

625 East Bunker Court

Vernon Hills, Illinois 60061 PH: 866-466-6225

Fax: 847-327-2993 www.innocalsolutions.com

NIST Traceable **Calibration Report**



Reference Number: 1381316

10/31/2019

10/31/2020

In Tolerance

In Tolerance, No adjustment

PO Number: DCLARK092619

Montana State Crime Lab

2679 Palmer Street Missoula, MT 59808 United States

Calibration Date:

Calibration Due Date:

Condition As Found:

Condition As Left:

Manufacturer:

Gilmont Instruments Inc.

Model Number:

GF-2560

Description:

Asset Number:

CP345031

Serial Number:

CP345031

Procedure:

Remarks:

Flowmeter, Shielded Tube Sz 15

See report

Received serial #CP345031 back from Dick Munns, Co., on 11/11/2019. All data is traceable to NIST. A copy of your report #495915.19 is attached to this cover sheet.

Temperature: 21° C **Humidity:** 25% RH 1601825 Rpt. No.:

Calibration Performed By: **Quality Reviewer:** Maahs, Charlene 372 Metrologist 847-327-5344 11/11/2019 Pietronicco, Mike ID# Title Phone

Name
This report may not be reproduced, except in full, wi without written permission of innocal. The results stated in this report relate only Measurements reported herein are traceable to SI units via national standards maintained by NIST and were performed in compliance with MIL-STD-45662A, ANSI/NCSL Z540-1-1994, 10CFR50, Appendix B, ISO 9002-94, and ISO 17025:2005. Guard Banding, if reported on this certificate, is applied at a Z-factor of 30% for test points with a test uncertainty ratio (TUR) below 4:1. In Tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The estimated measurement uncertainty (EMU), if reported on this certificate, is being reported at a confidence level of 95% or K=2 unless otherwise noted in the remarks section.















CL-122

CERTIFICATE OF CALIBRATION

CUSTOMER:

INNOCAL VERNON HILLS, IL

GF-2560 (5 - 80 SLPM AIR)

FLOWMETER (BLACK GLASS FLOAT)

50

60

80

PO NUMBER:

NOTES:

1230199 **GILMONT**

INST. MANUFACTURER:

INST. DESCRIPTION:

MODEL NUMBER: **SERIAL NUMBER:**

RATED UNCERTAINTY:

UNCERTAINTY GIVEN:

CP345031 +/- 5% RD OR 2mm OF THE SCALE LENGTH, WHICHEVER IS GREATER

6

+/- 0.19% RD K=2

AS RECEIVED/AS LEFT WITHIN SPEC REFERENCE CONDITIONS ARE 760mmHGA 70F

CALIBRATION DATE:

CALIBRATION DUE:

PROCEDURE:

CALIBRATION FLUID: STANDARD(S) USED:

AS RECEIVED:

AMBIENT CONDITIONS:

CERTIFICATE FILE #:

495915.19

765mmHGA 25% RH 70F

NAVAIR 17-20MG-02

AIR @ 14.7 PSI 70F

A4 DUE 06-2020

WITHIN SPECS

10/31/19

10/31/20

TEST POINT	UUT	DM.STD.	
NUMBER	INDICATED	ACTUAL	% RD
	SLPM	SLPM	ERROR
1	5	4.814	-3.720
2	10	9.853	-1.470
3	20	19.744	-1.280
4	40	38.492	-3.770

STANDARDS USED:						
A5 VOLUME PROVER +/- 0.04% BY VOLUME TRACE # 1329407628, 89576	DUE	05/28/20				
AML800 VOLUME PROVER +/- 0.15% BY VOLUME TRACE # 144613547, 1424683640	DUE	01/04/20				
A24 TEMP STD. HART SCIENTIFIC +/- 0.027 F TRACE# 1553180963	DUE	03/21/20				

48.763

58.124

77.696

-2.474

-3.127

-2.880

All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) used and the unit under test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed per the shown procedure number, in accordance with ISO 10012:2003, ISO 17025:2005, ANSI/NCSL-Z-540.3, and/or MIL-STD-45662A. Test methods: API2530-92 & ASME MFC-3M-1989.

> Dick Munns Company • 11133 Winners Circle • Los Alamitos, CA 90720 Phone (714) 827-1215

by DICK MUNNS COMPANY. The data shown applies only to the instrument being calibrated and under the stated conditions of calibration. This Calibration Certificate

Date:

Calibration Technician:

Page 1 of

Johnson Gage and Inspection, Inc.



5920 W 21st St. N., Wichita, KS 67205 Phone 316.943.7532; Fax 316.944.6256 Calibration Lab Cert #2820.01

Certificate of Calibration

Report Number: 247077

Page 1 of 2

Form 2511

Customer: MT STATE CRIME LAB

REV C 12-01-11

2679 PALMER ST

MISSUOLA

MT 59808

Item: Laser Distance Meter

Unit Number: 1283650959 Model Number: Leica Disto D2

Serial Number: 1283650959 Location: Production Inspector: MP

Date Calibrated: May 2, 2019 Recalibration Date: May 2, 2020

Temperature: 73.9 °F Relative Humidity: 41%

Item Range: 0-328 ft

Resolution: 0.001 in, 0.01 ft

Class: None

Tolerance: ± 0.080 in (± 0.01 ft)

Controlling Specification(s): ISO/IEC 17025, ANSI/NCSL Z540-1

Calibration/Inspection Procedure(s): WP250107

Tolerance Source: M See Below

Uncertainty Standard Value Test Result Deviation @k=2

Front: 4.000 in	3.990 in	-0.010 in	0.0049 in
1.00 ft	1.00 ft	None	0.0058 ft
2.00 ft	2.00 ft	None	0.0058 ft
3.00 ft	3.00 ft	None	0.0058 ft
4.00 ft	4.00 ft	None	0.0058 ft
5.00 ft	5.00 ft	None	0.0058 ft
6.00 ft	6.00 ft	None	0.0058 ft
7.00 ft	7.00 ft	None	0.0058 ft
8.00 ft	8.00 ft	None	0.0058 ft

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95%. This estimate was performed in accordance with guidelines set forth in ANSI/NCSL Z540-2. The acceptance or rejection of the item(s) is based on the actual test values shown, without adjustment for measurement uncertainty. All testing performed using standards traceable to NIST or to intrinsic standards. This document shall not be reproduced except in full, without the written permission of Johnson Gage and Inspection. Tolerance source key: C = Customer; S = Specification; M = Manufacturer; R = JGI Recommended.

Comments: Found in tolerance. No action required.

Note: Unless otherwise noted, the readings are taken in the default position, which is from the back surface of the measuring unit. Extra readings were taken to ensure accuracy in other modes, and are marked accordingly.

Condition: Used

RESULTS: Accepted

CALIBRATION STANDARD

Tape Measure Test Frame

Model Number:

Custom TMTF3

Date Certified:

Manufacturer/type:

Feb 28, 2019

Serial Number:

Date Due: Feb 28, 2022

TRACEABILITY NUMBER:

Approved by:

Johnson Gage and Inspection, Inc.



5920 W 21st St. N., Wichita, KS 67205 Phone 316.943.7532; Fax 316.944.6256



Certificate of Calibration

Report Number: 247077

Page 2 of 2

Form 2511

Customer: MT STATE CRIME LAB

REV C 12-01-11

2679 PALMER ST

MISSUOLA

MT 59808

Item: Laser Distance Meter

Unit Number: 1283650959 Model Number: Leica Disto D2 Inspector: MP

Date Calibrated: May 2, 2019 Recalibration Date: May 2, 2020

Serial Number: 1283650959 Location:

Production

Temperature: 73.9 °F Relative Humidity: 41%

Item Range: 0-328 ft

Resolution: 0.001 in, 0.01 ft

Tolerance: ± 0.080 in (± 0.01 ft)

Class: None Controlling Specification(s): ISO/IEC 17025, ANSI/NCSL Z540-1

Calibration/Inspection Procedure(s): WP250107

Tolerance Source: M See Below

Standard Value Deviation Uncertainty Test Result @k=2 None 0.0058 ft 9.00 ft 9.00 ft 0.0058 ft 10.00 ft 10.00 ft None 0.0058 ft 11.00 ft 11.00 ft None 12.00 ft 12.00 ft None 0.0058 ft 15.00 ft 15.00 ft None 0.0058 ft None 0.0058 ft 30.00 ft 30.00 ft Rear Foot Extended: 30.00 ft 30.00 ft None 0.0058 ft Front: 30.00 ft 30.00 ft None 0.0058 ft

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the coverage probability corresponds to approximately 95%. This estimate was performed in accordance with guidelines set forth in ANSI/NCSL Z540-2. The acceptance or rejection of the item(s) is based on the actual test values shown, without adjustment for measurement uncertainty. All testing performed using standards traceable to NIST or to intrinsic standards. This document shall not be reproduced except in full, without the written permission of Johnson Gage and Inspection. Tolerance source key: C = Customer; S = Specification; M = Manufacturer; R = JGI Recommended.

Comments: Found in tolerance. No action required.

Note: Unless otherwise noted, the readings are taken in the default position, which is from the back surface of the measuring unit. Extra readings were taken to ensure accuracy in other modes, and are marked accordingly.

Condition: Used

RESULTS: Accepted

CALIBRATION STANDARD

Model Number:

Serial Number:

Custom TMTF3

Date Certified: Date Due: Feb 28, 2022

Manufacturer/type:

Feb 28, 2019

Tape Measure Test Frame

TRACEABILITY NUMBER:

Approved by:

Certificate printed: 4/3/2019

24500 Detroit Rd., Cleveland, C

Calibration Date: 4/2/20

Make: WEBBER 10

Style: RECTANGULAR,

Grade: B89 AS1

일일

Marked Size

10.3

12.9

15.0 17.6 20.2 22.8 25.0

Commercial Calibration

Page 1 of 2

Certificate of Calibration 19-45842-A

	Calibration	Lab Code 200038						Calculated	2.49992	5.09995	7.69998	10.30001	12.89998	15.00007	17.60005	20.19997	22.79999	24.99999
04V-A			0	GACIZ	NONE	Etch: GAC12		Variation Uncertainty	80.	80.	80.	80.	.08	.08	80.	80.	80.	80.
10-			14/ O 98	INITY. SAULE	Own. S/N: NONE	Etch:		ariation	0.03	0.03	0.02	0.02	0.04	0.02	0.03	0.04	0.04	0.04
び-V+00+-01 = 01+2+01+2)	ROMETERS	; .		2	Ó		oints	-	-0.06	-0.02	-0.02	+0.01	-0.03	+0.06	+0.03	+0.01	-0.01	+0.02
A + 7 - 4 -	SSED IN MIC	ctor = 2					Auxiliary P	3	-0.08	-0.05	-0.04	+0.03	+0.01	+0.06	+0.06	-0.02	+0.03	-0.02
)	ION EXPRES	Uncertainty Coverage Factor = 2 by of: Montana Denartment Of	2679 Palmer St		ıla, MT	19B	Deviation at Auxiliary Points	2	-0.09	-0.04	-0.02	+0.01	-0.03	+0.07	+0.04	-0.02	0.00	+0.01
	NLY, DEVIAT	sertainty Co	2679 F		Missoula, MI	P. O. No.: S031319B		-	-0.07	-0.05	-0.02	+0.01	-0.03	+0.08	+0.03	-0.03	0.00	0.00
CITAGG	IBRAIIC	Uncertainty Coverage Factor = 2 Property of Montana Department Of Institute				P. O. Y	3	Style										
140 1710	SIZE CAL	-	ļ.					Material										
10000	(de)					<u> </u>	EICH-IID										
OH 4444E	7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2019		STEE	, 0. [[[Ref. Pt	(hill)	0.08	-0.05 0.03	-0.0Z	0.0+	-0.0Z	10.01	0.00	0.0	0.0	0.0

24.99999

90.

0.04

Certificate printed: 4/3/2019

24500 Detroit Rd., Cleveland, OH 44145

Calibration Date: 4/2/2019

at 07:33

Commercial Calibration

Certificate of Calibration 19-45842-A size calibration only, deviation expressed in micrometers

Uncertainty Coverage Factor = 2

Property of: Montana Department Of Justice

2679 Palmer St. Missoula, MT

P. O. No.: S031319B

Style

Material

Etch-ID

Ref. Pt

0 pu

(mm)

Style: RECTANGULAR, STEEL

Grade: B89 AS1 Marked Size

Make: WEBBER 10

Mfg. S/N: GAC12

Etch: GAC12 Own. S/N: NONE

Calculated

Variation Uncertainty

Deviation at Auxiliary Points

Lab Code 200038-0 Page 2 of 2 Calibration

Work No.: 119437 These are used gages.

Transfer Master Set: SPCM10 Calibrated: 9/1/2018, Next Due: 8/31/2019. Operator: TW Original Calibration: 4/2/2019

Instrument: EC-6 Electronic Gage Block Comparator. Calibrated daily.

Webber Gage certifies these gage blocks were checked by masters traceable to the National Institute of Standards and Technology. Originals on 5/16/2018 Test Calibration data is "As Found" unless otherwise noted. Calibration is in accordance with ISO 17025, ISO Guide 25, ISO 10012-1, ANSI/NCSL Z540-1, former MIL-STD-45662A, Webber Quality Manual QCM-1G dated 11/5/14 Webber calibration procedure WCP-C13 9/6/2006. No. 683/291518-18.

Tolerances in accordance with B89 grade AS1.

Var	.30	98.	99	90
Size Tol	+.80/80	09'-/09'+	+.60/60	+.60/60
Size	Half Round	Base Block	Strght Jaw	Meas Jaw
Var	.25	.25	.30	.35
Size Tol	+1.20/-1.20	+1.40/-1.40	+1.80/-1.80	+2.20/-2.20
Var Size	200	. 20 1 Inru	. 20 Inru	nul cz.
Size Tol	+.50/50 +.60/.60	00'-'00'-	1.00/00	+1.00/-1.00
Size Size Tol Var Size	16 Thru 19.0	16 Thr.: 150.0	18 Thr.: 200.0	
Size Tol	+ 20/- 20	+ 30/- 30	40/-/00	0+ 0+
Size Thru 0.5	Thr. 10.0	Thru 25.0	Thru 50.0	O.Oo biiii

Uncertainty for Variation in Length (Variation) is: .08 μm through 10 mm, .07 μm through 50 mm, .08 μm through 300 mm and .10 μm through 500 mm.

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k such that the Reported readings corrected to 68 degrees Fahrenheit (20 degrees C). coverage probability corresponds to approximately 95%

Authorized Signatures

Brian L. Morris, Deputy Quality Assurance Manager Carl Stearns, Quality Assurance Manager, or



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Montana, State of/Missoula-Forensic Serv.

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B150543049190228

A2LA ACCREDITED **CERTIFICATE OF CALIBRATION WITH DATA**

INSTRUMENT INFORMATION

Item	Make	Madal	Carlal Normalian	O4ID	1
	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS105DU	B150543049	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.0001/0.00001	QC012	2/28/19	7/12/18	7/2019

FUNCTIONAL CHECKS

- CHOTIONAL CITEORO					
ECCEN	ECCENTRICITY		ARITY	STANDARD DEVIATION	ENVIRONMENTAL
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt: Tol:	CONDITIONS
50	0.0002	40x3	0.0003	10 0.00002	
As-F	ound:	As-F	ound:	1. 10.00006 5. 10.00007 9. 10.00006	Good Fair Poor
Pass: ☑	Fail:	Pass: 🗹	Fail: □	2. 10.00004 6. 10.00005 10. 10.00005	
As- Pass: ☑	Left: Fail: □	As- Pass: ☑	Left: Fail: □	3. 10.00008 7. 10.00006 Result 4. 10.00005 8. 10.00008 0.000013	Temperature: 22.8°C

	A2LA ACCREDITED SECTION OF REPORT ————————————————————————————————————								
Standard	As-Found	As-Left	Expanded Uncertainty						
100	100.0006	100.0000	0.00012						
50	50.0003	50.0000	0.00011						
1	0.99997	0.99999	0.000029						
0.1	0.10000	0.10000	0.000029						
0.01	0.01000	0.01000	0.000029						
0.001	0.00100	0.00100	0.000029						

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

2/19 RH= 15%. Used software to adjust linearity & span. Corrected internal calibration weight value.

Report prepared/reviewed by: Serice Tech C Date: 2/28

Technician:/J<Colacchie Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY COMPROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Member: National Conference of Standards Laboratories and Weights & Measures



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Montana, State of / Billings-Forensic Serv. 1516 4th Ave N STE # 1 Billings, MT 59101 Report Number: MTFM02B938283141191212

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XSR16001L	B938283141	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
kg	0.0001	QC012	12/12/19	N/A	7/2020

FUNCTIONAL CHECKS

ECCEN	TRICITY	LINE	INEARITY STAN		STANDARD DEVIATION		STANDARD DEVI		ENVIF	RONME	ENTAL
Test Wt:	Tol:	Test Wt:	Tol:	To	est Wt:	Tol:	CO	NDITIO	DNS		
5	0.0003	4 x 4	0.0002		5	0.0001		\square			
As-F	ound:	As-I	ound:	1.5.0000	5. 5.0000	9. 5.0000	Good	Fair	Poor		
Pass: ☑	Fail: 🗆	Pass: 🗹	Fail:	2. 5.0000	6. 5.0000	10. 5.0000					
	Left:		Left:	3. 5.0000 4. 5.0000	7.5.0000 8.5.0000	Result 0.00000	Tempe	rature:	20.2°C		
Pass: 🗹	Fail:	Pass: 🗹	Fail:	4. 5.0000	6. 5.0000	0.00000					

	A2LA ACCREDITED SECTION OF REPORT ————————————————————————————————————									
Standard	As-Found	As-Left	Expanded Uncertainty							
16	15.9947	16.0001	0.00011							
12	11.9960	12.0000	0.00011							
8	7.9974	8.0000	0.00011							
4	3.9986	4.0000	0.00011							
1	0.9995	1.0000	0.00011							
0.5	0.4999	0.5000	0.00011							

CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

12/12/2019 RH= 28%. Unit set up new from box. Leveled unit & adjusted span.

Report prepared/reviewed by:

 \bigcirc . \bigcirc . Date: 12/12/

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Lual y Control Services Report of Service and Calibration

2340 S.E. 11TH AVENUE PORTLAND, OR 97214 PHONE 503-236-2712 62691

Montana,State	of/Billing	gs-Forensic Serv.	PT ID: MTF	M02	P.O. No:				
1516 4th Ave	N STE # 1				Contact:	Misty	Icard		
Billings, MT	59101				Phone:	406-2	55-1104		
1516 4th Ave N	STE#1Bill	ings, MT 59101			Email:	micaro	d@mt.gov		
Make	Model	Serial Number	Location				Date 2	019	Cust ID
ce Mettler			Chemistry			\$180.00			
	ts 🗖 Calibr 🔯 A2LA	ation with Data Certificate			****		Г	Date:	
	1516 4th Ave Billings, MT 3 1516 4th Ave N Make Mettler Calibration tation Requiremen	Billings, MT 59101 1516 4th Ave N STE # 1 Bill Make Model Mettler XSR160011 Calibration tation Requirements Calibration A2LA	Billings, MT 59101 1516 4th Ave N STE # 1 Billings, MT 59101 Make Model Serial Number Mettler XSR16001L B938283141 Calibration ration Requirements Calibration with Data A2LA Certificate	Billings. MT 59101 1516 4th Ave N STE # 1 Billings, MT 59101 Make Model Serial Number Location Mettler XSR16001L B938283141 Chemistry Calibration Calibration Calibration Requirements A2LA Certificate Calibration Calibration with Data A2LA Certificate	Billings, MT 59101 1516 4th Ave N STE # 1 Billings, MT 59101 Make Model Serial Number Location Contact to Mettler XSR1600IL B938283141 Chemistry Misty Calibration Lation Requirements Calibration with Data A2LA Certificate Received By:	Secondary Contact: Billings, MT 59101 Phone:	Sillings, MT 59101 Phone: 406-2 Sillings, MT 59101 Phone: 406-2 Sillings, MT 59101 Phone: 406-2 Make Model Serial Number Location Contact Rate	Billings. MT 59101 Phone: 406-255-1104 1516 4th Ave N STE # 1 Billings, MT 59101 Email: micard@mt.gov Make Model Serial Number Location Contact Rate Sve'd	Sillings, MT 59101



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Montana, State of / Billings-Forensic Serv.

1516 4th Ave N, Ste #1 Billings, MT 59101

Report Number: MTFM02B611224107190227

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

		INSTRUMENT	NECKMATION		
ltom.	Make	Model	Serial Number	Customer ID	Location
Item Balance	Mettler	XS105	B611224107	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.00001	QC012	2/27/19	7/24/10	

FUNCTIONAL CHECKS ENVIRONMENTAL STANDARD DEVIATION LINEARITY **ECCENTRICITY** CONDITIONS Test Wt: Tol: Test Wt: Tol: Test Wt: Tol: 0.00005 $\overline{\mathbf{V}}$ 50 0.00020 50 x 2 100 0.00005 9.50.00002 Good Fair 5.50.00000 Poor 1.49.99998 As-Found: As-Found: 10.49.99999 2.49.99995 6.49.99998 Pass: Fail: Fail: Pass: Temperature: 23.1°C Result 3.50.00001 7.49.99996 As-Left: As-Left: 8.49.99999 0.000021 4.49.99997 Fail: Fail: Pass: Pass: 🗹

	A2LA ACCREDITED S	ECTION OF REPORT -	
Standard	As-Found	As-Left	Expanded Uncertainty
	99.99735	99.99997	0.000048
100	49.99861	49,99998	0.000046
50		10.00004	0.000046
10	9.99777	1.00000	0.000045
1	0.99995		0.000045
0.2	0.19995	0.19999	0.000044
0.01	0.00992	0.01002	0.00044

CALIBRATION STANDARDS

	CALIBRATION STANDARDS						
	Maka	Model	Serial Number	Cal Date	Cal Due Date	NIST ID	
Item	Make			1/31/19	1/2020	20190236	
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	172020		

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

2/19 Adjusted linearity & internal calibration with software.

Weight check at 1mg= 0.00101 grams Relative humidity= 11%.

Report prepared/reviewed by: Service Technology Date: 2/27/9

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Member: National Conference of Standards Laboratories and Weights & Measures

PT ID: MTFM02



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Montana, State of/Billings-Forensic

1516 4th Ave N, Ste #1 Billings, MT 59101

Report Number: MTFM02B607097677190227

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

		1142 LIZOMETAL	IIII OITIIII III		NO. 100-2
Item	Make	Model	Serial Number	Customer ID	Location
	Mettler	XS4001-S	B607097677	N/A	Lab
Balance	Wictio	.10.101			O-I Due Data
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
Units	0.1	OC012	2/27/19	7/24/18	7/2019
g	0.1	400			

FUNCTIONAL CHECKS

			FUNCI	IONAL CI	ILUNU				
ECCENTRI			EARITY Tol:		NDARD DE	VIATION Tol:	ENVIR COI	ONME NDITIO	
Test Wt: 2000	Tol: 0.1	Test Wt: 1000 x 4			2000	0.1		\square	
As-Four	nd:		-Found:	1.2000.0	5. 2000.0 6. 2000.0	9.2000.0 10.2000.0	Good	Fair	Poor
1 455.	ail:	Pass:	_	2. 2000.0 3. 2000.0	7. 2000.0	Result	Tempe	rature:	22.9°C
As-Lef Pass: ☑ F	f t: `ail: □	Pass:	As-Left: ☑ Fail: □	4.2000.0	8. 2000.0	0.00	1		

A2LA ACCREDITED SECTION OF REPORT **Expanded Uncertainty** As-Left As-Found Standard 0.11 3999.9 3999.9 4000 0.11 3000.0 3000.0 3000 0.11 2000.0 2000.0 2000 0.11 1000.0 1000.0 1000 0.11 500.0 500.0 500 0.11 50.0 50.0 50

CALIBRATION STANDARDS

Cal Due Date	NIST ID
our Duo Dutt	14101112
1/2020	20190236
	1/2020

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Relative humidity= 10%.

Report prepared/reviewed by: _______Date: 2/27/

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



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Montana, State of/Billings-Forensic

1516 4th Ave N, Ste #1 Billings, MT 59101

Report Number: MTFM02B604052473190227

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

	IN2 KOMEN I	HAL OKINA LIGIT		
Make	Model	Serial Number	Customer ID	Location
Mettler	MS303TS	B604052473	N/A	Lab
Readability	SOP	Cal Date	Last Cal Date	Cal Due Date 7/2019
0.001			7/24/10	
	Readability	MakeModelMettlerMS303TSReadabilitySOP0.001QC012	MakeModelSerial NumberMettlerMS303TSB604052473ReadabilitySOPCal Date	Make Model Serial realization Mettler MS303TS B604052473 N/A Readability SOP Cal Date Last Cal Date 0.001 QC012 2/27/19 7/24/18

FUNCTIONAL CHECKS

	FUNCI	IONAL CHLONG	
ECCENTRICITY	LINEARITY	STANDARD DEVIATION	ENVIRONMENTAL CONDITIONS
Test Wt: Tol:	Test Wt: Tol:	Test Wt: Tol:	CONDITIONS
200 0.003	100 x 3 0.002	100 0.001	
As-Found:	As-Found:	1.100.001 5.100.001 9.100.003	Good Fair Poor
Pass: ☑ Fail: □	Pass: ☑ Fail: □	2. 100.002 6. 100.002 10. 100.002	T
As-Left:	As-Left:	3. 100.002 7. 100.002 <u>Result</u> 4. 100.002 8. 100.002 0.0005	Temperature: 18.0°C
Pass: ☑ Fail: □	Pass: ☑ Fail: □	4. 100.002 6. 100.002	

A2LA ACCREDITED SECTION OF REPORT **Expanded Uncertainty** As-Left As-Found Standard 0.0016 300.003 300.005 300 0.0016 200.002 200.004 200 0.0016 100.001 100.003 100 0.0016 50.000 50.002 50 0.0016 10.000 10.000 10 0.0016 1.000 1.000 1

CALIBRATION STANDARDS

CALIBRATION STANDARDS						
Itam	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Item			2831W	1/31/19	1/2020	20190236
Weight Set	Rice Lake	20 kg to 1mg	2831 W	1/31/17	1,2020	

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Weight check at 200mg= 0.200 grams Relative humidity= 15%.

