



# PERRY JOHNSON LABORATORY ACCREDITATION, INC.

## Certificate of Accreditation

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

### ***Tier 5 Labs, LLC***

***5353 West Southern Ave, Indianapolis, IN 46241***

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

**ISO 17034:2016  
& the relevant requirements of ISO/IEC 17025:2017**

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

***Reference Material Producer  
(As detailed in the supplement)***

Accreditation claims for such reference material production 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:*

November 21, 2013

*Issue Date:*

November 17, 2022

*Expiration Date:*

November 17, 2024

*Accreditation No.:*

76514

*Certificate No.:*

L22-766

*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](http://www.pjilabs.com)*



# Certificate of Accreditation: Supplement

## Tier 5 Labs, LLC

5353 West Southern Ave, Indianapolis, IN 46241  
Contact Name: John Schoolcraft Phone: 317-248-0651

Accreditation is granted to the Organization for the production of certified reference material and reference material as follows:

REFERENCE MATERIAL CATEGORIES	ITEMS, MATRIX MATERIALS OR PRODUCTS	SPECIFIC CONSTITUENTS OR PROPERTIES	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (IF APPLICABLE)	REFERENCE VALUE CAPABILITY	RM OR CRM
A 7.1 Gas Mixtures <sup>F</sup>	Calibration Gas Cylinder	Gas Mixture concentration	Gas Chromatograph with Discharge Ionization Detector	0.25 µmol/mol to 499 000 µmol/mol	(6.01 x 10 <sup>-2</sup> + 1.14 x 10 <sup>-2</sup> C) µmol/mol	RM/CRM
			FTIR - Fourier Transform Infrared Spectroscopy	10 µmol/mol to 499 000 µmol/mol	(1.06 x 10 <sup>-2</sup> + 1.44 x 10 <sup>-2</sup> C) µmol/mol	RM/CRM
			Gravimetric Analysis	1 µmol/mol to 499 000 µmol/mol	0.3 µmol/mol	RM/CRM
			Gas Chromatograph with Thermal Conductivity Detector	100 µmol/mol to 499 000 µmol/mol	(6.98 + 1.42 x 10 <sup>-2</sup> C) µmol/mol	RM/CRM

- Per APLAC TC008 sections 6.5 & 6.6 “For CRMs, the scope of accreditation shall be expressed in terms of a best Reference Value Capability which shall include the RMP’s estimate of its least uncertainty of measurement (UCRM) for each property value’s range it reports. ... CRMs that are an identification value (such as species identification) or where the property value is an ordinal number (such as a color fastness chart) do not require an uncertainty of measurement to be stated in the scope of accreditation.” Per section 6.3 “An accredited RMP is not permitted to report on a RM certificate an uncertainty of property value which is less than or better than that stated in its scope of accreditation.” Per section 6.12 “The uncertainty covered by the Reference Value Capability shall be expressed as the expanded uncertainty having a specific coverage probability (often 95 %). The unit of the uncertainty shall always be the same as that of the property value or in a term relative to the property value, for example a percentage or ratio of the property value.” See sections 6.7 through 6.11 for additional information.
- The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer<sup>F</sup> would mean that the laboratory performs this testing at its fixed location.
- The term C represents concentration of constituent gas in µmol/mol or mmol/mol as indicated above.
- This is the primary site for all quality management system activities.