



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

QUALITY LAB LABORATORIO, CONSULTORIA Y CAPACITACION SPA, Y QUALITY LAB SPA
DBA QUALITY LAB SPA

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Curicó, CHILE

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CHEMICAL

Valid To: June 30, 2028

Certificate Number: 4861.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this organization to perform recognized methods using the following testing technologies in the analyte categories identified below:

Determination in Foods, Processed Food, Fruits, Vegetables, Fresh, Frozen, and Dehydrated Juices, Seafood Products, Milk, Grains, Flour, Feed, and Wines Soils and Plant Tissue.

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Ash	ITEQ 03-07
Calories by Calculation (CAC/GL 2-1985) Total Carbohydrate by Calculation Available Carbohydrates by Calculation	ITEQ 03-20
Dietary Fiber (total, soluble and insoluble) Crude Fiber	ITEQ 03-11
Fat	ITEQ 03-19
Heavy Metals by AA, Cold Vapor: Hg (Mercury)	ITEQ 03-15
Heavy Metals by AA, Flame: Ca (Calcium) Cd (Cadmium) Cr (Chrome) Cu (Copper) Fe (Iron) K (Potassium) Mg (Magnesium) Mn (Manganese) Na (Sodium) Pb (Lead) Zn (Zinc)	ITEQ 03-16
Heavy Metals by AA, Flame: Ag (Silver)	ITEQ 03-22

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Heavy Metals by AA, Flame: Al (Aluminum) Sn (Tin)	ITEQ 03-17
Heavy Metals by AA, Flame: Ba (Barium)	ITEQ 03-21
Heavy Metals by AA, Hydride Generation: As (Arsenic) Se (Selenium)	ITEQ 03-18
Metals by ICP-OES Al (Aluminium) As (Arsenic) Ag (Silver) B (Boron) Ba (Barium) Cd (Cadmium) Ca (Calcium) Co (Cobalt) Cu (Copper) Cr (Chromium) Fe (Iron) Hg (Mercury) K (Potassium) Na (Sodium) Ni (Nickel) Mg (Magnesium) Mn (Manganese) Pb (Lead) Se (Selenium) Sn (Tin) Zn (Zinc)	ITEQ-03-27
Moisture / Dry Matter	ITEQ 03-08
Mycotoxins by ELISA: Ochratoxins Total Aflatoxins	ITEQ 03-01
pH	ITEQ 03-05
Phosphorus	ITEQ-03-24
Protein and Nitrogen by Kjeldahl	ITEQ 03-13
Soluble Solids	ITEQ 03-04
Titrateable Acidity	ITEQ 03-06
Total Sugars	ITEQ 03-09
Water Activity	ITEQ 03-10

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>

Drinking Water, Superficial Water, Underground Water

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Alkalinity, Carbonate, Bicarbonate	SM 2320 B
Ammonia	SM 4500 NH3 D ME-27-2024
B (Boron)	DIN 38405-17
Chloride	SM 4500-Cl ⁻ B ME-28-2024
Conductivity	SM-2510 B
Cyanide	SM 4500-CN E ME-14-2024
Dissolved Oxygen	SM 4500-O G
Flavor, organoleptic	ME-26-2024
Fluoride	SM 4500 F ⁻ C ME-06-2024
Hardness, Theoretical Hardness	SM 2340
Heavy Metals by AA, Flame: Cd (Cadmium) Cr (Chrome) Cu (Copper) Fe (Iron) Mg (Magnesium) Mn (Manganese) Pb (Lead) Zn (Zinc)	SM 3111 B ME-13-2024 SM 3111 B ME-05-2024 SM 3111 B ME-04-2024 SM 3111 B ME-07-2024 SM 3111 B ME-09-2024 SM 3111 B ME-08-2024 SM 3111 B ME-18-2024 SM 3111 B ME-11-2024
Heavy Metals by AA, Flame: Ag (Silver) Ca (Calcium) Co (Cobalt) K (Potassium) Li (Lithium) Na (Sodium) Ni (Nickel)	SM 3111 B

