2011-08-30 Wednesday Morning Notes

Wednesday, August 31, 2011
7:28 AM

Operational Notes:

- D:EKIK PFN cable failure
- Overthruster was off, needed to be restarted.
- Stacking
    - Stacked 24.8mA/hr with a production of 20.8 pbar/Mp with 7.8 Tp on target.
- Transfers
    - Transfer efficiency 95.1% in 57 transfers over 19 sets.
    - Transfer 26246 (19:15), lost 2nd transfer when MI-30 quad PS VCB opened.
    - Overall efficiency when we remove the bad set is 96.6%

Numbers

- Stacking
    - Pbars stacked: 481.23 E10
    - Time stacking: 20.58 Hr
    - Average stacking rate: 23.38 E10/Hr

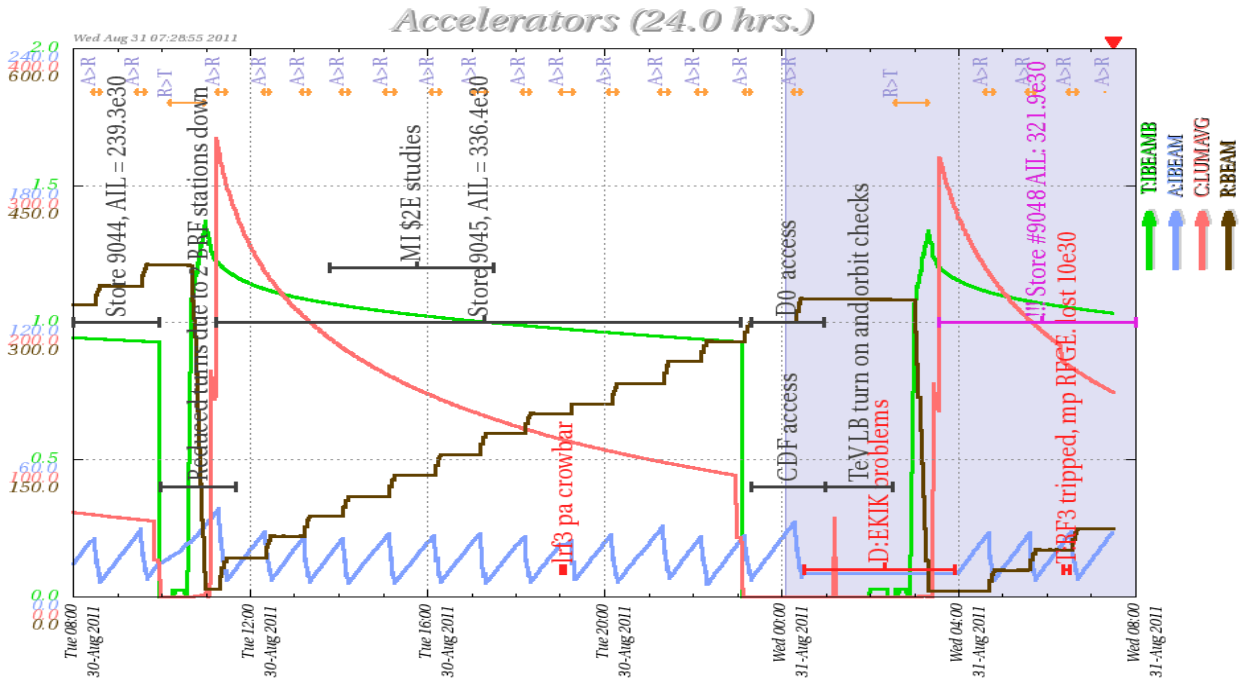
- Uptime
    - Number of pulses while in stacking mode: 31958
    - Number of pulses with beam: 30578
    - Fraction of up pulses was: 95.68%

