

## TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

### Scope of Accreditation

**Legal Name of Accredited Laboratory:** Bureau Veritas Canada (2019) Inc.

Location Name or Operating as (if applicable): Bureau Veritas (Calgary)

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|                                   |  |
|-----------------------------------|--|
| <b>SCC File Number:</b>           | 151043   |
| <b>Accreditation Standard(s):</b> | ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories |
| <b>Fields of Testing:</b>         | Biological<br>Chemical/Physical  |
| <b>Program Specialty Area:</b>    | Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP)<br>Environmental Testing (ET)  |
| <b>Initial Accreditation:</b>     | 2016-08-30   |
| <b>Most Recent Accreditation:</b> | 2024-11-20   |
| <b>Accreditation Valid to:</b>    | 2028-08-30   |

**SCC Group Accreditation:**

This laboratory is a part of a Group Accreditation with the following facilities in accordance with SCC’s policy on Group Accreditation documented in the Accreditation Services Accreditation Program Overview.

- 15229 - Bureau Veritas - 6744 - 50 Street NW, Edmonton, AB, T6B 3M9
- 151039 - Bureau Veritas - Unit D, 675 Berry St., Winnipeg, MB, R3H 1A7

Testing is performed at the following locations:

**Air testing:** #1 2080-39th Avenue N.E. Calgary, AB. T2E 6P7

**Inorganic, organic chemistry and water microbiology:** 4000-19 Street N.E. Calgary, AB T2E 6P8 and #3-4 2080-39th Avenue N.E. Calgary, AB. T2E 6P7, and 2021 – 41 Avenue NE, Calgary, AB T2E 6P2

**Food testing:** #112, 3442-118 Ave S.E. Calgary, AB T2Z 3X1.

**ANIMAL AND PLANTS (AGRICULTURE)**

**Agricultural products (except food and chemicals):**

**Foods and Edible Products (Human and Animal Consumption):**

**Microbiology**

|   |  |
|---|--|
| AOAC PTM 102003                           | BAX® System Real-Time Assay for <i>E. coli</i> O157:H7 Exact   |
| Assurance GDS®<br>MPX Top 7 STEC<br>Assay | BioControl Assurance GDS® MPX Top 7 STEC   |
| MFHPB-10                                  | Isolation of <i>Escherichia coli</i> O157:H7/NM from foods and environmental surface samples (except for section 6, verotoxin confirmation)    |
| MFHPB-18                                  | Determination of Aerobic Colony Counts in Foods  |
| MFHPB-20                                  | Isolation and Identification of <i>Salmonella</i> from Food and Environmental Samples  |
| MFHPB-22                                  | Enumeration of Yeast and Moulds in Foods   |
| MFHPB-30                                  | Isolation of <i>Listeria monocytogenes</i> and <i>Listeria</i> spp. from foods and environmental samples                                       |
| MFHPB-33                                  | Enumeration of Total Aerobic Bacteria in Food Products and Food Ingredients Using 3M™ Petrifilm™ Aerobic Count Plates                          |
| MFHPB-34                                  | Enumeration of <i>Escherichia coli</i> and Coliforms in Food Products and Food Ingredients Using 3M™ Petrifilm™ <i>E. coli</i> Count Plates    |
| MFLP-09                                   | Enumeration of <i>Enterobacteriaceae</i> species in Food and Environmental Samples Using 3M™ Petrifilm™ <i>Enterobacteriaceae</i> Count Plates |
| MFLP-16                                   | Detection of <i>Escherichia coli</i> O157:H7 in foods - Assurance GDS® for <i>E. coli</i> O157:H7 Tq Gene Detection System                     |
| MFLP-21                                   | Enumeration of <i>Staphylococcus aureus</i> in Foods and Environmental Samples Using 3M™ Petrifilm™ <i>Staph.</i> Express Count (STX) Plates   |

|         |  |
|---------|--|
| MFLP-28 | The Qualicon Bax <sup>®</sup> System Method for the Detection of <i>Listeria monocytogenes</i> in a Variety of Food.   |
| MFLP-29 | The BAX <sup>®</sup> System Method for the detection of Salmonella in foods and environmental surface samples.   |
| MFLP-30 | Detection of <i>Escherichia coli</i> O157:H7 in Select Foods using the BAX <sup>®</sup> System <i>E. coli</i> O157:H7 MP.                                    |
| MFLP-36 | Detection of <i>Salmonella</i> in Foods and Environmental Surface Samples- Assurance GDS <sup>®</sup> for <i>Salmonella</i> Tq Genetic Detection System      |
| MFLP-54 | Detection of <i>Listeria monocytogenes</i> from selected foods using iQ-Check <sup>™</sup> <i>Listeria monocytogenes</i> Real-Time PCR Test Kit              |
| MFLP-74 | Enumeration of <i>Listeria monocytogenes</i> in foods  |
| MFLP-79 | Detection of <i>Listeria</i> spp. in Environmental Surface Samples using the BAX <sup>®</sup> System Real-Time PCR Assay for <i>Listeria</i> genus           |
| MLG4    | Isolation and Identification of <i>Salmonella</i> from Meat, Poultry, Pasteurized Egg and Siluriformes (fish) Products and Carcass and environmental sponges |
| MLG41   | Isolation and Identification of <i>Campylobacter jejuni/coli/lari</i> from Poultry Rinse, Sponge and Raw Product Samples                                     |

## ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY

### Environmental:

#### Soil/Solid/Waste

|              |   |
|--------------|---|
| AB SOP-00047 | Free Liquid (Paint Filter Test) (Modified EPA 9095 B)<br>Volumetric<br>Free Liquid in Waste Samples |
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#### Water

|              |  |
|--------------|--|
| AB SOP-00011 | Silica (Reactive) by Discrete Autoanalyzer - Molybdate/ANSA Reduction Method (Modified EPA 370.1)<br>Colorimetric<br>Reactive Silica |
| AB SOP-00016 | Chemical Oxygen Demand (Total and Dissolved) (Modified SM 5220 D)<br>Colorimetric<br>COD   |

|              |  |
|--------------|--|
| AB SOP-00017 | Biochemical Oxygen Demand<br>(Modified SM 5210 B)<br>D.O. Meter<br>BOD (5 day)<br>CBOD (5 day)   |
| AB SOP-00023 | Nitrite and Nitrate by Ion Chromatography<br>(Modified SM 4110 B)<br>Ion Chromatography<br>Nitrate<br>Nitrite  |
| AB SOP-00024 | Total Phosphorus by Konelab - Ascorbic Acid Reduction Method (Modified from SM 4500-P, A, B, F) Colorimetric<br>Inorganic phosphorus<br>Total Phosphorus   |
| AB SOP-00026 | Sulfate by Ion Chromatography (Modified SM 4110B]<br>Ion Chromatography<br>Sulfate   |
| AB SOP-00032 | The Determination of Residual Chlorine in Waters<br>(Modified SM 4500 CL G)<br>Colorimetric<br>Free Chlorine<br>Total Chlorine   |
| AB SOP-00041 | Ferrous and Ferric Iron in Water-Colorimetric Determination (Modified SM 3500-Fe A, B)<br>Colorimetric<br>Ferrous Iron   |
| AB SOP-00058 | Dissolved Oxygen- Modified Winkler Method<br>(Modified SM 4500-O C) Titrimetric<br>Dissolved Oxygen  |
| AB SOP-00060 | Naphthenic Acids in water by FTIR<br>(Modified EPA 3510C R3/FTIR)<br>IR<br>Naphthenic Acids  |
| AB SOP-00061 | Total Suspended Solids, Total Fixed Solids, Total Volatile Solids<br>(Modified SM 2540 D, E)<br>Gravimetric<br>Total Suspended Solids<br>Total Suspended Solids Fixed<br>Total Suspended Solids Volatile |

