

Listing of Statistics for Run3-2022 (Created Tue Feb 07 11:53:36 CST 2023)

Total Amount of User Time in this interval 1592.96 Hours

User periods in this interval

10/03/2022 08:00	To	10/10/2022 08:00	168.00 Hours,	Delivered Beam: 166.74 Hours,	1 Fault(s),	166.74 MTBF,	99.25% of Sched. Time
10/11/2022 08:00	To	10/17/2022 08:00	144.00 Hours,	Delivered Beam: 144.00 Hours,	0 Fault(s),	144.00 MTBF,	100.00% of Sched. Time
10/18/2022 08:00	To	10/24/2022 08:00	144.00 Hours,	Delivered Beam: 144.00 Hours,	0 Fault(s),	144.00 MTBF,	100.00% of Sched. Time
10/25/2022 08:00	To	10/31/2022 08:00	144.00 Hours,	Delivered Beam: 124.76 Hours,	2 Fault(s),	62.38 MTBF,	86.64% of Sched. Time
11/01/2022 08:00	To	11/07/2022 08:00	145.00 Hours,	Delivered Beam: 142.52 Hours,	1 Fault(s),	142.52 MTBF,	98.29% of Sched. Time
11/08/2022 08:00	To	11/14/2022 08:00	144.00 Hours,	Delivered Beam: 144.00 Hours,	0 Fault(s),	144.00 MTBF,	100.00% of Sched. Time
11/16/2022 08:00	To	11/23/2022 24:00	184.00 Hours,	Delivered Beam: 182.93 Hours,	1 Fault(s),	182.93 MTBF,	99.42% of Sched. Time
11/25/2022 08:00	To	12/05/2022 08:00	240.00 Hours,	Delivered Beam: 239.13 Hours,	1 Fault(s),	239.13 MTBF,	99.64% of Sched. Time
12/07/2022 08:00	To	12/12/2022 08:00	120.00 Hours,	Delivered Beam: 119.99 Hours,	0 Fault(s),	119.99 MTBF,	99.99% of Sched. Time
12/13/2022 08:00	To	12/19/2022 24:00	160.00 Hours,	Delivered Beam: 160.00 Hours,	0 Fault(s),	160.00 MTBF,	100.00% of Sched. Time

Delivered Beam 1568.06 Hours
 Percentage of Scheduled Time 98.44 %
 Downtime During Period 24.90 Hours
 Percentage of scheduled time SR current > 10 ma 98.95 %
 Average Delivered Current During This Period 99.35 mA
 Total integrated Current During This Period 155.79 A-hr

Mean Fill Duration in Period 224.01 Hours
 Mean Fill Duration from Poisson Fit 259.30 Hours
 Mean Time Between Faults (MTBF) 261.34 Hours
 Faults per Day of Delivered Beam 0.09
 Total Number of Faults 6
 Scheduled Topup Time 1304.00 Hours

Valid fills Beginning in this Time Interval	Reason for	Length	Downtime is associated with the end of a fill.
Fill# Start End Duration	Fill Termination	of	The first fill of a period will have any
(min: 1.0)		Downtime	downtime before the fill on the line above.
# 1 10/03 08:00 To 10/04 13:08 29.13	RF-1 crowbar [RF]	0.01	
# 2 10/04 14:23 To 10/10 07:59 137.61	Int Dump: End of Period	1.25	
# 3 10/11 08:00 To 10/17 07:59 144.00	Int Dump: End of Period	0.00	
# 4 10/18 08:00 To 10/24 07:59 144.00	Int Dump: End of Period	0.00	
# 5 10/25 08:00 To 10/27 18:07 58.13	Corrector ramp [MCR]	0.00	
# 6 10/27 19:03 To 10/27 20:42 1.65	S34 PS H2O leak [PS]	0.93	
# 8 10/28 15:00 To 10/31 07:59 64.98	Int Dump: End of Period	18.30	RF-3 trip [RF]
# 10 11/01 09:34 To 11/04 16:37 79.06	5ID BPLD trip [UNK]	1.57	
# 11 11/04 17:32 To 11/07 08:00 63.46	Int Dump: End of Period	0.91	
# 12 11/08 08:00 To 11/14 07:59 144.00	Int Dump: End of Period	-0.00	
# 13 11/16 08:00 To 11/16 19:26 11.43	User hutch error [OTH]	0.00	
# 14 11/16 20:30 To 11/23 23:59 171.50	Int Dump: End of Period	1.07	
# 15 11/25 08:01 To 11/30 04:11 116.17	IOCS37FB heartbeat [CTL]	0.00	
# 16 11/30 05:02 To 12/05 07:59 122.96	Int Dump: End of Period	0.85	

