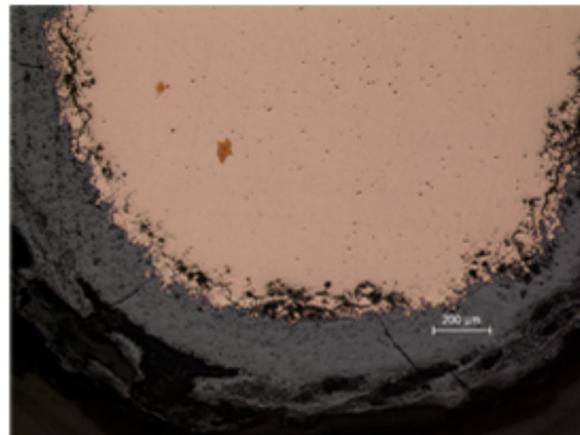
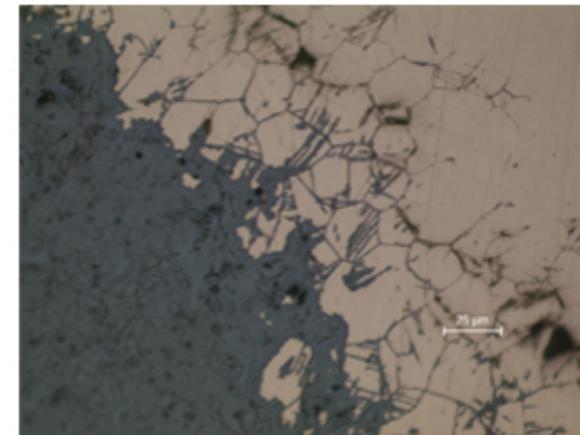


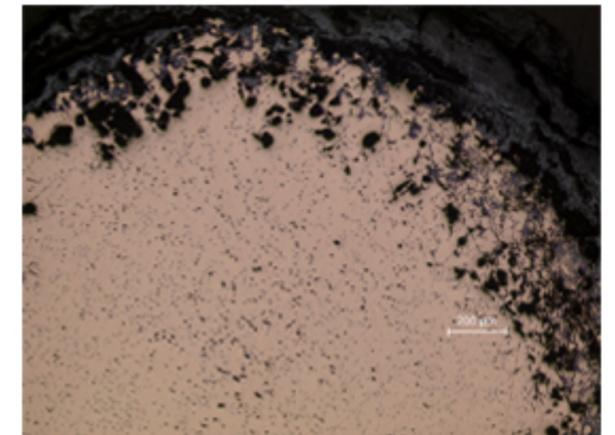
B46 - COPPER PINS



B46.1



B46.2



B46.3

Identification

Sample: B46 (B47)
Card reference: S95
Origin: Tiahuanaco (Mexico)
Location: Collection AFL

Description

Metal has been cast, perhaps from native copper, perhaps from a mineral extract. Some parts present numerous fine inclusions.

Figure captions

B46.1

General view showing corrosion penetrating the entire surface region.

B46.2

Detail showing intergranular corrosion of the metal and some vestiges of the grain boundaries within the corrosion products.

B46.3

General view of another area, showing corrosion of the entire surface, and many pores and inclusions within the metallic part.

B46.4

Detail of inclusions associated with pores and cracks.

B46.5

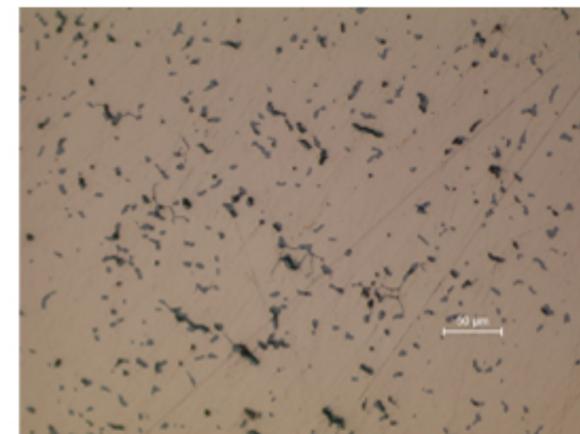
Detail of an intergranular crack running parallel to the surface; polyhedral grains with annealing twins and some strain lines give evidence of final light cold work (etchant aqueous FeCl_3).

