



CALA

Canadian Association for
Laboratory Accreditation Inc.

CALA Directory of Laboratories

Membership Number: 4132
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Standard: Conforms with requirements of ISO/IEC 17025
Clients Served: All Interested Parties
Revised On: February 25, 2021
Valid To: August 26, 2023

Scope of Accreditation

Leachate (Inorganic)

Anions - Leachate (031)
HI-016, PI-023; modified from EPA 1311 (PREPARATION) and EPA 300.1 (ANALYSIS)
ION CHROMATOGRAPHY (IC) - TCLP
Nitrite

Leachate (Inorganic)

Fluoride - Leachate (039)
HI-007, PI-023; modified from EPA 1311 (PREPARATION) and EPA 340.2 (ANALYSIS)
ION SELECTIVE ELECTRODE (ISE) - TCLP
Fluoride

Leachate (Inorganic)

Free Cyanide - Leachate (035)
HI-008, PI-023; modified from EPA 1311 (PREPARATION) and ON MOECC E3015 (ANALYSIS)
COLORIMETRIC - TCLP
Cyanide (WAD)

Leachate (Inorganic)

Mercury - Leachate (028)
HI-015, PI-023; modified from EPA 1311 (PREPARATION) and EPA 7470A (ANALYSIS)
COLD VAPOUR ATOMIC ABSORPTION (CVAA) - TCLP
Mercury

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Leachate (Inorganic)

Metals - Leachate (026)

HI-020, HI-042; modified from EPA 200.8 (ANALYSIS) and ON MOECC E9003 (PREPARATION)

ICP/MS - MSPLP

Antimony

Arsenic

Barium

Beryllium

Boron

Cadmium

Chromium

Cobalt

Copper

Lead

Molybdenum

Nickel

Selenium

Silver

Thallium

Uranium

Vanadium

Zinc

Leachate (Inorganic)

Metals - Leachate (027)

HI-020, PI-023; modified from EPA 1311 (PREPARATION) and EPA 200.8 (ANALYSIS)

ICP/MS - TCLP

Arsenic

Barium

Boron

Cadmium

Chromium

Lead

Selenium

Silver

Uranium

Leachate (Organic)

Semi-Volatile Hydrocarbons - Leachate (038)

HI-042, HO-003; modified from EPA 8270E (ANALYSIS) and ON MOECC E9003 (PREPARATION)

GC/MS - MSPLP

2,4-Dinitrophenol

2,4-Dinitrotoluene

2,4,6-Trichlorophenol

2,6-Dinitrotoluene (2,6-DNT)

3,3'-Dichlorobenzidine

4-Chloroaniline (p-Chloroaniline)

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Bis(2-chloroisopropyl) ether
Diethyl phthalate
Dimethyl phthalate

Leachate (Organic)

Semi-Volatile Organic Compounds (SVOC) - Leachate (037)
HO-003, PI-023; modified from EPA 1311 (PREPARATION) and EPA 8270E (ANALYSIS)
GC/MS - TCLP

2-Methylphenol (o-Cresol)
2,3,4,6-Tetrachlorophenol
2,4-Dichlorophenol
2,4-Dinitrotoluene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
3&4-Methylphenol (m+p-Cresol)
Benzo(a)pyrene
Hexachlorobenzene
Hexachlorobutadiene
Hexachloroethane
Nitrobenzene
Pentachlorophenol
Pyridine

Leachate (Organic)

Volatile Organic Compounds (VOC) - Leachate (032)
HO-001, PI-023; modified from EPA 1311 (PREPARATION) and EPA 624 (ANALYSIS)
GC/MS-PURGE AND TRAP - TCLP

1,1-Dichloroethylene
1,2-Dichlorobenzene
1,2-Dichloroethane
1,4-Dichlorobenzene
Benzene
Carbon tetrachloride
Chlorobenzene
Chloroform
Dichloromethane
Methyl ethyl ketone
Tetrachloroethylene
Trichloroethylene
Vinyl chloride

Leachate (Organic)

Volatile Organic Compounds (VOC) - Leachate (033)
HI-042, HO-001; modified from EPA 624 (ANALYSIS) and ON MOECC E9003 (PREPARATION)
GC/MS-PURGE AND TRAP - MSPLP