17 12/07 08:00 To 12/12 07:59 119.99 | Int Dump: End of Period | 0.00

18 12/13 08:00 To 12/19 23:59 160.00 | Int Dump: End of Period | 0.00

Top-Up Mode Statistics

Target Current Range +/- 2.0, Minimum Injector Downtime = 8.0 minutes

Total

Current in Range during Scheduled Topup Time 93.91 %
Current in Range during Delivered Beam Time 95.55 %
Injector Availability 95.18 %

Period Beginning 10/03/2022 08:00

Current in Range 91.82 %
Injector Availability 91.45 %
Out of Range at: 10/03/2022 20:05:52 to 10/03/2022 20:12:40 : 6.80 minutes
Injector downtime: 10/03/2022 19:57:52 to 10/03/2022 20:05:52 : 8.00 minutes (est)
Out of Range at: 10/04/2022 15:51:44 to 10/04/2022 15:55:12 : 3.47 minutes
Injector downtime: 10/04/2022 15:43:44 to 10/04/2022 15:51:44 : 8.00 minutes (est)
Out of Range at: 10/05/2022 01:01:20 to 10/05/2022 02:48:40 : 107.33 minutes
Injector downtime: 10/05/2022 00:56:24 to 10/05/2022 02:48:36 : 112.20 minutes
Out of Range at: 10/06/2022 00:08:16 to 10/06/2022 00:26:40 : 18.40 minutes
Injector downtime: 10/06/2022 00:03:20 to 10/06/2022 00:26:36 : 23.27 minutes
Out of Range at: 10/06/2022 05:59:12 to 10/06/2022 06:45:52 : 46.67 minutes
Injector downtime: 10/06/2022 05:54:16 to 10/06/2022 06:43:36 : 49.33 minutes
Out of Range at: 10/07/2022 00:12:32 to 10/07/2022 00:24:48 : 12.27 minutes
Injector downtime: 10/07/2022 00:07:36 to 10/07/2022 00:24:44 : 17.13 minutes
Out of Range at: 10/07/2022 01:11:28 to 10/07/2022 08:36:40 : 445.20 minutes
Injector downtime: 10/07/2022 01:06:32 to 10/07/2022 08:36:36 : 450.07 minutes
Out of Range at: 10/07/2022 08:52:24 to 10/07/2022 11:31:44 : 159.33 minutes
Injector downtime: 10/07/2022 08:47:28 to 10/07/2022 11:31:40 : 164.20 minutes
Out of Range at: 10/08/2022 14:20:48 to 10/08/2022 14:39:20 : 18.53 minutes
Injector downtime: 10/08/2022 14:15:52 to 10/08/2022 14:39:16 : 23.40 minutes

