Membership Number: 3775
Laboratory Name: AGAT Laboratories - Edmonton
Parent Institution: AGAT Laboratories Ltd.
Address: 6310 Roper Road Edmonton AB T6B 3P9
Contact: Mrs. Afifa Gilani
Phone: (780) 469-0106
Fax: (780) 462-2490
Email: gilani@agatlabs.com; jroberts@agatlabs.com; unrau@agatlabs.com

Standard: Conforms with requirements of ISO/IEC 17025
Clients Served:
Revised On: April 19, 2017
Valid To: April 25, 2019

Scope of Accreditation

Oil (Inorganic)
Atmospheric Distillation - Oil (Petroleum Laboratory) (071)
HC-320-22011; ASTM D86
DISTILLATION
Atmospheric Distillation

Oil (Inorganic)
Base Sediment and water - Oil (Petroleum Laboratory) (070)
HC-320-22010; modified from ASTM D4007
CENTRIFUGATION
Sediment
Water

Oil (Inorganic)
Cloud Point - Oil (Petroleum Laboratory) (064)
HC-320-22004; ASTM D2500
CLOUD POINT ANALYZER
Cloud Point

Oil (Inorganic)
Colour - Oil (Petroleum Laboratory) (066)
HC-320-22006; ASTM D1500
OIL COMPARATOR WITH GLASS COLOR STANDARDS
Color

Oil (Inorganic)
Density/API - Oil (Petroleum Laboratory) (065)
HC-320-22005; modified from ASTM D4052 and ASTM D5002
DIGITAL DENSITY METER
API Gravity

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Density

Oil (Inorganic)
Elemental Sulfur - Oil (Petroleum Laboratory) (061)
HC-320-22001; ASTM D4294
X-RAY FLUORESCENCE SPECTROMETRY
Elemental Sulfur

Oil (Inorganic)
Flash Point - Oil (Petroleum Laboratory) (060)
HC-320-22000; modified from ASTM D93
PENSKY MARTENS CLOSED CUP TESTER
Flashpoint

Oil (Inorganic)
Metals - Oil (Petroleum Laboratory) (076)
HC-320-22017; ASTM D5708 A
ICP/OES (DILUTION METHOD)
Aluminum
Barium
Boron
Cadmium
Calcium
Chromium
Copper
Iron
Lead
Magnesium
Manganese
Molybdenum
Nickel
Phosphorus
Silicon
Silver
Sodium
Tin
Titanium
Vanadium
Zinc

Oil (Inorganic)
Metals - Oil (Petroleum Laboratory) (102)
HC-320-22016; ASTM D5708 B
ICP/OES
Iron
Nickel
Vanadium

Oil (Inorganic)
Micro carbon residue - Oil (Petroleum Laboratory) (067)
HC-320-22007; ASTM D4530
MICRO METHOD
Micro carbon residue

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Oil (Inorganic)
Organic Chlorides - Oil (Petroleum Laboratory) (080)
HC-320-22023; modified from ASTM D4929, Procedure A
POTENTIOMETRIC TITRATION
Chloride from 204 degrees cut of crude oil

Oil (Inorganic)
Pour Point - Oil (Petroleum Laboratory) (063)
HC-320-22003; modified from ASTM D97, ASTM D5853
POUR POINT ANALYZER
Pour Point

Oil (Inorganic)
Salt - Oil (Petroleum Laboratory) (068)
HC-320-22008; ASTM D3230
ELECTROMETRIC
Salt Content

Oil (Inorganic)
Sediment - Oil (Petroleum Laboratory) (069)
HC-320-22009; modified from ASTM D4807
MEMBRANE FILTRATION
Solids

Oil (Inorganic)
Sediment by Extraction - Oil (Petroleum Laboratory) (101)
HC-320-22027; ASTM D473
GRAVIMETRIC - EXTRACTION
Sediment

Oil (Inorganic)
Simulated Distillation - Oil (Petroleum Laboratory) (074)
HC-320-22014; ASTM D7169
HIGH TEMPERATURE GC
Crude oil-Boiling Point Fractions

Oil (Inorganic)
Sulfur Compounds - Oil (Petroleum Laboratory) (078)
HC-320-22019; modified from ASTM D5623 and ASTM 5504
GC/SCD
2-Propanethiol
Carbon sulfide
Cobalt Sulfide
Diethyl disulfide
Dimethyl disulfide
Ethyl mercaptan
Ethyl methyl sulfide
Ethyl sulfide
Hydrogen Sulfide
Isobutyl mercaptan
Methyl mercaptan
Methyl sulfide
n-Butyl mercaptan
n-Propyl mercaptan
sec-Butyl mercaptan
tert-Butyl mercaptan
tert-Butyl methyl mercaptan
Thiophene

