Biax Experiment

For current calibrations – `gpfs/group/cjm38/default/Calibrations/`

Revised: 30 Nov. 2021

Exp. Name: p5727
Operator(s): Wood
Temperature (°C):
Relative Humidity (%):

Date/Time: 11/05/2022
Hydraulics start: 5308.9
Hydraulics end: 5314.6
Data Logger/Control File: 16-chan

Purpose/Description: Measure changes in perm in response to NS/PP oscillations of sawcut sample roughened with 120/80 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^2

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, 18	0.0365	1.19239, 2.70949, 5.23799
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**
Pc: 0.1456	2, 8.25, 12	0.025	0.3162, 1.2262, 1.7722
PpA: 1.5177	2.6, 1.4	0.11	4.05602, 2.23478
PpB: 1.483	2.6	0.096	3.9518

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_{atten}:
I:	Feedback:
D:	E-gain:
Vertical Servo Settings	
P:	D_{atten}
I:	Feedback:
D:	E-gain:

Chilled water at HPS	*Chiller Unit*	*Proc. water @ Chiller*
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):		
Hyd. Power Supply (HPS)		
14. Tank Temp (°C):	15. Temp. Out (°C):	16. Pres. Out (psi):

Experiment Notes

150 NS to 10 kN

1000 Pc to 2 MPa

2638 saturate sample. PpA – atm.

80000 NS to 9.25 MPa, Pc to 8.25 MPa

87300 PpB to 2.6 MPa, PpA to 1.4 MPa

187500 NS to 18 MPa, Pc to 12 MPa

281500 NS to 9.25 MPa, Pc to 8.25 MPa. flow-thru

296800 remove stresses