

# **CERTIFICATE OF ACCREDITATION**

This is to attest that

#### CENTRO DE ECOLOGÍA APLICADA S.A.

LABORATORIO AMBIENTAL LOS HILANDEROS 8733, LA REINA SANTIAGO, 7880031, REPUBLIC OF CHILE

**Testing Laboratory TL-1006** 

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Expiry Date January 1, 2025 Effective Date December 20, 2023



President

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Accredited to ISO/IEC 17025:2017

Effective Date December 20, 2023

Chemistry/Microbiology	
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2120 B Visual Comparison Method.	True and Apparent Color in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2120 C.	True and Apparent Color in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2130. B.	Turbidity in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2310 B.	Acidity in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2320 B.	Hydroxides in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2320. B.	Alkalinity, Bicarbonate and Carbonate in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2330 B	Saturation Index (Langelier) and Ryznar Index in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2340 B Hardness by Calculation.	Hardness in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2340 C. EDTA Titrimetric Method.	Hardness in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.





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APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2510. B.	Conductivity in surface water, groundwater and seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2540 B.	Total solids in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2540 C.	Total dissolved solids in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2540. D.	Total suspended solids in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2540 E.	Fixed and volatile solids in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2540 F.	Settleable solids in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 2550. B.	Temperature in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 3112 B	Total Mercury in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 3112 B Method 3030 B	Dissolved Mercury in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 3500-Cr B.	Hexavalent chromium in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 3500-Fe. B	Ferric Iron and Ferrous Iron in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-CI B.	Chloride in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-CN F. APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-CN C.	Total Cyanide in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes
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APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-CN F.	Free Cyanide in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-CN F.	WAD Cyanide in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-CN I.	
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-H+. B.	pH in Surface water, Groundwater and Seawater., drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-NH3. D.	Ammonia Nitrogen (ammonia), Ammonia in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-NO3 B.	Nitrate (NO3) and Nitrate Nitrogen (N-NO3) in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-O. G.	Dissolved oxygen in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-P B C	Total phosphorus in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-P B E	Total phosphorus in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-P. C.	Phosphate (Phosphorus in Orthophosphate) in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-P. E.	Phosphate (Phosphorus in Orthophosphate) in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-SO42 C.	Sulfate in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 4500-SO42 D.	Sulfate in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.





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BOD5 in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
Determination of chemical oxygen demand (DQO) in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
Total Organic Carbon, Total Inorganic Carbon and Total Carbon in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
Oil and grease in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
Oil and grease in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
Fixed hydrocarbons in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
Anionic Surfactants (SAAM) in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
Anionic Surfactants (SAAM) in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
Total Coliform in Surface water, Groundwater, and Seawater, drinking water, bottled water, supply water, food/beverage water, water for dairy products, swimming pool water, catchment sources, wasterwater, water for industrial purposes.
Fecal Coliform in Surface water, Groundwater, and Seawater, drinking water, bottled water, supply water, food/beverage water, water for dairy products, swimming pool water, catchment sources, wasterwater, water for industrial purposes, Aquatic sediments (river, estuary), Lake sediments, Marine sediments, sludge and biosolids samples.
Total Coliforms and Escherichia coli in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
Chlorophyll a, b and c in Surface water, Groundwater and Seawater, sources catchment and water for industrial purposes





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APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 10150 B. Method 10300 C7.	Chlorophyll a, b and c in Periphyton Surface water, Groundwater and Seawater, sources catchment and water for industrial purposes
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 10150 C Fluorometric Determination of Chlorophyll.	Chlorophyll a in Surface water, Groundwater and Seawater, sources catchment and water for industrial purposes
APHA/AWWA/WEF. 24 <sup>th</sup> Edition, 2023. Method 10150 C. Method 10300 C7.	Chlorophyll a in Periphyton in Surface water, Groundwater and Seawater.
DI-202 version 12 based in 4500-SO42 E. SM - APHA/AWWA/WEF.	Sulfate in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-204 version 1, based on AQ2 Method. EPA 127-A Rev 8.0 and APHA/AWWA/WEF. Method 4500-N- C.	Total Nitrogen in Surface water, Groundwater and Seawater.
DI-205 version 2, based on APHA/AWWA/WEF. Method 4500-N- C.	Total Nitrogen in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-207 version 9 based in 4500-NO2 B. SM - APHA/AWWA/WEF.	Nitrite (NO2) and Nitrite Nitrogen (N-N02) in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-208 version 8 based in Method in Continental Water Ecology. Uruguay Institute of Biology, 1999, Edited by Rafael Arocena and Daniel Conde. Sodium salicylate method	Nitrate (NO3) and Nitrate Nitrogen (N-NO3) in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-209 version 12 based in 4500-NH3. F. SM – APHA/AWWA/WEF.	Ammonia Nitrogen (ammonia) Ammonia Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-209 version 12 based in 4500-NH3. F. SM – APHA/AWWA/WEF.	Ammonium in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-210 version 1, based on SMWW 4500-P C, 4500 P- E.	Phosphate, Phosphorus in Orthophosphate, in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.





