

Photo 1. Overview illustrating "spider crack" area (top) and internal cracking, 25x, transverse section, as-polished



Photo 2. Continuation of photo 1 illustrating internal crack, 25x, transverse section, as-polished

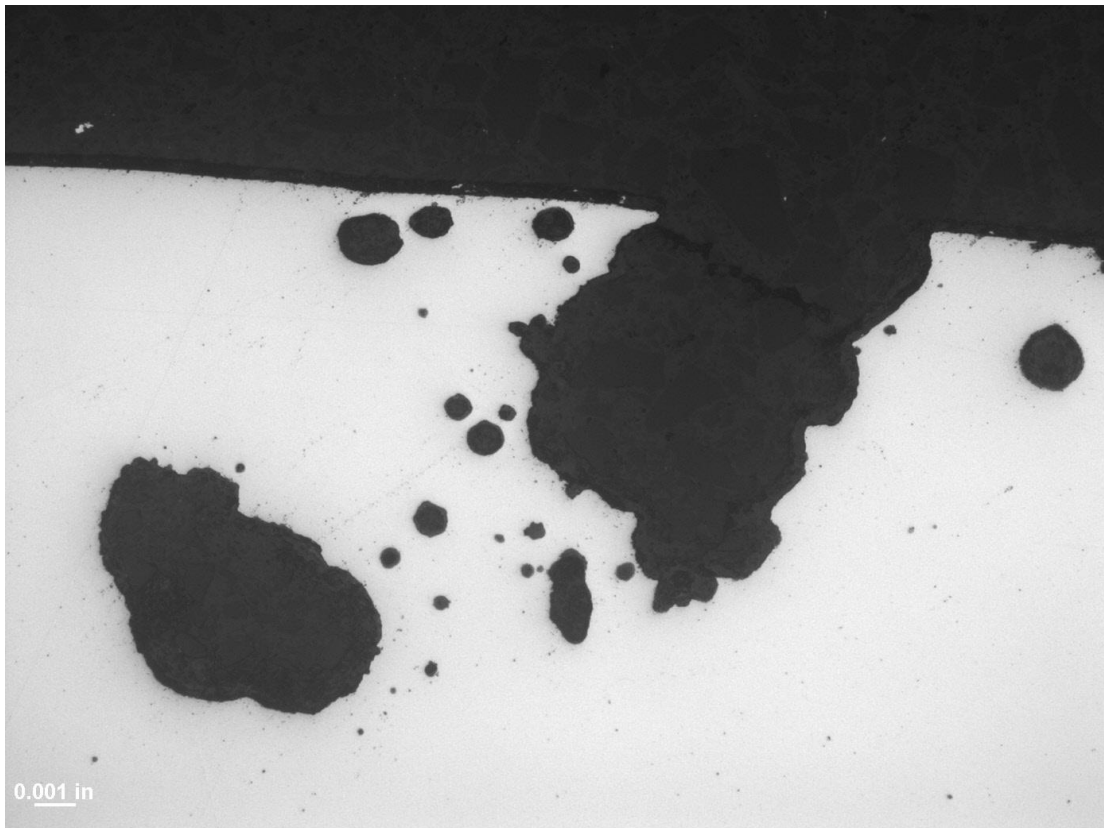


Photo 3. Closer view of spider defect area from photo 1 with internal voids, 200x, transverse section, as-polished

