

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

WestAir Gases & Equipment, Inc.

2300 Haffley Avenue, National City, CA 3001 E. Miraloma, Anaheim, CA

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:

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:July 19, 2012April 29, 2025April 30, 2027Accreditation No.:Certificate No.:74047L25-327

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>



WestAir Gases & Equipment, Inc.

2300 Haffley Avenue, National City, CA 3001 E. Miraloma, Anaheim, CA Contact Name: Keith Martinez Phone: 559-486-8111

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 | Calibration Gas Cylinder (Trace moisture concentration) | 0.5 μmol/mol to 500 μmol/mol | (1.18 x 10 ⁻¹ + 2.38 x 10 ⁻² C) μmol/mol | Electrolytic Cell Moisture Analyzer | 7.09 Meeco Aquavolt Moisture Analyzer Work Instruction | F |
| Chemical | Calibration Gas Cylinder (Percent oxygen concentration) | 1 mmol/mol to 1 000 mmol/mol | (1.2 x 10 ⁻¹ + 1.51 x 10 ⁻⁴ C) mmol/mol | Paramagnetic Oxygen Analyzer | 7.06 Servomex 5200 Oxygen Analyzer Work Instruction | F |
| Chemical | Calibration Gas Cylinder (Trace oxygen concentration) | 0.5 μmol/mol to 500 μmol/mol | (2.1 x 10 ⁻² + 3 x 10 ⁻² C) µmol/mol | Electrochemical Oxygen Analyzer | 7.07 Teledyne Trace Oxygen Analyzer Work Instruction | F |
| Chemical | Calibration Gas Cylinder (Total hydrocarbon concentration) | 0.5 μmol/mol to 2 500 μmol/mol | (9.4 x 10 ⁻² + 5.2 x 10 ⁻² C) μmol/mol | Total Hydrocarbon Analyzer (FID) | 7.08 Rosemount Hydrocarbon Analyzer Work Instruction | F |
| Chemical | Calibration Gas Cylinder (Gas mixture composition) | 100 μmol/mol to 1 000 000 μmol/mol | (18.51 + 2.5 x 10 ⁻² C) µmol/mol | Gas Chromatograph with Thermal Conductivity Detector | 7.26 Shimadzu GC- 8AIT Work Instructions | F |
| Chemical | Calibration Gas Cylinder (Carbon dioxide concentration in gases) | 1 mmol/mol to 300 mmol/mol | (1.03 x 10 ⁻¹ + 1.7 x 10 ⁻² C) mmol/mol | Carbon Dioxide Analysis using NDIR | 7.26 Shimadzu GC-8AIT Work Instructions | F |
| Chemical | Calibration Gas Cylinder (Gas mixture concentration) | 0.05 mmol/mol to 1 000 mmol/mol | 2.7 x 10 ⁻² mmol/mol | Gravimetric Balance | SOP 2.15 | F |