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|---------------|--|
| AB SOP-00065  | Total Dissolved Solids (TDS)<br>[Modified SM 2540 C]<br>Gravimetric<br>Total Dissolved Solids  |
| AB SOP-00070  | Extraction and Analysis of Naphthenic Acids in Water (DCM Extraction)<br>[Modified from Syncrude 1995 m]<br>IR DCM Extraction<br>Naphthenic Acids                                  |
| AB SOP-00084  | Mercury in Waters, Leachates and Liquids by Bromination and Cold Vapour<br>[Modified BC MOE LABORATORY MANUAL SECTION C and EPA 245.7]<br>Mercury                                  |
| AB SOP-00087  | Organic Carbon by Technicon - Persulfate UV Oxidation<br>(Modified Methods Manual for Chemical Analysis of Water and Wastes,<br>Method Code 119)<br>Colorimetric<br>Organic Carbon |
| AB SOP-00092  | Oil and Grease Water Analysis by Gravimetric Hexane Extraction Method<br>(Modified SM 5520 B, Gravimetric)<br>Total Oil and Grease<br>Total Petroleum Hydrocarbons (TPH)           |
| CAL SOP-00040 | Bromate, Chlorate, and Chlorite by IC – Conductivity detection (Modified SM<br>4110 D)<br>Ion Chromatography<br>Bromate<br>Chlorate<br>Chlorite                                    |
| CAL SOP-00049 | Color by Discrete Autoanalyzer (Modified SM 2120C)<br>Spectrophotometric<br>Apparent colour<br>True Color  |
| CAL SOP-00055 | Glycolic and Lactic Acid by reversed-phase chromatography<br>(Modified from Dionex ICE-AS6 DOC NO 34961)<br>Ion Chromatography<br>Glycolic Acid<br>Lactic Acid                     |
| CAL SOP-00057 | Iodide, Thiocyanate, and Thiosulfate by Ion Chromatography<br>(Modified DIONEX, DOC NO 034035)<br>Ion Chromatography<br>Iodide<br>Thiocyanate<br>Thiosulfate                       |

|               |   |
|---------------|---|
| CAL SOP-00063 | Organic Acids by reversed-phase chromatography (conductivity detection)<br>(Modified DIONEX ICE-AS1 DOC NO 031181)<br>Ion Chromatography<br>Acetic Acid<br>Butyric Acid<br>Formic Acid<br>Propionic Acid  |
| CAL SOP-00065 | Oxalic Acid by Ion Chromatography - Conductivity Detection (Modified from SM 4110B)<br>Ion Chromatography<br>Oxalic Acid  |
| CAL SOP-00071 | Sulfite by Ion Chromatography – conductivity detection (Modified SM 4110 B)<br>Ion Chromatography - Conductivity Detector<br>Sulfite  |
| CAL SOP-00076 | Total and Dissolved Inorganic Carbon by Automated Colourimetry (Modified AE 2411)<br>Inorganic Carbon   |
| CAL SOP-00081 | Turbidity – Nephelometric Method (Modified SM 2130 B)<br>Nephelometric<br>Turbidity   |
| CAL SOP-00099 | Extraction and analysis of Resin and Fatty Acids in water by GCMS (Modified AE 129.0 and EPA 8270E)<br>GC/MS<br>12,14-Dichlorodehydroabiatic Acid      12-Chlorodehydroabiatic Acid<br>14-Chlorodehydroabiatic Acid      9,10-Dichlorostearic Acid (C18)<br>Abiatic Acid      Decanoic Acid C10<br>Dehydroabiatic Acid      Docosanoic Acid C22<br>Dodecanoic Acid C12      Eicosanoic Acid C20<br>Hexadecanoic Acid C16      Isopimaric Acid<br>Linoleic Acid C18:2      Linoleic Acid C18:3<br>Neoabiatic Acid      Octadecanoic Acid C18<br>Oleic Acid C18:1      Palmitoleic Acid<br>Palustric Acid<br>Pimaric Acid      Sandaracopimaric Acid<br>Tetradecanoic Acid (C14)      Undecanoic Acid (C11)<br>Total of Resin Acids      Total of Fatty Acids |
| CAL SOP-00266 | Determination of Free Cyanide (Modified EPA 9016)<br>Colorimetric- Distillation<br>Free cyanide   |

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|---------------|--|
| CAL SOP-00273 | Determination of Chlorophyll and Pheophytin<br>(Modified SM 10150 A, B)<br>Chlorophyll A<br>Chlorophyll B<br>Chlorophyll C<br>Pheophytin |
|---------------|--|

### Emissions (Air)

|                |  |
|----------------|--|
| EMS SOP-00112  | Fixed Gases - Air<br>(Modified Method 3, Alberta Stack Sampling Code, 1995, Publication Number: REF.89 and EPA 3C)<br>GC/TCD<br>CO<br>CO <sub>2</sub><br>N <sub>2</sub><br>O <sub>2</sub>                                  |
| EMS SOP-00114  | Hydrocarbons – Air (Modified AENV18)<br>GC/FID<br>Total Hydrocarbons as Methane  |
| *EMS SOP-00116 | Total/Trace Reduced Sulfur - Air<br>(Modified from AENV.TRS.P&P-1 and AENV.TRS.SGP-1)<br>GC/PID<br>Carbon disulfide<br>Carbonyl sulfide<br>Dimethyl disulfide<br>Dimethyl sulfide<br>Hydrogen sulphide<br>Methyl mercaptan |
| EMS SOP-00122  | Chlorine and Chlorine Dioxide – Air (Field)<br>(Modified Alberta Environment Stack Code, 1995, Publication Number REF 89)<br>Iodometric Determination<br>Chlorine<br>Chlorine Dioxide                                      |

