

## CERTIFICATE OF ACCREDITATION



**Arthur D Riley & Co Ltd.**  
Meter Services

**Client Number 7343**

PO Box 3749, Wellington, 6140  
8 Beatrice Tinsley Crescent, Rosedale, Auckland, 0632

**Telephone 09 444-3050**

**www.meterservices.co.nz**

**Authorised Representative**

Mr Kevin Head  
Technical Manager - Water

**Programme**

Metrology & Calibration Laboratory

**Accreditation Number 973**

**Initial Accreditation Date 1 June 2006**

**Conformance Standard**

ISO/IEC 17025:2017

General requirements for the competence of testing and calibration laboratories

**Laboratory Services Summary**

5.31 Volumetric Equipment

**Key Technical Personnel**

Mr Carl Brebner	5.31
Mr Kevin Head	5.31

Operations Manager  
Authorisation:

Issue 22

Date: 27/02/23

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Calibration and Measurement Capability (CMC) Uncertainties are expressed as an expanded uncertainty corresponding to a level of confidence of 95 % <sup>Note1</sup>.

Measurement results are traceable to the International System of Units (SI) via an unbroken chain of comparisons to the New Zealand National Standards or to the National Standards of other Signatories to the CIPM MRA.

Unless stated elsewhere in this schedule, calibrations are performed at the premises of the accredited laboratory.

### 5.31 Volumetric Equipment

(b) Examination of other types of volumetric apparatus.

Calibration of water meters in the flow range of nominally 0.25 L/min to 5300 L/min:

Classes A, B and C (ISO 4064:1993)

Class 2 (ISO 4064/OIML R49)

Mag-flow meters and ultrasonic meters without an assigned class

Determination of accuracy requirements of all of the above are in accordance with in-house procedures based on the following standards and the NZWWA Code of Practice:

ISO 4064-2:2014 (OIML R 49) Water meters for cold potable water and hot water -- Part 2: Test methods

OIML R 49-2:2013 Water meters for cold potable water and hot water Part 2: Test methods

And previous versions of the above standards;

ISO 4064-3:2005 Measurement of water flow in fully charged closed conduits -- Meters for cold potable water and hot water -- Part 3: Test methods and equipment

ISO 4064-3:1999 Measurement of water flow in closed conduits -- Meters for cold potable water Part 3: Test methods and equipment

ISO 4064-3:1983 Measurement of water flow in closed conduits -- Meters for cold potable water Part 3: Test methods and equipment

OIML R 49-2:2004 Water meters intended for the metering of cold potable water Part 2: Test methods

CMC Uncertainty

Reference meter against a weigh tank

0.03 % to 0.06 %  
(depending on flow and tank used)

Field meter against reference meter

0.07 % to 0.36 %  
(depending on flow and meter type)

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**Note 1:**

Unless stated otherwise the CMC is based on the performance of the best available device and measurement uncertainties achieved for specific calibrations may be greater than the CMC Uncertainty. A laboratory may not report measurement uncertainties lower than its CMC. However, if the device under calibration has a greater accuracy than the device used to calculate the CMC the laboratory may be able to use the calibration data to lower its CMC Uncertainty. Please contact the laboratory to discuss your specific requirements.

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