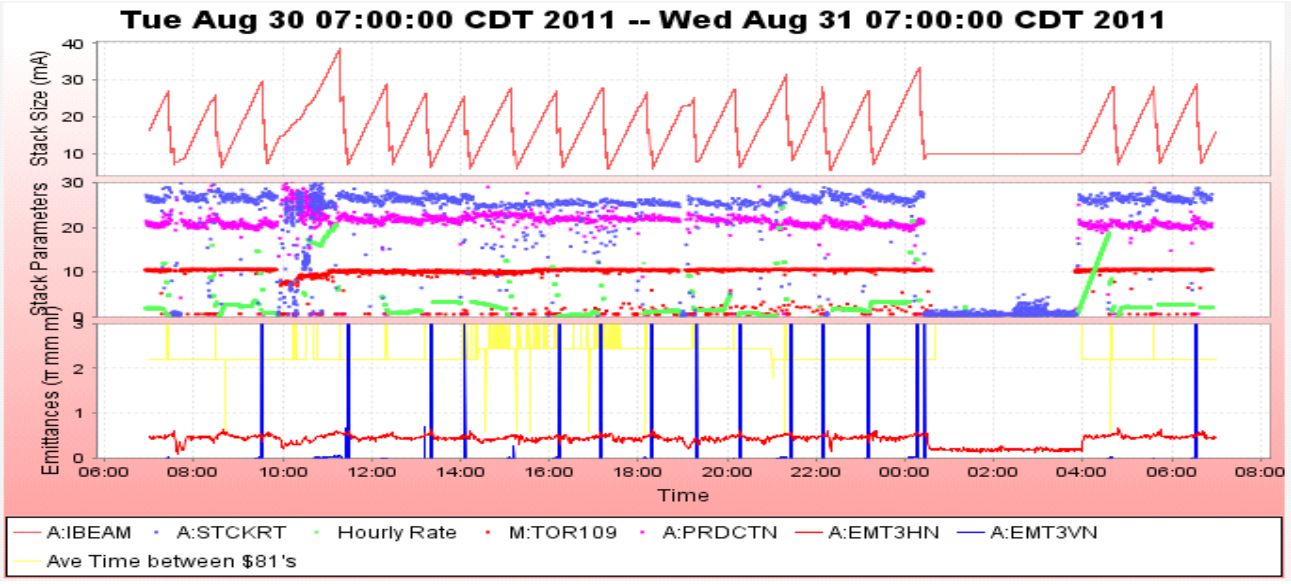
- The uptime's effect on the stacking numbers
    - Corrected time stacking: 19.69 Hr
    - Possible average stacking rate: 24.44 E10/Hr
    - Could have stacked: 502.94 E10/Hr

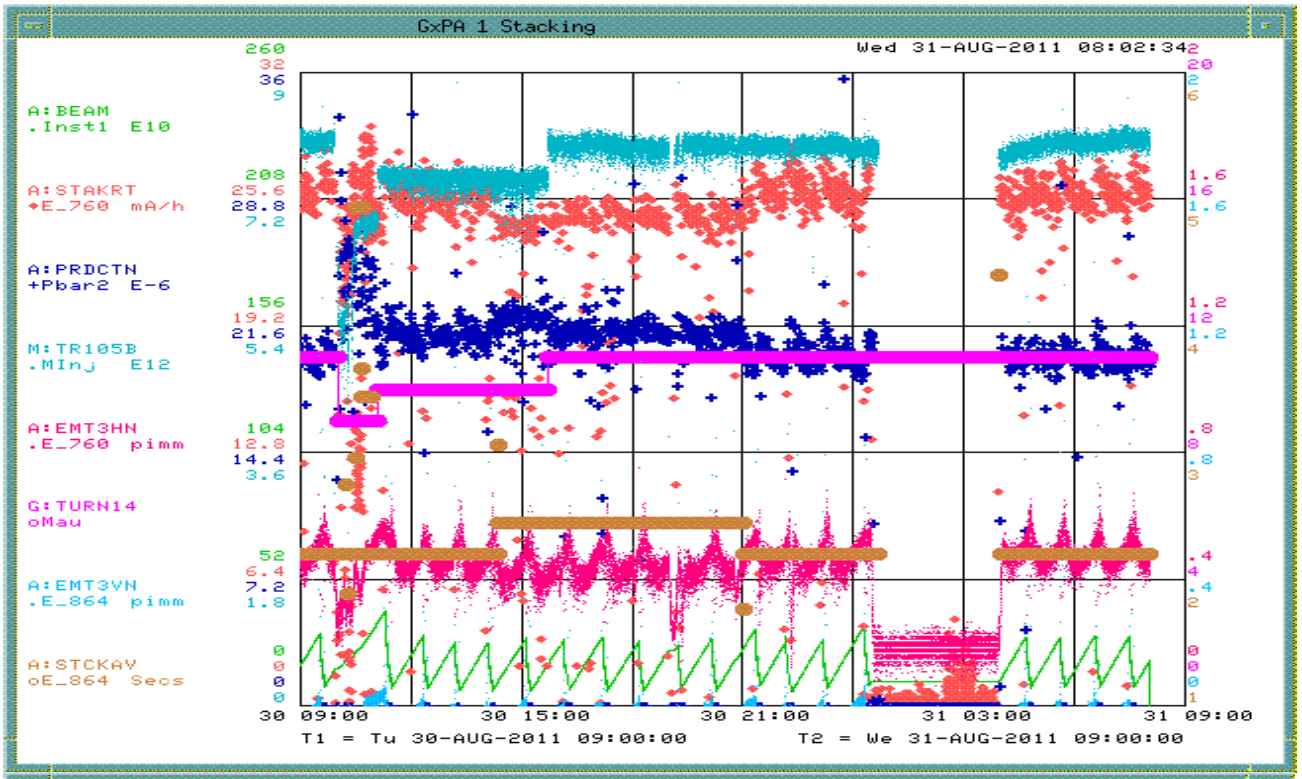
- Recycler Transfers
    - Pbars sent to the Recycler: 471.49 E10
    - Number of transfers : 59
    - Number of transfer sets: 20
    - Average Number of transfer per set: 2.95
    - Time taken to shoot including reverse proton tuneup: 00.21 Hr
    - Transfer efficiency: 94.58%

