |
| 525.2 | ON/P Pesticides by L-LE and GC-NPD |
| 525.2 | SVOCs by L-SE and GC-MS |
| 525.3 | SVOC by SPE and GC-MS |
| 531.1 | Carbamates by HPLC w/ Derivatization |
| 537.1 | Per- and polyfluorinated alkyl substancesPFAS by SPE and LC/MS/MS |
| 547 | Glyphosate by HPLC w/ Derivatization |
| 548.1 | Endothall by GC-MS |
| 549.2 | Diquat and Paraquat by LSE and HPLC |
| 550.1m | Nonylphenol by SPE and HPLC |
| 552.2 | HAAs by LLE and GC-ECD |

Residential Drinking Water Packages

| Package | Description |
|------------|---|
| Package #1 | Total Coliform and E.Coli P/A, Nitrate, Nitrite, Fluoride, TDS, pH, Al, Pb & Cu |
| Package #2 | Total Coliform and E.Coli Enumeration, Nitrate, Nitrite, Fluoride, Bromide, Chloride, |
| | Orthophosphate, Sulfate, TDS, pH, Sb, As, Ba, Br, Cd, Cr, Co, Cu, Pb, Hg, Mo, Ni, Se, Ag, |
| | Tl, V, Zn, Conductivity, Hardness, Turbidity, & Alkalinity (speciated) |
| Package #3 | Total Coliform and E.Coli Enumeration, Nitrate, Nitrite, Fluoride, Bromide, Chloride, |
| | Orthophosphate, Sulfate, TDS, pH, Al, Sb, As, Ba, Br, Cd, Cr, Co, Cu, Pb, Hg, Mo, Ni, Se, |
| | Ag, Tl, V, Zn, Conductivity, Hardness, Turbidity, & Alkalinity (speciated), VOC's, Odor & |
| | Color. |
| Irrigation | Alkalinity (speciated), TDS, Hardness, Ca, Mg, Na, K, B, pH, SC, Sodium Absorption |
| | Ratio (SAR) |

Ion Chromatography

| Method / Analysis | Description |
|------------------------|--|
| 218.6 | Chromium VI by IC |
| 218.6 – DISTLC, Solids | Chromium VI by IC using DISTLC |
| 218.7 - DW | Chromium VI by IC |
| 300.1 - DW | Chlorate by IC |
| 300.1 / 300.0 –W, S | Common Anions: Cl-, Br-, SO4-2, F- ,NO3- as N, NO2- as N, PO4-3 as P; CalTrans or |
| | DISTLC are optional soil extractions with extra charges |
| 300.1 / 300.0-Water | Uncommon Inorganic Anions: I-, S2O3-2, SCN-, IO3-, SO3-2, etc. |
| 300.1–Water, DBP | ClO2- (Chlorite), ClO3- (Chlorate), BrO3- (Bromate), Br- (0.005 µg/L)(Disinf. ByProd) |
| 300.1m-VFA | Volatile Fatty Acids: Formic Acid |
| 314 | Perchlorate (ClO4) by IC |
| 7199 | Chromium VI by IC; 3060A TTLC (low level, 0.2 mg/Kg) |



Effluent Water Chromatography

| Method / Analysis | Description |
|-------------------|--|
| DOD QSM | Per- and polyfluorinated alkyl substances PFAS by SPE and LC/MS/MS- Full list 42 compounds |
| DOD QSM | Per- and polyfluorinated alkyl substances PFAS by SPE and LC/MS/MS- 28 Compounds |
| 608.3 | OC Pesticides and PCBs by L-LE and GC-ECD (w/ Florisil clean up) |
| 608.3 | OC Pesticides and PCBs by L-LE and GC-ECD (low level, 0.001 µg/L w/ Florisil & GPC) |
| 608.3 | PCBs by L-LE and GC-ECD |
| 610 | PAHs/ PNAs by L-LE and HPLC |
| 610 | PAHs/ PNAs by L-LE and HPLC (low level, 0.004 µg/L) |
| 614 | Nitrogen-Phosphorous Pesticides by GC-MS |
| 624.1 | VOCs by P&T and GC-MS excluding Acrolein, Acrylonitrile, & 2-CEVE |
| 624.1 | Acrolein, Acrylonitrile & 2-CEVE by P&T and GC-MS |
| 624.1 | HVOCs and/or Aromatics by P&T and GC-MS |
| 624.1 | TTHMs (Total Trihalomethanes) by P&T and GC-MS |
| 625.1 | SVOCs by L-LE or SPE and GC-MS |
| 625.1 | PAHs/ PNAs and Phenols by L-LE or SPE and GC-MS |
| 625.1 | Phenols by L-LE or SPE and GC-MS |
| 625.1 | PAHs/ PNAs by L-LE or SPE and GC-MS |
| 1613 | 2,3,7,8-TCDD by HRGC-HRMS, RL:W = 5.0 pg/L & S =0.5 pg/g-dry |
| 1613 | Full List Dioxins & Dibenzofurans by HRGC-HRMS |
| 1668 | PCBs by HRGC-HRMS, 12 Dioxin-like WHO Toxic Congeners |
| 1668 | PCBs by HRGC-HRMS, 40 or 66 Effluent Congeners |
| 1668 | PCBs by HRGC-HRMS, Full 209 Congeners |
| BAAQMD 33 | CS ₂ Extractable C8-C14 Compounds by GC-FID |
| Pyrethroids | Pyrethroids by GC-MS based on 625.1 |