Period Beginning 10/11/2022 08:00

Current in Range 98.27 %
Injector Availability 98.07 %
Out of Range at: 10/11/2022 12:11:04 to 10/11/2022 12:29:20 : 18.27 minutes
Injector downtime: 10/11/2022 12:06:08 to 10/11/2022 12:27:12 : 21.07 minutes
Out of Range at: 10/14/2022 11:33:52 to 10/14/2022 11:54:48 : 20.93 minutes
Injector downtime: 10/14/2022 11:28:56 to 10/14/2022 11:54:44 : 25.80 minutes
Out of Range at: 10/15/2022 19:23:28 to 10/15/2022 19:32:24 : 8.93 minutes
Injector downtime: 10/15/2022 19:18:32 to 10/15/2022 19:32:20 : 13.80 minutes
Out of Range at: 10/16/2022 13:18:40 to 10/16/2022 13:35:36 : 16.93 minutes
Injector downtime: 10/16/2022 13:13:44 to 10/16/2022 13:33:12 : 19.47 minutes
Out of Range at: 10/16/2022 21:48:32 to 10/16/2022 23:12:40 : 84.13 minutes
Injector downtime: 10/16/2022 21:43:36 to 10/16/2022 23:10:24 : 86.80 minutes

Period Beginning 10/18/2022 08:00

Current in Range 95.66 %
Injector Availability 95.23 %
Out of Range at: 10/18/2022 23:08:00 to 10/18/2022 23:24:08 : 16.13 minutes
Injector downtime: 10/18/2022 23:03:04 to 10/18/2022 23:24:04 : 21.00 minutes
Out of Range at: 10/20/2022 13:36:08 to 10/20/2022 14:04:16 : 28.13 minutes
Injector downtime: 10/20/2022 13:31:12 to 10/20/2022 14:04:12 : 33.00 minutes
Out of Range at: 10/20/2022 14:29:44 to 10/20/2022 14:45:12 : 15.47 minutes
Injector downtime: 10/20/2022 14:24:48 to 10/20/2022 14:42:56 : 18.13 minutes
Out of Range at: 10/20/2022 20:03:28 to 10/20/2022 20:39:52 : 36.40 minutes
Injector downtime: 10/20/2022 19:58:32 to 10/20/2022 20:39:48 : 41.27 minutes
Out of Range at: 10/21/2022 14:39:36 to 10/21/2022 16:49:12 : 129.60 minutes

Injector downtime: 10/21/2022 14:34:40 to 10/21/2022 16:46:56 : 132.27 minutes
Out of Range at: 10/22/2022 04:16:08 to 10/22/2022 05:07:04 : 50.93 minutes
Injector downtime: 10/22/2022 04:11:12 to 10/22/2022 05:07:00 : 55.80 minutes
Out of Range at: 10/22/2022 16:19:44 to 10/22/2022 17:34:24 : 74.67 minutes
Injector downtime: 10/22/2022 16:14:48 to 10/22/2022 17:34:20 : 79.53 minutes
Out of Range at: 10/23/2022 06:16:24 to 10/23/2022 06:22:00 : 5.60 minutes
Injector downtime: 10/23/2022 06:08:24 to 10/23/2022 06:16:24 : 8.00 minutes (est)
Out of Range at: 10/23/2022 08:59:28 to 10/23/2022 09:17:44 : 18.27 minutes
Injector downtime: 10/23/2022 08:54:32 to 10/23/2022 09:17:40 : 23.13 minutes