Report prepared/reviewed by: ______ Date: 2/27/19

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Member: National Conference of Standards Laboratories and Weights & Measures

PT ID: MTFM02





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Montana, State of/Billings-Forensic

1516 4th Ave N, Ste #1 Billings, MT 59101 Report Number: MTFM02B614292141190227

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Make Mettler	Model MS303TS	Serial Number B614292141	Customer ID N/A	Location Lab
	MS303TS	D614202141	N/A	Lab
	IVIOSOSIS	D014292141	IV/A	Duo
	SOP	Cal Date	Last Cal Date	Cal Due Date
0.001	QC012	2/27/19	7/24/18	7/2019
I	Readability 0.001	a conta	Readability 2012	Readability 307 307/10 7/24/18

FUNCTIONAL CHECKS

			FUNCI	IONAL CIT	LONG			100000	
ECCENT		LINEA			IDARD DEV	IATION ΓοΙ:	ENVIR CO	ONME NDITIC	
Test Wt:	Tol:	Test Wt:	Tol:	16					
200	0.003	100 x 3	0.002		100	0.001			
As-Fo	und:	As-Fo	ound:	1. 100.001	5. 100.000	9.100.001	Good	Fair	Poor
Pass: ☑	Fail:	Pass:	Fail:	2.100.001	6. 100.001	10. 100.001	T		10 200
As-L			L eft: Fail: □	3. 100.001 4. 100.001	7. 100.001 8. 100.001	Result 0.0003	Tempe	rature:	18.3°C
Pass: ☑	Fail:	Pass:	raii. ⊔						

	A2LA ACCREDITED S	ECTION OF REPORT -	
Standard	As-Found	As-Left	Expanded Uncertainty
300	300.005	300.004	0.0013
200	200.003	200.002	0.0013
100	100.002	100.001	0.0013
	50.001	50.001	0.0013
50	10.000	10.000	0.0013
10	De Strongs is re-	0.999	0.0013
1	0.999	0.999	

CALIBRATION STANDARDS

		·				
Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
пеш			2021117	1/31/19	1/2020	20190236
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	172020	

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Weight check at 200mg= 0.200 grams Relative humidity= 15%.

Report prepared/reviewed by: _______ Date: 2/27/19

Technician: J. Colaechio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



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Montana, State of/Billings-Forensic

Serv.

1516 4th Ave N, Ste #1 Billings, MT 59101 Report Number: MTFM021230500052190227

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

		INSTRUMENT	NFURWATION		
Marra	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	PL303	1230500052	N/A	Lab
	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
Units		OC012	2/27/19	7/12/18	7/2019
g	0.001	QC012	2,27,13		

FUNCTIONAL CHECKS

			FUNCI	IONAL CIT	LOILO				
ECCENT	TRICITY	LINE	ARITY		NDARD DE		ENVIR	ONME	
Test Wt:	Tol:	Test Wt:	Tol:	To	est Wt:	Tol:	CO	ADITIO	110
150	0.002	100x3	0.002		50	0.001		\square	
As-Fo	ound:	As-F	ound:	1.50.000	5. 49.999	9.50.000	Good	Fair	Poor
Pass: ☑	Fail:	Pass: 🗹	Fail:	2.50.000	6. 50.000	10. 50.000			10 100
As-I	Left:	As-	Left:	3. 50.000 4. 49.999	7.50.000 8.50.000	<u>Result</u> 0.0004	Tempe	rature:	18.1°C
Pass: ☑	Fail: □	Pass: ☑	Fail:	4.49.999	6. 50.000	0.0001			

	A2LA ACCREDITED S	ECTION OF REPORT -	
Standard	As-Found	As-Left	Expanded Uncertainty
300	299.996	300.000	0.0014
100	99.998	100.000	0.0014
20	20.000	20.000	0.0014
	10.000	10.000	0.0014
10	5.000	5.000	0.0014
3	CALCO MACOS TO	1.000	0.0014
1	1.000	1.000	Abote as pos

CALIBRATION STANDARDS

		07.12.1				
Itam	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Item			2831W	1/31/19	1/2020	20190236
Weight Set	Rice Lake	20 kg to 1mg	2031 W	1/31/17		

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Weight check at 200mg= 0.200 grams Relative humidity= 15%.

Report prepared/reviewed by Service Tech Date: 2

Date: 2/27/19

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



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Montana, State of/Billings-Forensic Serv.

1516 4th Ave N, Ste #1 Billings, MT 59101

Report Number: MTFM02B604052473190722

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	MS303TS	B604052473	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	7/22/19	2/27/19	7/2020

FUNCTIONAL CHECKS

ECCEN	TRICITY	LINE	ARITY	STAI	NDARD DEV	IATION	ENVIR	ONME	ENTAL
Test Wt:	Tol:	Test Wt:	Tol:	Te	st Wt:	Tol:	CO	NDITIO	ONS
200	0.003	100 x 3	0.002		100	0.001		\square	
As-F	ound:	As-F	ound:	1. 100.000	5. 100.000	9. 100.000	Good	Fair	Poor
Pass: 🗹	Fail: 🗆	Pass: 🗹	Fail: 🛘	2. 100.000	6. 100.000	10. 100.000			
As-	Left: Fail: □	As-l Pass: ☑	L eft: Fail: □	3. 100.000 4. 100.000	7.100.000 8.100.000	Result 0.0000	Tempe	rature:	22.7°C
1 455.	7 GIN 🗀	1 abs. 🗀	r terr, tank						

	A2LA ACCREDITED S	ECTION OF REPORT -	
Standard	As-Found	As-Left	Expanded Uncertainty
300	299.999	299.999	0.0011
200	200.000	200.000	0.0011
100	100.000	100.000	0.0011
50	50.000	50.000	0.0011
10	10.000	10.000	0.0011
1	1.000	1.000	0.0011

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 Weight check at 0.2 g= 0.200 grams

7/19 RH= 51%.

Report prepared/reviewed by: Service Technology Date: 7/19

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.







Montana, State of/Billings-Forensic Serv. 1516 4th Ave N, Ste #1 Billings, MT 59101

Report Number: MTFM02B614292141190722

A2LA ACCREDITED **CERTIFICATE OF CALIBRATION WITH DATA**

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	MS303TS	B614292141	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	7/22/19	2/27/19	7/2020

FUNCTIONAL CHECKS

ECCEN	TRICITY	LINE	ARITY	STANDARD DEVIATION		ENVIR	ONME	ENTAL	
Test Wt:	Tol:	Test Wt:	Tol:	T	est Wt:	Tol:	CO	NDITIO	ONS
200	0.003	100 x 3	0.002		100	0.001		\square	
As-F	ound:	As-F	ound:	1.99.999	5. 99.999	9. 99.999	Good	Fair	Poor
Pass: ☑	Fail:	Pass: ☑	Fail:	2. 99.999	6. 99.999	10.99.999			
As- Pass: ☑	Left: Fail: □	As-l Pass: ☑	Left: Fail: □	3. 99.999 4. 99.999	7.99.999 8.99.999	<u>Result</u> 0.0000	Tempe	rature:	22.8°C
		L		1					

	A2LA ACCREDITED S	ECTION OF REPORT —	
Standard	As-Found	As-Left	Expanded Uncertainty
300	300.000	300.000	0.0011
200	200.000	200.000	0.0011
100	99.999	99.999	0.0011
50	50.000	50.000	0.0011
10	10.000	10.000	0.0011
1	1.000	1.000	0.0011

CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 Weight check at 0.2 g= 0.200 grams

7/19 RH= 51%.

Report prepared/reviewed by: Swinted Date: 7/19

Technician: J. Colacchio

Signature:

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The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



Billings, MT 59101

QUALITY CONTROL SERVICES

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Montana, State of /Billings-Forensic Serv. 1516 4th Ave N, Ste #1 Report Number: MTFM021230500052190722

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	PL303	1230500052	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	7/22/19	2/27/19	7/2020

FUNCTIONAL CHECKS

		·							
	ECCENTRICITY		LINEARITY		STANDARD DEVIATION		ENVIR		
Test Wt:	Tol:	Test Wt:	Tol:	To	est Wt:	Tol:	CO	NDITIO	DNS
150	0.002	100x3	0.002		50	0.001		Ø	
As-F	ound:	As-F	ound:	1.50.000	5. 50.000	9.50.000	Good	Fair	Poor
Pass: ☑	Fail:	Pass: 🗹	Fail:	2. 50.000	6. 50.001	10. 50.000			
	Left:		Left:	3.50.000	7.50.000 8.50.000	Result 0.0004	Tempe	rature:	22.7°C
Pass: ☑	Fail: 🗆	Pass: ☑	Fail:	4.50.001	8.30.000	0.0004	1		

	A2LA ACCREDITED S	ECTION OF REPORT —	
Standard	As-Found	As-Left	Expanded Uncertainty
300	300.003	300.001	0.0014
100	100.000	100.000	0.0014
20	20.000	20.000	0.0014
10	10.000	10.000	0.0014
5	5.000	5.000	0.0014
1	1.000	1.000	0.0014

CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 Weight check at 0.2 g= 0.200 grams

7/19 RH= 51%.

Report prepared/reviewed by: Service Tech C Date: 7/10

Technician: H Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the incertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



Billings, MT 59101

QUALITY CONTROL SERVICES





Montana, State of /Billings-Forensic Serv. 1516 4th Ave N, Ste #1 Report Number: MTFM02B611224107190720

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS105	B611224107	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.00001	QC012	7/20/19	2/27/19	7/2020

FUNCTIONAL CHECKS

1	TRICITY	İ	ARITY	STANDARD DEVIATION	ENVIRONMENTAL
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt: Tol:	CONDITIONS
100	0.00005	50 x 2	0.00020	50 0.00005	
As-F	ound:	As-F	ound:	1. 50.00003 5. 50.00001 9. 50.00004	Good Fair Poor
Pass: ☑	Fail:	Pass: ☑	Fail:	2. 50.00001 6. 50.00003 10. 50.00000	
As-	Left:	As-	Left:	3.50.00007 7.50.00006 Result	Temperature: 23.1°C
Pass: ☑	Fail:	Pass: ☑	Fail:	4. 50.00004 8. 50.00002 0.000022	

	A2LA ACCREDITED S	ECTION OF REPORT —	
Standard	As-Found	As-Left	Expanded Uncertainty
100	100.00007	100.00005	0.000049
50	50.00003	50.00003	0.000047
10	10.00004	10.00001	0.000047
1	1.00002	1.00001	0.000046
0.2	0.19999	0.20001	0.000046
0.01	0.01000	0.01000	0.000046

CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 Weight check at 0.001g= 0.00099 grams

7/19 Adjusted span with internal calibration cycle.

Report prepared/reviewed by: Sence Tech Date: 7/19

Technician: J./Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



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Montana, State of/Billings-Forensic Serv. 1516 4th Ave N, Ste #1

Billings, MT 59101

Report Number: MTFM02B607097677190722

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS4001-S	B607097677	N/A	Lab
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.1	QC012	7/22/19	2/27/19	7/2020

FUNCTIONAL CHECKS

ECCENTRICITY	LINEARITY	STANDARD DEVIATION	ENVIRONMENTAL
Test Wt: Tol:	Test Wt: Tol:	Test Wt: Tol:	CONDITIONS
2000 0.1	1000 x 4 0.1	2000 0.1	
As-Found:	As-Found:	1. 2000.0 5. 2000.0 9. 1999.9	Good Fair Poor
Pass: ☑ Fail: □	Pass: ☑ Fail: □	2. 2000.0 6. 2000.0 10. 1999.9	
As-Left: Pass: ☑ Fail: □	As-Left: Pass: ☑ Fail: □	3. 2000.0 7. 2000.0 Result 4. 2000.0 8. 2000.0 0.04	Temperature: 23.0°C

A2LA ACCREDITED SECTION OF REPORT												
Standard	As-Found	As-Left	Expanded Uncertainty									
4000	3999.8	3999.9	0.14									
3000	2999.8	3000.0	0.14									
2000	1999.9	2000.0	0.14									
1000	999.9	1000.0	0.14									
500	499.9	500.0	0.14									
50	50.0	50.0	0.14									

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20 kg to 1mg	2831W	1/31/19	1/2020	20190236

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 RH= 51%. Adjusted span with internal calibration cycle.

Report prepared/reviewed by: Service Tech Date: 7/19

Technician: J. Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

Certificate of Weight Calibrat

ANSI/NCSL Z540-1-1994; Part 1 & ISO/IEC 17025:2005 Accredited

Traceable Certificate Number:

Contractor:

2898008A

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST

MISSOULA, MT 59808

Purchase Order Number:

Client:

042519B MONTANA DEPARTMENT OF JUSTICE

1516 4TH AVE N

SUITE 1

BILLINGS, MT 59101

Date Received:

Date Calibrated:

25 Apr 2019 30 Apr 2019 30 Apr 2021

Recall Date: Temperature Range: Pressure Range:

21.13 °C 736.87 mmHg

Relative Humidity Range:

46 %

Air Density Range:

1.1582 mg/cm³

NIST Certificate Number:

684/291344-18

Although there are two NIST numbers, one or both may apply

Calibrated By:

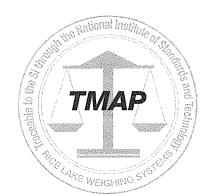
Procedure:

Inter-comparison Method (WI05-0095)

Condition of Weights:

Description of Weights:

2 kg Polished Weight, ASTM Class 1, S/N 84Q2



		As Found			ı	As Left						,	
Nominal	ID	Conv.	Conv. Mass	MPE	Conv.	Conv. Mass	MPE	Unc.	k	MPE*	Balance	Standard .	Assumed
Value	or	Mass	Corr	Pass	Mass	Corr	Pass	(mg)		(mg)	Used	Set	Density
	S/N		(mg)			(mg)						Used	(g/cm ³)
2 kg 8	4Q2.	2.00000171	1.71	Y	2.00000171	1.71	Υ	0.39	9 2	5.0	124Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

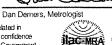
Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook Prepared By: 105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Rice Lake Weighing Systems

230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 3/18 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com

Definitions: http://certs.ricelake.com/certs/DefinitionsV2.docx

Page 1 of 1



30 Apr 2019

Dated





Certificate of Weight Calibration

ANSI/NCSL Z540-1-1994; Part 1 & ISO/IEC 17025:2005 Accredited

Kaceanle to the

Ne National Institute

YAE WEIGHING

Traceable Certificate Number:

2898008

Contractor:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST

MISSOULA, MT 59808

Purchase Order Number:

042519B

Client:

MONTANA DEPARTMENT OF JUSTICE

1516 4TH AVE N

SUITE 1

BILLINGS, MT 59101

Date Received: Date Calibrated: Recall Date: Temperature Range: 25 Apr 2019 30 Apr 2019

30 Apr 2021 21.21 °C 737.31 mmHg

Pressure Range: Relative Humidity Range:

47 %

Air Density Range:

1.1585 mg/cm³

NIST Certificate Number:

684/291344-18

Pass

Υ

Mass

200.000188

Although there are two NIST numbers, one or both may apply

Mass

200.000188

Calibra

Corr

(mg)

0.188

Proced

Nominal Value

200

Conditi

Descri

or

S/N

g 84Q1.

ID	Conv.	Conv. Mass MPE	Conv.	Conv. Mass	MPE	Unc.	k Mi	PE*	Balance	Standard Assumed	
_		As Found		As Left							
iption of V	-	200 g Polished W	eight, ASTI	M Class 1, S/N 8	34Q1 w	th dot					
ition of We	iahts:	New									
dure:		Inter-comparison	Method (W	105-0095)							
rated By:		17									

0.188

Pass

(mg)

0.044 2

(mg)

0.50

Used

699Q

Set

Used

L595Q

Density

(q/cm³)

7.95

Corr

(ma)

	the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. "The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook Prepared By: 105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

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Definitions: http://certs.ricelake.com/certs/DefinitionsV2.docx

Page 1 of 1



30 Apr 2019

Dated





Certificate of Weight Calibration

ISO/IEC 17025 & ANSI/NCSL Z540-1-1994; Part 1 Accredited

Traceable Certificate Number:

2890599E

Contractor:

Client:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

Purchase Order Number:

CC

FORENSIC SCIENCE DIVISION EAST

1516 4TH AVE N SUITE 1 BILLINGS, MT 59101

08 Apr 2019 **Date Received: Date Calibrated:** 01 May 2019 01 May 2021 Recall Date: 21.13 °C Temperature Range: Pressure Range: 731.84 mmHg

Relative Humidity Range:

54 %

1.1494 mg/cm³ Air Density Range:

NIST Certificate Number:

684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By:

17

Procedure:

Inter-comparison Method (WI05-0095 Rev. C)

Condition of Weights:

Description of Weights:

1 kg Polished Weight, ASTM Class 1, S/N 83J6



		As	s Found			As Left							
Nominal	ID	Conv.	Conv. Mass	MPE	Conv.	Conv. Mass	MPE	Unc.	k	MPE*	Balance	Standard .	Assumed
Value	or	Mass	Corr	Pass	Mass	Corr	Pass	(mg)		(mg)	Used	Set	Density
	S/N		(mg)			(mg)						Used	(g/cm ³)
1 kg 8	3J6	1.00000092	0.92	Υ	1.00000092	0.92	Y	0.11	2	2.5	699Q	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade Items. 'The weight accuracy class is referenced in the Description of Weights.

Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), NIST Handbook 105-1 (1990), ASTM E617-18 or OlML R111-1 (2004), manufacturer specifications or customer specifications.

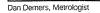
Prepared By: Rice Lake Weighing Systems

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Definitions: http://certs.ricelake.com/certs/DefinitionsV2.docx

Page 1 of 1

26 Feb 2020 Dated









RICE LAKE Certificate of Weight Calibration

ISO/IEC 17025 & ANSI/NCSL Z540-1-1994; Part 1 Accredited

Traceable Certificate Number:

2890599D

Contractor:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

Purchase Order Number:

CC

Client:

FORENSIC SCIENCE DIVISION EAST

1516 4TH AVE N SUITE 1 BILLINGS, MT 59101

Date Received:

08 Apr 2019

Date Calibrated:

01 May 2019 01 May 2021

Recall Date: Temperature Range:

21.19 °C

Pressure Range:

731.98 mmHg

Relative Humidity Range:

51 %

Air Density Range:

1.1497 mg/cm³

NIST Certificate Number:

684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By:

17

Procedure:

Inter-comparison Method (WI05-0095 Rev. C)

Condition of Weights:

New

Description of Weights:

100 g Polished Weight, ASTM Class 1, S/N 83J5



		A	s Found			As Left							
Nomina	al ID	Conv.	Conv. Mass	MPE	Conv.	Conv. Mass	MPE	Unc.	k	MPE*	Balance	Standard .	Assumed
Value	or	Mass	Corr	Pass	Mass	Corr	Pass	(mg)		(mg)	Used	Set	Density
	S/N		(mg)			(mg)						Used	(g/cm ³)
100	g 83J5	100.000057	7 0.057	Y	100.000057	0.057	Υ	0.026	2	0.25	1470Q	L595Q	7.95

Check with your local state agency for certification of compliance on Legal for Trade items. 'The weight accuracy class is referenced in the Description of Weights.

Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), By:

NIST Handbook 105-1 (1990), ASTM E617-18 or OlML R111-1 (2004), manufacturer specifications or customer specifications.

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Prepared By:
Rice Lake Weighing Systems

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Page 1 of 1









RICE LAKE Certificate of Weight Calibration

ISO/IEC 17025 & ANSI/NCSL Z540-1-1994; Part 1 Accredited

Traceable Certificate Number: 2890599C

Contractor: MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

Purchase Order Number:

CC

Client:

FORENSIC SCIENCE DIVISION EAST

1516 4TH AVE N SUITE 1 BILLINGS, MT 59101

Date Received:08 Apr 2019Date Calibrated:02 May 2019Recall Date:02 May 2021Temperature Range:21.21 °CPressure Range:733.48 mmHg

Relative Humidity Range: 51 %

Air Density Range: 1.1519 mg/cm³

NIST Certificate Number: 684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By: 17

Procedure: Inter-comparison Method (WI05-0095 Rev. C)

Condition of Weights: Nev

Description of Weights: 10 g Polished Weight, ASTM Class 1, S/N 83J4



		A	s Found			As Left							
Nominal	ID	Conv.	Conv. Mass	MPE	Conv.	Conv. Mass	MPE	Unc.	k	MPE*	Balance	Standard .	Assumed
Value	or	Mass	Corr	Pass	Mass	Corr	Pass	(mg)		(mg)	Used	Set	Density
	S/N		(mg)			(mg)						Used	(g/cm ³)
10 g 8	3J4	10.000000	0.000	Y	10.000000	0.000	Υ	0.01	0 2	0.050	1470Q	L595Q	7.95

Check with your local state agency for certification of compliance on Legal for Trade Items. 'The weight accuracy class is referenced in the Description of Weights.

Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST. Handbook 105-1 (2019),

Prepared By: NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications

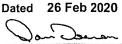
Rice Lake Weighing Systems

230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 6/19 TEL: 715-234-9171 • FAX: 715-234-6967 • **www.ricelake.com**

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RICE LAKE Certificate of Weight Calibration

ISO/IEC 17025 & ANSI/NCSL Z540-1-1994; Part 1 Accredited

Traceable Certificate Number:

2890599B

Contractor:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

Purchase Order Number:

CC

Client:

FORENSIC SCIENCE DIVISION EAST

1516 4TH AVE N SUITE 1 BILLINGS, MT 59101

Date Received:

08 Apr 2019

Date Calibrated: Recall Date:

02 May 2019 02 May 2021

Temperature Range:

21.11 °C

Pressure Range:

734.40 mmHg

Relative Humidity Range:

48 %

Air Density Range:

1.1542 mg/cm³

NIST Certificate Number:

684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By:

05

Procedure:

Inter-comparison Method (WI05-0095 Rev. C)

Condition of Weights:

New

Description of Weights:

1 g Polished Weight, ASTM Class 1, S/N 83J3



		As	s Found			As Left							
Nominal	ID	Conv.	Conv. Mass	MPE	Conv.	Conv. Mass	MPE	Unc.	k	MPE*	Balance	Standard	Assumed
Value	or	Mass	Corr	Pass	Mass	Corr	Pass	(mg)		(mg)	Used	Set	Density
	S/N		(mg)			(mg)						Used	(g/cm ³)
1 g 8	3J3	1.0000071	0.0071	Υ	1.0000071	0.0071	Υ	0.002	2 2	0.034	650C	L595Q	7.95

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights.

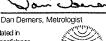
Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), Prepared By:

NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

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Definitions: http://certs.ricelake.com/certs/DefinitionsV2.docx

Page 1 of 1



26 Feb 2020





Certificate of Weight Calibration

ISO/IEC 17025 & ANSI/NCSL Z540-1-1994; Part 1 Accredited

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Ne National Institute

CARE WEIGHING

650Q

L595Q

7.95

Traceable Certificate Number:

Contractor:

2890599A

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

Purchase Order Number:

Client:

CC

FORENSIC SCIENCE DIVISION EAST

1516 4TH AVE N SUITE 1 BILLINGS, MT 59101

Date Received:

08 Apr 2019

Date Calibrated: Recall Date:

02 May 2019 02 May 2021

Temperature Range:

21.09 °C

Pressure Range:

734.43 mmHg

Relative Humidity Range:

Air Density Range:

1.1539 mg/cm³

0.0042 Y

NIST Certificate Number:

684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

100.0042

Calibrated By:

05

Procedure:

100 mg 83J2

Inter-comparison Method (WI05-0095 Rev. C)

100.0042

Condition of Weights:

New

Description of Weights:			100 mg Polished Leaf Weight, ASTM Class 1, S/N										
			As Found			As Left							
Nominal	ID	Conv.	Conv. Mass	MPE	Conv.	Conv. Mass	MPE	Unc.	k	MPE*	Balance	Standard	Assumed
Value	or	Mass	Corr	Pass	Mass	Corr	Pass	(mg)		(mg)	Used	Set	Density
	S/N		(ma)			(ma)						Used	(a/cm ³)

0.0042 Y

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. "The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019), NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications

Prepared By: Rice Lake Weighing Systems

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Definitions: http://certs.ricelake.com/certs/DefinitionsV2.docx

Page 1 of 1

26 Feb 2020 Dated

Dan Demers, Metrologist







Certificate of Weight Calibra

ISO/IEC 17025 & ANSI/NCSL Z540-1-1994; Part 1 Accredited

egable to the

Ne Wallonal Institute

WEIGHING

Traceable Certificate Number:

2912942

Contractor:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST

MISSOULA, MT 59808

Purchase Order Number:

FSDE

Client:

FORENSIC SCIENCE DIVISION EAST

1516 4TH AVE N SUITE 1 BILLINGS, MT 59101

Date Received:

28 May 2019

Date Calibrated: Recall Date:

04 Jun 2019 04 Jun 2021

Temperature Range: Pressure Range:

20.94 °C 724.54 mmHg

Relative Humidity Range:

48 %

Air Density Range:

1.1394 mg/cm³

NIST Certificate Number:

684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply

Calibrated By:

03

Procedure:

Inter-comparison Method (WI05-0095 Rev. C) New

Condition of Weights: **Description of Weights:**

10 mg Leaf Weight, ASTM Class 1, S/N 86GE (Updated Recall to 2 years, 26 Feb 2020)

		A	s Found			As Left							
Nominal	ID	Conv.	Conv. Mass	MPE	Conv.	Conv. Mass	MPE	Unc.	k	MPE*	Balance	Standard A	Assumed
Value	or	Mass	Corr	Pass	Mass	Corr	Pass	(mg)		(mg)	Used	Set	Density
	S/N		(mg)			(mg)						Used	(g/cm ³)
10 mg 8	6GE	10.0022	0.0022	Υ	10.0022	0.0022	Υ	0.001	2 2	0.010	503Q	L595Q	7.95

Check with your local state agency for certification of compliance on Legal for Trade items. 'The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019),

Prepared By:

NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications

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Definitions: http://certs.ricelake.com/certs/DefinitionsV2.docx

Page 1 of 1



Dated

26 Feb 2020







625 East Bunker Court Vernon Hills, Illinois 60061

PH: 866-466-6225 Fax: 847-327-2993 www.innocalsolutions.com

NIST TraceableCalibration Report



Reference Number: 1381316

10/31/2019

10/31/2020

In Tolerance

In Tolerance, No adjustment

PO Number: DCLARK092619

Montana State Crime Lab

Calibration Date:

Calibration Due Date:

Condition As Found:

Condition As Left:

2679 Palmer Street Missoula, MT 59808 United States

Manufacturer:

Gilmont Instruments Inc.

Model Number:

GF-2560

Description:

Flowmeter, Shielded Tube Sz 15

Asset Number:

CP345031

Serial Number:

CP345031

Procedure:

See report

Remarks:

Received serial #CP345031 back from Dick Munns, Co., on 11/11/2019. All data is traceable to NIST. A copy of your report #495915.19 is

attached to this cover sheet.

