Run 553 log

OK#1:ice I about 100:0 by volume, notes in lab book. Sample was prepared as a twin to a 95:5 sample coming up, then left open to room air since 12/3/07.
Clocks synchronized.
New this run: My own two 180-L LN tanks, filled from other tanks from Airgas

3/4/08	1430	Ts near 223 K, still awaiting steady. Sample P to 4 MPa slowly over ~ 4 min. Just checked notes for run 550, where I did first P before running impact wrench. Here I ran the impact wrench full tilt at P = 0.
	1452	Pist contact at 20 MPa: 2.6437 V. Looked pretty solid.
	1501	Pist contact at 30 MPa: 2.7086 V.
	1505	Pist contact at 40 MPa; 2.7516 V. Really leaky.
	1511	Pist contact at 50 MPa: 2.8046 V. Just tightened up really a lot.
	1517	Pist contact at 60 MPa:2.8668
	~1700	Leak just won't go away. Dismantle, tighten nut one hydraulic stroke, reassemble, still not great.
		Station keep o'nite, let P drift.
3/5/08	0817	Dropped to ~30 MPa o'nite, but definitely tighter this morning Set up for run, wait a while.
	0849	Unloaded s gage at 60 MPa: -0.009138/-0.009132/<u>9135</u>.
	0851	Pist contact at 60 MPa: 2.8825 V.
		59.9 MPa digital Heise = 59.6 MPa analog.
		Length calc: starting length at P = 0 is 2.895". Green trace disp from 20 to 60 MPa = 0.243 V x 0.172"/V = 0.04", add some for vessel modulus, subtract some for 0-20 MPa, est L0 = 2.84".
	0905 (1)	s set point to 24 mV (30 MPa); 223 K, P = 60 MPa.
	1039	Record interval to 60 s.
	1501	(from data file) Intensifier tops out.
	1603	Recovering from drop in P to ~ 50 MPa when intensifier topped out and hour ago. Restroked and back up to P, but s dropped 10-15% because of contraction of vessel, overloading, and overdeforming sample. Run motot at V0.09 (was running at ~V0.01) until s comes back up, then can determine how much strain the sample suffered in the overload.
	1638	s approaching setpt. From periodic e readings noted on stickies, looks like overdeformation was about 0.1%, which would have taken ~4 hrs at edot running before incident.
	1743	Stop, unload.
	1744	(67 s after last unload) Pist contact: 3.5590 V
	1747	Unloaded s gage at 60 MPa –0.008583/-0.008572/<u>8578</u>.
	1801	(18'15" after) Pist contact 3.5509 V
		Back off piston, let P drift o'nite.

3/6/08	0928	Been back up at 60 MPa for ~55 mins. Pist contact 3.5336 V.
	0940	Piston withdrawn. Do quick leak check. At 60.0 MPa, close main (V11).
	1002	Open V11. P drops from 56.98 to 56.78. Close V11.
	1053	Again: 49.69->49.65. Leave V11 open.
	1059	Remove s gage, insulators, peek in. P inlet bubbling like mad. Dumb shit. P still dropping a hair with V11 open. Close it. 49.44 MPa. Pretty much stays there.

3/5/08 0949 hrs 0.131542"/0.046318 (1)
3/5/08 1037 hrs 0.132714"/0.046730
3/5/08 1245 hrs 0.134282"/0.047282
3/5/08 1640 hrs 0.138826"/0.048883
3/5/08 1737 hrs 0.140533"/0.049484