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Heavy Metals by AA, Flame: Al (Aluminum) Ba (Barium) Be (Beryllium) Ca (Calcium) Mo (Molybdenum) V (Vanadium)	SM 3111 D
Heavy Metals by AA, Hydride Generation: As (Arsenic) Se (Selenium)	SM 3114 C ME-12-2024 SM 3114 C ME-10-2024
Heavy Metals by AA, Cold Vapor: Hg (Mercury)	SM 3112 B ME-15-2024
Metals by ICP-OES Al (Aluminum) Ag (Silver) As (Arsenic) Ba (Barium) Be (Beryllium) Ca (Calcium) Cd (Cadmium) Co (Cobalt) Cr (Chrome) Cu (Copper) Fe (Iron) Hg (Mercury) K (Potassium) Li (Lithium) Mg (Magnesium) Mn (Manganese) Mo (Molybdenum) Na (Sodium) Ni (Nickel) Pb (Lead) Se (Selenium) V (Vanadium) Zn (Zinc)	SM 3120 B
Nitrate	SM 4500 NO3 D ME-16-2024
Nitrate Nitrite Ratio by Calculation	NCh 409
Nitrite	SM 4500-NO2 B ME-17-2024

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Odor, organoleptic	ME-25-2024
Percentual Sodium by Calculation	NCh 1333
pH	SM 4500 HB ME-29-2024
Phenolic Compounds	SM 5530C ME-32-2024
RAS (Sodium Adsorption Ratio) by Calculation	NCh1333
Residual Free Chlorine Total Chlorine	SM 4500-Cl G
Sulfate	SM 4500-SO4 D ME-30-2024
Temperature	SM 2550 B
Total Dissolved Solids	SM 2540C ME-31-2024
True Color, Visual Comparison Method	SM 2120 B ME-24-2024
Turbidity	SM 2130 B ME-03-2024

Wastewater

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Biological Demand Oxygen (BOD5)	SM 5210 B NCh2313/5
Chemical Demand Oxygen (COD)	SM 5220 D NCh2313/24
Chloride	SM 4500-Cl B NCh2313/32
Conductivity	SM-2510 B
Cyanide	SM 4500-CN E
Dissolved Oxygen	SM 4500-O G

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Fluoride	SM 4500 F ⁻ BC NCh2313/33
Foaming Power	NCh2313/21
Heavy Metals by AA, Flame: Al (Aluminum) Ba (Barium) Be (Beryllium) Ca (Calcium) Mo (Molybdenum) V (Vanadium)	SM 3111 D NCh2313/13
Heavy Metals by AA, Hydride Generation: As (Arsenic) Se (Selenium)	SM 3114 C NCh2313/9 SM 3114 C NCh2313/30
Heavy Metals by AA, Flame: Cd (Cadmium) Cr (Chrome) Cu (Copper) Fe (Iron) Mn (Manganese) Ni (Nickel) Pb (Lead) Zn (Zinc)	SM 3111B NCh2313/10
Heavy Metals by AA, Flame: Ca (Calcium) Mg (Magnesium)	SM 3111B
Heavy Metals by AA, Cold Vapor: Hg (Mercury)	SM 3112 B NCh2313/12
Hexavalent Chromium	SM 3500 B

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Metals by ICP-OES Al (Aluminum) Ag (Silver) As (Arsenic) Ba (Barium) Be (Beryllium) Ca (Calcium) Cd (Cadmium) Co (Cobalt) Cr (Chrome) Cu (Copper) Fe (Iron) Hg (Mercury) K(Potassium) Li (Lithium) Mg (Magnesium) Mn (Manganese) Mo (Molybdenum) Na (Sodium) Ni (Nickel) Pb (Lead) Se (Selenium) V (Vanadium) Zn (Zinc)	SM 3120 B
Nitrate	SM 4500 NO ₃ D
Nitrite	SM 4500-NO ₂ B
Nitrogen Ammonia	SM 4500 NH ₃ D NCh2313/16
Oils and Fats	SM 5520 D NCh2313/6
pH	SM 4500 H B NCh2313/1
Phenol Index	SM 5530 C+D
Settleable Solids	SM 2540 F NCh2313/4
Sulfates	SM 4500 SO ₄ C NCh2313/18
Sulfides	SM 4500 S G NCh2313/17
Temperature	SM 2550 B NCh2313/2

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Total Nitrogen Kjeldahl	SM 4500 Norg B NCh2313/28
Total Phosphorus	SM 4500 P C NCh2313/15
Total Suspended Solids	SM 2540 D NCh2313/3

