

## Downtime for Run 2000-4 (Ops Group End Of Run Analysis)

Fill #	Start	End	Length	Loss Reason	Delay Reason	DIN #	Fill #	Audit	Machine	Start	End	User Length	System Length	No Impact	Cause	Type	Description
2	11/02/00 08:02	11/03/00 19:45	35.72	RF-1 Power Mon. trip [RF]	refill					11/03/00 19:45	11/03/00 20:20	0.58	0.58		RF	Store Lost	SR RF-1 Power Monitor tripped on S38 Cavity 3&4 Ion Gauge fault
4	11/03/00 20:20	11/04/00 07:52	11.53	ID-3 Rad. Mon. trip [Ops]	refill					11/04/00 07:52	11/04/00 08:13	0.35	0.35		OPS	Store Lost	ID-03 Rad Mon tripped during Fill-on-fill. 13-ID BPLD also tripped (In) WHY OPS???
5	11/04/00 08:13	11/04/00 19:44	11.52	Bunch purity problem [RF]	refill					11/04/00 19:44	11/04/00 20:04	0.33	0.33		RF	Store Lost	PAR RF1 had to be adjusted to improve Bunch Purity; subsequent intentional beam dump
7	11/04/00 20:04	11/05/00 19:45	23.68	Bunch purity problem [RF]	refill					11/05/00 19:45	11/05/00 20:06	0.35	0.35		RF	Store Lost	Intentional beam dump in order to correct the S39A:V3:PS DAC problem
8	11/05/00 20:06	11/06/00 01:18	5.20	S40cavity2 IP trip [RF]	refill					11/06/00 01:18	11/06/00 01:58	0.67	0.67		RF	Store Lost	Sector 40 cavity 2 ion pump trip
10	11/06/00 01:58	11/06/00 15:48	13.83	RF1 HVPS trip [RF]	refill					11/06/00 15:48	11/06/00 17:31	1.72	1.72		RF	Store Lost	SR-RF1 HVPS tripped on Collector water temperature
11	11/06/00 17:31	11/07/00 08:00	14.48		refill												
			115.97									4.03					
12	11/07/00 15:59	11/08/00 19:48	27.82	ID-3 Rad. Mon. trip [Ops]	refill					11/08/00 19:48	11/08/00 20:08	0.33	0.33		OPS	Store Lost	ID-03 Rad Mon tripped during Fill-on-fill WHY OPS
15	11/08/00 20:08	11/10/00 07:45	35.62	S38A:H3 glitch of 1Amp [OTH]	refill					11/10/00 07:45	11/10/00 08:10	0.42	0.42		UNIDENT	Store Lost	At the time of a beam loss, date logger recorded a 1A glitch on S38A:H3 converter
17	11/10/00 08:10	11/10/00 19:44	11.57	Bunch purity problem [RF]	refill					11/10/00 19:44	11/10/00 20:07	0.38	0.38		RF	Store Lost	PAR RF1 was worked on to improve Bunch Purity; subsequent intentional beam dump
20	11/10/00 20:07	11/12/00 23:26	51.32	Unknown beam motion [OTH]	refill					11/12/00 23:26	11/12/00 23:50	0.40	0.40		UNIDENT	Store Lost	13-ID BPLD trip
23	11/12/00 23:50	11/13/00 03:10	3.33	S24A:Q2 PS problem [PS]	refill					11/13/00 03:10	11/13/00 05:04	1.90	1.90		PS	Store Lost	S24A:Q2:PS DAC and Output current went to zero
24	11/13/00 05:04	11/13/00 08:00	2.93		refill											Store Lost	
			132.58									3.41					
25	11/15/00 08:01	11/16/00 01:27	17.43	RF6 PSS trip [RF]	refill					11/16/00 01:27	11/16/00 03:53	2.43	2.43		RF	Store Lost	RF6 PSS tripped on RF Monitor #4 Corridor North. The monitor had to be replaced
28	11/16/00 03:53	11/17/00 11:58	32.08	An ACIS event [CTL]	refill					11/17/00 11:58	11/17/00 13:51	1.88	1.88		CTL	Store Lost	Zone F tripped to "No Shutdown Verification" [ACIS detected a remote IO fault]