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DI-211 version 2, based in INIA 2006 Analysis Method recommended for Chile soils	Chloride in Aquatic sediments (river, estuary), Lake sediments, Marine sediments and Soils.
DI-212 version 2, Total and Dissolved Metals by Inductively Coupled Plasma Mass Spectrometry (ICP-MS).	Total aluminum, Dissolved aluminum, Total antimony, Dissolved antimony, Total arsenic, Dissolved arsenic, Total barium, Dissolved barium, Total beryllium, Dissolved beryllium, Total bismuth, Dissolved bismuth, Total boron, Dissolved Boron, Total cadmium, Dissolved cadmium, Total calcium, Dissolved calcium, Total zinc, Dissolved zinc, Total cobalt, Dissolved cobalt, Total copper, Dissolved copper, Total chromium, Dissolved chromium, Total tin, Dissolved tin, Total strontium, Dissolved strontium, Total Gold, Dissolved gold, Total iron, Dissolved iron, Total lithium, Dissolved Lithium, Total magnesium, Dissolved magnesium, Total manganese, Dissolved manganese, Total mercury, Dissolved mercury, Total molybdenum, Dissolved mercury, Total molybdenum, Dissolved potassium, Total selenium, Dissolved selenium, Total potassium, Dissolved potassium, Total selenium, Dissolved selenium, Total silica, Dissolved silica, Total silicon, Dissolved silican, Total silica, Dissolved silica, Total silicon, Dissolved silican, Total stitanium, Dissolved titanium, Total uranium, Dissolved tranium, Total vanadium, Dissolved titanium, Total sulfur, Dissolved uranium, Total vanadium, Dissolved Cesium, Total Cesium, Dissolved Cerium, Total Cerium, Dissolved Germanium, Total Scandium, Total Scandium, Total Cerium, Dissolved Holmium, Total Lanthanum, Dissolved Rubidium, Total Rubidium, Dissolved Holmium, Total Holmium, Dissolved Rubidium, Total Rubidium, Dissolved Proseodymium, Total Proseodymium, Dissolved Neodymium, Total Proseodymium, Dissolved Rubidium, Total Proseodymium, Dissolved Erbium, Total Europium, Dissolved Dysprosium, Total Dysprosium, Dissolved Erbium, Total Proseoved Viterbium, Dissolved Erbium, Total Proseoved Proseoved Rubidium, Total Pro
DI-219 version 2, based on Zagal E., Sadzawka A. 2007. Protocol of Analysis Methods for soils and sludge.	Organic matter in Aquatic sediments (river, estuary), Lake sediments, Marine sediments and Soils.
DI-225 version 1, based on Agricultural Research Institute. 2006. Recommended Analysis Methods for Soils in Chile.	Conductivity of Aquatic sediments (river, estuary), Lake sediments, Marine sediments and Soils.





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DI-230 version 2, based on EPA 340.3 and APHA/AWWA/WEF. Method 4500-F E.	Fluoride in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-231 version 1. Calculation. Agricultural Research Institute. 2006. Methods of Water Analysis for Irrigation. INIA. Minutes Series No. 37.	Sodium adsorption ratio (RAS) in Surface water, Groundwater and Seawater.
DI-232 version 1. Calculation. Based on Agricultural Research Institute. 2006. Methods of Water Analysis for Irrigation. INIA Minutes Series No. 37.	Percentage sodium in Surface water, Groundwater and Seawater.
DI-234 version 1, based on AQ2 Method. EPA 370.1 Rev 2.0 (1993) and APHA/AWWA/WEF. Method 4500-SiO2 D.	Silica in Surface water, Groundwater and Seawater.
DI-239 version 2, based on AQ2 Method. EPA 111-A. Rev 8.0 and Method EPA 351.2 Rev. 2.0.	Total nitrogen kjeldahl in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-240 version 1, based on AQ2 Method. EPA 111-A. Rev 8.	Total nitrogen kjeldahl in Surface water, Groundwater and Seawater.
DI-243 version 2, based on APHA/AWWA/WEF. Method 4500-D SiO2.	Silica in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-244 version 1-, based on Agricultural Research Institute. 2006. Recommended Analysis Methods for Soils in Chile. Potentiometry	pH in Aquatic sediments (river, estuary), Lake sediments, Marine sediments and Soils.
DI-251 version 2, based on AQ2 method SEAL. EPA 127-A Rev 8.0.	Total Oxidized Nitrogen (TON) in Surface water, Groundwater, Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes
DI-252 version 2, Calculation based-on	Total Oxidized Nitrogen (TON) in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.





