| Jefferson Lab Alignment Group Data Transmittal |
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DATE: 06/21/2022
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\# : D2039
M:Ialign\DATA|Step2B\HalID\CPP\220223A

Below are presented the position of the 6 CPP wire chambers measured in February, 2022.
The found coordinates are in the CEBAF coordinate system. The Beam Following coordinates are the amount offset from the design (ideal) location. The results are relative to a beam-following coordinate system; +X is left of beam, +Y is above beam, +Z is downstream. Angles are reported using the right-hand rule; +Pitch is a counter-clockwise rotation looking from left, +Yaw is a counter-clockwise rotation looking from above, +Roll is a counter-clock rotation looking from downstream.

|  | CEBAF Coord. System |  |  | Beam Following Coord. System |  | [deg.] |  |  |  |
| :--- | ---: | :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Component | $\mathrm{X}[\mathrm{m}]$ | $\mathrm{Y}[\mathrm{m}]$ | $\mathrm{Z}[\mathrm{m}]$ | $\Delta \mathrm{X}[\mathrm{mm}]$ | $\Delta \mathrm{Y}[\mathrm{mm}]$ | $\Delta \mathrm{Z}[\mathrm{mm}]$ | Yaw | Pitch | Roll |
| HDARWEN | 80.60072 | 104.70030 | 406.25479 | 0.72 | 0.30 | -15.65 | 0.0350 | -0.0033 | -0.0054 |
| HDBILBO | 80.60104 | 104.70021 | 406.41649 | 1.04 | 0.21 | -14.97 | 0.1387 | 0.0103 | 0.0123 |
| HDCELEB | 80.60094 | 104.69990 | 406.62900 | 0.94 | -0.11 | -14.30 | 0.0395 | 0.0180 | -0.0032 |
| HDHALDO | 80.59790 | 104.70005 | 407.04508 | -2.10 | 0.05 | -6.90 | -0.0370 | 0.0052 | -0.0140 |
| HDDENET | 80.60194 | 104.70018 | 407.45695 | 1.94 | 0.18 | -3.87 | -0.1324 | -0.0176 | -0.0077 |
| HDEOWYN | 80.60208 | 104.69967 | 407.54981 | 2.08 | -0.33 | -2.13 | -0.1120 | -0.0041 | 0.0129 |