Temperature: 21° C Humidity: 25% RH Rpt. No.: 1601825

Calibration Performed By:Quality Reviewer:Maahs, Charlene372 Metrologist847-327-5344Pietronicco, Mike11/11/2019NameID# TitlePhoneNameDate

Name ID# Title Phone Name Date
This report may not be reproduced, except in full, without written permission of Innocal. The results stated in this report relate only to the items tested or calibrated.

Measurements reported herein are traceable to SI units via national standards maintained by NIST and were performed in compliance with MIL-STD-45662A, ANSI/NCSL

Z540-1-1994, 10CFR50, Appendix B, ISO 9002-94, and ISO 17025:2005. Guard Banding, if reported on this certificate, is applied at a Z-factor of 30% for test points with a test uncertainty ratio (TUR) below 4:1. In Tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The estimated measurement uncertainty (EMU), if reported on this certificate, is being reported at a confidence level of 95% or K=2 unless otherwise noted in the remarks section.















CL-122

CERTIFICATE OF CALIBRATION

CUSTOMER:

INNOCAL VERNON HILLS, IL

GF-2560 (5 - 80 SLPM AIR)

FLOWMETER (BLACK GLASS FLOAT)

50

60

80

PO NUMBER:

NOTES:

1230199 **GILMONT**

INST. MANUFACTURER:

INST. DESCRIPTION:

MODEL NUMBER: **SERIAL NUMBER:**

RATED UNCERTAINTY:

UNCERTAINTY GIVEN:

CP345031 +/- 5% RD OR 2mm OF THE SCALE LENGTH, WHICHEVER IS GREATER

6

+/- 0.19% RD K=2

AS RECEIVED/AS LEFT WITHIN SPEC REFERENCE CONDITIONS ARE 760mmHGA 70F

CALIBRATION DATE:

CALIBRATION DUE:

PROCEDURE:

CALIBRATION FLUID: STANDARD(S) USED:

AS RECEIVED:

AMBIENT CONDITIONS:

CERTIFICATE FILE #:

495915.19

765mmHGA 25% RH 70F

NAVAIR 17-20MG-02

AIR @ 14.7 PSI 70F

A4 DUE 06-2020

WITHIN SPECS

10/31/19

10/31/20

TEST POINT	UUT	DM.STD.	
NUMBER	INDICATED	ACTUAL	% RD
	SLPM	SLPM	ERROR
1	5	4.814	-3.720
2	10	9.853	-1.470
3	20	19.744	-1.280
4	40	38.492	-3.770

STANDARDS USED:								
A5 VOLUME PROVER +/- 0.04% BY VOLUME TRACE # 1329407628, 89576	DUE	05/28/20						
AML800 VOLUME PROVER +/- 0.15% BY VOLUME TRACE # 144613547, 1424683640	DUE	01/04/20						
A24 TEMP STD. HART SCIENTIFIC +/- 0.027 F TRACE# 1553180963	DUE	03/21/20						

48.763

58.124

77.696

-2.474

-3.127

-2.880

All instruments used in the performance of the shown calibration have traceability to the National Institute of Standards and Technology (NIST). The uncertainty ratio between the calibration standards (DM.STD.) used and the unit under test (UUT) is a minimum of 4:1, unless otherwise noted. Calibration has been performed per the shown procedure number, in accordance with ISO 10012:2003, ISO 17025:2005, ANSI/NCSL-Z-540.3, and/or MIL-STD-45662A. Test methods: API2530-92 & ASME MFC-3M-1989.

> Dick Munns Company • 11133 Winners Circle • Los Alamitos, CA 90720 Phone (714) 827-1215

by DICK MUNNS COMPANY. The data shown applies only to the instrument being calibrated and under the stated conditions of calibration. This Calibration Certificate

Date:

Calibration Technician:

Page 1 of



Calibration complies with ISO/IEC 17025, ANSI/NCSL Z540-1, and 9001



Cert. No.: 4085-10365035

Traceable® Certificate of Calibration for Digital Hygrometer

Customer: Montana Forensic Science Div., 2679 Palmer Street, Missoula, MT-59808, U.S.A.

Instrument Identification:

Model: 4085,

S/N: 150166114

Manufacturer: Control Company

Standards/Equipment:

<u>Description</u>
Chilled Mirror Hygrometer

Serial Number

Due Date

NIST Traceable Reference

31874/1H2048MR

10 Jan 2020

16835

Digital Thermometer

122044330

29 Nov 2019

4000-9980927

Certificate Information:

Technician: 333

Procedure: CAL-20

Cal Date: 27 Apr 2019

Cal Due Date: 27 Apr 2020

Test Conditions: 50.95%RH 24.27°C 1014mBar

C_{2}	lih	ration	Data:	
La	แบ	ranon	Dala.	

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	´±U	TUR
%RH	20.21	20.30	Υ	20.55	20.38	Y	19.05	22.05	0.46	3.26:1
%RH	50.98	50.46	Υ	50.34	50.97	Υ	48.84	51.84	0.46	3.26:1
%RH	75.71	72.88	N	75.49	75.48	Υ	73.99	76.99	0.46	3.26:1
°C	25.290	25.44	Υ	25.315	25.35	Υ	24.91	25.72	0.05	>4:1

This certificate indicates Traceability to standards provided by (NIST) National Institute of Standards and Technology and/or a National Standards Laboratory.

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement: (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full, without written approval of Control Company.

Nominal=Standard's Reading: As Left=Instrument's Reading; In Tol=In Tolerance; Min/Max=Acceptance Range; ±U=Expanded Measurement Uncertainty; TUR=Test Uncertainty Ratio; Accuracy=±(Max-Min)/2; Min=As Left Nominal(Rounded) – Tolerance; Max= As Left Nominal(Rounded) + Tolerance;

Ricel Rodriguez

Nicol Rodriguez, Quality Manager

Aaron Judice Technical Manage

Note:

Maintaining Accuracy:

In our opinion once calibrated your Digital Hygrometer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Hygrometer change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

Recalibration:

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

STATE OF MONTANA DEPARTMENT OF JUSTICE FORENSIC SCIENCE DIVISION

Tim Fox Attorney General



2679 Palmer Street Missoula, MT 59808

September 26, 2019

On 9/4/19, Innocal performed the yearly calibration on the flow meter, serial number CP232500 (see attached calibration report). The flow meter was returned to the laboratory with a calibration report listing two flow levels as "Out of Tolerance". These levels were 40.0 L/min and 50.0 L/min. Innocal made attempted adjustments to the flow meter but was unsuccessful in calibrating the unit within specifications. It should be noted that the laboratory only uses the flow levels of 5.0 L/min, 15 L/Min and 30.0 L/min in the calibration of the Intoxilyzer 8000 flow sensor, so the stated levels that were out of tolerance would not have affected the Intoxilyzer 8000 flow sensor calibration. Also, the tolerance level for the Innocal calibration is +/- 5%, while the tolerance level for the laboratory is +/- 10%. Using the laboratory tolerance levels, the calibration would have been within specifications. The flow meter, serial number CP232500, will be phased out of use and replaced with a similar calibrated flow meter.

Ben Vetter



625 East Bunker Court Vernon Hills, Illinois 60061

PH: 866-466-6225 Fax: 847-327-2993 www.innocalsolutions.com

NIST Traceable **Calibration Report**



Reference Number: 1378998

09/04/2019

Out of Tolerance

OOT, Return As Is

PO Number: BVETTER082219

Montana State Crime Lab

2679 Palmer Street Missoula, MT 59808 United States

Calibration Date:

Calibration Due Date:

Condition As Found:

Condition As Left:

Manufacturer:

Gilmont Instruments Inc.

Model Number:

GF-2560

Description:

Flowmeter, Shielded Tube Sz 15

Asset Number: Serial Number: CP232500 CP232500

Procedure: Remarks:

DS Universal Flowmeter 10

NIST-traceable measurements were taken on the unit referenced above in accordance with customer requirements, published specifications and the lab's standard operating procedures. Unit was received out-of-tolerance as indicated in the as-found data; attempts to adjust the display were unsuccessful in bringing it within specifications. As-left data reflects measurements taken after attempted adjustments.

This Calibration performed with Air at an STP of 21.1°C and 1 atm.

RETURNED AS-IS: Unit was returned to customer as-is per customer's request.

Standards Utilized

Asset No.	Manufacturer	Model No.	Description	Cal. Date	Due Date
CP55890	Hart Scientific	5610-6	Thermometer, Thermistor Probe	04/04/2019	04/30/2020
CPM100	Hart Scientific	1521	Temperature Indicator, Handheld, 1 Channel	04/04/2019	04/30/2020
CPM102	DH Instruments Inc.	RPM3 A0100B	Calibrator, Reference Pressure Monitor	01/18/2018	10/31/2019
CPM103 -	DH Instruments Inc.	MOLBOX1-A	Calibrator, Mass Flow Terminal	10/29/2018	10/31/2019
CPM108	DH Instruments Inc.	3E4-VCR-V-Q	Calibrator, Mass Flow Element	05/08/2019	05/31/2020
CPM109	DH Instruments Inc.	3E4-VCR-V-Q	Calibrator, Mass Flow Element	10/31/2018	10/31/2019

Calibration Data

FUNCTION TESTED	Nominal Value	As Found	Out of Tol	As Left	Out of Tol	CALIBRATION TOLERANCE
Flow Accuracy	5.00 L/min	4.55		Same		3.00 to 7.00 L/min [EMU 0.013 L/min][TUR 153:1]
	10.00 L/min	9.50		Same		8.00 to 12.00 L/min [EMU 0.024 L/min][TUR 83:1]
	15.00 L/min	14.36		Same		13.00 to 17.00 L/min [EMU 0.036 L/min][TUR 56:1]
	20.00 L/min	19.28		Same		18.00 to 22.00 L/min [EMU 0.045 L/min][TUR 44:1]
	30.00 L/min	28.50		Same		28.00 to 32.00 L/min [EMU 0.068 L/min][TUR 30:1]
	40.00 L/min	37.60	Х	Same	X	38.00 to 42.00 L/min [EMU 0.09 L/min][TUR 22:1]
	50.00 L/min	47.28	X	Same	X	47.50 to 52.50 L/min [EMU 0.11 L/min][TUR 22:1]
	60.00 L/min	57.21		Same		57.00 to 63.00 L/min [EMU 0.13 L/min][TUR 22:1]
	70.00 L/min	67.17		Same		66.50 to 73.50 L/min [EMU 0.16 L/min][TUR 22:1]
	80.00 L/min	78.73		Same		76.00 to 84.00 L/min [EMU 0.18 L/min][TUR 22:1]









Temperature: 21° C Humidity: 48% RH Rpt. No.: 1594344

Calibration Perform	ned By:	Quality Reviewer:		
Khan, Suroz	362 Metrologist	847-327-5320	Szplit, Tony	09/04/2019
Name	ID# Title	Phone	Name	Date

This report may not be reproduced, except in tull, without written permission of Innocal. The results stated in this report relate only to the items tested or calibrated. Measurements reported herein are traceable to SI units via national standards maintained by NIST and were performed in compliance with MIL-STD-45662A. ANSI/NCSL Z540-1-1994, 10CFR50, Appendix B, ISO 9002-94, and ISO 17025:2005. Guard Banding, if reported on this certificate, is applied at a Z-factor of 30% for test points with a test uncertainty ratio (TUR) below 4:1. In Tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The estimated measurement uncertainty (EMU), if reported on this certificate, is being reported at a confidence level of 95% or K=2 unless otherwise noted in the remarks section.

Report Number: 1594344

Cole-Parmer
Delivering Solutions You Trust

Gilmont Instruments Inc. / GF-2560, Flowmeter, Shielded Tube Sz 15









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Montana, State of/Missoula-Forensic

Serv. 2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B150543049190228

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

		HADINGIAL	IIII OTTIBUTION			
Item	Make	Model	Serial Number	Customer ID	Location	
Balance	Mettler	XS105DU	B150543049	N/A	Chemistry	
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date	
g	0.0001/0.00001	QC012	2/28/19	7/12/18	7/2019	

FUNCTIONAL CHECKS

ECCENT Test Wt:	TRICITY	LINE/ Test Wt:	ARITY Tol:	STANDARD DEVIATION Test Wt: Tol: ENVIRONMENTAL CONDITIONS
50	0.0002	40x3	0.0003	10 0.00002 \square \square
As-Fo	ound:	As-F	ound:	1.10.00006 5.10.00007 9.10.00006 Good Fair Poor
Pass: ☑	Fail:	Pass: ☑	Fail:	2. 10.00004 6. 10.00005 10. 10.00005 3. 10.00008 7. 10.00006 Result Temperature: 22.8°C
As-I	Left:		Left:	3. 10.00008 7. 10.00006 Result Temperature: 22.8°C 4. 10.00005 8. 10.00008 0.000013
Pass: ☑	Fail:	Pass: 🗹	Fail:	4.10.00003 0.10.0000

	A2LA ACCREDITED S	ECTION OF REPORT -	
Standard	As-Found	As-Left	Expanded Uncertainty
100	100.0006	100.0000	0.00012
50	50.0003	50.0000	0.00011
1	0.99997	0.99999	0.000029
0.1	0.10000	0.10000	0.000029
0.1	0.01000	0.01000	0.000029
0.01	0.00100	0.00100	0.000029
0.001	0.00100	0.00100	

CALIBRATION STANDARDS

Serial Number Cal Date Cal Due Date NIST ID	Serial Number	Model	Make	Item
2831W 1/31/19 1/2020 20190236	2831W	20 kg to 1mg	Rice Lake	
2831 W 1/31/17 1/2020	2031 W	20 kg to 1mg	Rice Lake	Weight Set

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

2/19 RH= 15%. Used software to adjust linearity & span. Corrected internal calibration weight value.

Report prepared/reviewed by: Serice Tech Date: 2/28/19

Technician:/J-Colacchio

Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.





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Dear Customer,

Enclosed are your Certificates of Calibration.

Please store them in a safe place so they are available to you, your staff and for auditors if they are needed.

If you have any questions please call us.

Thank you for your continued business.

Quality Control Services



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Montana, State of/Missoula-Forensic

Serv.

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B316238902190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

* * * *	THO THOME IT THE OTHER TION								
ltem	Make	Model	Serial Number	Customer ID	Location				
Balance	Mettler	MS303-S	B316238902	N/A	Chemistry				
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date				
g	0.001	QC012	7/16/19	7/13/18	7/2020				

FUNCTIONAL CHECKS

ECCENTRICITY Test Wt: Tol:		LINEARITY Test Wt: Tol:		STANDARD DEVIATION Test Wt: Tol:			ENVIRONMENTAL CONDITIONS		
_ = ==+	- +-+			1			00	101110	.,,
200	0.002	100 x 3	0.002		100	0.001		\square	
As-F	ound:	As-F	ound:	1.100.000	5. 100.001	9. 100.001	Good	– Fair	Poor
Pass: ☑	Fail: 🔲	Pass: 🗹	Fail: 🛚	2. 100.000	6. 100.000	10. 100.000			
As-Left:		As-Left:		3. 100.000	7. 100.001	Result	Temperature: 22.3°C		2.3°C
Pass: ☑	Fail: 🗖	Pass: ☑	Fail: 🛚	4. 100.000	8. 100.001	0.0005	1		
							1		

Standard	As-Found	As-Left	Expanded Uncertainty	
300	300.003	300.001	0.0015	
200	200.002	200.000	0.0015	
100	100.001	100.000	0.0015	
50	50.001	50.000	0.0015	
10	10.000	10.000	0.0015	
1	1.000	1.000	0.0015	

CALIBRATION STANDARDS

20182240	

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 RH = 52.3%

7/19 Adjusted span

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The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



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Serv. 2679 Palmer Street Missoula, MT 59808 Report Number: MTFM011230210070190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

·	MOTIVALEIT IN OMNATION										
ltem	Make	Model	Serial Number	Customer ID	Location						
Balance Mettler PL303		PL303	1230210070	N/A	Chemistry						
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date						
g	0.001	QC012	7/16/19	7/13/18	7/2020						

FUNCTIONAL CHECKS

ECCEN	TRICITY	LINE	ARITY	STANDARD DEVIATION		ENVIR	ONME	NTAL	
Test Wt:	Tol:	Test Wt:	Tol:	T	est Wt:	Tol:	CO	NDITIC)NS
150	0.002	100x3	0.002		50	0.001		\square	
As-F	ound:	As-F	ound:	1.50.000	5. 50.000	9. 50.001	Good	Fair	Poor
Pass: ☑	Fail: 🗆	Pass: ☑	Fail: 🗆	2. 50.000	6. 50.001	10. 50.000			
As-	As-Left: As-Left:		3.50.000	7.50.000	Result	Tempe	rature: 2	22.2°C	
Pass: 🗹	Fail: 🗆	Pass: ☑	Fail: □	4.50.000	8. 50.001	0.0004			

A2LA ACCREDITED SECTION OF REPORT								
Standard	As-Found	As-Left	Expanded Uncertainty					
300	300.012	300.001	0.0015					
100	100.004	100.000	0.0015					
20	20.001	20.000	0.0015					
10	10.001	10.000	0.0015					
5	5.000	5.000	0.0015					
1	1.000	1.000	0.0015					

CALIBRATION STANDARDS

item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 RH = 44.1%

7/19 Adjusted span

Report prepared/reviewed by:	V. Thompson	Date: <u>7/17/19</u>	Technician: G. Cah	il , .
		į.	Signature:	mic
THE CHARGE AND A	TILLY NOTICE DESIGNATION	CIPE MIRELONE BUILD ABBOAT		<u> </u>

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B150543049190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location					
Balance	Balance Mettler		B150543049	N/A	Chemistry					
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date					
g	0.0001/0.00001	QC012	7/16/19	2/28/19	7/2020					

FUNCTIONAL CHECKS

			. 01101	TOTAL OTTEONO				
ECCENT	ECCENTRICITY LINEARITY		STANDARD D	ENVIRONMENTAL				
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:	co	NDITIO	NS
50	0.0002	40x3	0.0003	10	0.00001		\square	
As-Fo	ound:	As-Fo	ound:	1.10.00000 5.10.000	01 9. 10.00001	Good	Fair	Poor
Pass: 🗹	Fail:	Pass: ☑	Fail:	2. 10.00003 6. 10.000	01 10. 10.00003			
As-I	Left:	As-I	Left:	3. 10.00004 7. 10.000		Tempe	rature: 22	2.0°C
Pass: ☑	Fail: 🗆	Pass: ☑	Fail:	4. 10.00001 8. 9.9999	8 0.000017	_		
		L		<u> </u>				

A2LA ACCREDITED SECTION OF REPORT —								
Standard	As-Found	As-Left	Expanded Uncertainty					
100	100.0000	100.0000	0.00012					
50	50.0001	50.0000	0.00012					
1	0.99999	1.00001	0.000036					
0.1	0.09998	0.09999	0.000036					
0.01	0.00999	0.01001	0.000035					
0.001	0.00100	0.00100	0.000035					

CALIBRATION STANDARDS

item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set R.	Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 RH = 45.7%

Report prepared/reviewed by: _	D. Thompson	Date: _	7/17/12	Technician	: G. Cahill	1	
	•			Signature:		19042	
milita deportante i ma ess	.						

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM011128273914190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location					
Balance Mettler		XS603SDR	XS603SDR 1128273914		Chemistry					
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date					
g	0.001/0.01	QC012	7/16/19	7/13/18	7/2020					

FUNCTIONAL CHECKS

ECCEN	CCENTRICITY		LINEARITY		STANDARD DEVIATION		ENVIR	RONME	ENTAL
Test Wt:	Tol:	Test Wt:	Tol:	Те	st Wt:	Tol:	co	NDITIO	ONS
200	0.002	300x2	0.02		100	0.001		\square	
As-F	ound:	As-F	ound:	1. 100.000	5.99.999	9. 100.000	Good	Fair	Poor
Pass: ☑	Fail: 🗆	Pass: 🗹	Fail: 🔲	2. 100.000	6. 99.999	10. 100.000			
As- Pass: ☑	Left: Fail: □	As-l Pass: ☑	Left: Fail: □	3. 100.000 4. 100.000	7,99.999 8,100.000	Result 0.0004	Tempe	rature:	22.7°C

	— A2LA ACCREDITED S	ECTION OF REPORT -	
Standard	As-Found	As-Left	Expanded Uncertainty
600	600.01	599.99	0.011
400	400.00	400.00	0.011
200	200.00	200.00	0.011
100	99.998	99.999	0.0015
50	50.000	50.000	0.0015
10	9.999	10.000	0.0015

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 RH = 44.8% 7/19 Adjusted span.

Report prepared/reviewed by: \(\lambda\tag{\lambda}\tag{\

Technician: G. Cahill

Signature: ____/\forall AZ

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM011122193225190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location		
Balance	Mettler/Toledo	PG403-S	1122193225	N/A	Chemistry		
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date		
g	0.001	QC012	7/16/19	7/13/18	7/2020		

FUNCTIONAL CHECKS

i	ECCENTRICITY		LINEARITY		STANDARD DEVIATION		1		NTAL
Test Wt:	Tol:	Test Wt:	Tol;	Test	t Wt:	Tol:	CO	NDITIC	DNS
200	0.003	100x4	0.002]	100 (0.001		\square	
As-I	Found:	As-F	ound:	1.100.000	5. 100.000	9. 100.000	Good	Fair	Poor
Pass: 🗹	Fail: 🗖	Pass: ☑	Fail: 🔲	2. 100.000	6. 100.000	10. 100.001			
As-	Left:	As-l	Left:		7.100.001	Result	Tempe	rature:	22.8°C
Pass: ☑	Fail: □	Pass: ☑	Fail:	4.100.001	8. 100.000	0.0004			

	A2LA ACCREDITED S	ECTION OF REPORT -	
Standard	As-Found	As-Left	Expanded Uncertainty
400	400.018	399.999	0.0015
300	300.012	300.001	0.0015
200	200.008	200.000	0.0015
100	100.004	100.001	0.0015
50	50.002	50.000	0.0015
10	10.001	10.000	0.0015

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 Drafty area. Glass replaced. RH = 44.2%

7/19 Adjusted span.

Report prepared/reviewed by:	Date: 7/17/19	Technician: G. Cah	ill	
	·	Signature:	ma	
THIS CERTIFICATE SHALL NOT BE REPRODUC	TED WITHOUT THE APPROVAL	LOF CHALITY CONTROL	SERVICES INC	

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Montana, State of/Missoula-Forensic Serv. 2679 Palmer Street

Missoula, MT 59808

Report Number: MTFM017125020127190716

CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Ohaus	SP202	7125020127	#1	Lat Prints
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.01	QC012	7/16/19	7/9/18	7/2020

FUNCTIONAL CHECKS

		OILCHOIL	T OHFOW	<u> </u>			
ECCENTRICITY		LINEA	RITY	REPEATABILITY			
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:		
100	0.01	100x2	0.01	100	0.01		
As-Fo	ound:	As-Fo	und:	As-Found:			
Pass: 🗹	Fail: 🛘	Pass: 🗹	Fail:	Pass: ☑	Fail: 🗆		
As-Left:		As-L	eft:	As-Left:			
Pass: ☑	Fail: 🛘	Pass: 🗹	Fail: 🛚	Pass: ☑	Fail: 🗆		

CALIBRATION DATA

Standard	As-Found	As-Left
200	200.06	200.00
150	150.04	150.00
100	100.03	100.00
50	50.01	50.00
20	20.00	20.00
5	5.00	5.00

CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 Adjusted span & lin.

echnician: G. Cahill	Signature:	
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Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.



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Montana, State of/Missoula-Forensic

Serv.

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM018026261088190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Balance	Ohaus	AV812	8026261088	N/A	Serology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.01	QC012	7/15/19	7/11/18	7/2020

FUNCTIONAL CHECKS

ECCEN	ECCENTRICITY		ARITY	STANDARD DEVIATION		STANDARD DEVIATION		ENVIR	ONME	ENTAL
Test Wt:	Tol:	Test Wt:	Tol:	T	est Wt:	Tol:	CO	NDITIO	ONS	
250	0.03	400x2	0.02		100	0.01		\square		
As-F	ound:	As-F	ound:	1.100.00	5. 100.00	9. 100.00	Good	Fair	Poor	
Pass: 🗹	Fail: 🔲	Pass: 🗹	Fail:	2. 100.00	6. 100.00	10.99.99				
As-	Left: Fail: □	As-I	Left: Fail: □	3. 100.00 4. 100.00	7.100.00 8.99.99	<u>Result</u> 0.004	Tempe	rature:	18.9°C	
1 433. 🖭	1 an. 🗀	1 635.	ran.							

	A2LA ACCREDITED SECTION OF REPORT —								
Standard	As-Found	As-Left	Expanded Uncertainty						
800	800.04	799.99	0.014						
600	600.03	600.00	0.014						
400	400.02	400.01	0.014						
200	200.01	200.00	0.014						
100	100.00	100.00	0.014						
50	50.00	50.00	0.014						

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 RH = 44.7%. Drafty area.

7/19 Adjusted span.

Report prepared/reviewed by: <u>D. Thouses</u> Date: <u>7</u> /1	Technician: G. C.	ahill
g t	Signature:	8AZ
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Montana, State of/Missoula-Forensic

Serv. 2679 Palmer Street Missoula, MT 59808 Report Number: MTFM011115162790190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	AB54	1115162790	N/A	Location Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.0001	QC012	7/15/19	7/10/18	7/2020

FUNCTIONAL CHECKS

ECCEN'	TRICITY	LINE	ARITY	STAI	NDARD DEV	IATION	ENVIR	ONME	ENTAL
Test Wt:	Tol:	Test Wt:	Tol:	Te	st Wt:	Γol:	CO	NDITIO	ONS
50	0.0002	25x2	0.0003		10 0	.0001		\square	
As-Fo	ound:	As-F	ound:	1.10.0000	5.10.0000	9. 10.0001	Good	Fair	Poor
Pass: ☑	Fail: 🗖	Pass: ☑	Fail: 🔲	2. 9.9999	6. 10.0000	1 0. 9.9999			
As-I Pass: ☑	Left: Fail: □	As-l Pass: ☑	L eft: Fail: □	3. 10.0000 4. 10.0000	7.9.9999 8.10.0000	<u>Result</u> 0.00006	Tempe	rature:	20.8°C

A2LA ACCREDITED SECTION OF REPORT									
Standard	As-Found	As-Left	Expanded Uncertainty						
50	49.9992	50.0000	0.00017						
20	19.9997	19.9999	0.00017						
5	5.0001	5.0000	0.00017						
2	1.9999	2.0000	0.00017						
1	1.0001	1.0000	0.00017						
0.1	0.1000	0.1000	0.00017						

CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240
						^^^^

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 RH = 50.8% 7/19 Adjusted span & levelled balance.