1,1-Dichloroethane
1,1-Dichloroethylene

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1,1,1,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1,2,2-Tetrachloroethane
1,2-Dibromoethane (Ethylene dibromide)
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,4-Dichlorobenzene
Bromomethane
Carbon tetrachloride
Chloroform
cis-1,2-Dichloroethylene
cis-1,3-Dichloropropene
Tetrachloroethylene
trans-1,2-Dichloroethylene
trans-1,3-Dichloropropene
Trichloroethylene

Solids (Inorganic)

Anions - Solids [Soil] (030)
HI-016; modified from ON MOECC E3013
ION CHROMATOGRAPHY (IC) - EXTRACTION
Bromide
Chloride
Fluoride
Nitrate-N
Nitrite
Phosphate-P
Sulphate

Solids (Inorganic)

Boron (Hot Water Soluble) - Solids [Soil] (003)
HI-020, HI-025; EPA 6020A (ANALYSIS) and GUPTA, 1967, SOIL SCIENCE 103: 424-428 (PREPARATION)
ICP/MS
Boron (Hot Water Soluble)

Solids (Inorganic)

Conductivity - Solids [Soil] (004)
HI-006; modified from EPA 120.1 and ON MOECC E3138
CONDUCTIVITY METER
Conductivity

Solids (Inorganic)

Cyanide - Solids [Soil] (005)
HI-008; modified from ON MOECC E3015
AUTOMATED COLORIMETRIC
Cyanide, Free

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Solids (Inorganic)

Hexavalent Chromium - Solids [Soil] (006)

HI-013; modified from EPA 3060A

COLORIMETRIC

Hexavalent Chromium

Solids (Inorganic)

Mercury - Solids [Soil] (008)

HI-015; modified from EPA 7471B and USGS METHOD 1-6463-86

COLD VAPOUR ATOMIC ABSORPTION (CVAA)

Mercury

Solids (Inorganic)

Metals - Paint (010)

HI-020; modified from EPA 6020A

ICP/MS - DIGESTION

Lead

Solids (Inorganic)

Metals - Solids [Soil] (015)

HI-006, HI-020; modified from EPA 6020A

ICP/MS

Calcium

Magnesium

Sodium

Sodium Adsorption Ratio (SAR) (calculation)

Solids (Inorganic)

Moisture - Solids [Soil] (016)

HO-010; CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD

GRAVIMETRIC

Total Solids

Solids (Inorganic)

pH - Solids [Soil] (014)

HI-010; modified from EPA 150.1 and ON MOECC E3137

pH METER

pH

Solids (Inorganic)

Total Metals - Solids [Soil] (012)

HI-020; modified from EPA 6020A

ICP/MS - DIGESTION

Aluminum

Antimony

Arsenic

Barium

Beryllium

Boron

Cadmium

Calcium

Chromium

Cobalt

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Copper
Iron
Lead
Magnesium
Manganese
Molybdenum
Nickel
Potassium
Selenium
Silver
Sodium
Strontium
Thallium
Tin
Titanium
Uranium
Vanadium
Zinc

Solids (Organic)

Flashpoint - Solids [Soil] (034)
HO-012; modified from ASTM D93-19
PENSKY-MARTENS CLOSED CUP
Flashpoint

Solids (Organic)

Petroleum Hydrocarbons (PHC) - Solids [Soil] (017)
HO-006; CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD
GC/FID-PURGE AND TRAP
F1: C6-C10

Solids (Organic)

Petroleum Hydrocarbons (PHC) - Solids [Soil] (018)
HO-007; CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD
GC/FID - COLD SHAKE EXTRACTION
F2: C10-C16
F3: C16-C34
F4: C34-C50

Solids (Organic)

Petroleum Hydrocarbons (PHC) - Solids [Soil] (020)
HO-009; CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD
GRAVIMETRIC - COLD SHAKE EXTRACTION
F4: Gravimetric

Solids (Organic)

Semi-Volatile Organic Compounds (SVOC) - Solids [Soil] (021)
HO-003; modified from EPA 8270E
GC/MS - EXTRACTION
1-Methylnaphthalene
1,2,4-Trichlorobenzene

