

Downtime for Run 2002-1

Fill #	Start	End	Length	Loss □ Reason	DIN #	Audit	Start	End	User □ Length	System □ Length	Cause	Type	Description
					104094		01/23/02 08:00	01/23/02 08:24	0.40	0.40	OAG	Inhibits Beam to User	The SR convertor setpoints had not been properly restored [OAG]
					104095		01/23/02 08:24	01/23/02 08:50	0.43	0.43	RF	Inhibits Beam to User	S38 cavity 1&2 ion gauge fault [RF]
2	01/23/02 08:50	01/23/02 10:18	1.47	S34 ID BPLD [DIAG]	104096		01/23/02 10:18	01/23/02 10:49	0.52	0.52	DIAG	Store Lost	S34-ID BPLD hardware problem [DIAG]
					104097		01/23/02 10:49	01/23/02 11:12	0.38	0.38	DIAG	Inhibits Beam to User	refilled and lost beam again due to same fault [DIAG]
4	01/23/02 11:12	01/25/02 05:00	41.80	ID-13 Safety shutter [ID-FE]			01/25/02 05:00	01/25/02 11:45	6.75				
					104099		01/25/02 05:00	01/25/02 09:30		4.50	BO	Store Lost	Replacing SS1 and SS2 actuators for ID-13 FE [BO]
					104099		01/25/02 09:30	01/25/02 09:40		0.17	BO	Inhibits Beam to User	MPEOB problem [BO]
					104099		01/25/02 09:40	01/25/02 09:50		0.17	PS	Inhibits Beam to User	MPEOB problem [PS]
					104099		01/25/02 09:50	01/25/02 10:00		0.17	OPS	Inhibits Beam to User	MPEOB problem [OPS]
					104099		01/25/02 10:00	01/25/02 10:17		0.28	BO	Inhibits Beam to User	continuation of the ID-13 FE related downtime [BO]
					104099		01/25/02 10:17	01/25/02 11:45		1.47	PS	Inhibits Beam to User	S14-15 Raw PS faulty connector [PS]
9	01/25/02 11:45	01/25/02 17:36	5.85	P0 Timing error [CTL]	104101		01/25/02 17:36	01/25/02 18:14	0.63	0.63	CTL	Store Lost	P0 Timing error [CTL]
10	01/25/02 18:14	01/26/02 05:05	10.85	RTFB ioc reboot [DIA]	104102		01/26/02 05:05	01/26/02 06:01	0.93	0.93	DIAG	Store Lost	RTFB ioc reboot [DIA]
11	01/26/02 06:01	01/26/02 09:19	3.30	RF-4 trip [RF]	104103		01/26/02 09:19	01/26/02 10:40	1.35	1.35	RF	Store Lost	RF-4 trip; waveguide switch to RF-1&-3 and recovery [RF]
12	01/26/02 10:40	01/28/02 09:09	46.48	RF1 trip [RF]	104106		01/28/02 09:09	01/28/02 09:30	0.35	0.35	RF	Store Lost	RF-1 Mode Anode turned off [RF]
17	01/28/02 09:30	01/29/02 06:43	21.22	P0 Timing error [CTL]	104107		01/29/02 06:43	01/29/02 07:01	0.30	0.30	CTL	Store Lost	P0 Timing error [CTL]
19	01/29/02 07:01	01/29/02 08:00	0.98	Int Dump: End of Period					0.00	0.00	Scheduled	Int. Dump	End of User Period
			131.95						12.05	12.05			
20	01/29/02 16:00	01/29/02 19:11	3.18	RF-4 HVPS crowbar [RF]	104108		01/29/02 19:11	01/29/02 19:53	0.70	0.70	RF	Store Lost	RF-4 HV tripped on SCR AC O.I.; SCR Crow Fired and Crowbar faults [RF]
21	01/29/02 19:53	01/30/02 16:25	20.53	RTFB ioc reboot [DIA]	104110		01/30/02 16:25	01/30/02 16:43	0.30	0.30	DIAG	Store Lost	Heartbeat error for iocs23fb & iocs23fb hung task [DIAG]