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Oil (Inorganic)
Total Acid Number - Oil (Petroleum Laboratory) (072)
HC-320-22012; modified from ASTM D664
   POTENTIOMETRIC
   Total Acid Number

Oil (Inorganic)
Total Mercury - Oil (Petroleum Laboratory) (079)
HC-320-22021; modified from UOP 938
   MERCURY ANALYZER
   Total Mercury

Oil (Inorganic)
True Vapour Pressure - Oil (Petroleum Laboratory) (073)
HC-320-22013; ASTM D6377
   VAPOUR PRESSURE ANALYZER
   Vapour Pressure of crude oil

Oil (Inorganic)
Viscosity - Oil (Petroleum Laboratory) (062)
HC-320-22002; ASTM D7042
   STABINGER VISCOMETER
   Dynamic Viscosity
   Kinematic Viscosity

Oil (Inorganic)
Volatile Organic Phosphorus - Oil (Petroleum Laboratory) (075)
HC-320-22015; CCQTA
   ICP/OES
   Phosphorus in crude oil 250 degrees C cut

Petroleum Products (Inorganic)
Asphaltenes - Oil, Petroleum Products (Petroleum Laboratory) (098)
HC-320-22022; ASTM D6560
   GRAVIMETRIC
   Asphaltenes

Petroleum Products (Inorganic)
Reid Vapor Pressure - Petroleum Products (Petroleum Laboratory) (099)
HC-320-22026; ASTM D323
   VAPOR PRESSURE ANALYZER (REID METHOD)
   Reid Vapor Pressure

Petroleum Products (Inorganic)
Vapor Pressure - Petroleum Products (Petroleum Laboratory) (100)
HC-320-22025; ASTM D5191, D4953
   VAPOR PRESSURE ANALYZER
   Dry Vapor Pressure

Solids (Inorganic)
Anions - Soil (001)
INOR-171-6200, INOR-171-6002; modified from SM 4110 B and CARTER and GREGORICH SOIL SAMPLING and METHODS OF ANALYSIS
   IC - EXTRACTION
   Chloride
   Nitrate
   Nitrite
   Sulfate

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Solids (Inorganic)
Boron - Soil  (002)
INOR-171-6201, INOR-171-6005; modified from SM 3120 B / CARTER and GREGORICH SOIL SAMPLING and METHODS OF ANALYSIS
   ICP - HOT WATER EXTRACTION
   Boron

Solids (Inorganic)
Bulk Density - Soil  (103)
INOR-171-6004; BLAKE, G.R.MSA BULK DENSITY, 1986
   GRAVIMETRIC
   Bulk Density

Solids (Inorganic)
Cations - Soil  (056)
INOR-171-6201, INOR-171-6002; modified from SSMA CHAPTER 15 and SM 3120 B
   ICP/OES - SATURATED PASTE EXTRACTION
   Boron
   Calcium
   Magnesium
   Potassium
   Sodium
   Sulphur

Solids (Inorganic)
Chloride - Soil  (057)
INOR-171-6212, INOR-171-6002; modified from SM 4500-CL E
   COLORIMETRIC
   Chloride

Solids (Inorganic)
Chloride - Soil (Mobile Lab)  (090)
INOR-59-6000, INOR-59-6002; MARTIN R. CARTER, E.G. GREGORICH, ED., 15.2 EXTRACTION Pp. 161-164
IN SOIL SAMPLING AND METHODS OF ANALYSIS AND SM 4500 CL E
   COLORIMETRIC
   Chloride

Solids (Inorganic)
Conductivity - Soil, Sediment (Mobile Lab)  (087)
INOR-59-6000, INOR-59-6001; modified from MCKEAGUE, ED. 1978 SECTION 4.1
   CONDUCTIVITY METER
   Conductivity (saturated paste)

Solids (Inorganic)
Conductivity - Soil/Sediment  (004)
   CONDUCTIVITY METER
   Conductivity (saturated)
   Conductivity (2:1)

Solids (Inorganic)
Extractable Barium - Soil  (005)
INOR-171-6201, INOR-171-6007; modified from AB SOIL QUALITY GUIDELINES 6.2.2
   ICP/OES - EXTRACTION
   Extractable Barium -0.1M CaCl2