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| Chemical | Binary Gas Analyzer (Thermal Conductivity Detector) | 0.1 cmol/mol to 30 cmol/mol | (1.13 x10 ⁻¹ + 6.96 x 10 ⁻² C) cmol/mol | Binary Gas Analyzer TCD | 7.14 Thermco 6900 Gas Analyzer Work Instruction | F | | |
| Chemical | Carbon Dioxide in Gas (NDIR) | 0.5 cmol/mol to 2.5 cmol/mol | (-2.13 x10 ⁻³ + 9.65 x 10 ⁻³ C) cmol/mol | Carbon Dioxide Analysis using NDIR | 7.23 Horiba VA-5000 Work Instructions | F | | |
| Chemical | Carbon Monoxide in Gas (NDIR) | 25 μmol/mol to 500 μmol/mol | (7.37 x 10 ⁻² + 5.05 x10 ⁻³ C) μmol/mol | Carbon Monoxide Analysis using NDIR | 7.23 Horiba VA-5000 Work Instructions | F | | |
| Chemical | Electrolytic Moisture Analysis in Gas and Dewpoint | 0.4 μmol/mol to 8.5 μmol/mol | (7.22 x 10 ⁻² + 1.44 x 10 ⁻¹ C) μmol/mol | Electrolytic Cell Moisture Analyzer | 7.09 Meeco Aquavolt Moisture Analyzer Work Instruction | F | | |
| Chemical | Gas Chromatography with Discharge Ionization Detector | 0.6 μmol/mol to 7.3 μmol/mol | (1.95 x 10 ⁻¹ + 5.14 x 10 ⁻² C) μmol/mol | Gas Chromatography DID | 7.29 Gow-Mac 590 Gas Chromatography DID Work Instructions | F | | |
| Chemical | Gas Chromatography with Flame Ionization Detector | 5 μmol/mol to 100 μmol/mol | (1.08 + 5.26 x 10 ⁻³ C) μmol/mol | Gas Chromatography FID | 7.36 Agilent Gas Chromatography Work Instruction | F | | |
| Chemical | Gas Chromatography with Thermal Conductivity Detector | 0.6 μmol/mol to 500 μmol/mol | (1.64 x 10 ⁻¹ + 1.03 x 10 ⁻² C) μmol/mol | Gas Chromatography TCD | 7.26 Shimadzu GC-8AIT Work Instructions 7.32 Inficon Micro GC Work Instruction | F | | |

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|-------------------------|--|--|--|---|--|----------------------------|
| Chemical | Nitric Oxide in Gas (Chemiluminescence) (Low Range) | 5 μmol/mol to 50 μmol/mol | (3.33 x 10 ⁻³ + 1.41 x 10 ⁻² C) µmol/mol | Chemiluminescence Detector | 7.33 Thermo Chemiluminescence Work Instruction | F |
| Chemical | Nitric Oxide in Gas – Chemiluminescence (High Range) | 100 μmol/mol to 1 000 μmol/mol | (4.44 x 10 ⁻¹ + 1.46 x 10 ⁻² C) µmol/mol | Chemiluminescence Detector | 7.33 Thermo Chemiluminescence Work Instruction | F |
| Chemical | Nitrogen Dioxide in Gas (Electrochemical Detector) | 0.5 μmol/mol to 40 μmol/mol | (1.15 x 10 ⁻¹ + 9.11 x 10 ⁻³ C) μmol/mol | Electrochemical | 7.25 Interscan NO2 Work Instruction | F |
| Chemical | Oxygen in Gas (Electrolytic Cell) | 1 μmol/mol to 7.4 μmol/mol | (5.31x 10 ⁻² + 2.39 x 10 ⁻² C) μmol/mol | Electrolytic Oxygen Analyzer | 7.13 Servomex 4100 Oxygen Analyzer Work Instruction | F |
| Chemical | Oxygen in Gas (Paramagnetic Analyzer) | 1 cmol/mol to 21 cmol/mol | (-6.45 x 10 ⁻⁴ + 5.75 x 10 ⁻³ C) cmol/mol | Paramagnetic Oxygen Analyzer | 7.06 Servomex 5200 Oxygen Analyzer Work Instruction | F |
| Chemical | Sulfur Dioxide in Gas (NDIR) | 50 μmol/mol to 500 μmol/mol | (2.22 x 10 ⁻² + 4.96 x 10 ⁻³ C) µmol/mol | NDIR | 7.23 Horiba VA-5000 Work Instructions | F |
| Chemical | Total Hydrocarbon Analysis in Gas (FID) | 0.4 μmol/mol to 5 μmol/mol | (1.05 x 10 ⁻¹ + 3.66 x 10 ⁻² C) µmol/mol | Total Hydrocarbon Analyzer (FID) | 7.08 Rosemount Hydrocarbon Analyzer Work Instruction | F |

1. 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.



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

2. 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.

3. Location of activity: Location

Code

Location

- F Conformity assessment activity is performed at the CABs fixed facility
- O Conformity assessment activity is performed onsite at the CABs customer location
- M Conformity assessment activity is performed from a mobile facility
- 4. 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.
- 5. The term C represents concentration of solution in micro-moles per mole (µmol/mol) appropriate to the uncertainty statement.