

Jefferson Lab Alignment Group

Data Transmittal

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DETAILS:

M:\align\DATA\Step2B\UITF\191101A

On November 1st, 2019 R28-3 was aligned to the previous as-found electrode position not to the design ideal. Beam following results are given relative to both the design ideal and to the as-found or "new ideal" position. In the BFS, a positive X is beam left, a positive Y is up and a positive Z is downstream.

| T-Electrode As-Set | | | | |
|--|------------|----------|-----------|--|
| | Х | Υ | Z | |
| UITF Machine Coordinates (M) | 10.67326 | 21.06645 | 31.46629 | |
| | rX (Pitch) | rY (Yaw) | rZ (Roll) | |
| ROTATIONS | -0.1971 | -13.9069 | 0.0844 | |
| | Х | Υ | | |
| Beam Following to the Design Ideal 15deg Line (mm) | 8.95 | -0.35 | | |
| | rX (Pitch) | rY (Yaw) | rZ (Roll) | |
| ROTATIONS | -0.1752 | 1.0931 | 0.0820 | |

| Beam following to New Ideal (as-found) | | | | |
|--|------------|----------|-----------|--|
| | Х | Υ | Z | |
| Beam Following (mm) | -0.09 | 0.53 | 0.22 | |
| | rX (Pitch) | rY (Yaw) | rZ (Roll) | |
| ROTATIONS | -0.1164 | 0.0430 | 0.0547 | |

The following BPM locations are relative to the As-Set position of R28-3 and the design ideal (15 degree).

| BFS RELATIVE TO AS-SET (mm) | | | |
|-----------------------------|--------|-------|--|
| | X | Υ | |
| BPM1 | -2.81 | -1.68 | |
| BMP2 | -20.86 | -1.24 | |

| BFS RELATIVE TO DESIGN IDEAL (mm) | | | |
|-----------------------------------|-------|-------|--|
| | X | Υ | |
| BPM1 | 12.47 | -1.01 | |
| BMP2 | 4.20 | 0.98 | |