Sample ID and provenance

Sample ID: SP54_Gui

Lithology: Chert

Collection: LusoLit

Outcrop: Guilhim

Unit/facies: N/A

Thinsection: Yes

Macroscopic description

- COLOR

Color distribution is Single. The color is reddish gray (10R 6/1).

- FABRIC

Luster is Shiny and the translucency is Opaque. The grain is Fine. Due to the alterations to the sample, the feel is not possible to obtain. The structure is even and the only patterns present (1-49%) are Speckling, with an Uneven distribution.

- INCLUSIONS AND FOSSIL CONTENT

Oxides are present as round inclusions and possible oxide patina.

Other inclusions include: 1) white, unidentifiable fossils of irregular shapes; 2) round, gray fossils; 3) reddish inclusions that may have some oxide content which is not visible in the stereomicroscope.

- CORTEX

When tested with dilute hydrochloric acid (HCL 10%), the reaction was nonexistent, hinting at the absence of carbonate minerals in the parent rock.

- QUALITY

The fracture is Conchoidal and the surface is homogeneous. Quality can not be accessed from the sample.

- OBSERVATION

The sample is highly lustrous but also filled with pits, which seem to indicate chemical alterations.

Outcrop description

- OUTCROP CHARACTERISTICS

  Type of outcrop: Isolated find

  Visibility: Reasonable

  Accessibility: Moderate

  State of site: -

- CHERT NODULES/BEDS DESCRIPTION

  Type of chert nodule: Nodule

  Sample variability: -

  Frequency: -

  Nodule description: -

- SHORT DESCRIPTION

  Isolated find in a slope. There was no evidence of other similar nodules or rocks with embedded nodules. The slope is inclined but without signs of chert above.

Petrography analysis form

❖ TEXTURAL COMPOSITION

Texture: Wackestone

Microstructure: Massive

❖ COMPOSITION

ORTHOCHEM	Type	%	Description
MiC quartz (gr)	SE	95	-
Chalcedony (fb)	SE	5	Replacing fossils.
MG quartz (gr)	AC	<1	Loose crystals or replacing fossils.

ALLOCHEM	Freq	Description
Oxide grains	Uncommon	-
Oxide patina	Rare	-

BIOCLASTS	Freq	Description
Unidentifiable fossils (ghosts)	Very frequent	Poorly preserved and replaced by chalcedony/quartz.
Sponge spicules (?)	Very frequent	Possibly of two types: Monaxon spicule pointed at one end; Triaxone spicule with three rays in one plane.

Calcispheres (?)	Very frequent	-
Echinoderm spine	Uncommon	Longitudinal section.

- OTHER TEXTURAL CHARACTERISTICS

Total porosity (%): 5

Porosity type: Vuggy

Other sedimentary structures: -

Observations

- -

Analysis information

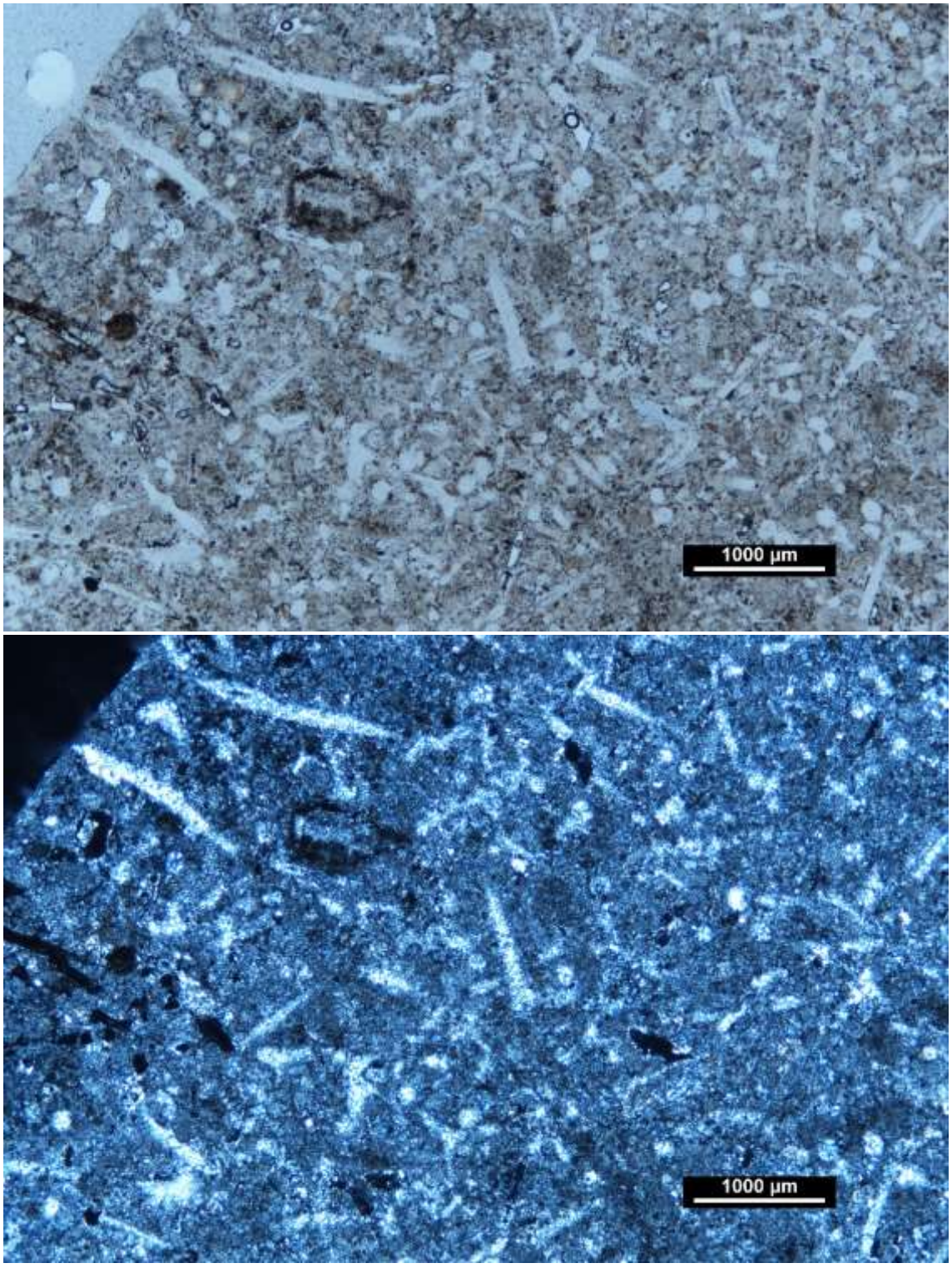
- ANALYST: JB
- DATE: 06.24.2022
- EQUIPMENT: Nikon DS-Ri2

