

# Biax Experiment

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

*Revised: 30 Nov. 2021*

**Exp. Name:** p5740

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

Temperature (°C):

Relative Humidity (%):

**Date/Time:** 21/06/2022

Hydraulics start: 5373.4

Hydraulics end:

Data Logger/Control File: 16-chan

## Purpose/Description:

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, 10, 10.5	0.504	1.65989, 3.17699, 3.39371, 3.5382
44mm Solid Vert	120.364 (V/MPa): 0.2676	0	0	0.

## Vessel Pressures:

Pore Fluid: DI H<sub>2</sub>O

Calibrations (V/MPa)	Pressures (MPa)	Init. Voltage	Volt. @ load
<i>P<sub>c</sub></i> : 0.1456	2, 8.25, 7.75, 7.25	0.021	0.3122, 1.2222, 1.1494, 1.0766
<i>P<sub>pA</sub></i> : 1.5083	2.6, 1.4, 1	0.215	4.13658, 2.32662, 1.7233
<i>P<sub>pB</sub></i> : 1.4611	2.6, 3, 4, 5	-0.104	3.69486, 4.2793, 5.7404, 7.2015

## 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:

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

- # 600 NS to 10 kN
- # 3570 increase Pc. lot of displacement, little Pres. chg.
- # 4120 Pc to 2 MPa. New hi-temp. vessel seal poor at low P.
- # 4400 saturate sample. PpA to 1 MPa.
- # 7700 NS to 9.25 MPa, Pc to 8.25 MPa.
- # 8700 PpA & PpB to 2.6 MPa. attach intensifier dcdts.
- # 9500 PpB intensifier is leaking.
- # 14000 remove all stresses.
- # \_\_\_\_\_
- #
- # REPLACED PPB INTENSIFIER SEAL