Jefferson Lab Alignment Group

Data Transmittal

TO: D. Kashy, B. Miller		**DATE:** 16 May 2016
FROM: Kelly Tremblay	**Checked:** (cwg)	**# :** B1716

DETAILS:

data: step2b\hallb\prad\160512a

The bolts on plates mounted on the upstream and downstream torus hub were located on May 12, 2016. The bolts and calculated hub center are shown below. The origin for z is at the design zero point described in drawing B00000-04-01-1101. Also shown for z is the distance from the Hall B center and the 12 GeV target. A positive x indicates the point is to the beam left (looking downstream) and a positive y indicates the point is above the beamline. The US_CTR / DS_CTR points are the calculated center of the bolt holes. For reference the coil us/ds hub center are shown. The coil us/ds hub data are from transmittal B1707. Units are millimeters.

Upstream Hub bolt locations [mm]					
			Torus Ref Z[mm]	Hall b z[mm]	12 gev z[mm]
Target	x[mm]	y[mm]			
US1	-53.89	93.21	390.88	1484.60	2757.87
US2	-93.52	54.34	390.84	1484.56	2757.83
US3	-108.42	-0.32	390.75	1484.47	2757.74
US4	-93.79	-53.85	390.63	1484.35	2757.62
US5	-54.08	-93.66	390.51	1484.23	2757.50
US6	0.21	-107.79	390.42	1484.14	2757.41
US7	54.16	-93.76	390.38	1484.10	2757.37
US8	93.53	-53.78	390.41	1484.13	2757.40
US11	54.15	93.09	390.75	1484.47	2757.74
US12	0.46	108.11	390.84	1484.56	2757.83
US_CTR	-0.18	-0.11	390.63	1484.35	2757.62
Coil hub			500.48	1594.20	2867.47

Downstream Hub bolt locations [mm]					
			Torus ref z[mm]	hall b z[mm]	12 gev z[mm]
Target	x[mm]	y[mm]			
DS1	54.86	94.56	2544.95	3638.67	4911.94
DS2	94.17	54.89	2544.77	3638.49	4911.76
DS3	108.77	1.06	2544.71	3638.43	4911.70
DS4	94.30	-53.26	2544.79	3638.51	4911.78
DS5	54.59	-92.24	2544.98	3638.70	4911.97
DS6	0.63	-106.65	2545.25	3638.97	4912.24
DS7	-53.40	-92.03	2545.50	3639.22	4912.49

DS8	-92.62	-52.77	2545.69	3639.41	4912.68
DS9	-107.26	1.30	2545.75	3639.47	4912.74
DS11	-53.13	94.54	2545.47	3639.19	4912.46
DS12	1.28	108.92	2545.21	3638.93	4912.20
DS_CTR	0.82	1.14	2545.23	3638.95	4912.22
HUB DS	-1.00	-1.40	2448.48	3542.20	4815.47