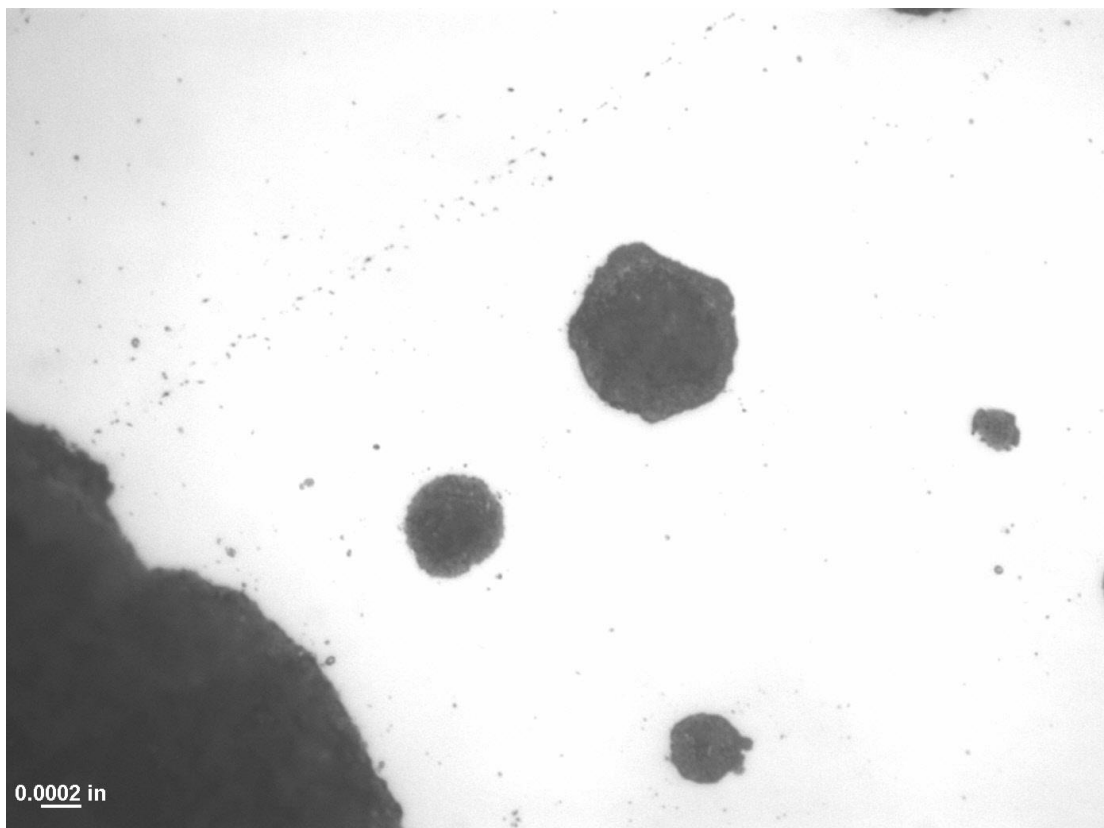


Photo 4. Closer view of internal voids outlined by thin oxide layer, 1000x, transverse section, as-polished



Photo 5. Closer view illustrating oxide inside the internal crack, 500x, transverse section, as-polished

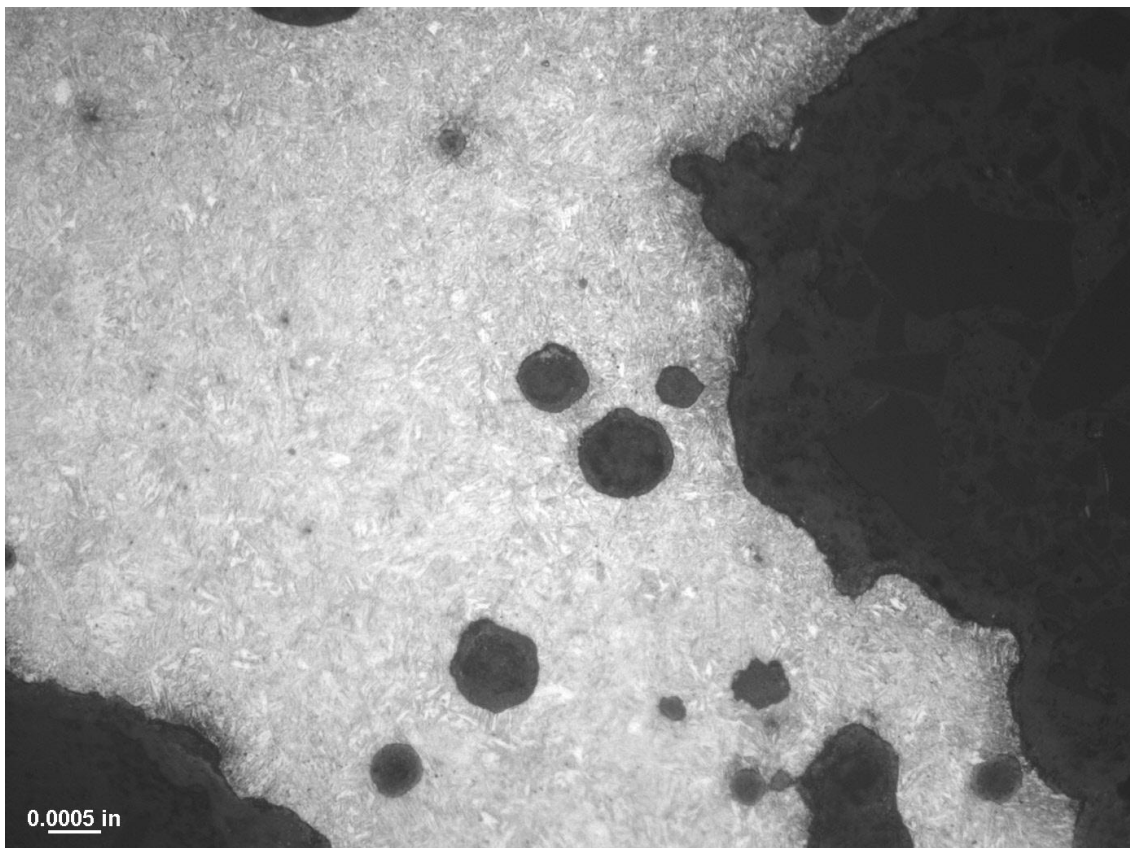


Photo 6. Additional view of "spider crack" area showing no evidence of decarburized layer, 500x, transverse section, 2% nital etch