30	11/17/00 13:51	11/17/00 15:17	1.43	SR RF-2 trip [RF]	refill					11/17/00 15:17	11/17/00 15:53	0.60	0.60		RF	Store Lost	SRF-2 power monitor trip for S37 "SL3 Cavity 1 Ion Pump Flt"
32	11/17/00 15:53	11/18/00 23:41	31.80	Unknown beam motion [OTH]	refill					11/18/00 23:41	11/19/00 00:09	0.47	0.47		UNIDENT	Store Lost	MPS latched "S33-ID BPLD; S33:BP1 Bottom"
36	11/19/00 00:09	11/19/00 16:40	16.52	S16/17 R4 PS [PS]	refill					11/19/00 16:40	11/19/00 16:48	0.13	0.13		PS	Store Lost	S16/17 R4 Raw power supply tripped on External Interlock fault
										11/19/00 16:48	11/19/00 17:18	0.50	0.50		BL	Inhibits beam to user	We are unable to store beam because of ID-18 Gap being closed
										11/19/00 17:18	11/19/00 19:11	1.88	1.88		PS	Inhibits beam to user	S16/17 R4 Raw power supply troubleshooting
										11/19/00 19:11	11/19/00 20:04	0.88	0.88		DIA	Inhibits beam to user	9-ID BPLD trip
39	11/19/00 20:04	11/20/00 18:02	21.97	S16/17 R4 PS [PS]	refill					11/20/00 18:02	11/20/00 19:00	0.97	0.97		PS	Store Lost	S16/17 R4 Raw power supply tripped on External Interlock fault
41	11/20/00 19:00	11/21/00 13:18	18.30	S15B:H3:PS [PS]	refill					11/21/00 13:18	11/21/00 14:34	1.27	1.27		PS	Store Lost	S15B:H3:PS trip and subsequent power supply swapout
44	11/21/00 14:34	11/22/00 07:46	17.20	S16/17 R4 PS [PS]	refill					11/22/00 07:46	11/22/00 08:03	0.28	0.28		RF	Store Lost	SR RF-1 trip on S40 cav 2 ion pump fault
45	11/22/00 08:03	11/22/00 14:21	6.30	PS human error, OPS tuneup	refill					11/22/00 14:21	11/22/00 14:51	0.50	0.50		OTH	Store Lost	Standard 0.5 hour belongs to the group which caused beam loss
										11/22/00 14:51	11/22/00 15:11	0.33	0.33		OPS	Inhibits beam to user	Injector tuneup
										11/22/00 15:11	11/22/00 15:31	0.33	0.33		PHY	Inhibits beam to user	Switchover from PC-Gun
46	11/22/00 15:31	11/23/00 00:00	8.48														
			171.54									12.47					
49	11/24/00 08:00	11/26/00 01:02	41.03	RadMon trip [OTH]	refill					11/26/00 01:02	11/26/00 01:32	0.50	0.50		UNIDENT	Store Lost	Unknown RadMon trip
53	11/26/00 01:32	11/26/00 19:50	18.30	SR RF-1 trip [RF]	refill					11/26/00 19:50	11/26/00 20:06	0.27	0.27		RF	Store Lost	SR RF-1 trip on S40 cav 2 ion pump fault
54	11/26/00 20:06	11/27/00 08:00	11.90														
			71.23									0.77					
55	11/29/00 08:00	11/29/00 21:56	13.93	RadMon trip [OTH]	refill					11/29/00 21:56	11/29/00 22:26	0.50	0.50		UNIDENT	Store Lost	Unknown BPLD/RadMon
58	11/29/00 22:26	12/01/00 03:33	29.12	SR RF-1 trip [RF]	refill					12/01/00 03:33	12/01/00 04:03	0.50	0.50		RF	Store Lost	SR RF-1 arc detector trip
60	12/01/00 04:03	12/02/00 07:52	27.82	S40 vac trips [VAC]	refill					12/02/00 07:52	12/02/00 08:22	0.50	0.50		RF	Store Lost	9-ID BPLD trips
										12/02/00 08:22	12/02/00 09:03	0.68	0.68		UNIDENT	Inhibits beam to user	9-ID BPLD trips
65	12/02/00 09:03	12/04/00 09:38	48.58	Pump PSR 38A [ME]	refill					12/04/00 09:38	12/04/00 10:30	0.87	0.87		ME	Store Lost	Pump PSR 38A trip [H2O]