McCampbell Proprietary Methods

| Method / Analysis | Description |
|-------------------------|---|
| Acrylamide | Acrylamide by LCMS |
| Alcohols | Alcohols by Derivitization & HPLC |
| Amines | Amines & Protonatable Nitrogenous Compounds by LCMS |
| Amygdalin | Amygdalin by LCMS |
| Cyclohexylamine | Cyclohexylamine by LCMS |
| DEHPA | Bis(2-ethylhexyl) Phosphoric Acid |
| Epichlorohydrin | Epichlorohydrin by Derivitization & HPLC |
| EthyleneGlycol | Ethylene Glycol by Derivitization & HPLC |
| Flumioxazin | Flumioxazin by LCMS |
| Imazamox | Imazamox by Derivitization & HPLC |
| Isobornyl Acrylate | Isobornyl Acrylate by LCMS |
| Mesotrione | Mesotrione by LCMS |
| Tributyl phosphate | Tributyl phosphate by LCMS |
| Organic Acids | Various Organic Acids by HPLC-UV |
| Organic Lead, speciated | Tetramethyl & Tetraethyl Lead by GC (RL: S = 0.005 mg/Kg / W = 125 ppt) |
| Organic Tin, speciated | Mono-, Di-, Tri- & Tetra-Butyl Tin by GC-MS |
| Isobornyl Acrylate | Isobornyl Acrylate by LCMS |
| Mesotrione | Mesotrione by LCMS |
| UV Scan | MAI Full Spectrum Scan |



Hazardous Waste, Soils, Groundwater Chromatography

| Method / Analysis | Description |
|-------------------|--|
| DOD QSM | Perfluorinated Compounds PFAS by LC/MS/MS – Full list 42 Compounds |
| DOD QSM | Perfluorinated Compounds by LC/MS/MS – 28 compounds |
| 547m | Glyphosate by HPLC w/ Derivatization (Soils) |
| 8015B/ m | TPH Fuel Finger Print (quantitative & qualitative) by Direct Injection GC-FID |
| 8015Bm | TPH Multi- Range (g, d, mo, k, jf, bo, other) by Direct Injection GC-FID |
| 8015B / 8021B | TPH(g, ss, ag) - MBTEX by P & T and GC-FID/PID |
| 8015B | TPH(d, mo, k, jf, bo, other) by Direct Injection GC-FID |
| 8015D | TPH as Methane in ug/Kg (emissions testing for waters only) |
| 8081A | OC Pesticides by GC-ECD |
| 8081A | OC Pesticides by GC-ECD (low level; ESLs) *Clean Up fee included (\$120) |
| 8081A / 8082 | OC Pesticides + PCBs by GC-ECD |
| 8081A / 8082 | OC Pesticides + PCBs by GC-ECD (low level; ESLs) *Clean Up fee included(\$120) |
| 8082 | PCB Aroclors Only by GC-ECD |
| 8082 | PCB Aroclors Bulk Material (50PPB L)*Clean up fee included |
| 8082 | PCB Aroclors in Waste Oil by GC-ECD w/ Clean Up (2 mg/L RL) *Clean Up fee included |
| 8141A | ON/P Pesticides by GC-NPD. Analyzed by E8270 GC-MS |
| 8151A | OC Acidic Herbicides by GC-ECD |
| 8260B | VOCs by P&T and GC-MS excluding Acrolein & 2-CEVE |
| 8260B | Acrolein, Acrylonitrile & 2-CEVE by P&T and GC-MS |
| 8260Bm | 1,4-Dioxane by GC-MS, RL: $W = 0.5 \mu g/L \& S = 0.02 mg/kg$ |
| 8260B | TPH Gas and VOCs by P&T and GC-MS excluding Acrolein & 2-CEVE |
| 8260B | TPH Gas & VOCs & 7 oxys P&T GCMS excluding Acrolein & 2-CEVE |
| 8260B | HVOCs and/or Aromatics by P&T and GC-MS |
| 8260B | MBTEX / MTBE by P&T and GC-MS |
| 8260B | Single Compound reported from standard VOC list (1-4 compounds) |
| 8260B | Oxygenates ± EDB-12DCA by P&T and GC-MS |
| 8260B | VOCs by P&T and GC-MS, Open Scan (+ \$15 per identified peak) |
| 8270C | Phenols Only by GC-MS |
| 8270C | PNAs / PAHs Only by GC-MS SIM Mode |
| 8270C | SVOCs by GC-MS |
| 8270C | SVOCs by GC-MS (low level; ESLs) *Clean Up fee included (\$84) |
| 8270C | SVOCs by GC-MS Open Scan (+ \$15 per identified peak) |
| 8280A | 2,3,7,8-TCDD by HRGC-HRMS, RL: W = 5.0 pg/L & S = 5.0 pg/g |
| 8280A | Full List Dioxins & Dibenzofurans by HRGC-HRMS |
| 8290A | 2,3,7,8-TCDD by HRGC-HRMS, RL: $W = 5.0 \text{ pg/L} \& S = 5.0 \text{ pg/g}$ |
| 8290A | Full List Dioxins & Dibenzofurans by HRGC/HRMS |
| 8310 | PNAs / PAHs by HPLC |
| 8310m / SM 10200 | Chlorophyll a & b by HPLC (Water and Liquid samples only) |
| 8315A | Carbonyls by HPLC |
| 8315A | Formaldehyde by LCMS (Water samples only) |
| 8315A | Acrolein & 3-Hydroxypropanal by HPLC w/ Field Derivatization (SFEI 108) |
| 8316 | Acrylamide, Acrylonitrile and Acrolein by HPLC |
| 8318 | Carbamates by HPLC |
| 8330 | Nitroaromatics & Nitramines by HPLC |
| | * |
| | |



