



Jefferson Lab Alignment Group

Data Transmittal

TO: T. Whitlatch

DATE: 10 Mar 2014

FROM: J. Dahlberg

Checked: SEH

: D1553

DETAILS:

Data: Fid\HDTagger\Tagger\130408A, 130515A

Listed below is the lower pole tip corner points used to define the fiducial data for the tagger magnet. The fiducial data is also included as a reference to the outside surfaces where the fiducials are located. Values are in millimeters with a +X beam left, +Z downstream and +Y up.

Note: During the tagger magnet mapping surveys there was a longitudinal (Z) error in the alignment of the probe center. The cause of this discrepancy is believed to be from an incorrect design shift in the ideal location for the magnet which was applied to the fiducial data. The mapper was aligned 3 mm downstream from the actual pole tip center. As a result, all magnet mapper data should be corrected 3 mm in Z and the magnet may have to be shifted 3 mm upstream dependent on the final positioning tolerance.

ALL POLE TIP COORDINATES ARE TO THE LOWER EDGES									
LOCATION	X	Y	Z						
DS BL LOWER EDGE	183.32	-27.16	3094.01						
DS BL UPPER EDGE	162.39	-15.08	3073.11						
DS BR LOWER EDGE	-183.42	-27.11	3094.03						
DS BR UPPER EDGE	-162.68	-15.12	3073.30						
US BL LOWER EDGE	183.50	-26.92	-3093.91						
US BL UPPER EDGE	162.68	-14.90	-3073.14						
US BR LOWER EDGE	-183.42	-27.04	-3094.03						
US BR UPPER EDGE	-162.76	-15.19	-3073.62						
ALL FIDUCIAL POINTS HAVE A 25.4 MM OFFSET ADDED TO THE CENTER OF THE SURVEY TARGET FROM THE STEEL FACE									
FIDUCIALS	X	Y	Z						
HDTAGGA	724.06	606.05	-3166.58						
HDTAGGB	-172.35	605.94	-3166.72						
HDTAGGC	-173.17	-606.14	-3166.14						
HDTAGGD	723.20	-606.12	-3166.25						
HDTAGGE	-242.12	605.99	-3096.95						
HDTAGGF	-243.30	605.78	3096.20						
HDTAGGG	-243.47	-606.43	3096.89						
HDTAGGH	-243.27	-606.23	-3096.35						
HDTAGGJ	-173.53	605.83	3166.04						
HDTAGGK	722.80	605.83	3166.15						
HDTAGGM	722.99	-606.37	3166.70						
HDTAGGN	-173.41	-606.26	3166.69						
HDTAGGP	792.76	605.78	3096.41						
HDTAGGR	793.94	606.15	-3096.70						
HDTAGGS	793.23	-606.05	-3096.38						
HDTAGGT	792.98	-606.34	3096.77						