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APHA/AWWA/WEF. Method 4500-N A.	
DI-253 version 3, based on measuring equipment manuals.	Salinity, Oxygen saturation in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-254 version 2. Calculation, based on APHA/AWWA/WEF. Method 4500-N A.	Total organic nitrogen in Surface water, Groundwater, Seawater and drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-256 Version 1, based on Agricultural Research Institute. 2006. Recommended Analysis Methods for Soils in Chile.	Moisture (Water content) in Aquatic sediments (river, estuary), Lake sediments, Marine sediments and Soils.
DI-257 version 1, based on APHA/AWWA/WEF. Method 4500-N-C.	Total Nitrogen in Aquatic sediments (river, estuary), Lake sediments, Marine sediments and Soils.
DI-259 version 2, Total and Dissolved Metals by Plasma Emission (ICP).	Total aluminum, Dissolved aluminum, Total antimony, Dissolved antimony, Total arsenic, Dissolved arsenic, Total barium, Dissolved barium, Total beryllium, Dissolved beryllium, Total bismuth, Dissolved bismuth, Total boron, Dissolved boron, Total cadmium, Dissolved cadmium, Total calcium, Dissolved calcium, Total zinc, Dissolved zinc, Total cobalt, Dissolved cobalt, Total copper, Dissolved copper, Total chromium, Dissolved chromium, Total gold, Dissolved gold, Total tin, Dissolved tin, Total strontium, Dissolved strontium, Total iron, Dissolved iron, Total lithium, Dissolved Lithium, Total magnesium, Dissolved magnesium, Total manganese, Dissolved manganese, Total molybdenum, Dissolved molybdenum, Total nickel, Dissolved nickel, Total lead, Dissolved lead, Total potassium, Dissolved potassium, Total selenium, Dissolved selenium, Total silica, Dissolved silica, Total silicon, Dissolved silicon, Total silver, Dissolved silver, Total sodium, Dissolved sodium, Total thallium, Dissolved thallium, Total titanium, Dissolved sulfur, Total phosphorus, Dissolved phosphorus, Total uranium, Dissolved uranium in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-260 version 2, Metals in Sediments, Soil and Biological Tissues by Plasma Emission (ICP).	Total aluminum, Total antimony, Total arsenic, Total barium, Total beryllium, Total bismuth, Total boron, Total cadmium, Total calcium, Total zinc, Total cobalt, Total copper, Total chromium, Total gold, Total tin, Total strontium, Total iron, Total lithium, Total magnesium, Total manganese, Total molybdenum, Total nickel, Total lead, Total potassium, Total selenium, Total silica, Total silicon, Total silver, Total sodium, Total thallium, Total titanium, Total vanadium, Total uranium, Total sulfur, Total phosphorus in Aquatic sediments (river, estuary), Lake sediments, Marine sediments, and Soils
DI-260 version 2, Metals in Sediments, Soil and	Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Zinc, Cobalt, Copper, Chromium, Tin, Strontium, Iron, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Lead, Potassium, Selenium,





