



SCOPE OF ACCREDITATION TO ISO/IEC 17043:2010

CANADIAN ASSOCIATION FOR LABORATORY ACCREDITATION  
(CALA)

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PROFICIENCY TESTING PROVIDER

Valid To: May 31, 2021

Certificate Number: 2298.01

In recognition of the successful completion of the A2LA evaluation process, this Proficiency Testing Provider has been found to meet the ISO/IEC 17043:2010, "Conformity assessment - General Requirements for Proficiency Testing". Accreditation is granted to this organization to provide proficiency testing samples in the following analyte/matrix combinations:

<u>Program Name / Parameters<sup>1</sup></u>	<u>Frequency</u>	<u>Matrix</u>
C01A Major Ions  Alkalinity (pH 4.5) Chloride Conductivity (25°C) Dissolved Calcium Dissolved Magnesium Fluoride Hardness (as CaCO <sub>3</sub> ) Nitrate Nitrate plus Nitrite Potassium Reactive Silica Sodium Sulfate Inorganic Carbon	6 Months	Water
C01B NH <sub>3</sub> /o-Phosphate/DOC/Bromide/Nitrite  Ammonia Bromide DOC Nitrite Phosphate (SRP)	6 months	Water

Program Name / Parameters

Frequency

Matrix

C02A Full Range Metals

6 months

Water

Aluminum  
Antimony  
Arsenic  
Barium  
Beryllium  
Boron  
Cadmium  
Chromium  
Cobalt  
Copper  
Iron  
Lead  
Manganese  
Molybdenum  
Nickel  
Selenium  
Silver  
Strontium  
Thallium  
Tin  
Titanium  
Uranium  
Vanadium  
Zinc

C02B High Range Metals

6 months

Water

Aluminum  
Barium  
Boron  
Chromium  
Cobalt  
Copper  
Iron  
Lead  
Manganese  
Molybdenum  
Nickel  
Strontium  
Thallium  
Titanium  
Vanadium  
Zinc



<u>Program Name / Parameters</u>	<u>Frequency</u>	<u>Matrix</u>
C02C Total Metals	6 months	Water
Aluminum		
Barium		
Boron		
Chromium		
Cobalt		
Copper		
Iron		
Lead		
Manganese		
Molybdenum		
Nickel		
Strontium		
Thallium		
Titanium		
Vanadium		
Zinc		
C03 TKN and TP	6 months	Water
Total Kjeldahl Nitrogen		
Total Phosphorus		
C04A Solids	6 months	Water
Total Dissolved Solids		
Total Suspended Solids		
Volatile Suspended Solids		
C04B BOD	6 months	Water
BOD (5 day)		
CBOD (5 day)		
C04C Turbidity	6 months	Water
Turbidity		
C04D COD	6 months	Water
COD		
C05A Microbiology (Not intended for multi-tube fermentation)	6 months	Water
<i>Escherichia coli</i> ( <i>E. coli</i> )		
Fecal Coliforms		
Heterotrophic Plate Count (HPC)		
Total Coliforms		



<u>Program Name / Parameters</u>	<u>Frequency</u>	<u>Matrix</u>
C05B Microbiology (Presence/Absence)  <i>Escherichia coli (E. coli)</i> Total Coliforms	6 months	Water
C06A Organochlorine Pesticides (OCP)  Aldrin Alpha-BHC alpha-Chlordane gamma-Chlordane Dieldrin Endosulfan I Endosulfan II Endrin Heptachlor Heptachlor Epoxide Lindane (gamma-BHC) Mirex o,p' - DDT p,p' - DDT p,p Methoxychlor	6 months	Water
C06B Total PCB  aroclor 1242 aroclor 1248 aroclor 1254 aroclor 1260 Total PCBs	6 months	Water
C07 Polycyclic Aromatic Hydrocarbons (PAH)  Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (g,h,i) perylene Benzo (k) fluoranthene Chrysene Dibenzo(a,h)anthracene Fluoranthene Fluorene Naphthalene Indeno (1,2,3-cd) pyrene Phenanthrene Pyrene	6 months	Water



