

SANE Short Term Run Plan –Sat. 2/21 day/eve – Sun. 2/22 owl

RUN PLAN (SAVE previous run plans in the Run Plans binder)

Sat. 2/21 day to Sun. 2/22 owl. Opportunistic accesses: when switching targets, during anneals (check with the target experts) or to delay or move up anneal times to avoid annealing between midnight and 6:00 AM. Keep < 30 min. long if possible.

FIRST:

Set the HMS for *ep* elastics (see below)

BEAM (for production runs):

Current : **95 nA**

- **check that the SR is ON** and configured with *New Settings for 5.9 GeV Beam* as explained in hclg entry **175618 (20 mm dia.)** spiral: 1.37 V; circles 1 & 2: 1.28 V
- **fast raster 1 x 1 mm**
beam at **x = -1.0, y = -0.66 mm on BPM 3H00A;**
x = -1.5, y = -0.3 mm on BPM 3H00B
- Enter all required variables in the on-line Run Sheets, including the target polarization at the beginning and end of each run

DATA:

HMS: should be set at central momentum to 4.17 GeV/c, 22°, protons for *ep* elastics.

- Check target and beam centering with cross hairs target. Take a short run (<10 min) and look at the slow raster ADC plot. The cross hairs should look reasonably centered (within 1 mm) in the vertical and horizontal, and the rim of the cup should not be visible at the edges of the raster. Use target encoder values of hclg **176791**.
- If beam centering is needed, follow run plan for 2/13/09, in the binder and on the wiki. *Don't steer the beam more than +/- 0.5 mm from above positions.*
- *Make sure all detectors are ON, LED's off and retracted, prescale factors and trigger type correct, etc. before starting*
- Take data with the BOTTOM target with **NEGATIVE** polarization. Watch the polarization rate of increase. Wait up to 30 min. from the start of polarizing:
 - If it takes (or took) *more than 30 min to get to 50%*, it probably can use some beam. Ask for **110 nA** and start taking data, continue for up to 4 h total time.
 - If the polarization rises *above 60% in ≤ 30 min*, ask for **95 nA**, take ~1 h long runs. Continue with 1 h runs until the polarization is at ~ 0.75 of its maximum value.
- Take data with the TOP target with **NEGATIVE** polarization, **95 nA**, until

polarization is at ~ 0.75 of its maximum value.

ANNEAL

1. Target experts will conduct the anneal.
2. Put the C target in beam to help boiling off He in the nose. Ask for **150 nA**. Take data until 20 min. after the nose is empty of He.
3. Target experts will finish the anneal.
4. Take a C+He $\frac{1}{2}$ h long run after the anneal (if the target expert OK's it, start taking data while the nose is being refilled).
5. Continue with NH₃ production data.