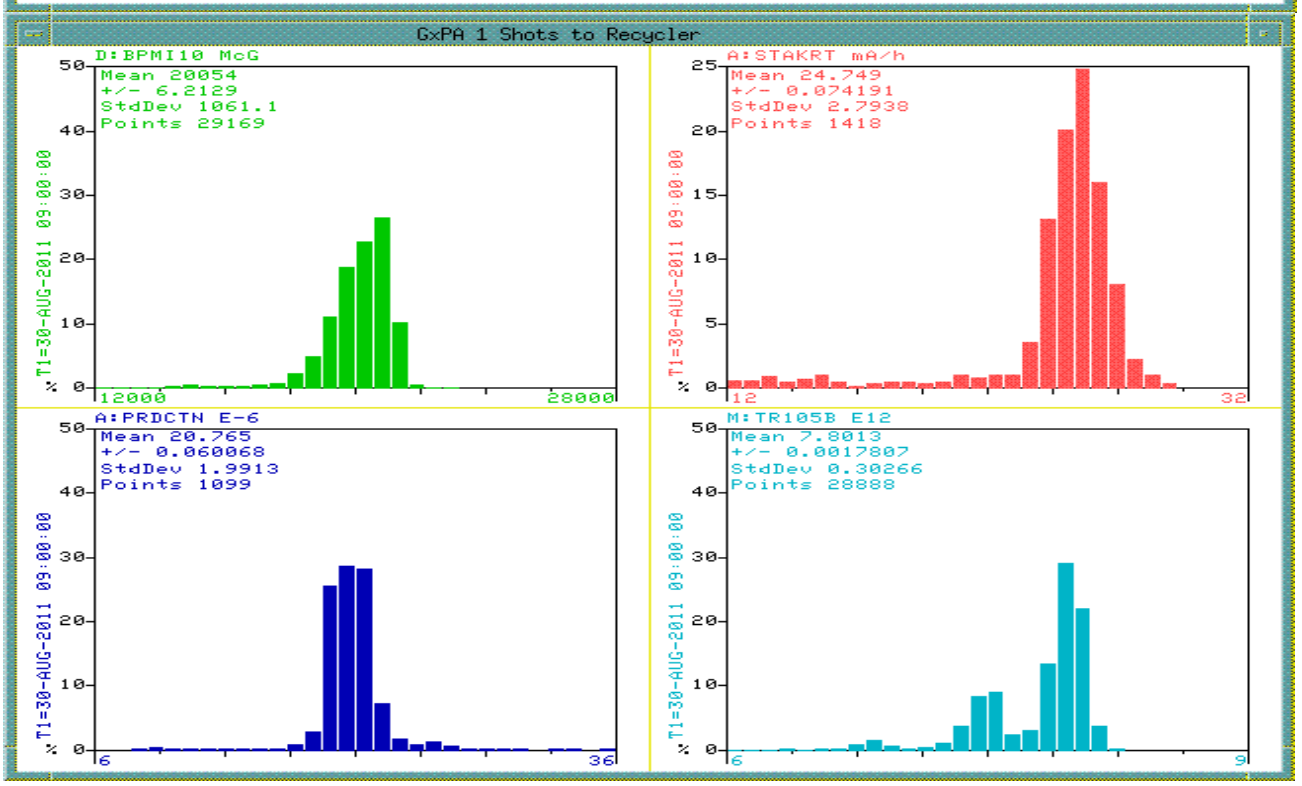
- Other Info
    - Average POT : 7.78 E12
    - Average production: 20.23 pbars/E6 protons

