

PIPETTE INFORMATION	
SERIAL #	042780009
SIZE (μl)	5000
MANUFACTURER	VWR
LOCATION	On-Site 2161.01
DEPARTMENT	Toxicology
CONTACT	R.Engelhardt
PIPETTE ID #	N/A
CALIBRATION DATE	03-Jun-2014
CALIBRATED BY	E.Montoya
CALIBRATION DUE	Jun-2015
DATA TYPE	AS LEFT
ENVIRONMENTAL CONDITIONS	
TEMPERATURE IN F	78.88
RELATIVE HUMIDITY IN %	63.01
BAROMETRIC PRESSURE INCHES	30.00
AIR DENSITY	0.0011808713132
Z FACTOR	1.0037681054
MEASUREMENT & TEST EQUIP. INFO	
THERMO-HYGROMETER SERIAL #	130183728
CALIBRATION DUE	Nov-2014
BALANCE ID	Sartorius
BALANCE MODEL	CPA225D
BALANCE SERIAL #	23350667
CALIBRATION DUE	Jun-2014
WEIGHT SET SERIAL #	10027
CALIBRATION DUE	Jan-2015
PARTS REPLAGED	
SEAL	NO
O RING	NO
PISTON	NO
SHAFT	NO
TENSION RING	NO
REPAIR	NO
ADJUST CALIBRATION	NO
PREVENTIVE MAINT.	YES

TOLERANCE LIMITS				SERVICE INFORMATION	
VOLUME (μl)	INACCURACY %	+/- ml	IMPRECISION %	SOP Followed   Level 5 SOP 125-5 / DATA TYPE: AS LEFT	
1250	3.00	0.03750	3.00		
3750	3.00	0.11250	3.00		
5000	3.00	0.15000	3.00		

CDS 3.3.30  
 copyright 1997-2014

AS LEFT CALIBRATION DATA							CALIBRATION RESULTS			STATISTICAL ANALYSIS	
SAMPLE	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	MEAN (ml)	1.28483	3.73398		4.99981
							+/- ml (Guardband)	0.02235	0.10521		0.14418
1	1.22970	1.23433	3.71100	3.72498	4.98930	5.00810	INACCURACY %	1.17019	0.42727		0.00382
2	1.28770	1.27248	3.72920	3.74325	4.97300	4.99174	IMPRECISION %	1.33955	0.21823		0.13025
3	1.26870	1.27147	3.71680	3.73060	4.98470	5.00348	Proc. Uncert. (k=2) (ml)	0.01515	0.00729		0.00582
4	1.28780	1.27258	3.71510	3.72910	4.97640	4.99515	CALIBRATION RESULTS				
5	1.28750	1.27228	3.72780	3.74185	4.98180	5.00057	ACCURACY	PASS	PASS		PASS
							PRECISION	PASS	PASS	PASS	
							Within k=2 95% Confidence				
								YES	YES	YES	

INSTRUMENT STATUS: **PASS**

Technician: *[Signature]*

Note:

Date: 03-Jun-2014



The calibration performed is in accordance with ISO/IEC 17025:2005, ANSI Z39.5-2006 and ASTM E1360-10. This standard is the minimum calibration requirement for the use of the instrument. The calibration is performed by the use of the instrument and the results are reported in the form of a calibration certificate. The calibration certificate is valid for the period of time specified in the certificate. The calibration certificate is valid for the period of time specified in the certificate. The calibration certificate is valid for the period of time specified in the certificate.

**Calibrate, Inc.**

610 Jones Ferry Rd. Suite 210  
 Carrboro, NC 27510  
 ph.800.253.7064 fx.800.238.2268

**CALIBRATION CERTIFICATE**

HoustonCrimeLab\_Houston\_TX\_14060301\_EM

PIPETTE INFORMATION	
SERIAL #	042780009
SIZE (µl)	5000
MANUFACTURER	VWR
LOCATION	On-Site 2161.01
DEPARTMENT	Toxicology
CONTACT	R.Engelhardt
PIPETTE ID #	N/A
CALIBRATION DATE	03-Jun-2014
CALIBRATED BY	E.Montoya
CALIBRATION DUE	Jun-2015
DATA TYPE	AS LEFT
ENVIRONMENTAL CONDITIONS	
TEMPERATURE IN F	79.88
RELATIVE HUMIDITY IN %	63.01
BAROMETRIC PRESSURE INCHES	30.00
AIR DENSITY	0.0011809713132
Z FACTOR	1.0037681054
MEASUREMENT & TEST EQUIP. INFO	
THERMO-HYGROMETER SERIAL #	130193728
CALIBRATION DUE	Nov-2014
BALANCE ID	Sartorius
BALANCE MODEL	CPA225D
BALANCE SERIAL #	23350667
CALIBRATION DUE	Jun-2014
WEIGHT SET SERIAL #	10027
CALIBRATION DUE	Jan-2015
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: E. Montoya 06/13/2014

**Note:**

Date: 03-Jun-2014

TOLERANCE LIMITS				SERVICE INFORMATION	
VOLUME µl	INACCURACY %	+/- ml	IMPRECISION %	SOP Followed	Level 5 SOP 125-5 / DATA TYPE: AS LEFT
1250	3.00	0.03750	3.00		
3750	3.00	0.11250	3.00		
5000	3.00	0.15000	3.00		

CDS 3.3.30  
 copyright 1997-2014

AS LEFT CALIBRATION DATA							STATISTICAL ANALYSIS			
SAMPLE	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	WEIGHT(g)	VOLUME(ml)	MEAN (ml)	1.26463	3.73398	4.99981
1	1.22970	1.23433	3.71100	3.72498	4.98930	5.00810	+/- ml (Guardband)	0.02235	0.10521	0.14418
2	1.26770	1.27248	3.72920	3.74325	4.97300	4.99174	INACCURACY %	1.17019	0.42727	0.00382
3	1.26670	1.27147	3.71660	3.73060	4.98470	5.00348	IMPRECISION %	1.33955	0.21823	0.13025
4	1.26780	1.27258	3.71510	3.72910	4.97640	4.99515	Proc. Uncert.(k=2) (ml)	0.01515	0.00729	0.00582
5	1.26750	1.27228	3.72790	3.74195	4.98180	5.00057	<b>CALIBRATION RESULTS</b>			
							ACCURACY	PASS	PASS	PASS
							PRECISION	PASS	PASS	PASS
							Within k=2 95% Confidence	YES	YES	YES



The calibration performed is in accordance with ISO/IEC17025:2005, ANSI NCSL Z540.3-2006 and ANSI/NCSL Z540-1 1994. The standards in the above calibration report are traceable to SI through NIST. Expanded uncertainty is expressed at approximately the 95% confidence level using a coverage factor of k=2. The uncertainty associated with the measurement is not included in determining inaccuracy Pass/Fail results. The Calibration results and measurement uncertainties reported above relate only to the instrument calibrated. Any number of factors may cause the instruments results to drift prior to the calibration due date. This calibration report may not be reproduced either wholly or in part without written permission from Calibrate, Inc.