

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Middlesex Gases & Technologies, Inc.

292 Second Street, Everett, MA 02149

(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):

Testing of Specialty Gases (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 Susses

Tracy Szerszen President

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

Initial Accreditation Date:	Issue Date:	Expiration Date:	
August 23, 2010	January 19, 2023	March 31, 2025	
Accreditation	No.: Certi	Certificate No.:	
68528	L2	23-43	

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: <u>www.pjlabs.com</u>



Certificate of Accreditation: Supplement

Middlesex Gases & Technologies, Inc.

292 Second Street, Everett, MA 02149 Contact Name: Mike Beaulieu Phone: 617-387-5050

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	High Pressure and	Trace Moisture	Electrolytic Hygrometer	0.000 01 % mol fraction to
	Cryogenic Gases	Concentration		0.1 % mol fraction
				(0.000 01 % mol fraction LoD)
		Trace Hydrocarbon	Flame Ionization	0.000 01 % mol fraction to
		Concentration	Detector	10 % mol fraction
				(0.000 01 % mol fraction LoD)
		Trace Oxygen Concentration	Electrochemical Oxygen	0.000 001 % mol fraction to
			Analyzer	23 % mol fraction
			(0.000 001 % mol fraction LoD)	
		Gas Mixture Concentration	Binary Gas Analyzer	0.01 % mol fraction to
			(Thermal Conductivity	100 % mol fraction
			Detector)	(0.01 % mol fraction LoD)
		Percent Oxygen	Paramagnetic Oxygen	0.1 % mol fraction to
		Concentration	Analyzer	100 % mol fraction
				(0.1 % mol fraction LoD)
		Trace Carbon Monoxide	Non-Dispersive Infrared	0.000 01 % mol fraction to
		Concentration	Analyzer	0.1 % mol fraction
				(0.000 01 % mol fraction LoD)
		Percent Carbon Monoxide		0.01 % mol fraction to
		Concentration		50 % mol fraction
				(0.01 % mol fraction LoD)
		Carbon Dioxide		0.01 % mol fraction to
		Concentration		90 % mol fraction
				(0.01 % mol fraction LoD)

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.