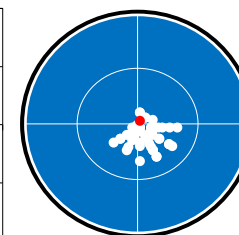
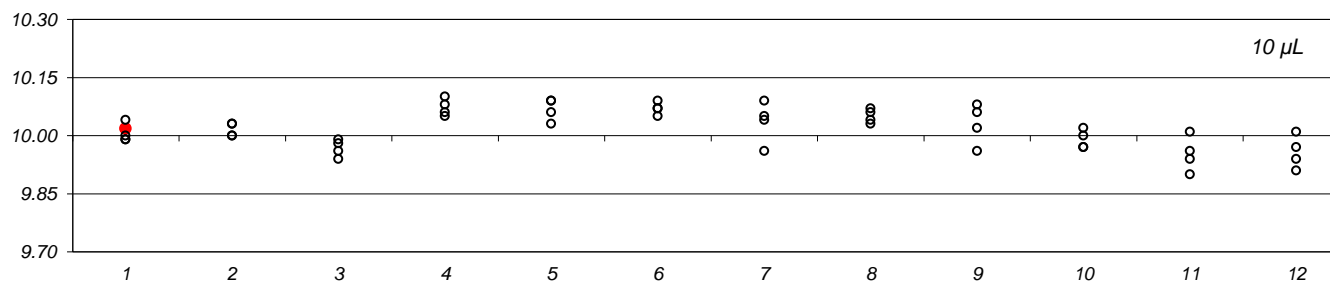


Calibration Certificate

PC10709

* As required by AS ISO/IEC 17025-2005, all measurements in this report are traceable to the International System of Units (Système international d'unités)

Calibration Data - 10 μ L											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
10.04	10.03	9.99	10.10	10.06	10.07	10.09	10.03	10.02	10.02	9.96	9.97
9.99	10.03	9.94	10.08	10.09	10.09	10.04	10.04	10.06	10.00	10.01	10.01
9.99	10.00	9.96	10.05	10.09	10.07	10.05	10.06	9.96	9.97	9.94	9.91
10.00	10.00	9.98	10.06	10.03	10.05	9.96	10.07	10.08	9.97	9.90	9.94
Mean Volume (μ L)					10.02		Mean Volume (μ L)				
Inaccuracy (%)					0.18		Imprecision CV (%)				
Specification (\pm %)					3.00		Specification (\leq %)				
Status					PASS		Status				
Uncertainty (\pm μ L)					0.12		Uncertainty (\pm μ L)				



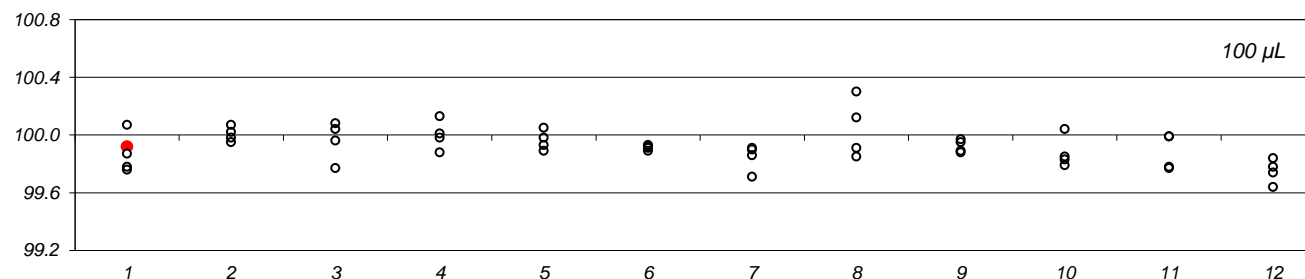
Pipette Data		Laboratory Conditions	
Pipette Manufacturer :	Eppendorf	Water Temperature (°C)	21.1
Pipette Type :	Research 3114	Air Pressure (hPa)	998
Volume Range :	10-100 μ L	Relative Humidity (%)	43
Serial Number :	3644189	Density Correction (μ L/mg)	1.0031
Customer ID:	BAL499	Calibrated with :	Sartorius ME235P auto door
Calibrated on :	5-July-2018	Calibrated by :	Mike Balac BSc (Hons) Chem