### Soil/Solid

|               |  |
|---------------|--|
| *AB SOP-00002 | Moisture Content in Soil<br>(Modified CCME Petroleum Hydrocarbons in Soil - Tier 1 Method Section 13)<br>Gravimetric<br>% Moisture |
| *AB SOP-00003 | Analysis of PAH in Water, Soil, Oil and Leachates by GC/MS   |







|               |  |  |                              |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
|---------------|--|--|------------------------------|----------|---------|------------------------------|-----------|---------|---------|-----------|-----------|------------|-----------|---------|--------|-----------|---------|-----------|-----------|---------|------------|--------|--|-----------|----------|---------|--------|--------|-----------|---------|-----------|----------|-----|----------|----------|---------|----------|------|-----------|--|--|--|
|               | <p>Modified EPA 1617)- Sheen<br/> C6-C50 Hydrocarbons<br/> F3 (C16-C34 Hydrocarbons)<br/> F3B (C22-C34 Hydrocarbons)<br/> Reached Baseline at C50<br/> Total Extractables C10 to C30<br/> Total Extractables C23 to C60<br/> Total Petroleum Hydrocarbon</p>   | <p>F2 (C10-C16 Hydrocarbons)<br/> F3A (C16-C22 Hydrocarbons)<br/> F4 (C34-C50 Hydrocarbons)<br/> F4G-SG (Heavy Hydrocarbons-Grav)<br/> Total Extractables C11 to C22<br/> F4 HTG (&gt;C34 – High Temp GC)<br/> Visible Sheen</p> |                              |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| AB SOP-00042  | <p>Metals on Liquids and Solids by ICPOES<br/> (Modified EPA 6010 D) - Soils and Waters<br/> ICP/OES</p> <table border="0"> <tr> <td>Aluminum</td> <td>Barium</td> <td>Boron</td> <td>Calcium</td> </tr> <tr> <td>Chromium</td> <td>Iron</td> <td>Lithium</td> <td>Magnesium</td> </tr> <tr> <td>Manganese</td> <td>Phosphorus</td> <td>Potassium</td> <td>Silicon</td> </tr> <tr> <td>Sodium</td> <td>Strontium</td> <td>Sulfur</td> <td></td> </tr> </table>   |  | Aluminum                     | Barium   | Boron   | Calcium                      | Chromium  | Iron    | Lithium | Magnesium | Manganese | Phosphorus | Potassium | Silicon | Sodium | Strontium | Sulfur  |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Aluminum      | Barium   | Boron  | Calcium                      |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Chromium      | Iron   | Lithium  | Magnesium                    |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Manganese     | Phosphorus   | Potassium  | Silicon                      |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Sodium        | Strontium  | Sulfur   |                              |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| *AB SOP-00043 | <p>Metals Analysis on Soils and Waters Using ICPMS<br/> (Modified EPA 6020 B) - Soils and Waters<br/> [TCLP: EPA 1311]<br/> ICP/MS</p> <table border="0"> <tr> <td>Aluminum</td> <td>Antimony</td> <td>Arsenic</td> <td>Barium (Soils and Leachates)</td> </tr> <tr> <td>Beryllium</td> <td>Bismuth</td> <td>Boron</td> <td>Cadmium</td> </tr> <tr> <td>Calcium</td> <td>Chromium</td> <td>Cobalt</td> <td>Copper</td> </tr> <tr> <td>Iron</td> <td>Lead</td> <td>Lithium</td> <td>Magnesium</td> </tr> <tr> <td>Manganese</td> <td>Mercury</td> <td>Molybdenum</td> <td>Nickel</td> </tr> <tr> <td></td> <td>Potassium</td> <td>Selenium</td> <td>Silicon</td> </tr> <tr> <td>Silver</td> <td>Sodium</td> <td>Strontium</td> <td>Sulphur</td> </tr> <tr> <td>Tellurium</td> <td>Thallium</td> <td>Tin</td> <td>Titanium</td> </tr> <tr> <td>Tungsten</td> <td>Uranium</td> <td>Vanadium</td> <td>Zinc</td> </tr> <tr> <td>Zirconium</td> <td></td> <td></td> <td></td> </tr> </table> |  | Aluminum                     | Antimony | Arsenic | Barium (Soils and Leachates) | Beryllium | Bismuth | Boron   | Cadmium   | Calcium   | Chromium   | Cobalt    | Copper  | Iron   | Lead      | Lithium | Magnesium | Manganese | Mercury | Molybdenum | Nickel |  | Potassium | Selenium | Silicon | Silver | Sodium | Strontium | Sulphur | Tellurium | Thallium | Tin | Titanium | Tungsten | Uranium | Vanadium | Zinc | Zirconium |  |  |  |
| Aluminum      | Antimony   | Arsenic  | Barium (Soils and Leachates) |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Beryllium     | Bismuth  | Boron  | Cadmium                      |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Calcium       | Chromium   | Cobalt   | Copper                       |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Iron          | Lead   | Lithium  | Magnesium                    |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Manganese     | Mercury  | Molybdenum   | Nickel                       |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
|               | Potassium  | Selenium   | Silicon                      |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Silver        | Sodium   | Strontium  | Sulphur                      |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Tellurium     | Thallium   | Tin  | Titanium                     |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Tungsten      | Uranium  | Vanadium   | Zinc                         |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| Zirconium     |  |  |                              |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| AB SOP-00049  | <p>Particle Size Distribution by Hydrometer<br/> (Modified ASTM D7928)<br/> Hydrometer<br/> Particle Size Distribution</p>   |  |                              |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| AB SOP-00050  | <p>Dry Bulk Density and Wet Bulk Density<br/> 9Modified McKeague and MSSMA Section 2.21)<br/> Gravimetric<br/> Bulk Density</p>  |  |                              |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |
| AB SOP-00052  | <p>Bromide by Ion Chromatography - UV Detection<br/> (Modified from SM 4110 B) – Soils and Waters<br/> Ion Chromatography/UV Detector</p>  |  |                              |          |         |                              |           |         |         |           |           |            |           |         |        |           |         |           |           |         |            |        |  |           |          |         |        |        |           |         |           |          |     |          |          |         |          |      |           |  |  |  |