Plots

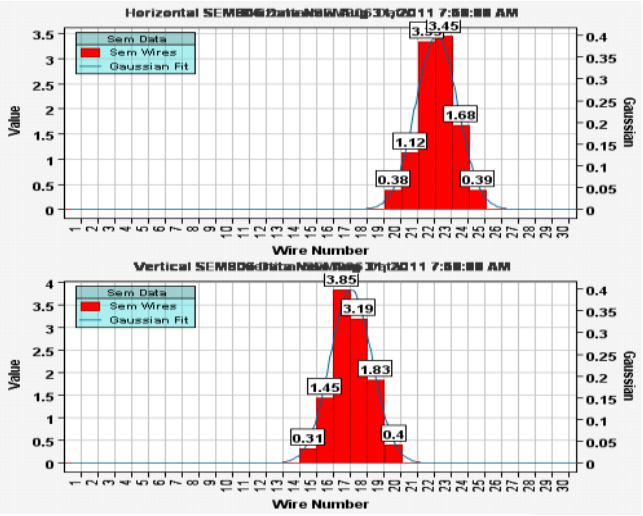

Accelerators (24.0 hrs.)
Wed Aug 31 07:28:55 2011
Store 9044, AIL = 239.3e30
Reduced turns due to 2 BRF stations down
MI $2E studies
Store 9045, AIL = 336.4e30
D0 access
CDF access
TeV LB turn on and orbit checks
D:EKIK problems
!!! Store #9048 AIL: 321.9e30
TBF3 tripped, mp RFGE. lost 10e30
T:IBEAMB
A:IBEAM
C:LUMAVG
R:BEAM
Tue 08:00 30-Aug 2011
Tue 12:00 30-Aug 2011
Tue 16:00 30-Aug 2011
Tue 20:00 30-Aug 2011
Wed 00:00 31-Aug 2011
Wed 04:00 31-Aug 2011
Wed 08:00 31-Aug 2011

