

Pressure measurements during MD week 38

Monitoring of all MBBs on SPS

Dynamic pressure for 1/2/3/4 batches at 90% intensity

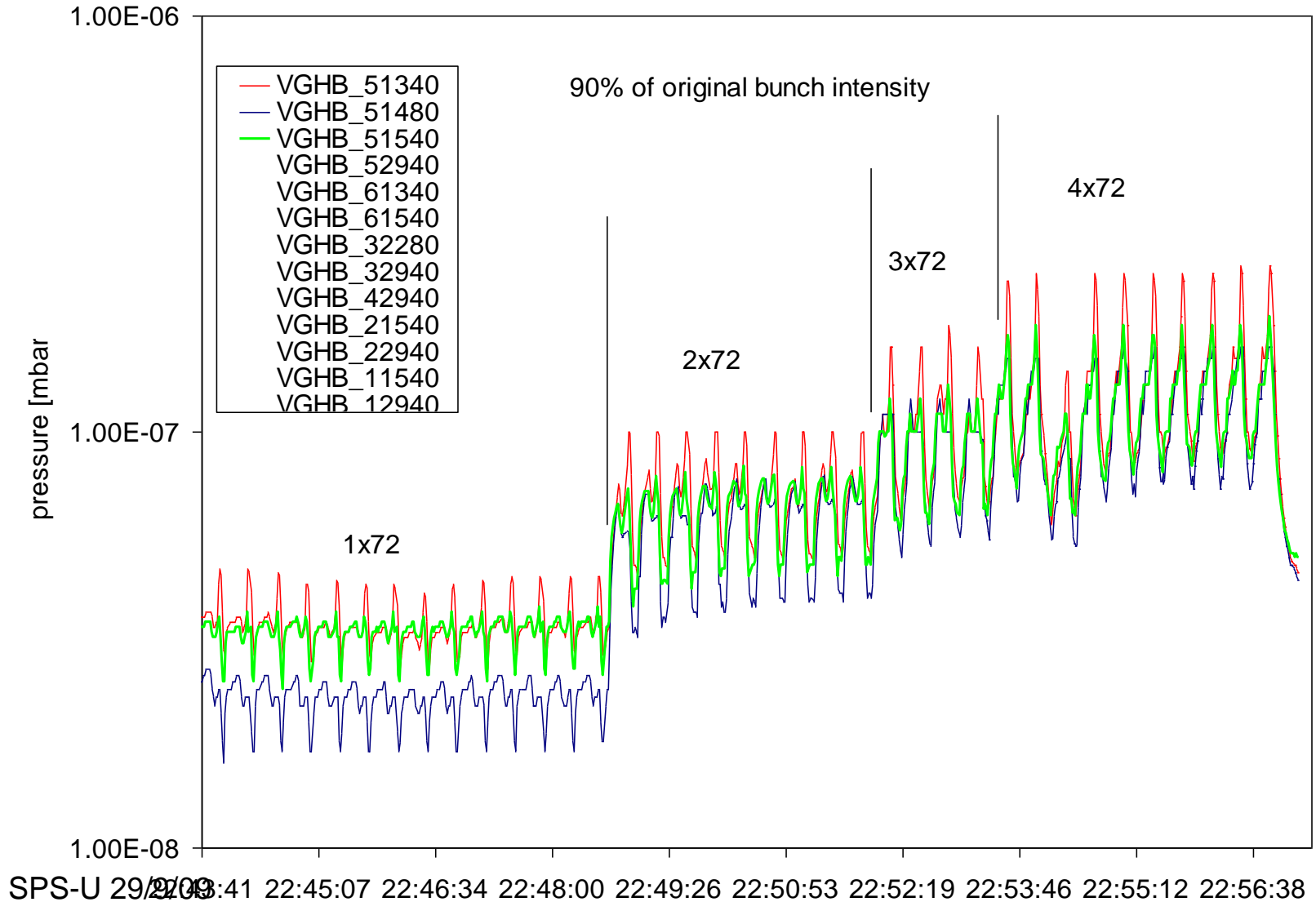
Dynamic pressure for 1/2/3 batches (72 bunches, 450GeV)