Solids

| Method / Analysis | Description |
|----------------------------------|--|
| Asbestos CARB 435 | Asbestos 400 point count (.25%RL) by CARB 435 |
| Asbestos CARB 435 | Asbestos 1000 point count (.1%RL) by CARB 435 |
| FTIR for Plastics and Polymer ID | ASTM E1252-98; FTIR ID of plastics and polymers. |
| XRD for Solids ID | Crystalline Solids ID using Powder, Micro-focus or High Angle XRD by USGS OFR 01-041 |
| XRF on Solids Composition | Semi Quant XRF scan for gross element composition (Na-U) |

Microbiology

| Method / Analysis | Description |
|---|--|
| Aerobes | SM9215AC (SP) |
| Anaerobes | SM9215ABm (SP) |
| Coliforms, Total & E Coli (+/-) | SM9223 B (EST), Idexx Colilert |
| Coliforms, Total & E Coli (Enum) | SM9223 B (EST), Idexx Quanti Tray |
| Coliforms, Total & E Coli | SM9221 BF (MTF) for Drinking Water |
| Coliforms, Total & E Coli, Biosolids | SM9223 B (EST – Idexx Colilert); SM9221 B (MTF/MPN); for Sewage/Bio-Solids, 2-4 tray test |
| Coliforms, Total & E Coli & FC | SM9221BEF (MTF) for Drinking, Recreational & Waste Waters |
| Total Coliforms only | SM9222 B (MF) for Drinking, Recreational &Waste Waters |
| E Coli | 9221BF (MTF) |
| Fecal Coliform (Soil) | SM9221E2C |
| Fecal Coliform | SM9221 E (MTF/MPN); SM9222 D (MF) |
| Fecal Coliform (+/-) | SM9221 E (MTF/MPN) |
| Enterococci | Idexx Enterolert (EST) |
| Enterococci | SM9230 B (MTF/MPN) |
| Fecal Streptococci | SM9230 B (MTF/MPN) |
| Fungi, Mold, Yeast | SM9610B |
| Heterotrophs (HPC) | Idexx Simplate; SM9215 AC (SP); SM9215 AB (PP) |
| Heterotrophs (HPC), Biosolids | Idexx Simplate; SM9215 C (Spread Plate); SM9215 B (Pour Plate) |
| Inhibitory Residue | SM9020B |
| Iron Related Bacteria | SM9240D.1 (BART = Biological Activity Reaction Test) |
| Legionella (+/- or En) | CDC Legiolert Method 01/2005-SM9260J (MF-PP) |
| Microbiologically Influenced Corrosion | Microbiologically Influenced Corrosion (MIC) Sample Kit not Included |
| Pseudomonas aeruginosa | Pseudolert (EST) |
| Salmonella | SM9260B - E1682 (Plate) FDA BAM |
| Staphylococcus aureus | SM9213B - FDA BAM |
| Sulfate Reducing Bacteria | SM9240D - SM9240D.4a1 |
| Water Suitability | SM9020B |

Metals

| 200.8/6020A (ICP-MS), 200.7/6010C (ICP-OES), 245.2/7470 (CV Hg), 1631E (CVAF Hg), NIOSH | |
|---|---|
| +Groups / Analysis | Description |
| CAM17 (ICP-MS) | Ag, As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mo, Ni, Pb, Sb, Se, Tl, V, Zn |
| 503 Metals (Biosolids) | As, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Zn |
| IOC – DW Metals | Al, As, Ba, Be, Cd, Cr, Cu, Pb, Hg, Ni, Sb, Sb, Tl |
| PP13 | Ag, As, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se, Tl, Zn |
| RCRA8 | Ag, As, Ba, Cd, Cr, Hg, Pb, Se |
| LUFT5 | Cd, Cr, Ni, Pb, Zn |
| ICP / ICP-MS, Common | Ex, Al, Ag.; generally, special extraction cost is additional – see Extractions |
| Metal | Ex, AI, Ag., generally, special extraction cost is additional – see Extractions |



| ICP / ICP-MS, Uncommon Metal | Ex, Au, S, P.; generally, special extraction cost is additional – see Extractions |
|---------------------------------|---|
| Hg by CVAF | Hg (1631E) |
| Hg by CVAA | Hg (245.2, 7470A, 7471B) |
| Ferrous Iron | SM 3500Fe B4c |

