

29 MAR 2010 FARM SPRING CM3215

DP METER CALIBRATION

Section/

LAB STATION	DP meter PSI as a function of mA	Initials
L01-2	$y = 0.2301(x) - 0.9933$	AP
L01-4	$\Delta P = 0.2294(I) - 0.9776$	HB
L01-6	$PSI = 0.231(I mA) - 0.998$	AP
L01-8		
L02-1	$\Delta P(\text{psi}) = 0.2306 \cdot I(\text{mA}) + 1.0653$	NvB
L02-2	$\Delta P(\text{psi}) = .2302 \cdot I(\text{mA}) - .9863$	A
L02-4	$0.232 \cdot I(\text{mA}) - 1.00 = \Delta P(\text{psi})$	AP
L02-6	$\Delta P(\text{psi}) = 0.2347(I_{\text{mA}}) - 1.0489$	MB
L02-8	$\text{Pressure}(\text{psi}) = 0.2298(\text{Current}(\text{mA})) - 0.9968$	ASW

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ROTAMETER CALIBRATION

SECTION/ STATION	Q (gpm) as a function of R (%)	Initials
L01-2	0.0495 (%) - 0.0781	Jub
L01-4	0.049 (%) - 0.013	NB
L01-6	Q (gpm) = 0.050 (%) - 0.128	KW AP
L01-8	.0497 (%) - .0811	KWB
L02-1	Q (gpm) = 0.0479 (Rotmeter) (%) - 0.0204	NBS
L02-2	Q (gpm) = .048 · R (%) - .049	A
L02-4	Q (gpm) = 0.0504 (R%) - 0.0779	AS
L02-6	Q (gpm) = 0.0505 (1/R) - 0.1165	MAB
L02-8	Volumetric flow (gpm) = 0.0495 (1/R) - 0.0755	ASW

L01

L02

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ORIFICE CALIBRATION

LO1

Section/ Station	Q (gpm) as a function of I (mA)	Initials
LO1-2	0.2301 $y = 0.3094 x + 0.438$	(JW)
LO1-4	$Q = 0.504(\Delta P) + 0.790$	MB
LO1-6	$Q (gpm) = 0.488(\Delta P) + 0.5585$	KA AB
LO1-8		
LO2-1	$Q (gpm) = -0.1023(\Delta P)^2 + 1.2201(\Delta P) - 1.5108$	NVB
LO2-2	$Q (gpm) = -0.0808\Delta P^2 + 0.785\Delta P + 0.618$	A
LO2-4	$Q (gpm) = 0.516(0.232 - I (mA) - 1) + 0.721$	MA
LO2-6	$Q (gpm) = 0.4704(\Delta P \text{ psi}) - 0.8219$	MA B
LO2-8	Volumetric flow (gpm) = $0.1169(\text{Current (mA)} + 0.2947)$	ASW

LO2

CM3215 Student Data from Spring 2010

As archived in Faith Morrison's CM3215 lab notebook

Volume 1, pages as indicated