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Solids (Inorganic)
Flashpoint - Soil (029)
ORG-170-5210; modified from ASTM D93
PENSKY MARTENS CLOSED CUP TESTER
Flashpoint

Solids (Inorganic)
Free Liquid - Waste (017)
INOR-171-6012; modified from EPA SW-846 9095
PAINT FILTER TEST
Free Liquid

Solids (Inorganic)
Hexavalent Chromium - Soil (006)
INOR-171-6215; modified from SSSA PART 2 BY REISENAUER
SPECTROPHOTOMETRIC - EXTRACTION
Hexavalent chromium

Solids (Inorganic)
Metals - Soil (008)
INOR-171-6202, INOR-171-6006; modified from SM 3125 and EPA SW-846 3050B and BC LAB MANUAL
SECTION C
ICP/MS - DIGESTION
Antimony
Arsenic
Barium
Beryllium
Chromium
Cobalt
Copper
Iron
Lead
Manganese
Mercury
Molybdenum
Nickel
Selenium
Silver
Strontium
Thallium
Tin
Titanium
Uranium
Vanadium
Zinc

Solids (Inorganic)
Metals - Waste (018)
INOR-171-6201, INOR-171-6011; IN-HOUSE LEACHATE
ICP/OES - LEACHATE PREPARATION
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Chromium
Cobalt
Copper
Iron
Lead
Mercury
Nickel
Selenium
Silver
Thallium
Uranium
Vanadium
Zinc
Zirconium

**Solids (Inorganic)**
Moisture Content - Gravimetric \((105)\)
LAB-175-4002; CARTER 2008, SOIL SAMPLING AND METHODS OF ANALYSIS
GRAVIMETRIC
Moisture Content

**Solids (Inorganic)**
Oil and Grease - Soil \((019)\)
ORG-170-5200; modified from EPA 1664
FTIR - EXTRACTION
Oil and Grease

**Solids (Inorganic)**
Organic Carbon - Soil \((009)\)
INOR-171-6216; modified from MSA PART 3 CH. 34
CHEMICAL OXIDATION UV/VISIBLE
Organic Matter
Total Organic Carbon (TOC)

**Solids (Inorganic)**
Particle Size - Soil \((010)\)
INOR-171-6010; modified from SHELDICK, B.H. and WANG, C, PARTICLE SIZE DISTRIBUTION IN “SOIL SAMPLING and METHODS OF ANALYSIS”
HYDROMETER (2 PT)
% clay
% Sand
% silt

**Solids (Inorganic)**
Particle Size - Soil \((011)\)
INOR-171-6009; modified from SHELDICK, B.H. and WANG, C, PARTICLE SIZE DISTRIBUTION IN “SOIL SAMPLING and METHODS OF ANALYSIS”
SIEVE ANALYSIS
Particle Size (75 um)

**Solids (Inorganic)**
Percent Saturation - Soil \((012)\)
INOR-171-6000, INOR-171-6002, INOR-401-0120; modified from CARTER, ET AL - SOIL SAMPLING and METHOD ANALYSIS, 2ND ED.
GRAVIMETRIC - SATURATED PASTE
Percent Saturation (Saturated Paste)

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Solids (Inorganic)
Percent Saturation - Soil (Mobile Lab)  (088)
INOR-59-6000; modified from MARTIN R. CARTER, E.G. GREGORICH, ED., 15.2 EXTRACTION PP. 161-164 IN SOIL SAMPLING AND METHODS OF ANALYSIS
GRAVIMETRIC - SATURATED PASTE
Percent Saturation (Saturated Paste)

Solids (Inorganic)
pH - Soil/Sediment  (014)
INOR-171-6002, INOR-171-6205; modified from CARTER and GREGORICH, SOIL SAMPLING and METHODS OF ANALYSIS, 2ND ED.
PC TITRATE
pH (1:2) Soil: CaCl2

Solids (Inorganic)
pH - Soil/Sediment  (058)
INOR-171-6207; modified from CARTER and GREGORICH, SOIL SAMPLING and METHODS OF ANALYSIS, 2ND ED.
pH METER
pH (1:1)
pH (1:2) Soil: CaCl2
pH (2:1)
pH (Saturated Paste)

Solids (Inorganic)
Phenols - Soil  (015)
INOR-171-6213; modified from EPA 420.3 600 and EPA4-79-020
COLORIMETRIC
Total Phenolics

Solids (Inorganic)
Specific Gravity - Soil  (104)
INOR-171-6003; PROCEDURE FOR USING BAROID MUD BALANCE
MUD BALANCE
Specific Gravity