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2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol (o-Cresol)
2-Nitrophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,6-Dinitrotoluene (2,6-DNT)
3,3'-Dichlorobenzidine
4-Chloro-3-methylphenol
4-Chloroaniline (p-Chloroaniline)
Acenaphthene
Acenaphthylene
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(b,j)fluoranthene (Parameter suspended on 12/19/2020)
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
Biphenyl (1,1-Biphenyl)
Bis(2-chloroethyl) ether
Bis(2-chloroisopropyl) ether
Bis (2-ethylhexyl) phthalate
Chrysene
Dibenzo(a,h)anthracene
Diethyl phthalate
Dimethylphthalate
Fluoranthene
Fluorene
Hexachlorobutadiene
Indeno(1,2,3 - cd)pyrene
Naphthalene
Pentachlorobenzene
Pentachlorophenol
Phenanthrene
Phenol
Pyrene

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Solids (Organic)

Volatile Organic Compounds (VOC) - Solids [Soil] (022)

HO-001; modified from EPA 8260

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
1,3-Dichlorobenzene
1,3,5-Trimethylbenzene
1,4-Dichlorobenzene
Acetone (2-Propanone)
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane (Ethyl Chloride)
Chloroethene (Vinyl chloride)
Chloroform
Chloromethane (Methyl chloride)
cis-1,2-Dichloroethylene
cis-1,3-Dichloropropene
Dichlorodifluoromethane
Dichloromethane
Ethylbenzene
Ethylene Dibromide
Hexane
m,p-Xylene
Methyl ethyl ketone
Methyl isobutyl ketone (MIBK)
Methyl t-butyl ether
o-Xylene
Styrene
Tetrachloroethylene
Toluene
trans-1,2-Dichloroethylene
trans-1,3-Dichloropropene

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Trichloroethylene
Trichlorofluoromethane

Water (Inorganic)

Anions - Water (029)
HI-016; modified from EPA 300.1
ION CHROMATOGRAPHY (IC)
Chloride
Fluoride
Nitrate
Phosphate
Sulfate

Water (Inorganic)

Conductivity - Water (002)
HI-006; SM 2510 B
CONDUCTIVITY METER
Conductivity (25°C)

Water (Inorganic)

Dissolved and Extractable Metals - Water (011)
HI-020; modified from EPA 200.8
ICP/MS
Aluminum
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Manganese
Molybdenum
Nickel
Potassium
Selenium
Silver
Sodium
Strontium
Thallium
Tin
Titanium

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Vanadium

Zinc

Water (Inorganic)

Free Cyanide - Water (036)

HI-008; modified from ON MOECC E3015

AUTOMATED COLORIMETRIC

Free Cyanide

Water (Inorganic)

Hexavalent Chromium - Water (007)

HI-013; modified from ON MOECC E3056A-1

COLORIMETRIC

Hexavalent Chromium

Water (Inorganic)

Mercury - Water (009)

HI-015; modified from EPA 245.1

COLD VAPOUR ATOMIC ABSORPTION (CVAA)

Mercury

Water (Inorganic)

pH - Water (001)

HI-010; EPA 150.1

pH METER

pH

Water (Inorganic)

Total Metals - Water (013)

HI-020; modified from EPA 200.8

ICP/MS - DIGESTION

Aluminum

Antimony

Arsenic

Barium

Beryllium

Boron

Cadmium

Calcium

Chromium

Cobalt

Copper

Iron

Lead

Magnesium

Manganese

Molybdenum

Nickel

Potassium

Selenium

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Silver
Sodium
Strontium
Thallium
Titanium
Uranium
Vanadium
Zinc
Zirconium

Water (Organic)

