



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

DC SCIENTIFIC, INC.
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 Glen Burnie MD 21060
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CALIBRATION

Valid To: February 29, 2020

Certificate Number: 4364.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Fluid Quantities

Parameter/Equipment	Range	CMC ^{2,3} (±)	Comments
Viscosity Working Viscometers Direct Flow – Suspended Level (Transparent Liquids)	<10 mm ² /s	0.30 %	ASTM D446 ⁴ ISO 3104 ⁴
	(10 to 100) mm ² /s	0.33 %	
	(100 to 1000) mm ² /s	0.35 %	
	(1000 to 10 000) mm ² /s	0.39 %	
	(10 000 to 100 000) mm ² /s	0.43 %	
Viscosity Working Viscometers Reverse Flow (Transparent and Opaque) Liquids	<10 mm ² /s	0.27 %	ASTM D446 ⁴ ISO 3104 ⁴
	(10 to 100) mm ² /s	0.30 %	
	(100 to 1000) mm ² /s	0.33 %	
	(1000 to 10 000) mm ² /s	0.37 %	
	(10 000 to 100 000) mm ² /s	0.41 %	
Viscosity Working Viscometers Modified Ostwald	<10 mm ² /s	0.24 %	ASTM D446 ⁴ ISO 3104 ⁴
	(10 to 100) mm ² /s	0.27 %	
	(100 to 1000) mm ² /s	0.30 %	
	(1000 to 10 000) mm ² /s	0.34 %	
	(10 000 to 100 000) mm ² /s	0.39 %	

II. Mechanical

Parameter/Equipment	Range	CMC ^{2,3} (±)	Comments
Dry Vapor Pressure Equivalent (DVPE)	(1.0 to 18.6) psi	1.1 %	ASTM D5191
Vapor-Liquid Ratio Temperature Determination (VLR)	(36 to 80) °C (97 to 176) °F	1.1 %	ASTM D5188
Vapor Pressure of Crude Oil (VPCR _x)	(25 to 180) kPa at 37.8 °C	1.1 %	ASTM D6377

¹ This laboratory offers commercial calibration services.

² Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMCs represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

³ CMCs expressed in percentages of reading.

⁴ Viscometers are calibrated to ASTM D446/ISO 3104 using certified reference materials to ASTM D2162.



Accredited Laboratory

A2LA has accredited

DC SCIENTIFIC, INC.

Glen Burnie, MD

for technical competence in the field of

Calibration

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 laboratory also meets *R205 – Specific Requirements: Calibration Laboratory Accreditation Program*. 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 20th day of November 2017.

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

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 4364.01
Valid to February 29, 2020
Revised on September 13, 2019

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