Sample ID and provenance

Sample ID: SP28_ASP

Lithology: Chert

Collection: LusoLit

Outcrop: Cabo S. Vicente (Aspa)

Unit/facies: Lower Jurassic

Thinsection: Yes

Macroscopic description

- COLOR

The color distribution is Mix sharp. The colors are Pale yellowish brown (10YR 6/2), Grayish orange (10YR 7/4) and Very pale orange (10YR 8/2).

- FABRIC

The luster is Medium and the translucency is Opaque. The feel is Smooth to Semi-smooth and the grain is Fine. The structure is Uneven with a Gradual variation. The patterns are Shaded and Spots (1-49%). The spots are Splotches and Speckling with an Uneven distribution.

- INCLUSIONS AND FOSSIL CONTENT

-

- CORTEX

The cortex is from an Outcrop, very porous and white. It ranges from Medium to Thick and the transition is Gradual. When tested with dilute hydrochloric acid (HCL 10%), there was no reaction. The parent rock may be a dolomite.

- QUALITY

The fracture type is Conchoidal and the surface is Homogeneous. The knapping quality is Good.

- OBSERVATION

-

Outcrop description

- OUTCROP CHARACTERISTICS

Type of outcrop: Primary

Visibility: Good

Accessibility: Moderate

State of site: Medium

- CHERT NODULES/BEDS DESCRIPTION

Type of chert nodule: Nodule

Sample variability: Variable

Frequency: Sporadic

Nodule description: Irregular and filled with fractures. Around 5cm.

- SHORT DESCRIPTION

The nodules can be found embedded in the parent rock, along the slope of the cliff. The parent rock outcrops along the cliff, with moderate access. The nodules are sporadic and brittle, around 5cm. Smaller chunks can be found on the floor, although smaller and altered.

Petrography analysis form

❖ TEXTURAL COMPOSITION

Texture: Wackestone

Microstructure: Massive

❖ COMPOSITION

ORTHOCHEM	Type	%	Description
MiC quartz (gr)	SE	90	-
MG quartz (gr)	SE	2	Replacing mostly unpreserved fossils, but also found as crystals.
Chalcedony (fb)	SE	1	Replacing unpreserved fossils.
Dolomite	SE	7	Possibly replacing unpreserved fossils but mostly in cortex areas where dolomitization occurred.
Muscovite (mica)	AC	<1	-

ALLOCHEM	Freq	Description
Oxide grains	Very frequent	-
Oxide patina	Very frequent	-

BIOCLASTS	Freq	Description

Ghosts	Common	Some of the unidentifiable fossils have similar morphologies. They are concentrated in an area of the sample, are long and thin, and have a hollow inside with two thin walls of one quartz generation.

- OTHER TEXTURAL CHARACTERISTICS

Total porosity (%): <1

Porosity type: -

Other sedimentary structures: -

Observations

- Fossil ghosts are bigger and more varied than other samples.