69	12/04/00 10:30	12/05/00 08:00	21.50														
			140.95									3.05					
71	12/05/00 16:01	12/05/00 18:26	2.42	S33VV:01 closed [CTL]	refill					12/05/00 18:26	12/05/00 18:40	0.23	0.23		CTL	Store Lost	S33VV:01 closed
72	12/05/00 18:40	12/06/00 08:50	14.17	Pump PSR34A trip [ME]	refill					12/06/00 08:50	12/06/00 09:51	1.02	1.02		ME	Store Lost	Pump PSR34A trip
73	12/06/00 09:51	12/06/00 10:48	0.95	RF2 HVPS trip [RF]	refill					12/06/00 10:48	12/06/00 11:06	0.30	0.30		RF	Store Lost	RF2 HVPS trip
74	12/06/00 11:06	12/07/00 13:30	26.40	S15A:Q3 trip [PS]	refill					12/07/00 13:30	12/07/00 16:22	2.87	2.87		PS	Store Lost	S15A:Q3 trip
75	12/07/00 16:22	12/07/00 21:09	4.78	S15/16 Q/S trips [PS]	refill					12/07/00 21:09	12/07/00 22:16	1.12	1.12		PS	Store Lost	S14/15 Q/S trip
76	12/07/00 22:16	12/07/00 23:21	1.08	ID-06 rad. Mon. trip [OTH]	refill					12/07/00 23:21	12/07/00 23:42	0.35	0.35		UNIDENT	Store Lost	ID-06 Rad. Mon. trip
77	12/07/00 23:42	12/09/00 07:14	31.53	RF1 S40 Cav IG trip [RF]	refill					12/09/00 07:14	12/09/00 07:31	0.28	0.28		RF	Store Lost	RF1 S40 Cav IG trip
78	12/09/00 07:31	12/10/00 15:41	32.17	S24 gate Valve [CTL]	refill					12/10/00 15:41	12/10/00 16:00	0.32	0.32		CTL	Store Lost	S24 Gate valve
79	12/10/00 16:00	12/11/00 08:00	16.00														
			129.50									6.50					
80	12/13/00 08:00	12/13/00 09:13	1.22	RF4 HVPS trip [RF]	refill					12/13/00 09:13	12/13/00 10:00	0.78	0.78		RF	Store Lost	RF4 HVPS trip
81	12/13/00 10:00	12/13/00 22:17	12.28	RF4 HVPS trip [RF]	refill					12/13/00 22:17	12/13/00 23:01	0.73	0.73		RF	Store Lost	RF4 HVPS trip
82	12/13/00 23:01	12/14/00 03:40	4.65	Pwr breaker trip [PS]	refill					12/14/00 03:40	12/14/00 06:23	2.72	2.72		PS	Store Lost	Investigation, recover, refill
83	12/14/00 06:23	12/15/00 11:19	28.93	Unknown BPLD trip [OTH]	refill					12/15/00 11:19	12/15/00 12:10	0.85	0.85		UNIDENT	Store Lost	RF3 HVPS trip, refill
85	12/15/00 12:10	12/15/00 14:25	2.25	site wide power [OTH]	refill					12/15/00 14:25	12/15/00 22:19	7.90	7.90		OTH	Store Lost	recovery

86	12/15/00 22:19	12/16/00 00:57	2.63	Beam dropout [OTH]	refill					12/16/00 00:57	12/16/00 01:36	0.65	0.65	UNIDENT	Store Lost	Dump & refill
87	12/16/00 01:36	12/16/00 04:08	2.53	RF4 HVPS trip [RF]	refill					12/16/00 04:08	12/16/00 04:30	0.37	0.37	RF	Store Lost	recovery
88	12/16/00 04:30	12/16/00 13:56	9.43	Unknown BPLD trip [OTH]	refill					12/16/00 13:56	12/16/00 14:54	0.97	0.97	UNIDENT	Store Lost	Unknown BPLD trip
90	12/16/00 14:54	12/18/00 07:47	40.88	S40 Cav IG Fault [RF]	refill					12/18/00 07:47	12/18/00 08:05	0.30	0.30	RF	Store Lost	recovery
93	12/18/00 08:05	12/21/00 00:09	64.07	Dump for P0 Err. [CTL]	refill					12/21/00 00:09	12/21/00 00:44	0.58	0.58	CTL	Store Lost	recovery
96	12/21/00 00:44	12/21/00 16:36	15.87	S24/25 R2 PS [PS]	refill					12/21/00 16:36	12/21/00 17:33	0.95	0.95	PS	Store Lost	recovery
97	12/21/00 17:33	12/22/00 00:00	6.45													
			191.20									16.80				