



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Coastal Gulf & International, Inc.
13615 River Road, Luling, LA 70070

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Petroleum, Fuel, Lubricant & Chemical Testing
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:

April 9, 2018

Issue Date:

November 30, 2020

Expiration Date:

March 31, 2023

Accreditation No.:

96851

Certificate No.:

L20-719

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjilabs.com



Certificate of Accreditation: Supplement

Coastal Gulf & International, Inc.

13615 River Road, Luling, LA 70070

Contact Name: Vera Gray Phone: 985-785-0765

Accreditation is granted to the facility to perform the following testing:

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT	
Chemical ^F	Petroleum Products	Density/Relative Density	ASTM D4052	N/A	
	Petroleum and Petroleum Products	Sulfur		ASTM D4294	0.017 mass% to 4.6 mass%
		Carbon Residue (Total Sulfur)		ASTM D4530	1 mg/kg to 8 000 mg/kg
		Carbon Residue		ASTM D189	N/A
		Determination of Asphaltenes		ASTM D6560 (HPLC)	0.5 % m/m to 30 % m/m
		Nitrogen		ASTM D5762	40 µg/g to 10 000 µg/g
		No Flow Point and Pour Point		ASTM D7346	Apparatus: -95 °C to 45 °C No Flow Point: -77 °C to 2 °C Pour Point: -58 °C to 12 °C.
		Pour Point		ASTM D97	High Pour: -38 °C to 50 °C Low Pour: -80 °C to 20 °C Melt Point: 32 °C to 127 °C
		Flash Point		ASTM D93	40 °C to 370 °C
	Petroleum Products Including Transparent and Opaque Liquids	Kinematic Viscosity		ASTM D2161 ASTM D445	0.2 mm ² /s to 30 000 mm ² /s
	Petroleum Products and Bituminous Materials	Water		ASTM D95	0 % volume to 25 % volume
	Petroleum Products and Lubricants	Instrumental Determination of Carbon, Hydrogen, and Nitrogen		ASTM D5291	Concentration range: Carbon: 75 mass% to 87 mass% Hydrogen: 9 mass% to 16 mass% Nitrogen: 0.1 mass% to 2 mass%
	Crude Petroleum and Petroleum Products	Determination of Asphaltenes		IP 143 (HPLC)	0.5 % m/m to 30 % m/m



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Chemical ^F	Crude Petroleum and Petroleum Products & Residual Fuel Oil	Determination of Aromatic Hydrocarbon Types in Middle Distillates—High Performance Liquid Chromatography Method with Refractive Index Detection	ASTM D6591 (HPLC)	Mono-aromatic hydrocarbons: 4 % to 40 % (m/m) Di-aromatic hydrocarbons: 0 % to 20 % (m/m) Tri+-aromatic hydrocarbons: 0 % to 6 % (m/m) Polycyclic aromatic hydrocarbons: 0 % to 26 % (m/m) Aromatic hydrocarbons: 4 % to 65 % (m/m) total
	Residual Fuel Oil	Determination of Aluminum, Silicon, Vanadium, Nickel, Iron, Sodium, Calcium, Zinc, and Phosphorous	IP 501	Aluminum: 5 mg/kg to 150 mg/kg Silicon: 10 mg/kg to 250 mg/kg Sodium: 1 mg/kg to 100 mg/kg Vanadium: 1 mg/kg to 400 mg/kg Nickel: 1 mg/kg to 100 mg/kg Iron: 2 mg/kg to 60 mg/kg Calcium: 3 mg/kg to 100 mg/kg Zinc: 1 mg/kg to 70 mg/kg Phosphorus: 1 mg/kg to 60 mg/kg
	Distillate and Residual Fuels, Gas Turbine Fuels, Crude Oils, Lubricating Oils, Waxes, and Other Petroleum Products	Ash Content	ASTM D482	0.001 mass% to 0.18 mass %
	Liquid Petroleum Hydrocarbons	Measurement of Hydrogen Sulfide in the Vapor Phase Above Residual Fuel Oils	ASTM D5705	5 µmol/mol to 4 000 µmol/mol 5 ppm v/v to 4 000 ppm v/v
	Light Hydrocarbons, Spark Ignition Engine Fuel, Diesel Engine Fuel, and Engine Oil	Total Sulfur	ASTM D5453	1 mg/kg to 8 000 mg/kg
	Liquids	Dynamic Viscosity and Density	ASTM D7042	See Table 1 and Table 2 of ASTM D7042

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer^F would mean that the laboratory performs this testing at its fixed location.