22	01/30/02 16:43	02/01/02 19:13	50.50	RF-3 power monitor [RF]	104113		02/01/02 19:13	02/01/02 19:35	0.37	0.37	RF	Store Lost	RF-3 power monitor trip [RF]
23	02/01/02 19:35	02/01/02 20:17	0.70	RF-4 HVPS trip [RF]	104114		02/01/02 20:17	02/01/02 22:46	2.48	2.48	RF	Store Lost	RF-4 trips, waveguide switch [RF]
26	02/01/02 22:46	02/02/02 17:38	18.87	RF-3 HVPS trip [RF]	104118		02/02/02 17:38	02/02/02 17:58	0.33	0.33	RF	Store Lost	RF-3 HVPS tripped on "SCR AC O.I., SCR Crow Fired, & Crowbar Fired" [RF]
27	02/02/02 17:58	02/03/02 06:22	12.40	S8A:Q4 failure [PS]	104119		02/03/02 06:22	02/03/02 07:44	1.37	1.37	PS	Store Lost	S8A:Q4 converter trip and swapout [PS]
28	02/03/02 07:44	02/03/02 22:47	15.05	Gate valve closure [CTL]	104121		02/03/02 22:47	02/03/02 23:01	0.23	0.23	CTL	Store Lost	SR gate valve closure (VM-39-VV02) [CTL]
29	02/03/02 23:01	02/04/02 08:00	8.98	Int Dump: End of Period					0.00	0.00	Scheduled	Int. Dump	End of User Period
			130.22						5.78	5.78			
31	02/06/02 08:00	02/08/02 05:12	45.20	IK2 set/dac diff. [PS]	104127		02/08/02 05:12	02/08/02 05:37	0.42	0.42	PS	Store Lost	IK2 readback problem caused multiple beam losses, beam dumped & refill [PS]
32	02/08/02 05:37	02/09/02 08:28	26.85	15-ID Rad.Mon. [OTHER]	104131	Y	02/09/02 08:28	02/09/02 09:20	0.87	0.87	OTHER	Store Lost	15-ID Rad.Mon. Blown fuse and replacement [OTHER]
33	02/09/02 09:20	02/11/02 13:35	52.25	19-ID BPLD trip [Unidentified]	104132	Y	02/11/02 13:35	02/11/02 14:13	0.63				
					104132		02/11/02 13:35	02/11/02 13:40		0.08	Unidentified	Store Lost	Unknown beam motion [Unidentified]
					104132		02/11/02 13:40	02/11/02 13:50		0.17	CTL	Inhibits Beam to User	Lost communications with IOCS39VP and Top-Up Key Fault [CTL]
					104132		02/11/02 13:48	02/11/02 14:13		0.42	Unidentified	Inhibits Beam to User	Continued recovery from unknown beam motion [Unidentified]
34	02/11/02 14:13	02/11/02 23:47	9.57	S37 Ion Gauge Fault [RF]	104134	Y	02/11/02 23:47	02/12/02 00:00	0.22	0.22	RF	Store Lost	S37 Ion Gauge Fault, no refill due to machine studies starting [RF]
			133.87						2.13	2.17			
35	02/12/02 16:00	02/13/02 09:22	17.37	14-ID DBPLD trip [UKN]	104136		02/13/02 09:22	02/13/02 10:12	0.83				
							02/13/02 09:22	02/13/02 09:27		0.08	Unidentified	Store Lost	Unknown beam motion [Unidentified]
							02/13/02 09:27	02/13/02 09:36		0.15	CTL	Inhibits Beam to User	Swap-out of L2 LLRF Allen-Bradley Card
							02/13/02 09:36	02/13/02 10:12		0.60	Unidentified	Inhibits Beam to User	Continuation of recovery from beam loss and vertical orbit error.
