

## **CERTIFICATE OF ACCREDITATION**

ANSI-ASQ National Accreditation Board

500 Montgomery Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

### EPA National Vehicle and Fuel Emissions Laboratory Testing & Advanced Technology Division 2565 Plymouth Road Ann Arbor, MI 48105

has been assessed by ANAB and meets the requirements of international standard

# **ISO/IEC 17025:2005**

while demonstrating technical competence in the field(s) of

### TESTING

Refer to the accompanying Scope(s) of Accreditation for information regarding the types of tests to which this accreditation applies.

AT-1658

Certificate Number

ANAB Approval

Certificate Valid To: 04/30/2016 Version No. 001 Issued: 04/07/2015



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. 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 January 2009*).



#### SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

#### EPA National Vehicle and Fuel Emissions Laboratory Testing & Advanced Technology Division

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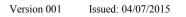
#### TESTING

Valid to: April 30, 2016

Certificate Number: AT – 1658

I. Mechanical/Emissions

ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Vehicle Testing: 1977 and Later Model Year New Light-Duty Vehicles and New Light-Duty Trucks and New Otto- Cycle Complete Heavy-Duty Vehicles	Regulated Exhaust Emissions – NOx, THC, CO & CO <sub>2</sub>	40 CFR Part 86 Subpart B - FTP, HWY, US06 Test Procedures	Emission Analysis System, Constant Volume Sampler, Chassis Dynamometers, Evaporative Emission Enclosures
Engine Testing: Nonroad Spark-Ignition Engines At or Below 19 Kilowatts	Regulated Exhaust Emissions – NOx, THC, CO & CO <sub>2</sub>	40 CFR Part 90 Subpart E - Gaseous Exhaust 6 Mode Test Procedures -§ 90.410 Engine test cycle	Emission Analysis System, Constant Volume Sampler, Eddy Current Dynamometers
Engine Testing: 1977 and Later Model Year New Heavy-Duty On-Highway Engines	Regulated Exhaust Emissions – NOx, THC, CO, CO <sub>2</sub> & PM	40 CFR Part 86 Subpart A & 40 CFR Part 1065 Subparts A-H – Cold & Hot FTP, RMC Test Procedures	Emission Analysis System, Constant Volume Sampler, Engine Dynamometer, Particulate Sampling System
Engine Testing: New and In-Use Non-Road Compression Ignition Engines	Regulated Exhaust Emissions – NOx, THC, CO, CO <sub>2</sub> & PM	40 CFR Part 1039 & 40 CFR Part 1065 Subpart A-H – Cold & Hot NRTC, RMC, 8 Mode Test Procedures	Emission Analysis System, Constant Volume Sampler, Engine Dynamometer, Particulate Sampling System
Vehicle Testing: Emission Regulations for 1994 and Later Model Year Gasoline- Fueled New Light-Duty Vehicles, New Light-Duty Trucks and New Medium-Duty Passenger Vehicles; Cold Temperature Test Procedures	Regulated Exhaust Emissions – THC, CO & CO <sub>2</sub>	40 CFR Part 86 Subpart C – Cold CO FTP Test Procedure	Emission Analysis System, Constant Volume Sampler, Chassis Dynamometer
Vehicle Testing: 1977 and Later Model Year New Light-Duty Vehicles and New Light-Duty Trucks and New Otto- Cycle Complete Heavy-Duty Vehicles	Regulated Exhaust Emissions – THC, CO & CO <sub>2</sub> , State of Charge	40 CFR Part 86 Subpart B & Electric / Hybrid Electric Vehicle Testing Process	Emission Analysis System, Constant Volume Sampler, Chassis Dynamometer, Power Analyzer



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**II. Fuels/Chemistry** 

ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OI TECHNOLOGY
Fuel Enforcement Testing & Testing of Certification Test Fuels Used for Compliance: Gasoline & Diesel Fuels	Fuel Chromatography	Determination of Oxygenates in Gasoline with Oxygen Selective Flame Ionization Detector;	Gas Chromatograph, Oxyge Specific Flame Ionization Detector (OFID)
		Determination of Benzene and Toluene in Gasoline by Backflush GC;	Gas Chromatograph, Thermal Conductivity Detector (TCD)
		Determination of Benzene, Toluene & Total Aromatics in Finished Gasoline;	Gas Chromatograph
		Determination of Benzene, Toluene, Ethylbenzene, pm- Xylene, o-Xylene, C9 and Heavier Aromatics and Total Aromatics in Gasoline;	Gas Chromatograph
		Determination of Oxygenates in Gasoline;	Gas Chromatograph
		Determination of Mass Percent Composition of Aromatic Hydrocarbons in Petroleum Diesel Fuels	Supercritical Fluid Chromatograph (SFC)
		Determination of Olefin Content in Gasoline by Supercritical Fluid Chromatography;	Supercritical Fluid Chromatograph (SFC)
		Determination of Total Monoglyceride, Total Diglyceride, Total Triglyceride, and Free and Total Glycerin in B-100 Biodiesel Methyl Esters by Gas Chromatography	Gas Chromatograph
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#### **II. Fuels/Chemistry**

ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Fuel Enforcement Testing & Testing of Certification Test Fuels Used for Compliance: Gasoline & Diesel Fuels	Fuel Spectroscopy or Spectrophotometry	Analysis of Sulfur in Petroleum Fuels by X-Ray Fluorescence;	X-Ray Spectrometer
		Sulfur in Gasoline and Diesel Fuel by Monochromatic Wavelength Dispersive X-Ray Fluorescence Spectrometry;	Monochromatic Wavelength Dispersive X-Ray Spectrometer
		Determination of Total Sulfur Petroleum Fuels by Ultraviolet Fluorescence;	Trace Sulfur Analyzer, UV Fluorescence Detector
		Method for Determination of FAME in Diesel Fuel using FTIR-ATR-PLS	Fourier Transform Infrared (FTIR) Spectrometer
Fuel Enforcement Testing & Testing of Certification Test Fuels Used for Compliance: Gasoline & Diesel Fuels	Fuel Physical Properties	Distillation of Petroleum Products;	Automatic Distillation Analyzer
		Fluorescent Indicator Adsorption Analysis of Petroleum Fuels;	Adsorption Columns, Ultraviolet Light Source
		Determination of Density and Specific Gravity of Liquids by Digital Density Meter;	Digital Density Analyzer
		Grabner Vapor Pressure of Petroleum Products;	Vapor Pressure Analyzer
		Method for Determination of Flash Point of Diesel Fuels;	Flash Point Apparatus
		Method for Determination of Flashpoint of Biodiesel Fuel, Biodiesel Blend Fuel and Biodiesel Feedstock;	Flash Point Apparatus
		Determination of Kinematic Viscosity in Petroleum Fuels	Viscometer
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Version 001



#### **II. Fuels/Chemistry**

ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	*KEY EQUIPMENT OR TECHNOLOGY
Exhaust Sample Testing from Vehicles Fueled with Ethanol Containing Test Gasoline	Exhaust Chromatography	40 CFR Part 86 Subpart B, Quantification of Carbonyl Compounds in Exhaust;	High Performance Liquid Chromatography (HPLC) System
		Analysis of Methanol and Ethanol in Exhaust Gas	Gas Chromatograph

Notes:

\* = As Applicable
This scope is formation

2. This scope is formatted as part of a single document including the Certificate of Accreditation No. AT- 1658

Keel Breenewary

Vice-President