All for 25ns spacing only

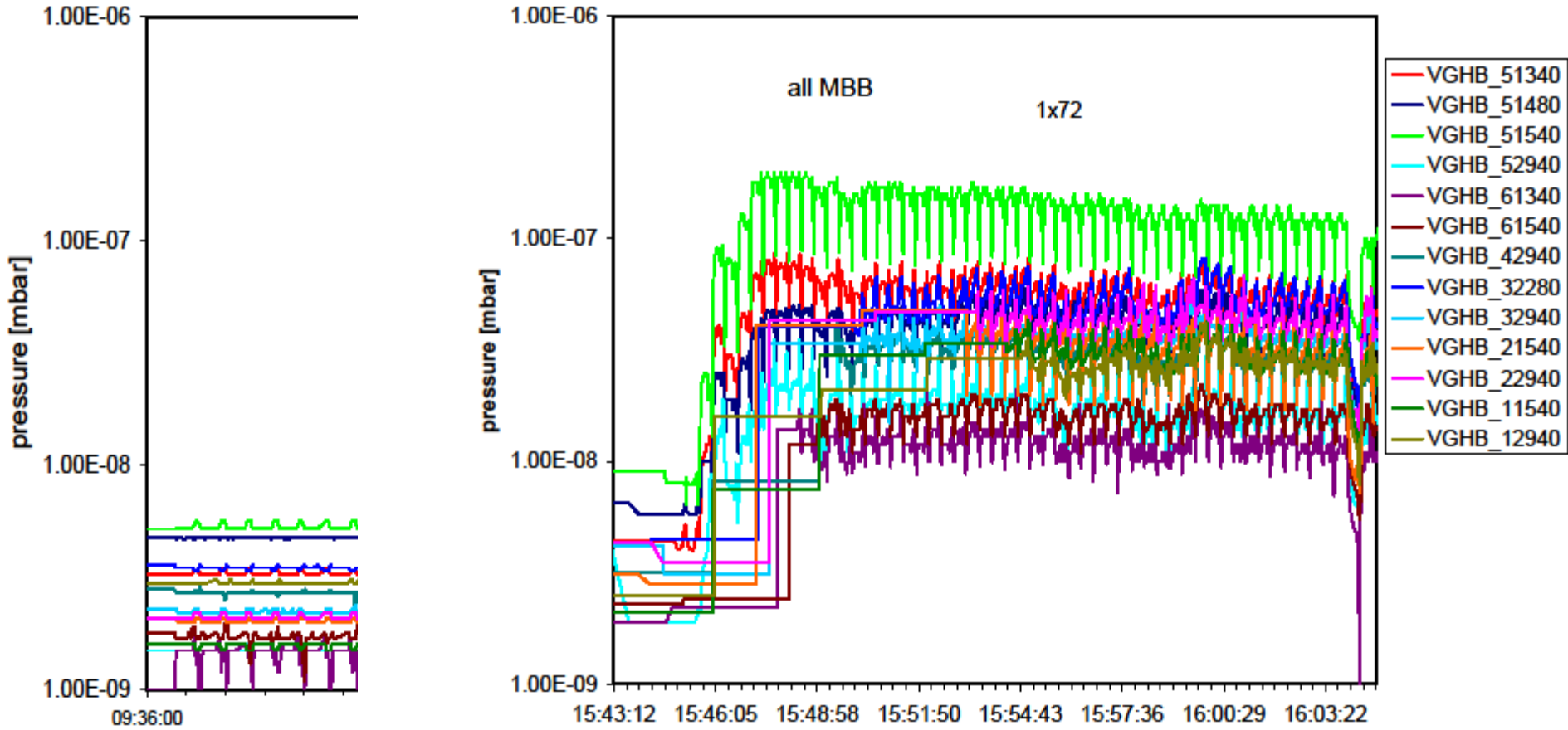
M.Taborelli, for SPS-U

Almost at the end: 1 → 2 → 3 → 4 batches x 72 bunches at reduced intensity (90%)

