



# CERTIFICATE OF ACCREDITATION

**The ANSI National Accreditation Board**

Hereby attests that

**Brooks Applied Labs**  
**18804 North Creek Parkway, Suite 100**  
**Bothell, WA 98011**

Fulfills the requirements of

**ISO/IEC 17025:2017**

In the field of

**TESTING**

This certificate is valid only when accompanied by a current scope of accreditation document.  
The current scope of accreditation can be verified at [www.anab.org](http://www.anab.org).

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 30 March 2024

Certificate Number: ADE-1447.02



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory  
quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017**

**Brooks Applied Labs**  
18804 North Creek Parkway, Suite 100  
Bothell, WA 98011  
Amber Dichter  
206-632-6206

**TESTING**

Valid to: **March 30, 2024**

Certificate Number: **ADE-1447.02**

**Chemical**

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Elemental Analysis	BAL-5040 In-house versions of: AOAC 2015.01 modified	Food	ICP-MS
Inorganic Arsenic	BAL-3300 1632A	Food	HGAAS
Total Inorganic Arsenic (TIA) Monomethylarsonic acid (MMA) Dimethylarsinic acid (DMA)	BAL-4100	Food	IC-ICP-MS
Total Inorganic Arsenic (TIA) Monomethylarsonic acid (MMA) Dimethylarsinic acid (DMA)	BAL-4101	Food	IC-ICP-MS
Low Level Hg	BAL-3100 1631E (appendix)	Food	CVAFS

**Environmental**

<b>Non-Potable Water</b>		
<b>Technology</b>	<b>Method</b>	<b>Analyte</b>
ICP-MS	BAL-5000	Aluminum
ICP-MS	BAL-5000	Arsenic
ICP-MS	BAL-5000	Antimony
ICP-MS	BAL-5000	Barium
ICP-MS	BAL-5000	Beryllium
ICP-MS	BAL-5000	Boron
ICP-MS	BAL-5000	Calcium
ICP-MS	BAL-5000	Cadmium
ICP-MS	BAL-5000	Chromium
ICP-MS	BAL-5000	Cobalt
ICP-MS	BAL-5000	Copper
ICP-MS	BAL-5000	Iron
ICP-MS	BAL-5000	Lead
ICP-MS	BAL-5000	Magnesium
ICP-MS	BAL-5000	Manganese
ICP-MS	BAL-5000	Molybdenum
ICP-MS	BAL-5000	Nickel
ICP-MS	BAL-5000	Selenium
ICP-MS	BAL-5000	Silver
ICP-MS	BAL-5000	Strontium
ICP-MS	BAL-5000	Thallium
ICP-MS	BAL-5000	Tin
ICP-MS	BAL-5000	Uranium
ICP-MS	BAL-5000	Vanadium
ICP-MS	BAL-5000	Zinc
ICP-MS	EPA 1638 mod	Aluminum
ICP-MS	EPA 1638 mod	Arsenic
ICP-MS	EPA 1638 mod	Antimony
ICP-MS	EPA 1638 mod	Barium
ICP-MS	EPA 1638 mod	Beryllium
ICP-MS	EPA 1638 mod	Boron
ICP-MS	EPA 1638 mod	Calcium
ICP-MS	EPA 1638 mod	Cadmium

Non-Potable Water		
Technology	Method	Analyte
ICP-MS	EPA 1638 mod	Chromium
ICP-MS	EPA 1638 mod	Cobalt
ICP-MS	EPA 1638 mod	Copper
ICP-MS	EPA 1638 mod	Iron
ICP-MS	EPA 1638 mod	Lead
ICP-MS	EPA 1638 mod	Magnesium
ICP-MS	EPA 1638 mod	Manganese
ICP-MS	EPA 1638 mod	Molybdenum
ICP-MS	EPA 1638 mod	Nickel
ICP-MS	EPA 1638 mod	Selenium
ICP-MS	EPA 1638 mod	Silver
ICP-MS	EPA 1638 mod	Strontium
ICP-MS	EPA 1638 mod	Thallium
ICP-MS	EPA 1638 mod	Tin
ICP-MS	EPA 1638 mod	Uranium
ICP-MS	EPA 1638 mod	Vanadium
ICP-MS	EPA 1638 mod	Zinc
ICP-MS	EPA 200.8 mod	Aluminum
ICP-MS	EPA 200.8 mod	Arsenic
ICP-MS	EPA 200.8 mod	Antimony
ICP-MS	EPA 200.8 mod	Barium
ICP-MS	EPA 200.8 mod	Beryllium
ICP-MS	EPA 200.8 mod	Boron
ICP-MS	EPA 200.8 mod	Calcium
ICP-MS	EPA 200.8 mod	Cadmium
ICP-MS	EPA 200.8 mod	Chromium
ICP-MS	EPA 200.8 mod	Cobalt
ICP-MS	EPA 200.8 mod	Copper
ICP-MS	EPA 200.8 mod	Iron
ICP-MS	EPA 200.8 mod	Lead
ICP-MS	EPA 200.8 mod	Magnesium
ICP-MS	EPA 200.8 mod	Manganese
ICP-MS	EPA 200.8 mod	Molybdenum
ICP-MS	EPA 200.8 mod	Nickel
ICP-MS	EPA 200.8 mod	Selenium