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Biological Tissues by Plasma Emission (ICP).	Silica, Silicon, Silver, Sodium, Thallium, Titanium, Vanadium, Uranium, Sulfur, Phosphorus in Biological tissues.
DI-260 version 2, Metals in Sediments, Soil and Biological Tissues by Plasma Emission (ICP).	Removable aluminum, Removable antimony, Removable arsenic, Removable barium, Removable beryllium, Removable bismuth, Removable boron, Removable cadmium, Removable calcium, Removable zinc, Removable cobalt, Removable copper, Removable chromium, Removable tin, Removable strontium, Removable gold, Removable iron, Removable lithium, Removable magnesium, Removable manganese, Removable molybdenum, Removable nickel, Removable lead, Removable potassium, Removable silica, Removable selenium, Removable silica, Removable silicon, Removable silver, Removable sodium, Removable thallium, Removable titanium, Removable vanadium,Removable uranium, Removable sulfur, Removable phosphorus in Aquatic sediments (river, estuary), Lake sediments, Marine sediments, and Soils
DI-262 version 1, Total and Dissolved Metals by Inductively Coupled Plasma Mass Spectrometry and SEAFAST System (ICP- MS/SEAFAST).	Total aluminum, Dissolved aluminum, Total antimony, Dissolved antimony, Total arsenic, Dissolved arsenic, Total barium, Dissolved barium, Total beryllium, Dissolved beryllium, Total bismuth, Dissolved bismuth, Total boron, Dissolved Boron, Total cadmium, Dissolved cadmium, Total calcium, Dissolved calcium, Total zinc, Dissolved zinc, Total cobalt, Dissolved cobalt, Total copper, Dissolved copper, Total chromium, Dissolved chromium, Total tin, Dissolved tin, Total strontium, Dissolved strontium, Total iron, Dissolved iron, Total lithium, Dissolved lithium, Total magnesium, Dissolved magnesium, Total manganese, Dissolved manganese, Total mercury, Dissolved mercury, Total molybdenum, Dissolved molybdenum, Total nickel, Dissolved nickel, Total lead, Dissolved lead, Total potassium, Dissolved potassium, Total selenium, Dissolved selenium, Total silicon, Dissolved silicon, Total silver, Dissolved silver, Total sodium, Dissolved sodium, Total thallium, Dissolved thallium, Total titanium, Dissolved titanium, Total vanadium, Dissolved vanadium, Total sulfur, Dissolved sulfur, Total phosphorus, Dissolved phosphorus in Surface water, Groundwater and Seawater.
DI-263 version 2 Metals in Sediments, Soils and Biological Tissues by Mass Spectrometry with Inductively Coupled Plasma (ICP-MS).	Total aluminum, Total antimony, Total arsenic, Total barium, Total beryllium, Total bismuth, Total boron, Total cadmium, Total calcium, Total zinc, Total cobalt, Total copper, Total chromium, Total tin, Total strontium, Total iron, Total lithium, Total magnesium, Total manganese, Total mercury, Total molybdenum, Total nickel, Total lead, Total potassium, Total selenium, Total silica, Total silicon, Total silver, Total sodium, Total thallium, Total titanium, Total vanadium, Total uranium, Total sulfur, Total phosphorus Total Cesium, Total Cerium, Total Scandium, Total Gallium, Total Germanium, Total Holmium, Total Indium, Total Lanthanum, Total Rubidium, Total Tellurium, Total Thorium, Total Wolfranium, Total yttrium, Total Proseodymium, Total Neodymium, Total Samarium, Total Europium, Total Gadolinium, Total Terbium, Total Dysprosium, Total Erbium, Total Thulium, Total Ytterbium, Total lutetium and Total zirconium in Aquatic sediments (river, estuary), Lake sediments, Marine sediments, and Soils.
DI-263 version 2 Metals in Sediments, Soils and Biological Tissues by Mass Spectrometry with	Removable aluminum, Removable antimony, Removable arsenic, Removable barium, Removable beryllium, Removable bismuth, Removable boron, Removable cadmium, Removable calcium, Removable zinc, Removable cobalt, Removable copper, Removable chromium, Removable tin, Removable strontium, Removable iron, Removable lithium, Removable magnesium, Removable manganese, Removable mercury, Removable molybdenum,





