



Jefferson Lab Alignment Group

Data Transmittal

TO: Y. Roblin **DATE:** 28 Apr 2017

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DETAILS:

data : step2b\nwcr\0R multiple & step2b\ninc\ninc12\20130829

The injector chicane magnets were surveyed and re-set for the 12 GeV project. The magnets were set in 2013. The table below shows the found coordinates in the CEBAF coordinate system (meters), beam following system (millimeters) and deltas angles (degrees).

The BL magnets are placed parallel to the north linac. BL0R01 and BL0R04 are offset beam left 7.19 millimeters from the mechanical center. BL0R02 and BL0R03 are offset 7.19 millimeters beam right of the back leg of quads.

A positive X in the beam following indicates the component is to the beam left; a positive Y indicates the component is high; a positive Z indicates the component is downstream of ideal.

The angular deltas are as follows:

- Positive Yaw is rotation counter clockwise about the Y axis;
- Positive Pitch is rotation counter clockwise about the X axis;
- Positive Roll is rotation clockwise about the Z axis.

Component	Machine Coordinates Found			Beam Following Found			Angular Deltas (degrees)		
	X [m]	Y [m]	Z [m]	x [mm]	y [mm]	z [mm]	yaw	pitch	roll
MBL0R01	80.60718	99.99999	-209.94507	-0.01	-0.01	-0.07	-0.01604	-0.02034	0.00831
MQD0R01	80.95713	99.99997	-206.23653	0.08	-0.03	-0.01	5.48414	-0.00315	0.03008
MQD0R02	81.22880	100.00004	-203.41461	0.04	0.04	-0.05	5.47231	-0.03323	0.01261
MBL0R02	81.59627	100.00010	-199.52187	-0.08	0.10	0.17	0.00430	-0.00458	0.00859
MQD0R03	81.60350	100.00007	-193.76228	-0.04	0.07	-0.05	0.08824	-0.01633	-0.02034
MQD0R04	81.60349	99.99996	-188.07711	-0.05	-0.04	0.01	-0.01175	0.00630	-0.01261
MQD0R05	81.60355	99.99994	-182.39207	0.01	-0.06	-0.05	-0.05214	0.01662	-0.00516
MQD0R06	81.60349	99.99996	-176.70691	-0.05	-0.04	0.00	-0.03037	-0.01203	-0.01031
MQD0R07	81.60360	99.99999	-171.02184	0.06	-0.01	-0.04	0.00086	0.02034	-0.00029
MBL0R03	81.59633	100.00007	-165.26201	0.00	0.07	0.00	0.00315	-0.00229	0.00859
MQD0R08	81.22881	100.00001	-161.36959	0.03	0.01	-0.13	-0.01177	0.00258	-0.00773
MQD0R09	80.95699	99.99990	-158.54756	-0.06	-0.10	-0.03	0.00380	0.00115	0.00659
MBL0R04	80.60710	100.00000	-154.83903	-0.09	0.00	0.01	-0.00286	0.00802	-0.00716