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Non-Potable Water		
Technology	Method	Analyte
ICP-MS	EPA 200.8 mod	Silver
ICP-MS	EPA 200.8 mod	Strontium
ICP-MS	EPA 200.8 mod	Thallium
ICP-MS	EPA 200.8 mod	Tin
ICP-MS	EPA 200.8 mod	Uranium
ICP-MS	EPA 200.8 mod	Vanadium
ICP-MS	EPA 200.8 mod	Zinc
ICP-MS	EPA 6020 mod	Aluminum
ICP-MS	EPA 6020 mod	Arsenic
ICP-MS	EPA 6020 mod	Antimony
ICP-MS	EPA 6020 mod	Barium
ICP-MS	EPA 6020 mod	Beryllium
ICP-MS	EPA 6020 mod	Boron
ICP-MS	EPA 6020 mod	Calcium
ICP-MS	EPA 6020 mod	Cadmium
ICP-MS	EPA 6020 mod	Chromium
ICP-MS	EPA 6020 mod	Cobalt
ICP-MS	EPA 6020 mod	Copper
ICP-MS	EPA 6020 mod	Iron
ICP-MS	EPA 6020 mod	Lead
ICP-MS	EPA 6020 mod	Magnesium
ICP-MS	EPA 6020 mod	Manganese
ICP-MS	EPA 6020 mod	Molybdenum
ICP-MS	EPA 6020 mod	Nickel
ICP-MS	EPA 6020 mod	Selenium
ICP-MS	EPA 6020 mod	Silver
ICP-MS	EPA 6020 mod	Strontium
ICP-MS	EPA 6020 mod	Thallium
ICP-MS	EPA 6020 mod	Tin
ICP-MS	EPA 6020 mod	Uranium
ICP-MS	EPA 6020 mod	Vanadium
ICP-MS	EPA 6020 mod	Zinc
IC-ICP-MS	BAL-4100	Trivalent Arsenic
IC-ICP-MS	BAL-4100	Pentavalent Arsenic
IC-ICP-MS	BAL-4100	Monomethylarsonic acid (MMA)

<b>Non-Potable Water</b>		
<b>Technology</b>	<b>Method</b>	<b>Analyte</b>
IC-ICP-MS	BAL-4100	Dimethylarsinic acid (DMA)
IC-ICP-MS	BAL-4201	Selenite Se(IV)
IC-ICP-MS	BAL-4201	Selenate Se(VI)
IC-ICP-MS	BAL-4201	Selenocynate SeCN
IC-ICP-MS	BAL-4201	Selenomethionine SeMet
IC-ICP-MS	BAL-4300	Hexavalent Chromium Cr(VI)
HGAAS	EPA 1632A	Inorganic Arsenic
HGAAS	BAL-3300	Inorganic Arsenic
CVAFS	EPA 1631E	Low-Level Mercury
CVAFS	BAL-3100	Low-Level Mercury
CVAFS	EPA 1630	Methyl Mercury
CVAFS	BAL-3200	Methyl Mercury
Colorimetric	SM 3500-Fe B mod	Total Iron Fe
Colorimetric	SM 3500-Fe B mod	Ferrous Iron Fe(II)
Colorimetric	BAL-4500	Total Iron Fe
Colorimetric	BAL-4500	Ferrous Iron Fe(II)
By Calculation	SM 2340 B (20 <sup>th</sup> Ed.)	Hardness

