



SCOPE OF ACCREDITATION

ALS PERU S.A.
Calle 1 Lt-1A Mz-D. Esq. Calle A. Urbanización Industrial Bocanegra
Lima, Callao, Perú,
CALLAO 01

Accredited Laboratory No. 670
(Conforms with requirements of ISO/IEC 17025:2017, RG-MINERAL)

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URL:	https://www.alsglobal.com/en
CLIENTS SERVED:	Mining, Exploration and other interested parties
FIELDS OF TESTING:	Chemical/Physical
PROGRAM SPECIALTY AREA:	Mineral Analysis
INITIAL ACCREDITATION DATE:	2010-03-01
SCOPE ISSUED ON:	2019-06-14
ACCREDITATION VALID TO:	2022-02-28

The physical sample preparation involving accredited test method for Minerals Analysis as listed on the Scope of Accreditation may be performed at the ALS Minerals Lima location or at off-site sample preparation laboratories that are monitored regularly for quality control and quality assurance practices:

ALS Minerals - Calle A Mz C SubLote 2A, Urb.Industrial, Bocanegra, Callao 1 Peru
ALS Minerals - Rua São Paulo, 685, Vespasiano, Minas Gerais 33200 000 Brasil
ALS Minerals - Carrera 48B No. 99, Sur-59, Bodega San Bartolomé, Bodega 3, Medellín, Antioquia Colombia
ALS Minerals - Urb. Industrial El Cairo Manzana A, Lote 3, Distrito de Paucarpata, Arequipa



Peru

ALS Minerals - Av. Anhanguera, 15060, Quadra 25, Lote 11E, Setor Santos Dumont, Goiânia, Goiás 74463-350 Brasil

ALS Minerals - Av. Jose Andrade OE1-386 y Av. Juan de Selis, Sector Carcelen Industrial, Quito, Pichincha Ecuador

ALS Minerals - Altos Hornos Zapla 1605, Godoy Cruz, Mendoza, Argentina

ALS Minerals - Av. Pedro Aguirre Cerda 8234, Antofagasta, Región de Antofagasta Chile

ALS Minerals - Hermanos Carrera Pinto 159, Parque Industrial Los Libertadores, Colina Santiago Chile

ALS Minerals - Calle 4 lote E-34, Barrio Industrial Estación Paipote. Copiapo, Región de Atacama Chile

ALS Minerals - Avenida La Fragua 1130, Barrio Industrial Chanar, Coquimbo, Región de Coquimbo Chile

METALLIC ORES AND PRODUCTS

Mineral Analysis Testing

Mineral Assaying

ME-XRF12u / ME-XRF12n	Analysis of Nickel Laterite Sample by Fusion/XRF (Al ₂ O ₃ , CaO, Co, Cr ₂ O ₃ , Cu, Fe ₂ O ₃ , K ₂ O, MgO, MnO, Na ₂ O, Ni, P ₂ O ₅ , Pb, SiO ₂ , TiO ₂ , Zn, Total). Two method sub-codes, ME-XRF12n for results that are reported after normalising and ME-XRF12u for results that are reported un-normalised.
AA45	Ag, Cu, Pb and Zn - Determination of Base Metals Using AAS Following an Aqua Regia Digestion.
AA46	Ag, Cu, Pb, Zn and Mo - Determination of Ores and High Grade Materials Using AAS Following an Aqua Regia Digestion.
AA61	Ag, Mo, Cu, Ni, Pb and Zn - Determination of Base Metals Using AAS Following a Four Acid Digestion.
AA62	Ag, Cu, Mo, Ni, Pb and Zn - Determination of Ores and High Grade Materials Using AAS Following a Four Acid Digestion.
Au/Ag-GRA	Determination of Au and Ag by Lead Collection Fire Assay and Gravimetric Finish.
Au-AA	Determination of Au by Lead Collection Fire Assay and Atomic Absorption Spectrometry.
ICP81	Al, Co, Cu, Fe, Mg, Mn, Ni, Pb, S, and Zn by Sodium Peroxide Fusion and ICP-AES.
ME-ICP41	Multi-Element (Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, Zn) Determination by Aqua Regia Digestion and ICP-AES.
ME-ICP61	Multi-Element (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, S, Sb, Sc, Se, Sn, Sr,



	Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr) Determination by 4-Acid Digestion and ICP-AES.
ME-MS41	Multi-Element (Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr) Determination by Aqua Regia Digestion and ICP-AES and ICP-MS.
ME-MS61	Multi-Element (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Si, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr) Determination by 4 Acid Digestion and ICP-AES and ICP-MS.
ME-XRF13u / ME-XRF13n	Analysis of Bauxite Samples By Fusion/XRF (Al ₂ O ₃ , BaO, CaO, Cr ₂ O ₃ , Fe ₂ O ₃ , K ₂ O, MgO, MnO, Na ₂ O, P ₂ O ₅ , SO ₃ , SiO ₂ , SrO, TiO ₂ , V ₂ O ₅ , Zn, ZrO, Total). Two method sub-codes, ME-XRF13n for results that are reported after normalising and ME-XRF13u for results that are reported un-normalised.
ME-XRF21u / ME-XRF21n	Analysis of Iron Ore samples by Fusion/XRF (Al ₂ O ₃ , As, Ba, CaO, Cl, Co, Cr ₂ O ₃ , Cu, Fe, K ₂ O, MgO, Mn, Na ₂ O, Ni, P, Pb, S, SiO ₂ , Sn, Sr, TiO ₂ , V, Zn, Zr, Total). Two method sub-codes, ME-XRF21n for results that are reported after normalising and ME-XRF21u for results that are reported un-normalised.
ME-XRF24	Analysis of Phosphate by Fusion/XRF (Al ₂ O ₃ , CaO, Fe ₂ O ₃ , K ₂ O, MgO, MnO ₂ , Na ₂ O, P ₂ O ₅ , SiO ₂ , TiO ₂ , Total)
ME-XRF26	Whole Rock Analysis by Fusion/XRF (Al ₂ O ₃ , BaO, CaO, Cr ₂ O ₃ , Fe ₂ O ₃ , K ₂ O, MgO, MnO, Na ₂ O, P ₂ O ₅ , SiO ₂ , SrO, TiO ₂ , Total)
OA-GRA05x	Manual Loss On Ignition (LOI) at 1000°C for XRF Methods
OG46	Ag, Cu, Mo, Pb and Zn - Determination of Ores and High Grade Material Using ICP-AES Following an Aqua Regia Digestion
OG62	Ag, Cu, Co, Mo, Ni, Pb and Zn-Determination of Ores and High Grade Material Using ICP-AES Following a Four-Acid Digestion
PGM-ICP	Determination of Au, Pt and Pd by Lead Collection Fire Assay and ICP-AES - Following microwave digestion.

Notes:

RG-Mineral : SCC Requirements and Guidance for the Accreditation of Mineral Analysis Testing Laboratories

(ISO/IEC 17025:2017): General Requirements for the Competence of Testing and Calibration Laboratories



Standards Council of Canada
Conseil canadien des normes

Elias Rafoul, Vice President
Accreditation Services

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Number of Scope Listings: 20
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Partner File #0
Partner: