



Jefferson Lab Alignment Group

Data Transmittal

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Checked: jcd

: L1064R

DETAILS:

Data: m:\align\data\step2b\inj\061406b

The 500 KeV injector dump dipole, MBO1I06, was aligned June 14, 2006, based on Reza Kazimi's magnetic corrections and the as-found location of the beam dump line. Reza requested that MBO0I06's mechanical center be placed 9.2 millimeters to the beam right and 2.5 millimeters upstream from the intersection of the main beamline and the dump line. The following shows the dipole's ideal location and as-found location. The angle formed by the dump line and the main beam line is 29.36524°. Deltas are based on +x to far beam left, +y is above beam, and +z downstream from the ideal location.

Component :	MBO0I06	Section :	0L
	X	Y	Z
Ideal (m) :	80.59080	100.00000	-252.66901
Delta Location (mm) :	0.0	0.5	1.4
Delta BFS (mm) :	0.4	0.5	1.3
	Yaw	Pitch	Roll
Ideal Angles (deg) :	-14.68262°	0.00000	0.00000°
Found Angles (deg) :	-15.14497°	0.24322°	-0.04154°

Additionally, the components downstream of MBO0I06 and the components on the 500 KeV dump line, 1D were surveyed. The Z location on the main beamline is in meters relative to the machine center. The Z locations on the dump line are distances from the intersection of the main beamline and the dump line along beam. The deltas are, +dx to far beam left, +dy to high above beam. The intersection point is shown in meters relative to machine center.

Main Beamline Components:

NAME	Common	dx (mm)	dy (mm)	Z (m)	Yaw	Pitch	Roll
IFY0IA3	A3	0.7	0.1	-252.4177	0.8699°	-0.7701°	-1.0168°
IFY0IA4	A4	0.3	-0.5	-251.6644	0.2189°	-0.3736°	0.7185°
ITV0106A	Viewer	-0.8	0.6	-252.5018			
MFL0I07	Solenoid	0.0	-0.2	-252.3326			
VIP0I07	Pump	0.5	0.3	-252.0266			
IPM0I01	BPM	-0.2	0.0	-251.8923			
ICV0I01	YAO	-0.6	-0.0	-251.7709			

Dump Beamline Components:

NAME	Common	dx (mm)	dy (mm)	Z (m)
IHA1D00	Harp	0.56	-3.4	1.0250
ITV1D00	Viewer	-0.1	-2.1	1.1500
DUMPFLG	Flange	0.1	-0.4	1.3255
Intersection	** meters	80.6000 m		-252.6665 m