Solids (Inorganic)
Total Barium - Soil  (016)
INOR-171-6201, INOR-171-6008; modified from ASTM D4503; SM 3120 B
ICP - FUSION
Total Barium

Solids (Organic)
Alcohols - Soil  (091)
ORG-170-5442; EPA 8015 B AND EPA 5021
GC/FID
1-Butanol
2-Butanol
Ethanol
Isobutanol
Isopropanol
Methanol
Pentanol

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Propanol
tert-Butyl alcohol

**Solids (Organic)**
BTEX - Soil (021)
ORG-170-5100, ORG-170-5430, ORG-170-5440; IN-HOUSE LEACHATE
  GC/MS - LEACHATE
  Benzene
  Ethylbenzene
  m,p-Xylene
  o-Xylene
  Toluene

**Solids (Organic)**
BTEX - Solids (Mobile Lab) (083)
MO-0500; modified from MONOCYCLIC AROMATIC HYDROCARBONS (BTEX) IN SOILS BY DYNAMIC HEADSPACE AND GC/PID/FID, BC ENVIRONMENTAL LABORATORY MANUAL: 2009 EDITION
  GC/PID - HEADSPACE
  Benzene
  Ethylbenzene
  m/p-xylene
  o-xylene
  Toluene

**Solids (Organic)**
Petroleum Hydrocarbons (PHC) - Soil (022)
ORG-170-5300, ORG-170-5120; CCME CWS-PHC-TIER 1 METHOD
  GC/FID - EXTRACTION COLD SHAKE
  F2: C10-C16
  F3: C16-C34
  F4: C34-C50

**Solids (Organic)**
Petroleum Hydrocarbons (PHC) - Soil (023)
ORG-170-5120; CCME CWS-PHC-TIER 1 METHOD
  GRAVIMETRIC - EXTRACTION COLD SHAKE
  F4: Gravimetric

**Solids (Organic)**
Petroleum Hydrocarbons (PHC) - Soil (024)
ORG-170-5430, ORG-170-5140; CCME CWS-PHC TIER 1 METHOD
  GC/FID - PURGE AND TRAP
  F1: C6-C10

**Solids (Organic)**
Petroleum Hydrocarbons (PHC) - Soil (059)
ORG-170-5440, ORG-170-5110; modified from EPA SW-846 B and EPA SW-846 5021A
  GC/FID - HEADSPACE
  F1: C6-C10
  TPgH (C5-C10)

**Solids (Organic)**
Polycyclic Aromatic Hydrocarbons (PAH)/Alkylated PAH - Soil (025)
ORG-170-5420; modified from EPA SW-846 8270D and EPA SW-846 3540C and EPA SW-846 3570
  GC/MS - EXTRACTION
  1-Methylnaphthalene
  2-Methylnaphthalene
  Acenapthene
  Acenaphthylene

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Acridine
Anthracene
Benzo (a) anthracene
Benzo (a) pyrene
Benzo (b) fluoranthene
Benzo(e)pyrene
Benzo (g,h,i) perylene
Benzo (k) fluoranthene
Biphenyl
C1-Acenaphthenes
C1-Benzo(a)anthracenes/Chrysenes
C1-Benzofluoranthenes/Benzopyrenes
C1-Biphenyls
C1-Dibenzothiophenes
C1-Fluoranthenes/Pyrenes
C1-Fluorenes
C1-Phenanthrenes/Anthracenes
C2-Benzo(a)anthracenes/Chrysenes
C2-Benzofluoranthenes/Benzopyrenes
C2-Biphenyls
C2-Dibenzothiophenes
C2-Fluoranthenes/Pyrenes
C2-Fluorenes
C2-Naphthalenes
C2-Phenanthrenes/Anthracenes
C3-Dibenzothiophenes
C3-Fluoranthenes/Pyrenes
C3-Fluorenes
C3-Naphthalenes
C3-Phenanthrenes/Anthracenes
C4-Dibenzothiophenes
C4-Fluoranthenes/Pyrenes
C4-Naphthalenes
C4-Phenanthrenes/Anthracenes
Chrysene
Dibenzo (a,h) anthracene
Dibenzothiophene
Fluoranthe
Fluorene
Indeno (1,2,3 - cd) pyrene
Naphthalene
Perylene
Phenantherene
Pyrene
Quinoline
Retene

Solids (Organic)
Total Extractable Hydrocarbons (TEH) - Solids (Mobile Lab) (081)
MO-0300; CCME CWS-PHC-TIER 1 METHOD
GC/FID - EXTRACTION
EPH C10-C19
EPH C19-C32
F2: C10-C16

