

Certificate ID: D555421

Device Details

Device ID: D555421
Serial Number: D555421
Description: VWR 10 - 8 MC
Method: 10 SAMPLES
Test Plan: 10 ul MC LMH
Operator: Evelyn Paddy

Environmental Factors

Air Temperature: 20.63 °C
Barometric Pressure: 29.96 inHg
Relative Humidity: 62 %
Liquid Density: 0.99807
Air Density: 0.00120
Z Factor: 1.00298

Certificate of Calibration

Customer: MAIN STREET SCIENTIFIC
Contact: DR SMITH
Location: 1 Main Street
Address: Baltimore,MD. 21224

Calibration Date: 09-Jul-2024

Calibration Type: Pipette Calibration

Quality Calibrations Inc.



27 Sabal Drive
Punta Gorda FL 33950
Phone: 877-747-3883

Status: Passed
Next Due: 31-Jul-2025
Interval: 12 months

Comment: No adjustment necessary.

Measurement Standards

Device ID	Description	Serial Number	Next Calibration
1117182584	Mettler AG 245	1117182584	30-Sep-2024
230818880	Digital Barometer	230818880	04-Dec-2025
E623	Thermometer	E623	30-Sep-2026

Maintenance

☒ PM SERVICE ☐ Replaced Friction Ring ☐ Replaced Piston ☐ Replaced Shaft ☐ Supplemental Parts

As Calibrated

Summary Statistics				Accuracy %		Precision %		Status	Sample Volumes (µL)									
10.00 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target		1	2	3	4	5	6	7	8	9	10
Ch 1	10.03	0.01	0.32	0.318	2.400	0.063	1.600	Passed	10.03	10.03	10.03	10.04	10.04	10.04	10.03	10.03	10.02	10.03
Ch 2	10.03	0.01	0.32	0.298	2.400	0.082	1.600	Passed	10.03	10.04	10.04	10.03	10.02	10.02	10.02	10.04	10.03	10.03
Ch 3	10.03	0.01	0.32	0.298	2.400	0.082	1.600	Passed	10.04	10.03	10.03	10.02	10.02	10.03	10.03	10.04	10.04	10.02
Ch 4	10.03	0.01	0.32	0.298	2.400	0.082	1.600	Passed	10.02	10.04	10.03	10.03	10.03	10.04	10.02	10.02	10.03	10.04
Ch 5	10.03	0.01	0.32	0.288	2.400	0.088	1.600	Passed	10.02	10.02	10.03	10.03	10.03	10.04	10.04	10.04	10.02	10.02
Ch 6	10.03	0.01	0.32	0.328	2.400	0.082	1.600	Passed	10.04	10.04	10.03	10.03	10.03	10.04	10.04	10.04	10.02	10.02
Ch 7	10.03	0.01	0.32	0.278	2.400	0.079	1.600	Passed	10.02	10.03	10.03	10.03	10.02	10.03	10.02	10.02	10.04	10.04
Ch 8	10.03	0.01	0.32	0.278	2.400	0.079	1.600	Passed	10.02	10.02	10.03	10.03	10.02	10.04	10.04	10.02	10.03	10.03

Statement of Traceability

This certificate has been issued in accordance with QCI SOP QACCRED and ISO 8655-2 Specifications. This statement certifies that this calibration has been performed with instruments and standards traceable to SI units through NIST or equivalent National Metrology Institute. This certificate shall not be reproduced except in full, without written approval of the laboratory. These results relate only to item calibrated and the results apply to sample as received. QCI uses a simple acceptance approach to the TUR. Customer is to determine if the TUR Accuracy ratio (accuracy over uncertainty) is acceptable.



Measurement Uncertainties are determined using the factor of k=2 at a 95% confidence level.