<u>Program Name / Parameters</u>	<u>Frequency</u>	<u>Matrix</u>
C08 Total PCB in Oil  Total PCB aroclor 1242 aroclor 1248 aroclor 1254 aroclor 1260	6 months	Oil
C09 Metals on Air Filters  Cadmium Copper Lead Zinc	6 months	Air filters
C11 Trout LC50  Trout LC50 (96 h)	6 months	Water
C12 Daphnia LC50  Daphnia LC50 (48 h)	6 months	Water
C13 Microtox IC50  Microtox IC50 (15 min)	6 months	Water
C14 CN (SAD)  Cyanide (Strong Acid Dissociable)	6 months	Water
C15 pH  pH	6 Months	Water
C16 BTEX / Triahlomethanes / Volatile Organic Compounds (THM/VOC)  1,1-dichloroethane 1,1-dichloroethylene 1,1,1-trichloroethane 1,1,2-trichloroethane 1,1,2,2-tetrachloroethane 1,2-dichlorobenzene 1,2-dichloroethane 1,2-dichloropropane 1,3-dichlorobenzene 1,4-dichlorobenzene Acetone (2-propanone) Benzene Bromodichloromethane Bromoform	6 months	Water



<u>Program Name / Parameters</u>	<u>Frequency</u>	<u>Matrix</u>
C16 BTEX / Trihalomethanes / Volatile Organic Compounds (THM/VOC) ( <i>Cont'd</i> )	6 months	Water
Carbon Tetrachloride Chlorobenzene		
C16 BTEX / Trihalomethanes / Volatile Organic Compounds (THM/VOC)	6 months	Water
Chlorodibromomethane Chloroform cis-1,2-dichloroethylene cis-1,3-dichloropropene Dichloromethane Ethylbenzene Ethylene Dibromide M/p-xylene Methyl Ethyl Ketone Methyl t-butyl ether (MTBE) Methyl isobutyl ketone (MIBK) o-xylene Styrene Tetrachloroethylene Toluene Trans-1,2-dichloroethylene Trans-1,3-dichloropropene Trichloroethylene Trichlorofluoromethane Vinyl Chloride		
C17 Metals in Soil / Sediment	6 months	Soil / Sediment
Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Copper Iron Lead Manganese Mercury Nickel Strontium Tin Titanium Uranium Vanadium		



Zinc

<u>Program Name / Parameters</u>	<u>Frequency</u>	<u>Matrix</u>
C18 Polycyclic Aromatic Hydrocarbons (PAH) in Soil / Sediment	6 months	Soil / Sediment
Acenaphthene		
Acenaphthylene		
Anthracene		
Benzo (a) anthracene		
Benzo (a) pyrene		
Benzo (b) fluoranthene		
Benzo (g,h,i) perylene		
Benzo (k) fluoranthene		
Chrysene		
Dibenzo(a,h)anthracene		
Fluoranthene		
Fluorene		
Indeno (1,2,3-cd) pyrene		
Naphthalene		
Phenanthrene		
Pyrene		
C19 Mercury	6 months	Water
Mercury		
C22 OP Pesticides	6 months	Water
Atrazine		
Azinphos-methyl		
Bendiocarb		
Carbaryl		
Carbofuran		
Chlorpyriphos (ethyl)		
Cyanazine		
Diazinon		
Dimethoate		
Diuron		
Malathion		
Metolachlor		
Metribuzin		
Parathion (ethyl)		
Phorate		
Simazine		
Terbufos		
Trifluralin		
C24 Aryloxy Acid Pesticides	6 months	Water
2,4-dichlorophenoxyacetic acid		
2,4,5-trichlorophenoxyacetic acid		
Bromoxynil		



