

Jefferson Lab Alignment Group

Data Transmittal

| TO: P. King, T. Horn, C. Munoz Camacho, J. Butler | DATE: | 10/28/2016 |
|---------------------------------------------------|-------------|-----------------|
| FROM: Kelly Tremblay | Checked: cg | #: A1744 |

DETAILS:

data : aalign\hadron\2016\H102716a

Below are the results from the survey of the right spectrometer on October 27th, 2016. The horizontal pointing value shows how much the central axis of the spectrometer misses the ideal target. This value is perpendicular to the spectrometer axis, not along the beam line. For the vertical pointing, a positive value indicates that the spectrometer is pointing above the target.

A graphical sketch is shown at the end of this transmittal

The central ray of the spectrometer is at 55.900 degrees The central ray is missing the defined target center by -1.64 [mm] Upstream and -2.36 mm vertically [positive value is up]

If the offset is corrected by secondary alignment, the spectrometer will be at 55.889 degrees

To achieve this optimal setting make the following adjustments: spectrometer will be at 55.889 degrees Horizontal corrections: Move rear jacks along tangent -1.67 mm Upstream

9 Par Aposter Val : 0.23 (mm) No 3DD output file available to report std. dev

| Beam Direction | II102716A OBeam-Spec Intercept Point Beam-Spec Perpendicular Point Spectrometer Projected Target Point Straight-Ahead Target Point [ideal] |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | angles: delta : 55.90009 [degrees] beam : 142.49998 [degrees] spectrometer: 86.59990 [degrees] perpendicular distance : 1.645 [mm] target - intersect dis : 1.987 [mm] found target - intersect dis : 1.072 [mm] Spectrometer is -2.36 lower than ideal target Spectrometer Line Straight-Ahead Beam - Perpendicular line |