



SCOPE OF ACCREDITATION TO ISO GUIDE 34:2009

VHG LABS
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REFERENCE MATERIAL PRODUCER

Valid to: May 31, 2013

Certificate Number: 2848.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this Reference Material Producer for the production of certified reference materials of the following category:

Category	Concentration Ranges	Uncertainty	Method	Analytical Technique
Certified Reference Materials				
High Purity Metals – Spectrochemical Solutions				
Single Element Standards	1 to 50,000 µg/mL	Relative < 0.5%	NIST High Performance ICP-OES	ICP-OES, ICP-MS
Multi Element Standards	1 to 50,000 µg/mL	+/-0.5% Relative	ICP-OES Aqueous QD, ICP-MS-Aqueous QD	ICP-OES, ICP-MS
Ion Chromatography Standards (Anions and Cations)				
Single-Ion Standards	1 – 10,000 µg/mL	+/- 0.5% Relative	IC Aqueous QD	IC
Multi-Ion Standards	1 – 10,000 µg/mL	+/- 0.5% Relative	IC Aqueous QD	IC
Petroleum Products – Fuel and Lubricants				
Acid Number	0.1 To 3.0 mg KOH/g	2 - 30% Relative	ASTM D664 ASTM D974	Titrimetry
Chlorine (Cl)	1 to 50,000 µg/mL	+/-1% Relative	ICP-OES-Aqueous QD, XRF QD	ICP-OES, XRF
Lead (Pb)	0.001 to 5.0 g/gal	+/-1% Relative	ICP-OES-Aqueous QD, XRF QD	ICP-OES, XRF
Moisture (H ₂ O)	0.1 to 1.0%	5% Relative	ASTM D6304	Karl Fischer, Titrimetry
Sulfur (S)	1 to 50,000 µg/g	+/-1% Relative	ASTM D4294	XRF
Single Element Standards	1 to 300,000 µg/g	1% Relative	ASTM D5185	ICP-OES, XRF

Multi Element Standards	1 to 50,000 μg/g	1% Relative	ASTM D5185	ICP-OES, XRF
Wear Metals in Oils				
Single Element Standards	1 to 300,000 μg/g	1% Relative	ASTM D5185	ICP-OES
Multi-Element Standards in Petroleum Products	1 to 50,000 μg/g	+/-1% Relative	ASTM D5185	ICP-OES
C6.2 Viscosity	0-1000 cSt	0.32% Relative	ASTM D445	Viscometry



The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Reference Material Producer

A2LA has accredited

VHG LABS

Manchester, NH

for technical competence as a

Reference Material Producer

This accreditation covers the specific materials listed on the agreed upon scope of accreditation. This producer meets the requirements of ISO Guide 34:2009 *General Requirements for the Competence of Reference Material Producers*, in combination with the relevant requirements of ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*.

Presented this 27th day of May 2011.



President & CEO
For the Accreditation Council
Certificate Number 2848.02
Valid to May 31, 2013

For materials to which this accreditation applies, please refer to the reference material producer's Scope of Accreditation.