Run Log Assessment for Run-20 Au+Au 11.5 GeV Datasets

Aswini Kumar Sahoo, IISER, Berhampur

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* The Red Marked run numbers has been identified by Zhiwan from UCLA using standard Badrun algorithm.

*As suggested by the QA group We looked at 3 runs forward and backward of each bad run found by the algorithm and the sft log informations hasbeen summerized below.

* Certain run information could not be fount in shift log and marked as "NA" in the report below.

* For some badruns found by the algorithm We could not locate any critical issues from the run log.

* For some runs We found some issues reported in the shift log, which could be an indicator of bad run, Hence they are marked as (Bad run ??).

* The experts could take final decision to take them as bad run or not.

20344002 - NA 20344003 - NA 20344004 - NA 20344005 - NA 20344006 - NA 20344007 – *Shift log says* "First physics run of run 20 with good trigger rates!!!" 20344008 – "Run stopped for some test" 20344009 – *Shift log says* "pedestals run for new tac offset " (Bad run ??) 20344010 - No issues 20344011 - No issues 20344012 - No issues 20344013 – No issues 20344014 – No issues 20344015 - No issues 20344016 – Laser run (Should we take it as a good physics run ??) 20344017 – No issues 20347035 – Shift log Says "CRITICAL tofMain tof.C:#547 Recovery failed - POWERCYCLE TOF LV " (Bad run ??) 20347036 – Shift log says "Beam lost" (Bad run ??) 20347037 - "Beam lost" 20347038 – Shift log says "Cosmic runs" (Should we take it as a good physics run ??) 20347039 – Beam dump 20347040 - NA 20347041 - NA 20348021 - No issues 20348022 - No issues 20348023 – VPD was not included by mistake 20348024 – No issues 20348025 - No issues 20351060 - No issues 20351061 - No issues 20351062 - No issues 20351063 - NA 20351064 - NA 20351065 - No issues 20351066 - No issues 20351067 - Laser run (Should we take it as a good physics run ??) 20351068 - No issues 20351069 - No issues

20354051 – Shift log says "Run did not start" (Bad run ??) 20354052 - No issues 20354053 – Beam lost 20354054 - No issues 20354055 - No issues 20355002 - No issues 20355003 - No issues 20355004 – Shift log says "TPX, iTPC dead a few times, auto-recovery" (Bad run ??) 20355005 – No issues 20355006 – No issues 20356003 - No issues 20356004 – No issues 20356005 – Run stopped 20356006 – No issues 20356007 – Shift leader marks this a bad run (Bad run ??) 20356019 – No issues 20356020 - Shift leader marks this a bad run 20356021 - No issues 20356022 – shift log says "Run did not start" (Bad run ??) 20356023 – shift log says "Run did not start" (Bad run ??) 20357020 - No issues 20357021 - No issues 20357022 – Shift log says "(We see two peak in normal region of drift velocity plot.)" (Bad run ??) 20357023 - No issues 20357024 - No issues 20361012 - NA 20361013 - Laser run (Should we take it as a good physics run ??) 20361014 – Run stop request 20361015 - No issues 20361016 - No issues 20361017 – Shift log says "itpc10 CRITICAL itpcMain itpc.C:#251 Can't recover -- restart run" 20361018 - NA 20361019 - No issues 20363008 - No issues 20363009 - No issues 20363010 – Unexpected beam abort 20363011 - No issues 20363012 - No issues 21003009 - NA 21003010 - NA 21003011 – No issues 21003012 - NA 21003013 - NA 21004019 – Laser Run (Should we take it as a good physics run ??) 21004020 - No issues 21004021 - No issues 21005038 – No issues 21005039 - Shift log says "Issues in primary z-vertex distribution" (Bad run ??) 21005040 – Bam lost 21005041 – Shift leader marked this run as Bad run (Bad run ??) 21005042 – No issues 21006006 - Laser Run (Should we take it as a good physics run ??)