B46.6

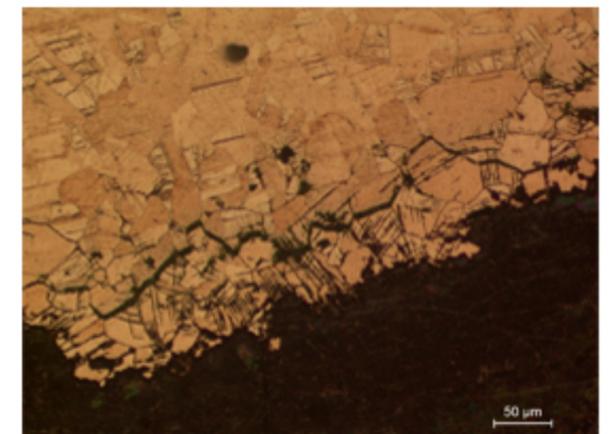
Area near the surface: inclusions remain unaffected within corrosion products (etchant: aqueous FeCl_3).

B46.7

Another area showing irregular grains with annealing twins and many inclusions; some intergranular corrosion (etchant: aqueous FeCl_3).



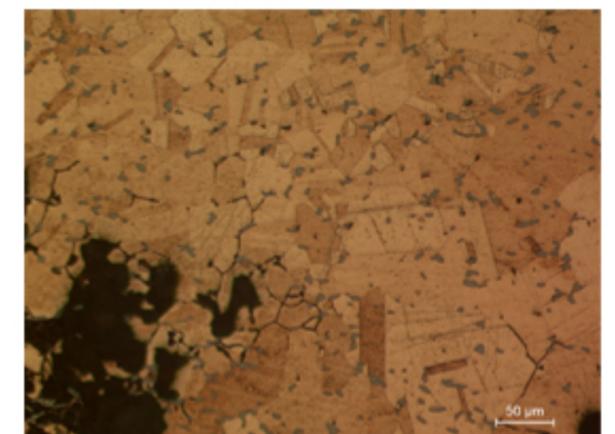
B46.4



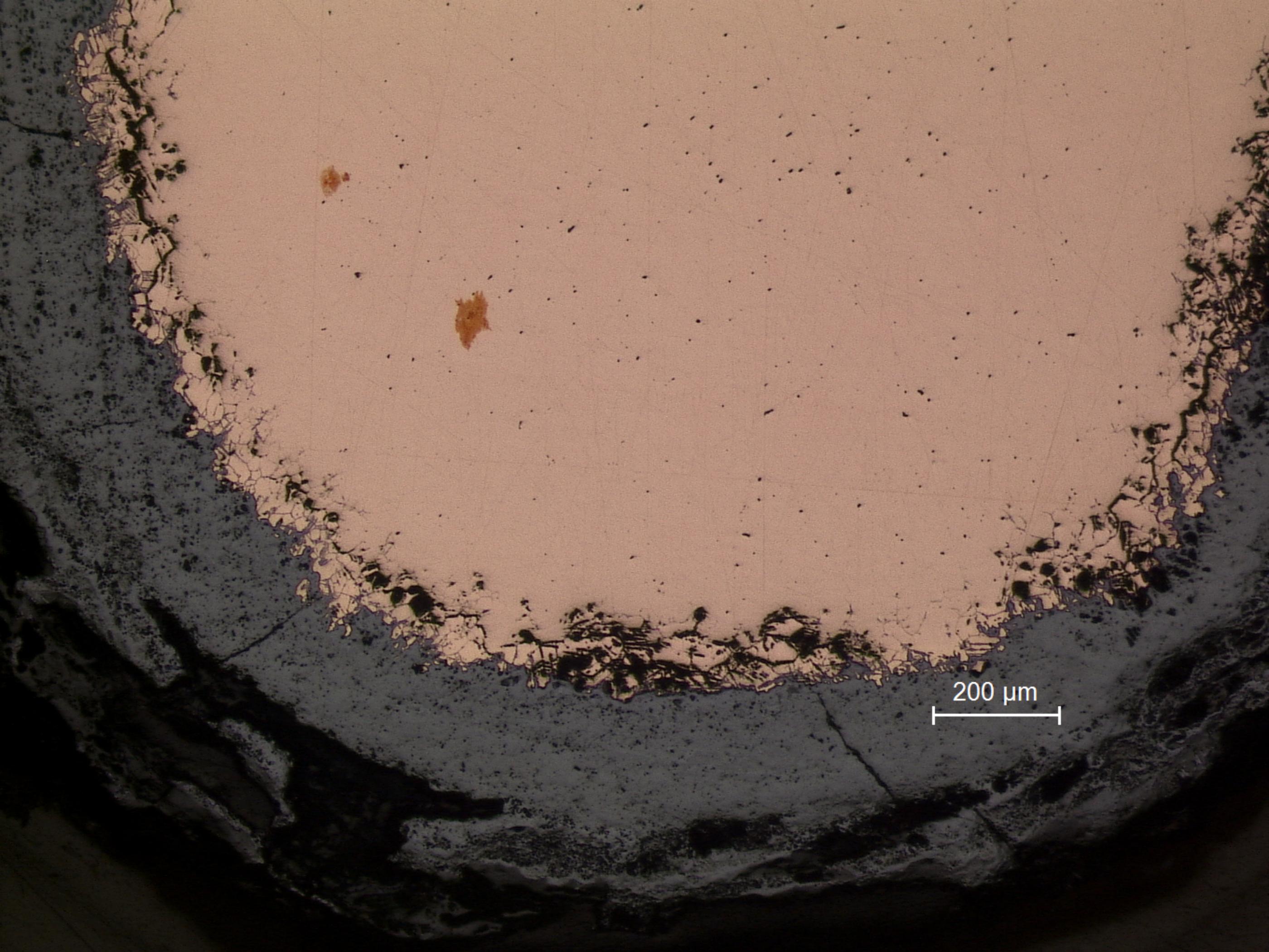
