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Listing of Statistics for Run 1999-5


Total Amount of User Time in this interval 1024.0 Hours


User periods in this interval
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11/04/1999 08:00  To  11/09/1999 08:00 119.99 Hours
11/09/1999 16:00  To  11/15/1999 08:00 135.99 Hours
11/17/1999 08:01  To  11/23/1999 08:00 143.98 Hours
11/23/1999 16:00  To  11/29/1999 08:00 135.99 Hours
12/01/1999 08:01  To  12/07/1999 08:00 143.98 Hours
12/07/1999 16:00  To  12/13/1999 08:01 136.00 Hours
12/15/1999 08:00  To  12/23/1999 24:00 207.99 Hours


Delivered Beam                                 970.76 Hours
Percentage of Scheduled Time                    94.80 %
Downtime During Period                          51.70 Hours
Percentage of scheduled time SR current  10 ma  96.00 %
Average Delivered Current During This Period    84.37 ma
Total integrated  Current During This Period    82.03 A-hr


Data from an on going fill (if one exists) is not used in Fill length calculations.


Mean Fill Duration in Period                    21.61 Hours
Mean Fill Duration from Poisson Fit             30.71 Hours
Mean Time Between Faults (MTBF)                 22.06 Hours
Faults per Day of Delivered Beam                 1.09
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| | | | Length | Downtime is associated with the end of a fill. |
|--|--|--|--|--|
| Valid fills Beginning in this Time Interval | Reason for | of | The first fill of a period will have any |
| Fill#  Start        End      Duration | Fill Termination | Downtime | downtime before the fill on the line above. |