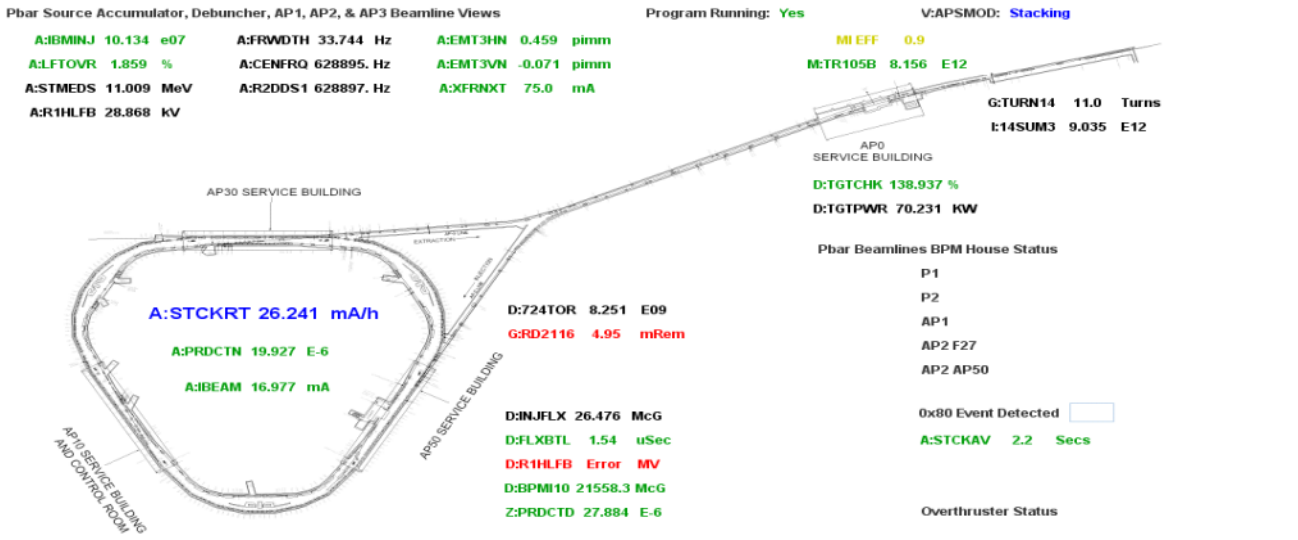

Tue Aug 30 07:00:00 CDT 2011 -- Wed Aug 31 07:00:00 CDT 2011
Stack Size (mA)
Stack Parameters
Emittances (π mm mr)
Time
A:IBEAM
A:STCKRT
Hourly Rate
M:TOR109
A:PRDCTN
A:EMT3HN
A:EMT3VN
Ave Time between $81's

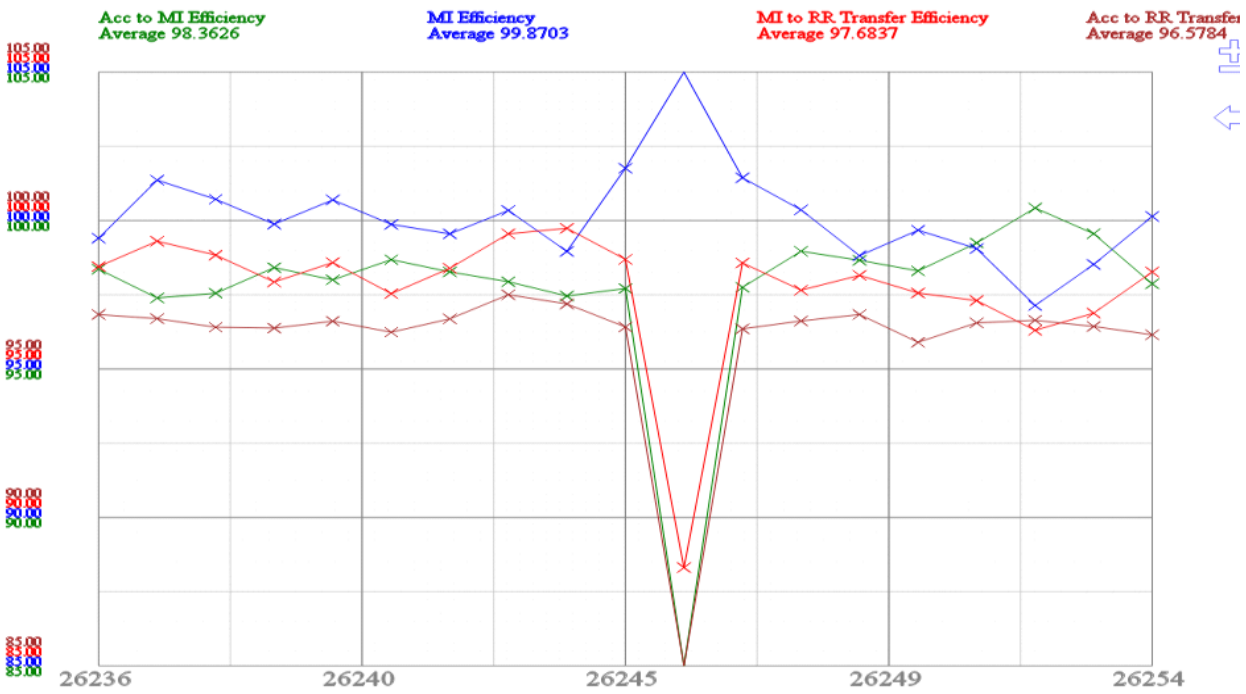

GxPA 1 Stacking
Wed 31-AUG-2011 08:02:34
A:BEAM
.Inst1 E10
A:STAKRT
+E_760 mA/h
A:PRDCTN
+Pbar2 E-6
M:TR105B
.MInj E12
A:EMT3HN
.E_760 pimm
G:TURN14
oMau
A:EMT3VN
.E_864 pimm
A:STCKAV
oE_864 Secs
30 09:00
30 15:00
30 21:00
31 03:00
31 09:00
T1 = Tu 30-AUG-2011 09:00:00
T2 = We 31-AUG-2011 09:00:00