Report prepared/reviewed by: 16 aprox Date: 7/17/19 Technician: G. Cahill Signature: 17/17/19

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM011118110508190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	AG245	1118110508	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.0001/0.00001	QC012	7/15/19	7/10/18	7/2020

FUNCTIONAL CHECKS

ŀ	TRICITY		ARITY	STANDARD DEVIATION ENVIRON					
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt: Tol: CONDIT	IONS				
100	0.0003	50x4	0.0002	10 0.00002					
As-F	ound:	As-Fo	ound:	1.10.00000 5.9.99999 9.9.99999 Good Fair	Poor				
Pass: 🗹	Fail: 🛘	Pass: ☑	Fail:	2. 9.99998 6. 9.99999 10. 10.000000					
As-	Left:	As-l	Left:	3.10.00000 7.10.00000 Result Temperatur	e:20.5°C				
Pass: 🗹	Fail:	Pass: ☑	Fail:	4. 10.00000 8. 10.00002 0.000010					

A2LA ACCREDITED SECTION OF REPORT —									
Standard	As-Found	As-Left	Expanded Uncertainty						
200	200.0030	199.9999	0.00012						
150	150.0023	149.9999	0.00012						
100	100.0016	100.0001	0.00011						
40	40.00056	40.00004	0.000027						
20	20.00021	20.00003	0.000026						
1	1.00003	0.99998	0.000024						

CALIBRATION STANDARDS

Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240
-	R.Lake/Troemner	R.Lake/Troemner 1MG-25KG	R.Lake/Troemner 1MG-25KG 1265	R.Lake/Troemner 1MG-25KG 1265 11/9/18	R.Lake/Troemner 1MG-25KG 1265 11/9/18 11/2019

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/18: Balance is used in an environment that is susceptible to draft. RH = 50.3%

7/19 Level balance & adjusted span.

Signature:

Report prepared/reviewed by:	Date: 7/17/19	Technician: G. Cahill
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Montana, State of/Missoula-Forensic

Serv. 2679 Palmer Street Missoula, MT 59808 Report Number: MTFM011229290093190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	PL303	1229290093	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	7/15/19	7/10/18	7/2020

FUNCTIONAL CHECKS

ECCEN	ITRICITY	LINE	ARITY	STA	NDARD DE	VIATION	ENVIR		
Test Wt:	Tol:	Test Wt:	Tol:	T	est Wt:	Tol:	CO	NDITIC)NS
150	0.002	100x3	0.002		50	0.001		\square	
As-F	ound:	As-F	ound:	1.50.000	5. 50.000	9. 49.999	Good	Fair	Poor
Pass: 🗹	Fail: 🛘	Pass: ☑	Fail: 🔲	2.50.000	6. 50.000	10. 49.999			
As-	Left:	As-	Left:	3. 50.000	7.50.000	Result	Tempe	rature:	21.1°C
Pass: 🗹	Fail: □	Pass: ☑	Fail: 🗆	4.50.000	8. 50.000	0.0004			

Standard	A2LA ACCREDITED S As-Found	As-Left	Expanded Uncertainty
300	300.006	300.001	0.0014
100	100.002	100.000	0.0014
20	20.001	20.000	0.0014
10	10.000	10.000	0.0014
5	5.000	5.000	0.0014
1	1.000	1.000	0.0014

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 RH = 49.4% 7/19 Level balance & adjusted span

Report prepared/reviewed by: 1. Thomason Date: 7/17/19 Technician: G. Cahill Signature:

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM0117985190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

										
Item	Make	Model	Serial Number	Customer ID	Location					
Balance	Ohaus	CT1200S	17985	N/A	Toxicology					
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date					
g	0.1	QC012	7/15/19	7/10/18	7/2020					

FUNCTIONAL CHECKS

		4.7.4							
ECCEN	ECCENTRICITY		INEARITY		STANDARD DEVIATION		ENVIR	RONME	ENTAL
Test Wt:	Tol:	Test Wt:	Tol:	r	est Wt:	Tol:	CO	NDITIO	DNS
500	0.2	600x2	0.2		500	0.1		☑	
As-F	ound:	As-F	ound:	1.500.0	5. 500.0	9.500.0	Good	Fair	Poor
Pass: 🗹	Fail:	Pass: ☑	Fail: 🔲	2. 500.0	6. 500.0	10. 500.0			
As-	Left:	As-l	Left:	3,500.0	7,499.9	Result	Tempe	rature:	20.8°C
Pass: ☑	Fail: □	Pass: ☑	Fail:	4.500.0	8. 499.9	0.04			

	A2LA ACCREDITED SECTION OF REPORT —							
Standard	As-Found	As-Left	Expanded Uncertainty					
1200	1200.4	1200.0	0.14					
800	800.3	800.0	0.14					
600	600.2	600.0	0.14					
400	400.1	400.1	0.14					
200	200.0	200.0	0.14					
100	100.0	100.0	0.14					

CALIBRATION STANDARDS

lake Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Troemner 1MG-25K0	G 1265	11/9/18	11/2019	20182240
	Troemner 1MG-25K0	Troemner 1MG-25KG 1265	Troemner 1MG-25KG 1265 11/9/18	Troemner 1MG-25KG 1265 11/9/18 11/2019

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/18: Balance is used in an environment susceptible to draft. RH = 49.9%

7/19 Adjusted span.

Report	ргер	ared/	reviev	ved by:

Thenpson Date: 7/17/19

Technician; G. Cahill

Signature: _____

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01C8656190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

item	Make	Model	Serial Number	Customer ID	Location				
pH Meter	Corning	320	C8656	N/A	Serology				
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date				
mV/pH	1mV 0.01pH	QC002/COR006	7/15/19	7/9/18	7/2020				

PROBE FUNCTIONAL CHECKS

PROBE	PROBE pH TEST					
SPAN/OFFSET:	「: Std As-Found As-I					
pH 4 176mv	4	4.06	4.03			
pH 7 0mv	7	6.97	7.01			
pH 10 -177mv	10	9.98	10.01			

ACCREDITED CALIBRATION DATA mV TEST

Standard	Standard As-Found As-Left		Uncertainty
 177	179	176	0.1
0	1	0	0.1
-177	-170	-177	0.1

TEMPERATURE CHECK

TEM ENATORE OFFICE						
Standard	Instrument	Uncertainty				
0°C	0°C	0.0				

CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
pH Buffers	Control Co.	4-7-10	QCST2	12/20/18	12/2020	By lot codes
Multimeter	Fluke	175	31640341	8/10/17	8/2019	3567152

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 Adj. pH/mV, cleaned probe.

Report prepared/reviewed by: 0.70-45-7

Date: 7/17/19

Technician: G. Cahill

Signature: ____

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The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

PT ID: MTFM01

7/15 No ATC probe.



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01EC62A190715

CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
pH Meter	IQ Scientific	IQ125	EC62A	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
pН	0.1pH	QC002	7/15/19	7/9/18	7/2020

PROBE FUNCTIONAL CHECKS

PROBE	PROBE pH TEST:			
SPAN/OFFSET:	Std As-Found		As-Left	
pH 4	4	4.2	3.9	
pH 7	7	6.8	7.0	
pH 10	10	9.6	10.1	

CALIBRATION CHECKPOINTS AND DATA

Standard	As-Found	As-Left					
			·····				
· · · · · · · · · · · · · · · · · · ·							
TEMPERATURE OUTOK							

TEMPERATURE CHECK			
Standard Instrument			
0°C	0°C		

CALIBRATION STANDARDS

<u>Item</u>	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
pH Buffers	Control Co.	4-7-10	QCST2	12/20/18	12/2020	By lot codes
Multimeter	Fluke	175	31640341	8/10/17	8/2019	3567152

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

No mV or temperature readings on this unit, pH only. 7/19 Adjusted Cal. Std. Temp. 20.6

Technician: G. Cahill Signature:

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Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.



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Serv. 2679 Palmer Street Missoula, MT 59808 Report Number: MTFM015427XH605510190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location		
Centrifuge	Eppendorf	5430	5427XH605510	N/A	DNA Extraction		
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date		
°C/RPM	0.1°C/100RPM	QC108	7/16/19	7/9/18	7/2020		

Environmental Temperature: 20.90 °C

CALIBRATION DATA							
RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty		
500	498	500	498	500	0.17		
1000	999	1000	999	1000	0.17		
5000	5007	5000	5007	5000	2		
8000	8005	8000	8005	8000	2		
10000	10009	10000	10009	10000	2		
13000	13005	13000	13005	13000	2		

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556
						, , , , , , , , , , , , , , , , , , ,

Permanent Information Concerning this Instrument

Comments/Information Concerning this Calibration

7/19 Environmental RH = 38.2%

7/18 RPM Readability 10 / 100

Report prepared/reviewed by: _	ffor.	_ Date: <u>7//6//9</u> _	Technician:	G. Cahill	
		,	Signature: _		M
				, •	

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Montana, State of/Missoula-Forensic

Serv. 2679 Palmer Street Missoula, MT 59808 Report Number: MTFM015452AJ760516190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

	MOTROBERT IN ORBATION								
ltem	Make	Model	Serial Number	Customer ID	Location				
Centrifuge	Eppendorf	5452	5452AJ760516	N/A	DNA Extraction				
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date				
°C/RPM	N/A/100RPM	QC108	7/16/19	7/9/18	7/2020				

Environmental Temperature: 20.70 °C

	CALIBRATION DATA									
RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty					
1000	1000 1012 1000	1000	1012	1000	0.17					
4500	4524	4524 4500 452	4524	4500						
12000	12033	12000	12033	12000	2					

CALIBRATION STATUS

Item Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

Comments/Information Concerning this Calibration

7/19 Environmental RH = 38.6%

Unit rpm settings are x1000. RPM Readability 100

Report prepared/reviewed by: ______ Date: _______ Date: ______ Technician: G. Cahill

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Montana, State of/Missoula-Forensic

Serv. 2679 Palmer Street Missoula, MT 59808 Report Number: MTFM015452ZR658641190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

	THO TROUBLET BUT ORMATION								
Item	Make	Model	Serial Number	Customer ID	Location				
Centrifuge	Eppendorf	5452	5452ZR658641	N/A	DNA Extraction				
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date				
RPM	N/A/100RPM	QC108	7/16/19	7/19/18	7/2020				

Environmental Temperature: 21.40 °C

	CALIBRATION DATA									
RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty					
1000	1011	1000	1011	1000	0.17					
4500	4519	4500	4519	4500	2					
12000	12034	12000	12034	12000	2					

CALIBRATION STATUS

<u>Item</u>	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

Comments/Information Concerning this Calibration

7/19 Environmental RH = 37.2%

Unit rpm settings are x1000. RPM readability 100

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Montana, State of/Missoula-Forensic

Serv.

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM015804XG913539190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

· · · · · · · · · · · · · · · · · · ·	***************************************		9		
Item	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Eppendorf	5804	5804XG913539	N/A	PCR Post Prep
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
RPM	N/A/10RPM	QC108	7/15/19	7/9/18	7/2020

Environmental Temperature: 23.60 °C

	CALIBRATION DATA									
RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty					
500	502	500	502	500	0.17					
1000	1003	1000	1003	1000	0.17					
2250	2258	2250	2258	2250	0.17					
3700	3715	3700	3715	3700	2					

CALIBRATION STATUS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556
		VVM ***********************************				

Permanent Information Concerning this Instrument

Comments/Information Concerning this Calibration

7/19 Environmental RH = 33.7%

RPM Readability 10

Technician: G. Cahill

Signature:

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Montana, State of / Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM015452AJ960535190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

								
Item	Make	Model	Serial Number	Customer ID	Location			
Centrifuge	Eppendorf	5452	5452AJ960535	N/A	PCR Preperation			
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date			
RPM	N/A/100RPM	QC108	7/16/19	7/9/18	7/2020			

Environmental Temperature: 21.30 °C

	CALIBRATION DATA									
RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty					
1000	1012 1000	1000	1012	1000	0.17					
4500	4521	4500	4521	4500						
12000	12043	12000	12043	12000	2					

CALIBRATION STATUS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

Comments/Information Concerning this Calibration

7/19 Environmental RH = 35.9%

Unit rpm settings are x1000. RPM Readability 100 7/19 Environme

Report prepared/reviewed by: _	AKL	Date: 7/16/19	Technician:	G. Cahill
			Signature: _	MAZ
THE OFFICIAL STRONG	DE DESCRIPTION			

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01150760AA170190715

A2LA ACCREDITED **CERTIFICATE OF CALIBRATION WITH DATA**

INSTRUMENT INFORMATION

Make	Model	Serial Number	Customer ID	Location
Drucker	755VES	150760AA170	N/A	Toxicology
Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
N/A/50RPM	QC108	7/15/19	7/9/18	7/2020
	Drucker Readability	Drucker 755VES Readability SOP	Drucker 755VES 150760AA170 Readability SOP Cal Date	Drucker 755VES 150760AA170 N/A Readability SOP Cal Date Last Cal Date

Environmental Temperature: 22.10 °C

		CALIBRAT	TON DATA		
RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
500	498	500	498	500	0.17
2000	2008	2000	2008	2000	0.17
3400	3412	3400	3412	3400	2

CALIBRATION STATUS

ltem M	/lake	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
	nimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

Comments/Information Concerning this Calibration

7/19 Environmental RH = 48.2%

RPM Readability 50

Technician: G. Cahill

Signature:

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Montana, State of / Missoula-Forensic

Serv. 2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01181209AA096190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

	HOINOMEN	MICKMATION	· · · · · · · · · · · · · · · · · · ·	
Make	Model	Serial Number	Customer ID	Location
Drucker	755VES	181209AA096	N/A	Toxicology
Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
N/A/50RPM	QC108	7/15/19	7/9/18	7/2020
-	Drucker Readability	MakeModelDrucker755VESReadabilitySOP	Drucker 755VES 181209AA096 Readability SOP Cal Date	MakeModelSerial NumberCustomer IDDrucker755VES181209AA096N/AReadabilitySOPCal DateLast Cal Date

Environmental Temperature: 20.50 °C

		CALIBRAT	ION DATA		
RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
500	502	500	502	500	0.17
2000	1998	2000	1998	2000	0.17
3400	3405	3400	3405	3400	2

CALIBRATION STATUS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

Comments/Information Concerning this Calibration

7/19 Environmental RH = 50.2%

Report prepared/reviewed by:	/hc	_ Date:	7/16/19	Technician:	G. Cahill
				Signature: _	1242

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The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994

RPM Readability 50



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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM0160021119190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Drucker	755VES	60021119	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
	N/A/50RPM	QC108	7/15/19	7/9/18	7/2020

Environmental Temperature: 20.90 °C

		CALIBRAT	ION DATA		
RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
500	498	500	498	500	0.17
2000	2004	2000	2004	2000	0.17
3400	3406	3400	3406	3400	2

CALIBRATION STATUS

		NIST ID		r	Serial Number	Model	Make	<u>Item</u>
<u>Strobe/Tachometer Shimpo DT-207L D094B0004 12/18/2018 12/</u>	12/2019	413556	12/2019		D094B0004	DT-207L	Shimpo	Strobe/Tachometer

Permanent Information Concerning this Instrument

Comments/Information Concerning this Calibration

7/19 Environmental RH = 49.2%

RPM Readability 50

Report prepared/reviewed by: _	fuc	Date: <u></u>	Technician:	G. Cahill
			Signature:	MC

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A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

		HITOTING HILLION	TI OMINION		
ltem	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Fisher Scientific	Marathon 16KM	108N0126	N/A	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
RPM	N/A/100RPM	QC108	7/15/19	7/9/18	7/2020

Environmental Temperature: 21.60 °C

		CALIBRAT	ION DATA		
RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
1000	999	1000	999	1000	0.17
7000	7129	7000	7129	7000	2
10000	10040	10000	10040	10000	2

CALIBRATION STATUS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

Comments/Information Concerning this Calibration

RPM Readability 100 7/19 Environmental RH = 48.1%

Report prepared/reviewed by:	Juc	Date: _7/16/19	Technician: G. Cahill Signature:	MZ
				<u> </u>

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM0112118574190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

		HIO HITOHELITE	INTO CITIES A LICIT		
Item	Make	Model	Serial Number	Customer ID	Location
Refrigerator	True	T-49	12118574	00573	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
°C	1°C	QC042	7/15/19	7/9/18	7/2020

FUNCTIONAL CHECKS

			Temper	ature		
Check Point	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Probe Position	Uncertainty
6	5.9	8	5.9	8	Тор	0.4
6	6.2	8	6.2	8	Middle	0.4
6	6.6	8	6.6	8	Bottom	0.4

CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Thermometer	Fluke	51II	17060027	8/17/18	8/2019	20181686
			* ******			

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Report prepared/recieved by: _____ Date: _7/16/19

Technician: G. Cahill Signature:

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM0112144677190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Refrigerator	True	T-49	12144677	00574	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
°C	1°C	QC042	7/15/19	7/9/18	7/2020

FUNCTIONAL CHECKS

			Temper	rature		
Check Point	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Probe Position	Uncertainty
4	3.9	5	3.9	5	Тор	0.4
4	4.3	5	4.3	5	Middle	0.4
4	4.7	5	4.7	5	Bottom	0.4

CALIBRATION STANDARDS

<u>Item</u>	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Thermometer	Fluke	51II	17060027	8/17/18	8/2019	20181686

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Report prepared/recieved by:	1/hL	Date: _	7/16/19	Technician: G. C	ahill ha	
				Signature:	Jone	
THIS CERTIFICATE SHALL NO	T DE DEDDODUCED EVO	TOT IN FI	III WELLOUE THE	A DOMESTIC AND ARTHUR		

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PT ID: MTFM01



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM017162275190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

		***************************************	HILL GILLION		
Item	Make	Model	Serial Number	Customer ID	Location
Refrigerator	True	T-49	7162275	00941	Toxicology
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
°C	1°C	QC042	7/15/19	7/9/18	7/2020

FUNCTIONAL CHECKS

	Temperature									
Check Point	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Probe Position	Uncertainty				
4	1.3	2	1.3	2	Тор	0.4				
4	0.8	2	0.8	2	Middle	0.4				
4	0.5	2	0.5	2	Bottom	0.4				

CALIBRATION STANDARDS

<u>Item</u>	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Thermometer	Fluke	51II	17060027	8/17/18	8/2019	20181686

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Report prepared/recieved by: ______ Date: _______ Date: _______ Technician: G. Cahill Signature:

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM015427XH005511190715

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

			1111 01111111111011		
ltem	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Eppendorf	5430	5427XH005511	N/A	Y Screening
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
RPM	N/A/100RPM	QC108	7/15/19	7/9/18	7/2020

Environmental Temperature: 21.20 °C

		CALIBRA	ION DATA		
RPM Checkpoint	Standard As-Found	Instrument As-Found	Standard As-Left	Instrument As-Left	Expanded Uncertainty
500	501	500	501	500	0.17
1000	1004	1000	1004	1000	0.17
5000	5005	5000	5005	5000	2
8000	8007	8000	8007	8000	2
10000	10005	10000	10005	10000	2
13000	13007	13000	13007	13000	2

CALIBRATION STATUS

<u>Item</u>	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

Comments/Information Concerning this Calibration

7/19 Environmental RH = 37.4%

7/17 RPM Readability 10 /100

Report prepared/reviewed by:	1/22	Date:	7/16/19	Technician:	G. Cahill	l.	
	/			Signature: _		MZ	

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Expanded

Montana, State of/Missoula-Forensic Serv.

2679 Palmer Street Missoula, MT 59808

RPM

Report Number: MTFM015427XH305512190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

			TIME OF CHANGE IN COLUMN		
ltem	Make	Model	Serial Number	Customer ID	Location
Centrifuge	Eppendorf	5430	5427XH305512	N/A	Y Screening
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
RPM	N/A/100RPM	QC108	7/16/19	7/9/18	7/2020

Environmental Temperature: 20.10 °C CALIBRATION DATA

O' (E.D.O.)	TORDAIA		
Instrument As-Found	Standard As-Left	Instrument As-Left	L
500	500	500	
1000	1000		

Checkpoint As-Found As Uncertainty 500 500 0.17 1000 1002 1000 1002 1000 0.17 5000 5004 5000 5004 5000 2 8000 8003 8000 8003 8000 2 10000 10001 10000 10001 10000 2 13000 13000 13004 13004 13000 2

CALIBRATION STATUS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Strobe/Tachometer	Shimpo	DT-207L	D094B0004	12/18/2018	12/2019	413556

Permanent Information Concerning this Instrument

Standard

Comments/Information Concerning this Calibration

7/18 RPM Readability 10 / 100 7/19 Environmental RH = 63.4%

Report prepared/reviewed by:	/AC	_ Date: <u>7///</u>	6/19 Technician:	G. Cahill	L
		, , , , , , , , , , , , , , , , , , ,	Signature:		120c
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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM0115016190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

Make	Model	Serial Number	Customer ID	Location
Ohaus	I20Wx5kg	15016	N/A	Morgue
Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
0.0005	QC033	7/16/19	7/11/18	7/2020
	Ohaus Readability	MakeModelOhausI20Wx5kgReadabilitySOP	Make Model Serial Number Ohaus I20Wx5kg 15016 Readability SOP Cal Date	Ohaus I20Wx5kg 15016 N/A Readability SOP Cal Date Last Cal Date

FUNCTIONAL CHECKS

SHIFT TEST		LINEA	RITY	Y REPEATAE		ENVIRONMENTAL				
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:	CONDITIONS				
2	0.0015	HB44	HB44	0.5	0.0010					
As-Found:		As-Fo	As-Found:		ound:	Good Fair Poor				
Pass:☑	Fail: □	Pass:☑	Fail:□	Pass:☑	Fail: 🗆	Good Pair Poor				
As-Left:		As-I	∟eft:	As-I	∟eft:	Temperature: 21.6°C				
Pass:☑	Fail:□	Pass:☑	Fail: □	Pass:☑	Fail: □	Temperature, 21,00				
		1								

CALIBRATION DATA

Standard	As-Found	As-Left	Expanded Uncertainty
5	5.0005	5.0000	0.00029
3	3.0000	3.0000	0.00029
2	2.0000	2.0000	0.00029
1	1.0000	1.0000	0.00029
0.5	0.5000	0.5000	0.00029
0.2	0.2000	0.2000	0.00029

CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Information Concerning this Calibration

7/19 Adjusted level

7/19 RH = 49.7%

Report prepared/reviewed by: 1. The your Date: 7/22/19

Technician: G. Cahill Signature:

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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM0122271014190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

THOTAGRICAL THE OTHER THOR									
Make	Model	Serial Number	Customer ID	Location					
Denver	MZ-11	22271014	N/A	Morgue					
Readability	SOP	Cal Date	Last Cal Date	Cal Due Date					
1	QC033	7/16/19	7/11/18	7/2020					
	Denver	MakeModelDenverMZ-11ReadabilitySOP	MakeModelSerial NumberDenverMZ-1122271014ReadabilitySOPCal Date	MakeModelSerial NumberCustomer IDDenverMZ-1122271014N/AReadabilitySOPCal DateLast Cal Date					

FUNCTIONAL CHECKS

SHIFT	TEST	LINEARITY		REPEATABILITY		ENVIRONMENTAL
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:	CONDITIONS
5000	2	5000x2	2	2000	1	
As-Fo	As-Found:		As-Found:		ound:	
Pass:☑	Fail: □	Pass:☑	Fail: □	Pass:☑	Fail: □	Good Fair Poor
As-L	As-Left:		∡eft:	As-I	∡eft:	Temperature: 21.6°C
Pass:☑	Fail:□	Pass:☑	Fail:□	Pass:☑	Fail: □	Temperature 21.0 0

CALIBRATION DATA

Standard	As-Found	As-Left	Expanded Uncertainty
10000	10001	10000	0.5
7000	7000	7000	0.5
5000	5000	5000	0.5
3000	3000	3000	0.5
1000	1000	1000	0.5
500	500	500	0.5

CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Information Concerning this Calibration

7/19 Adjusted span

7/18: Back-up balance. Stored on shelf. 7/19 RH = 49.7%

Report prepared/reviewed by: _

Date: 7/22/18

Technician: G. Cahill

Signature: _____

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Montana, State of/Missoula-Forensic

Serv. 2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B151556310190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS105DU	B151556310	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.0001/0.00001	QC012	7/16/19	7/13/18	7/2020

FUNCTIONAL CHECKS

ECCENT Test Wt:	Tol:	LINE. Test Wt:	ARITY Tol:	STANDARD DEVIATION Test Wt: Tol:	ENVIRONMENTAL CONDITIONS				
50	0.0002	40x3	0.0003	10 0.00001					
As-Fo	ound:	As-F	ound:	1. 10.00000 5. 9.99999 9. 10.00001	Good Fair Poor				
Pass: 🗹	Fail: 🛘	Pass: 🗹	Fail: 🛚	2. 10.00003 6. 10.00002 10. 10.00001					
As-L	æft:	As-	Left:	3.9.99999 7.9.99999 Result	Temperature: 22.0°C				
Pass: ☑	Fail: □	Pass: ☑	Fail: 🗖	4. 10.00001 8. 9.99998 0.000015					

A2LA ACCREDITED SECTION OF REPORT -							
Standard	As-Found	As-Left	Expanded Uncertainty				
100	100.0005	100.0000	0.00012				
50	50.0003	49.9999	0.00012				
1	1.00006	1.00001	0.000034				
0.1	0.10002	0.09999	0.000033				
0.01	0.00999	0.01001	0.000033				
0.001	0.00099	0.00100	0.000033				

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 Adjusted span

Report prepared/reviewed by: 17/04/507 Date: 7/22/19 Technician: G. Cahill

Signature: ______

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation and readability of the unit under test. The uncertainty is expanded with a k factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

RH = 41.7%







Montana, State of / Missoula-Forensic

Serv.