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                                     |                         |  0.00
# 1  11/04 08:00  To  11/04 22:27   14.44 | Raw PS trips        [OTH] |  1.04 Recovery from PS trip, unknown beam motion, comm
# 4  11/04 23:29  To  11/05 17:29   17.99 | Bpm fdbk prblm      [DIA] |  0.42 recovery, more related problems
# 6  11/05 17:54  To  11/07 19:47   49.89 | ACIS dropped SR,Boo[CTL] |  3.59 recovery, analysis
# 9  11/07 23:22  To  11/08 06:22    6.99 | fdbk IOC problem    [CTL] |  0.34 recovery
# 10 11/08 06:42  To  11/08 09:47    3.09 | beam motion         [OTH] |  1.10 restoring linac from access readiness
# 12 11/08 10:54  To  11/09 08:00   21.10 | Int Dump: End of Period   |  0.00
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                                     |                         |  0.01
# 13 11/09 16:00  To  11/09 19:45    3.75 | MPS lost heartbeat  [DIA] |  0.23 recovery
# 14 11/09 19:59  To  11/09 23:05    3.10 | S22B:V2 glitch      [PS]  |  0.64 return of linac to operation, refill
# 15 11/09 23:43  To  11/10 14:34   14.85 | S13B:Q4 trip        [PS]  |  1.75 converter swap, replace S32 BPLD
# 17 11/10 16:19  To  11/11 00:09    7.83 | S22B:V2 glitch      [PS]  |  0.68 return of linac to operation, refill
# 19 11/11 00:50  To  11/11 19:46   18.95 | rad mon trip        [OTH] |  0.33 recovery
# 20 11/11 20:06  To  11/11 22:12    2.10 | S36 C1,C2 IG flt    [VAC] |  0.31 recovery
# 21 11/11 22:31  To  11/12 07:46    9.26 | kicker misfire, inj [PS]  |  0.24 recovery
# 22 11/12 08:01  To  11/12 11:18    3.29 | iocS21BPM comm      [CTL] |  0.53 recovery, kicker misfire
# 25 11/12 11:50  To  11/14 15:12   51.35 | rf trip             [RF]  |  2.25 subsequent trips of rf personnel safety systems
# 30 11/14 17:27  To  11/15 08:00   14.55 | Int Dump: End of Period   |  0.00
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                                              |                  | 0.00
# 31  11/17 08:01  To  11/17 13:36    5.58    | Raw PS trip (S20-21)[PS] | 1.54 repair, recovery
# 33  11/17 15:08  To  11/18 05:05   13.94    | lost comm ioc21bpm [CTL] | 5.43 reboot, trouble injecting due to ID4, ID4 access
# 34  11/18 10:31  To  11/19 02:09   15.63    | S38A:Q4 output      [PS] | 0.26 recovery
# 37  11/19 02:24  To  11/19 23:19   20.91    | S22B:Q4 glitch      [PS] | 0.41 recovery
# 39  11/19 23:44  To  11/20 10:53   11.15    | S22B:Q4 glitch      [PS] | 0.34 recovery
# 41  11/20 11:13  To  11/20 17:47    6.56    | S22B:Q4 glitch      [PS] | 2.41 converter replacement, booster dipole PS
# 42  11/20 20:12  To  11/20 22:04    1.87    | 1BM PSS trip       [ISI] | 1.11 recovery
# 45  11/20 23:10  To  11/23 08:00   56.82    | Int Dump: End of Period  | 0.01
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                                              |                  | 0.04
# 48  11/23 16:03  To  11/23 17:19    1.26    | lost comm iocs9bpm [CTL] | 0.37 recovery
# 51  11/23 17:41  To  11/26 07:49   62.13    | WF, kicker misfire  [PS] | 0.27 recovery
# 54  11/26 08:05  To  11/26 10:09    2.08    | 9ID BPLD problem   [DIA] | 0.42 recovery
# 55  11/26 10:35  To  11/27 02:26   15.86    | S29A:H2 glitch      [PS] | 0.49 recovery
# 58  11/27 02:56  To  11/28 12:56   34.00    | S40 converters trip [PS] | 2.99 comm problems with iocs, 9ID BPLD problems
# 63  11/28 15:56  To  11/28 19:46    3.84    | WF, kicker misfire  [PS] | 0.34 recovery
# 64  11/28 20:06  To  11/29 08:00   11.89    | Int Dump: End of Period  | 0.01 .....
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                                              |                  | 0.00
# 65  12/01 08:01  To  12/01 09:56    1.92    | SRRF PSS trip       [RF] | 1.20 repair, recovery
# 66  12/01 11:08  To  12/01 16:57    5.83    | PSS trip, humerr   [ISI] | 0.76 recovery
# 67  12/01 17:43  To  12/02 15:12   21.49    | Reason unknown     [OTH] | 1.25 recovery
# 73  12/02 16:27  To  12/07 08:00  111.54    | Int Dump: End of Period  | 0.00 .....
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                                              |                  | 0.02
# 79  12/07 16:01  To  12/09 19:45   51.72    | kicker set point    [PS] | 0.23 recovery
# 83  12/09 19:58  To  12/11 15:15   43.28    | Timing fault       [CTL] | 0.75 recovery, linac switchover
# 87  12/11 16:00  To  12/13 00:06   32.10    | Reason unknown     [OTH] | 0.74 recovery, linac switchover
# 89  12/13 00:51  To  12/13 05:43    4.87    | Reason unknown     [OTH] | 0.41 recovery
# 90  12/13 06:07  To  12/13 08:00    1.87    | Int Dump: End of Period  | 0.02
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                                              |                  | 0.02
# 91  12/15 08:02  To  12/15 09:29    1.45    | S12B:V2 trip       [H2O] | 2.41 Subsequent replacement and water leak mitigation
# 92  12/15 11:53  To  12/15 19:46    7.87    | EPS work at 7ID    [ISI] | 0.34 recovery
# 93  12/15 20:06  To  12/16 18:11   22.08    | S12:AV3 problem     [PS] | 1.87 several converters swapped, problems restoring PS
# 95  12/16 20:03  To  12/17 10:09   14.10    | PS interlock        [PS] | 1.20 repair of interlock
# 97  12/17 11:21  To  12/17 23:38   12.29    | Power Bump         [OTH] | 4.32 recovery on a number of systems
# 99  12/18 03:57  To  12/18 13:55    9.97    | rf ioc reboot      [CTL] | 1.20 rf waveguide switch
#101  12/18 15:08  To  12/19 22:31   31.39    | iocs9bpm comm prblm[CTL] | 2.52 problems with SRRF phasing
#104  12/20 01:02  To  12/20 07:46    6.72    | WF, kicker misfire  [PS] | 0.54 recovery
#106  12/20 08:18  To  12/21 20:42   36.41    | S38A:V2 trip        [PS] | 1.58 replacement of converter and leaking conv. above it
#109  12/21 22:17  To  12/22 04:21    6.07    | S3B gespac problem [OTH] | 0.44 recovery
#111  12/22 04:48  To  12/23 24:00   43.20    | Int Dump: End of Period  | 0.00 .....

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During this run, periods in which the MCR had to command Insertion
Device Gaps Open are considered downtime. This is not reflected in the
fill list but is taken account in the delivered beam and availablity
numbers.

These periods were:

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                                    Downtime
11/4/99  17:00     to 11/4/99  17:43 0.72
11/4/99  20:43     to 11/4/99  21:03 0.33
11/12/99 21:00     to 11/12/99 21:11 0.18
12/19/99 11:25     to 12/19/99 11:42 0.28
                                    _____
                                    1.52 hours
```