

SCOPE OF ACCREDITATION TO ISO/IEC 17043:2010

LABORATORY QUALITY SERVICES INTERNATIONAL (LQSi) SGS MINERALS SERVICES DIVISION South Holland, IL 60473 Sarah Reidy +01 708-225-9121

PROFICIENCY TESTING PROVIDER

Valid To: May 31, 2024 Certificate Number: 3251.01

In recognition of the successful completion of the A2LA evaluation process, this Proficiency Testing Provider has been found to meet the ISO/IEC 17043:2010, "Conformity assessment - General Requirements for Proficiency Testing." Accreditation is granted to this provider to provide the following proficiency testing samples:

Program Type/Program Name ¹	Frequency	Material
Solid Energy Fuels		
6H, High Rank Coal; 65 Mesh (212 μm)	Monthly	Coal
6L, Low Rank Coal; 65 Mesh (212 μm)	Monthly	Coal
8H, High Rank Coal; 8 Mesh (2.36 mm)	Monthly	Coal
8L, Low Rank Coal; 8 Mesh (2.36 mm)	Monthly	Coal
BF, Solid Biofuel; 20 Mesh (850 μm)	Quarterly	BioFuel
EQ, Equilibrium Moisture of Coal; 4 Mesh (4.75 mm)	Monthly	Coal
FT, Fusion Temperature of Coal Ash; 65 Mesh (212 μm)	Monthly	Coal
HG, Hardgrove Grindability Index (HGI); 4 Mesh (4.75 mm)	Monthly	Coal
MA, Coal Ash - Mineral Analysis; 65 Mesh (212 μm)	Monthly	Coal
MC, Metallurgical Coke; 65 Mesh (212 μm)	Monthly	Coke
MET, Metallurgical Coal; 8 Mesh (2.36 mm)	Bi-Monthly	Coal
PC, Petroleum Coke; 65 Mesh (212 μm)	Monthly	Coke
PCG, Petroleum Coke HGI; 4 Mesh (4.75 mm)	Monthly	Coke
RCT, Coke CRI / CSR (ASTM D 5341)	Quarterly	Coke
TE, Trace Elements in Coal; 65 Mesh (212 μm)	Quarterly	Coal
TT, Coke Tumbler Test (ASTM D 3402)	Quarterly	Coke
Concentrates		
CU, Copper Concentrate; 200 Mesh (75 μm)	Monthly	Copper Concentrate
PB, Lead Concentrate; 200 Mesh (75 μm)	Bi-Monthly	Lead Concentrate
ZN, Zinc Concentrate; 115 Mesh (125 μm)	Bi-Monthly	Zinc Concentrate
TML, Flow Moisture Point / Transportable Moisture Limit	Quarterly	Copper, Lead, or Zinc Concentrate
Industrial Minerals		
CMT, Cement / Cement Clinker; 100 Mesh (150 µm)	Quarterly	Cement
ES, Elemental Sulfur	Quarterly	Elemental Sulfur

(A2LA Cert. No. 3251.01) Revised 02/16/2024

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Program Type/Program Name ¹	Frequency	Material
Mineral Ores		
BXT, Bauxite; 100 Mesh (150 μm)	Quarterly	Bauxite Ore
FE, Iron Ore; 200 Mesh (75 μm)	Monthly	Iron Ore
LS, Limestone; 200 Mesh (75 µm)	Monthly	Limestone
CR, Chrome Ore; 200 Mesh (75 µm)	Quarterly	Chrome Ore
MN, Manganese Ore; 200 Mesh (75 μm)	Quarterly	Manganese Ore
NI, Nickel Ore; 200 Mesh (75 μm)	Quarterly	Nickel Ore
LI, Lithium Ore; 200 Mesh (75 μm)	Quarterly	Lithium Ore
Fertilizers		
P, Phosphate Fertilizer; 35 Mesh (425 μm)	Monthly	Monammonium Phosphate, Diaammonium Phosphate, or Triple Superphosphate
N, Nitrogen (Urea); 200 Mesh (75 μm)	Bi-Monthly	Urea
K, Potassium (Potash); 100 Mesh (150 μm)	Bi-Monthly	Potash
RP, Rock Phosphate; 65 Mesh	Quarterly	Rock Phosphate
Geochemical Exploration		
AUH, High Level Gold Analysis; 200 Mesh (75 μm)	Monthly	Gold Ore
AUL, Low Level Gold Analysis; 200 Mesh (75 μm)	Monthly	Gold Ore
BM, Base Metals in Gold Ore; 200 mesh (75 μm)	Monthly	Various Metal Ores
BMF, Base Metals Sodium Peroxide Fusion (90); 200 mesh (75 µm)	Monthly	Various Metal Ores
BMP, Base Metals, Partial Digest (14); 200 mesh (75µm)	Monthly	Various Metal Ores
BMT, Base Metals, Total Digest (40); 200 mesh (75µm)	Monthly	Various Metal Ores
SU, Sulfur in Gold Ore; 200 mesh (75 μm)	Monthly	Various Metal Ores

¹ All assigned values and associated uncertainties determined via participant consensus values.

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Accredited Proficiency Testing Provider

A2LA has accredited

LABORATORY QUALITY SERVICES INTERNATIONAL (LQSI)

South Holland, IL

This accreditation covers the specific proficiency testing schemes listed on the agreed upon Scope of Accreditation.

This provider is accredited in accordance with the recognized International Standard ISO/IEC 17043: 2010

Conformity assessment - General requirements for proficiency testing. This accreditation demonstrates technical competence for a defined scope and the operation of a quality management system.

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Presented this 29th day of May 2020.

Vice President, Accreditation Services For the Accreditation Council Certificate Number 3251.01

Valid to May 31, 2024

Revised February 16, 2024