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM011129070836190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

THE THE STATE OF T								
ltem	Make	Model	Serial Number	Customer ID	Location			
Balance	Mettler	XS16001L	1129070836	N/A	Chemistry			
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date			
g	0.1	QC012	7/16/19	7/13/18	7/2020			

FUNCTIONAL CHECKS

ECCEN	ITRICITY	LINE	ARITY	STANDARD DEVIATION		ENVIRONMENTAL			
Test Wt:	Tol:	Test Wt:	Tol:	T	est Wt:	Tol:	co	NDITIO	NS
5000	0.2	5000x3	0.2		5000	0.1		\square	
As-F	ound:	As-Fe	ound:	1.5000.0	5. 5000.1	9.5000.0	Good	– Fair	Poor
Pass: 🗹	Fail: 🔲	Pass: 🗹	Fail: 🛚	2. 5000.1	6. 5000.1	10. 5000.0			1 001
As-	Left:	As-I	Left:	3. 5000.1	7.5000.0	Result	Tempe	rature:	22.4°C
Pass: ☑	Fail: 🗖	Pass: 🗹	Fail:	4.5000.0	8. 5000.0	0.05			

A2LA ACCREDITED SECTION OF REPORT Standard As-Found As-Left **Expanded Uncertainty** 15000 15000.1 15000.1 0.15 10000 9999.9 10000.0 0.15 5000 4999.9 5000.0 0.15 1000 1000.0 1000.0 0.15 500 500.0 500.0 0.15 100 100.0 100.0 0.15

CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 Adjusted span

7/19 RH = 45.5%

), Thompson___ Date:_

te: 7/22/19

Technician: G. Cahill

Signature: ____

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Montana, State of/Missoula-Forensic

Serv.

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM011128273913190716

A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	XS603SDR	1128273913	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001/0.01	QC012	7/16/19	7/13/18	7/2020

FUNCTIONAL CHECKS

EC	CCEN.	TRICITY		INE	ARITY		STAN	IDARD DE	VIATION	ENVIR	ONMI	ENTAL
Test	t Wt:	Tol:	Test \	Wt:	To	l:	Te	st Wt:	Tol:	CO	NDITIO	ONS
2	200	0.002	300x	ι2	0.0	2		100	0.001		\square	
	As-F	ound:		As-F	ound:		1.100.000	5. 100.000	9. 100.000	Good	Fair	Poor
Pass:	\checkmark	Fail: 🛘	Pass:		Fail:		2. 100.000	6. 100.000	10. 100.001			
Pass		Left: Fail: □	Page		Left:	П	3. 100.001 4. 100.000	7. 99.999 8. 100.000	Result 0.0005	Tempe	rature:	22.3°C
Pass	: ☑	Fail:	Pass:	\square	Fail:		4.100.000	6. 100.000	0.0003			

A2LA ACCREDITED SECTION OF REPORT Standard As-Found **Expanded Uncertainty** As-Left 600 600.00 600.00 0.011 400 400.00 400.00 0.011 200 200.00 200.00 0.011 100 100.001 100.000 0.0016 50 50.001 49,999 0.0016 10 10.001 10.000 0.0016

CALIBRATION STANDARDS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240
Wolght Dot	ACLUACO TIOUTHICI		3400	11/9/10	11/2017	

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Signature:

7/19 RH = 39.9% 7/19 Adjusted span

Report prepared/reviewed by: 1 Thompson Date: 7/27/19 Technician: G. Cahill

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Montana, State of/Missoula-Forensic Serv. 2679 Palmer Street

Missoula, MT 59808

Report Number: MTFM01A07335221190716

CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Balance	RCBS	1500	A07335221	N/A	Firearms
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.01	QC012	7/16/19	7/9/18	7/2020

FUNCTIONAL CHECKS

1 ONO HOUAL ONLONG						
ECCENTRICITY LINEARITY REPEATABILITY					ABILITY	
Test Wt:	Tol:	Test Wt: Tol:		Test Wt:	Tol:	
50	0.02	50x2	0.02	20	0.02	
As-F	ound:	As-Fo	ound:	As-Found:		
Pass: 🗹	Fail: 🛘	Pass: 🗹	Fail:	Pass: ☑	Fail:	
As-	·Left:	As-1	∟eft:	As-Left:		
Pass: ☑	Fail: 🛘	Pass: 🗹	Fail:	Pass: ☑	Fail: 🗆	
1			- ·			

CALIBRATION DATA

Standard	As-Found	As-Left
100	99.98	100.00
50	49.99	50.00
20	19.99	20.00
10	10.00	10.00
5	5.00	5.00
1	1.00	1.00

CALIBRATION STANDARDS

Weight Set R.Lake/Troemner 1MG-25KG 1265 11/9/18 11/2	Date NIST ID		Serial Number	Model	Make	Item
11/2	20182240	11/2019	1265	IMG-25KG	R.Lake/Troemner	weight Set

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/18 LIN = Press Cal - 50-100.

7/19 Adjusted span & lin

Technician: G. Cahill	Signature:	M
		(

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.



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Montana, State of/Missoula-Forensic Serv. 2679 Palmer Street Missoula, MT 59808

Report Number: MTFM01A07335222190716

CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Balance	RCBS	1500	A07335222	N/A	Firearms
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.01	QC012	7/16/19	7/9/18	7/2020

FUNCTIONAL CHECKS

1 OROTORAL OFFICER							
ECCEN	TRICITY	REPEATABILITY					
Test Wt:	Tol:	Test Wt: Tol:		Test Wt:	Tol:		
50	0.02	50x2	0.02	20	0.02		
As-F	ound:	As-Found:		As-Found:			
Pass: 🗹	Fail: 🗆	Pass: 🗹	Fail:	Pass: ☑	Fail:		
As-	As-Left: As-Left:		As-L	eft:			
Pass: 🗹	Fail: 🗆	Pass: ☑	Fail:	Pass: ☑	Fail: 🛘		
1		I		Ī			

CALIBRATION DATA

Standard	As-Found	As-Left
100	100.03	99.99
50	50.02	49.99
20	20.00	20.00
10	9.99	10.00
5	5.00	5.00
1	1.00	1.00
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		

#### **CALIBRATION STANDARDS**

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

7/18 LIN = Press Cal 50-100

7/19 Adjusted span & lin

Fechnician: G. Cahill	Signature:
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THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.

-<del>Member: National Conference of Standards Laboratories and Weights & Measures</del>

PT ID: MTFM01



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Montana, State of / Missoula-Forensic Serv. 2679 Palmer Street Missoula, MT 59808

Report Number: MTFM017125020117190716

### **CERTIFICATE OF CALIBRATION WITH DATA**

#### INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer ID	Location
Balance	Ohaus	SP202	7125020117	#2	Lat Prints
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.01	QC012	7/16/19	7/9/18	7/2020

#### **FUNCTIONAL CHECKS**

p======	TOTOTIONAL OTILONO							
ECCE	NTRICITY	LINEARITY REPEATABILITY						
Test Wt:	Tol:	Test Wt:	Tol:	Test Wt:	Tol:			
100	0.01	100x2	0.01	100	0.01			
As-	Found:	As-Fo	ound:	As-Fo	und:			
Pass: ☑	Fail: 🛘	Pass: 🗹	Fail:	Pass: 🗹	Fail: 🛚			
As	-Left:	As-L	∟eft:	As-L	eft:			
Pass: 🗹	Fail: 🗖	Pass: 🗹	Fail: 🗆	Pass: ☑	Fail: 🗆			
		.1		L				

#### **CALIBRATION DATA**

Standard	As-Found	As-Left
200	199.97	200.00
150	149.98	150.01
100	99.99	100.00
50	49.99	50.00
20	20.00	20.00
5	5.00	5.00

#### **CALIBRATION STANDARDS**

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	R.Lake/Troemner	1MG-25KG	1265	11/9/18	11/2019	20182240

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

7/19 Adjusted span & lin

Technician: G. Cahill	Signature:	MAZ
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THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibration data should be reviewed to insure that the instrument is performing to its required accuracy.

# Quality Control Services Report of Service and Calibration

Mettler

Balance

2340 S.E. 11TH AVENUE PORTLAND, OR 97214 PHONE 503-236-2712

Stacey Wilson

62436

10-15 RB

\$130.00

Sold To	Montana, Sta	te of/Misso	ula-Forensic Serv	V. PT ID: MT	FM01	P.O. No	: Xok	per Stace	y Wilson	n	
Address	2679 Palmer	Street			-	Contact	t: Scott	Larson			
City	Missoula, M	T 59808				Phone:	406-	728-4970			
Ship To	2679 Palmer S	treet Missoula	, MT 59808			Email:	slars	on@mt.g	ov		
No Item	Make	Model	Serial Number	Location	Conta	ct	Rate	Date Svc'd	2019 Tech	Cust ID	

Chemistry

11004726127 6924814055

MS303TS

Service / Calibration  Documentation Requirements Calibration with Data  A2LA Certificate	Received By:	Date:
Comments:	8	



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Montana, State of / Missoula-Forensic Serv.

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B924814055191015

## A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

#### INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer ID	Location
Balance	Mettler	MS303TS	B924814055	N/A	Chemistry
Units	Readability	SOP	Cal Date	Last Cal Date	Cal Due Date
g	0.001	QC012	10/15/19	N/A	7/2020

#### **FUNCTIONAL CHECKS**

1 0110110101110110							
ECCENTRICITY	LINEARITY	STANDARD DEVIATION	ENVIRONMENTAL				
Test Wt: Tol:	Test Wt: Tol:	Test Wt: Tol:	CONDITIONS				
200 0.003	100 x 3 0.002	100 0.001					
As-Found:	As-Found:	<b>1.</b> 100.000 <b>5.</b> 100.000 <b>9.</b> 100.000	Good Fair Poor				
Pass: ☑ Fail: □	Pass: ☑ Fail: □	<b>2.</b> 100.000 <b>6.</b> 100.000 <b>10.</b> 100.000					
As-Left:	As-Left:	3.100.000 7.100.000 <u>Result</u>	Temperature: 19.5°C				
Pass: ☑ Fail: □	Pass: ☑ Fail: □	<b>4.</b> 100.000 <b>8.</b> 100.000 0.0000					

	A2LA ACCREDITED S		
Standard	As-Found	As-Left	<b>Expanded Uncertainty</b>
300	300.001	300.001	0.0011
200	200.000	200.000	0.0011
100	100.000	100.000	0.0011
50	50.001	50.000	0.0011
10	9.999	10.000	0.0011
1	0.999	1.000	0.0011

#### **CALIBRATION STANDARDS**

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	NIST ID
Weight Set	Rice Lake	20kg to 1mg	7133	4/19/19	4/2020	20190811

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

10/19 New Install RH= 29%.

Report prepared/reviewed by: R-B. Date: 10-15-19 Technician: R. Butcher Signature: R. Butcher

THIS CERTIFICATE SHALL NOT BE REPRODUCED WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

#### <u>Certificate of Weight</u> Calibrat RICELAKE

ANSI/NCSL Z540-1-1994; Part 1 & ISO/IEC 17025;2005 Accredited

Segrential history.

Traceable Certificate Number:

2840953B

Contractor:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

Purchase Order Number:

CC

Client:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

**Date Received:** 

14 Dec 2018

**Date Calibrated:** 

19 Dec 2018

**Recall Date:** 

19 Dec 2020

Temperature Range:

22.34 °C

Pressure Range: Relative Humidity Range: 722.41 mmHg

Air Density Range:

1.1303 mg/cm³

**NIST Certificate Number:** 

684/286541-15

Although there are two NIST numbers, one or both may apply

Calibrated By:

20

Procedure:

Inter-comparison Method (WI05-0095)

Condition of Weights:

Acceptable for Calibration

**Description of Weights:** 

1 g Polished Weight, ASTM Class 2, S/N 99-126266

			A	s Found			As Left						
Non	inal	ID	Conv.	Conv. Mass	MPE	Conv.	Conv. Mass	MPE	Unc. /	MPE*	Balance	Standard A	Assumed
Val	ue	or	Mass	Corr	Pass	Mass	Corr	Pass	(mg)	(mg)	Used	Set	Density
		S/N		(mg)			(mg)					Used	(g/cm ³ )
1	g 99	9-126266	0.9999902	-0.0098	Y	0.9999902	-0.0098	Y	0.0029	2 0.054	1605Q	K594Q	7.85

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. 'The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook Prepared By: 105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Rice Lake Weighing Systems

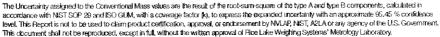
230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 3/18 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com Definitions: http://certs.ricelake.com/certs/DefinitionsV2.docx

Page 1 of 1

19 Dec 2018 Dated









## RICELAKE Certificate of Weight Calibration

ANSI/NCSL 7540-1-1994; Part 1 & ISO/IEC 17025;2005 Accredited

Traceable Certificate Number:

2840953C

CC

Contractor:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA , MT 59808

**Purchase Order Number:** 

Client:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

Date Received:

14 Dec 2018

Date Calibrated:

19 Dec 2018 to 20 Dec 2018

Recall Date:

19 Dec 2020

Temperature Range:

22.40 °C to 22.42 °C

Pressure Range:

722.57 mmHg to 724.51 mmHg

Relative Humidity Range:

47 % to 48 %

Air Density Range:

1.1301 ma/cm³ to 1.1332 ma/cm³

**NIST Certificate Number:** 

684/286541-15

Allifologit triefe a

Although there are two NIST numbers, one or both may apply

Calibrated By:

20

Procedure:

Inter-comparison Method (WI05-0095)

**Condition of Weights:** 

Acceptable for Calibration

**Description of Weights:** 

10 g Polished Weight, ASTM Class 2, S/N 99-126266

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Committee of the second	
September 1 and 100 September 1	
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- 1 22 1	3
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	<i>i</i>
The West of the Control of the Contr	
The state of the s	

☑ Indicates Corr + Unc >= MPE

*Indicates replaced out of tolerance weight

		As Found		As Left								
Nominal	ID	Conv.	Conv. Mass		Conv.	Conv. Mass		Unc. k	MPE*	Balance Used	Standard A	Assumed Density
Value	or S/N	Mass	Corr (mg)	Pass	Mass	Corr (mg)	Pass	(mg)	(mg)	Useu	Used	(g/cm ³ )
10 g	99-126266 ★	9.999939	9 -0.061	NΧ	10.000015	0.015	Y	0.015 2	0.074	676Q	K594Q	7.85

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. 'The weight accuracy class is referenced in the Description of Weights.

Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook

105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Prepared By:

Rice Lake Weighing Systems

230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 3/18

TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com Definitions: http://certs.ricelake.com/certs/DefinitionsV2.docx

Page 1 of 1

Dated 20 Dec 2018

Dan Demers, Metrologist





#### Certificate of Weight RICELAKE

ANSI/NCSL Z540-1-1994; Part 1 & ISO/IEC 17025:2005 Accredited

Traceable Certificate Number:

2840953

Contractor:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

Purchase Order Number:

Client:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

**Date Received:** 

14 Dec 2018

**Date Calibrated:** 

19 Dec 2018

Recall Date:

19 Dec 2020

Temperature Range:

21.58 °C

Pressure Range: Relative Humidity Range: 721.63 mmHg

Air Density Range:

**NIST Certificate Number:** 

1.1323 ma/cm³ 684/286541-15 & 684/291344-18

Although there are two NIST numbers, one or both may apply

Calibrated By:

17

Procedure:

Inter-comparison Method (WI05-0095)

Condition of Weights:

Acceptable for Calibration

**Description of Weights:** 

200 g Polished Weight, ASTM Class 1, S/N HN5505

		-			•							
		A	s Found			As Left						
Nomina	al ID		Conv. Mass			Conv. Mass		Unc. k	MPE*	Balance	Standard .	
Value	or	Mass	Corr	Pass	Mass	Corr	Pass	(mg)	(mg)	Used	Set	Density
	S/N		(mg)			(mg)					Used	(g/cm ³ )
200	g HN5505	200.000317	7 0.317	Υ	200.00031	7 0.317	Y	0.073 2	0.50	699Q	L595Q	7.85

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. *The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Rice Lake Weighing Systems

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Page 1 of 1

19 Dec 2018 Dated





The Uncertainty assigned to the Conventional Mass values are the result of the root-sum-square of the type A and type B components, calculated in accordance with NIST SOP 29 and ISO GUM, with a coverage factor (k), to express the expanded uncertainty with an approximate 95.45 % confidence level. This Report is not to be used to claim product certification, approval, or endorsement by NVLAP, NIST, A2LA or any agency of the U.S. Government. This document shall not be reproduced, except in full, without the written approval of Pice Lake Weighing Systems' Metrology Laboratory.



#### Certificate of Weight Calibration RICELAKE

ANSI/NCSL Z540-1-1994; Part 1 & ISO/IEC 17025:2005 Accredited

Traceable Certificate Number:

2840953A

Contractor:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

**Purchase Order Number:** 

CC

Client:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

**Date Received: Date Calibrated:** Recall Date:

14 Dec 2018 19 Dec 2018

Temperature Range:

19 Dec 2020 22.32 °C

Pressure Range: Relative Humidity Range: 723.00 mmHg

Air Density Range:

1.1310 mg/cm³

**NIST Certificate Number:** Although there are two NIST numbers, one or both may apply

684/286541-15

Calibrated By:

20

49 %

Procedure:

Inter-comparison Method (WI05-0023)

**Condition of Weights:** 

Acceptable for Calibration

**Description of Weights:** 

1 kg Satin Finish Weight, ASTM Class 4, S/N 38771

		A	s Found			As Left							
Nomina	il ID	Conv.	Conv. Mass	MPE	Conv.	Conv. Mass	MPE	Unc.	k M	PE*	Balance	Standard	Assumed
Value	or	Mass	Corr	Pass	Mass	Corr	Pass	(mg)	(1	mg)	Used	Set	Density
	S/N		(mg)			(mg)						Used	(g/cm ³ )
1 k	g 38771	0.9999997	⁷ -0.3	Y	0.9999997	7 -0.3	Y	2.4	2	20	1810Q	K594Q	7.85



This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. "The weight accuracy class is referenced in the Description of Weights. Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (1990), ASTM E617-13 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Rice Lake Weighing Systems

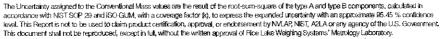
230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 3/18 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com Definitions: http://certs.ricelake.com/certs/DefinitionsV2.docx

Page 1 of 1

Dated 19 Dec 2018

Dan Demers, Metrologist









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Montana, State of / Missoula-Forensic Serv.

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01ML600HJ11980-1190718

# A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

#### INSTRUMENT INFORMATION

Item	Make	Model	Serial Number	Customer id	Location
Diluter	Hamilton	ML-600	ML600HJ11980-1	2.5mL Syringe	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QCS022	7/18/19	7/9/18	7/2020

#### **CALIBRATION DATA** Volume Setting: 2500 Volume Setting: 1250 Volume Setting: 250 **As-Found:** 2497.2 As-Found: 1247.6 **As-Found: 249.0** As-Left Volume As-Left Volume As-Left Volume 2497.6 1247.8 249.2 #1 #1 #1 #2 2497.7 #2 1248.1 #2 249.3 #3 2497.0 #3 248.9 #3 1248.0 2497.2 1248.1 249.3 #4 #4 #4 #5 2497.5 #5 1247.9 #5 249.4 Mean: 249.2 Mean: 1,248.0 Mean: 2,497.4 Std Deviation: 0.2 Std Deviation: 0.1 Std Deviation: 0.3 Inaccuracy: -2.0 Inaccuracy: -0.8 Inaccuracy: -2.6 Uncertainty: 1.50 Uncertainty: 0.12 Uncertainty: 1.50 AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

EN	/ID	O	MAIN	EN	IT

Temperature: 21.2°C Humidity: 52.1% Pressure: 26.59 in Hg

reading
n/a
1
n/a

<b>Parts Replaced:</b> □ Seal □ O-Ring □ Piston □ Button □ Shaft □ T-Ring □ Spring □Coup	Parts Replaced:	☐ Seal	□ O-Ring	□ Piston	□ Button	□ Shaft	□ T-Ring	□ Spring	☐ Couplin
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#### CALIBRATION STANDARDS

### **ADDITIONAL CHANNELS**

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment: 7/19: This Diluter meets or exceeds ISO 8655 tolerances.

□ Other

**Comments/Info Concerning this Calibration:** 

7/19 As Found=Pass. As Left=Pass, Left Side Cal w/2.5mL Syringe.

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF OUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a Kactor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data

reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



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Montana, State of / Missoula-Forensic

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01ML600HJ11980-2190718

# A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

#### **INSTRUMENT INFORMATION**

Item	Make	Model	Serial Number	<b>Customer id</b>	Location
Diluter	Hamilton	ML-600	ML600HJ11980-2	250uL Syringe	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QCS022	7/18/19	7/9/18	7/2020

	CALIBRATION DATA	
Volume Setting: 250 As-Found: 251.3	Volume Setting: 125 As-Found: 126.0	Volume Setting: 25 As-Found: 24.5
As-Left Volume	As-Left Volume	As-Left Volume
<b>#1</b> 251.3	<b>#1</b> 126.0	<b>#1</b> 24.5
<b>#2</b> 251.0	<b>#2</b> 126.1	<b>#2</b> 24.9
<b>#3</b> 251.1	<b>#3</b> 126.2	<b>#3</b> 25.0
<b>#4</b> 251.2	<b>#4</b> 126.2	<b>#4</b> 24.9
<b>#5</b> 250.9	<b>#5</b> 125.9	<b>#5</b> 24.7
Mean: 251.1 Std Deviation: 0.2 Inaccuracy: 1.1	Mean: 126.1 Std Deviation: 0.1 Inaccuracy: 1.1 Uncertainty: 0.12	Mean: 24.8 Std Deviation: 0.2 Inaccuracy: -0.2
Uncertainty: 0.12		Uncertainty: 0.09
AS-FOUND DAT	ΓA EQUALS THE MEAN OF THREE M	EASUREMENTS

Temperature:	21.4°C
Humidity:	46.2%
Pressure:	26.58 in Hg

**ENVIRONMENT** 

channel	reading			
2	n/a			
3	n/a			
4	n/a			
5	n/a			
6	n/a			
7	n/a			
8	n/a			
9	n/a			
10	n/a			
11	n/a			
12	n/a			

Parts Replaced: ☐ Seal ☐ O-Ring ☐ Piston ☐ Button ☐ Shaft ☐ T-Ring ☐ Spring ☐ Cou	arts Replaced:	□ Seal	□ O-Ring	☐ Piston	□ Button	□ Shaft	□ T-Ring	□ Spring	☐ Coupl
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#### CALIBRATION STANDARDS

#### **ADDITIONAL CHANNELS**

Item	Make	Model	Serial Number	Cal Date	<b>Cal Due Date</b>	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

7/19 As Found=Pass. As Left=Pass, Right Side Cal w/250uL Syringe

This Diluter meets/exceeds ISO 8655 tolerances.

Report Prepared/Reviewed by:

□ Other

Date: 7/18/2019

Technician: T.Greene

Signature:



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Montana, State of / Missoula-Forensic

Serv.

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01E1464900T190717

# A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

Item	Ma	ke	Model	NT INFORM Serial			Custome	er id	Location
Pipettor	Rai		SL-1000 XLS		64900		N/A		Tocicology
Units	Incre	ment	SOP	Ca	l Dat	e	Last Cal	Date	Cal Due Date
ul		.2	QCS022		17/19	<del></del>	7/9/18		7/2020
	<del> </del>	CALIRDA	TION DATA			<del></del>	<del> </del>	ENVIR	ONMENT
	ng: 1000 nd: 1000.4 Volume 999.9	OALIDIOA	HON DATA	A	s-Fo	ting: 200 und: 204.: ft Volun 204.8	2 '		re: 21.4°C ty: 44.9% re: 26.67 in Hg
#2 #3	1000.9 1001.6				#2 #3	204.7 204.2		channel	reading
#3	1001.5				#3	204.2		2	n/a n/a
#5	1001.0				#5	204.8		3	n/a
								<b>4</b> 5	n/a
								6	n/a
								7	n/a
							***	8	n/a
								9	n/a
Mean:	1,001.0				Mear	204.6		10	n/a
Std Deviation:	•			Std Devi	iatio	e: 0.3		11	n/a
Inaccuracy:				Inacc	uracy	<b>/</b> ; 4.6		12	n/a
Uncertainty:				Uncer	tainty	/: 0.12	<u> </u>		<del></del> .
,	AS-FOUND DATA	A EQUALS THE 1	MEAN OF THREE	E MEASUREMEN	TS				
Parts Replaced	: □ Seal □Other	☐ O-Ring	☐ Piston	☐ Button		Shaft	☐ T-Ring	☐ Spri	ing □Coup
			CALIBRAT	TION STANE	ARI	os	A	DDITIONA	AL CHANNEI
ltem	Make	Mod	del Ser	ial Number	(	Cal Date	Cal I	Due Date	Traceable
Weight Set	Rice Lake	5 kg to	1 mo	10472		6/17/19	6	/2020	20191111

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: (16 Date: 7/17/2019

Technician: T.Greene,
Signature: 100/10

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

PT ID: MTFM01

Member: National Conference of Standards Laboratories and Weights & Measures



ACCREDITED
CERTIFICATE #1550.01

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Montana, State of / Missoula-Forensic

Serv.