B46.5



B46.6

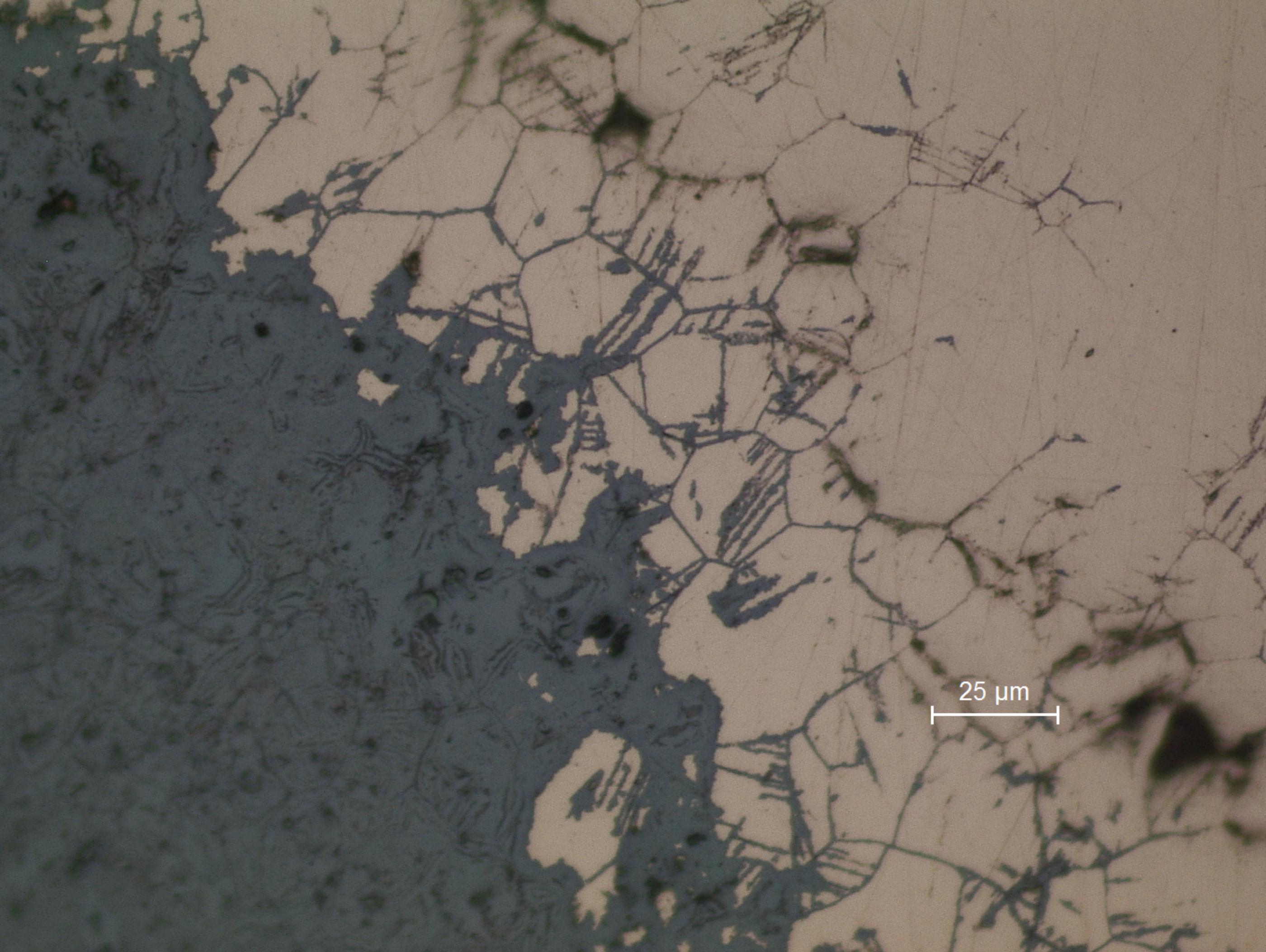


B46.7



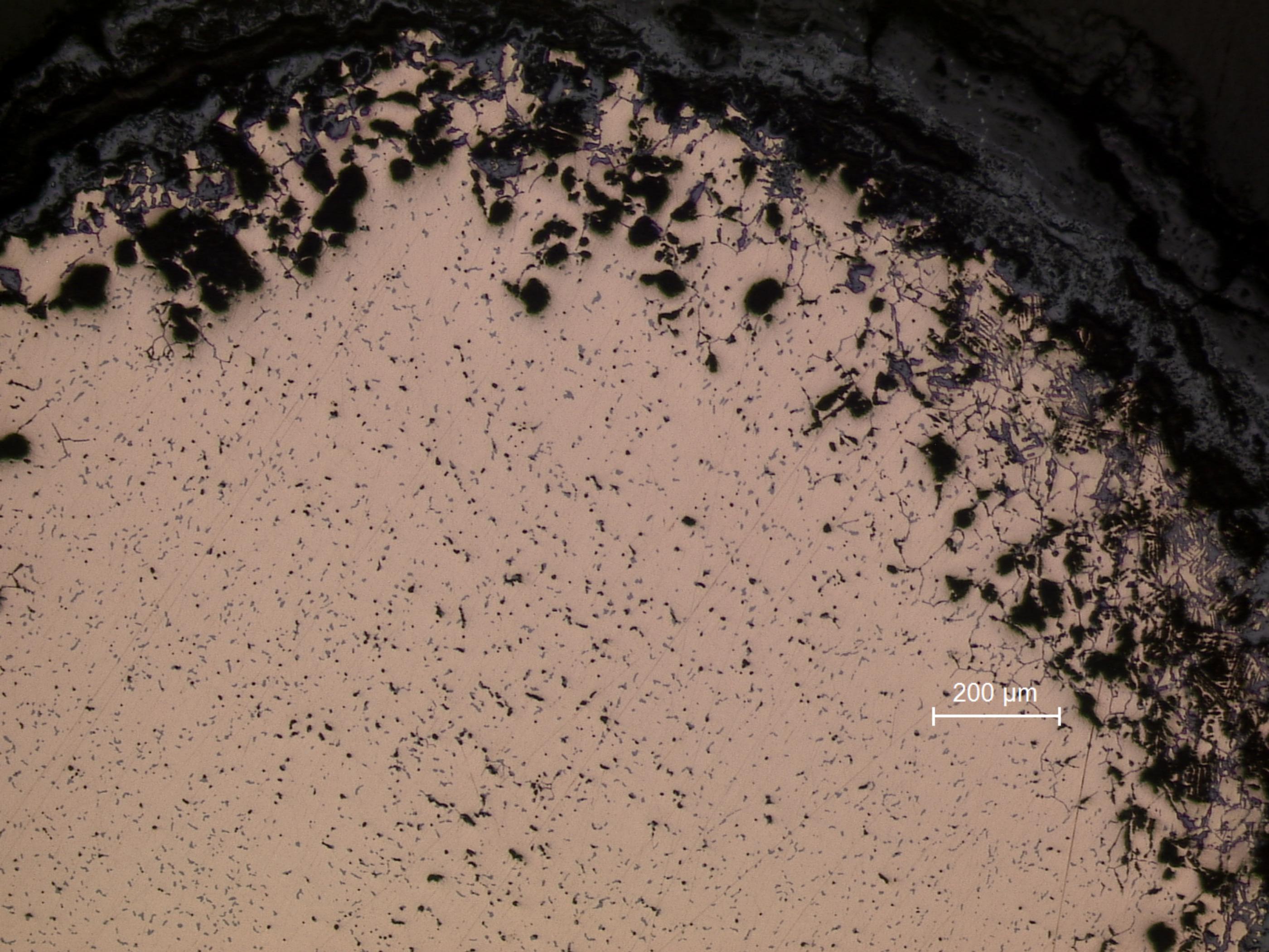
200 μm

B46.1
General view showing corrosion penetrating the entire surface region.



