

CALIBRATION CERTIFICATE

PIPETTE INFORMATION	
SERIAL #	A1234567B
SIZE (µl)	200
MANUFACTURER	Biohit 8 CH
LOCATION	CompanyName
DEPARTMENT	QA
CONTACT	Smith, J.
RESTRICTION	GLP
CALIBRATION DATE	01-Nov-2010
CALIBRATED BY	PS
CALIBRATION DUE	01-May-2011
DATA TYPE	AS LEFT
ENVIRONMENTAL CONDITIONS	
TEMPERATURE IN F	70.00
RELATIVE HUMIDITY IN %	50.00
BAROMETRIC PRESSURE INCHES	30.00
AIR DENSITY	0.0012030425621
Z FACTOR	1.0029828772
MEASUREMENT & TEST EQUIP. INFO	
HERMO-HYGROMETER SERIAL #	90917310
CALIBRATION DUE	30-Nov-2010
BALANCE ID	METTLER
BALANCE MODEL	AG245
BALANCE SERIAL #	1117023184
CALIBRATION DUE	28-Feb-2011
WEIGHT SET SERIAL #	1MN2
CALIBRATION DUE	31-Aug-2012
PARTS REPLACED	
SEAL	NO
O RING	NO
PISTON	NO
SHAFT	NO
TENSION RING	NO
REPAIR	NO
ADJUST CALIBRATION	NO
PREVENTIVE MAINT.	YES
INSTRUMENT STATUS	
PASS	

TOLERANCE LIMITS				SERVICE INFORMATION	
VOLUME µl	INACCURACY %	+/- ml	IMPRECISION %	SOP Followed	Level 5 SOP 125-5 / DATA TYPE: AS LEFT
50	3.00	0.00150	3.00		
150	3.00	0.00450	3.00		
200	3.00	0.00600	3.00		

AS LEFT CALIBRATION DATA CHANNEL 1							STATISTICAL ANALYSIS				
SAMPLE	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	MEAN (ml)	0.05018	0.15058	0.20133	STATISTICAL ANALYSIS
1	0.05020	0.05035	0.15020	0.15065	0.20050	0.20110	+/- ml (Guardband)	0.00108	0.00369	0.00535	
2	0.04980	0.04995	0.14970	0.15015	0.20110	0.20170	INACCURACY %	0.36515	0.38744	0.66605	
3	0.05010	0.05025	0.15050	0.15095	0.20060	0.20120	IMPRECISION %	0.41606	0.26919	0.16014	
							Proc. Uncert.(k=2)	0.00042	0.00081	0.00065	
CALIBRATION RESULTS							ACCURACY	PASS	PASS	PASS	
							PRECISION	PASS	PASS	PASS	
							Within k=2 95% Confidence	YES	YES	YES	
AS LEFT CALIBRATION DATA CHANNEL 2							MEAN (ml)	0.05018	0.15058	0.20133	
SAMPLE	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	+/- ml (Guardband)	0.00108	0.00369	0.00535	
1	0.05020	0.05035	0.15020	0.15065	0.20050	0.20110	INACCURACY %	0.36515	0.38744	0.66605	
2	0.04980	0.04995	0.14970	0.15015	0.20110	0.20170	IMPRECISION %	0.41606	0.26919	0.16014	
3	0.05010	0.05025	0.15050	0.15095	0.20060	0.20120	Proc. Uncert.(k=2)	0.00042	0.00081	0.00065	
CALIBRATION RESULTS							ACCURACY	PASS	PASS	PASS	
							PRECISION	PASS	PASS	PASS	
							Within k=2 95% Confidence	YES	YES	YES	
AS LEFT CALIBRATION DATA CHANNEL 3							MEAN (ml)	0.05018	0.15058	0.20133	
SAMPLE	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	+/- ml (Guardband)	0.00108	0.00369	0.00535	
1	0.05020	0.05035	0.15020	0.15065	0.20050	0.20110	INACCURACY %	0.36515	0.38744	0.66605	
2	0.04980	0.04995	0.14970	0.15015	0.20110	0.20170	IMPRECISION %	0.41606	0.26919	0.16014	
3	0.05010	0.05025	0.15050	0.15095	0.20060	0.20120	Proc. Uncert.(k=2)	0.00042	0.00081	0.00065	
CALIBRATION RESULTS							ACCURACY	PASS	PASS	PASS	
							PRECISION	PASS	PASS	PASS	
							Within k=2 95% Confidence	YES	YES	YES	
AS LEFT CALIBRATION DATA CHANNEL 4							MEAN (ml)	0.05018	0.15058	0.20133	
SAMPLE	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	+/- ml (Guardband)	0.00108	0.00369	0.00535	
1	0.05020	0.05035	0.15020	0.15065	0.20050	0.20110	INACCURACY %	0.36515	0.38744	0.66605	
2	0.04980	0.04995	0.14970	0.15015	0.20110	0.20170	IMPRECISION %	0.41606	0.26919	0.16014	
3	0.05010	0.05025	0.15050	0.15095	0.20060	0.20120	Proc. Uncert.(k=2)	0.00042	0.00081	0.00065	
CALIBRATION RESULTS							ACCURACY	PASS	PASS	PASS	
							PRECISION	PASS	PASS	PASS	
							Within k=2 95% Confidence	YES	YES	YES	

Technician: _____

Approved By: _____

Date: 01-Nov-2010

Note:

This calibration was conducted using standards traceable to SI through N.I.S.T. This document may not be reproduced except in full.