|                            |  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
|----------------------------|--|---------------------------|-----------------------|---------------------------|-----------------------|--------------------|----------------------|-------------------|------------------------|------------------------|------------------------|---------------------|--------------------|---------------------|------------------------|------------------------|---------------------|---------------------|---------|----------------------|-----------|--------------|----------------------|---------------|----------------------|--------------|------------|---------------|--------------------------|-------------------------|-----------------|--------------|------------|---------------------|----------------------|----------|---------|---------------------|---------|----------------------------|---------------------------|-------------------|------------------------|----------------|--|
|                            | Bromide  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| AB SOP-00056               | <p>Preparation and Analysis VOC -Water and Soil by HS/GC/MS<br/>(Modified from EPA8260D and EPA5021A)<br/>(VOC TCLP: EPA 1311) - Soils and Waters</p> <p>GC/MS (Headspace)</p> <table> <tr> <td>1,1,1,2-Tetrachloroethane</td> <td>1,1,1-Trichloroethane</td> </tr> <tr> <td>1,1,2,2-Tetrachloroethane</td> <td>1,1,2-Trichloroethane</td> </tr> <tr> <td>1,1-Dichloroethane</td> <td>1,1-dichloroethylene</td> </tr> <tr> <td>1,2 dibromoethane</td> <td>1,2,3-Trichlorobenzene</td> </tr> <tr> <td>1,2,4-Trichlorobenzene</td> <td>1,2,4-Trimethylbenzene</td> </tr> <tr> <td>1,2-dichlorobenzene</td> <td>1,2-dichloroethane</td> </tr> <tr> <td>1,2-Dichloropropane</td> <td>1,3,5 Trichlorobenzene</td> </tr> <tr> <td>1,3,5-Trimethylbenzene</td> <td>1,3-Dichlorobenzene</td> </tr> <tr> <td>1,4-dichlorobenzene</td> <td>Benzene</td> </tr> <tr> <td>Bromodichloromethane</td> <td>Bromoform</td> </tr> <tr> <td>Bromomethane</td> <td>Carbon Tetrachloride</td> </tr> <tr> <td>Chlorobenzene</td> <td>Dibromochloromethane</td> </tr> <tr> <td>Chloroethane</td> <td>Chloroform</td> </tr> <tr> <td>Chloromethane</td> <td>cis-1,2-Dichloroethylene</td> </tr> <tr> <td>cis-1,3-Dichloropropene</td> <td>Dichloromethane</td> </tr> <tr> <td>Ethylbenzene</td> <td>m/p-xylene</td> </tr> <tr> <td>Methyl methacrylate</td> <td>Methyl t-butyl ether</td> </tr> <tr> <td>o-xylene</td> <td>Styrene</td> </tr> <tr> <td>Tetrachloroethylene</td> <td>Toluene</td> </tr> <tr> <td>trans-1,2-Dichloroethylene</td> <td>trans-1,3-Dichloropropene</td> </tr> <tr> <td>Trichloroethylene</td> <td>Trichlorofluoromethane</td> </tr> <tr> <td>Vinyl Chloride</td> <td></td> </tr> </table> | 1,1,1,2-Tetrachloroethane | 1,1,1-Trichloroethane | 1,1,2,2-Tetrachloroethane | 1,1,2-Trichloroethane | 1,1-Dichloroethane | 1,1-dichloroethylene | 1,2 dibromoethane | 1,2,3-Trichlorobenzene | 1,2,4-Trichlorobenzene | 1,2,4-Trimethylbenzene | 1,2-dichlorobenzene | 1,2-dichloroethane | 1,2-Dichloropropane | 1,3,5 Trichlorobenzene | 1,3,5-Trimethylbenzene | 1,3-Dichlorobenzene | 1,4-dichlorobenzene | Benzene | Bromodichloromethane | Bromoform | Bromomethane | Carbon Tetrachloride | Chlorobenzene | Dibromochloromethane | Chloroethane | Chloroform | Chloromethane | cis-1,2-Dichloroethylene | cis-1,3-Dichloropropene | Dichloromethane | Ethylbenzene | m/p-xylene | Methyl methacrylate | Methyl t-butyl ether | o-xylene | Styrene | Tetrachloroethylene | Toluene | trans-1,2-Dichloroethylene | trans-1,3-Dichloropropene | Trichloroethylene | Trichlorofluoromethane | Vinyl Chloride |  |
| 1,1,1,2-Tetrachloroethane  | 1,1,1-Trichloroethane  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| 1,1,2,2-Tetrachloroethane  | 1,1,2-Trichloroethane  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| 1,1-Dichloroethane         | 1,1-dichloroethylene   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| 1,2 dibromoethane          | 1,2,3-Trichlorobenzene   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| 1,2,4-Trichlorobenzene     | 1,2,4-Trimethylbenzene   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| 1,2-dichlorobenzene        | 1,2-dichloroethane   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| 1,2-Dichloropropane        | 1,3,5 Trichlorobenzene   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| 1,3,5-Trimethylbenzene     | 1,3-Dichlorobenzene  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| 1,4-dichlorobenzene        | Benzene  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| Bromodichloromethane       | Bromoform  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| Bromomethane               | Carbon Tetrachloride   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| Chlorobenzene              | Dibromochloromethane   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| Chloroethane               | Chloroform   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| Chloromethane              | cis-1,2-Dichloroethylene   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| cis-1,3-Dichloropropene    | Dichloromethane  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| Ethylbenzene               | m/p-xylene   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| Methyl methacrylate        | Methyl t-butyl ether   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| o-xylene                   | Styrene  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| Tetrachloroethylene        | Toluene  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| trans-1,2-Dichloroethylene | trans-1,3-Dichloropropene  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| Trichloroethylene          | Trichlorofluoromethane   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| Vinyl Chloride             |  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| AB SOP-00062               | <p>Flashpoint by Small Scale Closed Cup Tester (SetaFlash) (Modified ASTM D3828)</p> <p>Seta Flash Closed Cup</p> <p>Flashpoint</p>  |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| AB SOP-00063               | <p>Hexavalent Chromium by Discrete Autoanalyzer<br/>(Modified SM 3500-Cr B and EPA 3060) – Soil and Water</p> <p>Colorimetric</p> <p>Hexavalent Chromium</p>   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| AB SOP-00067               | <p>Elemental Sulfur (Modified Canadian Journal of Soil Science, 65, Pages 811-813, 1985)</p> <p>Colour-Extraction</p> <p>Elemental Sulphur</p>   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |
| AB SOP-00080               | <p>Sulphide, Low level Sulfide (Modified SM 4500-S2D, A, F) – Soil and Water</p> <p>Colorimetric</p>   |                           |                       |                           |                       |                    |                      |                   |                        |                        |                        |                     |                    |                     |                        |                        |                     |                     |         |                      |           |              |                      |               |                      |              |            |               |                          |                         |                 |              |            |                     |                      |          |         |                     |         |                            |                           |                   |                        |                |  |