Analysis information

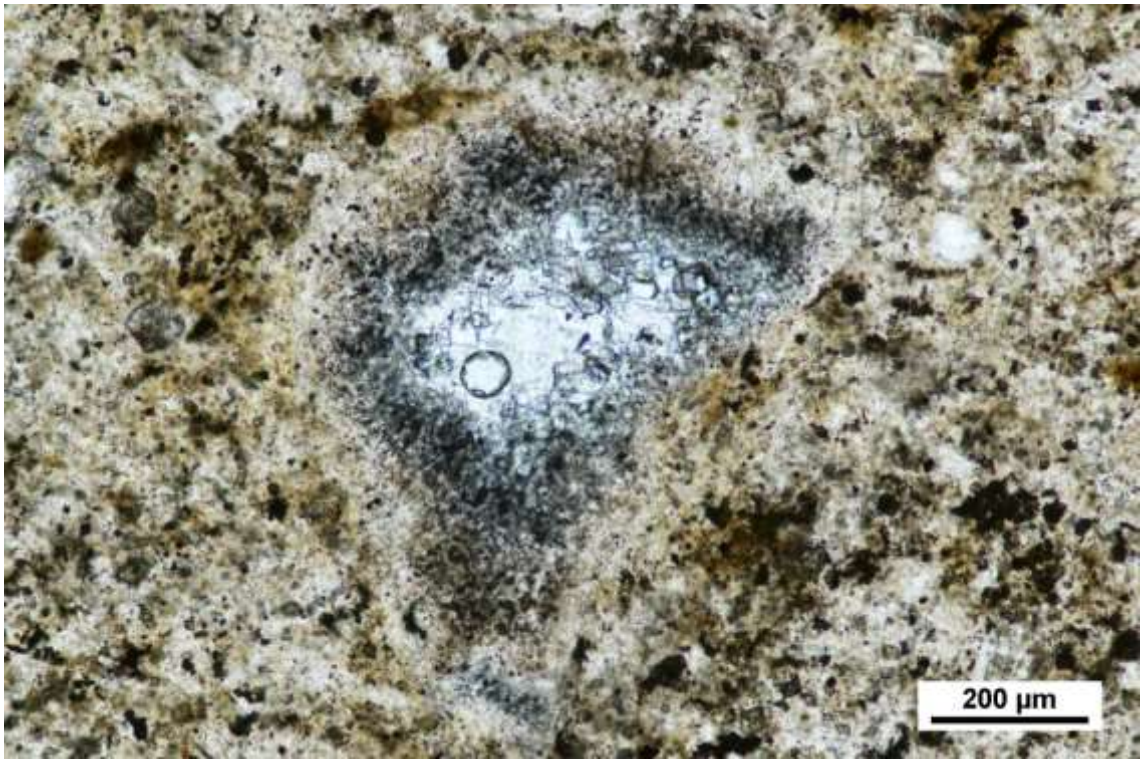
- ANALYST: JB
- DATE: 06.01.2022
- EQUIPMENT: Nikon LV100ND