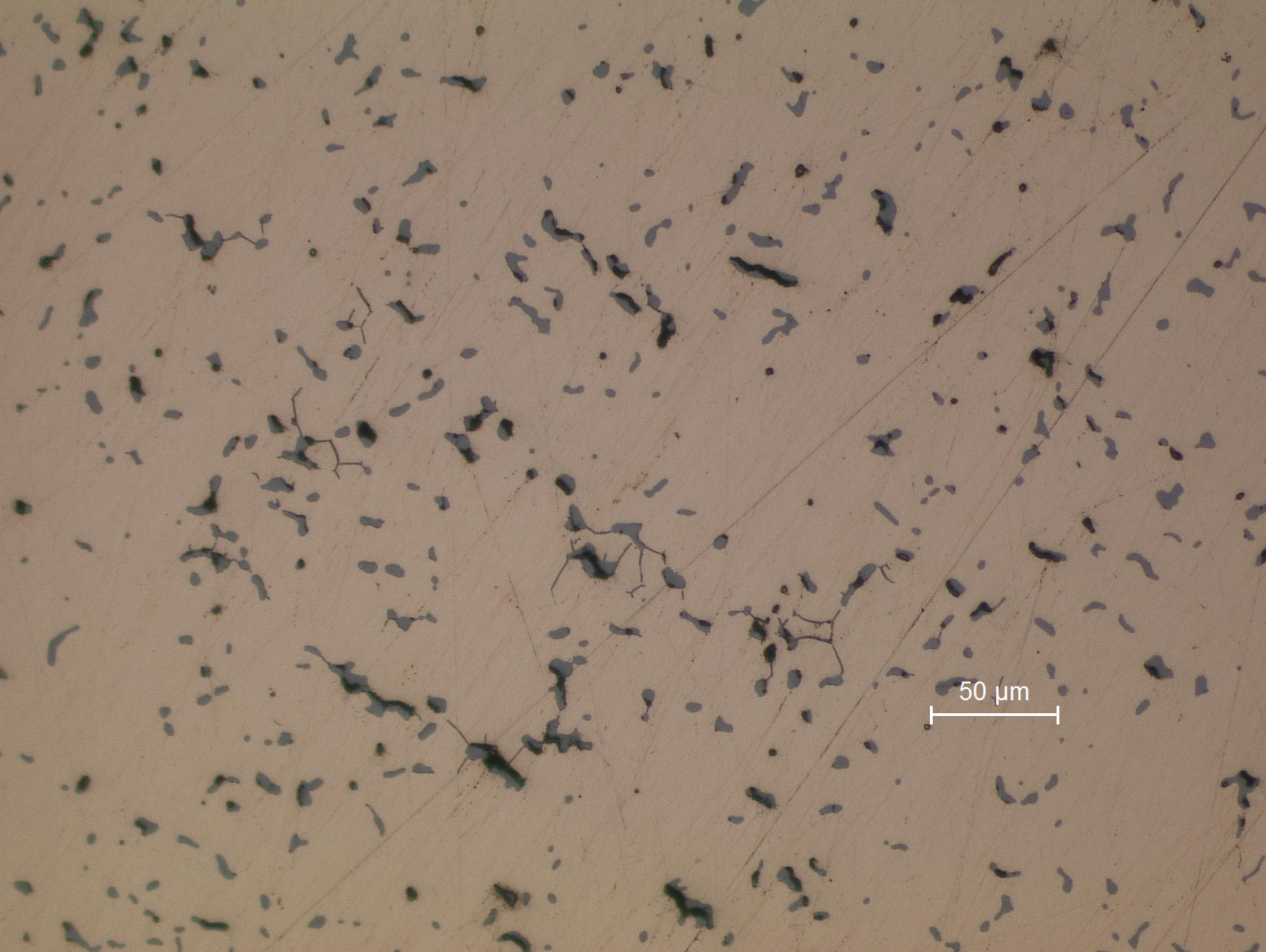
25 μm

B46.2
Detail showing intergranular corrosion of the metal and some vestiges of the grain boundaries within the corrosion products.