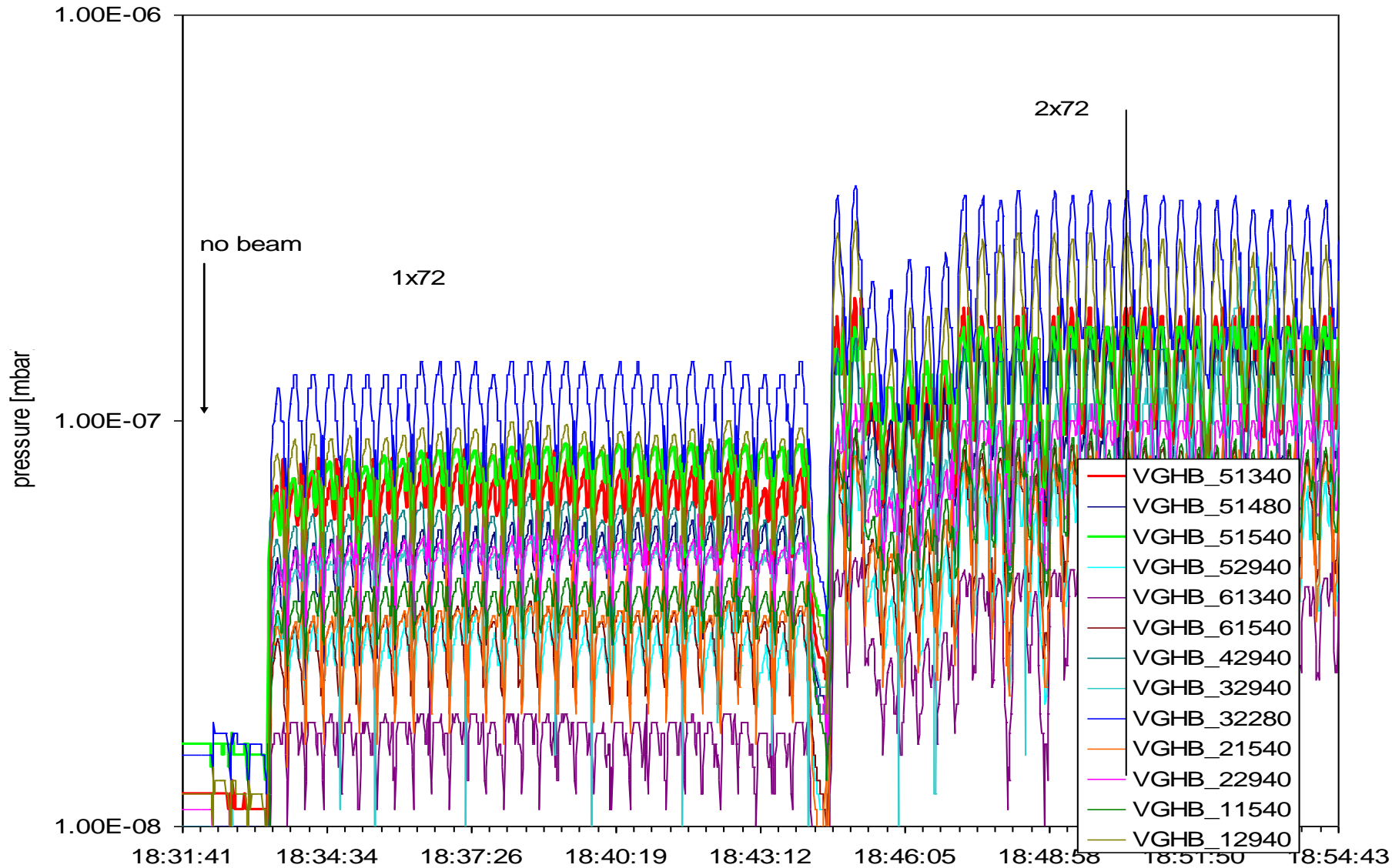
The important increase is from 1 to 2.



