Biax Experiment

Exp. Name: pxxxx
Operator(s): Wood, Affinito, Marty

Date/Time: 24 Nov. 2020
Hydraulics start: 3687.5
Hydraulics end: 3694.7

Sample Block Thickness w/ no gouge:

Layer Thickness (total on bench): mm @sample
Under Load: mm
Material (Qtz, Granite, ?): WG, Saw-cut & 600-grit.
Particle Size, Size Distribution :

Load Cells: Contact Area: 0.0022292545 m^2

Load cell name	Calibrations (mV/kN)	Target stress (MPa)	Init. Voltage	Volt. @ load
44mm Solid Horiz	119.3033 (V/MPa): 0.26596	1, 7, 10, 20	0.2158	0.48176, 2.0775 , 2.87537, 5.53495
44mm Solid Horiz	119.3033 (V/MPa): 0.26596		0.2158	

Vessel Pressures: Pore Fluid: DI H2O

	Calibrations (V/MPa)	Pressures (MPa)	Init. Voltage	Volt. @ load
Pc	Gain: 0.1456	6	-0.1222	0.75116
PpA	1.5177	5.0, 4.5, 4.25, 3.0, 2.5, 2.25	-0.308	7.2804 , 6.52156, 6.14214, 4.24504, 3.4862 , 3.10678
PpB	1.483	3.0, 3.5, 3.75, 1.0, 1.5, 1.75	-0.363	4.08606, 4.82757, 5.19832, 1.12002, 1.86153, 2.23228

Data Logger Used: 16 channel

Control File: No

Horiz. DCDT: *short rod*
0.6438 mm/V

Vert. DCDT: Trans-Tek 2
2.8498 mm/V

Purpose/Description: Permeability test of saw-cut sample roughened with 600-grit.
Compre this sample to sample sent to Andy Rathbun at Chevron for profilometry before DAET/PP osc. experiment.

Acoustics Blocks used: SDS L-block v2

Horiz. Servo Settings				Vert. Servo Settings			
P	x	**D_{atten}**	x	**P**	x	**D_{atten}**	x
I	x	**Feedback**	x	**I**	x	**Feedback**	x
D	x	**E-gain**	x	**D**	x	**E-gain**	x

@ Hyd. Power Supply (HPS)	Chilled water at HPS	Chiller Unit	Process water at Chiller
14. Tank Temp. (C)	1. Temp. In (F)	6. Panel Temp. (F)	10. Temp. In (F)
15. Temp. Out (C)	2. Pres. In (psi)	7. Panel Pres. (psi)	11. Pres. In (psi)
16. Pres. Out (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)		

Experiment Notes

230 NS @ 1MPa
2750 NS ↗ 7MPa
3400 Pc ↗ 6MPa
4200 empty/refill Ppa/b
5200 begin saturation, Ppa = 1.5 MPa
10000 ↗ 10 Hz, adjust Ppa PID
10000 ↗ 10 Hz, Ppa ↗ 5 MPa, Ppb ↗ 3 MPa
31000 open Ppa valve, start flow
41050 Ppa ↘ 4.5 MPa, Ppb ↗ 3.5 MPa, open Ppa valve
52700 Ppa ↘ 4.25 MPa, Ppb ↗ 3.75 MPa, open Ppa valve
62550 NS ↗ 10 MPa
62800 ↗ 10 Hz, Ppa ↘ 3 MPa, Ppb ↘ 1 MPa, open Ppa valve
68000 Ppa ↘ 2.5 MPa, Ppb ↗ 1.5 MPa, open Ppa valve
72800 Ppa ↘ 2.25 MPa, Ppb ↗ 1.75 MPa, open Ppa valve
77100 NS ↗ 20 MPa, Ppa ↗ 3 MPa, Ppb ↘ 1 MPa, open Ppa valve
89000 Ppa ↘ 2.5 MPa, Ppb ↗ 1.5 MPa, open Ppa valve
99700 Ppa ↘ 2.25 MPa, Ppb ↗ 1.75 MPa, open Ppa valve
109300 ↘ 1Hz. Ppa, Ppb, Pc ↘ 0 MPa. NS ↘ 1 MPa.
110530 NS ↘ 0 MPa.