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B904164542190717

## A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

		INSTRUMENT	INFORMATION		
Item	Make	Model	Serial Number	Customer id	Location
Pipettor	RAININ	L-200-XLS	B904164542	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QCS022	7/17/19	N/A	7/2020
	CALIBI	RATION DATA		EN\	VIRONMENT
Volume Setting As-Found	<b>:</b> 200		Volume Setting: 50 As-Found: 50	A Tempere	ature: 21.4°C

As-Left Volume As-Left Volume 199.90 50.00 #1 199.95 49.92 #2 #3 199.91 #3 49.97 50.01 #4 200.05 199.97 49.98 #5

Temperature: 21.4°C
Humidity: 45.7%
Pressure: 26.67 in Hg

reading

channel

n/a 2 n/a 3 n/a 4 n/a 5 n/a 6 n/a 7 n/a 8 n/a 9 n/a 10 n/a 11 n/a 12

 Mean:
 199.96
 Mean:
 49.98

 Std Deviation:
 0.06
 Std Deviation:
 0.04

 Inaccuracy:
 -0.04
 Inaccuracy:
 -0.02

 Uncertainty:
 0.120
 Uncertainty:
 0.092

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced:	☐ Seal	□ O-Ring	□ Piston	□ Button	□ Shaft	☐ T-Ring	☐ Spring	□Coupling

☐ Other

#### **CALIBRATION STANDARDS**

#### **ADDITIONAL CHANNELS**

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygroma	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment: Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: (G Date: 7/17/2019 Technician: T.Greener Signature: Signature:



ACCREDITED
CERTIFICATE #1550.01

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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B904138612190717

# A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

item	Make	•	Model	Serial Nur	nber	Customer id		Location
Pipettor	RAINI	N	L-20-XLS	B9041386	B904138612		Т	oxicology
Units	Increment		SOP	Cal Dat	Cal Date		Ca	I Due Date
ul	0.02		QCS022	7/17/19	7/17/19			7/2020
	<u> </u>	CALIBRAT	TION DATA			E	NVIRON	IMENT
Volume Setting: As-Found:	19.95				ting: 2 und: 1.96 ft Volu	H	erature: umidity:	
<b>As-Left V</b> <b>#1</b> 20.	.05			#1	1.98	lile FI	essure.	20.07 III rig
	.04			#2	2.03	char	nnel	reading
<b>#3</b> 19.				#3	1.97	2	2	n/a
<b>#4</b> 19.				#4	2.00	l	3	n/a
<b>#5</b> 19.	.93			#5	1.97		<b>.</b>	n/a
							5	n/a
							6	n/a
							7	n/a
						1	3	n/a
						4	9	n/a
Mean: 19	0.00			Mea	n: 1.99	1	0	n/a
				Std Deviatio	··	1	1	n/a
Std Deviation: 0.				Inaccurac		1	2	n/a
Inaccuracy: -0.				Uncertaint	-	<u> </u>		
Uncertainty: 0.		EQUALS THE N	MEAN OF THREE	E MEASUREMENTS	y. 0.044			
	□ Seal □Other	☐ O-Ring	☐ Piston	☐ Button ☐	Shaft	☐ T-Ring [	Spring	□Coup

#### CALIBRATION STANDARDS

#### ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: ____

Technician: T.Greene 10000



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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01042764091190717

# A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

ltem	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	100-1000uL	042764091	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QC022	7/17/19	7/9/18	7/2020
	CALIBI	RATION DATA		E	NVIRONMENT
Volume Setting: As-Found: 9 As-Left Vo	99.9		Volume Setting: 2 As-Found: 20 As-Left Vol	01.6 Hu	erature: 21.4°C umidity: 45.9% essure: 26.67 in Hg
#1 999.: #2 999.	5		#1 201.5 #2 201.1		
<b>#3</b> 999.	7		<b>#3</b> 200.9	9	n/a
<b>#4</b> 999.			<b>#4</b> 201.3	3	n/a
<b>#5</b> 1000	0.0		<b>#5</b> 200.7	4	n/a
				5	1
				6	n/a
				7	, n/a
				8	n/a
				9	n/a
<b>Mean:</b> 999	7		Mean: 201.	1 1	o n/a
Std Deviation: 0.2	• 1		Std Deviation: 0.3	1	1 n/a
			Inaccuracy: 1.1	1:	n/a
Inaccuracy: -0.3	•		Uncertainty: 0,12	L.,,,,,,,,	<u>, , , , , , , , , , , , , , , , , , , </u>
Uncertainty: 0.6 AS-F	I OUND DATA EQUALS T	HE MEAN OF THREE	•		
	Seal □ O-Rir Other	ng 🗆 Piston	☐ Button ☐ Shaft	☐ T-Ring □	☐ Spring ☐ Coupl
	The Table 8		TION STANDARDS	ADDIT	IONAL CHANNEL

item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by:

Date: 7/17/2019 Technician: T.Green Signature:



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Montana, State of/Missoula-Forensic

Serv.

2679 Palmer Street

Report Number: MTFM01B727355818190717

## **A2LA ACCREDITED**

CERTIFICATE OF CALIBRATION WITH DATA Missoula, MT 59808 **INSTRUMENT INFORMATION Customer id** Location **Serial Number** Model Make Item Toxicology N/A B727355818 PR-10 Rainin **Pipettor** Cal Due Date **Last Cal Date Cal Date** SOP Increment Units 7/2020 7/9/18 7/17/19 OCS022 0.02 ul **ENVIRONMENT CALIBRATION DATA** Volume Setting: 2 Temperature: 21.5°C Volume Setting: 10 As-Found: 1.95 Humidity: 44.6% As-Found: 9.94 Pressure: 26.67 in Hg As-Left Volume As-Left Volume #1 2.02 #1 10.05 2.04 #2 reading channel 10.00 #2 1.99 n/a #3 10.02 2 2.00 n/a #4 #4 10.06 3 n/a 1.97 #5 10.04 #5 4 n/a 5 n/a 6 n/a 7 n/a 8 n/a 9 n/a Mean: 2.00 10 Mean: 10.03 n/a 11 Std Deviation: 0.03 Std Deviation: 0.02 n/a 12 Inaccuracy: 0.00 Inaccuracy: 0.03 Uncertainty: 0.044 Uncertainty: 0.026 AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS □ Spring □ Coupling □ T-Ring □ O-Ring □ Piston □ Button ☐ Shaft Parts Replaced: 

Seal □ Other ADDITIONAL CHANNELS **CALIBRATION STANDARDS** Serial Number **Cal Date Cal Due Date** Traceable ID Model Make **Item** 20191111 6/17/19 6/2020 Rice Lake 5 kg to 1 mg 10472 Weight Set 20190440 160207969 3/5/19 3/2020 Barometer-Hygrome Control Co. 4247 Comments/info Concerning this Calibration: **Permanent Information Concerning this Equipment:** 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced. Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 2019  $\mathbf{G}$ Date: 7 Technician: T. Greene Report Prepared/Reviewed by: Signature: THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC. The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of

reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data



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Montana, State of/Missoula-Forensic

Serv.

2679 Palmer Street

Report Number: MTFM01DJ15865190717

## **A2LA ACCREDITED**

CERTIFICATE OF CALIBRATION WITH DATA Missoula, MT 59808 INSTRUMENT INFORMATION Location Customer id Model Serial Number Make Item Toxicology N/A DJ15865 10-F Fiinnpipette **Pipettor** Cal Due Date **Last Cal Date Cal Date** SOP Increment Units 7/2020 7/9/18 7/17/19 OCS022 ul **ENVIRONMENT CALIBRATION DATA Volume Setting:** Temperature: 21.6°C Volume Setting: 10 As-Found: Humidity: 45.5% **As-Found: 10.07** Pressure: 26.67 in Hg As-Left Volume As-Left Volume #1 #1 10.03 #2 10.05 reading #2 channel #3 n/a #3 10.04 2 n/a #4 #4 10.04 3 #5 n/a 10.01 #5 4 n/a 5 n/a 6 n/a 7 n/a 8 n/a 9 n/a 10 Mean: Mean: 10.03 n/a 11 Std Deviation: Std Deviation: 0.02 n/a 12 Inaccuracy: Inaccuracy: 0.03 **Uncertainty:** Uncertainty: 0.026 AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS □ T-Ring □ Spring □ Coupling □ Shaft □ Button Parts Replaced: 

Seal □ O-Ring □ Piston □Other ADDITIONAL CHANNELS CALIBRATION STANDARDS Comments/Info Concerning this Calibration: **Permanent Information Concerning this Equipment:** 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced. Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Report Prepared/Reviewed by:

Date: 7/17 Technician: T.Greene Signature:



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Montana. State of/Missoula-Forensic

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2679 Palmer Street Missoula MT 59808 Report Number: MTFM01B648357664190717

### A2LA ACCREDITED DTICICATE OF CALIBRATION WITH DATA

				<u>NT INFORMA</u> Serial Nu		Customer id	Location
Item	Mak		Model			N/A	Toxicology
Pipettor	Rain	in	PR-20	B64835	7664	N/A	Toxicology
Units	Incren	nent	SOP	Cal D	ate	Last Cal Date	Cal Due Date
ul	0.	1	QC022	7/17/	19	7/9/18	7/2020
		CALIBRATI	ON DATA			EN	VIRONMENT
Volume Setting	n: 20			Volume S	etting: 2	Temper	ature: 21.7°C
As-Found	-			As-F	Found: 1.9		nidity: 45.8%
As-Left	Volume			As-l	Left Volu	<b>.</b>	ssure: 26.67 in Hg
F	9.94			#	1 2.02		
"	9.97			#	<b>2</b> 1.98	chann	el reading
<b>#3</b> 1	9.93			#	<b>3</b> 2.00	2	n/a
<b>#4</b> 1	9.95			#	4 1.97	3	n/a
<b>#5</b> 1	9.97			#	<b>5</b> 2.01	4	n/a
						5	n/a
						6	n/a
						7	n/a
						8	n/a
						9	n/a
Mean:	10 05			Me	ean: 2.00	10	n/a
Std Deviation:				Std Deviat	ion: 0.02	11	n/a n/a
inaccuracy: -				Inaccura	acy: 0.00	12	IVa
Uncertainty:					nty: 0.044	1	
		A EQUALS THE M	EAN OF THREE	EMEASUREMENTS	-		
manta Mantana	□ Cool	□ O Bina	☐ Piston	☐ Button	□ Shaft	☐ T-Ring ☐	Spring □Coupl
Parts Replaced:	☐ Seal	☐ O-Ring	LI FISION	ii Dullon	L Gliait		Opinia = 1000b
	☐ Other						
			CALIBRA	TION STANDA	RDS	ADDITI	ONAL CHANNEL
<del> </del>	Make	Mod		rial Number	Cal Date	e Cal Due Da	ate Traceable I

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, clean, service, adj cal. Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

1712019

Date: Report Prepared/Reviewed by:

Technician: T.Green

Signature:



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Montana, State of / Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01DH64371190717

# A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION **Customer id** Location Serial Number Model Make item Toxicology DH64371 N/A 50ul - Fixed Fiinnpipette **Pipettor Last Cal Date Cal Due Date Cal Date** SOP Increment Units 7/2020 7/9/18 7/17/19 OCS022 nΙ **ENVIRONMENT CALIBRATION DATA Volume Setting:** Volume Setting: 50 Temperature: 21.8°C As-Found: As-Found: 49.79 Humidity: 45.5% Pressure: 26.66 in Hg As-Left Volume As-Left Volume #1 49.94 #1 #2 50.03 #2 reading channel #3 n/a #3 50.05 2 n/a #4 49.99 #4 3 #5 n/a #5 49.95 4 n/a 5 n/a 6 n/a 7 n/a 8 n/a 9 n/a 10 Mean: Mean: 49.99 n/a 11 Std Deviation: Std Deviation: 0.05 n/a 12 Inaccuracy: Inaccuracy: -0.01 Uncertainty: Uncertainty: 0.092 AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS □ T-Ring □ Spring □ Coupling □ Shaft □ Button Parts Replaced: 

Seal □ O-Ring □ Piston □ Other ADDITIONAL CHANNELS CALIBRATION STANDARDS Traceable ID Serial Number **Cal Date** Cal Due Date Model Item Make 20191111 6/2020 10472 6/17/19 Rice Lake 5 kg to 1 mg Weight Set 20190440 3/2020 160207969 3/5/19 4247 Barometer-Hygrome Control Co. Comments/Info Concerning this Calibration: Permanent Information Concerning this Equipment: 7/2019: As Found = Pass. As Left = Pass, clean, service, adj cal. Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 12019 Date: Technician: T.Green Report Prepared/Reviewed by: Signature: LITY CONTROL SERVICES, INC. THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QU





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Montana. State of / Missoula-Forensic

Serv. 2679 Palmer Street Report Number: MTFM01E1464498T190717

### **A2LA ACCREDITED** CERTIFICATE OF CALIBRATION WITH DATA

Missoula, MT 59808 INSTRUMENT INFORMATION Location Make Model Serial Number Customer id ltem LTS1000 E1464498T Pipettor Rainin N/A Toxicology Increment SOP **Cal Date Last Cal Date Cal Due Date** Units 2 7/17/19 7/9/18 7/2020 ul OC022 **ENVIRONMENT CALIBRATION DATA** Volume Setting: 1000 **Volume Setting: 200** Temperature: 21.5°C **As-Found:** 996.6 **As-Found:** 197.6 Humidity: 47.8% As-Left Volume As-Left Volume Pressure: 26.65 in Hg #1 1000.1 #1 201.6 #2 202.0 #2 1000.5 channel reading 999.9 #3 201.7 #3 n/a 2 202.2 #4 999.7 #4 n/a 3 999.5 #5 201.7 #5 n/a 4 n/a 5 n/a 6 n/a 7 n/a 8 n/a 9

Mean: 201.8 Mean: 999.9 Std Deviation: 0.3 Std Deviation: 0.4 Inaccuracy: 1.8 Inaccuracy: -0.1 Uncertainty: 0.12 Uncertainty: 0.61

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced:	☐ Seal	☐ O-Ring	☐ Piston	☐ Button	☐ Shaft	☐ T-Ring	□ Spring	☐ Coupling
-----------------	--------	----------	----------	----------	---------	----------	----------	------------

□ Other

#### **CALIBRATION STANDARDS**

#### ADDITIONAL CHANNELS

10

11

12

n/a

n/a

n/a

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Comments/Info Concerning this Calibration: Permanent Information Concerning this Equipment: Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by:

Date: 7

Technician: T.Gree Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01942762853190717

### **A2LA ACCREDITED** CERTIFICATE OF CALIBRATION WITH DATA

		INSTRUME	NT INFORMATION		<u></u>
item	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	100-1000uL	942762853	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.1	QC022	7/17/19	7/9/18	7/2020
	CALIF	BRATION DATA		ENV	IRONMENT
Volume Setting: As-Found: 9 As-Left Vo	1000 995.6 <b>Dlume</b>		Volume Setting: 200 As-Found: 202 As-Left Volu	.7 Humi	ture: 21.5°C dity: 51.4% sure: 26.65 in Hg
<b>#1</b> 997. <b>#2</b> 997.	.9		<b>#1</b> 201.4 <b>#2</b> 201.0	channe	l reading
# <b>3</b> 998. # <b>4</b> 997.			<b>#3</b> 201.5 <b>#4</b> 200.9	2 3	n/a n/a
<b>#5</b> 996	.9		<b>#5</b> 201.3	4	n/a n/a
				5 6	n/a n/a
				7 8	n/a
				9	n/a n/a
Mean: 99' Std Deviation: 0.5 Inaccuracy: -2.3	i		Mean: 201.2 Std Deviation: 0.3 Inaccuracy: 1.2	10 11 12	n/a n/a
Uncertainty: 0.6	51	THE MEAN OF THREE	Uncertainty: 0.12	L	
Parts Replaced: □	I Seal □ O-F IOther	Ring D Piston	☐ Button ☐ Shaft	☐ T-Ring ☐ S	Spring □Coupli
		CALIBRAT	TION STANDARDS	ADDITIO	NAL CHANNEL

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Date: 7 Report Prepared/Reviewed by:

Technician: T.Green

Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01942732444190717

### **A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA**

INSTRUMENT INFORMATION

item	Make	Model	Serial Number	Customer id	Location					
Pipettor	VWR	20	942732444	N/A	Toxicology					
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date					
ul	0.1	QCS022	7/17/19	7/9/18	7/2020					
			······································	EN	/IRONMENT					

Pipettor	VW	R	20	942	732444		N/A		Toxicology
Units	Incren	nent	SOF	Ca	l Date	La	st Cal Da	ite C	Cal Due Date
ul	0.	1	QCS0	22 7.	/17/19		7/9/18		7/2020
<u> </u>		CALIBRAT	TION DAT	Α	······································		g	ENVIRO	NMENT
As-Foun As-Left	Volume Setting: 20 As-Found: 20.03 As-Left Volume #1 19.95			Volum A	e Setting As-Found As-Left 1.9	: 1.95 Volume	Ter	nperature Humidity Pressure	
	19.93 20.07				#1 1.3 #2 1.9		<u> </u>		
	20.07 19.99				#2 1.5 #3 1.9		cl	nannel	reading
	19.97				#4 1.9			2	n/a n/a
	20.05				# <b>5</b> 1.9			3	n/a
mo .	20.03				# <b>J</b> 1	70		4	n/a
								5	n/a
								6	n/a
							1	7	n/a
								8	n/a
								9	n/a
Mean:	20.01				Mean: 1	.96		10	n/a
Std Deviation:	0.05			Std Dev	iation: 0	.02		11	n/a
Inaccuracy:	0.01			Inacc	uracy: -0	.04		12	II/a
Uncertainty:				Uncer	tainty: 0	.044			
•		A EQUALS THE M	ÆAN OF THE	REE MEASUREMEN	TTS .				
Parts Replaced:	☐ Seal ☐ Other	□ O-Ring	☐ Piston	ı □ Button	□ Sha	ift 🛘	T-Ring	□ Sprin	g □Coupling
			CALIBR	ATION STAN	DARDS		ADI	IAMOITIC	CHANNELS
Item	Make	Mod	lel S	Serial Number	Cal	Date	Cal Du	e Date	Traceable ID
Weight Set	Rice Lake	5 kg to	1 mg	10472	6/1	7/19	6/2	020	20191111
Barometer-Hygrome	Control Co.	424	7	160207969	3/5	5/19	3/2	020	20190440
Permanent Information Pipette meets/exceed		erances for Acc		ecision. 7/2019	: As Found			Calibrationss, cleaned	on: I and serviced
Report Prepared/F	•			te: <u>7(17/201</u> 5 in full, without	Sig	hnician: nature:		MIROL SERV	VICES INC



ACCREDITED
CERTIFICATE #1550,01

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01380849190717

## A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

ltem	Ma	ke	Model	Serial No	um	ber	Custor	ner id	L	ocation
Pipettor	Lam	bda	10 ul	3808	49		<b>N</b> /.	A.	T	oxicology
Units	Incre	ment	SOP	Cal D	ate	<b>)</b>	Last Ca	l Date	Cal	Due Date
ul	0.	02	QCS022	7/17/	7/17/19		7/9/	18		7/2020
		CALIBRA	TION DATA				<u></u>	ENV	/IRON	MENT
Volume Settin As-Foun	_			Volume S As-F		ing: 2 ınd: 2.02		Tempera Humi	ture: 2	
	<b>Volume</b> 10.05			#	1	t <b>Volun</b> 2.05	ne	Pres	sure: 2	26.63 in Hg
	10.03			#		2.02		channe		reading
<del></del>	9.97			#	_	1.97	-	2		n/a
	10.07			#		2.06		3		n/a
#5	10.01			#	5	1.99		4	[	n/a
							1	5	]	n/a
								6	Į.	n/a
								7		n/a
								8		n/a
								9		n/a
Mean:	10.02			Ma	an	2.02		10	- 1	n/a
				Std Deviati		-		11		n/a
Std Deviation:				Inaccura		-		12		n/a
Inaccuracy:					-		L			<del> </del>
Uncertainty:		A EQUALS THE	MEAN OF THREE	Uncertai E MEASUREMENTS	nty	1 0.044				
arts Replaced:	□ Seal □Other	□ O-Ring	☐ Piston	☐ Button 〔	<b>]</b>	Shaft	□ T-Ri	ng 🗆 S	Spring	□Coup

#### **CALIBRATION STANDARDS**

#### **ADDITIONAL CHANNELS**

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygroma	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by:

Technician: T.Greene Signature:





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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B640103266190717

### **A2LA ACCREDITED** CERTIFICATE OF CALIBRATION WITH DATA

ltem	M	ake	Model	Serial Nu	mber	Custo	mer id	Lo	cation
Pipettor	Ra	inin	PR-1000	B640103	266	N	/A	Toxicology	
Units	Units Increment		SOP	Cal Da	te	Last C	al Date	te Cal Due Da	
ul		2	QCS022	7/17/1	9	7/9	/18	7	/2020
		CALIBRA	TION DATA			F	ENV	IRONN	IENT
	ng: 1000 nd: 993.3 Volume				tting: 200 ound: 195 oft Volu	.4		dity: 49	
#1	995.4			#1	199.6		1 1033	COLOR AC	.05 III II
#2	995.6			#2		Γ	channe		readin
#3	994.9			#3		-	2		n/a
#4	995.7			#4			3		n/a
#5	995.0			#5	199.7		4		n/a
						1	5		n/a
						+	6		n/a
						1	7		n/a
							8		n/a
							9		n/a
Mean:	005.2			Mea	n: 199.9		10		n/a
itd Deviation:				Std Deviation			11		n/a
				Inaccurac			12		n/a
inaccuracy:				Uncertain	•	L	<del></del>		
Uncertainty:		TA EQUALS THE 1	MEAN OF THREE	E MEASUREMENTS	i <b>y:</b> 0.12				
ırts Replaced	: ☑ Seal □Other	□ O-Ring	☐ Piston	□ Button □	Shaft	□ T-R	ing □ S	pring	□Cou

#### **CALIBRATION STANDARDS**

#### ADDITIONAL CHANNELS

item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by:

Date: 7/17/2019

Technician: T.Greg Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC. The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and Suculdes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data

reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B643194999190717

### **A2LA ACCREDITED** CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer id	Location
Pipettor	Rainin	PR-200	B643194999	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	0.2	QCS022	7/17/19	7/9/18	7/2020
	0.41.00	ATION DATA		EN\	/IRONMENT

Pipettor	Rain	ıın	PR-200	B6431949	99	N/A	10	oxicology
Units	Incren	nent	SOP	Cal Date	•	Last Cal Dat	te Cal	Due Date
ul	0.2	2	QCS022	7/17/19		7/9/18		7/2020
		CALIBRAT	ION DATA				<b>ENVIRON</b>	MENT
As-Left	ng: 200 nd: 198.41 Volume 199.64				ing: 50 ind: 48.48 t Volume 49.56		nperature: 2 Humidity: 4 Pressure: 2	16.5%
#3 #4	199.73 199.69 199.75 199.77			#2 #3 #4 #5	49.59 49.51 49.60 49.53	_ ch	2 3 4 5 6 7	reading n/a n/a n/a n/a n/a n/a n/a n/a n/a
Std Deviation: Inaccuracy: Uncertainty:	-0.28 0.120	EQUALS THE M	EAN OF THREE	Mean Std Deviation Inaccuracy Uncertainty MEASUREMENTS	-0.44		9 10 11 12	n/a n/a n/a n/a
Parts Replaced:	⊠ Seal □Other	□ O-Ring	□ Piston	☐ Button ☐	Shaft	□ T-Ring	□ Spring	□Coupling

CALIBRATION STANDARDS

#### ADDITIONAL CHANNELS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by:

Technician: T.Gree

Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B627727878190717

# A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

item	Make	Model	Serial Number	Customer id	Location	
Pipettor	Rainin	PR-1000	В627727878	N/A	Toxicology	
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date	
ul	2	QCS022	7/17/19	7/10/18	7/2020	
<u></u>	CALIBR	RATION DATA		EN	VIRONMENT	
Volume Settir As-Four	ng: 1000 nd: 1001.2		Volume Setting: 20 As-Found: 201	, I	nture: 21.2°C idity: 51.9%	
	<b>Volume</b> 1000.4		<b>As-Left Volu</b> #1 200.6	me Pres	<b>sure:</b> 26.61 in Hg	
#2	1000.6		<b>#2</b> 199.6	chann	el reading	
#3	1000.7		<b>#3</b> 200.6	2	n/a	
#4	1000.8		<b>#4</b> 201.0	3	n/a	
#5	1001.5		<b>#5</b> 199.8	4	n/a	
				5	n/a	
				6	n/a	
				7	n/a	
				8	n/a	
				9	n/a	
Moon	1,000.8		Mean: 200.3	10	n/a	
	•		Std Deviation: 0.6	11	n/a	
Std Deviation:			Inaccuracy: 0.3	12	n/a	
Inaccuracy:	U.8		macculacy. V.	L	<del> </del>	

Uncertainty: 0.61 Uncertainty: 0.12
AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: ☐ Seal ☐ O-Ring ☐ Piston ☐ Button ☐ Shaft ☐ T-Ring ☐ Spring ☐ Coupling

□ Other

#### CALIBRATION STANDARDS

#### ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by:

Date: 7/17/2019 Technician: T.Greene Signature:



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Montana. State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01416856A190717

#### A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

ltem	Ma	ke	Model	Serial Nur	nber	Cust	omer id	Location
Pipettor	Eppe	ndorf	Res+ -1000	416856	A	1	V/A	Toxicology
Units	Units Increme		ement SOP		Cal Date			Cal Due Date
ul	· · · · · · · · · · · · · · · · · · ·	1	QCS022	7/17/19	)	7/	10/18	7/2020
	· · · · · · · · · · · · · · · · · · ·	CALIBRA	TION DATA			r	ENVI	RONMENT
Volume Settin As-Four				Volume Se As-Fo	tting: 200 ound: 201			ure: 21.2°C lity: 50.8%
#1	<b>Volume</b> 997.2			#1	200.4	me	Pressi	ure: 26.61 in Hg
	997.7			#2			channel	reading
	996.6			#3	200.5		2	n/a
	998.0			#4	199.9		3	n/a
#5	997.5			#5	200.2		4	n/a
							5	n/a
						]	6	n/a
						į	7	n/a
							8	n/a
							9	n/a
Mean:	007.4			Mea	n: 200.2		10	n/a
				Std Deviatio			11	n/a
itd Deviation:				Inaccurac	•••		12	n/a
Inaccuracy:					-	Ì		
Uncertainty:				Uncertaint	y: 0.12			
	AS-FOUND DAT	A EQUALS THE N	MEAN OF THREE	MEASUREMENTS				
arts Replaced:	□ Seal □Other	□ O-Ring	☐ Piston	□ Button □	Shaft	□ T-I	Ring □ Sp	oring □Cou

#### **CALIBRATION STANDARDS**

#### ADDITIONAL CHANNELS

item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Report Prepared/Reviewed by:

Date: Technician: T.Green Signature:



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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B635956311190717

# A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

ltem	Ma	ke	Model	Serial N	um	ber	Cust	omer i	d	Location	
Pipettor	Rai	nin	PR-20	B6359:	563	11	]	N/A		Toxicology	
Units	Incre	ment	SOP	Cal D	ate	•	Last	st Cal Date		Cal Due Date	
ul	0	.1	QC022	7/17	/19		7/	10/18		7/2020	
		CALIBRA	TION DATA						ENVIRO	NMENT	
Volume Setti As-Fou	ing: 20 ind: 20.05	.,		Volume S As-		ing: 2 und: 2.03	3	Ten	nperature Humidity		
As-Left #1	t <b>Volume</b> 19.95				Lef ‡1	t Volus 2.02	me		Pressure	26.61 in Hg	
#2	20.02				<b>‡2</b>	1.96		cl	nannel	reading	
#3	19.93				13	1.95			2	n/a	
#4	20.05			==	4	2.05			3	n/a	
#5	20.02			#	5	1.97		-	4	n/a	
								]	5	n/a	
									6	n/a	
									7	n/a	
									8	n/a	
								1	9	n/a	
	10.00			B.A.	oon	: 1.99			10	n/a	
	19.99			Std Deviat					11	n/a	
Std Deviation									12	n/a	
Inaccuracy				inaccur	-			L	<del></del>	<u> </u>	
Uncertainty		A EQUALS THE I	MEAN OF THREE	Uncertai EMEASUREMENTS	-	r: 0.044					
arts Replaced	i: □ Seal □Other	☐ O-Ring	☐ Piston	☐ Button		Shaft	□ T-	Ring	□ Sprir	ıg ⊟Cou	

#### **CALIBRATION STANDARDS**

#### ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

**Comments/Info Concerning this Calibration:** 

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by: 16 Date: 1

Technician: T.Greene Signature: J.M.M.L.