36	02/13/02 10:12	02/13/02 15:19	5.12	33-BM FV closure [BO]	104138		02/13/02 15:19	02/13/02 16:06	0.78	0.78	BO	Store Lost	33-BM Fast Vale closure [BO]
37	02/13/02 16:06	02/15/02 23:40	55.57	5-ID Rad.Mon.Trip [OTHER]	104140		02/15/02 23:40	02/16/02 00:04	0.40	0.40	OTHER	Store Lost	5-ID Rad.Mon.Trip [OTHER]
38	02/16/02 00:04	02/17/02 16:29	40.42	P0 timing loss [CTL]	104141		02/17/02 16:29	02/17/02 16:52	0.38	0.38	CTL	Store Lost	P0 Timing error [CTL]
39	02/17/02 16:52	02/18/02 07:59	15.12	Int Dump: End of Period					0.00	0.00	Scheduled	Int. Dump	End of User Period
			133.58						2.40	2.40			
40	02/20/02 08:00	02/22/02 23:25	63.42	5-ID Rad.Mon.Trip [OTHER]	104146		02/22/02 23:25	02/22/02 23:41	0.27	0.27	OTHER	Store Lost	5-ID Rad.Mon.Trip [OTHER]
41	02/22/02 23:41	02/23/02 09:51	10.17	S37 Cav#1 IG fault [RF]	101147		02/23/02 09:51	02/23/02 10:01	0.17	0.17	RF	Store Lost	S37 Cav#1 IG fault [RF]
42	02/23/02 10:01	02/24/02 07:52	21.85	35-BM EPS fault [BO]	101148		02/24/02 07:52	02/24/02 09:00	1.13	1.13	BO	Store Lost	35-BM EPS trip due to flow meter problem [BO]
43	02/24/02 09:00	02/25/02 12:20	27.33	Fast beam motion [UNK]	101149		02/25/02 12:20	02/25/02 12:35	0.25	0.25	Unidentified	Store Lost	Fast beam motion [UNK]
44	02/25/02 12:35	02/26/02 00:00	11.42	Int Dump: End of Period					0.00	0.00	Scheduled	Int. Dump	End of User Period
			134.18						1.82	1.82			

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Fill #	Start	End	Length	Loss Reason	DIN #	Audit	Start	End	User Length	System Length	Cause	Type	Description
45	02/26/02 16:00	02/26/02 20:25	4.42	13-ID BPLD PS failed [DIAG]	104152		02/26/02 20:25	02/26/02 21:02	0.62	0.62	DIAG	Store Lost	13-ID BPLD PS failed [DIAG]
47	02/26/02 21:02	02/26/02 22:26	1.40	BPLD repairs [DIAG]	104152		02/26/02 22:26	02/26/02 22:59	0.55	0.55	DIAG	Store Lost	13-ID BPLD PS repair; refill [DIAG]
48	02/26/02 22:59	02/27/02 10:00	11.02	PAR kicker P4:EK [PS]	104153		02/27/02 10:00	02/27/02 10:57	0.95	0.95	PS	Store Lost	P4:EK PFN cable arc [PS] At 07:05 Usr Dwnt. starts (SR beam decayed to 50mA)
49	02/27/02 10:57	03/03/02 06:33	91.60	Unknown beam motion [UNK]	104156		03/03/02 06:33	03/03/02 07:34	1.02	1.02	Unidentified	Store Lost	Orbit problems, refill [UNK]
51	03/03/02 07:34	03/04/02 08:00	24.43	Int Dump: End of Period					0.00	0.00	Scheduled	Int. Dump	End of User Period
			132.87						3.13	3.13			
52	03/06/02 08:00	03/07/02 08:17	24.28	S40 Cav#1-4 vacuum fault [RF]	104164		03/07/02 08:17	03/07/02 08:32	0.25	0.25	RF	Store Lost	S40 RF Cavity #1-4 vacuum fault [RF]
55	03/07/02 08:32	03/10/02 04:55	68.38	S6 VM:05:VV02 gate valve closure	104165		03/10/02 04:55	03/10/02 05:45	0.83	0.83	CTL	Store Lost	S6 VM:05:VV02 gate valve closure [CTL]
61	03/10/02 05:45	03/12/02 08:00	50.25	Int Dump: End of Period					0.00	0.00	Scheduled	Int. Dump	End of User Period
			142.92						1.08	1.08			
					104167	Y	03/12/02 16:00	03/12/02 16:15	0.25	0.25	CTL	Inhibits Beam to User	Investigation of nonresponse of MPS "Dump Beam" request and reboot of IOCMPS[C
					104167		03/12/02 16:15	03/12/02 16:37	0.37	0.37	Unidentified	Inhibits Beam to User	Unknown beam motion at top of fill[Unidentified]
