



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Instituto do Petróleo e dos Recursos Naturais (IPR) | PUCRS

Ave. Ipiranga, 6681 Prédio 96J CEP 90619-900
Porto Alegre City, RS – Brazil

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.

A handwritten signature in black ink, appearing to be 'J. Stine', is positioned above a horizontal line.

Jason Stine, Vice President

Expiry Date: 18 January 2027

Certificate Number: AT-3169



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

Instituto do Petróleo e dos Recursos Naturais (IPR) | PUCRS

Ave. Ipiranga, 6681 Prédio 96J CEP 90619-900
Porto Alegre City, RS – Brazil

Filipe de Medeiros Albano ipr@pucrs.br

TESTING

Valid to: **January 18, 2027**

Certificate Number: **AT-3169**

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Metals	SOP LAQ 01 SOP LIG 03	Ore, Rocks, Water, Soil, Minerals, Oil, Fuel, Others	ICP-OES ICP-MS
Anions	SOP LAQ 02	Ore, Rocks, Water, Soil, Minerals, Oil, Fuel, Others	Ionic Chromatography
Elemental Analysis and CHNSO	SOP LAQ 03	Ore, Rocks, Water, Soil, Minerals, Oil, Fuel, Others	Elemental Analysis
Inorganic Chemicals	SOP LAQ 04	Water	pH Electrode, Conductivity, Turbidity, Titrimetry, Colorimetry
Stable Isotopes	SOP LIG 01 SOP LAQ 06 SOP LAQ 07 SOP LAQ 14 SOP LAQ 15	Ore, Rocks, Water, Soil, Minerals, Oil, Fuel, Others	Isotope Ratio Mass Spectrometry (IRMS)
Radiogenic Isotopes	SOP LIG 05	Rocks, Water, Minerals	LA-MC-ICP-MS
Hydrocarbon and General Gases	SOP LAQ 05	Gas	Gas Chromatography
Porosity and Permeability	SOP LGP 02	Rocks, Ceramics, and Other	Porosimeter
Composition Analysis	SOP LCR 01 SOP LCR 06 SOP LAQ 08	Cement, Sediment, Soil, Metals, Rocks, Polymers, Ore	X-Ray Diffraction XRF FTIR
Petrographic Analysis	SOP LCR 03	Rocks and Sediment	Microscope
Image and Porosity Analysis	SOP LCR 02	Rocks and Fossils, Polymers, Metals, Cement, Medical Material, Ceramics, Others	Micro-CT

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Material Properties	SOP LBC 01 SOP LBC 02	Rocks and Fossils, Polymers, Metals, Cement, Medical Material, Ceramics, Others	Particle Size Analyzer

Biological

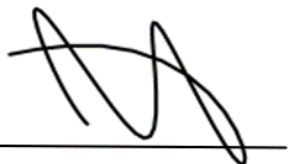
Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Microorganism Quantification and Identification	SOP LMA 07 SOP LMA 08 SOP LMA 09	Water	Chromogenic Enzyme Substrate PCA (Plate Count Agar)

Sample Collection

Items, Materials or Product Sampled	Component, Parameter or Characteristic Sampled	Specification, Standard, Method, or Sampling Technique
Water	Metals, Organic and Inorganic Chemicals	Low Flow Sampling and Superficial Water Sampling SOP LMA 01, SOP LMA 05, SOP LMA 06

Note:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. AT-3169.



Jason Stine, Vice President