GC-MS-MS, LC-IT, LC-MS-MS Analysis

| Method / Analysis | Description |
|-------------------|---|
| ASTM D7485 | LC-MS-MS for Alkylphenols in Water |
| ASTM D7574 | LC-MS-MS for BisPhenol A (BPA) in Water |
| LC-MS-MS | E 1694m for Thiourea in Waste Water |
| LC-IT or LC-MS-MS | E 1694 or E536m for Selected N/P Pesticides |
| ASTM D7485 | LC-MS-MS for Alkylphenols in Water |
| ASTM D7574 | LC-MS-MS for BisPhenol A (BPA) in Water |
| LC-MS-MS | E 1694m for Thiourea in Waste Water |
| LC-IT or LC-MS-MS | E 1694 or E536m for Selected N/P Pesticides |

Wet Chemistry & Oil and Grease

| Method / Analysis | Description |
|---|---|
| TRPH by IR Spectrometry w/ S.G.CU | 418.1, Total Recoverable Petroleum Hydrocarbon by IR w/ Silica Gel Clean Up |
| Total Oil & Grease \pm S.G. | 9071B, Total Oil & Grease ± Silica Gel Clean Up |
| HEM, Oil and Grease \pm S.G. | 1664A, HEM, Oil & Grease ± Silica Gel Clean Up |
| Acidity | SM2310 B |
| AGP, ANP, NNP | EPA 600/2-78-054, Acid Generating Potential, Acid Neutralizing Potential, Net Neutralization Potential |
| Alkalinity, total, speciated | SM2320 B |
| Ammonia as N, Colorimetry | 350.1 / SM4500-NH3 BG |
| Ammonia as N, unionized (free) | 350.1 |
| Ammonium | E350.1 / E350.1m |
| Ash (%) | Percent ash by ASTM D2974 |
| BOD / cBOD | SM5210 B; Biochemical Oxygen Demand, carbonaceous BOD, 5 Day Test |
| B S & W, approximate | ASTM D 1796m-11; Bottom Sediments & Water as Approximate Vol. Phase Proportions |
| Carbon, DOC | 415.3 / SM5310 B; Dissolved Organic Carbon |
| Carbon, IC | 415.3 / SM5310 B; Inorganic Carbon (= Σ CO2,aq + HCO3- + CO3-2) |
| Carbon, TC | 415.3 / SM5310 B / 9060A; Total Carbon |
| Carbon, TOC | 415.3 / SM5310 B / 9060A; Total Organic Carbon |
| Chlorine, residual / total | SM4500-Cl E / SM4500G (Free & Total Cl) |
| Chlorine, specific form (Chloramine) | SM4500-Cl G DPD Colorimetric |
| COD | 410.4 / SM5220 D; Chemical Oxygen Demand |
| Color, Apparent | SM2120 B / E110.2 for DW or WW / Apparent / Non-filtered |
| Color, True | SM2120 B / E110.2 for DW or WW True / Filtered |
| Conductivity | Conductivity, Resistivity & Salinity 120.1 / 9050A / SM2510 B, ASTM D1125A, SSSA |
| Corrosivity | pH, corrosivity = $pH > 2$ and $pH < 12.5$, included in RCI |
| Cyanide, Amenable | 9012A / SM 4500-CN G; includes Total Cyanide results |
| Cyanide, Total, Auto Distillation | Kelada-01 / 335.4 / 9012A / SM4500-CN- CE |
| Cyanide, WAD | Kelada-01 / SM4500-CN- CE; Buffered Weak Acid Dissociable Cyanides |
| Density | ASTM D1475, ASTM D2397m |

