



# Jefferson Lab Alignment Group

## Data Transmittal

**TO:** J. Zhang, JP Chen, J LeRose

**DATE:** 15 May 2012

**FROM:** Kelly Tremblay

**Checked:** (jcd)

**# :** A1455

**DETAILS:**

data : step2b\halla\g2p\120514A

The G2P components were surveyed in run position 9 on May 14<sup>th</sup>, 2012. The results are shown below. The column labeled 'run' indicates the components were set to the appropriate run number as per Yves Roblin's optim data. 'Name' is the component name. The columns labeled 'Coordinates WRT G2p target' are the found coordinates based on a system with the origin at the ideal G2P target, and looking upstream towards the accelerator. +Z is along beam towards the accelerator, +x is transverse, to the left looking upstream, and +y is up vertically from the beam. Deltas in beam following system, indicate the location from ideal, based on the optim coordinates. A +x is beam left looking downstream, +y is up in the vertical plane and +z is downstream along beam. The delta angular components are relative to Yves optim data and are the component centers. The ideal yaw and pitch are given for reference. Roll should be 0°. Units are millimeters and degrees.

| run | name   | Coordinates WRT G2P target (mm) |       |        | Deltas in beam following system (mm) |      |      | Angular components from Optim Data (degrees) |         |          |           |             |
|-----|--------|---------------------------------|-------|--------|--------------------------------------|------|------|--|---------|----------|-----------|-------------|
|     |        | x                               | y     | z      | dx                                   | dy   | dz   | d yaw  | d pitch | d roll   | ideal yaw | ideal pitch |
| 9   | YAGR09 | 0.1                             | -80.0 | 4418.4 | 0.0                                  | -0.7 | -9.4 | 0.0671                                       | 0.2939  | 0.2842   | 142.500   | -2.5892     |
| 9   | FZ2R09 | 0.2                             | -93.6 | 2664.5 | -0.2                                 | -0.1 | -5.5 | 0.0283                                       | 0.1346  | -0.0046  | 142.500   | 1.6000      |
| 9   | PM5A09 | 0.0                             | -53.6 | 954.6  | 0.1                                  | -0.2 | -5.6 | 0.2264                                       | 0.1860  | -0.1180  | 142.500   | 3.5116      |
| 9   | HP2R09 | -0.4                            | -44.7 | 812.5  | 0.4                                  | 0.0  | -5.7 | 0.1187                                       | 0.0703  | -0.0040  | 142.500   | 3.5116      |
| 9   | PM5B09 | -0.6                            | -37.0 | 689.6  | 0.6                                  | 0.3  | -5.7 | 0.2319                                       | -0.1025 | -12.4475 | 142.500   | 3.5116      |

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