65	03/12/02 16:37	03/13/02 02:16	9.65	RF2 orphan load trip[RF]			03/13/02 02:16	03/13/02 05:30	3.23				
					104172		03/13/02 02:16	03/13/02 02:46		0.50	RF	Store Lost	RF2 orphan load trip[RF]
					104171		03/13/02 02:46	03/13/02 05:30		2.73	PS	Inhibits Beam to User	P1:K repair preventing SR refill [PS]
66	03/13/02 05:30	03/14/02 15:43	34.22	RTFB ioc reboot [CTL]	104174	Y	03/14/02 15:43	03/14/02 16:52	1.15	1.15	CTL	Store Lost	Reboot of IOCS23FB, investigation and reentering DAC setpoints [CTL]
67	03/14/02 16:52	03/14/02 20:08	3.27	RF2 circulator arc [RF]	104175		03/14/02 20:08	03/14/02 20:27	0.32	0.32	RF	Store Lost	RF2 Circulator Arc and HVPS trips [RF]
68	03/14/02 20:27	03/18/02 07:59	83.53	Int Dump: End of Period			03/18/02 07:59	03/18/02 07:59	0.00	0.00	Scheduled	Int. Dump	End of User Period
			130.67						5.32	5.32			
70	03/20/02 08:00	03/20/02 20:46	12.77	S37 Cav.Vac.IG fit [RF]	104178		03/20/02 20:46	03/20/02 21:08	0.37	0.37	RF	Store Lost	RF3 Power monitor fault -- S37 Ion gauge, Cavities 1&2 [RF]
71	03/20/02 21:08	03/21/02 16:03	18.92	S37 Cav.Vac.IG fit [RF]			03/21/02 16:03	03/21/02 16:15	0.20	0.20	RF	Store Lost	RF3 Power monitor fault -- S37 Ion gauge, Cavities 1&2 [RF]
72	03/21/02 16:15	03/22/02 02:54	10.65	S37 Cav.Vac.IG fit [RF]			03/22/02 02:54	03/22/02 03:10	0.27	0.27	RF	Store Lost	RF3 Power monitor fault -- S37 Ion gauge, Cavities 1&2 [RF]
74	03/22/02 03:10	03/22/02 20:01	16.85	S37 Cav.Vac.IG fit [RF]			03/22/02 20:01	03/22/02 20:32	0.52				
					104182		03/22/02 20:01	03/22/02 20:31		0.50	RF	Store Lost	RF3 trip - ion gauge fault at sector 37 cavity 2 [RF]
					104182		03/22/02 20:32	03/22/02 20:32		0.17	Unidentified	Inhibits Beam to User	14ID BPLD trip at top of fill [Unidentified]
75	03/22/02 20:32	03/24/02 21:09	48.62	PFN cable P2:IK [PS]			03/24/02 21:09	03/25/02 02:02	4.88	4.88	PS	Store Lost	P:IK2 PFN cable failure and replacement [PS]
76	03/25/02 02:02	03/26/02 07:59	29.95	Int Dump: End of Period			03/26/02 07:59	03/26/02 07:59	0.00	0.00	Scheduled	Int. Dump	End of User Period
			137.75						6.23	6.38			
77	03/26/02 16:00	03/28/02 01:02	33.03	Unknown beam motion [UNK]	104186		03/28/02 01:02	03/28/02 01:16	0.23	0.23	Unidentified	Store Lost	MPS first fault latched was S1- ID BPLD [Unidentified]
78	03/28/02 01:16	03/29/02 15:42	38.43	S34,35 PS trip [PS]			03/29/02 15:42	03/29/02 16:37	0.92				
					104187		03/29/02 15:42	03/29/02 16:11		0.48	PS	Store Lost	All of the sextupoles in sectors 34 and 35 tripped off [PS]
					104187		03/29/02 16:11	03/29/02 16:20		0.15	DIAG	Inhibits Beam to User	SR horizontal orbit correction is not restarting because S21bp3 is out of range [DIAG]
					104187		03/29/02 16:13	03/29/02 16:37		0.40	CTL	Inhibits Beam to User	Reboot of IOCS39VP and refill [CTL]
79	03/29/02 16:37	03/30/02 04:12	11.58	S39 Valve closure [CTL]	104188		03/30/02 04:12	03/30/02 04:27	0.25	0.25	CTL	Store Lost	VM-39-VV02 vacuum valve closed [CTL]
80	03/30/02 04:27	03/30/02 15:33	11.10	S38 Valve closure [CTL]	104189		03/30/02 15:33	03/30/02 15:51	0.30	0.30	CTL	Store Lost	VM-38-VV02 vacuum valve closed [CTL]
					104190		03/30/02 21:13	03/30/02 21:30	0.28	0.28	CTL	Inhibits Beam to User	All gaps were opened for IOCS17VP reboot [CTL]
