



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ALS TRIBOLOGY
6180 Halle Drive, Suite D
Valley View, OH 44125
Andrew DePompei Phone: 216-674-4600

CHEMICAL

Valid To: October 31, 2022

Certificate Number: 5681.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on Lubricants, Oils, Fuels and Coolants:

<u>Test:</u>	<u>Test Method(s):</u>
Acid Number by Potentiometric Titration	ASTM D664 (Modified); ALS SOP 6003
Acid Number by Colorimetric Titration	ASTM D974
Base Number by Potentiometric Titration	ASTM D4739 (Modified); ALS SOP 6004
Wear, Additive and Contaminant Metals by ICP/OES Ag, Al, B, Ba, Ca, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Si, Sn, Ti, V, Zn	ASTM D5185 (Modified); ALS SOP 3006
FTIR – Oxidation, Nitration, Soot and Sulphation	ASTM D7414, D7415, D7418, E2414, D7844; ALS SOP 2005
Particle Count by Light Extinction	ASTM D7647 (Modified); ALS SOP 5016; ISO 4406
Viscosity, Houillon	ASTM D7279
Water by Karl Fischer Oven, Volumetric Titration	ASTM E203 (Modified); ALS SOP 6001
Water by Hot Plate (Crackle)	ALS SOP 5015
Fuel Dilution by Gas Chromatography	ASTM D7593
API Gravity by Hydrometer	ASTM D287, D1298
Bottom Sediment and Water by Centrifugation	ASTM D2709
Calculated Cetane Index – Four Variable	ASTM D4737

(A2LA Cert. No. 5681.01) 03/10/2021

Page 1 of 2

Test:

Test Method(s):

Cloud Point	ASTM D7689
Cold Filter Plugging Point	ASTM D6371
Distillation	ASTM D7345
Pour Point	ASTM D7346
Sulfur by EDXRF (including ULSD)	ASTM D4294
Anions by Ion Chromatography Chloride, Nitrite, Nitrate, Phosphate, Sulfate	ASTM D5827
Freeze Point	ASTM D3321
Wear, Additive, and Contaminant Metals by ICP Al, B, Ca, Cu, Fe, Mg, Mo, Na, P, Pb, Si, Zn	ASTM D6130
pH, Potentiometric	ASTM D1287
Reserve Alkalinity	ASTM D1121





Accredited Laboratory

A2LA has accredited

ALS TRIBOLOGY

Valley View, OH

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 10th day of March 2021.

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

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 5681.01
Valid to October 31, 2022

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