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3/28/13 San 311

Cam slits: widened during run San 310, now ~ z = 60 μm, y = 80 μm
Conical slit width: unchanged since 308 (+ probably before)
Anvils: PCD in wedges #1, 4; WC in #2, 3. Same set as 308 + 310

```
 1967 SAN__311   3/28/2013   8:52:20:
dry olivine
X6703 E6062 D8759 D8760
Pass: 18679   SAF:18933
Apparatus: D-Dia Multiplement SSD Imaging with Prosilica CCD
```

0846 SAN__311_0001.med Al_2O_3, 1200s
E + 2θ calibration
Realign table + beam ~ ~~30~~ 20 μm in both x + z
~~both~~ wrt SAN_310_0033.med

```
Cell:  Dry olivine, hybrid cell
Thermocouples:            0          0
Heater: Graphite Cylinder
Pressure calibrant: sample  Pressure medium: Mullite
SD + WC   Truncation: 4   Taper:None
Vertical Slit:50  Horizontal Slit:250
T:\Mg2SiO4a\SanCarlos\San_311\SAN__311
```

1040
~~1035~~ _0002.med, Image #1
Open press mid ol, using KB GUI as always
z = 28.70, y = -2.47, z range 0.4, y range 0.1,
600s
Beam dumped + refilled before 1040hrs; alignment
checked + was still perfect

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3/28/13 San 311 (cont.)

1109 McP fwd at 20%. Note that, in contrast w/ san 310, anvils side anvils do not start to advancing until ~ same time as contact at bottom & top is made

1132 6.4T Image #2

1142 8.2T McP to 12%

1155 8.9T McP to 20% for ~5 min, then back to 12%

1228 19.1T " 10%; Image #3

1249 30.0T " 8%

1308 41.8T Image #4

1318 49.4T McP to 6%

1339 60T " 5%

1405 70T image #5 McP 35%

1426 @ 1100°C (285 W)

1432 Centering in x

1449 Centered @ x = 19.7

1455 .0003. med, mid ol, 900s (-2.151, 22.65, 0, 0.4) image #6. l_{ol} = .83

1541 Rams jogged in ~16 mm, to ~200 bars ram pressure

1544 Diff Rams Forward, Begin Step (1), 70T, 1373K, 0.0006 mm/s

1548 .0004 mid ol, 900s (-2.141, 22.7, 0, 0.4) image #7 l_{ol} = 0.822

1606 .0005 " " " #8 l_{ol} = 0.826

1624 .0006 " " ( ) #9 l_{ol} = 0.814

1640 .0007 " " #10 l_{ol} = 0.812

1656 .0008 " " #11 l_{ol} = 0.810

1744 .0009 " " #12 l_{ol} = 0.802

1805 .0010 " (" , 22.8, " , ") #13 l_{ol} = 0.798

Deformation too slow (~1%/hr)

1812 Diff rams to 0.001 mm/s

1822 .0011 " (") #14 l_{ol} = 0.793

1837 .0012 " " #15 l_{ol} = 0.787

1912 .0013 " " #16

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 3/28 San 311 Continued

1910: Keep running during fill, go to dinner
1912 .0014, in #18 No Beam
1927 .0015, in #18

1942 .0016, mid ol, 400s (-2.141, 22.8, 0, 0.4) image # 19 l_{ol}=0.767mm
" " " " " " #20 l_{ol}=0.758
1958 .0017 " " " "
~1830 Return from dinner, Beam down again for emergency ring access. "Water leak"

2214 Beam back up: center in x
2229 .0018 " " " (-2.1, 22.95,)
2245 .0019 " " " "
2306 .0020 " " " "
2316 .0021 " " " "
2332 .0022 " " " "
2347 .0023 " " " "
3/29 0005 .0024 " " " "
0021 .0025 " " " "
0036 .0026 " " " "
0053 .0027 " " " "
0108 .0028 " " " "
0123 .0029 " " " "
0144 .0030 " " " "
0159 .0031 " " " "
0215 .0032 " " " "

#21 l_{ol}=0.698
#22 l_{ol}=0.692
#23 l_{ol}=0.688
#24 l_{ol}=0.682
#25 l_{ol}=0.671
#26 l_{ol}=0.647
#27 l_{ol}=0.657
#28 l_{ol}=0.653
#29 l_{ol}=0.643
#30 l_{ol}=0.634
#31 l_{ol}=0.628
#32 l_{ol}=0.624
#33 l_{ol}=0.614
#34 l_{ol}=0.601
#35 l_{ol}=0.597

Check x centering. Choose x=19.9, but patterns look a bit grainy.

0246 .0033 " " (-2.13, 23.05, 0, 0.3)
0302 .0034 " " (-2.13, 23.05, 0, 0.3)
0317 .0035 " " ("
0334 .0036 " " (-2.17, 23.15, 0, 0.3)
0349 .0037 " " "
0404 .0038 " " "
0422 .0039 " " (-2.18, 23.20, 0, 0.3)
0437 .0040 " " "

#36 l_{ol}=0.583
#37 l_{ol}=0.574
#38 l_{ol}=0.566
#39 l_{ol}=0.562
#40 l_{ol}=0.552
#41 l_{ol}=0.543
#42 l_{ol}=0.537
#43 l_{ol}=0.531

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0452	.0041,	mid ol, 900 s,	(-2.18, 23.20, 0, 0.3)	#44	l_{o1} = 0.521
0508	.0042,	"	" (-2.17, 23.30, 0, 0.3)	#45	l_{o1} = 0.512
0524	.0043	"	"	#46	l_{o1} = 0.413
0539	.0044	"	"	#47	l_{o1} = 0.409.

Looking at the strip tool charts, it seems like there was a blowout ~ 1 hr ago (~ 500 hr), corresponding to a big shortening of the sample and drop in Diff Ram pressure

~410 Stop Rams, End Step (1).
0414 Begin cooling.
0422 Launch
0423 Begin depressurization, MFP to -4%, Diff Rams -0.001 mm

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