Calibration Certificate

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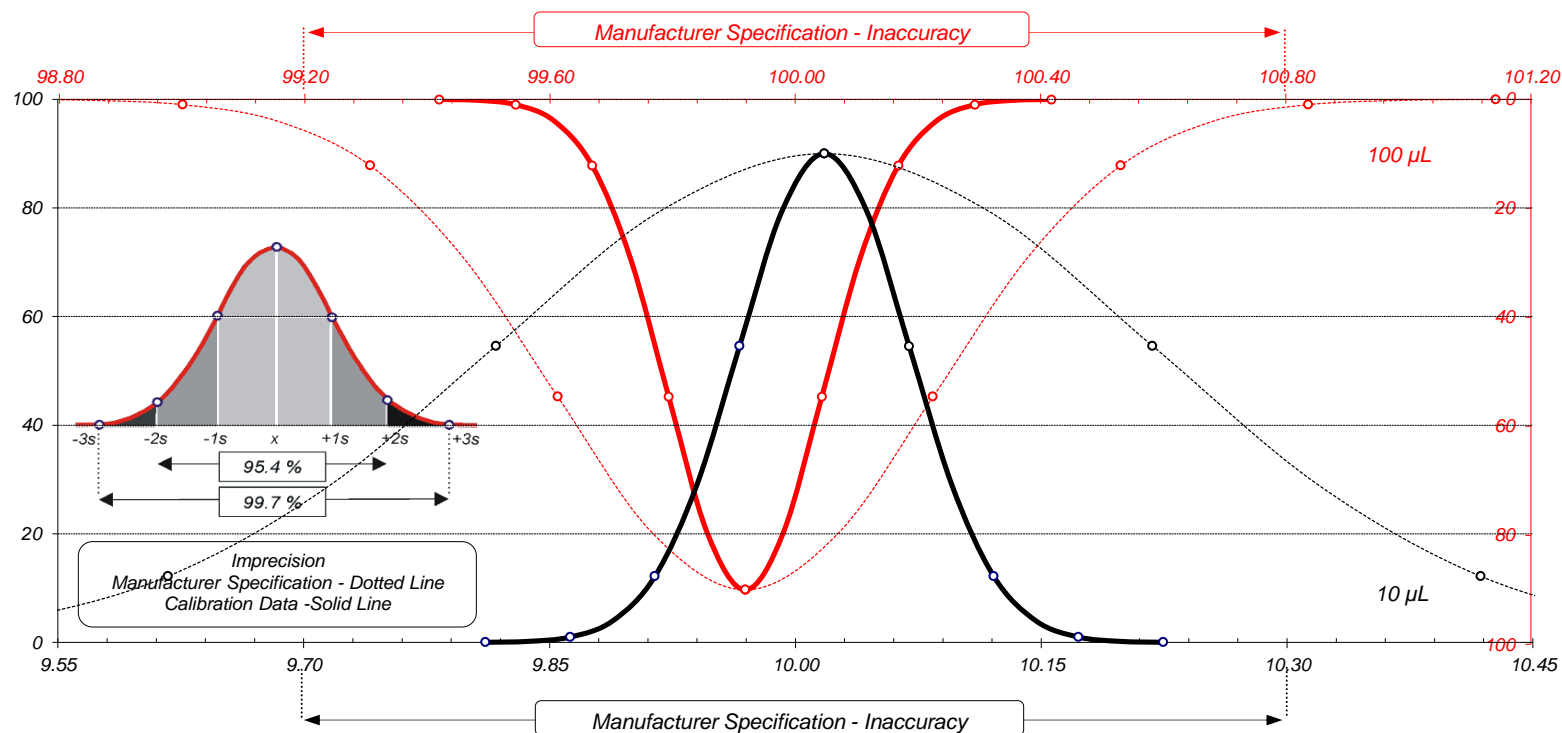
Calibration Data - 100 μ L											
#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12
99.87	99.98	100.04	100.01	100.05	99.92	99.71	100.30	99.97	100.04	99.99	99.84
99.78	100.02	100.08	99.88	99.89	99.93	99.91	100.12	99.89	99.79	99.99	99.64
99.76	100.07	99.96	100.13	99.98	99.91	99.90	99.85	99.88	99.85	99.78	99.74
100.07	99.95	99.77	99.98	99.93	99.89	99.86	99.91	99.95	99.83	99.77	99.78
Mean Volume (μ L)					99.92		Mean Volume (μ L)				
Inaccuracy (%)					-0.08		Imprecision CV (%)				
Specification (\pm %)					0.80		Specification (\leq %)				
Status					PASS		Status				
Uncertainty (\pm μ L)					0.28		Uncertainty (\pm μ L)				



Pipette Data		Laboratory Conditions	
Pipette Manufacturer :	Eppendorf	Water Temperature (°C)	21.1
Pipette Type :	Research 3114	Air Pressure (hPa)	998
Volume Range :	10-100 μ L	Relative Humidity (%)	43
Serial Number :	3644189	Density Correction (μ L/mg)	1.0031
Customer ID:	BAL499	Calibrated with :	Sartorius ME235P auto door
Calibrated on :	5-July-2018	Calibrated by :	Mike Balac BSc (Hons) Chem

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Customer Data		Uncertainty of Measurement	
In Use At:	Pipette Clinic Pty Ltd	Coverage factor at confidence level 95 %	k=2
	48-50 George Street	(Selected volume x)	Linearity (µL)
	Parramatta NSW 2150	Accuracy (µL)	y = 0.9989x + 0.0287
		Accuracy + Uncertainty (µL)	y1 = 1.0007x + 0.1355
Test Method:	AS 2162.2-1998, ISO-8655	Uncertainty (µL)	Ux = y1 - y