|               |  |
|---------------|--|
|               | <p>3,5-Dichlorobenzoic Acid</p> <p>Bentazon</p> <p>Chloramben</p> <p>Dichlorprop</p> <p>Dinoseb (DNBP)</p> <p>MCPP</p> <p>Picloram</p> <p>Bromoxynil</p> <p>Dicamba</p> <p>Diclofop-methyl</p> <p>MCPA</p> <p>Pentachlorophenol</p>  |
| CAL SOP-00096 | <p>Extraction and Analysis of OG and TPH in Water and Soil by FTIR (Modified SM 5520 C m) – Soils and Waters</p> <p>IR – Extraction</p> <p>Oil and Grease</p> <p>Total Petroleum Hydrocarbons</p>  |
| CAL SOP-00104 | <p>Preparation and Analysis of Extended VOC in Water and Soils by HS/GC/MS (Modified EPA 8260D, EPA 5021A &amp; VOC TCLP: EPA 1311) – Soils and Waters</p> <p>GC/MS – HS/Extraction</p> <p>1,2,3-trichloropropane</p> <p>1,2-dibromo-3-chloropropane</p> <p>2,2-dichloropropane</p> <p>2-chlorotoluene</p> <p>2-nitropropane</p> <p>4-methyl-2-pentanone (MIBK)</p> <p>Acetonitrile</p> <p>Acrylonitrile</p> <p>Bromochloromethane</p> <p>Cyclohexane</p> <p>Dibromomethane</p> <p>Dicyclopentadiene</p> <p>Ethyl ether</p> <p>Hexachlorobutadiene</p> <p>Iodomethane</p> <p>Naphthalene</p> <p>Nitrobenzene</p> <p>p-Isopropyltoluene</p> <p>tert-Butylbenzene</p> <p>1,1-dichloropropene</p> <p>1,3-dichloropropane</p> <p>2-butanone (MEK)</p> <p>2-hexanone</p> <p>4-chlorotoluene</p> <p>Acetone</p> <p>Acrolein</p> <p>Bromobenzene</p> <p>Carbon disulphide</p> <p>Cyclohexanone</p> <p>Dichlorodifluoromethane</p> <p>Ethyl acetate</p> <p>Ethyl methacrylate</p> <p>Hexane</p> <p>Isopropylbenzene</p> <p>n-Butylbenzene</p> <p>n-Propylbenzene</p> <p>sec-Butylbenzene</p> |
| CAL SOP-00149 | <p>Polychlorinated Biphenyls (PCB) (Modified EPA 8082A) – Soils, Waters and Oil</p> <p>GC/ECD – Extraction</p> <p>Aroclor 1016</p> <p>Aroclor 1248</p> <p>Aroclor 1268</p> <p>Aroclor 1221</p> <p>Aroclor 1254</p> <p>Total PCB</p> <p>Aroclor 1232</p> <p>Aroclor 1260</p> <p>Aroclor 1242</p> <p>Aroclor 1262</p>  |

|                            |   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
|----------------------------|---|---------------------------|---------------------------|-----------------------|---------------------------|-----------------------|-----------------------|--------------------|-----------------------|----------------------------|---------------------------|--------------------|-------------------|--------------------|---------------------|--------------------|----------------|----------------|---------------|------------------|------------------|-----------------------|--------------------|--------------------|--------------------|----------------------------|-------------------------|---------------|-------------------|--------|--|
| <p>CAL SOP-00164</p>       | <p>Semi Volatile Phenols (Modified EPA 8270E) – Soils and Waters<br/>GC/MS – Extraction</p> <table border="0"> <tr> <td>2,3,4,5-tetrachlorophenol</td> <td>2,3,4,6-tetrachlorophenol</td> </tr> <tr> <td>2,3,4-trichlorophenol</td> <td>2,3,5,6-tetrachlorophenol</td> </tr> <tr> <td>2,3,5-trichlorophenol</td> <td>2,3,6-trichlorophenol</td> </tr> <tr> <td>2,3-dichlorophenol</td> <td>2,4,5-trichlorophenol</td> </tr> <tr> <td>2,4,6-trichlorophenol</td> <td>2,4-dichlorophenol</td> </tr> <tr> <td>2,4-dimethylphenol</td> <td>2,4-dinitrophenol</td> </tr> <tr> <td>2,5-dichlorophenol</td> <td>2,6- dimethylphenol</td> </tr> <tr> <td>2,6-dichlorophenol</td> <td>2-chlorophenol</td> </tr> <tr> <td>2-methylphenol</td> <td>2-nitrophenol</td> </tr> <tr> <td>3&amp;4-chlorophenol</td> <td>3&amp;4-methylphenol</td> </tr> <tr> <td>3,4,5-trichlorophenol</td> <td>3,4-dichlorophenol</td> </tr> <tr> <td>3,4-dimethylphenol</td> <td>3,5-dichlorophenol</td> </tr> <tr> <td>4,6-dinitro-2-methylphenol</td> <td>4-chloro-3-methylphenol</td> </tr> <tr> <td>4-nitrophenol</td> <td>Pentachlorophenol</td> </tr> <tr> <td>Phenol</td> <td></td> </tr> </table> | 2,3,4,5-tetrachlorophenol | 2,3,4,6-tetrachlorophenol | 2,3,4-trichlorophenol | 2,3,5,6-tetrachlorophenol | 2,3,5-trichlorophenol | 2,3,6-trichlorophenol | 2,3-dichlorophenol | 2,4,5-trichlorophenol | 2,4,6-trichlorophenol      | 2,4-dichlorophenol        | 2,4-dimethylphenol | 2,4-dinitrophenol | 2,5-dichlorophenol | 2,6- dimethylphenol | 2,6-dichlorophenol | 2-chlorophenol | 2-methylphenol | 2-nitrophenol | 3&4-chlorophenol | 3&4-methylphenol | 3,4,5-trichlorophenol | 3,4-dichlorophenol | 3,4-dimethylphenol | 3,5-dichlorophenol | 4,6-dinitro-2-methylphenol | 4-chloro-3-methylphenol | 4-nitrophenol | Pentachlorophenol | Phenol |  |
| 2,3,4,5-tetrachlorophenol  | 2,3,4,6-tetrachlorophenol   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 2,3,4-trichlorophenol      | 2,3,5,6-tetrachlorophenol   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 2,3,5-trichlorophenol      | 2,3,6-trichlorophenol   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 2,3-dichlorophenol         | 2,4,5-trichlorophenol   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 2,4,6-trichlorophenol      | 2,4-dichlorophenol  |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 2,4-dimethylphenol         | 2,4-dinitrophenol   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 2,5-dichlorophenol         | 2,6- dimethylphenol   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 2,6-dichlorophenol         | 2-chlorophenol  |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 2-methylphenol             | 2-nitrophenol   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 3&4-chlorophenol           | 3&4-methylphenol  |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 3,4,5-trichlorophenol      | 3,4-dichlorophenol  |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 3,4-dimethylphenol         | 3,5-dichlorophenol  |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 4,6-dinitro-2-methylphenol | 4-chloro-3-methylphenol   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| 4-nitrophenol              | Pentachlorophenol   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| Phenol                     |   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| <p>CAL SOP-00184</p>       | <p>Aliphatic and Aromatic fractionation and analysis for &gt;C10-C50 PHC (Modified from Atl RBCA m) – Soils and Waters<br/>GC/FID</p> <table border="0"> <tr> <td>&gt;C10-C12 Aliphatic</td> <td>&gt;C10-C12 Aromatic</td> </tr> <tr> <td>&gt;C12-C16 Aliphatic</td> <td>&gt;C12-C16 Aromatic</td> </tr> <tr> <td>&gt;C16-C21 Aliphatic</td> <td>&gt;C16-C21 Aromatic</td> </tr> <tr> <td>&gt;C21-C34 Aliphatic</td> <td>&gt;C21-C34 Aromatic</td> </tr> <tr> <td>&gt;C34 Aliphatic (Up to C50)</td> <td>&gt;C34 Aromatic (Up to C50)</td> </tr> </table>   | >C10-C12 Aliphatic        | >C10-C12 Aromatic         | >C12-C16 Aliphatic    | >C12-C16 Aromatic         | >C16-C21 Aliphatic    | >C16-C21 Aromatic     | >C21-C34 Aliphatic | >C21-C34 Aromatic     | >C34 Aliphatic (Up to C50) | >C34 Aromatic (Up to C50) |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| >C10-C12 Aliphatic         | >C10-C12 Aromatic   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| >C12-C16 Aliphatic         | >C12-C16 Aromatic   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| >C16-C21 Aliphatic         | >C16-C21 Aromatic   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| >C21-C34 Aliphatic         | >C21-C34 Aromatic   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| >C34 Aliphatic (Up to C50) | >C34 Aromatic (Up to C50)   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| <p>CAL SOP-00239</p>       | <p>BC Extractable Petroleum Hydrocarbons in Water and Soil by GC/FID (Modified BCMOE EPH S 12/16) – Soils and Waters<br/>GC/FID<br/>EPH: C10-C19<br/>EPH: C19-C32<br/>TEH: C10-C30 (Water Only)</p>   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| <p>*CAL SOP-00240</p>      | <p>Fractionation for C6-C10 and BC method VPH by Headspace GC/FID/MS (Modified volatile HC in soils by GC/FID and EPA method 5021A, BC MELP VH; Atl. RBCA) – Soils and Waters<br/>GC/FID<br/>C6-C8<br/>&gt;C8-C10<br/>C6-o-xylene<br/>Aromatic &gt;C8-C10<br/>o-xylene-C10</p>  |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |
| <p>CAL SOP-00243/CAL</p>   | <p>Carbon, Organic Carbon and Sulphur in Soils and Mining Ores by</p>   |                           |                           |                       |                           |                       |                       |                    |                       |                            |                           |                    |                   |                    |                     |                    |                |                |               |                  |                  |                       |                    |                    |                    |                            |                         |               |                   |        |  |

