

2012 MD#1 BI REQUESTS

LSWG 27-Mar-2012

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- See also BI requests/plans @ [LSWG 08-Dec-11](#) and [LBOC 28-Feb-12](#)

BI Studies MD#1 2012

BCT-FBCT – min 2 hours @ injection – min $1e10p/bunch$, min 10 bunches

- check functionality of dl/dT during scraping
- log intensity per turn measured by dl/dT and compare to DCCT and FBCT measurements to identify reasons for non linear behavior

BPM – 2hrs with a single probe at injection

- Non linearity for each BPM type by mapping a H/V grid with bumps
- This was done for a couple of BPMs during commissioning. The results are still being analysed. Several issues have been uncovered and therefore a second test would be good to schedule

BPM – pilot at injection – 2 hours

- K-mod of triplet BPMs and other critical locations
- 4 to 8 BPMs, 20 min per BPM

BPM – min 2 hours – 50ns train(s)

- BPMSW phasing & checks of sequencer. Not yet done - foreseen for 50ns checks with beam during commissioning ([LBOC 28-Feb-12](#)). Should be included in first MD block if not done

(BPM offset and polarity checks - done during commissioning)

Wall Current Monitor – 30mins per beam, injection

- Calibration and integration of new scope

BI Studies MD#1 2012

MATCHING monitor – min 1 hour – inject and dump

- injection offset scan to check whether blow-up comes from inj. Error → filamentation
- 2 screens inserted to verify that the blow up from screens is negligible
- higher intensity → check detector response

BSRT – 2 hours – 4 TeV - included in commissioning plan ([LBOC 28-Feb-12](#))

- CO bumps
- ADT b-by-b blowup, compare w.r.t. WS

(CO bumps at injection - done during commissioning)

LDM – 1 hour at injection or 4 TeV

- Look at beam size dependence
- no bumps/scraping in parallel

BGI – 3 hours – min 12 nominal bunches

- CO bumps and ramp
- Check inverted polarity (collect ions instead of electrons) if can access before MD
- 4 TeV period included in commissioning plan ([LBOC 28-Feb-12](#))

Planning - Constraints

- Some request for BPM, BSRT, BGI also included in commissioning plan, but no time assigned yet
- If assigned a BI MD shift
 - Will compress everything in 8 hours by planning parallel studies where possible
- BGI and WS experts on duty trip until Apr 21st night