



CERTIFICATE OF ACCREDITATION

This is to attest that

SANGUESA Y ASOCIADOS LIMITADA

LOS MOLINOS 747
QUILPUE, 2420000, CHILE

Inspection Agency AA-824 (Type A)

has met the requirements of AC98, *IAS Accreditation Criteria for Inspection Agencies*, and has demonstrated compliance with ISO/IEC Standard 17020:2012, *Conformity assessment - Requirements for the operation of various types of bodies performing inspection*. This organization is accredited to provide the services specified in the scope of accreditation.

Expiry Date April 1, 2025

Effective Date May 17, 2024



A handwritten signature in black ink, reading 'Raj Nathan'.

President

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

SANGUESA Y ASOCIADOS LIMITADA

www.syagroupchile.com

Contact Name René Díaz

Contact Phone +56 952171114

Accredited to ISO/IEC 17020:2012

Effective Date May 17, 2024

Field and Range of Inspection	Regulations, Inspection Methods, Standards and/or Specifications
Seawater	
Sampling	NCh411/9:1997. Part 9. Marine Water Sampling Guide
In situ - Measurement of Redox Potential	Standard Methods for the Examination of Water and Wastewater, 2580 B. 24 th Edition
In situ - Conductivity	Standard Methods for the Examination of Water and Wastewater, 2520 B. 24 th Edition
Field Transparency Measurement	IUDC v05 Disk Use Secchi
In situ - pH measurement	Standard Methods for the Examination of Water and Wastewater, 4500-H B. 24 th Edition
In situ - Measurement of dissolved oxygen	Standard Methods for the Examination of Water and Wastewater, 4500-0 G. Membrane Electrode Method. O Oxygen (Dissolved). 24 th Edition. SM - APHA/AWWA/WEF.
In situ - Measurement of dissolved oxygen	IUSM v05 Using Multiparameter Probe Based on Standard Methods for the Examination of Water and Wastewater, 4500-0 G. Membrane Electrode Method. O Oxygen (Dissolved). 24 th Edition. SM - APHA/AWWA/WEF
In situ - Temperature Measurement	Standard Methods for the Examination of Water and Wastewater, 2550 B. 24 th Edition
In situ - Measurement of Residual Free Chlorine	IMCLB v.05 Residual Free Chlorine Measurement Based on ISO Guide ISO 7393-2:2017
In situ - Measurement of Redox Potential	2580 B. Oxidation-Reduction Potential Measurement in Clean Water. Oxidation-Reduction Potential (ORP). 24 th Edition. SM - APHA/AWWA/WEF.
Groundwater	
Sampling	NCh411/11:2022. Part 11. Guide to groundwater sampling.
In situ - Measurement of dissolved oxygen	IUSM v05 Using Multiparameter Probe Based on Standard Methods for the Examination of Water and Wastewater, 4500-0 G. Membrane Electrode