CALIBRATION CERTIFICATE

PIPETTE INFORMATION	
SERIAL #	A1234567B
SIZE (µl)	200
MANUFACTURER	Biohit 8 CH
LOCATION	CompanyName
DEPARTMENT	QA
CONTACT	Smith, J.
RESTRICTION	GLP
CALIBRATION DATE	01-Nov-2010
CALIBRATED BY	PS
CALIBRATION DUE	01-May-2011
DATA TYPE	AS LEFT
ENVIRONMENTAL CONDITIONS	
TEMPERATURE IN F	70.00
RELATIVE HUMIDITY IN %	50.00
BAROMETRIC PRESSURE INCHES	30.00
AIR DENSITY	0.0012030425621
Z FACTOR	1.0029828772
MEASUREMENT & TEST EQUIP. INFO	
HERMO-HYGROMETER SERIAL #	90917310
CALIBRATION DUE	30-Nov-2010
BALANCE ID	METTLER
BALANCE MODEL	AG245
BALANCE SERIAL #	1117023184
CALIBRATION DUE	28-Feb-2011
WEIGHT SET SERIAL #	1MN2
CALIBRATION DUE	31-Aug-2012
PARTS REPLACED	
SEAL	NO
O RING	NO
PISTON	NO
SHAFT	NO
TENSION RING	NO
REPAIR	NO
ADJUST CALIBRATION	NO
PREVENTIVE MAINT.	YES
INSTRUMENT STATUS	
PASS	

Technician: _____

Approved By: _____

Date: 01-Nov-2010

TOLERANCE LIMITS				SERVICE INFORMATION	
VOLUME µl	INACCURACY %	+/- ml	IMPRECISION %	SOP Followed	Level 5 SOP 125-5 / DATA TYPE: AS LEFT
50	3.00	0.00150	3.00		
150	3.00	0.00450	3.00		
200	3.00	0.00600	3.00		

AS LEFT CALIBRATION DATA CHANNEL 5						
SAMPLE	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)
1	0.05020	0.05035	0.15020	0.15065	0.20050	0.20110
2	0.04980	0.04995	0.14970	0.15015	0.20110	0.20170
3	0.05010	0.05025	0.15050	0.15095	0.20060	0.20120

AS LEFT CALIBRATION DATA CHANNEL 6						
SAMPLE	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)
1	0.05020	0.05035	0.15020	0.15065	0.20050	0.20110
2	0.04980	0.04995	0.14970	0.15015	0.20110	0.20170
3	0.05010	0.05025	0.15050	0.15095	0.20060	0.20120

AS LEFT CALIBRATION DATA CHANNEL 7						
SAMPLE	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)
1	0.05020	0.05035	0.15020	0.15065	0.20050	0.20110
2	0.04980	0.04995	0.14970	0.15015	0.20110	0.20170
3	0.05010	0.05025	0.15050	0.15095	0.20060	0.20120

AS LEFT CALIBRATION DATA CHANNEL 8						
SAMPLE	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)
1	0.05020	0.05035	0.15020	0.15065	0.20050	0.20110
2	0.04980	0.04995	0.14970	0.15015	0.20110	0.20170
3	0.05010	0.05025	0.15050	0.15095	0.20060	0.20120

CALIBRATION RESULTS				STATISTICAL ANALYSIS
MEAN (ml)	0.05018	0.15058	0.20133	
+/- ml (Guardband)	0.00108	0.00369	0.00535	STATISTICAL ANALYSIS
INACCURACY %	0.36515	0.38744	0.66605	
IMPRECISION %	0.41606	0.26919	0.16014	STATISTICAL ANALYSIS
Proc. Uncert.(k=2)	0.00042	0.00081	0.00065	
CALIBRATION RESULTS				STATISTICAL ANALYSIS
ACCURACY	PASS	PASS	PASS	
PRECISION	PASS	PASS	PASS	STATISTICAL ANALYSIS
Within k=2 95% Confidence	YES	YES	YES	
CALIBRATION RESULTS				STATISTICAL ANALYSIS
MEAN (ml)	0.05018	0.15058	0.20133	
+/- ml (Guardband)	0.00108	0.00369	0.00535	STATISTICAL ANALYSIS
INACCURACY %	0.36515	0.38744	0.66605	
IMPRECISION %	0.41606	0.26919	0.16014	STATISTICAL ANALYSIS
Proc. Uncert.(k=2)	0.00042	0.00081	0.00065	
CALIBRATION RESULTS				STATISTICAL ANALYSIS
ACCURACY	PASS	PASS	PASS	
PRECISION	PASS	PASS	PASS	STATISTICAL ANALYSIS
Within k=2 95% Confidence	YES	YES	YES	

Note:

This calibration was conducted using standards traceable to SI through N.I.S.T. This document may not be reproduced except in full.