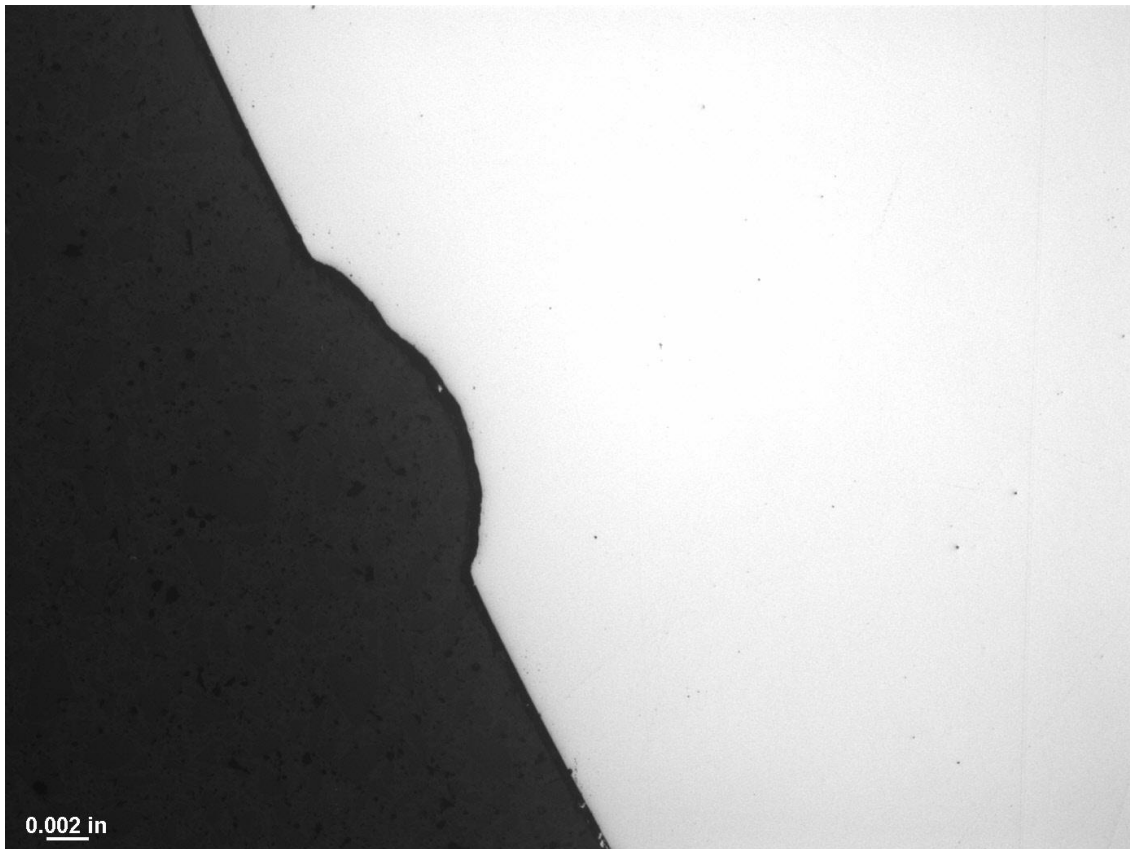


Photo 7. View illustrating seam defect, 100x, transverse section, as-polished



Photo 8. Overview of "spider crack" area, 25x, longitudinal section, as-polished

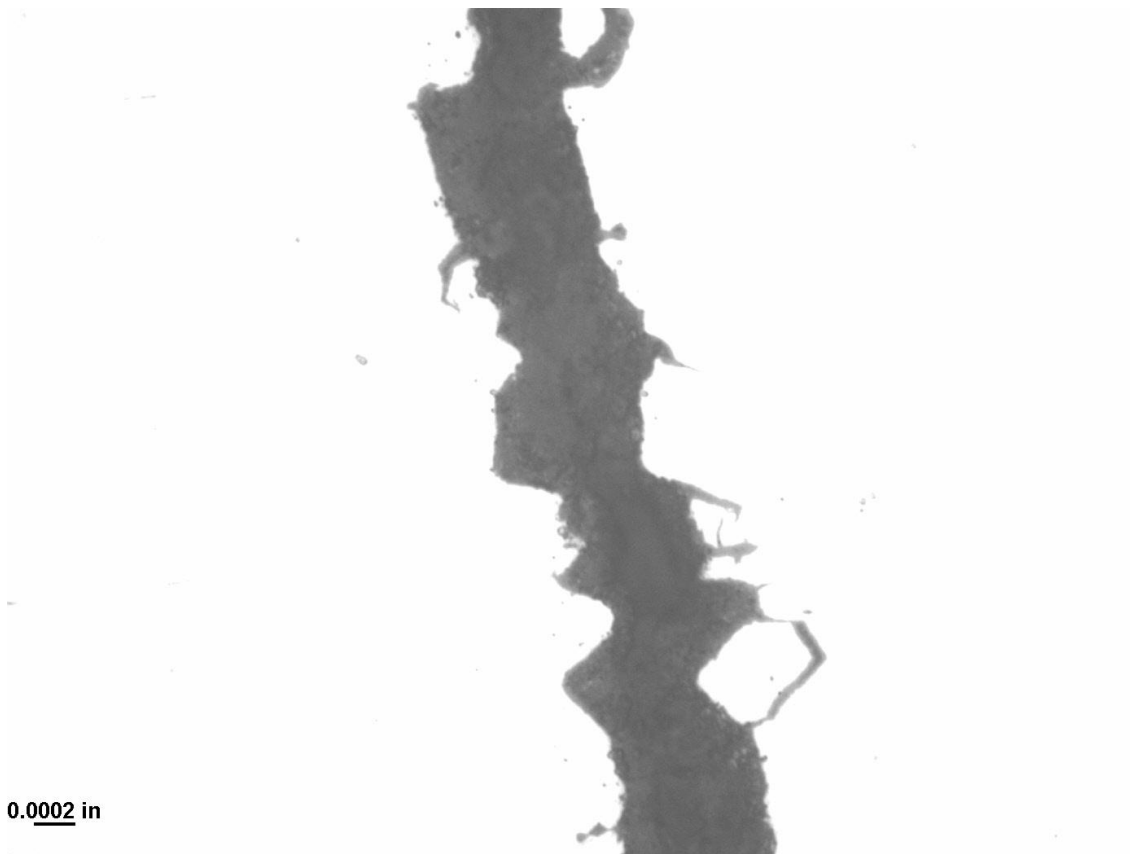


