



Jefferson Lab Alignment Group

Data Transmittal

TO: Jay Benesch, Arne Freyberger, Mike Spata

DATE: Sep 07 2004

FROM: Kelly Tremblay

Checked:

: L941

DETAILS:

Three beam position monitors IPM2T09A, IPM4T09A and IPM6T09A and three monitors immediately downstream from the Lambertson magnet (IPM1C00, IPM2C00, and IPM3C00) were located in the transport channel recombiner area on August 20th, 2004.

Since no official location (Dimad or Optim data) has been established for each bpm's position in the beamline, the ideal location was calculated based on the as-found location relative to the exit / entrance of the magnets directly upstream and downstream of the bpm's. Based on these calculations, the ideal locations (meters) have been determined to be:

BPM	z	x	y	yaw	pitch
IP2T09A	-253.9763	-80.6000	100.3498	180.0000	-10.8011
IP4T09A	-251.8964	-80.6000	100.4533	180.0000	-10.0967
IP6T09A	-250.5377	-80.6000	100.4651	180.0000	-6.7738
IPM1C00	-263.8320	-80.5004	100.0220	178.4000	0.0000
IPM2C00	-263.4042	-80.6000	100.0000	180.0000	0.0000
IPM3C00	-263.5972	-80.6931	99.9780	-178.4000	0.0000

The survey data shows that, the BPMs are located transversely to the ideal location (in the beam following system and in millimeters) as follows:

BPM	dx	dy
IP2T09A	-8.48	-5.92
IP4T09A	-3.57	-5.33
IP6T09A	-1.00	-0.57
IPM1C00	3.42	-0.12
IPM2C00	1.31	-3.27
IPM3C00	1.16	1.14

A negative x value indicates the BPM is to the beam right and a negative y value indicates the BPM is below the ideal location.