Start of the beam, all monitored MBB in the SPS

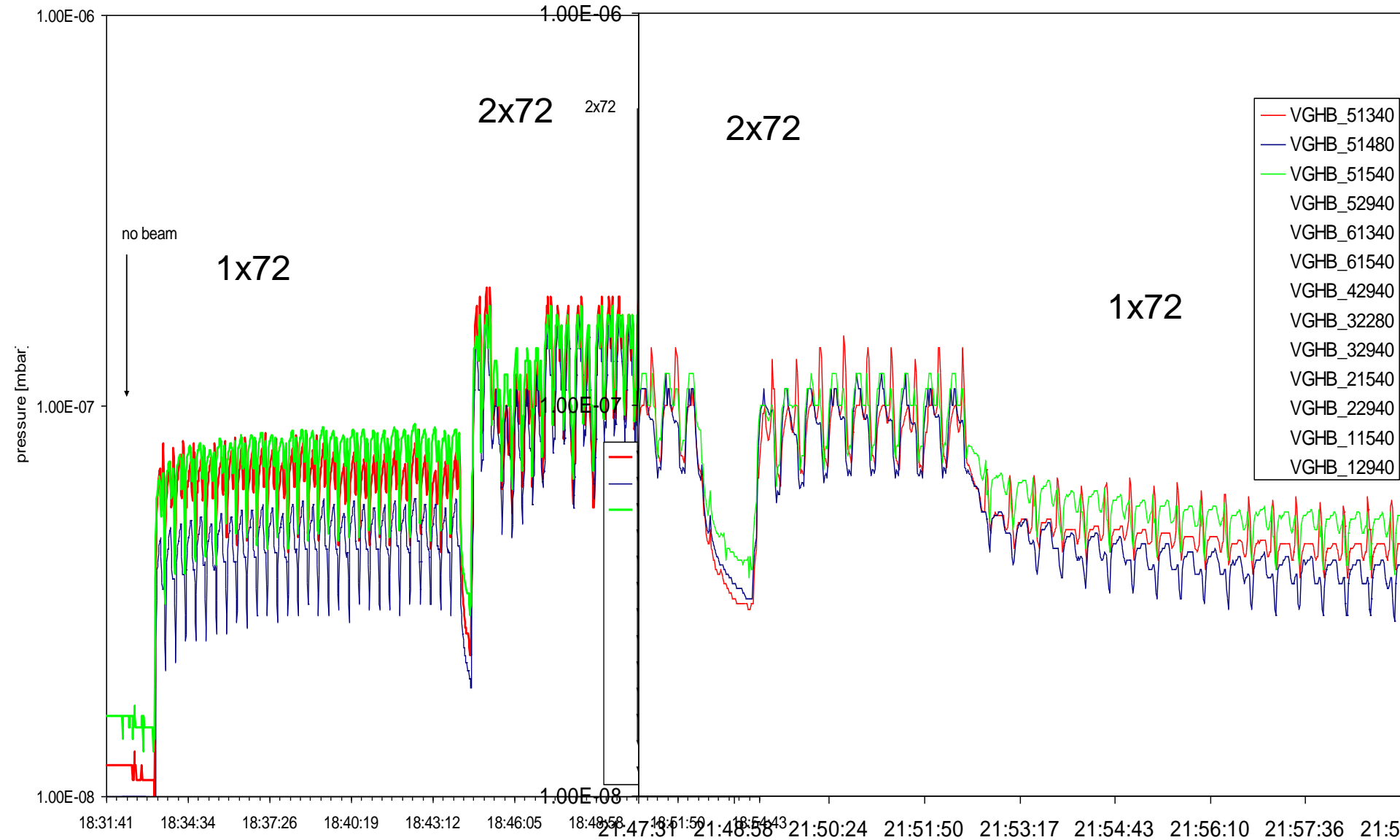


1 → 2x72