Period Beginning 10/25/2022 08:00

Current in Range 97.68 %
Injector Availability 97.06 %
Out of Range at: 10/25/2022 20:28:16 to 10/25/2022 20:28:32 : 0.27 minutes
Injector downtime: 10/25/2022 20:20:16 to 10/25/2022 20:28:16 : 8.00 minutes (est)
Out of Range at: 10/25/2022 22:09:52 to 10/25/2022 22:21:20 : 11.47 minutes
Injector downtime: 10/25/2022 22:04:56 to 10/25/2022 22:21:16 : 16.33 minutes
Out of Range at: 10/26/2022 13:26:00 to 10/26/2022 13:49:20 : 23.33 minutes
Injector downtime: 10/26/2022 13:21:04 to 10/26/2022 13:49:16 : 28.20 minutes
Out of Range at: 10/26/2022 19:01:36 to 10/26/2022 19:15:12 : 13.60 minutes
Injector downtime: 10/26/2022 18:56:40 to 10/26/2022 19:12:56 : 16.27 minutes
Out of Range at: 10/26/2022 23:59:12 to 10/27/2022 00:07:12 : 8.00 minutes
Injector downtime: 10/26/2022 23:51:12 to 10/26/2022 23:59:12 : 8.00 minutes (est)
Out of Range at: 10/27/2022 02:09:36 to 10/27/2022 02:14:40 : 5.07 minutes
Injector downtime: 10/27/2022 02:01:36 to 10/27/2022 02:09:36 : 8.00 minutes (est)
Out of Range at: 10/27/2022 14:11:20 to 10/27/2022 14:26:08 : 14.80 minutes
Injector downtime: 10/27/2022 14:06:24 to 10/27/2022 14:26:04 : 19.67 minutes
Out of Range at: 10/28/2022 21:58:32 to 10/28/2022 22:37:52 : 39.33 minutes
Injector downtime: 10/28/2022 21:53:36 to 10/28/2022 22:37:48 : 44.20 minutes
Out of Range at: 10/28/2022 23:23:44 to 10/28/2022 23:30:24 : 6.67 minutes
Injector downtime: 10/28/2022 23:15:44 to 10/28/2022 23:23:44 : 8.00 minutes (est)
Out of Range at: 10/29/2022 03:12:32 to 10/29/2022 03:31:28 : 18.93 minutes
Injector downtime: 10/29/2022 03:07:36 to 10/29/2022 03:31:24 : 23.80 minutes
Out of Range at: 10/29/2022 06:53:20 to 10/29/2022 07:10:24 : 17.07 minutes
Injector downtime: 10/29/2022 06:48:24 to 10/29/2022 07:08:08 : 19.73 minutes
Out of Range at: 10/30/2022 05:46:24 to 10/30/2022 06:01:36 : 15.20 minutes
Injector downtime: 10/30/2022 05:41:28 to 10/30/2022 06:01:32 : 20.07 minutes

Period Beginning 11/16/2022 08:00

Current in Range 89.68 %
Injector Availability 89.24 %
Out of Range at: 11/16/2022 11:53:12 to 11/16/2022 13:03:36 : 70.40 minutes
Injector downtime: 11/16/2022 11:48:16 to 11/16/2022 13:02:16 : 74.00 minutes
Out of Range at: 11/16/2022 21:05:28 to 11/16/2022 21:13:36 : 8.13 minutes
Injector downtime: 11/16/2022 20:57:28 to 11/16/2022 21:05:28 : 8.00 minutes (est)
Out of Range at: 11/17/2022 06:40:16 to 11/17/2022 06:51:04 : 10.80 minutes
Injector downtime: 11/17/2022 06:35:20 to 11/17/2022 06:51:00 : 15.67 minutes
Out of Range at: 11/17/2022 18:06:08 to 11/17/2022 18:19:28 : 13.33 minutes
Injector downtime: 11/17/2022 18:01:12 to 11/17/2022 18:18:08 : 16.93 minutes
Out of Range at: 11/18/2022 11:22:08 to 11/18/2022 11:25:20 : 3.20 minutes
Injector downtime: 11/18/2022 11:14:08 to 11/18/2022 11:22:08 : 8.00 minutes (est)
Out of Range at: 11/19/2022 09:13:04 to 11/19/2022 09:28:32 : 15.47 minutes
Injector downtime: 11/19/2022 09:08:08 to 11/19/2022 09:27:20 : 19.20 minutes
Out of Range at: 11/19/2022 23:19:04 to 11/19/2022 23:22:00 : 2.93 minutes
Injector downtime: 11/19/2022 23:11:04 to 11/19/2022 23:19:04 : 8.00 minutes (est)
Out of Range at: 11/20/2022 13:53:20 to 11/20/2022 19:06:16 : 312.93 minutes
Injector downtime: 11/20/2022 13:48:24 to 11/20/2022 19:06:12 : 317.80 minutes
Out of Range at: 11/20/2022 19:12:16 to 11/20/2022 19:56:16 : 44.00 minutes
Injector downtime: 11/20/2022 19:07:48 to 11/20/2022 19:55:04 : 47.27 minutes
Out of Range at: 11/21/2022 15:16:08 to 11/21/2022 20:02:32 : 286.40 minutes
Injector downtime: 11/21/2022 15:11:12 to 11/21/2022 20:00:08 : 288.93 minutes
Out of Range at: 11/22/2022 13:07:36 to 11/22/2022 17:21:36 : 254.00 minutes
Injector downtime: 11/22/2022 13:02:40 to 11/22/2022 17:20:08 : 257.47 minutes
Out of Range at: 11/22/2022 18:08:00 to 11/22/2022 18:15:44 : 7.73 minutes