<b>Seawater</b>		
<b>Technology</b>	<b>Method</b>	<b>Analyte</b>
ICP-MS	EPA 1640 mod	Arsenic
ICP-MS	EPA 1640 mod	Beryllium
ICP-MS	EPA 1640 mod	Cadmium
ICP-MS	EPA 1640 mod	Chromium
ICP-MS	EPA 1640 mod	Cobalt
ICP-MS	EPA 1640 mod	Copper
ICP-MS	EPA 1640 mod	Iron
ICP-MS	EPA 1640 mod	Lead
ICP-MS	EPA 1640 mod	Manganese
ICP-MS	EPA 1640 mod	Nickel
ICP-MS	EPA 1640 mod	Selenium
ICP-MS	EPA 1640 mod	Silver
ICP-MS	EPA 1640 mod	Thallium
ICP-MS	EPA 1640 mod	Vanadium

Seawater		
Technology	Method	Analyte
ICP-MS	EPA 1640 mod	Zinc

Solid and Chemical Materials		
Technology	Method	Analyte
ICP-MS	BAL-5000	Aluminum
ICP-MS	BAL-5000	Arsenic
ICP-MS	BAL-5000	Antimony
ICP-MS	BAL-5000	Barium
ICP-MS	BAL-5000	Beryllium
ICP-MS	BAL-5000	Boron
ICP-MS	BAL-5000	Calcium
ICP-MS	BAL-5000	Cadmium
ICP-MS	BAL-5000	Chromium
ICP-MS	BAL-5000	Cobalt
ICP-MS	BAL-5000	Copper
ICP-MS	BAL-5000	Iron
ICP-MS	BAL-5000	Lead
ICP-MS	BAL-5000	Magnesium
ICP-MS	BAL-5000	Manganese
ICP-MS	BAL-5000	Molybdenum
ICP-MS	BAL-5000	Nickel
ICP-MS	BAL-5000	Selenium
ICP-MS	BAL-5000	Silver
ICP-MS	BAL-5000	Strontium
ICP-MS	BAL-5000	Thallium
ICP-MS	BAL-5000	Tin
ICP-MS	BAL-5000	Vanadium
ICP-MS	BAL-5000	Zinc
ICP-MS	EPA 1638 mod	Aluminum
ICP-MS	EPA 1638 mod	Arsenic
ICP-MS	EPA 1638 mod	Antimony
ICP-MS	EPA 1638 mod	Barium
ICP-MS	EPA 1638 mod	Beryllium



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Solid and Chemical Materials		
Technology	Method	Analyte
ICP-MS	EPA 1638 mod	Boron
ICP-MS	EPA 1638 mod	Calcium
ICP-MS	EPA 1638 mod	Cadmium
ICP-MS	EPA 1638 mod	Chromium
ICP-MS	EPA 1638 mod	Cobalt
ICP-MS	EPA 1638 mod	Copper
ICP-MS	EPA 1638 mod	Iron
ICP-MS	EPA 1638 mod	Lead
ICP-MS	EPA 1638 mod	Magnesium
ICP-MS	EPA 1638 mod	Manganese
ICP-MS	EPA 1638 mod	Molybdenum
ICP-MS	EPA 1638 mod	Nickel
ICP-MS	EPA 1638 mod	Selenium
ICP-MS	EPA 1638 mod	Silver
ICP-MS	EPA 1638 mod	Strontium
ICP-MS	EPA 1638 mod	Thallium
ICP-MS	EPA 1638 mod	Tin
ICP-MS	EPA 1638 mod	Vanadium
ICP-MS	EPA 1638 mod	Zinc
ICP-MS	EPA 200.8 mod	Aluminum
ICP-MS	EPA 200.8 mod	Arsenic
ICP-MS	EPA 200.8 mod	Antimony
ICP-MS	EPA 200.8 mod	Barium
ICP-MS	EPA 200.8 mod	Beryllium
ICP-MS	EPA 200.8 mod	Boron
ICP-MS	EPA 200.8 mod	Calcium
ICP-MS	EPA 200.8 mod	Cadmium
ICP-MS	EPA 200.8 mod	Chromium
ICP-MS	EPA 200.8 mod	Cobalt
ICP-MS	EPA 200.8 mod	Copper
ICP-MS	EPA 200.8 mod	Iron
ICP-MS	EPA 200.8 mod	Lead
ICP-MS	EPA 200.8 mod	Magnesium
ICP-MS	EPA 200.8 mod	Manganese
ICP-MS	EPA 200.8 mod	Molybdenum