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
<table>
<thead>
<tr>
<th>Solids (Organic)</th>
<th>Total Extractable Hydrocarbons (TEH): C11-C30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SASK (C11-C22)</td>
</tr>
<tr>
<td></td>
<td>SASK (C23-C60)</td>
</tr>
<tr>
<td></td>
<td>Total Extractable Hydrocarbons (TEH): C11-C30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solids (Organic)</th>
<th>Total Extractable Hydrocarbons (TEH): C10-C32</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F3: C16-C34</td>
</tr>
<tr>
<td></td>
<td>F4: C34-C50</td>
</tr>
<tr>
<td></td>
<td>SASK (C11-C22)</td>
</tr>
<tr>
<td></td>
<td>SASK (C23-C60)</td>
</tr>
<tr>
<td></td>
<td>Total Extractable Hydrocarbons (TEH): C10-C32</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solids (Organic)</th>
<th>Total Petroleum Hydrocarbons (TPH): Soil (Mobile Lab): C6-C10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MO-0500; modified from MONOCYCLIC AROMATIC HYDROCARBONS (BTEX) IN SOILS BY DYNAMIC HEADSPACE AND GC/PID/FID, BC ENVIRONMENTAL LABORATORY MANUAL: 2009 EDITION</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solids (Organic)</th>
<th>Total Extractable Hydrocarbons (TEH): C11-C30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F1: C6-C10</td>
</tr>
<tr>
<td></td>
<td>TPGH (C5-C10)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solids (Organic)</th>
<th>Total Petroleum Hydrocarbons (TPH): Soil (Mobile Lab): C6-C10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SASK (C11-C22)</td>
</tr>
<tr>
<td></td>
<td>SASK (C23-C60)</td>
</tr>
<tr>
<td></td>
<td>Total Extractable Hydrocarbons (TEH): C11-C30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volatile Organic Compounds (VOC) - Soil (027)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORG-170-5400, ORG-170-5170; modified from EPA SW-846 5030B and EPA SW-846 8260B</td>
</tr>
<tr>
<td>GC/MS - PURGE AND TRAP/EXTRACTION</td>
</tr>
<tr>
<td>1,1-Dichloroethane</td>
</tr>
<tr>
<td>1,1-dichloroethylene</td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
</tr>
<tr>
<td>1,1,1,2-Tetrachloroethane</td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
</tr>
<tr>
<td>1,1,2,2-Tetrachloroethane</td>
</tr>
<tr>
<td>1,2-dichlorobenzene</td>
</tr>
<tr>
<td>1,2-dichloroethane</td>
</tr>
<tr>
<td>1,2-Dichloroethane</td>
</tr>
<tr>
<td>1,2,4-Trichlorobenzene</td>
</tr>
<tr>
<td>1,3-Dichlorobenzene</td>
</tr>
<tr>
<td>1,4-dichlorobenzene</td>
</tr>
<tr>
<td>2-Hexanone</td>
</tr>
<tr>
<td>Acetone (2-Propanone)</td>
</tr>
<tr>
<td>Benzene</td>
</tr>
<tr>
<td>Bromodichloromethane</td>
</tr>
<tr>
<td>Bromoform</td>
</tr>
<tr>
<td>Bromoform</td>
</tr>
<tr>
<td>Bromomethane</td>
</tr>
<tr>
<td>Carbon Tetrachloride</td>
</tr>
<tr>
<td>Chlorobenzene</td>
</tr>
<tr>
<td>Chlorodibromomethane</td>
</tr>
<tr>
<td>Chloroethane</td>
</tr>
<tr>
<td>Chloroform</td>
</tr>
<tr>
<td>Chloromethane</td>
</tr>
<tr>
<td>cis-1,2-Dichloroethylene</td>
</tr>
<tr>
<td>cis-1,3-Dichloropropene</td>
</tr>
<tr>
<td>Dichloromethane</td>
</tr>
<tr>
<td>Ethylbenzene</td>
</tr>
<tr>
<td>Ethylene Dibromide</td>
</tr>
</tbody>
</table>

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
m/p-xylene
Methyl Ethyl Ketone
Methyl isobutyl Ketone
Methyl t-butyl ether
o-xylene
Styrene
Tetrachloroethylene
Toluene
trans-1,2-Dichloroethylene
trans-1,2-Dichloroethylene
trans-1,3-Dichloropropene
Trichloroethylene
Trichlorofluoromethane
Vinyl chloride

