



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

SKYLINE ASSAYERS & LABORATORIES  
7960 South Kolb Road  
Tucson, AZ 85756  
Nancy G. Gungor Phone: 520-622-4836

CHEMICAL

Valid To: April 30, 2024

Certificate Number: 2953.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the chemical tests and assays listed below on ores, rocks, soils, and sediments:

<u>Test/Technology</u>	<u>Test Method(s)</u>
Analysis of Samples by: Inductively Coupled Plasma-Optical Emission Spectroscopy (ICP-OES)	SOP 460 – Solutions Analyzed by ICP-OES - 24 Elements (TE-6): Ag, Al, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, P, Pb, Sr, Ti, V, W, Zn
Carbon Sulfur Analyzer	SOP 439 – Carbon by Infrared/WR-C; SOP 467 – Sulfur by Infrared/WR-S
Digestion and Analysis of Samples by: Atomic Absorption Spectroscopy (AAS)	SOP 401 – Total Copper (Hydrochloric, Nitric, and Perchloric Acid Digestion); SOP 403 – Acid Soluble Copper; SOP 404 – Quick Leach Technique (QLT-Cu Assay); SOP 405 – SAP (Hot) Ferric Sulfate Soluble Copper; SOP 406 – Sequential (Acid Soluble Copper, Cyanide Soluble Copper); SOP 406A – Cyanide Soluble Copper; SOP 415 – Silver (Ag) by Aqua Regia analyzed by AAS; SOP 457 – Gold (Au), Silver (Ag), Cyanide Leach; SOP 462INT – RSCu Client Method
Digestion and Analysis of Samples by: Inductively Coupled Plasma-Optical Emission Spectroscopy (ICP-OES)	SOP 407 – Total Copper, Lead, Zinc, Iron, Molybdenum, Manganese, Nickel, Calcium, Magnesium, and Cobalt (Hydrochloric, Nitric, and Perchloric Acid Digestion); SOP 424 – 34 Element Aqua Regia Leach analyzed by ICP-OES (TE-2): Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Ti, Tl, V, W, Zn, Zr; SOP 430 – 24 Element Multi Acid Digestion analyzed by ICP-OES (TE- 4): Ag, Al, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, P, Pb, Sr, Ti, V, W, Zn; SOP 468 – Acid Soluble Copper and Cobalt 1hr; SOP 479 – Cu-HF; SOP 483 – Acid Soluble Molybdenum (Oxide Moly); SOP 490 – Acid Soluble Copper and Cobalt 6hr

<b><u>Test/Technology</u></b>	<b><u>Test Method(s)</u></b>
Digestion and Analysis of Samples by: Inductively Coupled Plasma-Optical Emission Spectroscopy/Mass Spectroscopy (ICP-OES/MS)	SOP 428 – 49 Element Aqua Regia Leach analyzed by ICP-OES/MS (TE-3): Ag, Al As, 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; SOP 429 – 47 Element Multi Acid Digestion analyzed by ICP-OES/MS (TE-5): 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, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr; SOP 461 – 50 Element Multi Acid Digestion and Aqua Regia analyzed by ICP-OES/ICP-MS (TE-7 + Au): 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, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr, plus Hg, Se, and Au by Aqua Regia Digestion
Digestion and Analysis of Samples by: Inductively Coupled Plasma-Optical Mass Spectroscopy (ICP-MS)	SOP 477 – Selective Extractions of Soil- Enzyme Leach
Fire Assay: Gravimetric	SOP 411 – Gold Analysis by Classical Fire Assay; SOP 412 – Gold & Silver Analysis by Classical Gravimetric Fire Assay; SOP 425 – Metallic Au-Ag Assay Procedure by Gravimetric Fire Assay
Fire Assay and Analysis of Samples by: Atomic Absorption Spectroscopy (AAS)	SOP 410 – Gold Analysis by Classical Fire Assay and Atomic Absorption Spectroscopy (AAS)
Ion Selective Electrode	SOP 463 – F(Fluorine) by Fusion Ion-Selective Electrode (ISE)
Loss on Ignition (LOI)	SOP 473 – Gypsum Determination
Metallurgy	SOP 487 – Column Leach Testing
Sample Preparation	SOP 102 – Crushing, Splitting, Pulverizing of Samples; SOP 301 – Weigh Room Procedures
Specific Gravity	SOP 433 – Specific Gravity
Titration	SOP 413 – Long-Iodide Copper Determination; SOP 449 – Acid Consumption; SOP 486 – Cobalt Hydroxide
XRF: WDXRF (Wavelength Dispersive X-ray Fluorescence) by: Spectrometer	SOP 446 Basic XRF Operation WR-XRF



# Accredited Laboratory

A2LA has accredited

## SKYLINE ASSAYERS & LABORATORIES

Tucson, AZ

for technical competence in the field of

### Chemical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. 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).



Presented this 30<sup>th</sup> day of March 2022

A blue ink signature of the Vice President, Accreditation Services.

Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 2953.01  
Valid to April 30, 2024

*For the tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.*