|  |   |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
|--|---|---------------------|---------------------|--------------|----------------|----------|------------|----------------------|------------------|------------------------|------------------------|--------------------------|----------------------|----------------|----------|-----------------|--|--|--|-------------|----------------------------------|---------------------|-------------|----------------|-----------------------------|---------------------------|----------------------------------|---------------------|-------------|----------------|-----------------------------|---------------------------|-----------------------------------|---------------------|----------------|-----------------------------|----------|--------------------------|------------------|--------------|----------|----------------------------|--------------------------------|-------------|----------|--------------|--------|-----------|--------|
| SOP-00263                                  | <p>Combustions (Modified LECO Corporation Form No. 203-821-498, 203-821-165 and No. 203-821-463, Total Organic Carbon (TOC/FOC) in soil/sediment by combustion (PBM))</p> <p>Elemental Analysis of Soil by Elementar Vario Cube EL (Modified Vario El Cube No AN-A-030609)</p> <p>IR Combustion</p> <p>Carbon</p> <p>Nitrogen (for Cube EL only)</p> <p>Organic Carbon</p> <p>Sulphur</p>   |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| CAL SOP-00250                              | <p>Preparation and analysis of Alkylated PAH in soils and water (Modified SM 8270 E and ESTD-OR-20) – Soils and Waters</p> <p>GC/MS – Extraction</p> <table border="0"> <tr> <td>1-Methylnaphthalene</td> <td>2-Methylnaphthalene</td> </tr> <tr> <td>Acenaphthene</td> <td>Acenaphthylene</td> </tr> <tr> <td>Acridine</td> <td>Anthracene</td> </tr> <tr> <td>Benzo (a) anthracene</td> <td>Benzo (a) pyrene</td> </tr> <tr> <td>Benzo (g,h,i) perylene</td> <td>Benzo (k) fluoranthene</td> </tr> <tr> <td>Benzo (b&amp;j) fluoranthene</td> <td>Benzo(c)phenanthrene</td> </tr> <tr> <td>Benzo(e)pyrene</td> <td>Biphenyl</td> </tr> <tr> <td>C1-Acenaphthene</td> <td></td> </tr> <tr> <td>C1-Benzo(bjk)fluoranthene / Benzo[a]pyrene</td> <td></td> </tr> <tr> <td>C1-Biphenyl</td> <td>C1-Benzo(a) anthracene/ Chrysene</td> </tr> <tr> <td>C1-Dibenzothiophene</td> <td>C2-Fluorene</td> </tr> <tr> <td>C2-Naphthalene</td> <td>C2-Phenanthrene/ anthracene</td> </tr> <tr> <td>C2- Fluoranthene / Pyrene</td> <td>C3-Benzo(a)anthracene / Chrysene</td> </tr> <tr> <td>C3-Dibenzothiophene</td> <td>C3-Fluorene</td> </tr> <tr> <td>C3-Naphthalene</td> <td>C3-Phenanthrene/ anthracene</td> </tr> <tr> <td>C3- Fluoranthene / Pyrene</td> <td>C4- Benzo(a)anthracene / Chrysene</td> </tr> <tr> <td>C4-Dibenzothiophene</td> <td>C4-Naphthalene</td> </tr> <tr> <td>C4-Phenanthrene/ anthracene</td> <td>Chrysene</td> </tr> <tr> <td>Dibenzo (a,h) anthracene</td> <td>Dibenzothiophene</td> </tr> <tr> <td>Fluoranthene</td> <td>Fluorene</td> </tr> <tr> <td>Indeno (1,2,3 - cd) pyrene</td> <td>Indeno (1,2,3-cd) fluoranthene</td> </tr> <tr> <td>Naphthalene</td> <td>Perylene</td> </tr> <tr> <td>Phenanthrene</td> <td>Pyrene</td> </tr> <tr> <td>Quinoline</td> <td>Retene</td> </tr> </table> | 1-Methylnaphthalene | 2-Methylnaphthalene | Acenaphthene | Acenaphthylene | Acridine | Anthracene | Benzo (a) anthracene | Benzo (a) pyrene | Benzo (g,h,i) perylene | Benzo (k) fluoranthene | Benzo (b&j) fluoranthene | Benzo(c)phenanthrene | Benzo(e)pyrene | Biphenyl | C1-Acenaphthene |  | C1-Benzo(bjk)fluoranthene / Benzo[a]pyrene |  | C1-Biphenyl | C1-Benzo(a) anthracene/ Chrysene | C1-Dibenzothiophene | C2-Fluorene | C2-Naphthalene | C2-Phenanthrene/ anthracene | C2- Fluoranthene / Pyrene | C3-Benzo(a)anthracene / Chrysene | C3-Dibenzothiophene | C3-Fluorene | C3-Naphthalene | C3-Phenanthrene/ anthracene | C3- Fluoranthene / Pyrene | C4- Benzo(a)anthracene / Chrysene | C4-Dibenzothiophene | C4-Naphthalene | C4-Phenanthrene/ anthracene | Chrysene | Dibenzo (a,h) anthracene | Dibenzothiophene | Fluoranthene | Fluorene | Indeno (1,2,3 - cd) pyrene | Indeno (1,2,3-cd) fluoranthene | Naphthalene | Perylene | Phenanthrene | Pyrene | Quinoline | Retene |
| 1-Methylnaphthalene                        | 2-Methylnaphthalene   |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Acenaphthene                               | Acenaphthylene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Acridine                                   | Anthracene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Benzo (a) anthracene                       | Benzo (a) pyrene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Benzo (g,h,i) perylene                     | Benzo (k) fluoranthene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Benzo (b&j) fluoranthene                   | Benzo(c)phenanthrene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Benzo(e)pyrene                             | Biphenyl  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| C1-Acenaphthene                            |   |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| C1-Benzo(bjk)fluoranthene / Benzo[a]pyrene |   |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| C1-Biphenyl                                | C1-Benzo(a) anthracene/ Chrysene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| C1-Dibenzothiophene                        | C2-Fluorene   |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| C2-Naphthalene                             | C2-Phenanthrene/ anthracene   |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| C2- Fluoranthene / Pyrene                  | C3-Benzo(a)anthracene / Chrysene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| C3-Dibenzothiophene                        | C3-Fluorene   |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| C3-Naphthalene                             | C3-Phenanthrene/ anthracene   |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| C3- Fluoranthene / Pyrene                  | C4- Benzo(a)anthracene / Chrysene   |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| C4-Dibenzothiophene                        | C4-Naphthalene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| C4-Phenanthrene/ anthracene                | Chrysene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Dibenzo (a,h) anthracene                   | Dibenzothiophene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Fluoranthene                               | Fluorene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Indeno (1,2,3 - cd) pyrene                 | Indeno (1,2,3-cd) fluoranthene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Naphthalene                                | Perylene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Phenanthrene                               | Pyrene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| Quinoline                                  | Retene  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |
| CAL SOP-00251                              | <p>Extraction and analysis of low level Sulfolane in water and soil by GCMS (Modified EPA 8270E)</p> <p>GC/MSD – Extraction</p> <p>Sulfolane</p>  |                     |                     |              |                |          |            |                      |                  |                        |                        |                          |                      |                |          |                 |  |  |  |             |                                  |                     |             |                |                             |                           |                                  |                     |             |                |                             |                           |                                   |                     |                |                             |          |                          |                  |              |          |                            |                                |             |          |              |        |           |        |