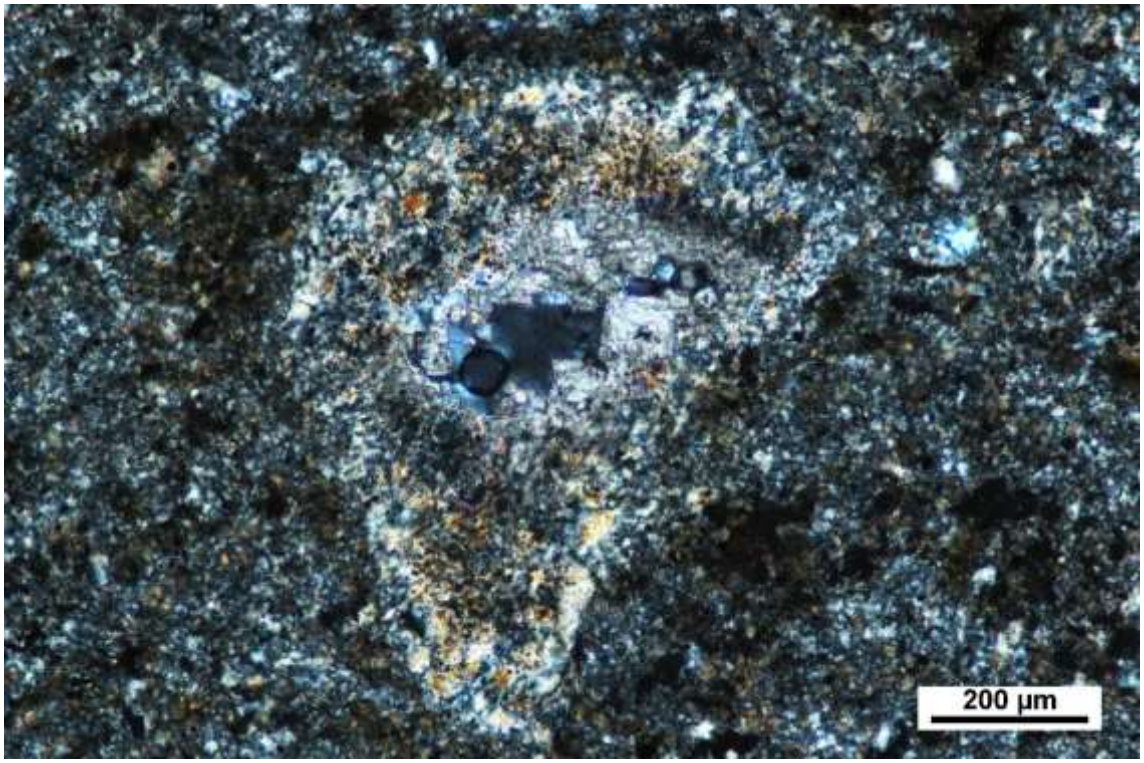
Photos

Photo ID	Aug.	Description
SP28_001	-	Detail of an unidentifiable fossil ghost replaced by chalcedony and macrocrystalline quartz. The ghost is also characterized by porosity and oxide patina/grain concentrations.
SP28_003	-	Detail of several unidentifiable fossils (possibly echinoid spines). These are filled with oxides or opaque minerals, and have an outer layer of chalcedony/quartz.

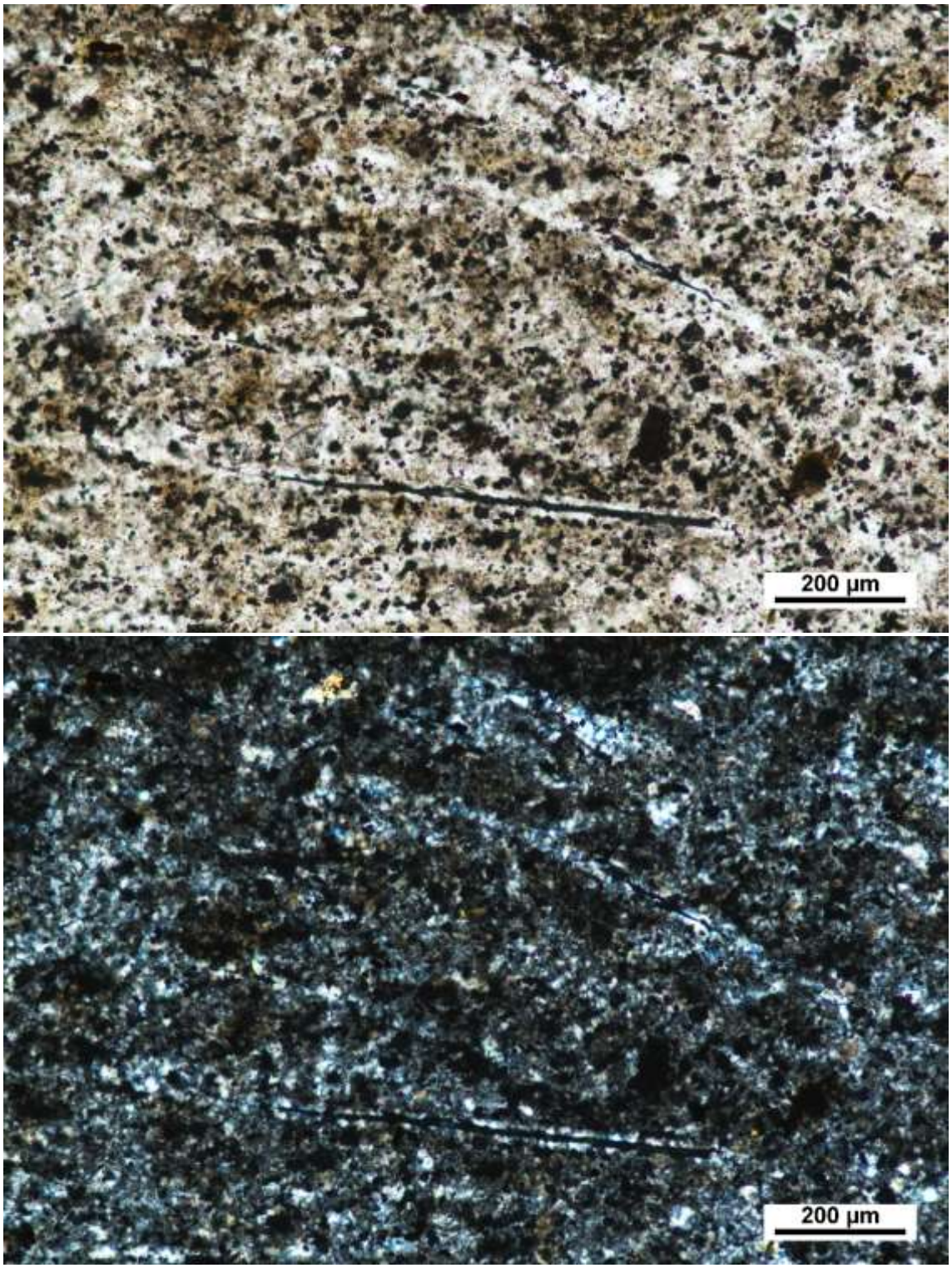
SP28_004	-	Detail of a grain of muscovite/mica within the thin section. There are several unidentifiable fossils and concentrations of oxide patina/grains.
SP28_005	-	General view of the chert, with the presence of several echinoid spine-like fossils and a muscovite/mica grain.
SP28_006	-	General view of a different area of the chert, characterized by concentrations of opaques.
SP28_007	-	Detail of a porosity within the chert and a muscovite/mica grain.