					104190		03/30/02 21:38	03/30/02 22:07	0.48	0.48	PS	Inhibits Beam to User	All gaps were opened to correct the problem with S24B:H2 and S12A:V2 [PS]
81	03/30/02 15:51	03/30/02 22:07	5.50	Unk vert. motion [CTL]	104190		03/30/02 22:07	03/30/02 22:18	0.18	0.18	CTL	Store Lost	SR corrector power supply setpoints cannot be properly restored [CTL]
82	03/30/02 22:18	04/01/02 07:59	33.68	Int Dump: End of Period			04/01/02 07:59	04/01/02 07:59	0.00	0.00	Scheduled	Int. Dump	End of User Period
			133.33						2.65	2.77			
87	04/03/02 08:00	04/05/02 15:32	55.53	Unknown beam motion [UNK]			04/05/02 15:32	04/05/02 16:14	0.70				
					104196		04/05/02 15:32	04/05/02 16:02		0.50	Unidentified	Store Lost	MPS first fault latched was S13- ID BPLD [Unidentified]
					104196		04/05/02 15:32	04/05/02 15:43		0.18	BO	Inhibits Beam to User	After a beam loss, ID gaps did not open [BO]
					104196		04/05/02 15:57	04/05/02 16:09		0.20	OPS	Inhibits Beam to User	SR beam intentional dump because the BPM timing bunch was unusually large [OPS]
88	04/05/02 16:14	04/08/02 15:52	70.63	S38 Valve closure [CTL]	104198		04/08/02 15:52	04/08/02 16:19	0.45	0.45	Unidentified	Store Lost	MPS first fault latched was S13- ID BPLD [Unidentified]
89	04/08/02 16:19	04/09/02 00:00	7.68	Int Dump: End of Period					0.00	0.00	Scheduled	Int. Dump	End of User Period
			133.85						1.15	1.33			

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Fill #	Start	End	Length	Loss Reason	DIN #	Audit	Start	End	User Length	System Length	Cause	Type	Description
							04/09/02 16:00	04/09/02 16:02	0.03	0.03	DIAG	Inhibits Beam to User	Cogging caused beam motion [DIAG]
90	04/09/02 16:02	04/10/02 20:43	28.68	S37Cav.Vac fit [RF]		Y	04/10/02 20:43	04/10/02 21:36	0.88				
					104203		04/10/02 20:43	04/10/02 21:02		0.32	RF	Store Lost	S37, Cavity 1&2 Ion Gauge fault [RF]
					104203		04/10/02 21:02	04/10/02 21:25		0.38	Unidentified	Inhibits Beam to User	Beam loss at top of fill and again when RTFB loops closed (Unidentified)
					104203		04/10/02 21:25	04/10/02 21:36		0.18	RF	Inhibits Beam to User	Continued recovery from beam loss [RF]
91	04/10/02 21:36	04/13/02 18:40	69.07	Rad Mon ID9 [OTH]	104205	Y	04/13/02 18:40	04/13/02 18:58	0.30	0.30	OTHER	Store Lost	9ID Rad Monitor trip [OTHER]
93	04/13/02 18:58	04/14/02 07:34	12.60	S22B:H1 converter [PS]		Y	04/14/02 07:34	04/14/02 09:27	1.88				
					104206		04/14/02 07:34	04/14/02 08:50		1.27	PS	Store Lost	S22B:H1 converter swap-out [PS]
					104206		04/14/02 08:50	04/14/02 09:13		0.38	OPS	Inhibits Beam to User	6ID Rad Monitor trips during injection [OPS]
					104206		04/14/02 09:13	04/14/02 09:27		0.23	PS	Inhibits Beam to User	Continued recovery from PS swapout [PS]
94	04/14/02 09:27	04/14/02 11:00	1.55	Zone F Rad mon trip [Unid.]		Y	04/14/02 11:00	04/14/02 15:34	4.57				
					104207		04/14/02 11:00	04/14/02 11:30		0.50	Unidentified	Store Lost	Zone F Rad Monitor trip [Unidentified]
					104207		04/14/02 11:30	04/14/02 11:38		0.13	OPS	Inhibits Beam to User	Investigation of RM:07 trip [OPS]
					104207		04/14/02 11:38	04/14/02 11:55		0.28	RF	Inhibits Beam to User	RF3 S37 Ion Gauge and Ion Pump faults [RF]
					104207		04/14/02 11:55	04/14/02 12:09		0.23	OPS	Inhibits Beam to User	Restored corrector in attempt to recover from S16/17 GESPAC problems [PS]