Perfluorinated Alkyl Substances (PFAS) - Water (040)
HO-017; modified from ON MOECC E3457
LC/MS/MS

n-Perfluorobutanesulfonic acid (n-PFBS, n-Perfluorobutanesulfonate)
n-Perfluorobutanoic acid (n-PFBA, n-Perfluorobutanoate)
n-Perfluorodecanesulfonic acid (n-PFDS, n-Perfluorodecanesulfonate)
n-Perfluorodecanoic acid (n-PFDA, n-Perfluorodecanoate)
n-Perfluorododecanoic acid (n-PFDoA, n-Perfluorododecanoate)
n-Perfluoroheptanoic acid (n-PFHpA, n-Perfluoroheptanoate)
n-Perfluorohexanesulfonic acid (n-PFHxS, n-Perfluorohexanesulfonate)
n-Perfluorohexanoic acid (n-PFHxA, n-Perfluorohexanoate)
n-Perfluorononanoic acid (n-PFNA, n-Perfluorononanoate)
n-Perfluorooctanesulfonic acid (n-PFOS, n-Perfluorooctanesulfonate)
n-Perfluorooctanesulfonamide (n-PFOSA)
n-Perfluorooctanoic acid (n-PFOA, n-Perfluorooctanoate)
n-Perfluoropentanoic acid (n-PFPeA, n-Perfluoropentanoate)
n-Perfluoroundecanoic acid (n-PFUnA, n-Perfluoroundecanoate)

Water (Organic)

Petroleum Hydrocarbons (PHC) - Water (019)
HO-007; modified from CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD
GC/FID - EXTRACTION

F2: C10-C16
F3: C16-C34
F4: C34-C50

Water (Organic)

Petroleum Hydrocarbons (PHC) - Water (023)
HO-006; modified from CCME CWS PETROLEUM HYDROCARBONS IN SOIL - TIER 1 METHOD (ANALYSIS)
and ON MOECC E3421 (PREPARATION)
GC/MS-PURGE AND TRAP

F1: C6-C10

Water (Organic)

Semi-Volatile Organic Compounds (SVOC) - Water (024)
HO-003; modified from EPA 8270E
GC/MS - EXTRACTION

1-Methylnaphthalene
1,2,4-Trichlorobenzene

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2-Chlorophenol
2-Methylnaphthalene
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,6-Dinitrotoluene (2,6-DNT)
3,3'-Dichlorobenzidine
4-Chloroaniline (p-Chloroaniline)
Acenaphthene
Acenaphthylene
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
Biphenyl (1,1-Biphenyl)
Bis(2-chloroethyl) ether
Bis(2-chloroisopropyl) ether
Bis (2-ethylhexyl) phthalate
Chrysene
Dibenzo(a,h)anthracene
Diethyl phthalate
Dimethyl phthalate
Fluoranthene
Fluorene
Indeno(1,2,3 - cd)pyrene
Naphthalene
Pentachlorobenzene
Pentachlorophenol
Phenanthrene
Phenol
Pyrene

Water (Organic)

Volatile Organic Compounds (VOC) - Water (025)

HO-001; modified from EPA 624
GC/MS-PURGE AND TRAP

1,1-Dichloroethane
1,1-Dichloroethylene
1,1-Dichloropropene
1,1,1-Trichloroethane
1,1,1,2-Tetrachloroethane

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1,1,2-Trichloroethane
1,1,2,2-Tetrachloroethane
1,2-Dibromo-3-chloropropane (DBCP)
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,3,5-Trimethylbenzene
1,4-Dichlorobenzene
2-Chlorotoluene
2,2-Dichloropropane
4-Chlorotoluene (p-Chlorotoluene)
4-isopropyltoluene (p-Cymene)
Acetone (2-Propanone)
Benzene
Bromobenzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane (Ethyl Chloride)
Chloroform
Chloromethane (Methyl chloride)
cis-1,2-Dichloroethylene
cis-1,3-Dichloropropene
Dibromomethane
Dichlorodifluoromethane (CFC12)
Dichloromethane
Ethylbenzene
Ethylene Dibromide
Hexane
Isopropylbenzene (Cumene)
m,p-Xylene
Methyl ethyl ketone
Methyl isobutyl ketone (MIBK)
Methyl t-butyl ether
n-Butylbenzene

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n-Propylbenzene
o-Xylene
sec-Butylbenzene
Styrene
tert-Butylbenzene
Tetrachloroethylene
Toluene
trans-1,2-Dichloroethylene
trans-1,3-Dichloropropene
Trichloroethylene
Trichlorofluoromethane
Vinyl chloride

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