^{*}All prices & specifications are subject to change by MAI without notice.*



| Dissolved O2 | SM 4500-O G | |
|---|---|--|
| Flashpoint of Liquids | SW1010, included in RCI (Liquid/Oil/Water) | |
| Foaming Agents (surfactants), | | |
| anionic | SM5540 C / Anionic Surfactants as LAS / MBAS | |
| Freezing / Melting Point | MAI, Freezing Point of Liquids / Melting Point of Solids | |
| Hardness | SM2340 B & 200.7 by ICP / ICPMS | |
| Hardness by Titration | SM2340 B & 200.7 by ICF / ICF MS | |
| Hydrogen Peroxide | USP Titanium Oxylate Spectrophotometric method | |
| Ignitability of Solids/Soils | SW1030 (included in RCI) | |
| Moisture Content of Soils | | |
| | ASTM D2216-05, ASTM D2974, for organic matter & ash determinations | |
| Nitrate + Nitrate by Cd reduction | 353.2 / SM4500NO3 F; NO3 +- NO2 by Cd reduction | |
| Nitrogen, Organic | 351.2 + 350.1 / SM4500-Norg AD + SM4500-NH3 FG; Organic Nitrogen as N (= TKN - Ammonia) | |
| Nitrogen, TKN | 351.2 + 350.1 + 500-100 g AD + 500-000 g AD + 500-0000 g AD + 500-00000 g AD + 500-00000 g AD + 500-00000 g AD + 500-0000000000 g AD + 500-000000000000000000000000000000000 | |
| Nitrogen, total (TOC) | 415.3m / 9060Am; Total Nitrogen by combustion & Chemiluminesence / TCD | |
| Odor | SM2150 B | |
| Odor with Dechlorination | SM2150 B SM2150 B + SM4500-Cl DE | |
| | | |
| Organic Matter ORP | Percent Organic Matter by ASTM D2974 SM2580 B, Oxidation-Reduction Potential | |
| | | |
| Ozone Deint Filten Teet | SM4500 O3 B | |
| Paint Filter Test | SW9095A | |
| pH | 150.1 / 9045B&C / 9045C&D / SM4500H+ B, ASTM D4972-13a, CT643-2007 | |
| pH, field | SM4500H+ B, onsite pH measurement | |
| Phenolics, Total | 420.4 / 420.1 | |
| Phosphorous, Dissolved | 365.1, 365.3, Dissolved Phosphorous as P | |
| Phosphorous, Hydrolyzable | 365.1, 365.3, Hydrolyzable Phosphorous as P | |
| Phosphorous, Organic | 365.1, 365.3, / SM4500-P BEF; Organic (Total - Ortho - Hydrolyzable) Phosphorous as P | |
| Phosphorous, Ortho | 365.1, 365.3 365.5; SM4500-P BEF / Ortho Phosphorous as P (used when IC is inapplicable) | |
| Phosphorous, Total | 365.1, 365.3, / SM4500-P BEF; Total Phosphorous as P | |
| Reactive Cyanide | SW9010, included in RCI, Positive or Negative | |
| Reactive Sulfide | SW9030, included in RCI, Positive or Negative | |
| RCI | Reactivity, Corrosivity & Ignitability | |
| Salinity | SM2520, Salinity by conductivity | |
| Silica, Reactive | SM4500-SiO2 D | |
| Solids, Total (TS) | SM2540B for Liquids, see Moisture for Solids | |
| Solids, Dissolved (TDS) | SM2540C, Total Dissolved Solids | |
| Solids, Suspended (TSS) | SM2540D, Total Suspended Solids | |
| Solids, Total Volatile or | SM3540E SM3540C Total Valatila on Eined (TVC TEC) 9-114- | |
| Fixed | SM2540E, SM2540G Total Volatile or Fixed (TVS, TFS) Solids | |
| Solids, Total Volatile Diss/Fixed | SM2540E, SM2540G for Solids (TVDS, TFDS) | |
| Solids, Volatile or Fixed(Suspended) | SM2540E, SM2540G for Solids (TVSS, TFSS) | |
| Solids, Settleable (SS) | SM2540F, E160.5 | |
| Specific Gravity | ASTM D1475, ASTM D2397m | |
| Sulfide, aqueous | SM4500-S-2 D / 376.2 /; SM4500-S-2 F; SM4500-S-2 I / distilled | |
| Sulfide, solids | SM4500-S-2 D & 9030B; Acid Soluble or Acid Insoluble Sulfides | |
| Sulfite by Titration | SM4500-SO3-2 B | |
| Sulfur, Total | 415.3m / 9060Am; Total Sulfur by combustion & TCD (ICP-MS rec. for aqueous) | |
| Turbidity | 180.1 / SM2130 B | |
| UV254 | SM5910 B | |
| UV Scan | MAI Full Spectrum Scan | |
| Water Content | Karl Fischer, SW9000, Water Content of Liquids | |
| Vapor Pressure, Reid | ASTM D323, BAAQMD 28 (Requires Storage Temperature) | |
| , apor i ressure, Reiu | ristin 2525, Brittenin 20 (requires Storage Temperature) | |



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List of Capability- 10/03/2022

| VCC of Coatings | EPA D24, ASTM D2369 |
|-----------------------------|-------------------------------------|
| Visual Estimate of Particle | ASTM E112-13; for granular matrices |
| Size | |

