

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 m²

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

something

something

Horiz. Servo Settings		Vert. Servo Settings	
P	Datten	P	Datten
I	Feedback	I	Feedback
D	E-gain	D	E-gain

@ Hyd. Power Supply (HPS)		Chilled water at HPS		Chiller Unit		Process water at Chiller	
14. Tank Temp. (C)	10	1. Temp. In (F)	13	6. Panel Temp. (F)	1	10. Temp. In (F)	5
15. Temp. Out (C)	11	2. Pres. In (psi)	14	7. Panel Pres. (psi)	2	11. Pres. In (psi)	6
16. Pres. Out (psi)	12	3. Temp. Out (F)	15	8. Near Pres. In (psi)	3	12. Temp. Out (F)	7
		4. Pres. Out (psi)	16	9. Near Pres. Out (psi)	4	13. Pres. Out (psi)	8
		5. Flow (lpm)	17				

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.