Solids (Organic)
Volatile Organic Compounds (VOC) - Soil (028)
ORG-170-5410, ORG-170-5160; modified from EPA SW-846 8260C and EPA SW-846 5021
GC/MS - HEADSPACE
1,1-Dichloroethane
1,1-dichloroethylene
1,1,1-Trichloroethane
1,1,1,2-Tetrachloroethane
1,1,2-Trichloroethylene
1,2-dichlorobenzene
1,2-dichloroethane
1,2-Dichloropropene
1,2,4-Trichlorobenzene
1,3-Dichlorobenzene

2-Hexanone
Acetone (2-Propanone)
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon Tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethylene
cis-1,3-Dichloropropene
Dichloromethane
Ethylbenzene
Ethylene Dibromide
m/p-xylene
Methyl Ethyl Ketone
Methyl isobutyl Ketone
Methyl t-butyl ether
o-xylene
Styrene
Tetrachloroethylene

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Toluene
trans-1,2-Dichloroethylene
trans-1,3-Dichloropropene
Trichloroethylene
Trichlorofluoromethane
Vinyl chloride

**Water (Inorganic)**
Alkalinity - Water (030)
INOR-171-6205; modified from SM 2320 B
AUTO TITRIMETRIC (PC TITRATE)
Alkalinity (pH 4.5)

**Water (Inorganic)**
Ammonia - Water (031)
INOR-171-6211; modified from SM 4500-NH3 G
COLORIMETRIC
Ammonia

**Water (Inorganic)**
Anions - Water (032)
INOR-171-6200; modified from SM 4110 B
ION CHROMATOGRAPHY
Chloride
Fluoride
Nitrate
Nitrite
Sulfate

**Water (Inorganic)**
Biochemical Oxygen Demand (BOD) - Water (054)
MIC-171-7000; modified from SM 5210 B
D.O. METER
BOD (5 day)
CBOD (5 day)

**Water (Inorganic)**
Carbon - Water (033)
INOR-171-6217; modified from SM 5310 B
COMBUSTION - INFRARED
Inorganic Carbon
Total Carbon

**Water (Inorganic)**
Chemical Oxygen Demand (COD) - Water (034)
INOR-171-6210; modified from EPA 410.4
SPECTROPHOTOMETRIC
COD

**Water (Inorganic)**
Chloride - Water (Mobile Lab) (095)
INOR-59-6002; SM 4500-CL- E
COLORIMETRIC
Chloride

**Water (Inorganic)**
Conductivity - Water (035)
INOR-171-6205; modified from SM 2510 B
PC TITRATE
Conductivity (25°C)

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Water (Inorganic)
Conductivity - Water (Mobile Lab) (092)
INOR-59-6001; SM 2510 B
CONDUCTIVITY METER
Conductivity (25°C)

Water (Inorganic)
Dissolved Metals - Water (037)
INOR-171-6201, INOR-171-6100; modified from SM 3120 B
ICP/OES
Aluminum
Barium
Beryllium
Bismuth
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Lithium
Magnesium
Manganese
Molybdenum
Nickel
Phosphorus
Potassium
Silicon
Silver
Sodium
Strontium
Sulfur
Titanium
Tungsten
Vanadium
Zinc
Zirconium

Water (Inorganic)
Dissolved Metals - Water (038)
INOR-171-6202, INOR-171-6100; modified from SM 3125
ICP/MS
Aluminum
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Copper
Iron

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Lead
Lithium
Manganese
Molybdenum
Nickel
Phosphorus
Selenium
Silver
Strontium
Thallium
Thorium
Tin
Titanium
Uranium
Vanadium
Zinc

**Water (Inorganic)**
Hexavalent Chromium - Water (097)
INOR-171-6219; modified from SM 3500-Cr B
SPECTROPHOTOMETRIC
Hexavalent Chromium

**Water (Inorganic)**
Mercury - Water (039)
INOR-171-6204; modified from SM 3112 B
COLD VAPOUR AA
Mercury

**Water (Inorganic)**
Oil and Grease - Water (046)
ORG-170-5200; modified from EPA 1664
FTIR - EXTRACTION
Total Oil and Grease

**Water (Inorganic)**
pH - Water (040)
INOR-171-6205; modified from SM 4500 H+
AUTO TITRIMETRIC (PC TITRATE)
pH

**Water (Inorganic)**
pH Manual - Water (Mobile Lab) (093)
INOR-59-6001; modified from SM 4500- H+
pH METER
pH

**Water (Inorganic)**
Phenols - Water (041)
INOR-171-6213; modified from EPA 600 and EPA 4-79-020
AUTO COLOR
Total Phenolics

