



CALIBRATION CERTIFICATE

Certificate Number: J00G8YYYY3-0

Order Number: 222-881



Customer Houston Forensic Science Center
 Jennifer O'Callaghan
 500 Jefferson St
 Houston, TX 77002-7300

Location 500 Jefferson St

Serial Number 042733438

Model VWR HIGH PERFORMANCE PIPETTOR 20 µl
Next Service 31.Oct.2025
Service Plan Onsite: Single Channel PM, 3x5 AR

Inspection Function (Feel): Tip Ejector Missing, Over All Condition: No Problem Found

Preventive Maintenance: Piston cleaned and re-greased

Adjustment: No-Adjustment made

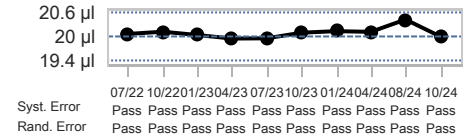
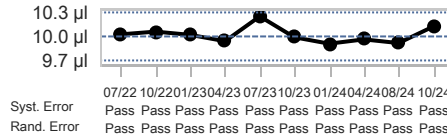
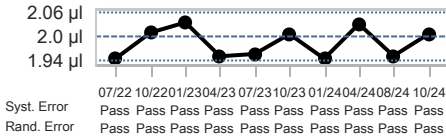
As left-Passed Steven Murray 01.Oct.2024

Conditions	Humidity	Start End 53.6 % 53.6 %	Air Temperature	Start End 19.90 °C 19.90 °C	Z-Factor 1.0029 µl/mg
	Air Pressure	1009.3 hPa 1009.3 hPa	Water Temperature	20.13 °C 20.13 °C	
Equipment	Balance	C132316237Next Cal. (30.Nov.2024)Readability (0.00001 g)			Specification Type Custom
	Climate Monitor	3-Wire PT100 Temperature sensor (E22152)Next Cal. (20.Dec.2024) MS5611 Pressure (E25131)Next Cal. (02.Apr.2025) SHT31 Relative Humidity (E25131)Next Cal. (02.Apr.2025) SHT31 Temperature (E25131)Next Cal. (02.Apr.2025)			Pipette Tip Customer Supplied

Test Volume (µl)	Weighings				
	1	2	3	4	5
2.0 µl	2.02 mg	2.08 mg	1.98 mg	1.97 mg	1.95 mg
10.0 µl	10.13 mg	10.06 mg	10.01 mg	10.28 mg	10.01 mg
20 µl	19.89 mg	20.02 mg	19.90 mg	19.95 mg	19.95 mg

Test Volume (µl)	Mean Volume (µl)	Systematic Error				Random Error				Expanded Uncertainty (µl)	Status
		Error (µl)	Limit (+/- µl)	Error (%)	Limit (+/- %)	Error (µl)	Limit (µl)	Error (CV%)	Limit (%)		
		2.0	2.01	0.006	0.06	0.2900	3	0.052	0.06	2.574	3
10.0	10.13	0.127	0.3	1.273	3	0.113	0.3	1.119	3	0.33 µl (k=2.87)	Passed
20	20.00	-0.0002	0.6	-0.0008410	3	0.052	0.6	0.2591	3	0.15 µl (k=2.65)	Passed

As left History



Authorized Signatory, Steven Murray
 01.Oct.2024

METTLER TOLEDO
 ACCREDITED LABORATORY
 7500 Edgewater Drive
 Oakland, CA 94621

This calibration certificate is in accordance with ISO 8655-7:2022 and PS-125 and only applies to the item tested. Its measurements are traceable to SI through N.I.S.T. This laboratory has been accredited by A2LA for the requirements of ISO/IEC 17025:2017. The expanded uncertainty of measurement (U) is the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95%. Statement of compliance is simple acceptance (see PS-126.03 for uncertainty considerations). Mettler-Toledo Rainin grants permission to reproduce this document in full only. ©2024 Mettler-Toledo Rainin, LLC.