Petrography photos

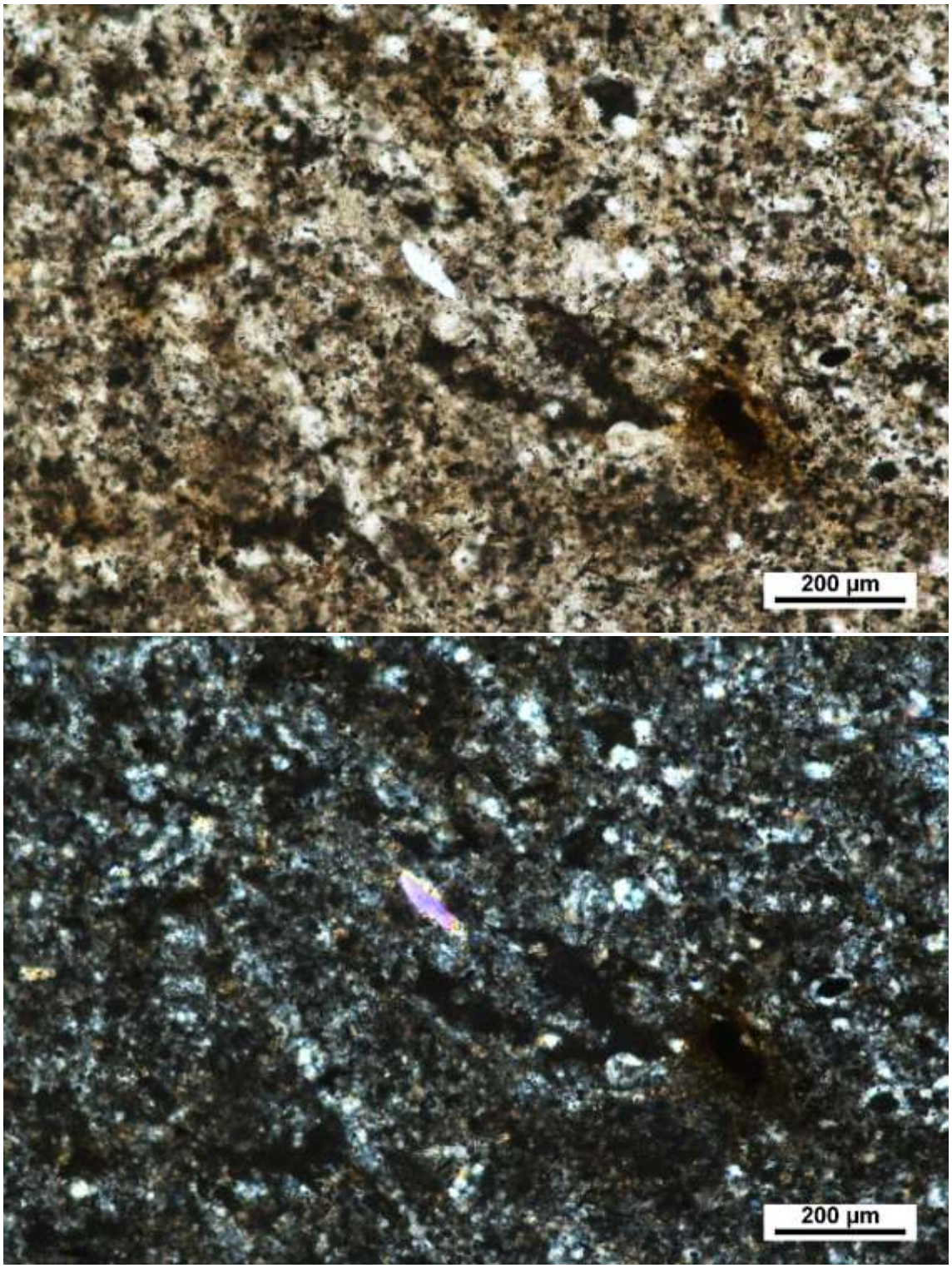




SP28_ASP_001 (PPL and XPL)



SP28_ASP_003 (PPL and XPL)