**Water (Inorganic)**
Solids - Water (042)
INOR-171-6102, INOR-171-6104; SM 2540 C, D
GRAVIMETRIC
Total Dissolved Solids
Total Suspended Solids

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Water (Inorganic)
TKN - Water (096)
INOR-171-6220; modified from HACH plus 880 Method 10242
SPECTROPHOTOMETRIC
Total Kjeldahl Nitrogen

Water (Inorganic)
Total Metals - Water (043)
INOR-171-6201, INOR-171-6100; modified from SM 3120 B
ICP/OES - NITRIC ACID DIGESTION
  Aluminum
  Barium
  Boron
  Cadmium
  Chromium
  Cobalt
  Copper
  Iron
  Lead
  Lithium
  Magnesium
  Manganese
  Molybdenum
  Nickel
  Phosphorus
  Potassium
  Silicon
  Silver
  Sodium
  Strontium
  Sulfur
  Tin
  Uranium
  Vanadium
  Zinc
  Zirconium

Water (Inorganic)
Total Metals - Water (044)
INOR-171-6202, INOR-171-6100; modified from SM 3125 and SM 3030 E
ICP/MS - NITRIC ACID DIGESTION
  Aluminum
  Antimony
  Arsenic
  Barium
  Beryllium
  Bismuth
  Boron
  Cadmium
  Chromium
  Cobalt
  Copper
  Iron

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Lead
Lithium
Manganese
Molybdenum
Nickel
Phosphorus
Selenium
Silver
Strontium
Thallium
Thorium
Tin
Titanium
Uranium
Vanadium
Zinc
Zirconium

**Water (Inorganic)**
Turbidity - Water (045)
INOR-171-6101; SM 2130 B
NEPHELOMETRY
Turbidity

**Water (Organic)**
Alcohols - Water (094)
ORG-170-5442; EPA 8015 B AND EPA 5021
GC/FID
1-Butanol
2-Butanol
Ethanol
Isobutanol
Isopropanol
Methanol
Pentanol
Propanol
tert-Butyl alcohol

**Water (Organic)**
BTEX - Water (Mobile Lab) (086)
MO-0500; modified from BC MANUAL
GC/PID
Benzene
Ethylbenzene
m/p-xylene
o-xylene
Toluene

**Water (Organic)**
Polycyclic Aromatic Hydrocarbons (PAH/ALKYLATED PAH) - Water (048)
ORG-170-5421; modified from EPA SW-846 8270C and EPA SW-846 3510 B and EPA SW-846 3511
GC/MS - EXTRACTION
1-Methylnaphthalene
2-Methylnaphthalene
Acenaphthene
Acenaphthylene
Acridine

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
Anthracene
Benzo (a) anthracene
Benzo (a) pyrene
Benzo (b) fluoranthene
Benzo(e)pyrene
Benzo (g,h,i) perylene
Benzo (k) fluoranthene
Biphenyl
C1-Acenaphthenes
C1-Benz(a)anthracenes/Chrysenes
C1-Benzofluoranthenes/Benzopyrenes
C1-Biphenyls
C1-Dibenzothiophenes
C1-Fluoranthenes/Pyrenes
C1-Fluorenes
C1-Phenanthrenes/Anthracenes
C2 Biphenyls
C2 Fluorenes
C2-Benz(a)anthracenes/Chrysenes
C2-Benzofluoranthenes/Benzopyrenes
C2-Dibenzothiophenes
C2-Fluoranthenes/Pyrenes
C2-Naphthalenes
C2-Phenanthrenes/Anthracenes
C3-Benzanthracenes/Chrysenes
C3-Dibenzothiophenes
C3-Naphthalenes
C3-Phenanthrenes/Anthracenes
C4-Benzanthracenes/Chrysenes
C4-Dibenzothiophenes
C4-Naphthalenes
C4-Phenanthrenes/Anthracenes
Chrysene
Dibenzo (a,h) anthracene
Dibenzothiophene
Fluoranthe
Fluorene
Indeno (1,2,3 - cd) pyrene
Naphthalene
Perylene
Phenantherne
Phenanthrene
Pyrene
Pyrene
Quinoline
Retene

**Water (Organic)**

Total Extractable Hydrocarbons (TEH) - Water (Mobile Lab) (085)
MO-0300; modified from BC MANUAL
GC/FID - EXTRACTION
EPH C10-C19
EPH C19-C32
F2: C10-C16

