VOC Syringe Calibration Log

Instructions:

1. Enter th
2. Enter the weight of the 5 replicates of water dispensed by the syringe to 4 decimal places.
3. The density is automatically inserted upon entering the temperature.
4. Fill in all other blank cells in table (analyst name, date, balance and thermometer S/N)

Corrective Actions:

1. **DO NOT over-write** calibration results.
2. **Repeat calibration** of the pipette at all volumes and enter results in "Repeat Calibration" worksheet (next tab)
3. If calibration fails again, **check the syringe adjustment** according to the manufacturer's guidelines. Recalibrate the pipette at all volumes, and enter results in the "Corrective Action" worksheet. Enter a **brief explanation** in the "Comments" box.
4. If calibration fails again after adjustment, talk to a supervisor and **do not use** the syringe for preparation and/or analytical purposes.

% Difference should be less than:

Syringe	Range	Volume (uL)	Max. Diference
Fixed	8.6 uL	8.6	1.00%
Adjustable	5 uL - 25 uL	5	3.00%
		10	3.00%
		25	3.00%
Adjustable	25 uL - 500 ul	50	1.00%
		100	1.00%
		250	1.00%
		500	1.00%
Adjustable	> 1000 uL	1000	0.60%
		2000	0.60%
		2500	0.60%
		5000	0.60%

Chemistry	Room #	Syringe ID	Syringe Type	Volume (uL)	Weight of 5 Reps (g)	Vol. Dispensed (uL)	% Difference	Pass/Fail	Analyst	Date	Balance (S/N)	Thermometer (S/N)	Temp. (°C)	Water Density (g/mL)
For Calibration Curve	345	1	Non-fixed	5	0.0244	4.891	2.18%	PASS	G. Bera	5-Jan-16	D068057		22.0	**0.99777**
For Calibration Curve	345	2	Non-fixed	25	0.1235	24.755	0.98%	PASS	G. Bera	5-Jan-16	D068057		22.0	**0.99777**
For Calibration Curve	345	3	Non-fixed	50	0.2485	49.811	0.38%	PASS	G. Bera	5-Jan-16	D068057		22.0	**0.99777**
For Calibration Curve	345	4	Non-fixed	100	0.4968	99.582	0.42%	PASS	G. Bera	5-Jan-16	D068057		22.0	**0.99777**
For Calibration Curve	345	5	Non-fixed	500	2.4994	500.997	0.20%	PASS	G. Bera	5-Jan-16	D068057		22.0	**0.99777**
For Calibration Curve	345	6	Non-fixed	1000	4.9749	997.204	0.28%	PASS	G. Bera	5-Jan-16	D068057		22.0	**0.99777**
For Calibration Curve	345	23	Non-fixed	250	1.2402	248.594	0.56%	PASS	G. Bera	5-Jan-16	D068057		22.0	**0.99777**
For Calibration Curve	345	25	Non-fixed	5000	25.0057	5012.317	0.25%	PASS	G. Bera	5-Jan-16	D068057		22.0	**0.99777**
For Calibration Curve	345	29	Non-fixed	10	0.0487	9.762	2.38%	PASS	G. Bera	5-Jan-16	D068057		22.0	**0.99777**
For Calibration Curve	345	24	Fixed	8.6	0.0426	8.539	0.71%	PASS	G. Bera	5-Jan-16	D068057		22.0	**0.99777**

Chemistry	Room #	Syringe ID	Syringe Type	Volume (uL)	Weight of 5 Reps (g)	Vol. Dispensed (uL)	% Difference	Pass/Fail	Analyst	Date	Balance (S/N)	Thermometer (S/N)	Temp. (°C)	Water Density (g/mL)
For Dioxane	345	7		5	0.0254	5.09	1.88%	PASS	G. Bera	5-Jan-16	D068057		24.0	**0.997296**
For Dioxane	345	8		10	0.0513	10.29	2.88%	PASS	G. Bera	5-Jan-16	D068057		24.0	**0.997296**
For Dioxane	345	9		25	0.1247	25.01	0.03%	PASS	G. Bera	5-Jan-16	D068057		24.0	**0.997296**
For Dioxane	345	10		50	0.2490	49.94	0.13%	PASS	G. Bera	5-Jan-16	D068057		24.0	**0.997296**
For Dioxane	345	11		100	0.4958	99.43	0.57%	PASS	G. Bera	5-Jan-16	D068057		24.0	**0.997296**
For Dioxane	345	12		250	1.2486	250.40	0.16%	PASS	G. Bera	5-Jan-16	D068057		24.0	**0.997296**
For Dioxane	345	13		500	2.4908	499.51	0.10%	PASS	G. Bera	5-Jan-16	D068057		24.0	**0.997296**
For Dioxane	345	14		1000	4.9685	996.39	0.36%	PASS	G. Bera	5-Jan-16	D068057		24.0	**0.997296**
For Dioxane	345	15		2500	12.4491	2496.57	0.14%	PASS	G. Bera	5-Jan-16	D068057		24.0	**0.997296**

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For Dilution	345	16	Non-fixed	5	0.0251	5.03	0.70%	PASS	G. Bera	5-Jan-16	D068057		25.0	**0.997044**
For Dilution	345	17	Non-fixed	10	0.0502	10.07	0.70%	PASS	G. Bera	5-Jan-16	D068057		25.0	**0.997044**
For Dilution	345	18	Non-fixed	100	0.4941	99.11	0.89%	PASS	G. Bera	5-Jan-16	D068057		25.0	**0.997044**
For Dilution	345	19	Non-fixed	250	1.2478	250.30	0.12%	PASS	G. Bera	5-Jan-16	D068057		25.0	**0.997044**
For Dilution	345	20	Non-fixed	500	2.4992	501.32	0.26%	PASS	G. Bera	5-Jan-16	D068057		25.0	**0.997044**
For Dilution	345	21	Non-fixed	1000	4.9855	1000.06	0.01%	PASS	G. Bera	5-Jan-16	D068057		25.0	**0.997044**
For Dilution	345	22	Non-fixed	5000	24.9192	4998.62	0.03%	PASS	G. Bera	5-Jan-16	D068057		25.0	**0.997044**
For Dilution	345	26	Non-fixed	5	0.0248	4.97	0.51%	PASS	G. Bera	5-Jan-16	D068057		25.0	**0.997044**
For Dilution	345	27	Non-fixed	25	0.1252	25.11	0.46%	PASS	G. Bera	5-Jan-16	D068057		25.0	**0.997044**
For Dilution	345	28	Non-fixed	50	0.2487	49.89	0.23%	PASS	G. Bera	5-Jan-16	D068057		25.0	**0.997044**

Temp. (°C)	Density (g/mL)
15.0	0.999099
15.5	0.999023
16.0	0.998943
16.5	0.998860
17.0	0.998774
17.5	0.998686
18.0	0.998595
18.5	0.998501
19.0	0.998405
19.5	0.998305
20.0	0.998203
20.5	0.998099
21.0	0.997992
21.5	0.997882
22.0	0.997770
22.5	0.997655
23.0	0.997538
23.5	0.997418
24.0	0.997296
24.5	0.997171
25.0	0.997044
25.5	0.996914
26.0	0.996783
26.5	0.996649
27.0	0.996512
27.5	0.996373
28.0	0.996232
28.5	0.996089
29.0	0.995944
29.5	0.995796
30.0	0.995646