

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

GM TEST ENGINEERING LABORATORIES – PONTIAC, MI Chemistry Test Lab

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CHEMICAL

Valid To: December 31, 2024 Certificate Number: 1109.19

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to the laboratory to perform the following tests on <u>petroleum products</u>:

Test Description:	Test Method:
Distillation of Petroleum Products and Liquid Fuels at Atmospheric Pressure	ASTM D86
Density, Relative Density, and API Gravity of Liquids by Digital Density Meter	ASTM D4052
ICP - Additive Elements, Wear Metals and Contaminants in Used Lubricating Oils (Al, B, Ba, Ca, Cr, Cu, Fe, K, Mg, Mn, Mo, Na, Ni, P, Pb, S, Si, Sn, Zn)	ASTM D5185
Vapor Pressure of Petroleum Products (Mini Method)	ASTM D5191
Sulfur in Gasoline, Diesel, Biodiesel, and Biodiesel Blends by Monochromatic Wavelength X-Ray Fluorescence Spectrometry	ASTM D7039
Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter	ASTM D240
Determination of Water in Petroleum Products by Coulometric Karl Fischer Titration	ASTM D6304
Determination of Total Oxygen in Gasoline and Methanol Fuels by Reductive Pyrolysis	ASTM D5622 (Method C)
Instrumental Determination of Carbon and Hydrogen in Petroleum Products and Lubricants	ASTM D5291 (Method D)

(A2LA Cert. No. 1109.19) Revised 05/18/2023

<u>Test Description:</u> <u>Test Method:</u>

Determination of Biodiesel Content in Diesel Fuel Oil using Mid ASTM D7371

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Kinematic Viscosity of Oils at 40 and 100 °C ASTM D7279

Ethylene Glycol Content of Oils ASTM D2982 Annex A1

Particle Count ASTM D7647

Fuel Dilution in Oil IQ #5100*

Kinematic Viscosity of Oils at 50 and 100 °C ASTM D445

GUMS (Air Only) ASTM D381

Viscosity using CCS ASTM D5293

Viscosity at HTHS at 150 °C ASTM D4683

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^{*}In-house Method



Accredited Laboratory

A2LA has accredited

GM TEST ENGINEERING LABORATORIES - PONTIAC, MI

Pontiac, MI

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 15th day of November 2022.

Mr. Trace McInturff, Vice President, Accreditation Services

For the Accreditation Council

Certificate Number 1109.19

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Revised May 18, 2023