



CERTIFICATE OF ACCREDITATION

This is to attest that

QATARENERGY LNG

HALLUL AVENUE
RASLAFFAN INDUSTRIAL CITY, 22666, STATE OF QATAR

Testing Laboratory TL-955

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date January 17, 2023



A handwritten signature in black ink, reading 'Raj Nathan'.

President

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

QATARENERGY LNG

Contact Name Ms. Maryam Al-Kaabi

Contact Phone +974 44732822

Accredited to ISO/IEC 17025:2017

Effective Date January 17, 2023

A) SOUTH LABORATORY

Irrigation Water	
EPA 310.1	Alkalinity as CaCO ₃ (Titrimetric, pH 4.5)
EPA 410.4	The Determination of Chemical Oxygen Demand (COD) by Semi-Automated Colorimetry
HACH 8021	Chlorine, Free, Low Range - USEPA DPD Method
EPA 120.1	Conductance (Specific Conductance, μ mhos at 25°C) by Conductivity Meter
EPA 245.2	Mercury in water (Automated Cold Vapor Technique) by Atomic Absorption
EPA 1664 A	n-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry
EPA 150.1	pH (Electrometric) at 25°C
EPA 300	Determination of Inorganic Anions by Ion Chromatography - Phosphate (as HPO ₄)
EPA 300	Determination of Inorganic Anions by Ion Chromatography - Sulfate (SO ₄)
EPA 300	Determination of Inorganic Anions by Ion Chromatography - Chloride (Cl)
EPA 130.2	Hardness, Total (mg/L as CaCO ₃)(Titrimetric, EDTA)
LNG	
GPA 2261	Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography- Natural Gas [Rich] Analysis by Gas Chromatography
GPA 2261	Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography - Natural Gas [Lean] Analysis by Gas Chromatography
Fuel Gas	
GPA 2261	Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography - Fuel Gas Streams Analysis by Gas Chromatography

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B) NORTH LABORATORY

Liquefied Natural Gas (LNG) for custody transfer	
GPA 2261	Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography - Determination of gas composition (N ₂ , C ₁ -C ₅) by Gas Chromatography
Fuel Gas	
GPA 2261	Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography - Determination of gas composition (N ₂ , C ₁ -C ₅ , CO ₂ , C ₆ +) by Gas Chromatography
Petroleum products: Naphtha, Gasoil, Condensate, Kerojet A1	
ASTM D4052	Standard Test Method for Density at 15°C, Relative Density and API Gravity at 60/60°F of Liquids Hydrocarbon by Digital Density Meter
Kerojet A1	
ASTM D7153	Standard Test Method for Freezing Point of Aviation Fuels (Automatic Laser Method)
IP 170	Determination of Flash Point – Abel Closed-cup Method
Gasoil	
ASTM D93 Procedure A	Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester
ASTM D5771	Standard Test Method for Cloud Point of Petroleum Products and Liquid Fuels (Optical Detection Stepped Cooling Method)
ASTM D5950	Standard Test Method for Pour Point of Petroleum Products (Automatic Tilt Method)
ASTM D6045	Standard Test Method for Color of Petroleum Products by the Automatic Tristimulus Method – ASTM Color Scale
Clean Water	
ASTM D1293 Test Method B	Standard Test Methods for pH of Water at 20-25 °C – Test Method B – Routine or Continuous Measurement of pH
ASTM D1125 Test Method A	Standard Test Methods for Electrical Conductivity and Resistivity of Water at 25°C – Test Method A – Field and Routine Laboratory Measurement of Static (Non-Flowing) Samples

C) BARZAN LABORATORY

Irrigation Water	
EPA 120.1	Conductance (Specific Conductance, µmhos at 25 °C) by Conductivity Meter
EPA 150.1	pH (Electrometric) at 25 °C
Fuel Gas	
GPA 2261	Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography - Fuel Gas Streams Analysis by Gas Chromatography