|                           |  |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
|---------------------------|--|-----------------------|-------------------|-----------------|-----------------------|-------------------|------------|-------------|------------|-----------|----------|----------|----------------|---------------------------|-------|-----------|------|---------|-----------|-----------|---------|------------|--------|------------|-----------|----------|----------|---------|--------|--------|-----------|---------|-----------|----------|---------|-----|----------|----------|---------|----------|---------|------|-----------|--|--|
| <p>CAL SOP-00264</p>      | <p>Preparation and Analysis of Alcohol/Solvents (Water, soil, oil) by GCFID (Modified EPA 8015D) – Soils and Waters</p> <p>GC/FID – Extraction</p> <table border="0"> <tr> <td>2-Methylphenol</td> <td>3- Methylphenol</td> </tr> <tr> <td>4- Methylphenol</td> <td>Acetone (2-propanone)</td> </tr> <tr> <td>Ethanol</td> <td>Isobutanol</td> </tr> <tr> <td>Isopropanol</td> <td>* Methanol</td> </tr> <tr> <td>n-butanol</td> <td>Pyridine</td> </tr> </table>  | 2-Methylphenol        | 3- Methylphenol   | 4- Methylphenol | Acetone (2-propanone) | Ethanol           | Isobutanol | Isopropanol | * Methanol | n-butanol | Pyridine |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| 2-Methylphenol            | 3- Methylphenol  |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| 4- Methylphenol           | Acetone (2-propanone)  |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Ethanol                   | Isobutanol   |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Isopropanol               | * Methanol   |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| n-butanol                 | Pyridine   |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| <p>CAL SOP-00265</p>      | <p>ICPMS Analysis for Low Level Metals (Modified EPA SW846 6020B) – Soils and Waters</p> <p>ICP/MS</p> <table border="0"> <tr> <td>Aluminum</td> <td>Antimony</td> <td>Arsenic</td> <td>Barium</td> </tr> <tr> <td>Beryllium</td> <td>Bismuth</td> <td>Boron</td> <td>Cadmium</td> </tr> <tr> <td>Calcium</td> <td>Cesium</td> <td>Chromium</td> <td>Cobalt</td> </tr> <tr> <td>Copper</td> <td>Iron</td> <td>Lanthanum</td> <td>Lead</td> </tr> <tr> <td>Lithium</td> <td>Magnesium</td> <td>Manganese</td> <td>Mercury</td> </tr> <tr> <td>Molybdenum</td> <td>Nickel</td> <td>Phosphorus</td> <td>Potassium</td> </tr> <tr> <td>Rubidium</td> <td>Selenium</td> <td>Silicon</td> <td>Silver</td> </tr> <tr> <td>Sodium</td> <td>Strontium</td> <td>Sulphur</td> <td>Tellurium</td> </tr> <tr> <td>Thallium</td> <td>Thorium</td> <td>Tin</td> <td>Titanium</td> </tr> <tr> <td>Tungsten</td> <td>Uranium</td> <td>Vanadium</td> <td>Yttrium</td> </tr> <tr> <td>Zinc</td> <td>Zirconium</td> <td></td> <td></td> </tr> </table> | Aluminum              | Antimony          | Arsenic         | Barium                | Beryllium         | Bismuth    | Boron       | Cadmium    | Calcium   | Cesium   | Chromium | Cobalt         | Copper                    | Iron  | Lanthanum | Lead | Lithium | Magnesium | Manganese | Mercury | Molybdenum | Nickel | Phosphorus | Potassium | Rubidium | Selenium | Silicon | Silver | Sodium | Strontium | Sulphur | Tellurium | Thallium | Thorium | Tin | Titanium | Tungsten | Uranium | Vanadium | Yttrium | Zinc | Zirconium |  |  |
| Aluminum                  | Antimony   | Arsenic               | Barium            |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Beryllium                 | Bismuth  | Boron                 | Cadmium           |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Calcium                   | Cesium   | Chromium              | Cobalt            |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Copper                    | Iron   | Lanthanum             | Lead              |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Lithium                   | Magnesium  | Manganese             | Mercury           |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Molybdenum                | Nickel   | Phosphorus            | Potassium         |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Rubidium                  | Selenium   | Silicon               | Silver            |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Sodium                    | Strontium  | Sulphur               | Tellurium         |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Thallium                  | Thorium  | Tin                   | Titanium          |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Tungsten                  | Uranium  | Vanadium              | Yttrium           |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Zinc                      | Zirconium  |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| <p>CAL SOP-00270</p>      | <p>Determination of cyanide by automated colourimetry (Modified SM 4500-CN-,O) – Soil and Water</p> <p>Colorimetric- Distillation</p> <p>Cyanide SAD</p> <p>Cyanide WAD</p>  |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| <p>CAL SOP-00275</p>      | <p>Extraction and Analysis of Hydroxyphenols in Water and Soil by GCMS (Modified BC MOE Laboratory Manual and EPA SW 846 8270) – Water and Soil</p> <p>2-Hydroxyphenol (Catechol)</p> <p>3-Hydroxyphenol (Resorcinol)</p> <p>4-Hydroxyphenol (Hydroquinone)</p>  |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| <p>CAL SOP-00278</p>      | <p>Extraction and Analysis of Pesticides in Soil and Water by GC/MS (Modified EPA SW-846 method 8270E, Method 3510C and Method 3540C) – Soil and Water</p> <table border="0"> <tr> <td>Acephate (Soils only)</td> <td>2,4'-Ddt+4,4'-Ddd</td> </tr> <tr> <td>4,4'-Dde</td> <td>4,4'-Ddt</td> </tr> <tr> <td>4,4'-Methoxychlor</td> <td>A-Bhc</td> </tr> <tr> <td>A-Chlordane</td> <td>Alachlor</td> </tr> <tr> <td>Aldrin</td> <td>Aspon</td> </tr> <tr> <td>Atrazine</td> <td>Azinphos Ethyl</td> </tr> <tr> <td>Azinphos Methyl (Guthion)</td> <td>B-Bhc</td> </tr> </table>  | Acephate (Soils only) | 2,4'-Ddt+4,4'-Ddd | 4,4'-Dde        | 4,4'-Ddt              | 4,4'-Methoxychlor | A-Bhc      | A-Chlordane | Alachlor   | Aldrin    | Aspon    | Atrazine | Azinphos Ethyl | Azinphos Methyl (Guthion) | B-Bhc |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Acephate (Soils only)     | 2,4'-Ddt+4,4'-Ddd  |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| 4,4'-Dde                  | 4,4'-Ddt   |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| 4,4'-Methoxychlor         | A-Bhc  |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| A-Chlordane               | Alachlor   |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Aldrin                    | Aspon  |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Atrazine                  | Azinphos Ethyl   |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |
| Azinphos Methyl (Guthion) | B-Bhc  |                       |                   |                 |                       |                   |            |             |            |           |          |          |                |                           |       |           |      |         |           |           |         |            |        |            |           |          |          |         |        |        |           |         |           |          |         |     |          |          |         |          |         |      |           |  |  |



