



TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Accredited Laboratory No. 579

Legal Name of Accredited Laboratory: ALS Limited
 Location Name or Operating as (if applicable): ALS Vancouver
 Contact Name: Paul Zhu
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SCC File Number:	15722
Accreditation Standard(s):	ISO/IEC 17025:2017
Fields of Testing:	Chemical/Physical
Program Specialty Area:	Mineral Analysis
Initial Accreditation:	2005-05-18
Most Recent Accreditation:	2020-04-23
Accreditation Valid to:	2021-05-18

SCC Group Accreditation:

This laboratory is a part of a Group Accreditation with the following facilities in accordance with SCC's policy on Group Accreditation documented in the Accreditation Services Accreditation Program Overview.

- ALS USA Inc., ALS Reno, Accredited Laboratory No. 660
- ALS Limited, ALS Val d'Or, Accredited Laboratory No. 689
- ALS Geochemistry Laos, ALS Vientiane, Accredited Laboratory No. 871



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 North Vancouver location or at off-site sample preparation laboratories that are monitored regularly for quality control and quality assurance practices:

- ALS Minerals** - Unit 150 - 2155 Dollarton Hwy, North Vancouver, BC V7H 2B2 Canada
- ALS Minerals** - 2912 Molitor Street, Terrace, British Columbia V8G 3A4 Canada
- ALS Minerals** - 3 Coronation Drive, PO Box 1919, Yellowknife, NWT X1A 2P4 Canada
- ALS Minerals** - 78 Mt. Sima Rd Whitehorse, YK Y1A 0A8 Canada
- ALS Minerals** - 2953 Shuswap Drive, Kamloops, BC V2H 1S9 Canada
- ALS Minerals** - Jazmin 1140, e/R, Michel y Amapola, Sector Reforma Colonia San Carlos, Guadalajara, Jalisco 44460 Mexico
- ALS Minerals** – Magnolia #16, Esq. Laurles Col. Libertad, Hermosillo, Sonora 83130 Mexico
- ALS Minerals** - Avenida de las Industrias No 6500, Col. Zona Industrial Nombre de Dios, Chihuahua, Chihuahua 31156 Mexico
- ALS Minerals** - Transito Pesado S/n, Bodega 100, 200, 300 y 400, Frente a Central Camionera, Col. Lomas de la Isabelica, Zacatecas, Zacatecas 98099 Mexico

METALLIC ORES AND PRODUCTS

Mineral Analysis Testing

Mineral Assaying

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, Co, Cu, Ni, Pb and Zn - Determination of Base Metals Using AAS Following a Four Acid Digestion
AA62	Ag, Co, 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
C-IR07	C - Determination of Total C by Leco Furnace and Infrared Spectroscopy.
ICP81	Al, Co, Cu, Fe, Mg, Mn, Ni, Pb, S, and Zn by Sodium Peroxide Fusion and ICP-AES
ME-ICP06	SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , CaO, MgO, Na ₂ O, K ₂ O, Cr ₂ O ₃ , TiO ₂ , MnO, P ₂ O ₅ , SrO, BaO, Total - Determination of Major Oxides by Lithium Metaborate/Lithium Tetraborate 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, Ti, Tl, U, V, W, Zn) Determination by Aqua Regia Digestion and ICP-AES.



ME-ICP41a	Multi-Element (Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, Ga, Hf, Hg, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, S, Sb, Sc, Se, Si, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn) – Determination of Low Grade Ores 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, Si, Sn, Sr, Ta, Te, Ti, Tl, U, V, W, Y, Zn, Zr) Determination by 4-Acid Digestion and ICP-AES
ME-ICP61a	Multi-Element (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, Ga, Hf, 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 of Low Grade Ores by Four-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, 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.
Hg-MS42	Trace Mercury Analysis by Aqua Regia Digest and ICP-MS.
ME-MS41L	Super Trace Multi-Element (Ag, Au, 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, Pd, Pt, 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-MS61L	Super Trace Multi-Element (Ag, Al, As, B, 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, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr) Determination by Four Acid Digestion and ICP-AES and ICP-MS.
ME-MS81	Ba, Ce, Cr, Cs, Dy, Er, Eu, Ga, Gd, Hf, Ho, La, Lu, Nb, Nd, Pr, Rb, Sm, Sn, Sr, Ta, Tb, Th, Tl, Tm, U, V, W, Y, Yb, Zr – Determination of Rare Earth Elements by Lithium Borate Fusion and ICP-MS.
ME-XRF06	SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , CaO, MgO, Na ₂ O, K ₂ O, Cr ₂ O ₃ , TiO ₂ , MnO, P ₂ O ₅ , SrO, BaO, Total – Determination of Major Oxides by Lithium Metaborate/Lithium Tetraborate Fusion and XRF.
ME-XRF26	SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , CaO, MgO, Na ₂ O, K ₂ O, Cr ₂ O ₃ , TiO ₂ , MnO, P ₂ O ₅ , SrO, BaO, Total – Determination of Major Oxides by Lithium Metaborate/Lithium Tetraborate Fusion and XRF.
OA-GRA05	LOI – Loss on Ignition
OA-GRA05x	LOI – Loss on Ignition.
OA-GRA06	LOI – Loss on Ignition.
OA-VOL08	Fizz Rating, NP, MPA, NNP, Ratio (NP:MPA) – Acid Base Accounting.
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
S-IR08	S – Determination of Total S by Leco Furnace and Infrared Spectroscopy.

Number of Scope Listings: 29

Notes:

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

This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at www.scc.ca.

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