Air Testing

| Method/ Analysis | Description | |
|----------------------------------|---|--|
| Air Sampling Pump Rentals | Low (0.05 - 0.2L/min) or high (1-5 L/min) flow | |
| Alcohols | NIOSH 1403 / 2000m by HPLC-FLD (ST) | |
| Formaldehyde | NIOSH 2016 by HPLC (FST) | |
| Helium | ASTM D 1946-90 (Tedlar or summa, summa can extra if not part of TO-15) | |
| Helium Leak Check | TO-15 Helium Leak Check | |
| Helium Shroud | Helium Shroud Rental | |
| Hexachrome, Particulates | NIOSH 7605 by IC-Colorimetry (Filter) | |
| Huderandrana Tiala | ASTM D 1946-90 / EPA 3C by GC- FID (methane, ethane, ethene, actetylene) (Tedlar / | |
| Hydrocarbons, Light | Summa; Summa same price as Tedlar if TO-15 requested) | |
| Hydrogen | ASTM D 1946-90 / EPA 3C by GC-PDD (H2) (Tedlar, Summa) | |
| LEED Gases - Indoor | VOCs + Formaldehyde + 4-PCH + CO from summa | |
| Light Cases Atmographenia | ASTM D 1946-90 / EPA 3C by GC-PDD / TCD (O2, N2, CO, CO2,) (Tedlar / Summa; | |
| Light Gases, Atmospheric | Summa same price as Tedlar if TO-15 requested) | |
| Light Gases, Atmospheric + | ASTM D 1946-90 / EPA 3C by GC-PDD / TCD / FID (O2, N2, CO, CO2, methane, ethane, | |
| Hydrocarbons | ethane, actetylene) (Tedlar, Summa) | |
| Metals, Particulates | NIOH 7303 by ICP-MS (Filter) | |
| OC & ON Herbicides | NIOSH 5602 (ST, pricing includes tubes) | |
| OP Pesticides | NIOSH 5600 (ST, pricing includes tubes) | |
| Organic Lead | NIOSH 2534m (Tetramethyl & Tetraethyl Lead) by GC (ST, pricing includes tubes) | |
| Particulates, Respirable | NIOSH 0600 | |
| Particulates, Total | NIOSH 0500 | |
| PCBs | NIOSH 5503 by GC-ECD (ST) | |
| Phenols | NIOSH 2546 by GC-MS SIM mode (ST) | |
| PNAs | NIOSH 5506 by HPLC UV-FLD (ST) | |
| Silica | NIOSH 7602, Crystalline Silica by IR (Bulk pricing available) | |
| TO17 VOCs | TO-17, Soil gas by GC_MS (ST) | |
| TPH (g/d) | NIOSH 1550 by GC-FID (ST) | |
| TPH (g/d) | TO-17m (ST) TPH gas and Diesel | |
| TPH(g) Fractionated | MA DEP APH by GC-MS (Summa); ali-aro frac. of vapor phase TPH | |
| VOCs +- TPH(g) soil gas | TO-15, soil gas by GC-MS (Summa) | |
| VOCs +- TPH(g) soil gas | TO-15, soil gas by GC-MS (Tedlar) | |
| VOCs +- TPH(d) soil gas | TO-17, soil gas by GC-MS (ST) | |
| VOCs, IPA only | TO-15, IPA only for soil gas from Tedlar by GC-MS; Client / Lab supplied Tedlar | |
| VOCs, SCAN-SIM, indoor | TO-15, indoor air by GC-MS, RL= 0.1ppbv (Summa), SIM mode for TO-15 compounds | |
| air | having ESL indoor air limits < 0.1 ppbv | |
| | could increase the risk of having unacceptable initial vacuum at the start of sampling. | |
| *MAI does not guarantee canister | | |

*Failure to return media within 30 days of receipt will result in invoicing of the replacement cost of all outstanding media.

*MAI will charge a cleaning/rental fee of \$56.00 per sample set when equipment is returned to us unused.