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Solid and Chemical Materials		
Technology	Method	Analyte
ICP-MS	EPA 200.8 mod	Nickel
ICP-MS	EPA 200.8 mod	Selenium
ICP-MS	EPA 200.8 mod	Silver
ICP-MS	EPA 200.8 mod	Strontium
ICP-MS	EPA 200.8 mod	Thallium
ICP-MS	EPA 200.8 mod	Tin
ICP-MS	EPA 200.8 mod	Vanadium
ICP-MS	EPA 200.8 mod	Zinc
ICP-MS	EPA 6020 mod	Aluminum
ICP-MS	EPA 6020 mod	Arsenic
ICP-MS	EPA 6020 mod	Antimony
ICP-MS	EPA 6020 mod	Barium
ICP-MS	EPA 6020 mod	Beryllium
ICP-MS	EPA 6020 mod	Boron
ICP-MS	EPA 6020 mod	Calcium
ICP-MS	EPA 6020 mod	Cadmium
ICP-MS	EPA 6020 mod	Chromium
ICP-MS	EPA 6020 mod	Cobalt
ICP-MS	EPA 6020 mod	Copper
ICP-MS	EPA 6020 mod	Iron
ICP-MS	EPA 6020 mod	Lead
ICP-MS	EPA 6020 mod	Magnesium
ICP-MS	EPA 6020 mod	Manganese
ICP-MS	EPA 6020 mod	Molybdenum
ICP-MS	EPA 6020 mod	Nickel
ICP-MS	EPA 6020 mod	Selenium
ICP-MS	EPA 6020 mod	Silver
ICP-MS	EPA 6020 mod	Strontium
ICP-MS	EPA 6020 mod	Thallium
ICP-MS	EPA 6020 mod	Tin
ICP-MS	EPA 6020 mod	Vanadium
ICP-MS	EPA 6020 mod	Zinc
IC-ICP-MS	BAL-4300	Hexavalent Chromium Cr(VI)
HGAAS	EPA 1632A	Inorganic Arsenic

<b>Solid and Chemical Materials</b>		
<b>Technology</b>	<b>Method</b>	<b>Analyte</b>
HGAAS	BAL-3300	Inorganic Arsenic
CVAFS	EPA 1631E (appendix)	Low-Level Mercury
CVAFS	BAL-3100	Low-Level Mercury
CVAFS	EPA 1630 mod	Methyl Mercury
CVAFS	BAL-3200	Methyl Mercury
Gravimetric	BAL-0501	Dry Weight
Gravimetric	SM 2540 G (20 <sup>th</sup> Ed.)	Dry Weight
<b>Preparation</b>	<b>Method</b>	<b>Type</b>
Alkaline Digestion	EPA 3060A	Extraction of Hexavalent Chromium
Alkaline Digestion	BAL-4310	Extraction of Hexavalent Chromium

<b>Biological Tissue</b>		
<b>Technology</b>	<b>Method</b>	<b>Analyte</b>
ICP-MS	BAL-5000	Aluminum
ICP-MS	BAL-5000	Arsenic
ICP-MS	BAL-5000	Antimony
ICP-MS	BAL-5000	Barium
ICP-MS	BAL-5000	Beryllium
ICP-MS	BAL-5000	Boron
ICP-MS	BAL-5000	Calcium
ICP-MS	BAL-5000	Cadmium
ICP-MS	BAL-5000	Chromium
ICP-MS	BAL-5000	Cobalt
ICP-MS	BAL-5000	Copper
ICP-MS	BAL-5000	Iron
ICP-MS	BAL-5000	Lead
ICP-MS	BAL-5000	Magnesium
ICP-MS	BAL-5000	Manganese
ICP-MS	BAL-5000	Molybdenum
ICP-MS	BAL-5000	Nickel
ICP-MS	BAL-5000	Selenium
ICP-MS	BAL-5000	Silver
ICP-MS	BAL-5000	Strontium



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Biological Tissue		
Technology	Method	Analyte
ICP-MS	BAL-5000	Thallium
ICP-MS	BAL-5000	Tin
ICP-MS	BAL-5000	Vanadium
ICP-MS	BAL-5000	Zinc
ICP-MS	EPA 1638 mod	Aluminum
ICP-MS	EPA 1638 mod	Arsenic
ICP-MS	EPA 1638 mod	Antimony
ICP-MS	EPA 1638 mod	Barium
ICP-MS	EPA 1638 mod	Beryllium
ICP-MS	EPA 1638 mod	Boron
ICP-MS	EPA 1638 mod	Calcium
ICP-MS	EPA 1638 mod	Cadmium
ICP-MS	EPA 1638 mod	Chromium
ICP-MS	EPA 1638 mod	Cobalt
ICP-MS	EPA 1638 mod	Copper
ICP-MS	EPA 1638 mod	Iron
ICP-MS	EPA 1638 mod	Lead
ICP-MS	EPA 1638 mod	Magnesium
ICP-MS	EPA 1638 mod	Manganese
ICP-MS	EPA 1638 mod	Molybdenum
ICP-MS	EPA 1638 mod	Nickel
ICP-MS	EPA 1638 mod	Selenium
ICP-MS	EPA 1638 mod	Silver
ICP-MS	EPA 1638 mod	Strontium
ICP-MS	EPA 1638 mod	Thallium
ICP-MS	EPA 1638 mod	Tin
ICP-MS	EPA 1638 mod	Vanadium
ICP-MS	EPA 1638 mod	Zinc
ICP-MS	EPA 200.8 mod	Aluminum
ICP-MS	EPA 200.8 mod	Arsenic
ICP-MS	EPA 200.8 mod	Antimony
ICP-MS	EPA 200.8 mod	Barium
ICP-MS	EPA 200.8 mod	Beryllium
ICP-MS	EPA 200.8 mod	Boron
ICP-MS	EPA 200.8 mod	Calcium