GxPA 1 Shots to Recycler
D:BPMI10 McG
Mean 20054
+/- 6.2129
StdDev 1061.1
Points 29169
A:STAKRT mA/h
Mean 24.749
+/- 0.074191
StdDev 2.7938
Points 1418
A:PRDCTN E-6
Mean 20.765
+/- 0.060068
StdDev 1.9913
Points 1099
M:TR105B E12
Mean 7.8013
+/- 0.0017807
StdDev 0.30266
Points 28888
T1=30-AUG-2011 09:00:00
% 0

Horizontal Area New	10.35	Intensity
Horizontal Area Calc	183.48	Intensity
Horizontal Sigma New	3.33	mm
Horizontal Sigma Calc	3.14	mm
Horizontal Mean	22.76	mm
Vertical Area New	11.02	Intensity
Vertical Area Calc	190.61	Intensity
Vertical Sigma New	3.33	mm
Vertical Sigma Calc	3.13	mm
Vertical Mean	7.63	mm







Column 1 Number_0_Pbar Transfer Shot #	Column 4 Number_3_Transfer Time		Column 21 Number_20_A:IBEAMB sampled on $91 (A:BEAM7), E10	Column 22 Number_21_A:IBEAMB sampled on $94 (A:BEAM9), E10	Unstacked (mA)	Column 23 Number_22_R:BEAMS (R:BEAME0[0]) pre xfer E10	Column 24 Number_23_R:BEAM (R:BEAME0[1]) post xfer, E10	Stashed	Acc to RR Eff	Acc to MI Eff	Acc to MI2 Eff	Acc to MI * Acc to MI2 Efficiency	Transfers	Sets	Column 5 Number_4_Acc Horizontal Emittance	Column 6 Number_5_Acc Vertical Emittance	Column 8 Number_7_Acc Longitudinal Emittance
	Totals =>				460.46			437.75	95.07%	96.68%	96.62%	93.41%	57	19	4.6014	######	2.0062
	Daily Average =>				460.46			437.75					57	19			
26254	Wednesday, August 31, 2011	6:33	28.88	7.53	23.93	51.43	74.45	23.02	96.20%	97.43%	97.38%	94.88%	3	1	4.734	-0.626	2.038
26253	Wednesday, August 31, 2011	5:36	28.12	7.44	23.33	29.36	51.83	22.54	96.62%	99.19%	97.75%	96.96%	3	1	4.63	-0.595	2.01
26252	Wednesday, August 31, 2011	4:40	28.20	7.16	23.64	6.52	29.32	22.88	96.76%	99.67%	97.35%	97.03%	3	1	4.906	-0.656	2.025
26251	Wednesday, August 31, 2011	0:19	33.29	8.30	27.48	300.32	326.61	26.54	96.55%	99.01%	98.35%	97.37%	3	1	4.757	-0.376	1.998
26250	Tuesday, August 30, 2011	23:10	27.15	7.06	22.69	279.34	300.96	21.77	95.94%	98.16%	98.24%	96.43%	3	1	4.871	-0.819	2.021
26249	Tuesday, August 30, 2011	22:10	26.60	5.75	22.96	257.71	279.82	22.25	96.88%	98.55%	97.52%	96.10%	3	1	4.113	-0.767	1.987
26248	Tuesday, August 30, 2011	21:20	31.46	8.11	26.00	233.44	258.13	25.09	96.48%	99.07%	99.40%	98.48%	3	1	4.975	-0.42	2.029
26247	Tuesday, August 30, 2011	20:09	27.62	6.15	23.96	210.77	233.72	23.10	96.44%	97.80%	98.94%	96.76%	3	1	4.64	-0.751	2.009
26246	Tuesday, August 30, 2011	19:15	25.13	7.81	18.23	200.62	211.01	10.46	57.39%	58.43%	58.88%	34.40%	2	1	3.74	-0.557	1.924
26245	Tuesday, August 30, 2011	18:11	26.62	6.14	23.04	178.74	200.84	22.22	96.45%	97.46%	98.96%	96.45%	3	1	4.582	-0.826	2.009
26244	Tuesday, August 30, 2011	17:11	27.78	5.90	24.61	155.30	178.99	23.92	97.19%	97.75%	96.88%	94.69%	3	1	4.563	-0.718	1.993
26243	Tuesday, August 30, 2011	16:10	27.29	6.28	23.53	132.76	155.53	22.90	97.34%	97.90%	98.62%	96.56%	3	1	4.478	-0.781	2.006
26242	Tuesday, August 30, 2011	15:07	27.90	5.94	24.40	109.56	133.11	23.60	96.74%	98.26%	97.63%	95.93%	3	1	4.507	-0.807	1.989
26241	Tuesday, August 30, 2011	14:05	25.81	6.00	22.32	88.13	109.59	21.56	96.59%	98.50%	98.71%	97.23%	3	1	4.463	-0.711	2.019
26240	Tuesday, August 30, 2011	13:12	26.47	6.33	22.70	66.56	88.39	21.94	96.65%	97.87%	98.56%	96.46%	3	1	4.583	-0.775	2.018
26239	Tuesday, August 30, 2011	12:20	29.07	7.11	24.53	42.92	66.50	23.67	96.47%	98.49%	98.19%	96.71%	3	1	4.675	-0.697	1.978
26238	Tuesday, August 30, 2011	11:17	38.81	6.88	35.81	8.71	43.08	34.52	96.39%	97.62%	97.79%	95.46%	4	1	4.903	-0.488	2.01
26237	Tuesday, August 30, 2011	9:32	29.85	7.47	24.93	340.03	363.89	24.13	96.80%	97.83%	99.02%	96.87%	3	1	4.673	-0.607	2.039
26236	Tuesday, August 30, 2011	8:29	25.97	6.14	22.39	319.30	340.71	21.67	96.79%	98.20%	97.96%	96.19%	3	1	4.633	-0.801	2.016

