



CERTIFICATE OF ACCREDITATION

This is to attest

METRICA ANALITICA

JIRON CLORINDA MATTO DE TURNER 2079
LIMA 07001, PERU

Calibration Laboratory CL-247

has met the requirements of AC204, *IAS Accreditation Criteria for Calibration 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 December 1, 2025

Effective Date February 21, 2025



International Accreditation Service
Issued under the authority of IAS management

IAS is an ILAC MRA Signatory

Visit www.iasonline.org for current accreditation information.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

METRICA ANALITICA

www.manalitica.com

Contact Name Flor Mallma

Contact Phone +51-14256885

Accredited to ISO/IEC 17025:2017

Effective Date February 21, 2025

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)*

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY ^{1,2} (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Mechanical			
Particle Samplers: Mini Low Volume Low Volume (Low-Vol) Occupational Health	0.10 L/min to 22 L/min	0.009 L/min	PLV-004 Procedure for the calibration of low volume particulate matter sampling equipment and rotameters, version 01 of 2022
Rotameters	0.1 L/min to 22 L/min	0.0027 L/min	
High volume particulate matter samplers (HI-Vol)	0.9 m³/min to 1.8 m³/min	0.010 m³/min	PLV-002 Procedure for the calibration of high volume particulate matter sampling equipment, version 01 of 2023
Thermal			
Thermometer Sensor/Probe	5.0 °C to 70.0 °C	0.08 °C	Procedure for the calibration of digital thermometers Ed. 2, Dec. 2012, PC-017 DM-INACAL
Chemical/Gas			
Potentiometric pH Meters	4 pH 7 pH 10 pH	0.012 pH 0.012 pH 0.012 pH	PC-020 Procedure for the calibration of pH meters, DM-INACAL 2nd edition, 2017
Conductivity Meters	5 uS/cm 100 uS/cm 147 uS/cm 1413 uS/cm 10 mS/cm 12.8 mS/cm	0.63 uS/cm 2.1 uS/cm 2.0 uS/cm 4.8 uS/cm 0.041 mS/cm 0.18 mS/cm	PC-022 Procedure for the calibration of conductivity meters, 2nd edition, DM – INACAL 2023
Turbidity Meter	20 NTU 100 NTU 500 NTU	0.21 NTU 0.9 NTU 2.7 NTU	PLV-008 Turbidimeter calibration procedure, version 01 of 2022

* If information in this CMC is presented in non-SI units, the conversion factors stated in NIST Special Publication 811 "Guide for the Use of the International System of Units (SI)" apply.

CL-247

METRICA ANALITICA

Effective Date February 21, 2025

Page 2 of 4

IAS/CL/101-4



IAS is an ILAC MRA Signatory

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

MEASURED QUANTITY or DEVICE TYPE CALIBRATED	RANGE	UNCERTAINTY ^{1,2} (±)	CALIBRATION METHOD OR PROCEDURE, STANDARD EQUIPMENT (OPTIONAL)
Colorimeter - Chlorine	0.20 mg/L to 2 mg/L 2.1 mg/L to 8 mg/L	0.017 mg/L 0.020 mg/L	PLV-007 Colorimeter calibration procedure, version 01 of 2022
Dissolved oxygen	0 mg/L 8.3 mg/L	0.007 mg/L 0.007 mg/L	PLV-003 Procedure for the calibration of oximeters, version 02 of 2024
Gas Analyzer Equipment CO NO SO ₂ NO ₂ H ₂ S C ₃ H ₈	(0.15 to 50) parts in 10 ⁶ (0.050 to 50) parts in 10 ⁶ (0.050 to 50) parts in 10 ⁶ (0.05 to 12) parts in 10 ⁶ (0.08 to 12) parts in 10 ⁶ (0.05 to 50) parts in 10 ⁶	0.032 parts in 10 ⁹ 0.027 parts in 10 ⁹ 0.027 parts in 10 ⁹ 0.026 parts in 10 ⁹ 0.027 parts in 10 ⁹ 0.006 parts in 10 ⁶	PLV-001 Procedure for the calibration of gas analyzers, version 02 of 2023 (Dynamic dilution)
Gas Analyzer Equipment CO O ₂ H ₂ S NO SO ₂ NO ₂ C ₃ H ₈	994.2 parts in 10 ⁶ 509.1 parts in 10 ⁶ 20.98 % 3.016 % 301 parts in 10 ⁶ 1021 parts in 10 ⁶ 1019 parts in 10 ⁶ 505.9 parts in 10 ⁶ 198 parts in 10 ⁶ 98.59 parts in 10 ⁶ 1013 parts in 10 ⁶	6.7 parts in 10 ⁶ 4.4 parts in 10 ⁶ 0.48 % 0.08 % 3.4 parts in 10 ⁶ 8 parts in 10 ⁶ 8 parts in 10 ⁶ 5 parts in 10 ⁶ 3.7 parts in 10 ⁶ 0.84 parts in 10 ⁶ 7.7 parts in 10 ⁶	PLV-001 Procedure for the calibration of gas analyzers, version 02 of 2023 (Direct comparison)
Ozone Analyzer Equipment	(1.6 to 400) parts in 10 ⁹	0.18 parts in 10 ⁹	PLV-006 Procedure for the calibration of ozone analyzers, version 01 of 2022

¹The uncertainty covered by the Calibration and Measurement Capability (CMC) is expressed as the expanded uncertainty having a coverage probability of approximately 95 %. It is the smallest measurement uncertainty that a laboratory can achieve within its scope of accreditation when performing calibrations of a best existing device. The measurement uncertainty reported on a calibration certificate may be greater than that provided in the CMC due to the behavior of the calibration item and other factors that may contribute to the uncertainty of a specific calibration.

²When uncertainty is stated in relative terms (such as percent, a multiplier expressed as a decimal fraction or in scientific notation), it is in relation to instrument reading or instrument output, as appropriate, unless otherwise indicated.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

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

NTU = Nephelometric Turbidity Unit