Photo 9. Closer view of photo 8 illustrating the presence of scale along crack path.

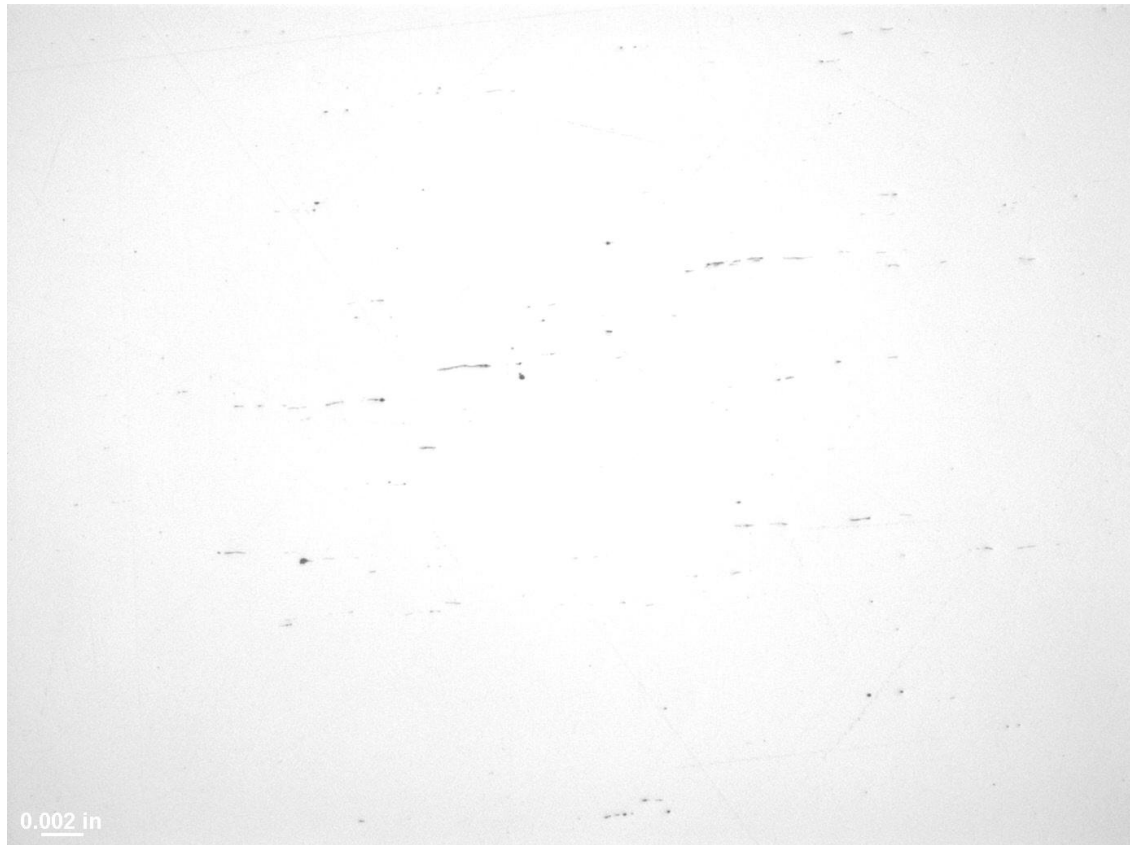


Photo 10. Core illustrating sulfide type 1½ -2 thin series nonmetallic inclusions, 100x, longitudinal section, as-polished