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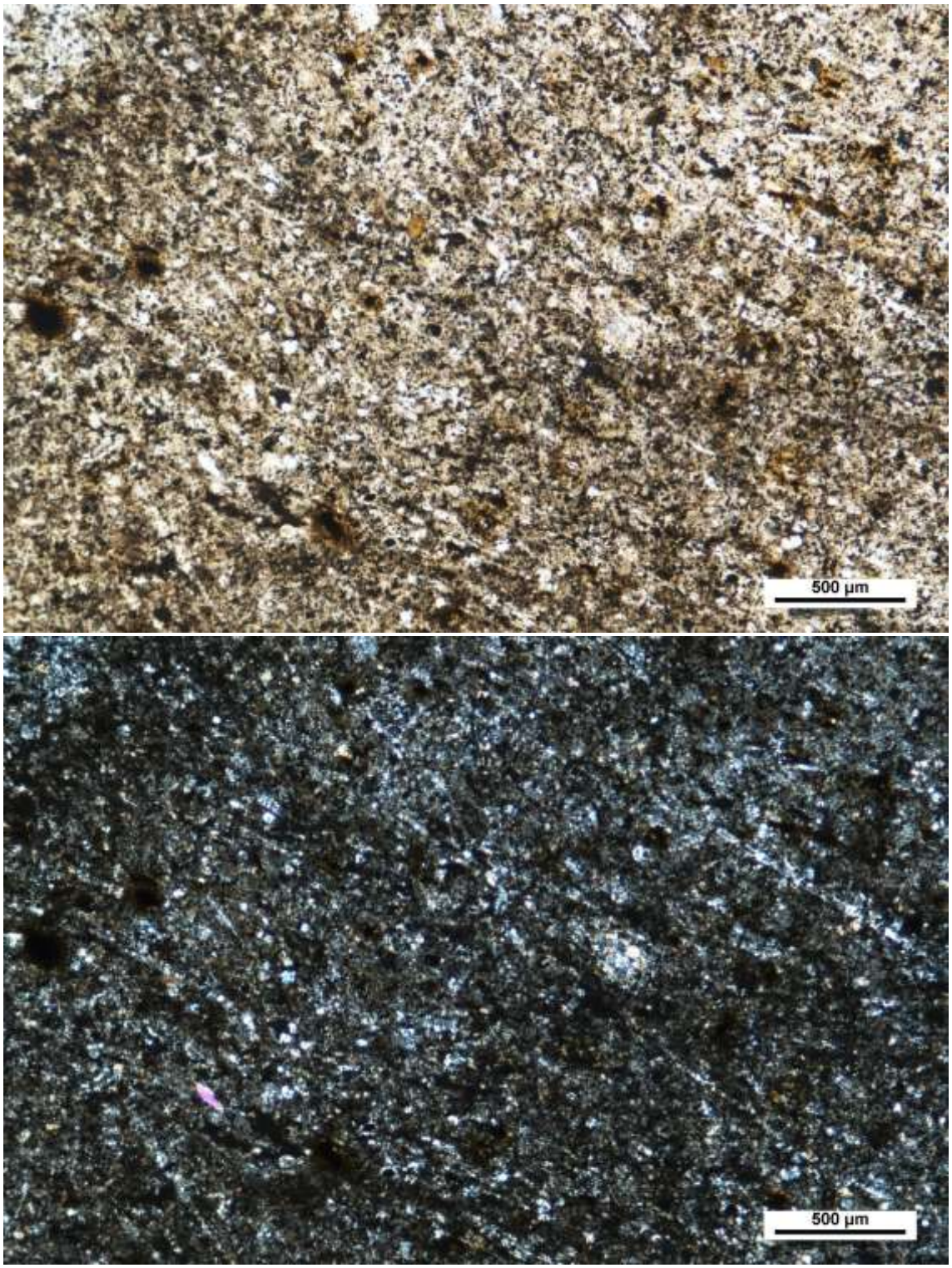
