



Jefferson Lab Alignment Group

Data Transmittal

TO: D. Meekins, D. Gaskell	DATE: 09/07/2023
FROM: Elena Balan	Checked: SEH # : C2086

DETAILS:

M:\align\DATA\Step2B\BSY\3C_12\230830A\process
M:\align\DATA\Fiduc\HallC\Moller_Tgt\230821A

The Moller target and Moller Solenoid were surveyed on 30th of August, 2023. In a beam following coordinate system +x is beam left, +y is above and +z is downstream. A + yaw angle is counterclockwise looking from above, a + pitch is counterclockwise from the beam right, and a + roll is clockwise looking from upstream.

	CEBAF Coordinates			Beam Following			Angles [deg.]		
Component	x[m]	y[m]	z[m]	dx[mm]	dy[mm]	dz[mm]	Yaw	Pitch	Roll
MOLLER_TAR	-110.62017	99.97757	-370.05630	0.81	-0.43	4.12	-142.3831	-0.1836	0.0095
MOLLER_SOL	-110.62241	99.97808	-370.06056	-0.01	0.09	8.86	-142.4879	-0.0092	-0.0152

As requested, the position of the Moller target relative to the Moller Solenoid:

	Beam Following			Angles [deg.]		
Component	dx[mm]	dy[mm]	dz[mm]	Yaw	Pitch	Roll
MOLLER_TAR_TO_MOLLER_SOL	0.82	-0.50	-4.74	0.1009	-0.1732	0.0249

Position of Hole 3 at Home:

	X[mm]	Y[mm]	Z[mm]	
HOLE3	0.74	25.65	4.20	relative to beam
HOLE3	0.75	25.58	-4.66	relative to solenoid