Aquatic Toxicology



| Test Method | Test Organism | Description |
|-------------------------|--|--|
| Hazardous Waste | Fathead Minnow | CA Title 22 Hazardous Waste 96h LC50 Screen |
| Bioassay (CDFG 1988) | (Pimephales promelas) | CA Title 22 Hazardous Waste 96h LC50 Definitive |
| | | Acute 96hr Static Non-Renewal 100% Concentration Only |
| EPA 2000.0 | Fathead Minnow | Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewal |
| EFA 2000.0 | (Pimephales promelas) | Acute 96hr Static Renewal 100% Concentration Only with Daily Renewals |
| | | Acute 96hr Static Renewal Dilution Series with a 48hr Renewal |
| | | Acute 96hr Static Non-Renewal 100% Concentration Only |
| EPA 2019.0 | Rainbow Trout (Oncorhynchus mykiss) | Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewa |
| EFA 2019.0 | | Acute 96hr Static Renewal 100% Concentration Only with Daily Renewal |
| | | Acute 96hr Static Renewal Dilution Series with a 48hr Renewal |
| | Sheepshead Minnow (Cyprinodon variegatus) | Acute 96hr Static Non-Renewal 100% Concentration Only |
| EPA 2004.0 | | Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewa |
| | | Acute 96hr Static Renewal 100% Concentration Only with Daily Renewal |
| | | Acute 96hr Static Non-Renewal 100% Concentration Only |
| | | Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewa |
| EPA 2002.0 | Ceriodaphnia dubia | Acute 96hr Static Renewal 100% Concentration Only with Daily Renewal |
| | | Acute 96hr Static Renewal Dilution Series with a 48hr Renewal |
| | | Acute 48hr Static Renewal Dilution Series with Daily Renewal |
| | | Acute 96hr Static Non-Renewal 100% Concentration Only |
| | | Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewa |
| EPA 2021.0 | Daphnia spp. | Acute 96hr Static Renewal 100% Concentration Only with Daily Renewal |
| | (Daphnia magna) | Acute 96hr Static Renewal Dilution Series with a 48hr Renewal |
| | | Acute 48hr Static Renewal Dilution Series with Daily Renewal |
| | | Acute 96hr Static Non-Renewal 100% Concentration Only |
| | Inland Silverside | Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewa |
| EPA 2006.0 | | Acute 96hr Static Renewal 100% Concentration Only with a 46hr Renewal Acute 96hr Static Renewal 100% Concentration Only with Daily Renewal |
| | (Menidia beryllina) | Acute 96hr Static Renewal Dilution Series with a 48hr Renewal |
| | | Acute 96hr Static Non-Renewal 100% Concentration Only |
| | Mysid shrimp | Acute 96hr Static Renewal 100% Concentration Only with a 48hr Renewa |
| EPA 2007.0 | (Americamysis bahia) | Acute 96hr Static Renewal 100% Concentration Only with a 46hr Renewal Acute 96hr Static Renewal 100% Concentration Only with Daily Renewal |
| | (Americaniysis bana) | Acute 96hr Static Renewal Dilution Series with a 48hr Renewal |
| | Green Algae | Chronic 96hr Algal Growth Test - 100% Concentration Only |
| EPA 1003.0 / | (Selenastrum | Chronic 96hr Algal Growth Test - Dilution Series |
| ASTM E1218-04 | (Setenastrum Capricornutum) | Chronic 96hr Algal Growth Test - Reference Toxicant Test |
| | Capricornulum) | |
| | | Chronic 3-brood Survival and Reproduction Test - 100% Concentration |
| EDA 1002.0 | | Only Changing 2 have d Supprised and Dependention Test. Dilution Series |
| EPA 1002.0 | Ceriodaphnia dubia | Chronic 3-brood Survival and Reproduction Test - Dilution Series |
| | | Chronic 3-brood Survival and Reproduction Test - Reference Toxicant |
| | | Test Chronic 7-day Survival and Growth Test - 100% Concentration Only |
| EDA 1000.0 | Fathead Minnow | Chronic 7-day Survival and Growth Test - 100% Concentration Only Chronic 7-day Survival and Growth Test - Dilution Series |
| EPA 1000.0 | (Pimephales promelas) | Chronic 7-day Survival and Growth Test - Dilution Series Chronic 7-day Survival and Growth Test - Reference Toxicant Test |
| | | |
| EDA 1004.0 | Sheepshead Minnow | Chronic 7-day Survival and Growth Test - 100% Concentration Only |
| EPA 1004.0 | (Cyprinodon variegatus) | Chronic 7-day Survival and Growth Test - Dilution Series |
| | | Chronic 7-day Survival and Growth Test - Reference Toxicant Test |
| | Inland Silverside | Chronic 7-day Survival and Growth Test - 100% Concentration Only |
| EPA 1006.0 | (Menidia beryllina) | Chronic 7-day Survival and Growth Test - Dilution Series |
| | | Chronic 7-day Survival and Growth Test - Reference Toxicant Test |
| | Mysid shrimp | Chronic 7-day Survival and Growth Test - 100% Concentration Only |
| EPA 1007.0 | (Americamysis bahia) | Chronic 7-day Survival and Growth Test - Dilution Series |
| | (21mer wantysis band) | Chronic 7-day Survival and Growth Test - Reference Toxicant Test |
| | | Chronic Embryo-Larval Development and Survival Test - 100% |
| EPA 600/R-95/136 | Mussels (Mytilus spp.) | Concentration Only |
| | | Chronic Embryo-Larval Development and Survival Test - Dilution Series |

^{*}All prices & specifications are subject to change by MAI without notice.*



"When Quality Counts"

List of Capability- 10/03/2022

| Chronic Embryo-Larval Development and Survival Test - Reference Toxicant Test |
|--|
|--|

