SCOPE OF ACCREDITATION TO ISO/IEC 17043:2010

LABORATORY QUALITY SERVICES INTERNATIONAL (LQSi)
SGS MINERALS SERVICES DIVISION
South Holland, IL 60473
Edwin Blaszak Jr. 708 225 9121

PROFICIENCY TESTING PROVIDER

Valid To: June 30, 2016 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	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	On Demand	Copper, Lead, or Zinc Concentrate
Industrial Minerals		
CMT, Cement / Cement Clinker; 100 Mesh (150 µm)	Quarterly	Cement
ES, Elemental Sulfur	Quarterly	Elemental Sulfur

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Program Type / Program Name	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
CR, Nickel Ore: 200 Mesh (75 µm)	Quarterly	Nickel 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
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

Accredited Proficiency Testing Provider

A2LA has accredited

LABORATORY QUALITY SERVICES INTERNATIONAL (LQSI)
SGS MINERALS SERVICES DIVISION

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.

Presented this 21st day of February 2012.

Senior Director of Quality & Communications
For the Accreditation Council
Certificate Number 3251.01
Valid to June 30, 2016
Revised April 22, 2016

For the proficiency testing schemes to which this accreditation applies, please refer to the provider's Scope of Accreditation.