

# Biax Experiment

**Exp. Name:** p5565WGMin1g  
**Operator(s):** Wood, Affinito

**Date/Time:** 2021-07-23  
**Hydraulics start:** 4377.7  
**Hydraulics end:** 4378

*Sample Block Thickness w/ no gouge:*

*Layer Thickness (total on bench):* mm

*Under Load:* mm

*Material (Qtz, Granite, ?):* WG

*Particle Size, Size Distribution :* Minusil – 1g/side

## **Load Cells:**

Contact Area: 0.01 m<sup>2</sup>

Load cell name	Calibrations (mV/kN)	Target stress (MPa)	Init. Voltage	Volt. @ load
44mm Solid Horiz	12.535 (V/MPa): 0.1254	5, 7, 10, 12	0.0035	0.63025, 0.88095, 1.257, 1.5077
44mm Solid Vert	12.889 (V/MPa): 0.1289	None	1.454	

**Data Logger Used:** 8 channel channel

**Horiz. DCDT:** long rod  
0.756 mm/V

**Control File:** + CTRL File

**Vert. DCDT:** Trans-Tek2  
2.82 mm/V

*Purpose/Description:* Slow/fast slip events – demonstration for KHN Japanese documentary. Recorded 16 AE sensors.

*Acoustics Blocks used:* 6x6

**Temperature:** 24.8 53.8

## Experiment Notes

- # 1200 5MPa
- # 7500 shear (ext2) at 10um/s to peak
- # 9400 Unload/Reload After 1.5mm Displacement to realign the spring.
- # 10800 Rehearing To Peak Strength Again.
- # 18000 1kHz, run1 - Slow instabilities occurred on the data.
- # 301000 OB VDCDT offset
- # 48000 Ns Increased to 7 Mpa
- # 680000 11mm of Displacement, planning to increase the NS to 10 MPa
- # 780000 Increased Normal Stress to 10 MPa
- # 1285000 Decreased to 1Hz sample rate and sample held while we set-up the configuration.
- # 1290000 Vertical DCDT Offset., V OB DCDT offset
- # 1790000 Downstep to 3um/s
- # 2885000 Upstep to 30 um/s
- # 3000000 Upstep to 100 um/s
- # 3172000 Taking load off and dropping sample rate to 1 Hz