Procedure for GPI in-vessel arm measurements and manifold hole cleaning

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Tools needed:

1) 1/32" drill bit or similar small tool to clean out GPI gas manifold holes

2) GPI target plate (presently in diagnostics room across from south entrance to TC)

3) Romer arm or any other measuring arm used inside the vessel for metrology

Procedure:

1) clean out any lithium deposits from within the 30 (1 mm diam.) holes in the GPI gas manifold, so as to leave clear holes for the gas to come out (powder can drop into the manifold)

2) attach the GPI target plate to the GPI gas manifold in standard location (see photo #1). The plane of the target plate should be perpendicular to the wall (alignment by eye OK)

3) measure points #1-6 in photo #1 below. These points should be at the very center of the intersection of the black lines on the white paper.

4) measure points #7, 8, and 9 at the top, middle and bottom holes in the GPI gas manifold in photo #2. The middle hole is the one nearest the scribe mark on the red G10 plate.

5) measure points #10,11, and 12 on the stainless front face of the GPI reentrant port, just outside the window. These can be anywhere on this face since they will just be used to define the plane of the face.

6) remove GPI target plate and return to diagnostics room.

Fig. 1

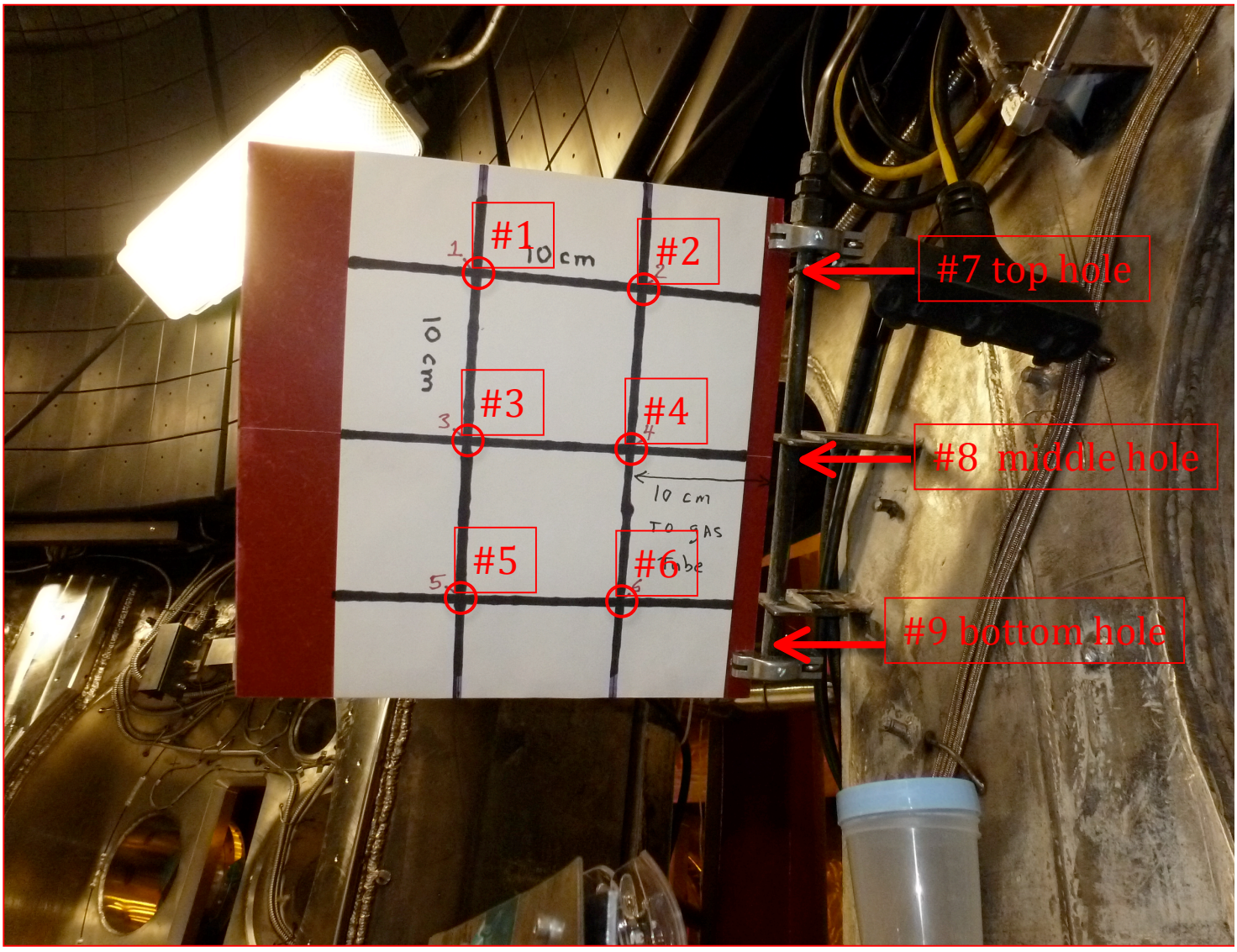

Fig. 2

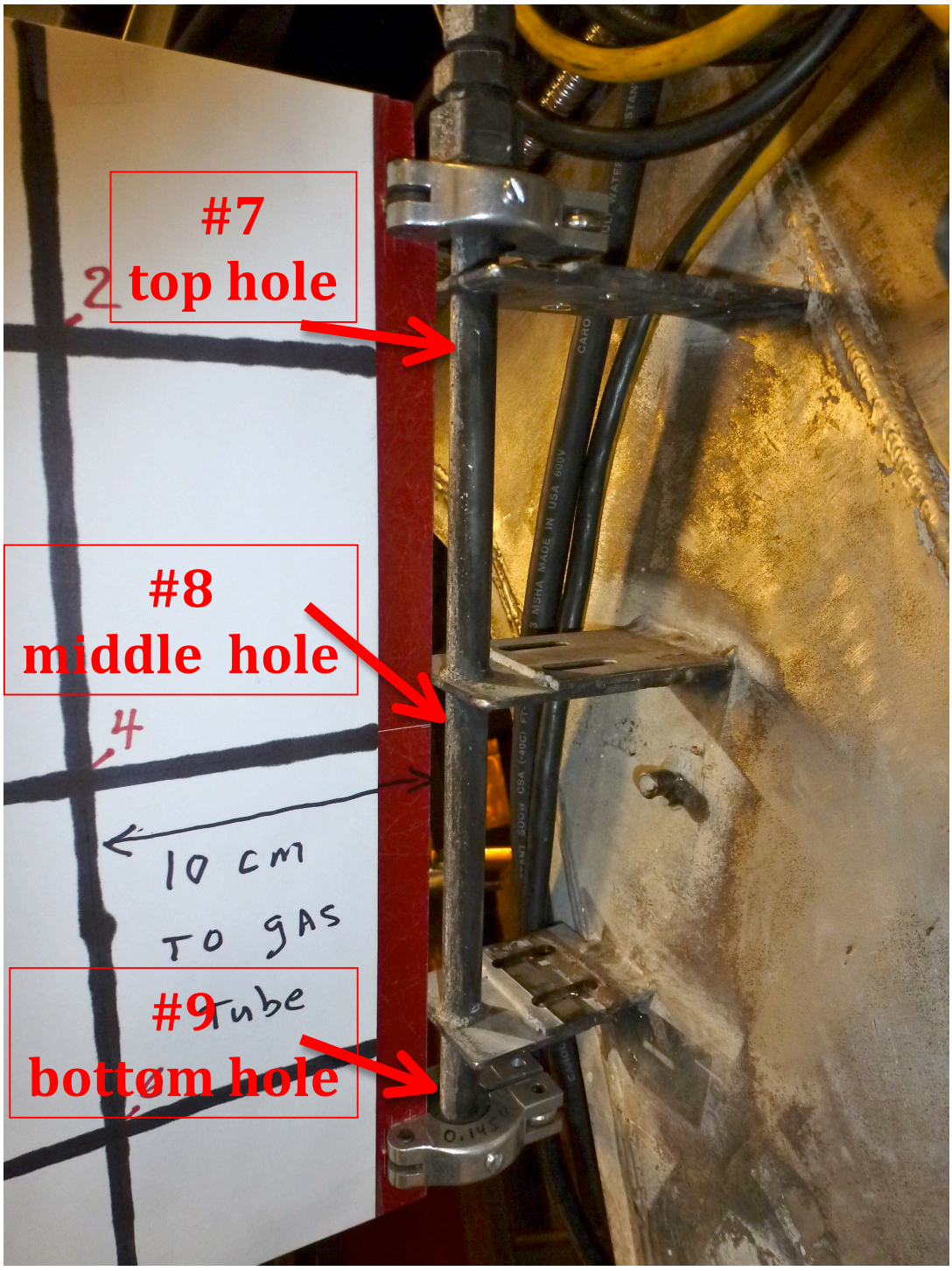

Fig. 3