Photo 11. Typical appearance of core microstructure, 500x, transverse section, 2% nital etch.

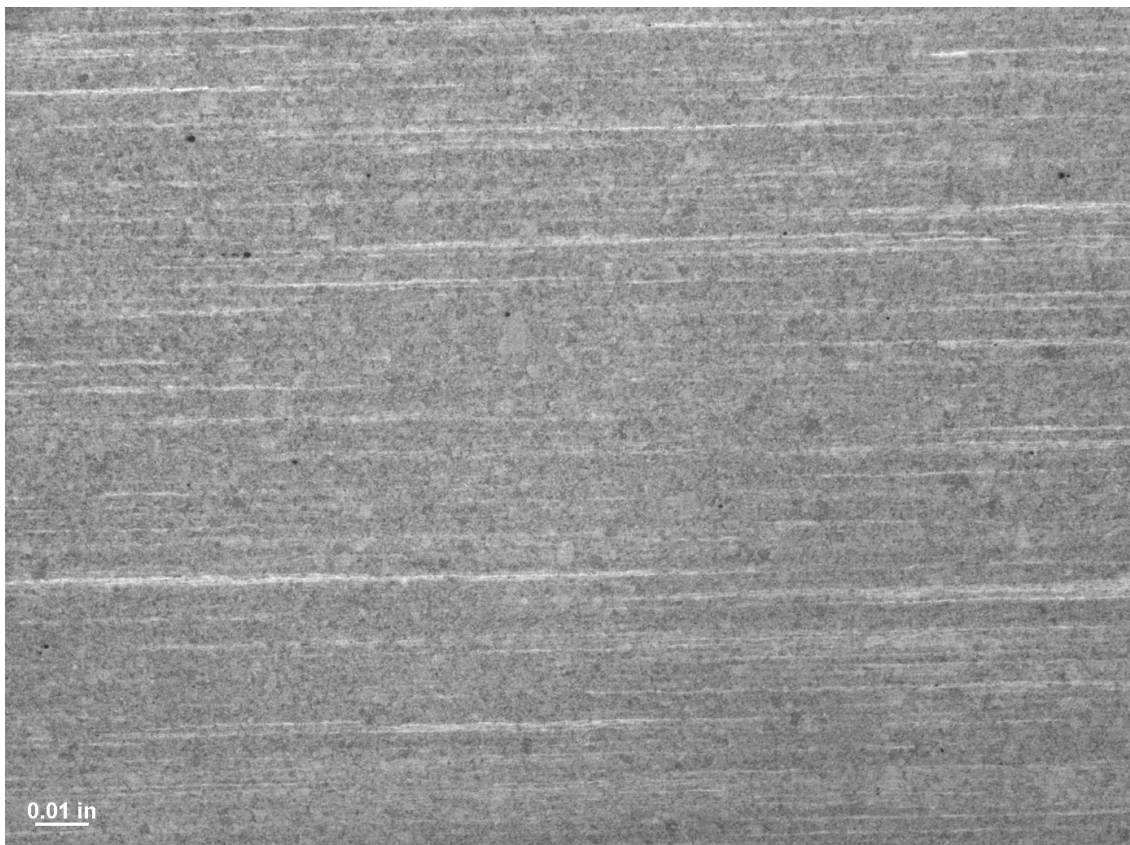


Photo 12. View through core of longitudinal section with material banding, 25x, 2% nital etch.