Injector downtime: 11/22/2022 18:00:00 to 11/22/2022 18:08:00 : 8.00 minutes (est)
Out of Range at: 11/23/2022 08:38:24 to 11/23/2022 09:31:12 : 52.80 minutes
Injector downtime: 11/23/2022 08:33:28 to 11/23/2022 09:31:08 : 57.67 minutes
Out of Range at: 11/23/2022 19:53:04 to 11/23/2022 20:44:00 : 50.93 minutes
Injector downtime: 11/23/2022 19:48:08 to 11/23/2022 20:41:44 : 53.60 minutes

Period Beginning 11/25/2022 08:00

Current in Range 96.86 %
Injector Availability 96.43 %
Out of Range at: 11/25/2022 21:03:28 to 11/25/2022 21:09:36 : 6.13 minutes
Injector downtime: 11/25/2022 20:55:28 to 11/25/2022 21:03:28 : 8.00 minutes (est)
Out of Range at: 11/26/2022 11:18:48 to 11/26/2022 11:29:52 : 11.07 minutes
Injector downtime: 11/26/2022 11:13:52 to 11/26/2022 11:28:40 : 14.80 minutes
Out of Range at: 11/27/2022 03:34:08 to 11/27/2022 05:27:04 : 112.93 minutes
Injector downtime: 11/27/2022 03:29:12 to 11/27/2022 05:25:52 : 116.67 minutes
Out of Range at: 11/29/2022 15:22:40 to 11/29/2022 16:08:56 : 46.27 minutes
Injector downtime: 11/29/2022 15:17:44 to 11/29/2022 16:07:44 : 50.00 minutes
Out of Range at: 11/30/2022 05:24:08 to 11/30/2022 05:38:24 : 14.27 minutes
Injector downtime: 11/30/2022 05:19:12 to 11/30/2022 05:37:20 : 18.13 minutes
Out of Range at: 11/30/2022 08:38:56 to 11/30/2022 08:46:48 : 7.87 minutes
Injector downtime: 11/30/2022 08:30:56 to 11/30/2022 08:38:56 : 8.00 minutes (est)
Out of Range at: 12/01/2022 00:05:12 to 12/01/2022 00:38:32 : 33.33 minutes
Injector downtime: 12/01/2022 00:00:16 to 12/01/2022 00:36:16 : 36.00 minutes
Out of Range at: 12/01/2022 03:48:16 to 12/01/2022 04:21:52 : 33.60 minutes
Injector downtime: 12/01/2022 03:43:20 to 12/01/2022 04:20:40 : 37.33 minutes
Out of Range at: 12/01/2022 07:06:24 to 12/01/2022 07:10:40 : 4.27 minutes
Injector downtime: 12/01/2022 06:58:24 to 12/01/2022 07:06:24 : 8.00 minutes (est)
Out of Range at: 12/02/2022 14:13:36 to 12/02/2022 14:32:32 : 18.93 minutes
Injector downtime: 12/02/2022 14:08:40 to 12/02/2022 14:32:28 : 23.80 minutes
Out of Range at: 12/03/2022 01:38:08 to 12/03/2022 01:59:04 : 20.93 minutes
Injector downtime: 12/03/2022 01:33:12 to 12/03/2022 01:59:00 : 25.80 minutes
Out of Range at: 12/03/2022 02:37:20 to 12/03/2022 03:42:32 : 65.20 minutes
Injector downtime: 12/03/2022 02:32:24 to 12/03/2022 03:41:12 : 68.80 minutes
Out of Range at: 12/03/2022 05:44:00 to 12/03/2022 06:03:20 : 19.33 minutes
Injector downtime: 12/03/2022 05:39:04 to 12/03/2022 06:02:08 : 23.07 minutes
Out of Range at: 12/03/2022 11:38:08 to 12/03/2022 11:41:52 : 3.73 minutes
Injector downtime: 12/03/2022 11:30:08 to 12/03/2022 11:38:08 : 8.00 minutes (est)
Out of Range at: 12/04/2022 02:26:32 to 12/04/2022 02:53:04 : 26.53 minutes
Injector downtime: 12/04/2022 02:21:36 to 12/04/2022 02:51:52 : 30.27 minutes
Out of Range at: 12/04/2022 16:02:16 to 12/04/2022 16:04:32 : 2.27 minutes
Injector downtime: 12/04/2022 15:54:16 to 12/04/2022 16:02:16 : 8.00 minutes (est)
Out of Range at: 12/04/2022 23:36:32 to 12/05/2022 00:00:56 : 24.40 minutes
Injector downtime: 12/04/2022 23:31:36 to 12/04/2022 23:59:36 : 28.00 minutes

