Biax Experiment

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

Revised: 30 Nov. 2021

Exp. Name: p5708
Operator(s): Wood, Ke, Affinito
Temperature (°C):
Relative Humidity (%):

Date/Time: 22/04/2022
Hydraulics start: 5249.7
Hydraulics end: 5256
Data Logger/Control File: 16-chan

Purpose/Description: measure perm of sawcut westerly granite L-block sawcut and roughened with 80/120 grit. Sample Bl
Used and Thickness with no Sample: SDS Vessel 5x5 cm
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, 13, 18	0.107	1.26289, 2.77999, 3.86363, 5.30849
44mm Solid Vert	120.364 (V/MPa): 0.2676	0	0	0.

Vessel Pressures: Pore Fluid:H20

Calibrations (V/MPa)	Pressures (MPa)	Init. Voltage	Volt. @ load
Pc: 0.1456	2, 8.25, 12, 12	-0.273	0.0182, 0.9282, 1.4742, 1.4742
PpA: 1.5177	2.6, 1.4	-0.068	3.87802, 2.05678
PpB: 1.483	2.6	-0.488	3.3678

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): 60	6. Panel Temp (°F): 69	10. Temp In (°F): 82
2. Pres. In (psi): 6	7. Panel Pres. (psi): 48	11. Pres. In (psi): 2
3. Temp Out (°F): 80	8. Near Pres. In (psi): 2	12. Temp Out (°F): 50
4. Pres. Out (psi): 2	9. Near Pres. Out (psi): 5	13. Pres. Out (psi): 8
5. Flow (lpm): 15		
Hyd. Power Supply (HPS)		
14. Tank Temp (°C): 51.8	15. Temp. Out (°C): 15	16. Pres. Out (psi): 2500

Experiment Notes

800 apply 10 kN
2600 Pc to 2 MPa
3800 saturate, PpA
20000 NS to 9.25 MPa, Pc to 8.25 MPa
23000 PpB to 1 MPa, adjust PID
76000 PpB to 2.6 MPa, PpA to 1.4 MPa
310000 NS to 13 MPa, Pc to 12 MPa
501000 NS to 18 MPa
659000 NS to 13 MPa
815000 Pc to 8.25 MPa, NS to 9.25 MPa