



innovation in
geotechnical
instrumentation

Calibration Record

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Vibrating Wire Piezometer

Customer: PT. Unggul Ejawantah Industri
Model: VW2100-0.35
Customer Number: PZ 16
Serial Number: VW55239
Mfg Number: P106836
Range: 350.0 kPa
Temperature: 23.0 °C
Barometric Pressure: 1003.6 millibars
Work Order Number: 219550
Cable Length: 48 meters
Cable Markings: 5661 m to 5708 m
Cable Colour Code: Red / Black (Coil) Green / White (Thermistor)
Cable Type: EL380004HDL
Thermistor Type: 3 kΩ

Applied Pressure (kPa)	First Reading (B units)	Second Reading (B units)	Average Reading (B units)	Calculated Linear (kPa)	Linearity Error (% FS)	Calculated Polynomial (kPa)	Polynomial Error (% FS)
0.0	8696	8696	8696	-0.8	-0.22	0.2	0.05
70.0	7821	7821	7821	70.0	-0.01	69.8	-0.07
140.0	6947	6948	6947	140.6	0.16	139.8	-0.05
210.0	6077	6077	6077	210.9	0.25	210.1	0.04
280.0	5216	5216	5216	280.4	0.13	280.3	0.08
350.0	4369	4369	4369	348.9	-0.32	349.8	-0.06
Max. Error (%):					0.32		0.08

Linear Calibration Factor: CF = 8.0804E-02 kPa/B unit
Temperature Correction Factor: Tk = 2.7898E-01 kPa/°C rise

Polynomial Gage Factors:

A = 3.6999E-07 kPa/(B unit)² B = -8.5638E-02 kPa/B unit C = _____ kPa

Pressure is calculated with the following equations:

Linear: $P = CF(L_0 - L) - Tk(T_0 - T) + (S_0 - S)$

Polynomial: $P = A(L^2) + B(L) + C - Tk(T_0 - T) + (S_0 - S)$

Users must establish site zero readings for calculation purposes

Polynomial C = - [A(L₀²) + B(L₀)]

L₀, L = initial (installation) and current readings, in B units

T₀, T = initial (installation) and current temperature, in °C

S₀, S = initial (installation) and current barometric pressure readings, in kPa

B units = B scale output of VW 2102, VW 2104, VW 2106 and DT 2011 readouts

B units = Hz²/1000 ie: 1700 Hz = 2890 B units

	Date (dd/mm/yy)	VW Reading (B units)	Temperature (°C)	Baro (mbar)
Shipped Zero Readings:	12-Dec-18	8680	20.2	1021.7

This instrument has been calibrated using standards traceable to the NIST in compliance with ANSI Z540-1

Technician: B. Amos Date: 12-Dec-18



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