Period Beginning 12/07/2022 08:00

Current in Range 96.91 %
Injector Availability 96.61 %
Out of Range at: 12/08/2022 15:13:28 to 12/08/2022 15:47:12 : 33.73 minutes
Injector downtime: 12/08/2022 15:08:32 to 12/08/2022 15:45:04 : 36.53 minutes
Out of Range at: 12/10/2022 06:36:32 to 12/10/2022 09:07:20 : 150.80 minutes
Injector downtime: 12/10/2022 06:31:36 to 12/10/2022 09:07:16 : 155.67 minutes
Out of Range at: 12/10/2022 13:23:12 to 12/10/2022 13:48:56 : 25.73 minutes
Injector downtime: 12/10/2022 13:18:16 to 12/10/2022 13:46:40 : 28.40 minutes
Out of Range at: 12/11/2022 05:46:40 to 12/11/2022 05:57:20 : 10.67 minutes
Injector downtime: 12/11/2022 05:41:44 to 12/11/2022 05:57:16 : 15.53 minutes
Out of Range at: 12/12/2022 05:28:48 to 12/12/2022 05:30:16 : 1.47 minutes
Injector downtime: 12/12/2022 05:20:48 to 12/12/2022 05:28:48 : 8.00 minutes (est)

Period Beginning 12/13/2022 08:00

Current in Range 98.99 %
Injector Availability 98.78 %
Out of Range at: 12/13/2022 20:21:04 to 12/13/2022 20:23:28 : 2.40 minutes
Injector downtime: 12/13/2022 20:13:04 to 12/13/2022 20:21:04 : 8.00 minutes (est)
Out of Range at: 12/16/2022 10:54:56 to 12/16/2022 11:53:20 : 58.40 minutes

Injector downtime: 12/16/2022 10:50:00 to 12/16/2022 11:53:16 : 63.27 minutes
Out of Range at: 12/16/2022 17:02:40 to 12/16/2022 17:18:48 : 16.13 minutes
Injector downtime: 12/16/2022 16:57:44 to 12/16/2022 17:18:44 : 21.00 minutes
Out of Range at: 12/19/2022 10:28:48 to 12/19/2022 10:49:04 : 20.27 minutes
Injector downtime: 12/19/2022 10:23:52 to 12/19/2022 10:49:00 : 25.13 minutes