Extractions Preparations

| Method / Analysis | Description | |
|--|--|--|
| Alumina Bench Column Clean Up (EPA 3630C) | Bench Column Clean Up of solvent extracts, cost depends on complexity | |
| Ashing - food | Thermal combustion preparation for food matrices | |
| Ashing - soils/solids | Thermal combustion preparation for metals or oxide determinations | |
| ASTM C 1580-05 | DI Extraction of Soils for Sulfate | |
| Bench Testing / Pilot Studies | Customized bench studies to evaluate pilot processes | |
| Cal Trans 417 / 422 | DI Extraction for anions in soil (DI STLC may yield higher values) | |
| CEC, NH4Ac | EPA 9080; Cation Exchange Capacity inapplicable to calcareous soils | |
| CEC, NaAc | EPA 9081; Cation Exchange Capacity that is generally applicable | |
| Copper Clean Up | Copper Clean Up to Remove Sulfur | |
| ESL Clean Up 8081/8082 | ESL Clean-up for method 8081/8082 | |
| Ex. Cations, NH4Ac | Exchangeable Cations using ammonium acetate | |
| Filtration | In-house (laboratory) filtration for dissolved metals using 0.45 um filter | |
| Florisil Clean Up (EPA 3630C) | Bench Column Clean Up of solvent extracts | |
| GPC Clean-up, EPA 3640A | Gel Permeation Clean Up | |
| ISM - ITRC | Incremental Sampling Method per the Interstate Technology & | |
| ISIM - ITRC | Regulatory Council (ITRC) | |
| Metals Dissolution | Concentrated oxidizing acids dissolution of solid metals | |
| MS/MSD Project specific | Project specific MS/MSDs | |
| Silica Gel Clean Up, in-a-vial style | Silica Gel Clean Up of solvent extracts, in-a-vial style | |
| Silica Gel Bench Column Clean | Silica Gel Bench Column Clean Up of solvent extracts (EPA 3630C) | |
| Up | Sinca Gei Bench Columni Clean Op of solvent extracts (EPA 3050C) | |
| STLC | California WET Test | |
| DI STLC | California WET Test modified to use DI water | |
| ZHE STLC | Zero Head Space California WET Test for Volatiles | |
| Whole Rock Dissolution | Fusion of rock / alumino-silicate solids | |
| Zemo Diss. HCs ± SG c.u. | Dawn Zemo Methodology for Dissolved HCs ± SG cleanup | |
| TCLP EPA 1311 | TCLP; Toxic Characteristic Leaching Procedure | |
| ZHE TCLP EPA 1311 | Zero Head Space TCLP for Volatiles | |
| SPLP EPA 1312 | SPLP; Synthetic Precipitation Leaching Procedure | |
| EPA 3050B Large Volume | Large volume (70g initial sample weight) | |
| *Clean ups and extractions fees are not subject to rush surcharge rates. | | |
| *Clean ups and extractions may extend the | TAT. | |

Miscellaneous

| Method / Analysis | Description | |
|-----------------------------|--|--|
| Air Sampling Pump Rental | Low (0.05 - 0.2L/min) or high (1-5 L/min) flow | |
| Chromatogram Fee | Chromatograms PDF | |
| Compositing | Sample compositing (up to 4:1 free) | |
| Courier – exclusive service | Courier for emergency/urgent picks &/or deliveries | |
| EDF Reporting Fee | CA AB 2886;GeoTracker | |
| EDD Reporting Fee | WriteOn, EQuIS, CIWQS, SMARTs, Locus XML, etc. | |
| EPA 5035 EnCore sampler | 5g EnCore sampler | |
| Filters & Syringes | One syringe & three 0.45 micron filters for field filtering | |
| Open Scan Fee | The five most significant unidentified peaks in GC-MS chromatogram | |
| Helium Shroud | Helium Shroud Rental | |
| Passive Diffusion Bag | PDB filled with DI water | |

^{*}All prices & specifications are subject to change by MAI without notice.*



| (PDB) | | |
|--|--|--|
| PM10 Monitor | PDR-1000AN Data Logger for continuous PM10 monitoring | |
| Pulverization Fee | Pulverization of solid matrices | |
| Report Reprocessing Fee | Report reprocessing Fee – Price is subject to change | |
| Sample Disposal Fee | Sample Disposal fee | |
| Sample Hold Fee | Short term hold fee (can be refunded if samples are analyzed / per sample) | |
| Sample Storage Fee | For samples stored longer than 60 days (price is per sample/ per month) | |
| Sampling Tube | Stainless steel sampling tube | |
| Sorbent Tube | Single use Sorbent Tube | |
| Tedlar bag | Tedlar air sampling bag | |
| TerraCore | TerraCore sampling kit (5grams 2MeOH | |
| Unused Summa | Cleaning Fee - Unused Summa Canister | |
| *Client is responsible for returning | g all media in the same condition as when received from MAI. Damaged, (including dented canisters), or | |
| unreturned media will be charged to the client as outlined in media agreement under "replacement value". Dented canisters have suspected active | | |
| surfaces & cannot be used for most air sampling applications; MAI will charge replacement cost. No disassembly of soil gas or indoor air manifolds | | |

is permitted.

RUSH SURCHARGES are as follows:

MAI offers Same-Day, 1-Day, 2-Day, 3-Day, 4-Day TAT at 150%, 100%, 50%, 25%, 10% markups from standard TAT, respectively on most analyses. All rush TATs must be arranged in advance of sample submission. Our Sample Reception department is open Monday through Friday; 8:00AM- 8:00PM. Please contact our Sales & Marketing team at Sales@mccampbell.com

McCampbell Analytical, Inc. holds accreditation from: TNI NELAP, CA ELAP, DOD ELAP, Hawaii, and AIHA. Please visit our website to view our current certifications for specific analytes.