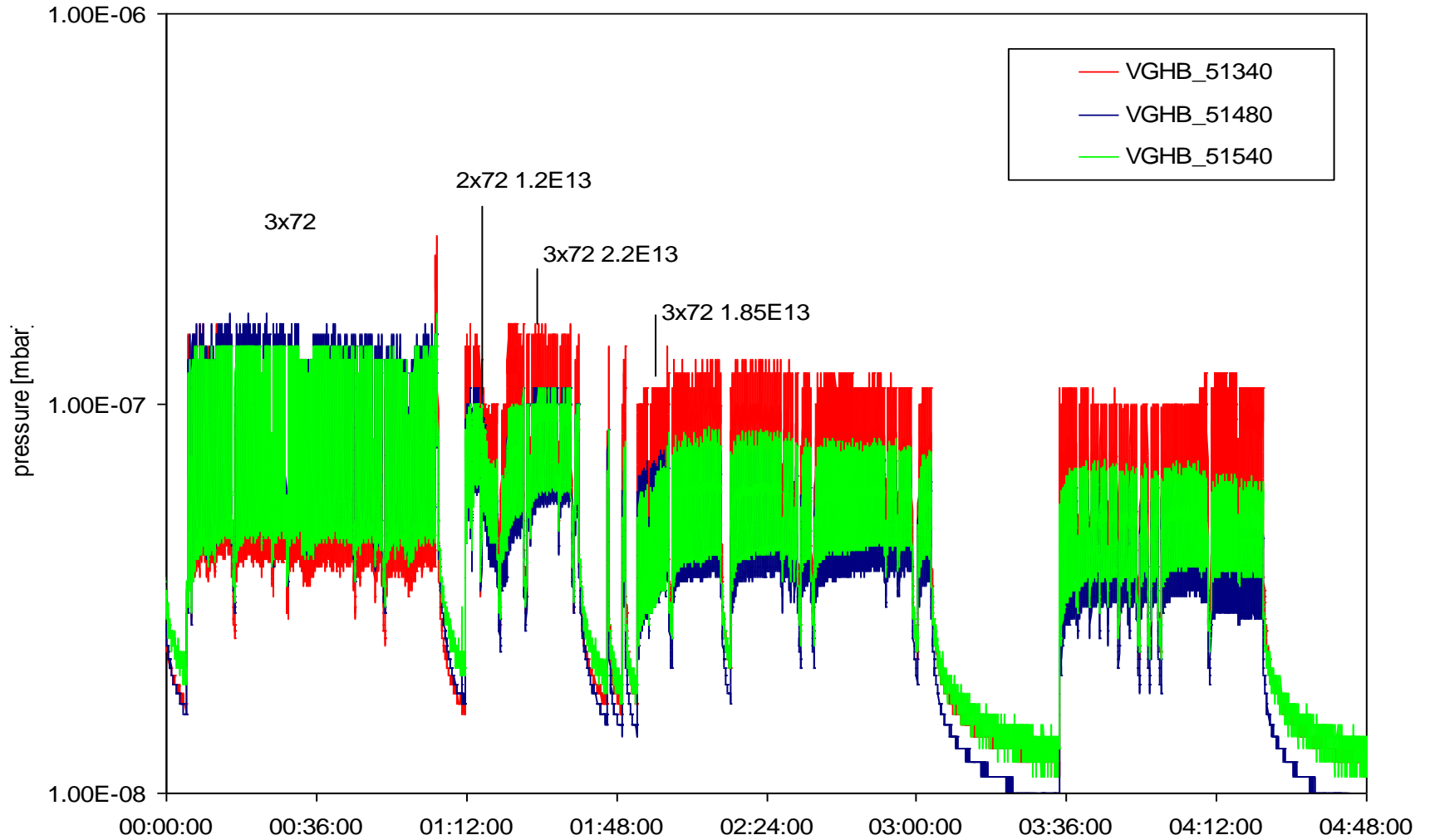


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Reversibility



Scrubbing at the end