Completed by: Evelyn Paddy

Date: July 9, 2024

Reviewed by: Nicole Simpson

Date: July 12, 2024

Certificate ID: D555421

ISO 17025:2017 Certified CertificateAC 1347

As Calibrated

Summary Statistics				Accuracy %		Precision %		Status	Sample Volumes (µL)									
5.00 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target		1	2	3	4	5	6	7	8	9	10
Ch 1	5.02	0.01	0.32	0.318	4.800	0.148	3.200	Passed	5.01	5.00	5.00	5.01	5.01	5.01	5.02	5.02	5.02	5.01
Ch 2	5.02	0.01	0.32	0.318	4.800	0.175	3.200	Passed	5.01	5.02	5.02	5.02	5.02	5.00	5.00	5.00	5.01	5.01
Ch 3	5.01	0.01	0.32	0.278	4.800	0.148	3.200	Passed	5.01	5.02	5.02	5.01	5.01	5.00	5.00	5.00	5.01	5.01
Ch 4	5.01	0.01	0.32	0.298	4.800	0.133	3.200	Passed	5.02	5.02	5.01	5.00	5.01	5.01	5.00	5.01	5.01	5.01
Ch 5	5.02	0.01	0.32	0.338	4.800	0.158	3.200	Passed	5.02	5.00	5.00	5.01	5.01	5.01	5.02	5.02	5.01	5.02
Ch 6	5.01	0.01	0.32	0.278	4.800	0.175	3.200	Passed	5.00	5.01	5.02	5.00	5.02	5.01	5.01	5.00	5.00	5.02
Ch 7	5.01	0.01	0.32	0.238	4.800	0.165	3.200	Passed	5.01	5.01	5.02	5.00	5.00	5.02	5.01	5.00	5.00	5.00
Ch 8	5.02	0.01	0.32	0.358	4.800	0.135	3.200	Passed	5.01	5.01	5.01	5.02	5.02	5.00	5.02	5.01	5.01	5.02
1.00 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target	Status	1	2	3	4	5	6	7	8	9	10
Ch 1	1.00	0.01	0.32	0.298	24.000	0.667	16.000	Passed	1.00	1.00	1.00	1.00	1.01	1.01	0.99	0.99	1.00	1.00
Ch 2	1.00	0.01	0.32	0.208	24.000	0.878	16.000	Passed	1.01	1.01	1.01	0.99	0.99	0.99	0.99	1.00	1.00	1.00
Ch 3	1.01	0.01	0.32	0.699	24.000	0.840	16.000	Passed	1.01	1.01	1.01	0.99	0.99	1.00	1.01	1.01	1.01	1.00
Ch 4	1.00	0.01	0.31	0.098	24.000	0.921	16.000	Passed	0.99	0.99	0.99	1.00	1.01	1.01	1.00	0.99	0.99	1.01
Ch 5	1.00	0.01	0.32	0.298	24.000	0.667	16.000	Passed	1.00	1.00	1.00	1.01	1.01	0.99	0.99	1.00	1.00	1.00
Ch 6	1.01	0.01	0.32	0.599	24.000	0.946	16.000	Passed	1.00	1.01	1.01	1.01	0.99	0.99	1.01	1.01	1.01	0.99
Ch 7	1.00	0.01	0.32	0.499	24.000	0.787	16.000	Passed	0.99	1.01	1.01	1.00	1.00	1.00	1.00	1.01	1.01	0.99
Ch 8	1.00	0.01	0.32	0.298	24.000	0.816	16.000	Passed	0.99	0.99	1.00	1.00	1.00	1.01	1.01	1.01	0.99	1.00