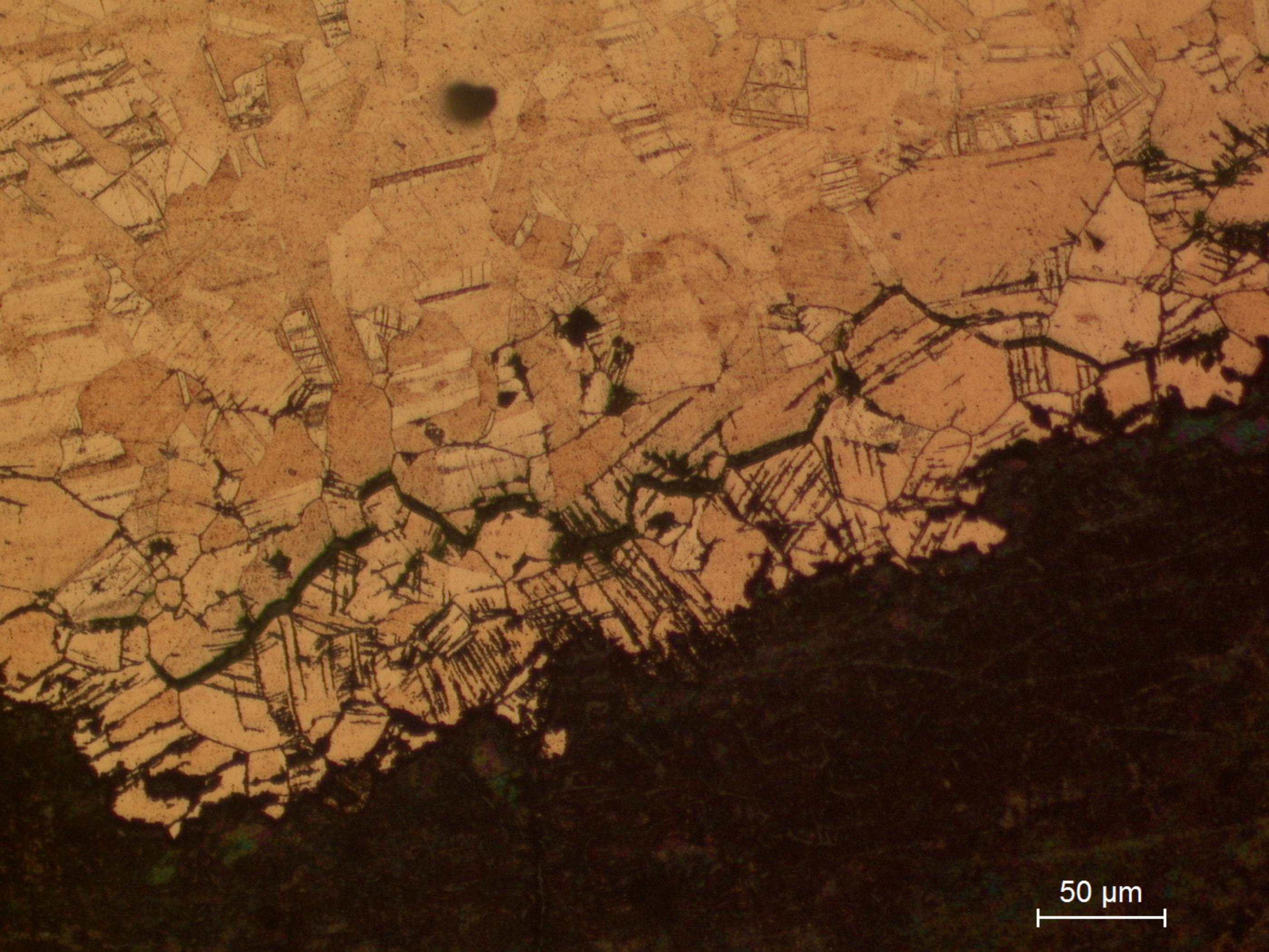
200 μm

B46.3
General view of another area, showing corrosion of the entire surface, and many pores and inclusions within the metallic part.