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Biological Tissue		
Technology	Method	Analyte
ICP-MS	EPA 200.8 mod	Cadmium
ICP-MS	EPA 200.8 mod	Chromium
ICP-MS	EPA 200.8 mod	Cobalt
ICP-MS	EPA 200.8 mod	Copper
ICP-MS	EPA 200.8 mod	Iron
ICP-MS	EPA 200.8 mod	Lead
ICP-MS	EPA 200.8 mod	Magnesium
ICP-MS	EPA 200.8 mod	Manganese
ICP-MS	EPA 200.8 mod	Molybdenum
ICP-MS	EPA 200.8 mod	Nickel
ICP-MS	EPA 200.8 mod	Selenium
ICP-MS	EPA 200.8 mod	Silver
ICP-MS	EPA 200.8 mod	Strontium
ICP-MS	EPA 200.8 mod	Thallium
ICP-MS	EPA 200.8 mod	Tin
ICP-MS	EPA 200.8 mod	Vanadium
ICP-MS	EPA 200.8 mod	Zinc
ICP-MS	EPA 6020 mod	Aluminum
ICP-MS	EPA 6020 mod	Arsenic
ICP-MS	EPA 6020 mod	Antimony
ICP-MS	EPA 6020 mod	Barium
ICP-MS	EPA 6020 mod	Beryllium
ICP-MS	EPA 6020 mod	Boron
ICP-MS	EPA 6020 mod	Calcium
ICP-MS	EPA 6020 mod	Cadmium
ICP-MS	EPA 6020 mod	Chromium
ICP-MS	EPA 6020 mod	Cobalt
ICP-MS	EPA 6020 mod	Copper
ICP-MS	EPA 6020 mod	Iron
ICP-MS	EPA 6020 mod	Lead
ICP-MS	EPA 6020 mod	Magnesium
ICP-MS	EPA 6020 mod	Manganese
ICP-MS	EPA 6020 mod	Molybdenum
ICP-MS	EPA 6020 mod	Nickel
ICP-MS	EPA 6020 mod	Selenium

<b>Biological Tissue</b>		
<b>Technology</b>	<b>Method</b>	<b>Analyte</b>
ICP-MS	EPA 6020 mod	Silver
ICP-MS	EPA 6020 mod	Strontium
ICP-MS	EPA 6020 mod	Thallium
ICP-MS	EPA 6020 mod	Tin
ICP-MS	EPA 6020 mod	Vanadium
ICP-MS	EPA 6020 mod	Zinc
IC-ICP-MS	BAL-4100	Trivalent Arsenic
IC-ICP-MS	BAL-4100	Pentavalent Arsenic
IC-ICP-MS	BAL-4100	Monomethylarsonic acid (MMA)
IC-ICP-MS	BAL-4100	Dimethylarsinic acid (DMA)
HGAAS	EPA 1632A	Inorganic Arsenic
HGAAS	BAL-3300	Inorganic Arsenic
CVAFS	EPA 1631E (appendix)	Low-Level Mercury
CVAFS	BAL-3100	Low-Level Mercury
CVAFS	EPA 1630 mod	Methyl Mercury
CVAFS	BAL-3200	Methyl Mercury
Gravimetric	BAL-0501	Dry Weight
Gravimetric	SM 2540 G (20 <sup>th</sup> Ed.)	Dry Weight
<b>Preparation</b>	<b>Method</b>	<b>Type</b>
Hot Acid Digestion	BAL-5030	Digestion for Trace Metals
Acidic Microwave Digestion	BAL-5040	Digestion for Trace Metals

Note:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. ADE-1447.02



R. Douglas Leonard Jr., VP, PILR SBU