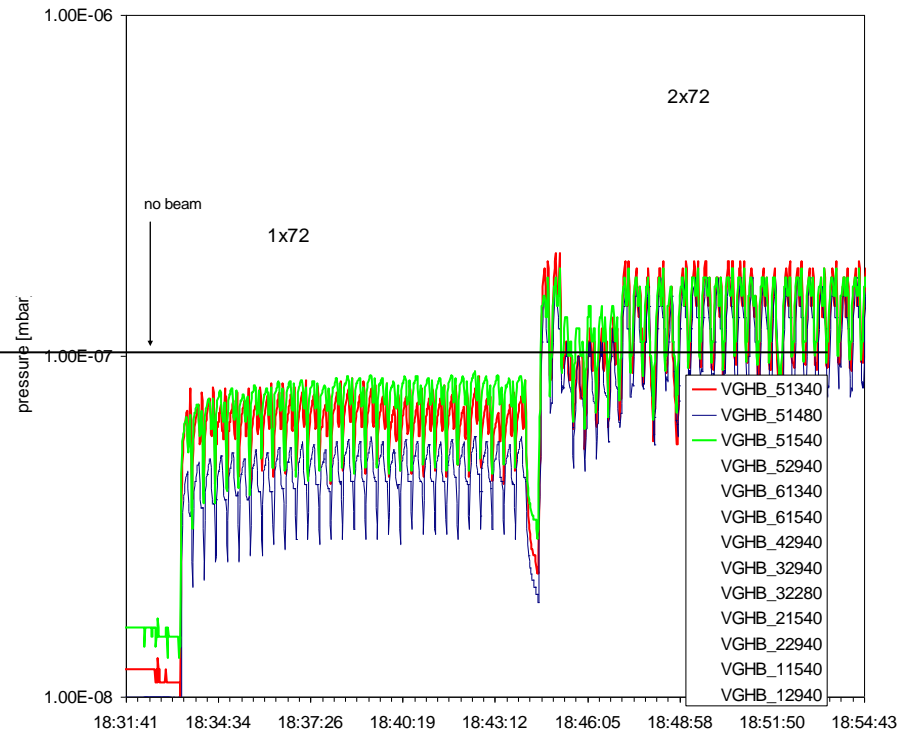
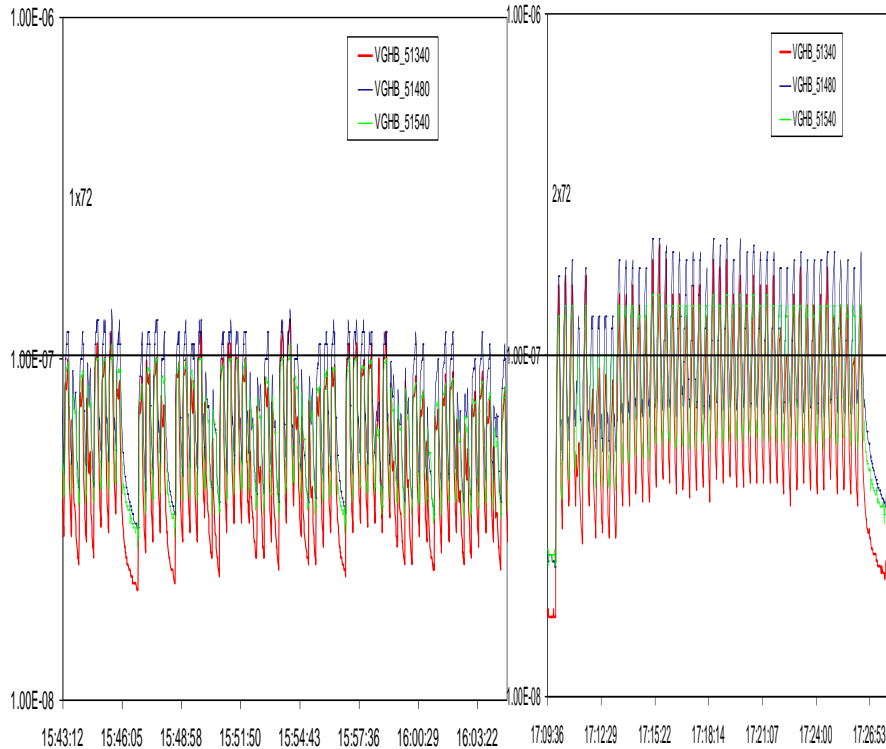
Comparison of first and last MD