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
F3: C16-C34
F4: C34-C50
SASK (C11-C22)
SASK (C23-C60)
Total Extractable Hydrocarbons (TEH): C10-C32

**Water (Organic)**

Total Extractable Hydrocarbons (TEH) - Water  (049)

ORG-170-5300, ORG-170-5120; modified from EPA SW-846 3510 and AECV92-M2 and A108, BCMOE CSR

EPH IN WATER BY GC/FID

GC/FID - EXTRACTION

C11-C30

F2: C10-C16

SASK (C11-C22)

SASK (C23-C60)

**Water (Organic)**

Total Petroleum Hydrocarbons (TPH) - Water (050)

ORG-170-5140, ORG-170-5430; modified from EPA SW-846 5030B and EPA SW-846 8260B

GC/FID - PURGE AND TRAP

F1: C6-C10

TPGH (C5-C10)

Volatile Hydrocarbons (VH): C6-C10

**Water (Organic)**

Total Purgeable Hydrocarbons (TPH) - Water (Mobile Lab)  (084)

MO-0500; modified from BC MANUAL

GC/FID - HEADSPACE

F1: C6-C10

TPGH (C5-C10)

Volatile Hydrocarbons (VH): C6-C10

**Water (Organic)**

Volatile Organic Compounds (VOC) - Water  (051)

ORG-170-5400, ORG-170-5170; modified from EPA SW-846 8260B and EPA SW-846 5030 B

GC/MS - PURGE AND TRAP

1,1-Dichloroethane
1,1-dichloroethylene
1,1,1-Trichloroethane
1,1,1,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1,2,2-Tetrachloroethane
1,2-dichlorobenzene
1,2-dichloroethane
1,2-Dichloropropane
1,2,4-Trichlorobenzene
1,3-Dichlorobenzene
1,4-dichlorobenzene
2-Hexanone
Acetone (2-Propanone)
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon Tetrachloride
Chlorobenzene
Chlorodibromomethane

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the internet at http://www.cala.ca/cala_directories.html
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethylene
cis-1,3-Dichloropropene
Dibromochloromethane
Dichloromethane
Ethylbenzene
Ethylene Dibromide
m/p-xylene
Methyl Ethyl Ketone
Methyl isobutyl Ketone
Methyl t-butyl ether
Methyl t-butyl ether (MTBE)
o-xylene
Styrene
Tetrachloroethylene
Toluene
trans-1,2-Dichloroethylene
trans-1,3-Dichloropropene
Trichloroethane
Trichloroethylene
Trichlorofluoromethane
Vinyl Chloride

**Water (Organic)**
Volatile Organic Compounds (VOC) - Water (052)
ORG-170-5410, ORG-170-5160; modified from EPA SW-846 8260C and EPA SW-846 5021A
GC/MS - HEADSPACE
1,1-Dichloroethane
1,1-dichloroethylene
1,1,1-Trichloroethane
1,1,1,2-Tetrachloroethane
1,1,2-Trichloroethane
1,2-Dibromomethane
1,2-Dibromoethane
1,2-dichlorobenzene
1,2-dichloroethane
1,2-Dichloropropane
1,2,4-Trichlorobenzene
1,3-Dichlorobenzene
1,4-dichlorobenzene
2-Hexanone
Acetone (2-Propanone)
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon Tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethylene

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html
cis-1,3-Dichloropropene
Dichloromethane
Ethylbenzene
Ethylene Dibromide
m/p-xylene
Methyl Ethyl Ketone
Methyl isobutyl Ketone
Methyl t-butyl ether
o-xylene
Styrene
Tetrachloroethylene
Toluene
trans-1,2-Dichloroethylene
trans-1,3-Dichloropropene
Trichloroethylene
Trichlorofluoromethane
Vinyl Chloride

Water (Toxicology)
Microtox - Liquid Phase - Water (053)
TOX-171-7100; EPS 1/RM/24
BIOLUMINESCENCE
Microtox IC50 (15 min)

† “OSDWA” indicates the appendix is used for the analysis of Ontario drinking water samples, which is subject to the rules and related regulations under the Ontario “Safe Drinking Water Act” (2002).

The list of tests and measurement capabilities for which a laboratory is accredited can change at any time due to circumstances such as scope extensions, voluntary withdrawal of tests by the laboratory and suspension. Scopes are published by the CALA via the Internet at http://www.cala.ca/cala_directories.html