



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

PARAGON LABORATORIES, INC.  
12649 Richfield Court  
Livonia, MI 48150  
Tiffany Micys Phone: 734-469-5626  
tiffnym@paragonlaboratories.com

CHEMICAL

Valid To: May 31, 2025

Certificate Number: 2705.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on liquid and gaseous petroleum products, fuels and fuel additives (oil, diesel, gasoline, biodiesel, ethanol and oxygenates), and chemical products:

<u>Test Method</u>	<u>Description</u>
ASTM D86	Distillation of Petroleum Products
ASTM D93	Flash Point by Pensky-Martens Closed Cup
ASTM D97	Pour Point of Petroleum Products
ASTM D130	Corrosiveness to Copper
ASTM D240	Heat of Combustion of Liquid Fuels
ASTM D381 Mod.	Gum Content of Fuels
ASTM D445	Kinematic Viscosity of Liquids
ASTM D482	Ash from Petroleum Products
ASTM D524	Ramsbottom Carbon Residue (10% & 100%)
ASTM D525	Oxidation Stability of Gasoline
ASTM D613	Cetane Number of Diesel
ASTM D665 Mod.	Corrosiveness to Iron
ASTM D974	Acid Number
ASTM D976	Calculated Cetane Index of Distillate Fuels
ASTM D1093	Acidity of Hydrocarbon Liquids
ASTM D1125 Mod.	Electrical Conductivity (1,000 to 20,000,000 $\mu$ S/m)
ASTM D1319	Hydrocarbon Types by FIA
ASTM D1613	Acidity as Acetic Acid
ASTM D1688 Mod.	Copper (Cu) in Petroleum Products
ASTM D1838 A	Corrosiveness to Copper (LPG)
ASTM D2158	Residues in Liquefied Petroleum Gases (LPG)
ASTM D2163	Hydrocarbons in Liquefied Petroleum Gases (LPG)
ASTM D2274	Oxygen Stability of Distillate Fuel Oil

<b><u>Test Method</u></b>	<b><u>Description</u></b>
ASTM D2500	Cloud Point of Petroleum Oils
ASTM D2598	Calculated Physical Properties of LPG
ASTM D2624	Electrical Conductivity (1 to 2,000,000 pS/m)
ASTM D2699	Research Octane Number
ASTM D2700	Motor Octane Number
ASTM D2709	Water and Sediment in Middle Distillate Fuels
ASTM D2713	Dryness of Propane
ASTM D3231	Phosphorus in Gasoline
ASTM D3237	Lead in Gasoline by AAS
ASTM D3343	Estimated Hydrogen Content of Fuels
ASTM D3338	Estimated Heat of Combustion of Fuels
ASTM D3606 B	Benzene and Toluene in Gasoline
ASTM D3703	Peroxide Number of Distillate Fuels
ASTM D3831	Manganese in Gasoline by AAS
ASTM D4052	Density and Relative Density of Liquid Fuels
ASTM D4176	Free Water and Particulate in Distillate Fuels
ASTM D4629	Trace Nitrogen in Petroleum Products
ASTM D4737	Calculated Cetane Index by 4-Variable Equation
ASTM D4809	Heat of Combustion of Fuels
ASTM D4814	Calculated Driveability Index
ASTM D4815	Determination of Oxygenates and Alcohols in Gasoline by GC
ASTM D4951	Phosphorus (P) in Biodiesel Blend Stock
ASTM D5185 Mod.	Aluminum and Silicon in Petroleum Products
ASTM D5186	Aromatic Content of Diesel Fuels by SFC
ASTM D5191	Vapor Pressure of Petroleum Products
ASTM D5291 D	Carbon and Hydrogen in Petroleum Products
ASTM D5452	Particulate Contamination in Aviation Fuels
ASTM D5453	Total Sulfur in Petroleum Products
ASTM D5622 A	Total Oxygen in Petroleum Products
ASTM D5501	Ethanol Content of Denatured Ethanol and Blends
ASTM D5769	Benzene, Toluene, and Total Aromatics in Gasolines
ASTM D6079	Lubricity of Diesel Fuels by HFRR - Camera
ASTM D6217	Particulate Contamination in Middle Distillates
ASTM D6371	Cold Filter Plugging Point (CFPP)
ASTM D6423	pH of Ethanol and Blends
ASTM D6550	Olefin Content of Gasolines by SFC
ASTM D6667	Volatile Sulfur in Liquefied Petroleum Gases
ASTM D7111 Mod.	Trace Metals in Diesel Fuel
ASTM D7321	Particulate Contamination in Biodiesels
ASTM D7328	Inorganic Sulfate, Inorganic Chloride, and Potential Sulfate of Fuel Ethanol
ASTM D7795 B	Acidity as Acetic Acid



<b><u>Test Method</u></b>	<b><u>Description</u></b>
ASTM D7619	Sizing and Counting Particles in Fuels - Incorporating ISO 4406 & ISO 11171
ASTM D7671 A	Corrosiveness to Silver
ASTM E203	Water in Liquid Petroleum Products
EN 14078	Fatty Acid Methyl Ester (FAME) in Middle Distillates
EN 14538	Ca, K, Mg, & Na in Biodiesels
EN 15751	Oxidation Stability of Biodiesels
NACE TM0172	Corrosiveness to Iron
Paragon SOP-A0009	Petrochemical Industry Amines/Cations
Paragon SOP-A0063	Calculated Saturates in Gasoline
Paragon SOP-A0214	Color by Visual Description





## Accredited Laboratory

A2LA has accredited

### PARAGON LABORATORIES, INC.

*Livonia, 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 23<sup>rd</sup> day of June 2023.

A blue ink signature of Mr. Trace McInturff, written in a cursive style.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 2705.01  
Valid to May 31, 2025

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