|                            |                     |
|----------------------------|---------------------|
| Benfluralin                | Bromacil            |
| Bromophos                  | Bromophos-Ethyl     |
| Butylate                   | Captan              |
| Carbophenothion            | Chlorbenside        |
| Chlorfenson(Ovex)          | Chlorfenvinphos (E) |
| Chlorfenvinphos(E/Z)       | Chlormephos         |
| Chlorothalonil (Daconil)   | Chlorpropham        |
| Chlorpyrifos               | Chlorpyrifos-Methyl |
| Chlorthiophos              | Cyanazine (Bladex)  |
| Cyanophos                  | Dacthal             |
| D-Bhc                      | Demeton             |
| Demeton-O                  | Desethyl-Atrazine   |
| Desmetryn                  | Diallate [Z]        |
| Diallate(E/Z)              | Diazinon            |
| Dichlobenil                | Dichlofenthion      |
| Dichlofluanid              | Dichloran           |
| Dichlorvox + Naled         | Diclofop-Methyl     |
| Dicofol                    | Dicrotophos         |
| Dieldrin                   | Dimethoate          |
| Dioxathion                 | Diphenylamine       |
| Disulfoton (Di-Syston)     | Endosulfan I        |
| Endosulfan II              | Endosulfan Sulfate  |
| Endrin                     | Endrin Aldehyde     |
| Endrin Ketone              | Epn                 |
| Eptam                      | Ethalfuralin        |
| Ethion                     | Fenitrothion        |
| Fensulfothion              | Fenthion            |
| Folpet                     | Fonofos             |
| G-Chlordane                | Heptachlor          |
| Heptachlor Epoxide         | Hexachlorobenzene   |
| Hexazinone                 | Iodofenphos         |
| Iprodione                  | Isofenphos          |
| Lindane (Bhc), Gamma       | Malaoxon            |
| Malathion                  | Metalaxyl           |
| Methamidophos (Soils only) | Methidation         |
| Metolachlor                | Metribuzin (Sencor) |
| Mevinphos (Phosdrin)       | Mirex               |
| Nitrofen                   | O,P'-Ddd            |
| O,P'-Dde                   | Omethoate           |
| Parathion                  | Parathion Methyl    |
| Pentachloronitrobenzene    | Permethrin          |
| Phorate (Thimet)           | Phosalone           |
| Phosmet                    | Phosphamidon (E)    |
| Phosphamidon (Z)           | Pirimicarb          |
| Pirimiphos-Ethyl           | Pirimiphos-Methyl   |
| Procymidone                | Profenophos         |
| Profluralin                | Prometryn           |
| Pronamide                  | Propazine           |
| Propiconazole              | Pyrazophos          |
| Quinalophos                | Ronnel              |
| Simazine                   | Stirophos           |
| Sulfotepp                  | Tecnazene           |

|  |   |  |
|--|---|--|
|  | Terbufos<br>Terbutryne<br>Tolyfluanid<br>Triallate<br>Vinclozolin | Terbuthylazine<br>Tetradifon<br>Triadimefon<br>Trifluralin |
|--|---|--|

**Water (Microbiology)**

|               |   |
|---------------|---|
| AB SOP-00085  | Determination of Iron Related and Sulfate Reducing Bacteria using BART™(Modified Dbi Env Tech Verification of the Irb Bart Tester for the Detection and Evaluation of Iron Bacteria in Water and Dbi Enviro Tech Verification of the Srb Bart Tester for the Detection and Verification of Sulphate Reducing Bacteria in Water)<br>Iron Related Bacteria (IRB)<br>Sulfate Reducing Bacteria (SRB) |
| AB SOP-00089  | Total and Fecal Coliforms and E. Coli by defined substrate technique (Modified SM 9223 A, B)<br>Most Probable Number (Colilert)<br><i>Escherichia coli</i> ( <i>E. coli</i> )<br>Total Coliforms<br>Fecal (Thermotolerant) Coliforms  |
| CAL SOP-00012 | Heterotrophic Plate Count<br>(Modified SM 9215 A, B and E)<br>Heterotrophic Plate Count (HPC)   |

Number of Scope Listings: 105

**Notes:**

**MFHPB:** Microbiological Foods Health Protection Branch, Health Canada

**MFLP:** Microbiological Food Laboratory Procedure, Health Canada

**MLG:** Food Safety and Inspection Services Microbiology Laboratory Guidebook, U.S. Department of Agriculture

**SM:** Standard Methods for Examination of Water and Wastewater, American Public Health Association (APHA)

**EPA:** Environment Protection Agency

**TCLP:** toxicity characteristic leaching procedure

**AB SOP:** Internal test method (Alberta)

**CAL SOP:** Internal test method (Calgary)

**CCME:** Canadian Council of Ministers of the Environment

\* These test methods can be performed on-site as per RG-Lab.



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