MD run week25

MD run week 38

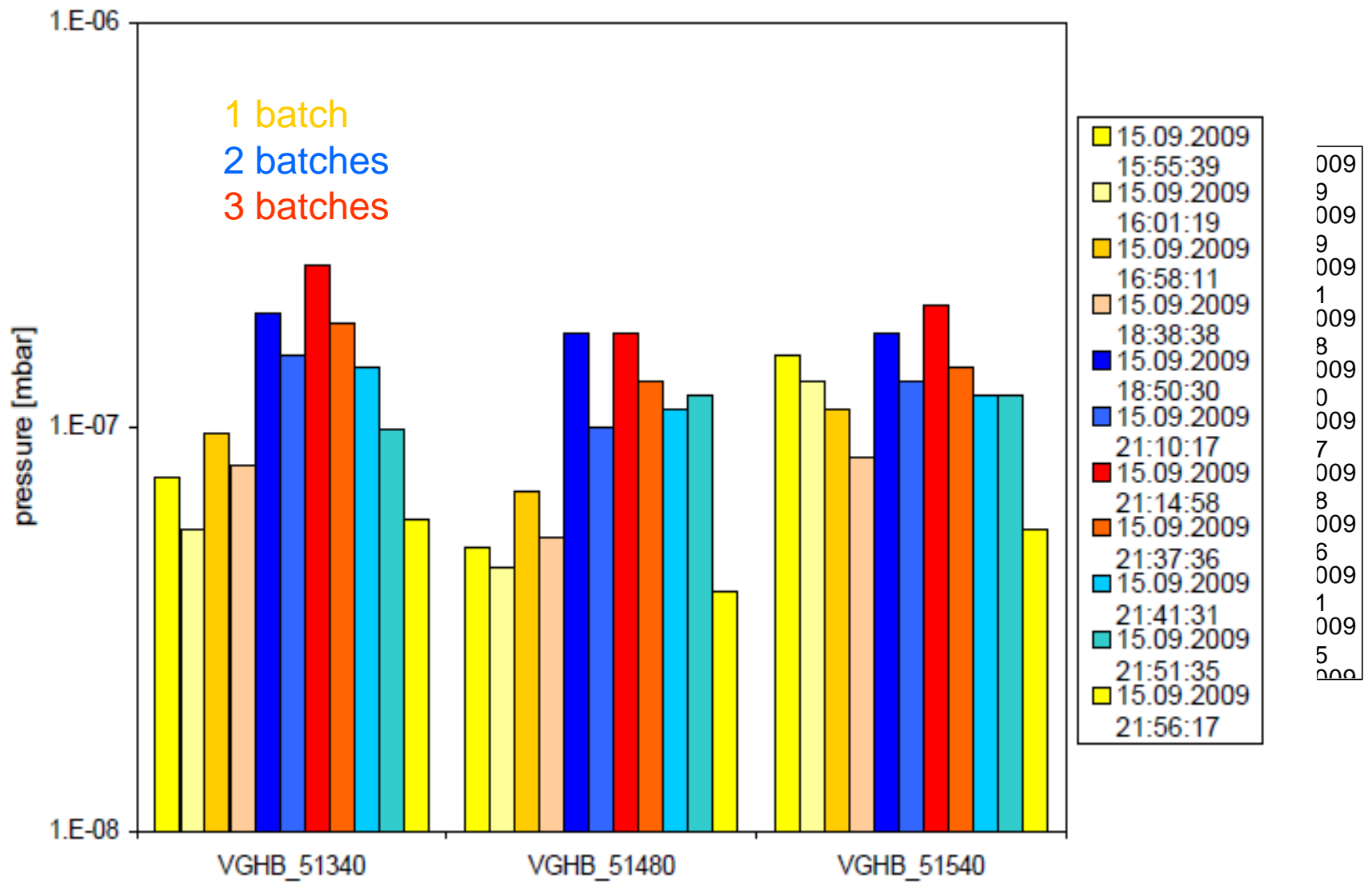
1x72

2x72

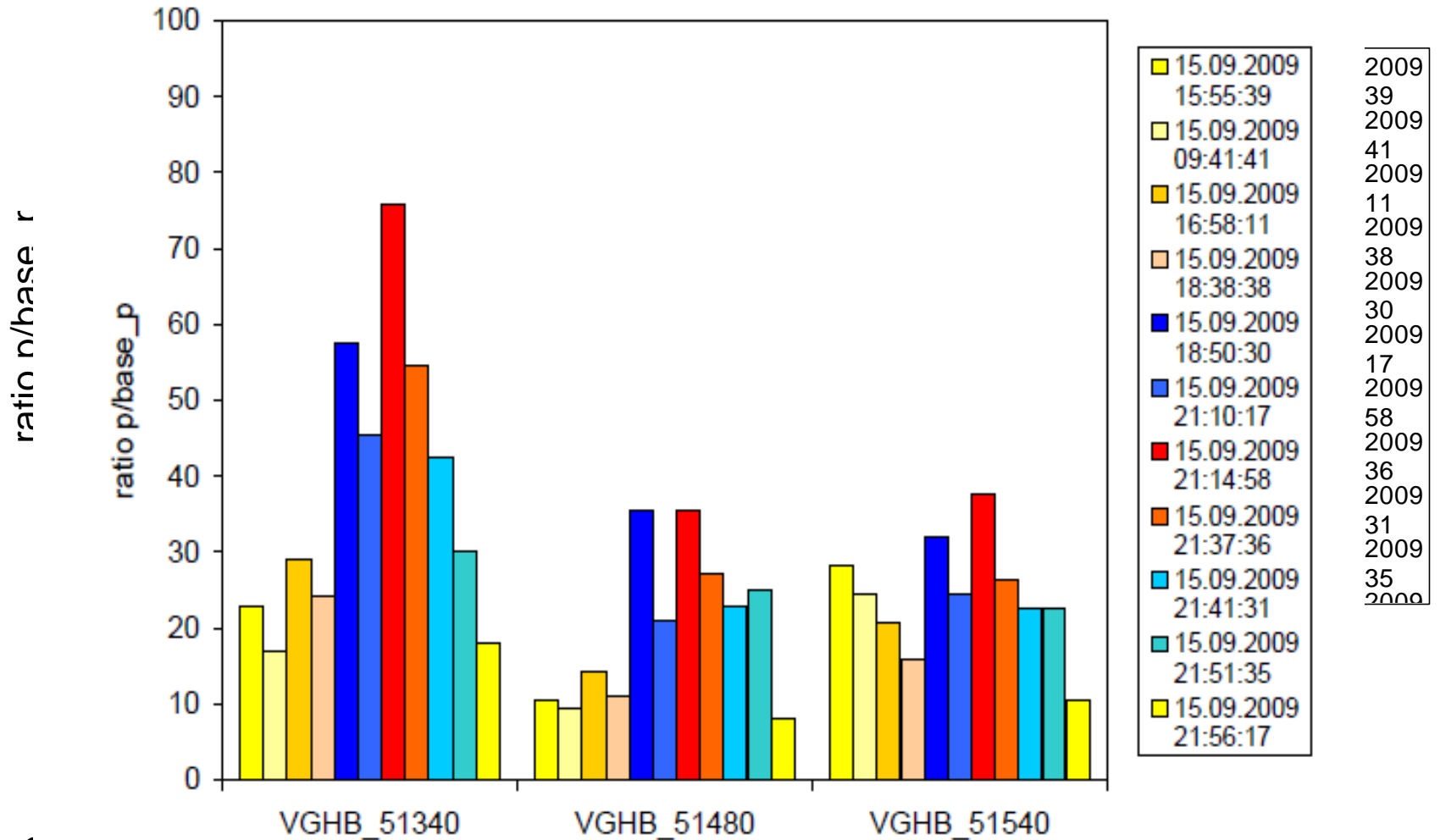


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No major difference in pressure rise



Summary MDw38 (ratio of max pressure / local base pressure)



✓

NEXT

- insert calibrated Penning gauges on coated-coated and uncoated-uncoated MBBs (in addition invert controllers for test when in tunnel. Still some uncertainty due to the relative pumping speed of the ion pumps): w41
- insert C coated RF shields between the two coated MBB: w41
- solenoid:
 - 10 cm, 10A gives about 1 Gauss/winding
 - inspect MBB in w41
 - ask authorization to install
 - cable existing up to 51407 (type SBA12 (6x0.5mm² + 4x2.5mm² + 2x6mm²) from rack RA2412 in BA5 to MDH magnet in 51407); cable from 51407 to 51540 to be installed
 - power supply 15A, driven manually in BA5 to be found
- mapping of the magnetic field profile of the MBB, measurement or simulation

2 → 3x72

