

# Biax Experiment

For current calibrations – [gpfs/group/cjm38/default/Calibrations/](#)

*Revised: 30 Nov. 2021*

**Exp. Name:** p5720

**Operator(s):** Wood, Ke

Temperature (°C):

Relative Humidity (%):

**Date/Time:** 02/05/2022

Hydraulics start: 5281.4

Hydraulics end:

Data Logger/Control File: 16-chan

**Purpose/Description:** measure perm of sawcut westerly granite L-block sawcut and roughened with 80/120 grit.  
Sample Block Used and Thickness with **no** Sample: SDS Vessel 5x5 cm

Material: Westerly Granite

Benchtop Sample Thickness (mm): 32.5

## Load Cells:

Contact Area: 0.0022231311 m<sup>2</sup>

Load cell name	Calibrations (mV/kN)	Target stress (MPa)	Init. Voltage	Volt. @ load
44mm Solid Horiz	129.984 (V/MPa): 0.289	4, 9.25, 13, 18	0.098	1.25389, 2.77099, 3.85463, 5.29949
44mm Solid Vert	120.364 (V/MPa): 0.2676	0	0	0.

## Vessel Pressures:

Pore Fluid:H2O

Calibrations (V/MPa)	Pressures (MPa)	Init. Voltage	Volt. @ load
<i>P<sub>c</sub></i> : 0.1456	2, 8.25, 12, 12	-0.277	0.0142, 0.9242, 1.4702, 1.4702
<i>P<sub>pA</sub></i> : 1.5177	2.6, 1.4	-0.165	3.78102, 1.95978
<i>P<sub>pB</sub></i> : 1.483	2.6	0	3.8558

## Displacement Transducers

Name	Gain (mm/V)
Horiz. Load-point	0.658
Vert. Load-point	3.51
Horiz. On-Board	0.416

Horizontal Servo Settings	
P:	D <sub>atten</sub> :
I:	Feedback:
D:	E-gain:
Vertical Servo Settings	
P:	D <sub>atten</sub>
I:	Feedback:
D:	E-gain:

<i>Chilled water at HPS</i>	<i>Chiller Unit</i>	<i>Proc. water @ Chiller</i>
1. Temp In (°F):	6. Panel Temp (°F):	10. Temp In (°F):
2. Pres. In (psi):	7. Panel Pres. (psi):	11. Pres. In (psi):
3. Temp Out (°F):	8. Near Pres. In (psi):	12. Temp Out (°F):
4. Pres. Out (psi):	9. Near Pres. Out (psi):	13. Pres. Out (psi):
5. Flow (lpm):		
<i>Hyd. Power Supply (HPS)</i>		
14. Tank Temp (°C):	15. Temp. Out (°C):	16. Pres. Out (psi):

## Experiment Notes

# 980 NS to 10kN

# 2800 Pc to 2 MPa

# 3300 saturate. PpA to about 1 MPa

# 7430 tune PpA PID.