



Jefferson Lab Alignment Group

Data Transmittal

TO: D. Gaskell, G. Smith

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FROM: K. Tremblay

Checked: (jcd)

: C1641

DETAILS:

data: step2b\hallc\qweak\101104A, Fiduc\HallC\Qweak\100927a

Below is a revised grid showing the location of the 2010 Qweak targets (run 1) relative to the ideal position of both the ideal QTOR magnet and the ideal Qweak target. These values are based on the fiducial data measured directly on the target windows carried out on Sept 27, 2010 in the survey lab. The information was also contained in transmittal C1340, which showed the delta coordinates for the targets based on the ideal center of the target, not the found target center or distance from the QTOR magnet.

Differences from the ideal positions are shown as dX/dY/dZ. A +dX value indicates the calculated center of the cell is to the beam left of the looking downstream; a +dY is above the beamline; a negative dZ indicates the upstream distance from the QTOR ideal coordinate.

The dYaw/dPitch/dRoll values are the differences from the ideal values. A positive dYaw is rotated counterclockwise when looked from above; positive dPitch is rotated counterclockwise when looked towards the beam left from beam right; positive dRoll is clockwise about the beam.

Cell	dist from ideal center [bfs]			Qtor Coordinate System [mm]			dz HyTar*	Angular values (degrees)		
	dx [mm]	dy [mm]	dz [mm]	x	y	z		z[mm]	dYaw °	dPitch °
Ideal Qweak	0.0	0.0	0.0	0.0	0.0	-6496.3	26.7			
T5	1.2	0.9	145.5	1.2	0.9	-6350.8	172.2	-0.2912	-0.424	0.0387
T7	-0.4	-1.4	-201.1	-0.4	-1.4	-6697.4	-174.4	-0.2951	-0.4266	0.0541
T8	-0.9	-1.4	-201.1	-0.9	-1.4	-6697.4	-174.4	-0.2853	-0.418	0.0453
T9	-1.1	-1.4	-201	-1.1	-1.4	-6697.3	-174.3	-0.3317	-0.4263	0.0261
Hydrogen	0.2	1.2	-26.7	0.2	1.2	-6523.0	0.0	0.0596	-0.6423	-0.0069
HydrogenRep	0.1	1.2	-26.7	0.1	1.2	-6523.0	0.0	0.0394	-0.6472	-0.0009

dz HyTar* is the Z distance from the found hydrogen target