					104207		04/14/02 12:09	04/14/02 12:26		0.28	Unidentified	Inhibits Beam to User	Beam retained for less than 1/2 hour
					104207		04/14/02 12:26	04/14/02 12:40		0.23	OPS	Inhibits Beam to User	Stored beam lost when 6ID Rad Monitor turned off [OPS]
					104207		04/14/02 12:40	04/14/02 15:34		2.90	PS	Inhibits Beam to User	Replaced GESPAC P.S. [PS]
96	04/14/02 15:34	04/15/02 07:11	15.62	Ukn beam loss			04/15/02 07:11	04/15/02 08:00	0.82				
					104187		04/15/02 07:11	04/15/02 07:26		0.25	Unidentified	Store Lost	Unknown beam loss [Unidentified]
					104187		04/15/02 07:26	04/15/02 07:45		0.32	RF	Inhibits Beam to User	
					104187		04/15/02 07:45	04/15/02 08:00		0.25	Unidentified	Inhibits Beam to User	End of period less than 1/2 hour [Unidentified]
			127.52						8.48	8.48			
97	04/17/02 08:00	04/22/02 14:33	126.55	S12AH1 PS trip [PS]	104217		04/22/02 14:33	04/22/02 15:02	0.48	0.48	PS	Store Lost	refill, lost again, S22BV2 noise problem
101	04/22/02 15:02	04/23/02 07:59	16.95	Int Dump: End of Period			04/23/02 07:59	04/23/02 07:59	0.00	0.00	Scheduled	Int. Dump	
			143.50						0.48	0.48			
102	04/23/02 16:00	04/25/02 06:30	38.50	P0 timing fault [RF]			04/25/02 06:30	04/25/02 07:22	0.87				
					104217		04/25/02 06:30	04/25/02 06:49		0.32	RF	Store Lost	Brief loss of RF source [RF]
					104217	Y	04/25/02 06:49	04/25/02 07:07		0.30	Unidentified	Inhibits Beam to User	Fill lost w/large bump in sector 21/22 [Unidentified]
					104217		04/25/02 07:07	04/25/02 07:22		0.25	RF	Inhibits Beam to User	Continued recovery from beam loss [RF]
106	04/25/02 07:22	04/27/02 20:21	60.98	RF4 Klystron arc [RF]			04/27/02 20:21	04/27/02 21:06	0.75				
					104220		04/27/02 20:21	04/27/02 20:46		0.42	RF	Store Lost	SRF4 tripped on Klystron out arc and crowbar [RF]
					104220		04/27/02 20:46	04/27/02 20:54		0.13	Physics	Inhibits Beam to User	Switch between guns [Physics]
					104220		04/27/02 20:54	04/27/02 21:01		0.12	OPS	Inhibits Beam to User	Orbit problems [OPS]
					104220		04/27/02 21:01	04/27/02 21:06		0.08	RF	Inhibits Beam to User	Continued recovery from beam loss [RF]
113	04/27/02 21:06	04/28/02 07:52	10.77	BTS config error [DIAG]			04/28/02 07:52	04/28/02 08:36	0.73				
					104222		04/28/02 07:52	04/28/02 08:23		0.52	DIAG	Store Lost	Store lost during injection [DIAG]
					104222		04/28/02 08:23	04/28/02 08:36		0.22	Unidentified	Inhibits Beam to User	Refill lost w/large bump in sector 21/22 [Unidentified]
114	04/28/02 08:36	04/29/02 00:00	15.40	Int Dump: End of Period			04/29/02 00:00	04/29/02 00:00	0.00	0.00	Scheduled	Int. Dump	
			125.65						2.35	2.35			

Number of Lost Fills 56
Number of Intentional Dumps 12
Number of Fills 68

Downtime
 User System
 55.07 55.55

Total User Beam 1871.85 78.0 User Beam days
Total User Downtime 55.07 <-- This downtime includes Gaps Open
Total Schedule Run Length 1926.91

Downtime for Run 2002-1

Fill #	Start	End	Length	Loss □ Reason	DIN #	Audit	Start	End	User □ Length	System □ Length	Cause	Type	Description
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Mean Time Between Faults 33.43
Faults/Day of Delivered Beam 0.72
X-ray Availability 97.1%