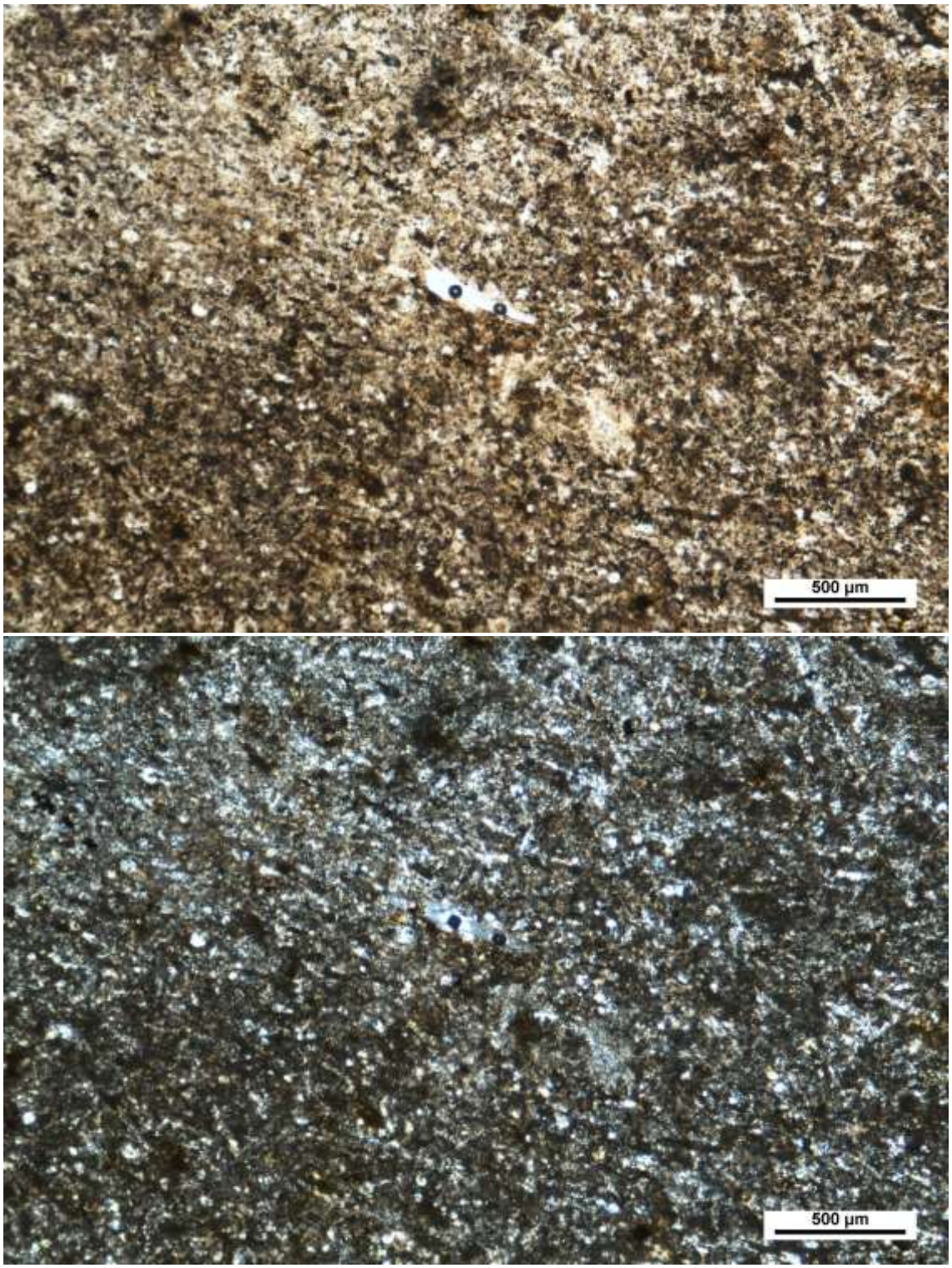
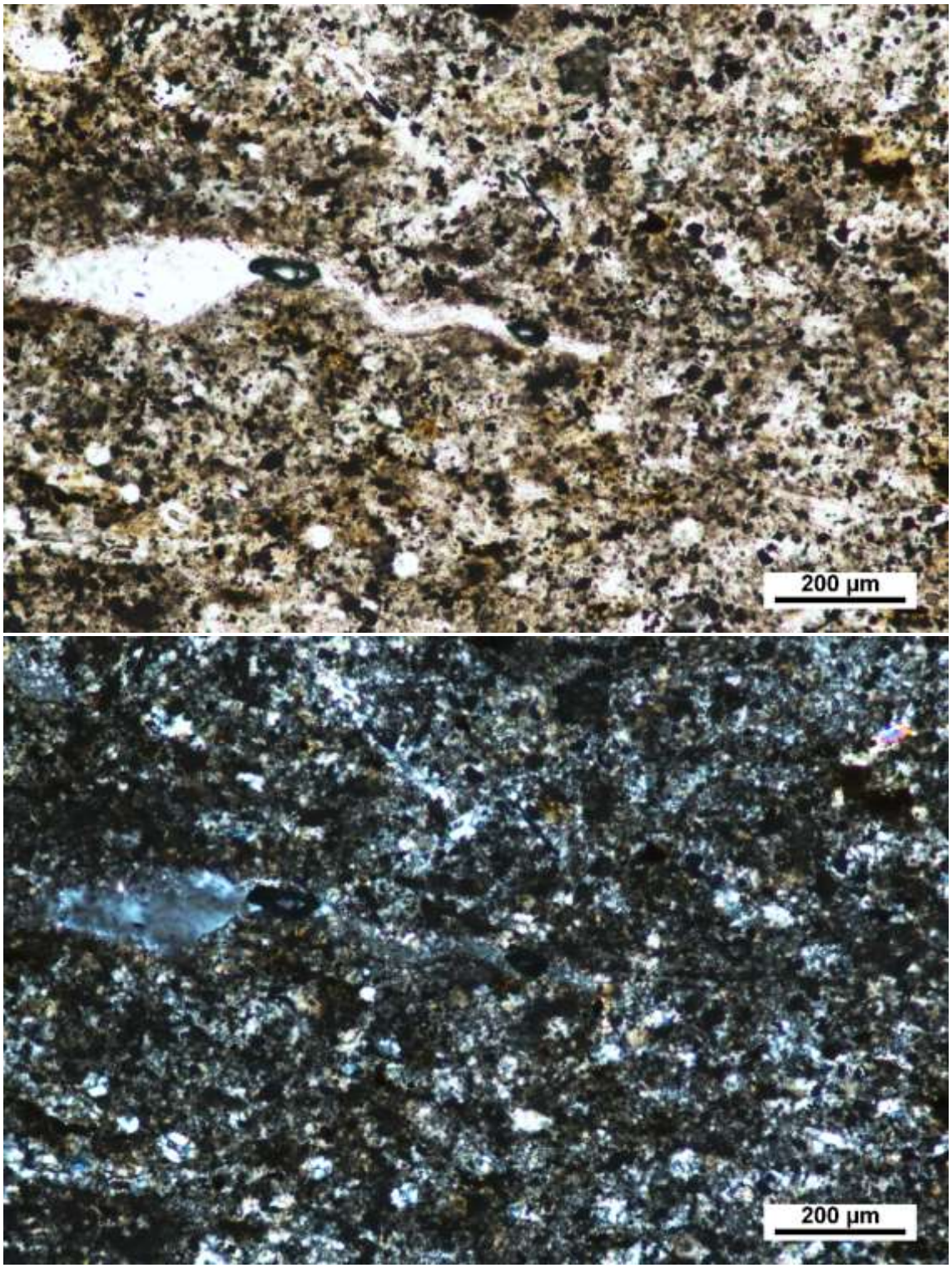


SP28_ASP_005 (PPL and XPL)



SP28_ASP_006 (PPL and XPL)



SP28_ASP_007 (PPL and XPL)

Macroscopic photos