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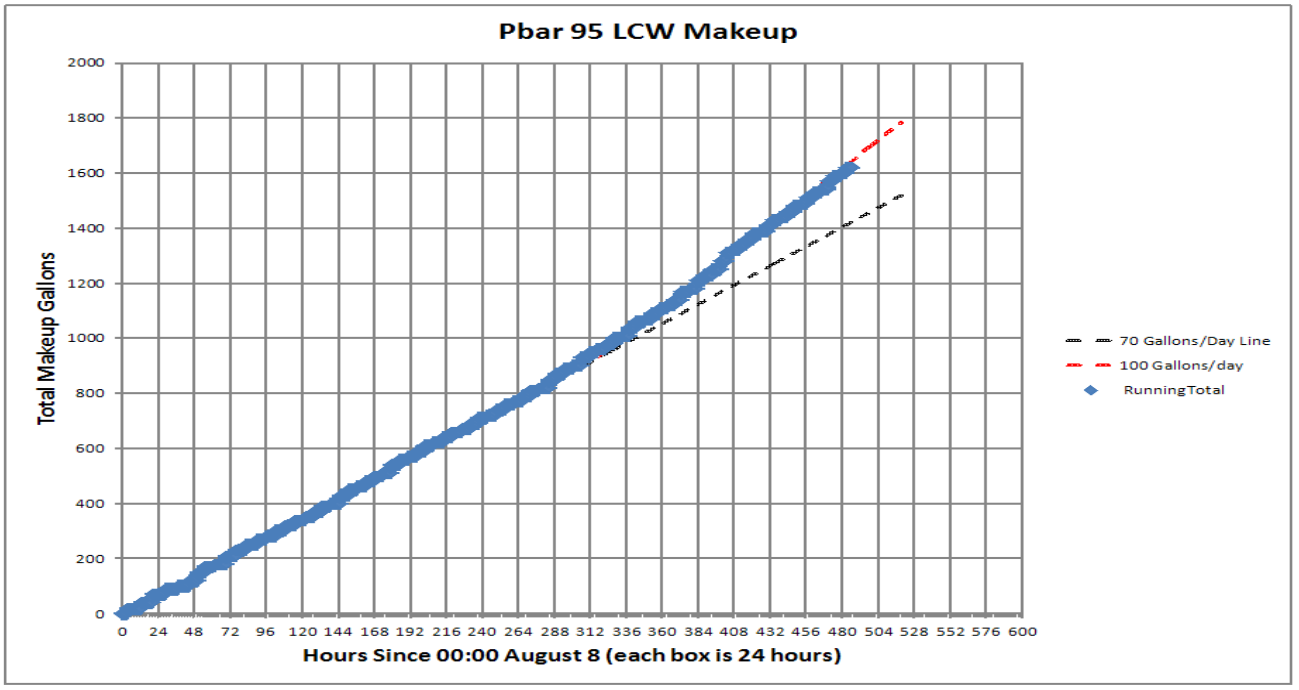
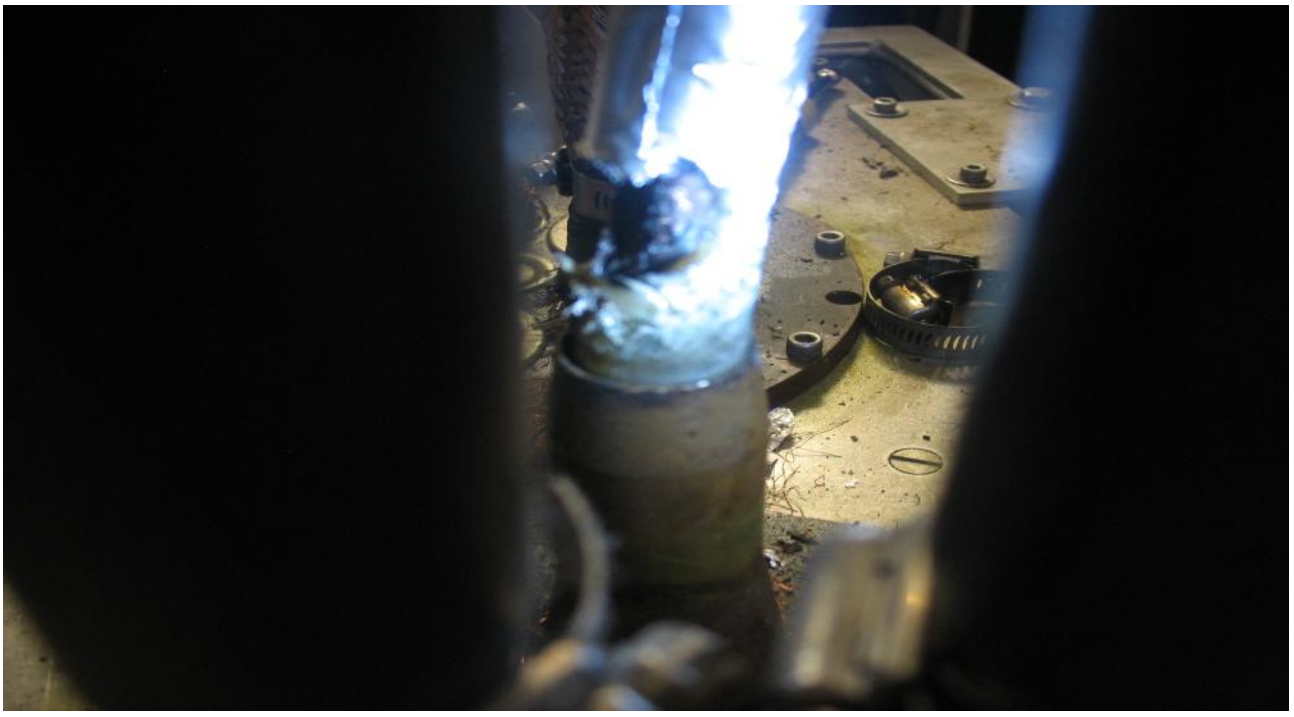


LCW leak up to 100 gal/day from 70gal/day



D:EKIK

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