



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Red Ball Technical Gas Services
555 Craig Kennedy Way, Shreveport, LA 71107

*and hereby declares that the Organization is accredited in accordance with
the recognized International Standard:*

ISO/IEC 17025:2017

Whereby, technical competence has been confirmed for the associated scope supplement, in the fields of:

Chemical Calibration
(As detailed in the supplement)

Accreditation claims for conformity assessment activities shall only be made from the addresses referenced within this certificate and shall apply solely to those activities identified in the related scope. This Accreditation is granted subject to the Accreditation Body rules governing the Accreditation referred to above, and the Organization hereby commits to observing and complying with those rules in their entirety.

For PJLA:

Initial Accreditation Date:

Issue Date:

Expiration Date:

July 03, 2008

January 16, 2025

February 28, 2027

Tracy Szerszen
President

Accreditation No.:

Certificate No.:

62754

L25-31

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

*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.pjlabs.com*



Certificate of Accreditation: Supplement

Red Ball Technical Gas Services

555 Craig Kennedy Way, Shreveport, LA 71107
Contact Name: LaMeka Dennis Phone: 318-425-3211

Accreditation is granted to the facility to perform the following conformity assessment activities:

FIELD OF CALIBRATION	MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED	LOCATION OF ACTIVITY
Chemical	Electrolytic Moisture Analysis	1.5 µmol/mol to 100 µmol/mol	(4.85 x 10 ⁻¹ + 1.02 x 10 ⁻² C) µmol/mol	Electrolytic Moisture Analyzer	WI-400	F
	Total Trace Hydrocarbon Analysis	0.1 µmol/mol to 30 µmol/mol	(1.66 x 10 ⁻² + 1.38 x 10 ⁻² C) µmol/mol	Flame Ionization Detector Analyzer		F
	Electrochemical Oxygen Analysis	0.2 µmol/mol to 1 000 000 µmol/mol	(4.90 x 10 ⁻² + 1.50 x 10 ⁻² C) µmol/mol	Electrochemical Oxygen Analyzer		F
	Electrochemical Trace Oxygen Analysis	0.4 µmol/mol to 500 mmol/mol	(1.15 x 10 ⁻¹ + 1.21 x 10 ⁻² C) µmol/mol			
	Paramagnetic Percent Oxygen Analysis	20 mmol/mol to 250 mmol/mol	(1.14 + 8.26 10 ⁻³ C) mmol/mol	Paramagnetic Oxygen Analyzer		F
	Gas Mixture Chemical Analysis	2.08 mmol/mol to 1 000 mmol/mol	(6.60 x 10 ⁻¹ + 1.43 x 10 ⁻² C) mmol/mol	GC with TCD		F
		0.29 mmol/mol to 1 000 mmol/mol	(9.07 x 10 ⁻² + 1.49 x 10 ⁻² C) mmol/mol	GC with FID		F
	Gas Mixture Gravimetric Analysis	1 µmol/mol to 1 000 000 µmol/mol	0.3 µmol/mol	Gravimetric Scale Fill System		F
	Nitric Oxide Concentration	1.2 µmol/mol to 100 µmol/mol	(3.66 x 10 ⁻¹ + 1.13 x 10 ⁻² C) µmol/mol	Chemiluminescent Analyzer		F
		1.0 µmol/mol to 5 000 µmol/mol	(7.03 x 10 ⁻¹ + 1.17 x 10 ⁻² C) µmol/mol			
		60 µmol/mol to 1 500 µmol/mol	(5.31 x 10 ⁻¹ + 1.10 x 10 ⁻² C) µmol/mol	NDIR Analyzer		F
	Carbon Monoxide Concentration	100 µmol/mol to 5 000 µmol/mol	(1.49 + 1.11 x 10 ⁻² C) µmol/mol	Gas Correlation IR Analyzer		F
	Sulfur Dioxide Concentration	100 µmol/mol to 2 000 µmol/mol	(1.22 + 1.09 x 10 ⁻² C) µmol/mol	NDIR Analyzer		F



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Chemical	Carbon Dioxide Concentration	0.2 cmol/mol to 0.5 cmol/mol	$(5.74 + 1.29 \times 10^{-2} \text{C})$ cmol/mol	NDIR Analyzer	WI-400	F
		1 cmol/mol to 0.5 cmol/mol	$(5.74 + 1.29 \times 10^{-2} \text{C})$ cmol/mol			
	Gas Mixture Analysis	1.6 $\mu\text{mol/mol}$ to 250 000 $\mu\text{mol/mol}$	$(4.84 \times 10^{-1} + 1.00 \times 10^{-2} \text{C})$ $\mu\text{mol/mol}$	FTIR Analyzer	WI-400	F
Electrical	Digi-Meter Welding Machine	0 V to 100 V	1.7 V	Clamp Meter and Load Bank	WMC-2121	FO
		0 A to 800 A	3 A			

- The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor k (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.
- The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.
- Location of activity:

Location	Location
F	Conformity assessment activity is performed at the CABs fixed facility
O	Conformity assessment activity is performed onsite at the CABs customer location
- Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.
- The term C represents concentration in moles or micromoles appropriate to the uncertainty statement.