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Field and Range of Inspection	Regulations, Inspection Methods, Standards and/or Specifications
	Method. O Oxygen (Dissolved). 24 th Edition. SM - APHA/AWWA/WEF
In situ - pH measurement	Standard Methods for the Examination of Water and Wastewater, 4500-H B. 24 th Edition
Measurement of dissolved oxygen	Standard Methods for the Examination of Water and Wastewater, 4500-0 G. 24 th Edition
In situ - Temperature Measurement	Standard Methods for the Examination of Water and Wastewater, 2550 B. 24 th Edition
In situ - Conductivity	Standard Methods for the Examination of Water and Wastewater, 2520 B. 24 th Edition
In situ - Measurement of Redox Potential	IMORP V.05 Measurement of Redox Potential Based on Standard Methods for the Examination of Water and Wastewater, 2580 B. 24 th Edition
Phreatic Level	PMNF version 02 Measurement of the water table (in-house procedure)
Surface Water	
Sampling	NCh-ISO 5667/4:2016. Part 4. Guide to Sampling Natural and Artificial Lakes
Sampling	NCh-ISO 5667/6:2015. Part 6: Guide to sampling rivers and watercourses. Water quality - Sampling. 2015. INN.
In situ - pH measurement	Standard Methods for the Examination of Water and Wastewater, 4500-H B. 24 th Edition
In situ - Measurement of dissolved oxygen	Standard Methods for the Examination of Water and Wastewater, 4500-0 G. 24 th Edition
In situ - Flow Measurement	PMCAU V.03 Flow Measurement (Own method)
In situ - Measurement of dissolved oxygen	IUSM v05 Using Multiparameter Probe Based on Standard Methods for the Examination of Water and Wastewater, 4500-0 G. Membrane Electrode Method. O Oxygen (Dissolved). 24 th Edition. SM - APHA/AWWA/WEF
In situ - Temperature Measurement	Standard Methods for the Examination of Water and Wastewater, 2550 B. 24 th Edition
In situ - Conductivity	Standard Methods for the Examination of Water and Wastewater, 2520 B. 24 th Edition
In situ - Measurement of Residual Free Chlorine	IMCLB v.05 Residual Free Chlorine Measurement based on ISO Guide ISO 7393-2:2017

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Field and Range of Inspection	Regulations, Inspection Methods, Standards and/or Specifications
In situ - Measurement of Redox Potential	IMORP V.05 Measurement of Redox Potential Based on Standard Methods for the Examination of Water and Wastewater, 2580 B. 24 th Edition
Wastewater	
Manual and Automatic Sampling	NCh411/10.0f2005. Part 10-Wastewater sampling.
In situ - Temperature Measurement	NCh 2313/2:1995
In situ - Flow measurement	NCh411/10.0f2005. Part 10: Wastewater Sampling-Sample Collection and Management, 7.9
In situ - pH measurement	NCh 2313/1:2021
In situ - Measurement of Residual Free Chlorine	IMCLB v.01 based on ISO Guide ISO 7393-2:2017
Drinking Water	
Sampling	NCh 409/2:2004. Part 2 Muestreo
In situ - pH measurement	IMPH V05 on site pH measurement Based on Standard Methods for the Examination of Water and Wastewater, 4500-H B. 24 th Edition
In situ - Temperature Measurement	IMTT v05 on site Temperature measurement Based on Standard Methods for the Examination of Water and Wastewater, 2550 B. 24 th Edition
In situ - Measurement of Residual Free Chlorine	IMCLB v.05 Residual Free Chlorine Measurement based on ISO Guide ISO 7393-2:2017
Lake Sediments	
Sampling	PMSED01v04 Based on Standard Methods for the Examination of Water and Wastewater, 1060 B, C. 24 th Edition
In situ - Measurement of Redox Potential	IMORP V.05 Measurement of Redox Potential Based on Standard Methods for the Examination of Water and Wastewater, 2580 B. 24 th Edition
Aquatic Sediments	
Sampling	PMSED01v04 Sediment Sampling Procedure Based on Standard Methods for the Examination of Water and Wastewater, 1060 B, C. 24 th Edition
In situ - Measurement of Redox Potential	IMORP V.05 Measurement of Redox Potential Based on Standard Methods for the Examination of Water and Wastewater, 2580 B. 24 th Edition
Marine Sediments	
Sampling	PMSED01v04 Sediment Sampling Procedure Based on Standard Methods for the Examination of Water and Wastewater, 1060 B, C. 24 th Edition

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Field and Range of Inspection	Regulations, Inspection Methods, Standards and/or Specifications
In situ - Measurement of Redox Potential	2580. B. Oxidation-Reduction Potential Measurement in Clean Water. Oxidation-Reduction Potential (ORP). 24 th Edition. SM - APHA/AWWA/WEF.
Vessels, Marine Water and Sediment – Carbon Sampling (Shipping)	PMCN version 02 Coal Sampling in Ships (in-house procedure)
Vessels, Marine Water and Sediment – Carbon Sampling (Intermarial and Submarial)	PMCN version Coal Sampling in Ships (in-house procedure)