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Inductively Coupled Plasma (ICP-MS).	Removable nickel, Removable lead, Removable potassium, Removable selenium, Removable silica, Removable silicon, Removable silver, Removable sodium, Removable thallium, Removable titanium, Removable vanadium, Removable sulfur, Removable uranium, Removable phosphorus Removable Cesium, Removable Cerium, Removable Scandium, Removable Gallium, Removable Germanium, Removable Holmium, Removable Indium, Removable Lanthanum, Removable Rubidium, Removable Tellurium, Removable Thorium, Removable Wolfranium, Removable yttrium, Removable Proseodymium, Removable Neodymium, Removable Samarium, Removable Europium, Removable Gadolinium, Removable Terbium, Removable Dysprosium, Removable Erbium, Removable Thulium, Removable Ytterbium, Removable lutetium and Removable zirconium in Aquatic sediments (river, estuary), Lake sediments, Marine sediments, and Soils.
DI-263 version 2 Metals in Sediments, Soils and Biological Tissues by Mass Spectrometry with Inductively Coupled Plasma (ICP-MS).	Aluminum, Antimony, Arsenic, Barium, Beryllium, Bismuth, Boron, Cadmium, Calcium, Zinc, Cobalt, Copper, Chromium, Tin, Strontium, Iron, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Lead, Potassium, Selenium, Silica, Silicon, Silver, Sodium, Thallium, Titanium, Vanadium, Uranium, Sulfur, Phosphorus in Biological tissues, plant and animal tissue
DI-266 version 1 based in SMWW 5530. C, 5530 D and 5530 B	Phenols (phenolic compounds, phenol index) in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-267 version 1, based on AQ2 Method. EPA 137-A Rev 4.0	Nitrite in Surface water, Groundwater and Seawater.
DI-268 version 1 Based in EPA 7471 B.	Mercury in sediments (river, estuary), Lake sediments, Marine sediments and Soils, bottom deposits and sludge
DI-271 version 1, based on INIA 2006 Analysis method recommended for Chile soils.  APHA/AWWA/WEF. Method 2320 B.  Cenma 2010. Analysis of the physicochemical composition of fluvial sediments and its relationship with the availability of metals in water	Bicarbonate and Carbonate in Aquatic sediments (river, estuary), Lake sediments, Marine sediments and Soils.
DI-272 version 1, based in4500-SO42 E. Turbidimetric Method with Ignition of Residue. SO42 Sulfate. APHA/AWWA/WEF.	Sulfate in Soils.





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DI-277 version 1 Calculation based on SMWW 4500-N A	Total Nitrogen in Surface water, Groundwater and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-287 version 2. Granulometry.	Granulometry in Aquatic sediments (river, estuary), Lake sediments, Marine sediments and Soils.
DI-290 version 1 based on EPA 3540 C	Oil and grease, Fixed hydrocarbons in sediments (river, estuary), Lake sediments, Marine sediments and Soils.
DI-291 version 1 based on SMWW 5310. B.	Total Organic Carbon, Total Inorganic Carbon and Total Carbon in sediments (river, estuary), Lake sediments, Marine sediments and Soils.
DI-292 version 1 based on SMWW 4110 B, EPA 300	Bromide, fluoride, chloride, nitrite, nitrite nitrogen, nitrate, nitrate nitrogen, phosphate, Phosphorus in orthophosphate, and sulfate in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes, solids, (sediments [river, estuary], Lake sediments, Marine sediments, Soils, solid industrial waste [RISES] and solid waste), soil extracts and leachates.
DI-293 version 1 based on ISO 9562:2004	AOX in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater, water for industrial purposes. sediments (river, estuary), Lake sediments, Marine sediments, Biological tissues, aquatic biota, and Soils.
DI-294 version 1 based on SMWW 4500-S2 G.	Sulfide in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-295 version 1 based on EPA 9030 B, EPA 9215, SMWW 4500-S2 G.	Sulfide in sediments (river, estuary), Lake sediments, Marine sediments and Soils.
DI-296 version 1 based on SMWW 4500-NH3 D	Ammonium in Surface water, Groundwater, and Seawater, drinking water, source of drinking water, sources catchment, wastewater and water for industrial purposes.
DI-298, version 1 based on SMWW 3500-Cr B EPA 3060 A	Hexavalent Chromium in sediments (river, estuary), Lake sediments, Marine sediments, Soils, solid industrial waste (RISES) and solid waste
DI-303 version 3, based on APHA/AWWA/WEF. Method 10500 A. B. C. Method 10750 A,B,C. Method 10900 A. B.	Qualitative and Quantitative Analysis of Macroinvertebrates and Benthic Invertebrates in continental Aquatic Ecosystems and Marine Ecosystems.
DI-304 version 4, based on APHA/AWWA/WEF. Method 10200 D and G.	Qualitative and quantitative analysis of Zooplankton in continental Aquatic Ecosystems and Marine Ecosystems.
DI-305 version 2, based on Monzón A, Casado C, Montes C & D García	Mass and Biomass of macroinvertebrates and benthic invertebrates in Aquatic Ecosystems and Marine Ecosystems.
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DI-306 version 2, based on APHA/AWWA/WEF. Method 10200 F & H	Phytoplankton (microalgae) biomass by biovolume in continental Aquatic Ecosystems and Marine Ecosystems.
DI-306 version 2, based on APHA/AWWA/WEF. Method 10200 F & H	Phytoplankton biomass by chlorophyll <i>a</i> in continental Aquatic Ecosystems and Marine Ecosystems.
DI-307 version 2, based on Harris et al (2000) Zooplankton Methodology Manual. Academic Press. 684pp. Castellanos M, Zamora M, Benítez M, Garza G & R Contreras (2014) Abundance and biomass of the rotifer community and its relationship with environmental parameters in three stations of the Cuemanco Channel, Xochimilco. Rural Societies, production and environment, 14(27): 27-56.	Mass and Biomass of plankton communities in continental Aquatic Ecosystems and Marine Ecosystems.
DI-307 version 2, based on Harris et al (2000) Zooplankton Methodology Manual. Academic Press. 684pp. Castellanos M, Zamora M, Benítez M, Garza G & R Contreras (2014)	Mass and Biomass of Ichthyoplankton in Aquatic Ecosystems and Marine Ecosystems.
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Xochimilco. Rural Societies, production and environment, 14(27): 27- 56.	
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DI-309 version 2, based on APHA/AWWA/WEF. Method 10400 D.3.a.	Mass and biomass of Macrophyte in continental Aquatic Ecosystems.
DI-310 version 2, based on Romero J (1984) Relationships between units of volume and units of biomass in different species of benthic algae.	Mass and Biomass of Macroalgae in Marine Ecosystems