Determination metals and physicochemical analysis in soils

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Available Boron	Method 11.1 Serie Actas INIA N°34
Conductivity	Method 9.1 Serie Actas INIA N°34
Interchangeable (Extractable) Metals by AA Flame Al (Aluminum) Ca (Calcium) Cu (Copper) Fe (Iron) K (Potassium) Mg (Magnesium) Mn (Manganese) Na (Sodium) Zn (Zinc)	Method 5.1 Serie Actas INIA N°34 Method 4.1 Serie Actas INIA N°34 ITEQ-04-02. ITEQ-04-02 Method 4.1 Serie Actas INIA N°34 Method 4.1 Serie Actas INIA N°34 ITEQ-04-02 Method 4.1 Serie Actas INIA N°34 ITEQ-04-02
Available (Soluble in saturation extract) Metals by AA Flame Al (Aluminum) Ca (Calcium) Cu (Copper) Fe (Iron) K (Potassium) Mg (Magnesium) Mn (Manganese) Na (Sodium) Zn (Zinc)	Method 5.1 Serie Actas INIA N°34 Method 4.2 Serie Actas INIA N°34 ITEQ-04-02. ITEQ-04-02 Method 4.2 Serie Actas INIA N°34 Method 4.2 Serie Actas INIA N°34 ITEQ-04-02 Method 4.2 Serie Actas INIA N°34 ITEQ-04-02
Available Nitrogen	Method 14.2 Serie Actas INIA N°34
pH-H ₂ O, pH-KCl, pH-CaCl ₂	Method 3.1 Serie Actas INIA N°34
Organic Carbon and Organic Matter	Method 7.1 Serie Actas INIA N°34
Available Phosphorus	Method 6.1 Serie Actas INIA N°34

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Available Sulfur	Method 8.1 Serie Actas INIA N°34
Texture	ITEQ-04-03
Theoretical calculations RAS, sodium adsorption ratio, PSI, Exchangeable Sodium Percentage, CICE Effective cation exchange capacity CIC, cation exchange capacity	Method 10.1 Serie Actas INIA N°34 Method 10.1 Serie Actas INIA N°34 Method 16.1 Serie Actas INIA N°34 ITEQ-04-06

Determination metals and physicochemical analysis in plant tissue (foliar)

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Boron	Method 2.1 and 5.3.1 Serie Actas INIA N°40
Metal by AA Flame Ca (Calcium) Cu (Copper) Fe (Iron) K (Potassium) Mg (Magnesium) Mn (Manganese) Zn (Zinc)	ITEQ-05-03, based on Method 2.1 and 5.4.1 Serie Actas INIA N°40 Method 2.1 and 5.7.1 Serie Actas INIA N°40 Method 2.1 and 5.9.1 Serie Actas INIA N°40 ITEQ-05-03, based on Method 2.1 and 5.13.1 Serie Actas INIA N°40 ITEQ-05-03, based on Method 2.1 and 5.10.1 Serie Actas INIA N°40 Method 2.1 and 5.11.1 Serie Actas INIA N°40 Method 2.1 and 5.5.1 Serie Actas INIA N°40
Total Nitrogen	ITEQ-05-02, based on Method 2.1 and 5.12.1 Serie Actas INIA N°40
Phosphorus	Method 2.1 and 5.8.1 Serie Actas INIA N°40

Determination physicochemical analysis in compost, composting, sediments, slugde and digestate

<u>Test Type/Technology/Parameter</u>	<u>Test Method</u>
Metals by ICP-OES K (Potassium)	TMECC 04.04-A
Metals by ICP-OES Mg (Magnesium)	TMECC 04.05-Mg
Metals by ICP-OES Cd (Cadmium) Cu (Copper) Cr (Chromium) Ni (Nickel) Pb (Lead)	TMECC 04.06-Cd TMECC 04.06-Cu TMECC 04.06-Cr TMECC 04.06-Ni TMECC 04.06-Pb
Metals by AA As (Arsenic) Hg (Mercury)	TMECC 04.06-As TMECC 04.06-Hg
Total Nitrogen	TMECC 04.02
Phosphorus	TMECC 04.03-A





Accredited Laboratory

A2LA has accredited

**QUALITY LAB LABORATORIO, CONSULTORIA Y
CAPACITACION SPA, Y QUALITY LAB SPA
DBA QUALITY LAB SPA**
Curico, CHILE

for technical competence in the field of

Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. 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).



Presented this 21st day of August 2026.

A blue ink signature of Mr. Trace McInturff, written in a cursive style.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 4861.02
Valid to June 30, 2028

For the tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.