21006007- Shift log says "MCR lost 3 bunches in yellow beam" (Bad run ??) 21006008 - Some fills had high background and the level 4 vertex looks very ugly 21006009 - No issues 21006010 - No issues 21006027 - No issues 21006028 - No issues 21006029 – Beam lost 21006030 – Shift log says "Stopping the run: BTOW: configuration failed -- STOP this run & restart "(Bad run ??) 21006031 – Beam lost 21006032 - NA 21006033 - NA 21006034 - NA 21006035 - NA 21006036 - NA 21011000 - NA 21011001 – No BEMC and BTOW included in this run 21011002 - No issues 21011003 - No issues 21011004 – No issues 21011005 - No issues 21011006 - No issues 21012032 - No issues 21012033 – Shift log says "Run showed issue with the BEMC, will be reset next run " (Bad run ??) 21012034 – No issues 21012035 – Shift log says "BTOW was out" 21012036 - No issues 21013014 - No issues 21013015 – No issues 21013016 - No issues 21013017 - No issues 21013018 - No issues 21014025 - NA 21014026 - No issues 21014027 – Shift log says "This is the 1st run after the beam development" 21015027 - NA 21015028 - NA 21015029 - TPC anode trip stopped run. 21015030 - No issues 21015031 – Shift leader says not to use this run (Bad run ??) 21017046 – No issues 21017047 - No issues 21017048 - Run stopped by iTPC 21017049 - NA 21017050 - No issues 21019014 - NA 21019015 - NA 21019016 – In this run low BEMC coverage 21019017 - No issues 21019018 - No issues 21019019 - No issues 21019020 - No issues

21019021 - No issues 21019067 - NA 21019068 - NA 21019069 – Run stopped as trigger is 100% dead 21019070 - NA 21019071 - NA 21019072 - No issues 21019073 – Issues with ETOF. This run had ETOF removed 21021007 - NA 21021008 – No issues 21021009 – Trigger rate went dead, hence the run stopped 21021010 – Run stopped due to high backgrounds 21021011 - Run stopped for beam dump 21021012 - No isuues 21021013 - No issues 21025040 - No issues 21025041 - No isuues 21025042 - ETOF is missing three strips 21025043 - No issues 21025044 - No issues 21041023 - No issues 21041024 – No issues 21041025 – No issues 21041026 - TPC wasn't fully on. This run is stopped. (Bad run ??) 21041027 - No issues 21045042 - No issues 21045043 - No issues 21045044 - Had a magnet trip fault 21045045 - NA 21045046 - NA 21046003 - No issues 21046004 - NA 21046005 – very short run. Run stopped. 21046006 - No issues 21046007 - No issues 21046043 – NA 21046044 - No issues 21046045 – Run stopped 21046046 – Shift log says "Rate still low due to RHIC problem" 21046047 - Shift log says "Rate still low due to RHIC problem" 21046048 - Shift log says "Rate still low due to RHIC problem" 21046049 - No issues 21046050 - NA 21046059 - NA 21046060 - NA 21046061 - NA 21046062 - NA 21046063 - NA 21050045 – Shift log says "Run numbers 21050043 - 21050046 were started and stopped due to error ITPC" (Bad run ??)

21050046 - *Shift log says* "Run numbers 21050043 - 21050046 were started and stopped due to error ITPC" (Bad run ??)

21050047 – Shift log says "Problems with QA plots" 21050048 – run stopped 21050049 - run stopped 21050050 – run stopped 21050051 – run stopped, Marked as "Bad" by the shift leader 21050052 - run stopped, Marked as "Bad" by the shift leader (Bad run ??) 21050053 - Marked as "Bad" by the shift leader (Bad run ??) 21050054 - Marked as "Bad" by the shift leader (Bad run ??) 21050055 – Shift log says "BEMC Towers is incorrect in run numbers: 21050055 -21050058." 21050056 – Shift log says "BEMC Towers is incorrect in run numbers: 21050055 -21050058." 21050057 – Shift log says "BEMC Towers is incorrect in run numbers: 21050055 -21050058." 21050058 – Shift log says "BEMC Towers is incorrect in run numbers: 21050055 -21050058." 21050059 - No issues 21050060 – *Shift log says* "Run stopped due to many recoveries" (Bad run ??) 21052037 - No issues 21052038 - No issues 21052039 – Shift log says "Vertex XY monitors are asymmetric, too high background" 21052040 – No issues 21052041 - No issues 21053059 – Shift log says "Run stopped due to too many TOF recoveries" (Bad run ??) 21053060 – Shift log says "Run stopped due to too many TOF recoveries" (Bad run ??) 21053061 – Shift log says "Run stopped due to too many TOF recoveries" 21053062 – *Shift log says* "Run stopped due to too many TOF recoveries" (Bad run ??) 21053063 – *Shift log says* "very short run as beam was dumped " (Bad run ??) 21053064 – Shift log says "Run stopped due to too many TOF recoveries" 21053065 – No issues 21053066 - NA