<u>Program Name / Parameters</u>	<u>Frequency</u>	<u>Matrix</u>
C24 Aryloxy Acid Pesticides (cont'd)	6 months	Water
Dicamba Diclofop-methyl (as free acid) Dinoseb Picloram		
C25 Phenolic Compounds	6 months	Water
2,4,6-trichlorophenol 2,3,4,6-tetrachlorophenol 2,4-dichlorophenol Pentachlorophenol		
C27 Glyphosate	6 months	Water
Glyphosate		
C29 Aldicarb	6 months	Water
Aldicarb		
C31A PHC in Soil	6 months	Soil / Sediment
F1: C <sub>6</sub> -C <sub>10</sub> Benzene Ethylbenzene M/p-xylene o-xylene Toluene VH: C <sub>6</sub> – C <sub>10</sub>		
C31B PHC in Soil	6 months	Soil / Sediment
F2:C <sub>10</sub> -C <sub>16</sub> F3:C <sub>16</sub> -C <sub>34</sub> F4:C <sub>34</sub> -C <sub>50</sub> F4 (Gravimetric methods only)		
C32 Chlorine	6 months	Water
Free Chlorine Total Chlorine		
C33 Total Phenolics	6 months	Water
Total Phenolics		
C34 Total Oil and Grease	6 months	Water
Total Oil and Grease Mineral Oil and Grease (Gravimetric methods only)		





<u>Program Name / Parameters</u>	<u>Frequency</u>	<u>Matrix</u>
C35 PCBs	6 months	Soil / Sediment
aroclor 1242 aroclor 1248 aroclor 1254 aroclor 1260 Total PCB		
C36 VOCs	6 months	Soil
1,1-dichloroethane 1,1-dichloroethylene 1,1,1-trichloroethane 1,1,2-trichloroethane 1,1,2,2-tetrachloroethane 1,2-dichlorobenzene 1,2-dichloroethane 1,2-dichloropropane 1,3-dichlorobenzene 1,4-dichlorobenzene Acetone (2-propanone) Benzene Bromodichloromethane Bromoform Carbon Tetrachloride Chlorobenzene Chlorodibromomethane Chloroform cis-1,2-dichloroethylene cis-1,3-dichloropropene Dichloromethane Ethylbenzene Ethylene Dibromide M/p-xylene Methyl Ethyl Ketone Methyl t-butyl ether (MTBE) Methyl isobutyl ketone (MIBK) o-xylene Styrene Tetrachloroethylene Toluene Trans-1,2-dichloroethylene Trans-1,3-dichloropropene Trichloroethylene Trichlorofluoromethane		
C37 Colour	6 Months	Water
True Colour		



<u>Program Name / Parameters</u>	<u>Frequency</u>	<u>Matrix</u>
C38 VOCs by TCLP	6 Months	Soil
1,2-Dichlorobenzene 1,2-Dichloroethane 1,4-Dichlorobenzene Benzene Carbon tetrachloride Chlorobenzene Chloroform Dichloromethane Methyl Ethyl Ketone Tetrachloroethylene Trichloroethylene		
C39 Inorganics by TCLP	6 Months	Soil
Silver Arsenic Boron Barium Cadmium Chromium Lead Selenium Uranium Mercury Fluoride Nitrate-N Nitrate and Nitrite as N Cyanide (Weak Acid Dissociable)		
C40A Petroleum Hydrocarbons in Water	6 Months	Water
Benzene Ethylbenzene F1: C6-C10 m/p-Xylene o-Xylene Toluene		
C40B Petroleum Hydrocarbons in Water	6 Months	Water
F2: C10-C16 F3: C16-C34 F4: C34-C50		
C41 Hexavalent Chromium in Water	6 Months	Water
Hexavalent Chromium		

<sup>1</sup>Assigned values and associated uncertainties are determined by consensus of participant data. Acceptance limits are based on regression equations derived from historic data.





## *Accredited Proficiency Testing Provider*

A2LA has accredited

### **CANADIAN ASSOCIATION FOR LABORATORY ACCREDITATION (CALA)**

*Ottawa, ON K2H 1B2, Canada*

This accreditation covers the specific proficiency testing schemes listed on the agreed upon Scope of Accreditation.

This provider is accredited in accordance with the recognized International Standard ISO/IEC 17043: 2010 *Conformity assessment - General requirements for proficiency testing*. This accreditation demonstrates technical competence for a defined scope and the operation of a quality management system.



Presented this 17<sup>th</sup> day of March 2017.

President and CEO  
For the Accreditation Council  
Certificate Number 2298.01  
Valid to May 31, 2021

*For the proficiency testing schemes to which this accreditation applies, please refer to the provider's Scope of Accreditation.*