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DI-311 version 3, based on APHA/AWWA/WEF Method 10600 D.	Qualitative and quantitative analysis of Ichthyofauna (fish) in continental Aquatic Ecosystems and Marine Ecosystems.
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DI-314 version 2, based on APHA/AWWA/WEF. Method 10400 D.	Qualitative and Quantitative analysis of Macrophytes in continental Aquatic Ecosystems.
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DI-317 version 2, based on APHA/AWWA/WEF, 24 <sup>th</sup> Edition, 2023. Method 10300 B. C And Diaz C et al (2016) Manual for the monitoring and identification of the benthic microalgae Didymosphenia geminata. Second Edition. Undersecretariat of Fisheries and Aquaculture, Government of Chile. 54 pp.	Qualitative and Quantitative, and semiquantitative Analysis of Benthic Microalgae in continental Aquatic Ecosystems and Marine Ecosystems.
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NCh2313/3:1995 Wastewater - Methods of analysis - Part 3: Determination of total suspended solids.	Total suspended solids in wastewater
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NCh2313/18:1997 Wastewater - Methods of analysis - Part 18: Determination of dissolved	Dissolver Sulfate in wastewater





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sulfate by calcination of residue	
NCh2313/19:2001 Wastewater - Methods of analysis - Part 19: Determination of the phenol index	Phenol Index (Phenols, phenolic compounds) in wastewater
NCh2313/24:1997 Waste water- Methods of analysis - Part 24: Determination of chemical oxygen demand (DQO)	Determination of chemical oxygen demand (DQO) in wastewater.
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NCh2313/27:1998. Waste water- Methods of analysis Part 27. Determination of anionic surfactants - Method for active substances to methylene blue (SAAM).	Anionic Surfactants (SAAM) in wastewater.
NCh2313/32:1999 Waste water - Methods of analysis - Part 32: Determination of chloride - Moh's argentometric method	Chloride in wastewater
NCh2313/33:1999. Part 33. Determination of fluoride - Potentiometric method after distillation	Fluoride in wastewater
NCh 3437:2016 Water Quality - Enumeration of	Total Coliforms and Escherichia coli in Surface water, Groundwater, and Seawater, drinking water, bottled water, supply water, food/beverage water,
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Escherichia coli and Coliform Batteries - Most Probable Number Method.	water for dairy products, swimming pool water, catchment sources, wasterwater and water for industrial purposes.
Res. Ex. N° 3612/2009- Numeral 25 and the modifications indicated in Res. Ex. No. 660/2018 and Res. Ex. No. 3002/2018 of the Undersecretariat of Fisheries and Aquaculture	Granulometry in Aquatic sediments (river, estuary), Lake sediments, Marine sediments and Soils.
Res. Ex. No. 3612/2009- Numeral 26 and the modifications indicated in Res. Ex. No. 660/2018 and Res. Ex. No. 3002/2018 of the Undersecretary of Fisheries and Aquaculture.	Organic matter in Aquatic sediments (river, estuary), Lake sediments, Marine sediments and Soils.

