

Run 569 log

Flint #12:OK#1 = 2:1 by mass, mostly the same as 565 except 223 rather than 243 K. Second of the new batch of Flint #12. Prep notes on loose sheet. Best dry packing of these very sand grains was to porosity $\phi = 0.254$. Final sample composition $f=0.722$. **P readings are analog Heise unless otherwise specified.** Clocks synchronized.

1/27/09	1050	Loaded and pressurized, vessel very tight at 60.0 MPa with only IW closing. Piston friction low.
	1307	Unloaded s gauge at 60.0 MPa: -0.004158/-0.004244/ <u>4201</u> .
	1310	1st contact: <u>1.2150 V</u> .
	1315 (1a)	s setpt 24 mV (30 MPa); 60 MPa, 223 K.
	1315	Record interval to 30 s.
1/28/09	0836	Put in 100:1 gearing.
	0852	Record interval to 60 s.
	0859	Change P(12) from 120 to 180. Have to find an easy trick to dampen T cycling. Don't change P(3). Logic is that in any On cycle, more LN will get delivered per second, but the longer wait may make the controller more intelligent. Point #6670 on Motor driver chart. Note: P(12) = 180 throughout rest of run; T is significantly more stable than in years.
1/30/09	1235	Stop. Restroke intensifier. Put in 10:1 gearing.
	1305	Unload.
	1306	Retouch 56 ± 5 s after unload: 1.7648 V. some self-loading.
	1308	Retouch 212 ± 5 s after unload: 1.7575 V more self-loading.
	1313	Retouch 488 ± 5 s after unload: 1.7529 V. more self-loading.
	1316	Unloaded s gauge at 60.0 MPa: -0.004862/-0.004849/ <u>4856</u> .
	1321	Retouch 956 ± 5 s after unload: 1.7491 V. more self-loading.
	1358	Retouch 3234 ± 5 s after unload: 1.7420 V. more self-loading.
	1420 (1b)	s setpt 24 mV (30 MPa); 60 MPa, 223 K.
	1420	Record interval to 30 s.
	1620	Put in 100:1 gearing.
	1638	Record interval to 60 s.
1/31/09	1500	(point ~8500) Bit of a T blip from an underpressurized new LN tank. Cap V0.04 total and current reset, watch for a while, give a couple of extra LN boosts, set P(11) = 0.2 for a while. Al jacket maxed at 233.32 K, pistons at ~ 222.85 K.
	1756	Recovered well enough to put all parameters back to normal. edot stayed under control the whole time.
2/2/09	1414	Stop. Put in 10:1 gearing.
	1423	Unload.

1424 Retouch 60 ± 5 s after unload: 1.8548 V. some self-loading.
 1426 Retouch 198 ± 5 s after unload: 1.8427 V more self-loading.
 1430 Retouch 428 ± 5 s after unload: 1.8362 V. more self-loading.
 1436 Retouch 800 ± 5 s after unload: 1.8352 V. negl. self-loading.
 1500 Unloaded s gauge at 60.0 MPa: -0.004821/-0.004840/4831.
 1503 Retouch 2408 ± 5 s after unload: 1.8280 V. negl. self-loading.
 1540 Retouch 5253 ± 5 s after unload: 1.8238 V. no self-loading.
 1644 (1c) s setpt 24 mV (30 MPa); 60 MPa, 223 K.
 1644 Record interval to 30 s.
 1656 Put in 100:1 gearing.
 ~1900 Record interval to 60 s.

2/3/09 1646 Stop. Put in 10:1 gearing.
 1659 Unload.
 1700 Retouch 55 ± 5 s after unload: 1.8667 V. Self loading.
 1704 Retouch 321 ± 5 s after unload: 1.8595 V. A little self-loading.
 1709 Unloaded s gage at 60.0 MPa: -0.005048/-0.005140/5094.
 1713 Retouch 919 ± 5 s after unload: 1.8525 V. A little self-loading.
 1818 Retouch 4760 ± 5 s after unload: 1.8425 V. No self-loading.
 1910 Out of vessel, into gas over LN in storage deward for ~5 min, then all the way in.

1/27/09 1351 hrs 0.024747"/0.009770 (1a) #236
 1/27/09 1657 hrs 0.051268"/0.020240 #1267
 1/27/09 2138 hrs 0.064626"/0.025513 #2805
 1/28/09 0629 hrs 0.076733"/0.030293 #5799
 1/28/09 1151 hrs 0.080816"/0.031905 #7653
 1/28/09 1432 hrs 0.082288"/0.032488 #8598
 1/28/09 2212 hrs 0.086480"/0.034141 #11414
 1/29/09 0603 hrs 0.089934"/0.035505 #14363
 1/29/09 0844 hrs 0.090944"/0.035904 #15363
 1/29/09 2026 hrs 0.094509"/0.037311 #19664
 1/30/09 0834 hrs 0.097614"/0.038537 #24231
 1/30/09 1235 hrs 0.098385"/0.038841 #25747
 1/30/09 1706 hrs 0.102629"/0.040517 (1b) #946
 1/30/09 2233 hrs 0.104913"/0.041419 #2991
 1/31/09 0635 hrs 0.107100"/0.042282 #6015
 1/31/09 1302 hrs 0.108570"/0.042862 #8415
 1/31/09 2016 hrs 0.110612"/0.043668 #11095
 2/1/09 0820 hrs 0.112642"/0.044470 #15643
 2/1/09 1737 hrs 0.114188"/0.045080 #19129
 2/2/09 0840 hrs 0.115612"/0.045642 #24809
 2/2/09 1702 hrs 0.111954"/0.044198 (1c) #112
 2/2/09 2227 hrs 0.114499"/0.045203 #2057

2/3/09 0628 hrs	0.116093"/0.045832	#5082
2/3/09 1405 hrs	0.117065"/0.046216	#7965
2/3/09 1649 hrs	0.117774"/0.046496	#8965