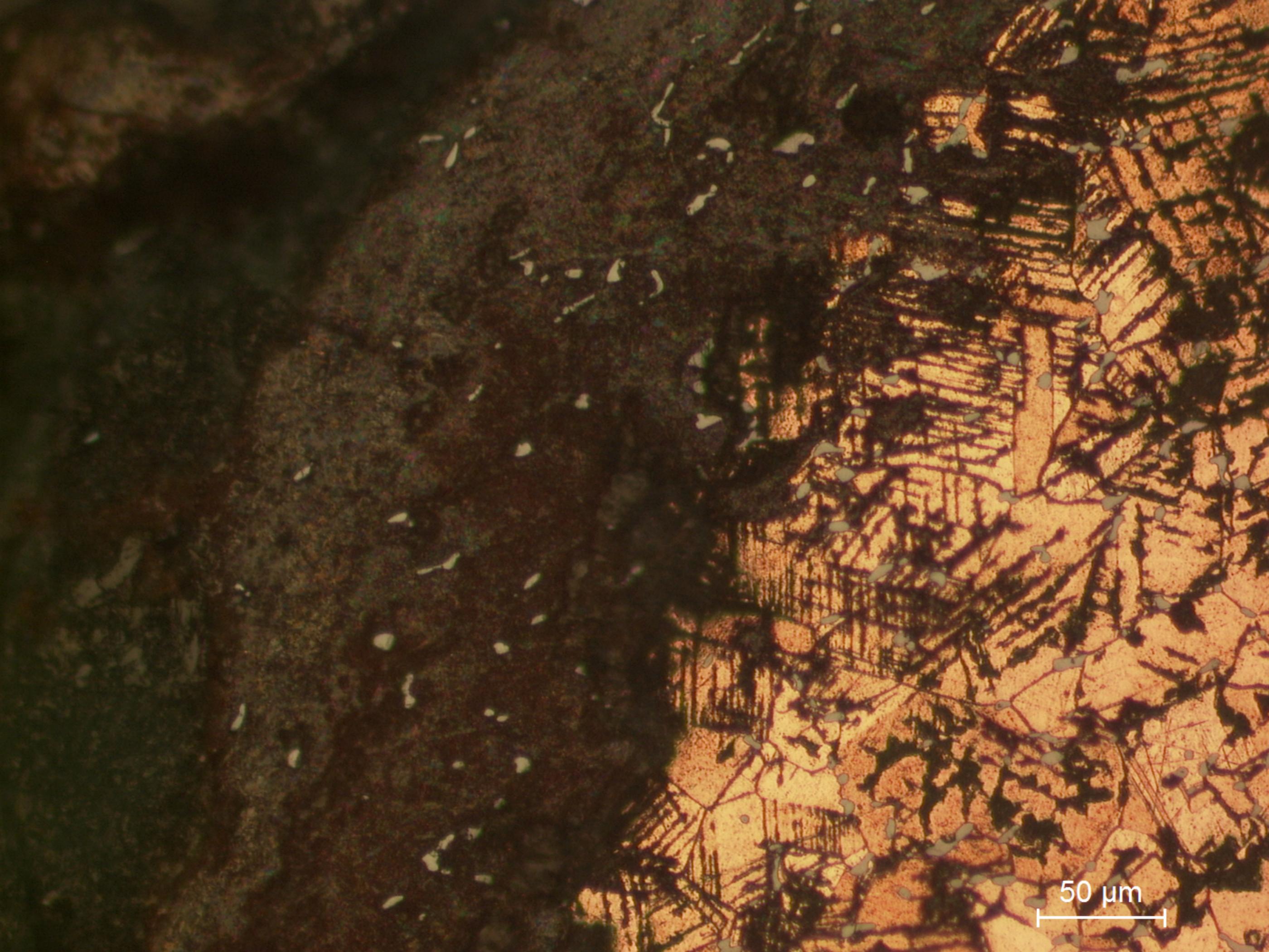
50 μm

B46.4
Detail of inclusions associated with pores and cracks.