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF OPALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data

reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



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Montana, State of / Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B635956362190717

## A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

ltem	M	ake	Model	Serial Nu	ımber	Custo	mer id	Location
Pipettor	Ra	inin	PR-200	B63595	6362	N	/A	Toxicology
Units	incre	ement	SOP	Cal Da	ate	Last C	al Date	Cal Due Dat
ul		0.2	QCS022	7/17/	19	7/1	0/18	7/2020
		CALIBRA	TION DATA				ENVI	RONMENT
Volume Setti As-Fou	ng: 200 nd: 198.64			Volume Se As-F	etting: 20 ound: 20.	E .	Temperatu Humid	ıre: 21.2°C lity: 48.6%
#1	<b>Volume</b> 199.14			#-		ime	Pressu	ıre: 26.61 in H
#2	198.96			#2			channel	readin
#3	199.09			#3			2	n/a
#4	198.94			#4	-	-	3	n/a
#5	198.99			#	5 20.04	1	4	n/a
							5	n/a
							6	n/a
							7	n/a
							8	n/a
							9	n/a
Mean	199.02			Me	an: 20.01		10	n/a
Std Deviation:				Std Deviation	on: 0.04		11	n/a
Inaccuracy:				Inaccura		;	12	n/a
Uncertainty:				Uncertair	-	<b></b> 		
oncertainty.		TA EQUALS THE N	MEAN OF THREE	E MEASUREMENTS	gr 0,072			
arts Replaced	: □ Seal □Other	□ O-Ring	☐ Piston	☐ Button ☐	] Shaft	□ T-R	ing □ Sp	oring □Cou

#### **CALIBRATION STANDARDS**

#### ADDITIONAL CHANNELS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by:

____Date: 7/17/2019 Technician: T.Greene Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B635956518190717

### A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

Item	Make	Model	Serial Num	ber (	Customer id	Location
Pipettor	Rainin	PR-1000	B635956518		N/A	Toxicology
Units	Increment	SOP	Cal Date	e L	ast Cal Date	Cal Due Date
ul	2	QCS022	7/17/19		7/9/18	7/2020
	CALIB	RATION DATA			EN'	VIRONMENT
Volume Setting: As-Found: 9			Volume Sett As-Fot	ing: 200 ınd: 199.5		ature: 21.4°C nidity: 41.1%
<b>As-Left Vo</b> #1 999.			#1	t Volume 199.6	Pres	<b>sure:</b> 26.61 in Hg
<b>#2</b> 999.			#2	200.2	channe	
<b>#3</b> 999.			#3	199.8	2	n/a
#4 998.			#4	199.7	3	n/a
<b>#5</b> 999.	4		#5	200.0	4	n/a
					5	n/a
					6	n/a
					7	n/a
					8	n/a
					9	n/a
<b>Mean:</b> 999	9.2		Mean	: 199.9	10	n/a n/a
Std Deviation: 0.3			Std Deviation	: 0.2	11	n/a
Inaccuracy: -0.8			Inaccuracy	: -0.1	12	II/a
Uncertainty: 0.6			Uncertainty	: 0.12		
-	OUND DATA EQUALS T	THE MEAN OF THREE	E MEASUREMENTS			
	Seal □ O-Ri Other	ng 🛘 Piston	□ Button □	Shaft [	☐ T-Ring ☐	Spring □Coup

item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by:

Date: 7/17 12019 Technician: Ţ.Græ Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B629789188190717

### A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

MOTIONEITI III ORDANIOIT								
Make	lake Model S		Customer id	Location				
Pipettor Rainin PR-200 B629789188		N/A	Toxicology					
Increment	SOP	Cal Date	Last Cal Date	Cal Due Date				
0.2	QCS022	7/17/19	7/9/18	7/2020				
CALIBR	ATION DATA		EN	/IRONMENT				
	Rainin Increment 0.2	Make         Model           Rainin         PR-200           Increment         SOP           0.2         QCS022	Make         Model         Serial Number           Rainin         PR-200         B629789188           Increment         SOP         Cal Date	Make         Model         Serial Number         Customer id           Rainin         PR-200         B629789188         N/A           Increment         SOP         Cal Date         Last Cal Date           0.2         QCS022         7/17/19         7/9/18				

	(	CALIBRATION DATA	
Volume Setti	ng: 200	Volume Setti	ng: 20
As-Fou	nd: 198.41	As-Four	n <b>d:</b> 19.44
As-Left	Volume	As-Left	Volume
#1	199.19	#1	20.23
#2	199.09	#2	20.20
#3	199.01	#3	20.25
#4	198.99	#4	20.19
#5	198.96	#5	20.17

Temperature: 21.5°C Humidity: 43.7% Pressure: 26.61 in Hg

channel	reading
2	n/a
3	n/a
4	n/a
5	n/a
6	n/a
1	n/a
7	n/a
8	n/a
9	
10	n/a
11	n/a
12	n/a
1 4	1

Mean: 20.21 Mean: 199.05 Std Deviation: 0.03 Std Deviation: 0.09 inaccuracy: 0.21 Inaccuracy: -0.95 Uncertainty: 0.092 Uncertainty: 0.120

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

Parts Replaced: ☑ Seal	O-Ring □	Piston	Button [	□ Shaft	☐ T-Ring	□ Spring	☐ Coupling
------------------------	----------	--------	----------	---------	----------	----------	------------

□ Other

#### **CALIBRATION STANDARDS**

#### ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

Report Prepared/Reviewed by:

Date:

Technician: T.Green Signature:

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF A MALITY CONTROL SERVICES, INC. The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data

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reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.

PT ID: MTFM01



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B629789104190717

### A2LA ACCREDITED **CERTIFICATE OF CALIBRATION WITH DATA**

INSTRUMENT INFORMATION

MOTIVOREIT III OXIII/1704									
Item	Make	Model	Serial Number	Customer id	Location				
Pipettor Rainin PR-20		B629789104	N/A	Toxicology					
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date				
ul	0.1	QC022	7/17/19	7/9/18	7/2020				
	CALIRE	ATION DATA		EN\	/IRONMENT				

Item	Mai	Ke	Model	Serial	Num	iber	Cust	omer	IC	Location
Pipettor	Rair	in	PR-20	B629	97891	04	]	N/A		Toxicology
Units	Incren	nent	SOP	Ca	l Date	e	Last	Cal Da	ite C	al Due Date
ul	0.	1	QC022	. 7/	17/19		7	/9/18		7/2020
		CALIBRA:	TION DATA	<u> </u>	·····				ENVIRO	NMENT
	_	OALIDITA.		Volume A	s-Fo	ting: 2 und: 2.03 ft Volur 2.05		Ter	mperature: Humidity: Pressure:	
	20.15				#2	1.99			hannel	reading
	20.10				#3	2.01				n/a
	20.09				#4	2.03			2	n/a
#5	20.12				#5	1.97	:		3 4	n/a
							:			n/a
									5 e	n/a
									6 7	n/a
									8	n/a
									9	n/a
						2.01			10	n/a
Mean:						2.01			11	n/a
Std Deviation:				Std Dev		•			12	n/a
Inaccuracy:	0.11				_	<b>/:</b> 0.01		L	14	<u> </u>
Uncertainty:	0.092			Uncer	tainty	<b>7:</b> 0.044				
	AS-FOUND DATA	EQUALS THE	MEAN OF THRE	EE MEASUREMEN	TS					
Parts Replaced:	□ Seal □Other	□ O-Ring	□ Piston	☐ Button		Shaft	□ T-	Ring	☐ Spring	g □Coupling
			CALIBRA	TION STAN	DARI	os		AD	DITIONAL	. CHANNELS
Item	Make	Mo	del Se	erial Number	(	Cal Date	(	Cal Du	e Date	Traceable ID
Weight Set	Rice Lake	5 kg to	1 mg	10472		6/17/19		6/2	020	20191111
Barometer-Hygroma	Control Co.	424	47	160207969		3/5/19		3/2	020	20190440
Permanent Inform Pipette meets/exceed Report Prepared/F	ds ISO 8655 tol	erances for Ac	curacy & Pred		: As F	ound = Pa	ss. As I	eft = P	Calibratio	n: and serviced

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygroma	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01379100190717

## A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

**INSTRUMENT INFORMATION** 

ltem	Make	Model	Serial Numb	er	Customer i	d	Location
Pipettor	Lambda	10 ul	379100 <b>Cal Date</b>				Toxicology
Units	Increment	SOP			Last Cal Date		Cal Due Date
ul	0.02	QCS022	7/17/19		7/10/18		7/2020
	CALIBR	RATION DATA				ENVIR	ONMENT
Volume Settin As-Four	g: 10		Volume Setti As-Fou	_	Ten	•	re: 21.4°C ry: 44.2%
As-Left	Volume		As-Left Volume		e		e: 26.58 in Hg
#1	10.03		#1	2.02	<u> </u>		
#2	10.05			1.95	cl	nannel	reading
#3	10.01			1.99	[	2	n/a
#4	9.98		== =	2.03		3	n/a
#5	9.95		#5	1.99		4	n/a
						5	n/a
					į.	6	n/a
					-	7	n/a
					1	8	n/a
						9	n/a
Mean:	10.00		Mean:	2.00	}	10	n/a
Std Deviation:			Std Deviation:			11	n/a
			Inaccuracy:			12	n/a
Inaccuracy:			Uncertainty:		L	·	
Uncertainty:	U.U26 AS-FOUND DATA EQUALS TI		-	U.VTT			

#### **CALIBRATION STANDARDS**

□ Button

□ Shaft

#### ADDITIONAL CHANNELS

□ Coupling

□ Spring

item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

□ Other

□ O-Ring

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced

□ Piston

Report Prepared/Reviewed by: UG_

Parts Replaced: ☐ Seal

Date: 11112019 Tech

Technician: T.Greene 10000

□ T-Ring



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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01542762993190717

### A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	EHP 1000	542762993	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	1	QC022	7/17/19	7/10/18	7/2020

Item	Make	Model	Serial Nu	mber	Customer i	d	Location
Pipettor	VWR	EHP 1000	542762	993	N/A		Toxicology
Units	Increment	SOP	Cal Da	ate	Last Cal Da	te C	al Due Date
ul	1	QC022	7/17/1	19	7/10/18		7/2020
	CALIBRA	TION DATA				ENVIRO	NMENT
Volume Setting: 1006	)		Volume Se	etting: 200	) Ten	nperature:	21.1°C
<b>As-Found:</b> 992.1	l		As-F	ound: 195	4 1	Humidity:	
As-Left Volum	ne		As-L	eft Volu	<b>I</b>	_	26.57 in Hg
<b>#1</b> 999.1			#1		<u> </u>		
<b>#2</b> 999.7			#2				
<b>#3</b> 999.3			#3		Cr	nannel	reading n/a
<b>#4</b> 999.5			#4	201.3		2	n/a
<b>#5</b> 999.4			#5	201.6	1	3	n/a
<i></i>						4	n/a
					1	5	n/a
						6	n/a
					1	7	n/a
					ļ	8	n/a
						9	n/a
<b>Mean:</b> 999.4				an: 201.4		10	n/a
Std Deviation: 0.2			Std Deviation			11	n/a
Inaccuracy: -0.6			Inaccura	cy: 1.4		12	1
Uncertainty: 0.61			Uncertain	ty: 0.12			
AS-FOUN	ID DATA EQUALS THE	MEAN OF THREE	MEASUREMENTS				
Parts Replaced:   Se	al □ O-Ring	☐ Piston	☐ Button ☐	] Shaft	☐ T-Ring	☐ Spring	g □Coupling
□Oth					_		
		CALIBRAT	TION STANDAR	RDS	ADE	DITIONAL	CHANNELS
item M:	ake Mo	del Ser	ial Number	Cal Date	Cal Du	e Date	Traceable ID

item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment: This pipette meets or exceeds ISO 8655 tolerances.

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, clean, service, adj cal.

Report Prepared/Reviewed by:

Technician: T.Green Signature:



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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01381117190717

### **A2LA ACCREDITED** CERTIFICATE OF CALIBRATION WITH DATA

IVIISSOUIA, IVI I 37000		CERTIF	ICATE OF	CALIBRATI	UN	VVIITIL	<u>JATA</u>		
<u></u>		· · · · · · · · · · · · · · · · · · ·		ENT INFORM					
Item	Ma		Model	Serial			Custom		Location
Pipettor	Lam	bda	1000	38:	1117	•	N/A		Toxicology
Units	Increr	nent	SOP	Cal	Dat	е	Last Cal	Date	Cal Due Dat
ul	. 1		QCS022	7/1	7/19	)	7/10/1	8	7/2020
	., .,	CALIBRA	TION DATA				-	ENVIR	ONMENT
Volume Setting As-Found As-Left	d: 990.1 Volume			Volume As As	-Fo -Le	ting: 200 und: 193.: ft Volun	5		re: 21.1°C ty: 46.2% re: 26.57 in H
<b>#2</b> 9	90.5 89.9				#1 #2	192.5 193.0		channel	reading
	88.7				#3	193.5	-	2	n/a
	90.0				#4	192.7		3	n/a
<b>#5</b> 9	89.5				#5	193.3		4	n/a
								5	n/a
								6	n/a
								7	n/a
								8	n/a
								9	n/a
				_		100.0		10	n/a
Mean:						n: 193.0		11	n/a
Std Deviation:	0.7			Std Devia				12	n/a
inaccuracy: -	10.3			Inaccu	-	•	<u> </u>	14	
Uncertainty:	0.61			Uncerta	ainty	y: 0.12			
A	AS-FOUND DATA	A EQUALS THE N	MEAN OF THRE	E MEASUREMENT	S				
Parts Replaced:	□ Seal □Other	□ O-Ring	☐ Piston	☐ Button		Shaft	□ T-Ring	g □ Spr	ing ⊟Cou
			CALIBRA	TION STAND	ARI	os	A	DDITION	AL CHANNE
Item	Make	Mod	lel Se	rial Number		Cal Date	Cal	Due Date	Traceable
Weight Set	Rice Lake	5 kg to	1 mg	10472		6/17/19	(	5/2020	2019111
Rarometer-Hvorome	Control Co	424	17	160207969		3/5/19		3/2020	2019044

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** Unit does not meets or exceeds ISO 8655 tolerances at 1000uL. Comments/Info Concerning this Calibration:

7/2019 End Calibration: As Found = Out of tolerance @ 1000uL.

Report Prepared/Reviewed by:

Technician: T.Green

Date: Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01942763347190717

### **A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA**

		MOTROME	NT INFORMATI	014		<del> </del>	<del></del>
ltem	Make	Model	Serial Nun	nber	Customer id	L	ocation_
Pipettor	VWR	200 ul	94276334	17	N/A	Т	oxicology
Units	Increment	SOP	Cal Dat	е	Last Cal Date	Cal Date Cal Due	
ul	0.1	QC022	7/17/19	)	7/9/18		7/2020
	CALIBI	RATION DATA			<u> </u>	NVIRON	MENT
Volume Setting As-Found	: 200		Volume Set As-Fo	ting: 20 und: 22.02		erature: 2 umidity: 3	
<b>As-Left</b> #1 19	<b>Volume</b> 99.09		As-Le #1	ft Volun 21.94	ne Pr	ressure: 2	26.64 in Hg
<b>#2</b> 19	98.84		#2	21.76	char	nnel	reading
#3 19	98.36		#3	22.02	<u> </u>	2	n/a
<b>#4</b> 19	99.36		#4	22.12	- 1	3	n/a
<b>#5</b> 19	98.24		#5	22.25	1	4	n/a
						5	n/a
					<b>I</b>	6	n/a
					ſ	7	n/a
					<b>;</b>	В	n/a
					i i	9	n/a
Mean:	100 70		Maa	n: 22.02	1	0	n/a
			Std Deviation		i i	1	n/a
Std Deviation: (			Inaccurac		į.	2	n/a
Inaccuracy: -1				-	L		
Uncertainty: (		TYPE A STEAD OF THE PER	Uncertaint	y: 0.092			
A	S-FOUND DATA EQUALS T	HE MEAN OF THRE	E MEASUREMENTS				
arts Replaced:	☐ Seal ☐ O-Rir ☐ Other	ng □ Piston	☐ Button ☐	Shaft	☐ T-Ring [	☐ Spring	□Coup

#### **CALIBRATION STANDARDS**

#### **ADDITIONAL CHANNELS**

item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** Pipette does not meet ISO 8655 tolerances, As Found.

**Comments/Info Concerning this Calibration:** 

7/19 End of Calibration: As Found Only = Out of tolerance.

Report Prepared/Reviewed by:

17/2019 Date:

Technician: T.Gre Signature:



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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B727355853190718

# A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

ltem	Mal	ke	Model	Serial	Number	Custome	er id	Lo	ocation
Pipettor	Rain	nin	PR-10	B727	355853	N/A		Toxicology	
Units	Increr	ment	SOP	Cal	Date	Last Cal	Date	Cal	Due Date
ul	),0	02	QCS022	7/	18/19	7/10/1	8		7/2020
		CALIBRA	TION DATA				ENVIR	RONI	MENT
Volume Setting As-Found:	9.94			A:	Setting: 2 s-Found: 1.9	5	emperatu Humidi	ty: 4	9.2%
As-Left \ #1 10	<b>/olume</b> .06			A	s-Left Volu #1 1.96	ıme	Pressu	re: 2	6.57 in Hg
<b>#2</b> 10	.07				<b>#2</b> 2.02		channel		reading
	.02				<b>#3</b> 1.98		2		n/a
#4 9.9					<b>#4</b> 1.97		3		n/a
<b>#5</b> 9.9	95				<b>#5</b> 2.00		4		n/a
							5		n/a
							6		n/a
						-	7		n/a
							8		n/a
						ļ	9		n/a
Mean: 1	0.01			İ	Mean: 1.99		10		n/a
Std Deviation: 0				Std Devi	ation: 0.02		11	ŀ	n/a
Inaccuracy: 0				Inaccı	iracy: -0.01		12	l	n/a
Uncertainty: 0					ainty: 0.044				
_		A EQUALS THE N	MEAN OF THREE	E MEASUREMEN	rs				
Parts Replaced:	□ Seal	□ O-Ring	☐ Piston	☐ Button	☐ Shaft	☐ T-Ring	g □ Spr	ring	□ Couplin
-	□Other								
			CALIBRA	TION STAND	ARDS	A	DDITION	AL C	HANNELS
item	Make	Mod	iel Se	rial Number	Cal Dat	e Cal	Due Date	Т	raceable ID

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: _

PT ID: MTFM01

_____Date: <u>////8/2019</u> Technician: T.Greene Signature:



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Montana, State of/Missoula-Forensic

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2679 Palmer Street

Report Number: MTFM01542751972190718

### A ACCREDITED

Missoula, MT 5980	8	CERTIF	ICATE OF	CALIBRATIO	<u>HTIW NC</u>	<u>ATAC</u>		
			INSTRUM	ENT INFORMA	TION		····	
item	Ma	ıke	Model	Serial N	umber	Customer id	d	Location
Pipettor	VV	VR	EHP 200	54275	1972	N/A	,	Toxicology
Units	Incre	ment	SOP	Cal D	ate	Last Cal Dat	te Ca	al Due Date
ul	0	.2	QC022	7/18	/19	7/10/18		7/2020
		CALIBRA	TION DATA	\			ENVIRO	NMENT
Volume Settin As-Four	ng: 200 nd: 199.36			Volume S As-	Setting: 50 Found: 49.8	8   1	perature: Humidity:	52.6%
	<b>Volume</b> 199.56			•	Left Volur 11 50.15	ne	Pressure:	26.57 in Hg
	199.50				50.22	ch	annel	reading
#3	199.47			#	<b>3</b> 50.25	1	2	n/a
#4	199.59			#	<b>4</b> 50.18		3	n/a
#5	199.54			#	<b>5</b> 50.17		4	n/a
						}	5	n/a
							6	n/a
						ļ	7	n/a
						l.	8	n/a
						1	9	n/a
\$0	100.62			和海.	ean: 50.19	1	10	n/a
	199.53			Std Deviat			11	n/a
Std Deviation:					acy: 0.19		12	n/a
Inaccuracy:					nty: 0.092			
Uncertainty:					•			
	AS-FOUND DAT	A EQUALS THE	MEAN OF THRE	EE MEASUREMENTS				
Parts Replaced:	: □ Seal	□ O-Ring	☐ Piston	☐ Button	□ Shaft	☐ T-Ring	☐ Spring	j □Coupling
	□Other							
			CALIBRA	TION STANDA	RDS	ADD	ITIONAL	CHANNELS
ltem	Make	Мо	del Se	erial Number	Cal Date	Cal Due	Date	Traceable ID
*** * 1 . 0 .	T) T 7	<u> </u>	1	10470	6/17/10	6/20	20	20101111

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

7/2019: As Found = Pass. As Left = Pass, cleaned and serviced. Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision.

Report Prepared/Reviewed by:

12019 Date: Technician: T.Grega Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01542731816190718

### **A2LA ACCREDITED**

#### **CERTIFICATE OF CALIBRATION WITH DATA**

ltem	Make	e	Model	Serial	Nun	nber	Custo	mer id		Location
Pipettor	VWF	₹	EHP 2-20uL	5427	318	16	N	I/A		Toxicology
Units	Increm	ent	SOP	Cal	Dat	e	Last C	al Date	C	al Due Date
ul	0.2		QCS022	<b>7/</b> 1	8/19		7/1	0/18		7/2020
· · · · · · · · · · · · · · · · · · ·		CALIBRAT	ION DATA						ENVIRO	NMENT
Volume Setting As-Found As-Left	: 20.10 Volume			- "-	-Fo -Le	und: 1.95 ft Volun	ne	H	perature: lumidity: ressure:	
<b>#2</b> 19	),05 ),98				#1 #2	1.96 2.02	[	cha	nnel	reading
	).11 ).09				#3 #4	1.98 2.01			2	n/a n/a
	).03				#5	1.97			3	n/a
<b>,, c</b>									4 5	n/a
									6	n/a
									7	n/a
							1		8	n/a
									9	n/a
Mean: 2	0.05			j	leai	n: 1.99			10	n/a
Std Deviation: 0				Std Devi					11	n/a
Inaccuracy: 0						y: -0.01		1	12	n/a
Uncertainty: 0					-	v: 0.044	L.			4.6
-		EQUALS THE M	EAN OF THREE	MEASUREMEN?						
•	□ Seal □Other	□ O-Ring	☐ Piston	☐ Button		Shaft	□ T-F	Ring	☐ Spring	g □Coupl
			CALIBRAT	ION STAND	ARI	DS		ADDI	TIONAL	CHANNEL
ltem	Make	Mod		ial Number		Cal Date	C	al Due	Date	Traceable II
	1414114									00101111

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygroma	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Signature:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: ___(

Date: 7/18/2019

Technician: Ţ.Gregne,

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF OVALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data

reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01442741557190718

### **A2LA ACCREDITED** CERTIFICATE OF CALIBRATION WITH DATA

Wilstoula, WH 3900	0	CERTIFICATI	UF CALIBRA	ION WITH	<u>DATA</u>	
		INSTI	RUMENT INFORM	MATION	<u>, ,</u>	
ltem	Mal	ke Mo	del Seria	Number	Customer id	Location
Pipettor	VW	R EHP	10-100 442	741557	N/A	Toxicology
Units	Incren	nent	SOP Ca	l Date	Last Cal Date	Cal Due Date
ul	0.	2 Q	CS022 7/	18/19	7/10/18	7/2020
		CALIBRATION I	DATA		EN\	VIRONMENT
	ng: 100 nd: 100.25 Volume 100.34		Volum A	e Setting: 20 .s-Found: 19.9 .s-Left Volur #1 20.02	⁶ Hum	ature: 20.9°C idity: 52.9% sure: 26.57 in Hg
#2	100.28			<b>#2</b> 20.08	channe	el reading
#3	100.22			<b>#3</b> 20.10	2	n/a
#4	100.39			<b>#4</b> 20.05	3	n/a
#5	100.30			<b>#5</b> 20.02	4	n/a
					5	n/a
					6	n/a
					7	n/a
					8	n/a
					9	n/a
				Mean: 20.05	10	n/a
	100.31		0.10		11	n/a
Std Deviation:				iation: 0.04	12	n/a
Inaccuracy:	0.31			<b>uracy:</b> 0.05	14	<u>,                                    </u>
Uncertainty:	0.087		Uncer	tainty: 0.092		
	AS-FOUND DATA	A EQUALS THE MEAN OF	THREE MEASUREMEN	TS		
Parts Replaced	: □ Seal □Other	□ O-Ring □ Pi	ston   Button	☐ Shaft	☐ T-Ring ☐ S	Spring □Coupling
	سيبستن کيوان که د کيوان د	CALI	BRATION STANI	DARDS	ADDITIO	NAL CHANNELS
Item	Make	Model	Serial Number	Cal Date	Cal Due Dat	e Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome		4247	160207969	3/5/19	3/2020	20190440
				**		

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by:

Date: Technician: T.Green Signature:



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Montana State of/Missoula-Forensic

995.7

995.9

995.5

996.7

#2

#3

#5

Serv.