As Found

Summary Statistics				Accuracy %		Precision %		Status	Sample Volumes (µL)									
10.00 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target		1	2	3	4	5	6	7	8	9	10
Ch 1	10.03	0.01	0.32	0.268	2.400	0.068	1.600	Passed	10.02	10.02	10.03	10.03	10.04	10.02	10.03	10.02	10.03	10.03
Ch 2	10.03	0.01	0.32	0.318	2.400	0.079	1.600	Passed	10.04	10.04	10.02	10.02	10.03	10.03	10.04	10.04	10.03	10.03
Ch 3	10.04	0.03	0.32	0.388	2.400	0.328	1.600	Passed	10.13	10.04	10.02	10.02	10.03	10.04	10.03	10.02	10.03	10.03
Ch 4	10.03	0.01	0.32	0.318	2.400	0.079	1.600	Passed	10.03	10.04	10.04	10.04	10.03	10.03	10.03	10.04	10.02	10.02
Ch 5	10.03	0.01	0.32	0.288	2.400	0.074	1.600	Passed	10.03	10.03	10.02	10.04	10.03	10.02	10.02	10.03	10.03	10.04
Ch 6	10.03	0.01	0.32	0.288	2.400	0.088	1.600	Passed	10.04	10.02	10.02	10.04	10.04	10.03	10.03	10.03	10.02	10.02
Ch 7	10.03	0.01	0.32	0.268	2.400	0.068	1.600	Passed	10.03	10.03	10.03	10.02	10.02	10.02	10.04	10.03	10.02	10.03
Ch 8	10.03	0.01	0.32	0.298	2.400	0.082	1.600	Passed	10.02	10.04	10.03	10.02	10.02	10.04	10.03	10.03	10.04	10.03
5.00 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target	Status	1	2	3	4	5	6	7	8	9	10
Ch 1	5.01	0.01	0.32	0.258	4.800	0.158	3.200	Passed	5.00	5.00	5.01	5.01	5.02	5.00	5.00	5.01	5.01	5.02
Ch 2	5.02	0.01	0.32	0.318	4.800	0.148	3.200	Passed	5.01	5.02	5.00	5.02	5.02	5.00	5.01	5.01	5.01	5.01
Ch 3	5.02	0.01	0.32	0.318	4.800	0.199	3.200	Passed	5.02	5.00	5.00	5.02	5.02	5.00	5.01	5.02	5.02	5.00
Ch 4	5.01	0.01	0.32	0.278	4.800	0.148	3.200	Passed	5.01	5.01	5.00	5.01	5.00	5.01	5.00	5.02	5.02	5.01
Ch 5	5.01	0.01	0.32	0.238	4.800	0.135	3.200	Passed	5.01	5.00	5.01	5.00	5.01	5.00	5.02	5.01	5.00	5.01
Ch 6	5.02	0.01	0.32	0.318	4.800	0.175	3.200	Passed	5.01	5.01	5.02	5.02	5.01	5.00	5.00	5.02	5.02	5.00
Ch 7	5.01	0.01	0.32	0.298	4.800	0.163	3.200	Passed	5.02	5.01	5.01	5.01	5.00	5.00	5.02	5.02	5.01	5.00
Ch 8	5.02	0.01	0.32	0.318	4.800	0.175	3.200	Passed	5.00	5.02	5.02	5.01	5.01	5.02	5.02	5.01	5.00	5.00

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Measurement Uncertainties are determined using the factor of k=2 at a 95% confidence level.

ISO 17025:2017 Certified Certificate AC 1347

Completed by: Evelyn Paddy

Date: July 9, 2024

Reviewed by: Nicole Simpson

Date: July 12, 2024

Certificate ID: D53811015

As Found

Summary Statistics				Accuracy %		Precision %		Status	Sample Volumes (µL)									
1.00 uL	Mean	SD	Unc. +/-	Actual	Target	Actual	Target		1	2	3	4	5	6	7	8	9	10
Ch 1	1.00	0.01	0.31	0.098	24.000	0.921	16.000	Passed	0.99	0.99	0.99	0.99	1.00	1.00	1.01	1.01	0.99	1.01
Ch 2	1.00	0.01	0.32	0.298	24.000	1.054	16.000	Passed	0.99	1.01	1.01	0.99	0.99	0.99	1.01	1.01	0.99	1.01
Ch 3	1.00	0.01	0.32	0.298	24.000	0.943	16.000	Passed	1.00	0.99	0.99	1.01	1.01	1.00	0.99	0.99	1.01	1.01
Ch 4	1.00	0.01	0.32	0.398	24.000	0.737	16.000	Passed	1.00	1.00	1.00	1.01	1.01	1.01	1.00	1.00	0.99	0.99
Ch 5	1.00	0.01	0.31	0.103	24.000	0.518	16.000	Passed	1.00	1.00	0.99	0.99	1.00	1.00	0.99	0.99	1.00	1.00
Ch 6	1.00	0.01	0.32	0.198	24.000	0.739	16.000	Passed	1.00	1.00	0.99	0.99	1.01	1.01	1.00	1.00	1.00	0.99
Ch 7	1.00	0.01	0.32	0.298	24.000	0.943	16.000	Passed	0.99	1.01	1.01	0.99	0.99	1.01	1.00	1.00	1.01	0.99
Ch 8	1.00	0.01	0.31	0.103	24.000	0.702	16.000	Passed	0.99	0.99	1.00	1.00	1.01	0.99	1.00	0.99	1.00	0.99

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Measurement
Uncertainties are
determined using the
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Completed by: Evelyn Paddy

Date: July 9, 2024

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