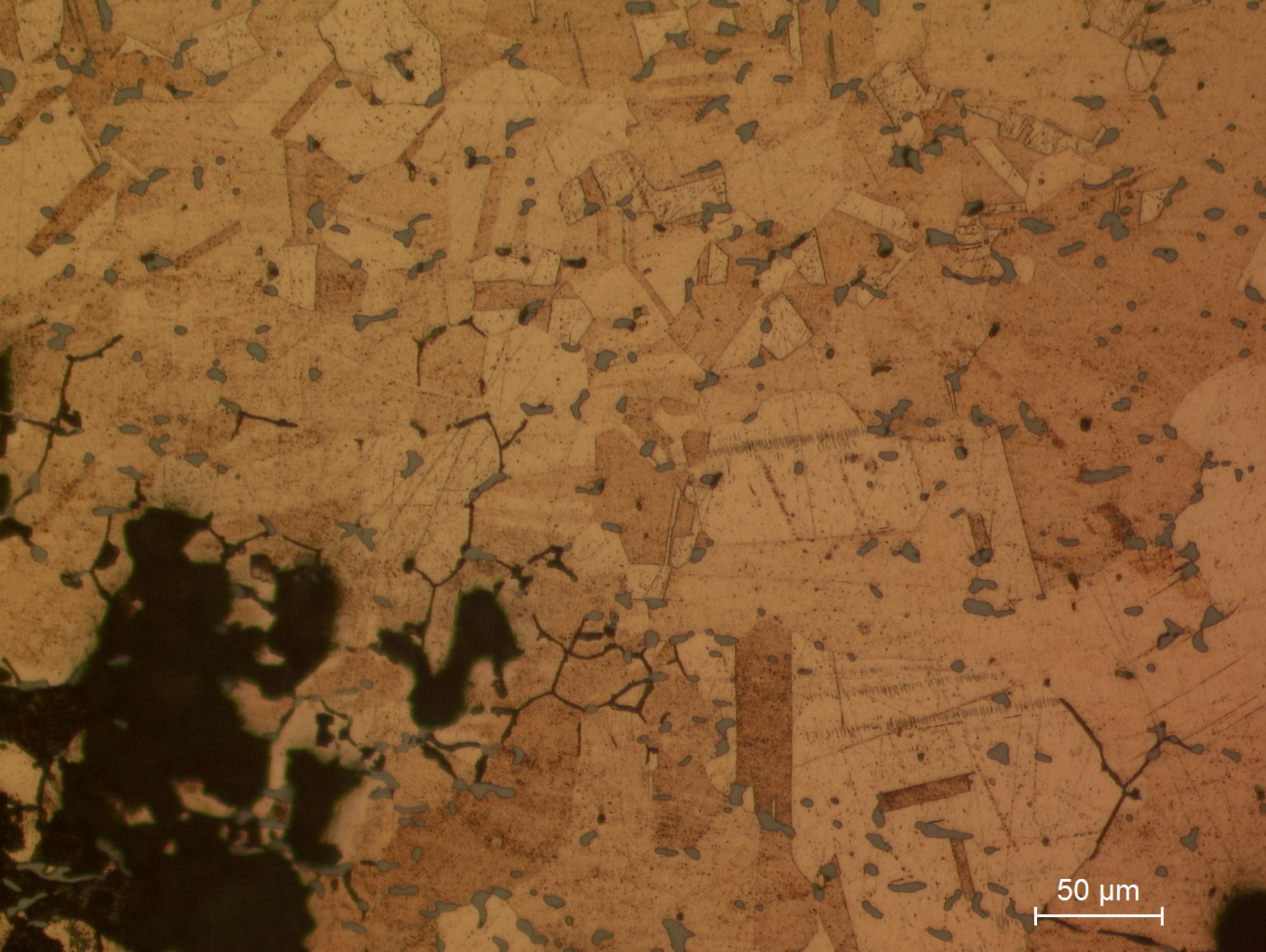
50 μm

B46.5
Detail of an intergranular crack running parallel to the surface; polyhedral grains with annealing twins and some strain lines give evidence of final light cold work (etchant aqueous FeCl_3).



50 μm

B46.6
Area near the surface: inclusions remain unaffected within corrosion products (etchant: aqueous FeCl_3).



50 μm

B46.7
Another area showing irregular grains with annealing twins and many inclusions; some intergranular corrosion (etchant: aqueous FeCl_3).