2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B815702316190718

### **A2LA ACCREDITED**

#### CERTIFICATE OF CALIBRATION WITH DATA

#### INICTOLIMENT INFORMATION

ltem	Make	Model	Serial Number	Customer id	Location	
Pipettor	Rainin	L-1000-XLS	B815702316	N/A	Toxicology	
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date	
ul	2	QCS022	7/18/19	7/9/18	7/2020	
	CALIB	RATION DATA		E	NVIRONMENT	
Volume Setting: 1000 As-Found: 994.9 As-Left Volume #1 996.2			Volume Setting: 20 As-Found: 19	o i cimpo	Temperature: 21°C Humidity: 49.7%	
			<b>As-Left Vol</b> #1 199.5	- 1	essure: 26.57 in Hg	

#2 200.2 200.5 #3 199.1

#5

199.3

channel reading n/a 2

3

4

5

6

7

8

9

10

11

12

n/a

Mean: 199.7 Mean: 996.0 Std Deviation: 0.6 Std Deviation: 0.5 Inaccuracy: -0.3 Inaccuracy: -4.0 Uncertainty: 0.12 Uncertainty: 0.61

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

□ Button □ Shaft Parts Replaced: 

Seal □ O-Ring □ Piston □ T-Ring □ Spring □ Coupling □ Other

#### **CALIBRATION STANDARDS**

#### ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by:

Date: 7/18/2019 Technician: T.Gregne Signature:



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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B815702576190718

## **A2LA ACCREDITED**

## **CERTIFICATE OF CALIBRATION WITH DATA**

				NT INCORN				
Item	Ma		Model	<u>NT INFORM</u> Serial	Number	Custo	mer id	Location
Pipettor	RAII	NIN	L-2-XLS	<del></del>	5702576		/A	Toxicology
Units	Increi	nent	SOP	Ca	i Date	Last C	al Date	Cal Due Date
ul	0.0		QCS022		18/19	·	0/18	7/2020
	· <u>··············</u>	CALIBRAT	ON DATA	<del>, , , , , , , , , , , , , , , , , , , </del>			ENVI	RONMENT
	_			A	Setting: 0.4 s-Found: 0.4 s-Left Vol #1 0.49	16	Humid	ure: 21.3°C lity: 53.9% ure: 26.56 in Hg
#2	1.98				<b>#2</b> 0.47	[***	channel	reading
	2.02				<b>#3</b> 0.50		2	n/a
	1.97				<b>#4</b> 0.48	-	3	n/a
#5	2.03				<b>#5</b> 0.52		4	n/a
							5	n/a
							6	n/a
							7	n/a
							8	n/a
							9	n/a
Mean:	2.00			1	Mean: 0.49	-	10	n/a
Std Deviation:				Std Devi	ation: 0.02		11	n/a
Inaccuracy:					iracy: -0.01		12	n/a
<del>-</del>					ainty: 0.03	L }		·
Uncertainty:		A EQUALS THE MI	EAN OF THREE		•	,		
Parts Replaced:	□ Seal	□ O-Ring	☐ Piston	☐ Button	□ Shaft	□ T-R	ing □ Sp	ring □Coupli
			CALIBRAT	ION STANE	ARDS		ADDITION	AL CHANNELS
ltem	Make	Mode	el Ser	ial Number	Cal Dat	e Ca	al Due Date	Traceable IC
Weight Set	Rice Lake	5 kg to 1	mg	10472	6/17/19	)	6/2020	20191111

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by:

Date:

Technician: T.Green Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B815702567190718

# A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA

Item	Ma	ake	Model	Serial I	lun	nber	Custom	er id	L	ocation
Pipettor	RAI	ININ	L-20-XLS	B8157	025	567	N/A	•	To	xicology
Units	Incre	ement	SOP	Cal	Dat	e	Last Cal	Date	Cal	Due Date
ul	0	.02	QCS022	7/1	8/19	)	7/9/1	8		7/2020
		CALIBRA	TION DATA					ENVI	RON	WENT
Volume Settin As-Foun	_			Volume		ting: 2 und: 1.98		Temperatu Humid		
	20.05				#1	ft Volui 2.02	ne	Pressu	ire: 2	6.57 in Hg
<del></del>	20.06				#2	1.97		channel		reading
	20.00				#3	1.99		2		n/a
	19.95				#4	2.00		3		n/a
#5	19.97				#5	2.02		4		n/a
							-	5		n/a
								6		n/a
								7		n/a
								8		n/a
								9		n/a
Mean:	20.01			N	ear	n: 2.00		10		n/a
Std Deviation:				Std Devia				11		n/a
				Inaccui			Ì	12		n/a
inaccuracy:					_	y: 0.044	<del>-</del>			
Uncertainty:		A EQUALS THE N	MEAN OF THREE	E MEASUREMENT	•	y. 0.0 <del>11</del>				
arts Replaced:	☐ Seal	□ O-Ring	☐ Piston	☐ Button		Shaft	☐ T-Rin	g □ Sp	ring	□Coupl
	□Other									
			CALIBRA [*]	TION STANDA	٩RI	os	A	DDITION	AL C	HANNEL
ltem	Make	Mor	1-1 0-	rial Number		Cal Date	0-1	Due Date	7	raceahle il

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment:

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by: ____( \

Date: 7/18/2019 Technician: T.Green

Signature:



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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM0110182830190718

## **A2LA ACCREDITED**

### **CERTIFICATE OF CALIBRATION WITH DATA**

ltem	Make	Model	Serial Number	Customer id	Location
Pipettor	Biohit	1000	10182830		Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	1	QCS022	7/18/19	7/10/18	7/2020
	CAL	IBRATION DATA	<u>, , , , , , , , , , , , , , , , , , , </u>	EN	VIRONMENT
Volume Settin As-Foun As-Left	g: 1000 d: 1005.6		Volume Setting: 20 As-Found: 20 As-Left Vol	3.9 Hun	rature: 20.9°C nidity: 56.1% ssure: 26.59 in Hg
#2	001.8		#1 202.8 #2 203.3	chann	
	.002.3 .001.5		# <b>3</b> 203.0 # <b>4</b> 202.7	2	n/a n/a
	002.6		# <b>5</b> 203.2	3	n/a
#3 ·	.002.0		# <b>3</b> 203.2	4	n/a
				5	n/a
				6	n/a
				7	n/a
				8	n/a
			<b>88</b> 200	9 10	n/a
Mean:	•		Mean: 203.6	10	n/a
Std Deviation:			Std Deviation: 0.3	12	n/a
Inaccuracy:	2.1		Inaccuracy: 3.0	12	
Uncertainty:	0.61		Uncertainty: 0.12		
	AS-FOUND DATA EQUAL	S THE MEAN OF THREE	E MEASUREMENTS		
arts Replaced:	☐ Seal ☐ O-	Ring   Piston	☐ Button ☐ Shaft	☐ T-Ring ☐	Spring □Coup

#### **CALIBRATION STANDARDS**

## ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

**Comments/Info Concerning this Calibration:** 

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Date: 7/18/2019 Report Prepared/Reviewed by:

Technician: T.Greege

Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01542763012190718

## A2LA ACCREDITED

## **CERTIFICATE OF CALIBRATION WITH DATA**

#### INSTRUMENT INFORMATION

ltem	Make	Model	Serial Number	Customer id	Location
Pipettor	VWR	EHP 1000	542763012	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	1	QC022	7/18/19	7/10/18	7/2020

ul	1 QC022	7/18/19	7/10/18	7/2020
	CALIBRATION DATA		ENVIRO	NMENT
Volume Setting: 10 As-Found: 100 As-Left Volu #1 1001.7	Volume Setting: 2.0 As-Found:  Mathematical As-Left Volume	Volume Setting: 200 As-Found: 202.0 As-Left Volume #1 201.1	Temperature Humidity Pressure	
#2 1000.9 #3 1001.1 #4 1002.0 #5 1001.4	#2 #3 #4	#2 200.9 #3 201.4 #4 201.7 #5 200.6	2 3 4 5 6 7	reading n/a n/a n/a n/a n/a n/a n/a n/a
Mean: 1,001 Std Deviation: 0.4 Inaccuracy: 1.4 Uncertainty: 0.61 AS-FOU	Mean: Std Deviation: Inaccuracy: Uncertainty: IND DATA EQUALS THE MEAN OF THREE	Mean: 201.1 Std Deviation: 0.4 Inaccuracy: 1.1 Uncertainty: 0.12 EMEASUREMENTS	9 10 11 12	n/a n/a n/a n/a
Parts Replaced: ☐ S	•	☐ Button ☐ Shaft ☐	 T-Ring □ Sprin	g □Coupling

#### **CALIBRATION STANDARDS**

#### **ADDITIONAL CHANNELS**

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

Permanent Information Concerning this Equipment: Comments/Info Con

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by:

Date: 7/18/2019

Technician: T.Greene

THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF CHALITY CONTROL SERVICES, INC.

The uncertainty is calculated according to the ISO Guide to the Expression of Uncertainty in Measurement and includes the uncertainty of standards used

combined with the observed standard deviation of the unit under test. The uncertainty is expanded with a K factor of 2 for an approximate 95% level of confidence. Instruments listed above were calibrated using standards traceable to the National Institute of Standards and Technology (NIST). Calibration data reflect results at the time and location of calibration. Calibrations comply with ISO/IEC 17025 and ANSI/Z540-1-1994 quality standards.



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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808

#1

#2

#3

#4

#5

199.91

Report Number: MTFM01542752080190718

## **A2LA ACCREDITED**

#### **CERTIFICATE OF CALIBRATION WITH DATA**

INSTRUME	MT	INFO	PMA	TION
MOINUME		INTO		

ltem	Make	Model	Serial Number	Customer id	Location			
Pipettor	VWR	EHP 200	542752080	N/A	Toxicology			
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date			
ul	0.2	QC022	7/18/19	7/10/18	7/2020			
<del>, , , , , , , , , , , , , , , , , , , </del>	CALIBR	RATION DATA		EN\	/IRONMENT			

Volume Setting: 200 Volume Setting: 50 **As-Found:** 50.11 As-Found: 198.50 As-Left Volume As-Left Volume 199.94 #1 50.04 #2 50.01 199.85 #3 49.97 200.02 200.06 50.03

Temperature: 21.1°C Humidity: 56.9% Pressure: 26.57 in Hg

reading

n/a

n/a

channel

2

3

Mean: 50.01 Mean: 199.96 Std Deviation: 0.03 Std Deviation: 0.08

n/a 4 n/a 5 n/a 6 n/a 7 n/a 8 n/a 9 n/a 10 n/a 11 n/a 12

Inaccuracy: 0.01 Inaccuracy: -0.04 Uncertainty: 0.092 Uncertainty: 0.120

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

□ Button □ Shaft □ T-Ring □ Spring □ Coupling Parts Replaced: ☑ Seal □ O-Ring ☐ Piston □ Other

#### CALIBRATION STANDARDS

#### ADDITIONAL CHANNELS

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

7/14/2019

Date: Report Prepared/Reviewed by:

Technician: T.Green

50.00

#5

Signature:



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Montana, State of / Missoula-Forensic

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2679 Palmer Street

Report Number: MTFM015427317803190718

# **A2LA ACCREDITED**

Missoula, MT 59808	3	CERTIFICAT	E OF CALIBRA	ATION WITH	<u>DATA</u>		
		INST	RUMENT INFOR	RMATION		<u> </u>	
ltem	Mai	ke Mo	odel Seri	ial Number	Customer id	Location	
Pipettor	VW	'R EHP	2-20uL 54	27317803	N/A	Toxicology	
Units	Increr	ment	SOP (	Cal Date	Last Cal Date	Cal Due Date	
ul	0.	2 (	CS022	7/18/19	7/10/18	7/2020	
		CALIBRATION	DATA		ENV	IRONMENT	
Volume Settin As-Foun	<b>d:</b> 20.16			me Setting: 2 As-Found: 2.15	riumunty: 55.176		
	Volume			As-Left Volum	me Press	<b>ure</b> : 26.57 in Hg	
	19.98			#1 2.01		<del></del>	
	20.05 20.04			# <b>2</b> 2.05 # <b>3</b> 2.02	channe		
	20.0 <del>4</del> 20.08			# <b>3</b> 2.02 # <b>4</b> 2.00	2	n/a n/a	
== =	20.08			<b>#5</b> 2.03	3	n/a	
#J .	20.02			# <b>O</b> 2.03	4	n/a	
					5	n/a	
					6	n/a	
					7	n/a	
					8	n/a	
					9	n/a	
Mean:	20.03			Mean: 2.02	10	n/a	
Std Deviation:	0.04		Std De	eviation: 0.02	11	n/a	
Inaccuracy:	0.03		Inac	ccuracy: 0.02	12		
<b>Uncertainty:</b>	0.092		Unc	ertainty: 0.044			
<del>-</del>		A EQUALS THE MEAN O	F THREE MEASUREM	ENTS			
Parts Replaced:	☐ Seal ☐Other	□ O-Ring □ P	iston □ Button	□ Shaft	☐ T-Ring ☐ S	pring □Couplin	
		CAI	IBRATION STAI	NDARDS	ADDITIO	NAL CHANNELS	
Item	Make	Model	Serial Numbe				
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111	
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440	
	•	rning this Equipme	ant: Com	ments/Info Cor	ncerning this Calib	ation.	

Comments/Info Concerning this Calibration: **Permanent Information Concerning this Equipment:** 

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision. 7/2019: As Found = Pass. As Left = Pass, clean, service, adj cal. Date: 7/18/2019

Report Prepared/Reviewed by:

Signature: THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

Technician: T.Greepe



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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01B815702398000718

## **A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA**

INSTRUMENT INFORMATION

item	Make	Model	Serial Number	Customer id	Location	
Pipettor	RAININ	L-200-XLS	B815702398	N/A	Toxicology	
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date	
ul	0.2	QCS022	7/18/00	7/9/18	7/1901	
		<del></del>		<del> </del>		

	CALIBRATION DATA		ENVIRO	NMENT
Volume Setting: 200 As-Found: 169.2	Volume Setting: 100 As-Found: N/A	Volume Setting: 20 As-Found: 18.36	Temperature Humidity	
As-Left Volum	e As-Left Volume	•	Pressure: 26.57 in	
<b>#1</b> 200.04	<b>#1</b> 100.07	<b>#1</b> 20.52	L.,	
<b>#2</b> 200.08	<b>#2</b> 99.98	<b>#2</b> 20.60	channel	reading
<b>#3</b> 200.17	<b>#3</b> 99.92	<b>#3</b> 20.63	2	n/a
<b>#4</b> 200,22	<b>#4</b> 100.02	<b>#4</b> 20.63	3	n/a
<b>#5</b> 200.10	<b>#5</b> 100.03	<b>#5</b> 20.50	4	n/a
<b>#6</b> 200.09	<b>#6</b> 99.97	<b>#6</b> 20.50	5	n/a
<b>#7</b> 200.19	<b>#7</b> 100.06	<b>#7</b> 20.59	6	n/a
<b>#8</b> 200.07	#8 100.10	<b>#8</b> 20.54	7	n/a
<b>#9</b> 200.18	<b>#9</b> 99.96	<b>#9</b> 20.56	8	n/a
<b>#10</b> 200.06	<b>#10</b> 99.94	<b>#10</b> 20.55	9	n/a
Mean: 200.12	Mean: 100.01	Mean: 20.56	10	n/a
	Std Deviation: 0.06	Std Deviation: 0.05	11	n/a
Std Deviation: 0.06	Inaccuracy: 0.01	Inaccuracy: 0.56	12	n/a
Inaccuracy: 0.12	Uncertainty: 0.087	Uncertainty: 0.092		
Uncertainty: 0.120	•			
AS-FOUN	D DATA EQUALS THE MEAN OF THRE	E MEASUKEMEN IS		
arts Replaced: 🏻 Se	al □ O-Ring □ Piston	☐ Button ☐ Shaft ☐	 T-Ring □ Sprin	g □Coup
arts Replaced: 🛭 Se	as LIO-King LI FISION	L Dukon L Onait L	1-14mg E Obiti	a moonb

#### **ADDITIONAL CHANNELS** CALIBRATION STANDARDS

ltem	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances_for Accuracy & Precision, Date: 7/18/2019 Technician: T.Greens

7/19 As Found = Out of tolerance. As Left = Pass, clean, svs, adj cal

Report Prepared/Reviewed by: Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM01129221190717

## **A2LA ACCREDITED**

## **CERTIFICATE OF CALIBRATION WITH DATA**

INSTR	UMENT	INFORMA	ATION

ltem	Make	Model	Serial Number	Customer id	Location
Pipettor	Ovation	100-1000	129221	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	2	QCS022	7/17/19	7/9/18	7/2020
	CALIBR	RATION DATA		EN	IVIRONMENT
Volume Sett As-Fou	ting: 1000 und: 1004.4		Volume Setting: 2 As-Found: 19	a l'empe	rature: 21.4°C midity: 45.3%
As-Let #1	ft Volume 1003.6		<b>As-Left Vol</b> #1 199.2		ssure: 26.66 in Hg
#2	1004.2		<b>#2</b> 199.0		nel reading
#3	1004.1		# <b>3</b> 198.9	2	n/a
#4	1003.7		# <b>4</b> 199.8 # <b>5</b> 199.7		n/a
#5	1004.0		<b>#5</b> 199.7	4	n/a
				5	n/a
				6	n/a
				7	n/a
				i a	n/a

Mean: 199.3 Mean: 1,003.9 Std Deviation: 0.4

Std Deviation: 0.3 Inaccuracy: -0.7 Inaccuracy: 3.9 Uncertainty: 0.12 Uncertainty: 0.61

AS-FOUND DATA EQUALS THE MEAN OF THREE MEASUREMENTS

□ Shaft □ T-Ring □ Spring □ Coupling Parts Replaced: 

Seal □ O-Ring □ Piston □ Button

□ Other

#### **CALIBRATION STANDARDS**

#### **ADDITIONAL CHANNELS**

10

11

12

n/a n/a

n/a

n/a

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrom	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

Comments/Info Concerning this Calibration:

Pipette meets/exceeds ISO 8655 tolerances for Accuracy & Precision, 7/2019: As Found = Pass. As Left = Pass, cleaned and serviced.

Report Prepared/Reviewed by:

Date: Technician: T.Greg Signature:



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Montana, State of/Missoula-Forensic

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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM0101K08757190718

## **A2LA ACCREDITED** CERTIFICATE OF CALIBRATION WITH DATA

	·	INSTRUME	NT INFORMATION		
Item	Make	Model	Serial Number	Customer id	Location
Dispenser	Brand	Dis. III 5ml	01K08757	N/A	Toxicology
Units	Increment	SOP	Cal Date	Last Cal Date	Cal Due Date
ul	100	QCS022	7/18/19	7/10/18	7/2020
	CALIB	RATION DATA		E	NVIRONMENT
Volume Setting: As-Found: As-Left \ #1 50	5000 5020.3		Volume Setting: 20 As-Found: 20 As-Left Vol #1 2010.3	15.0 H	perature: 21.5°C umidity: 44.8% ressure: 26.57 in Hg
<b>#3</b> 50 <b>#4</b> 50	13.9 17.6 14.9 16.1		#2 2012.4 #3 2011.9 #4 2013.4 #5 2014.3	7   Cha	nnel reading n/a n/a n/a n/a n/a n/a n/a n/a n/a n/a
Mean: 5, Std Deviation: 1, Inaccuracy: 1; Uncertainty: 2,	4 5.6 40		Mean: 2,012 Std Deviation: 1.6 Inaccuracy: 12.5 Uncertainty: 1.50	2.5	n/a 1 n/a 2 n/a
Parts Replaced: [	-FOUND DATA EQUALS T □ Seal □ O-Rir □Other	ng □ Piston	☐ Button ☐ Shaft	-	☐ Spring ☐ Couplin

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

**Comments/Info Concerning this Calibration:** 

Technician: T.Greene

Unit meets or exceeds ISO 8655 tolerances.

7/19: As Found = Pass. As Left = Pass, cleaned.

Report Prepared/Reviewed by: _

Date:

Signature:



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2679 Palmer Street Missoula, MT 59808 Report Number: MTFM0109A7220190718

## **A2LA ACCREDITED CERTIFICATE OF CALIBRATION WITH DATA**

	والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع وا	IN	STRUME	NT INFORM	IATIO	<u>NC</u>				
ltem	Ma	ke	Model	Serial	Num	ber	Custo	omer id	L	ocation
Dispenser	Bra	nd	Dis.10ml	09.	A7220	)	N	I/A	To	xicology
Units	Increi		SOP	Ca	l Date	е	Last C	Cal Date	Cal	Due Date
ul	0.0	05	QC022	7/	18/19		8/1	.0/18		7/2020
		CALIBRATIC	N DATA					ENVII	RONI	MENT
As-Left	g: 5000 d: 4998.3 Volume 4994.7			A	s-Fou	ing: 200 und: 1998 t Volun 2000.5	.9	Temperatu Humid Pressu	ity: 4	
#2	4995.6				#2	1999.4	Г	channel	1	reading
#3	4996.9				#3	1998.6		2		n/a
#4	4997.4				#4	2001.1		3		n/a
#5 4	4997.7				#5	1999.0		4		n/a
							1	5	Ì	n/a
								6		n/a
								7		n/a
								8		n/a
							1	9		n/a
Mean:	1 006 5			ı	Moan	1 000 7		10		n/a
Std Deviation:			Mean: 1,999.7 Std Deviation: 1.0					11		n/a
				Inacci				12		n/a
Inaccuracy:				Uncert			L			
Uncertainty:		DOLLI COMMENTE SON				1.50				
4	AS-FOUND DATA	EQUALS THE MEA	N OF THREE	MEASUREMEN	15					
Parts Replaced:	□ Seal □ Other	□ O-Ring □	l Piston	☐ Button		Shaft	□ T-R	ling □ Sp	ring	□ Coupling
		C	ALIBRAT	ION STAND	ARD	S		ADDITION	AL C	HANNELS
Item	Make	Model	Ser	ial Number	C	al Date	C	al Due Date	Tr	aceable ID
Weight Set	Rice Lake	5 kg to 1 m	ıg	10472		6/17/19		6/2020		20191111
Barometer-Hygrome	Control Co.	4247	1	60207969		3/5/19		3/2020		20190440

Item	Make	Model	Serial Number	Cal Date	Cal Due Date	Traceable ID
Weight Set	Rice Lake	5 kg to 1 mg	10472	6/17/19	6/2020	20191111
Barometer-Hygrome	Control Co.	4247	160207969	3/5/19	3/2020	20190440

**Permanent Information Concerning this Equipment:** 

**Comments/Info Concerning this Calibration:** 

Unit meets or exceeds ISO 8655 tolerances. Customer checkpoints.

7/19: As Found = Pass. As Left = Pass, cleaned. Customer test points

Report Prepared/Reviewed by:

Date: 7/18/2019

Technician: T.Greene

Signature: THIS CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE APPROVAL OF QUALITY CONTROL SERVICES, INC.

#### Certificate of Weight Calibration RICELAKE

ISO/IEC 17025 & ANSI/NCSL Z540-1-1994; Part 1 Accredited

0.0012 2 0.010

Traceable Certificate Number: 2912505 Amended

MONTANA DEPARTMENT OF JUSTICE Contractor:

FORENSIC SCIENCE DIVISION

2679 PALMER ST

MISSOULA, MT 59808

**Purchase Order Number:** MSCL

Client:

MONTANA STATE CRIME LAB

2679 PALMER ST MISSOULA, MT 59808

**Date Received:** 28 May 2019 Date Calibrated: 31 May 2019 **Recall Date:** 31 May 2021 Temperature Range: 20.92 °C Pressure Range: 725.15 mmHg Relative Humidity Range: 51 %

1.1401 mg/cm³ Air Density Range:

684/291344-18 & 684/292805-19 NIST Certificate Number:

If there are two NIST numbers, one or both may apply

10.0044

Calibrated By: 03

Procedure: Inter-comparison Method (WI05-0095 Rev. C)

0.0044

Condition of Weights: Acceptable for Calibration

10 mg Leaf Weight, ASTM Class 1, S/N 86G9 (Changed Recall to 2 year, 14 Feb 2020) **Description of Weights:** As Found As Left Conv. Mass MPE Balance Standard Assumed Conv. Mass MPE Unc. k MPE* Nominal ID Conv. Conv. Set Density Used Value Mass Corr **Pass** Mass Corr **Pass** or (mg) (mg) Used (g/cm³) S/N (mg) (mg)

0.0044

10.0044

This report contains data not covered by the NVLAP Accreditation if the box is checked.

Check with your local state agency for certification of compliance on Legal for Trade items. 'The weight accuracy class is referenced in the Description of Weights.

Unless otherwise noted, the weights calibrated meet the requirements of the accuracy class. Results relate only to weights calibrated. The Uncertainty of Measurement is included in the determination of Maximum Permissible Error (MPE) Pass/Fail Criteria. The specifications for Maximum Permissible Error (MPE) can be found in NIST Handbook 105-1 (2019),

Prepared By:

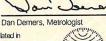
10 mg 86G9

NIST Handbook 105-1 (1990), ASTM E617-18 or OIML R111-1 (2004), manufacturer specifications or customer specifications.

Rice Lake Weighing Systems

230 West Coleman Street, Rice Lake, WI 54868 • USA • PN 64787 • 6/19 TEL: 715-234-9171 • FAX: 715-234-6967 • www.ricelake.com Definitions: http://certs.ricelake.com/certs/DefinitionsV2.docx

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Dated

14 Feb 2020





L595Q

7.95

503Q

## RICELAKE

# Certificate of Weight Calibration

ISO/IEC 17025 & ANSI/NCSL Z540-1-1994; Part 1 Accredited

**Traceable Certificate Number:** 

2888460 Amended

Contractor:

Client:

MONTANA DEPARTMENT OF JUSTICE

FORENSIC SCIENCE DIVISION

2679 PALMER ST MISSOULA, MT 59808

Purchase Order Number:

CC

MONTANA STATE CRIME LAB

2679 PALMER ST MISSOULA, MT 59808

**Date Received:** 

08 Apr 2019

**Date Calibrated:** 

01 May 2019 to 02 May 2019

Recall Date:

01 May 2021

Temperature Range:

21.07 °C to 21.19 °C

Pressure Range:

731.81 mmHg to 734.43 mmHg

Relative Humidity Range:

46 % to 52 %

Air Density Range: NIST Certificate Number:

1.1503 mg/cm³ to 1.1544 mg/cm³ 684/291344-18 & 684/292805-19

If there are two NIST numbers, one or both may apply Calibrated By:

05, 17

Procedure:

Inter-comparison Method (WI05-0095 Rev. C)

**Condition of Weights:** 

Acceptable for Calibration

Description of Weights:

100 mg to 1 kg Polished Weights, ASTM Class 1 (Updated recall to 2 year interval, 18 Feb 2020)



			As	s Found		As Left								
Nomi	inal	ID	Conv.	Conv. Mass	MPE	Conv.	Conv. Mass	MPE	Unc.	k	MPE*	Balance	Standard A	Assumed
Valu	ıe	or	Mass	Corr	Pass	Mass	Corr	Pass	(mg)		(mg)	Used	Set	Density
		S/N		(mg)			(mg)						Used	(g/cm ³ )
100	mg 83J	7	100.0025	0.0025	Υ	100.0025	0.0025	Υ	0.0018	2	0.010	650Q	L595Q	7.95
1	g 83J	8	1.0000207	0.0207	Y	1.0000207	0.0207	Y	0.0022	2	0.034	650Q	L595Q	7.95
10	g 83J	9	9.999999	-0.001	Y	9.999999	-0.001	Y	0.010	2	0.050	1470Q	L595Q	7.95
100	g 83J	Α	100.000135	0.135	Y	100.000135	0.135	Y	0.026	2	0.25	1470Q	L595Q	7.95
1	kg 83J	В	1.00000043	0.43	Y	1.00000043	0.43	Y	0.11	2	2.5	699Q	L595Q	7.95

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18 Feb 2020