Photos

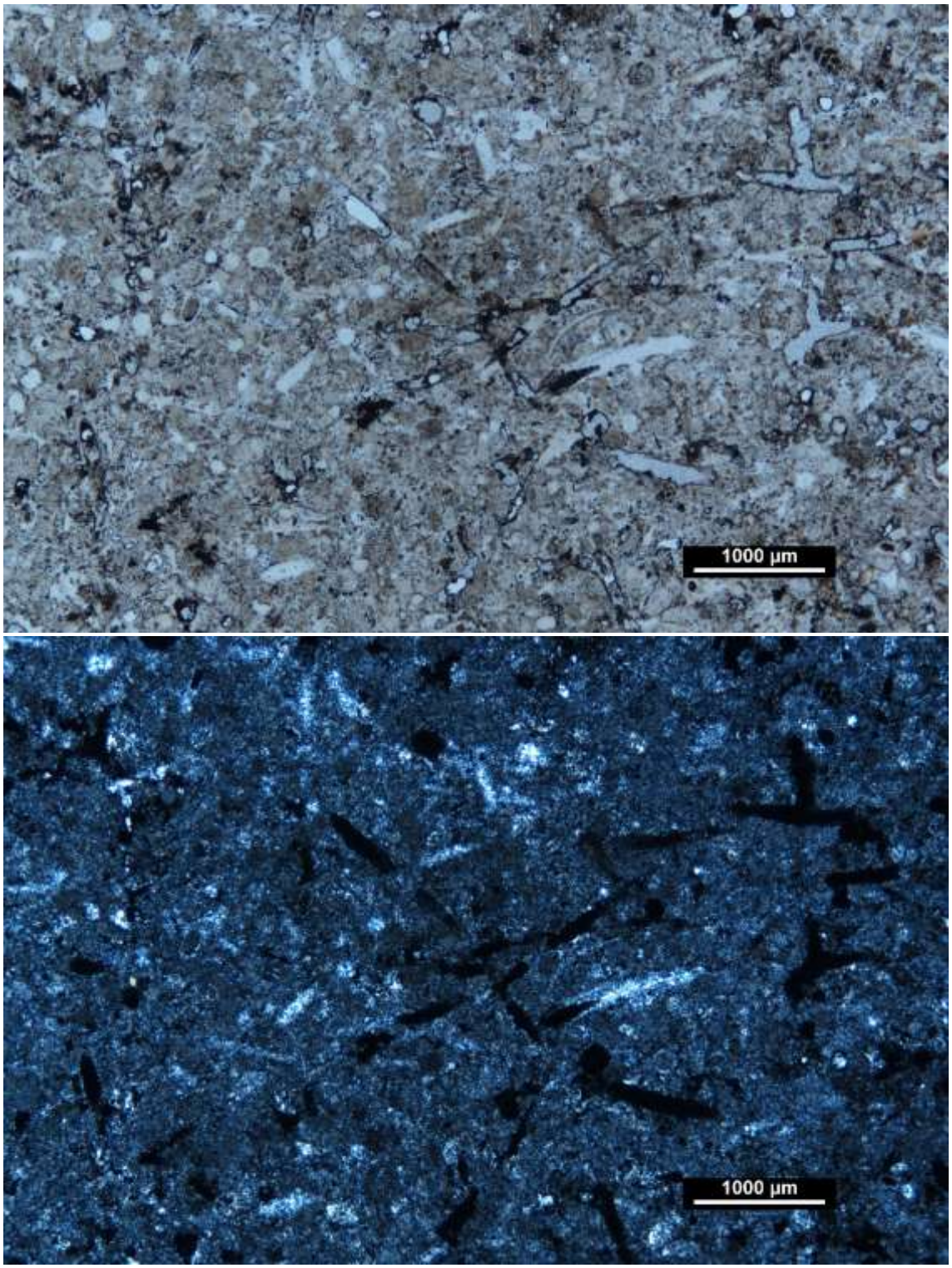
Photo ID	Aug.	Description
SP54_001	2x	General view of the thin section. Several fossil ghosts can be seen. Despite the poor preservation, it may be possible to identify a few fossils based on the size and morphology: 1) calcispheres or recrystallized radiolarians; 2) monaxon spicules pointed at one end.
SP54_002	2x	General view of the thin section, with abundance of fossil ghosts and possible calcispheres.

SP54_003	4x	View of porosity, unidentifiable fossils and oxide concentrations.
SP54_004	4x	View of unidentifiable fossils (ghosts), replaced by chalcedony and macrocrystalline quartz. A possible Echinoderm spine (longitudinal section) is present (black arrow). There are also visible concentrations of oxide patina.
SP54_005	4x	General view of the thin section, with unidentifiable fossils, oxides and porosity.

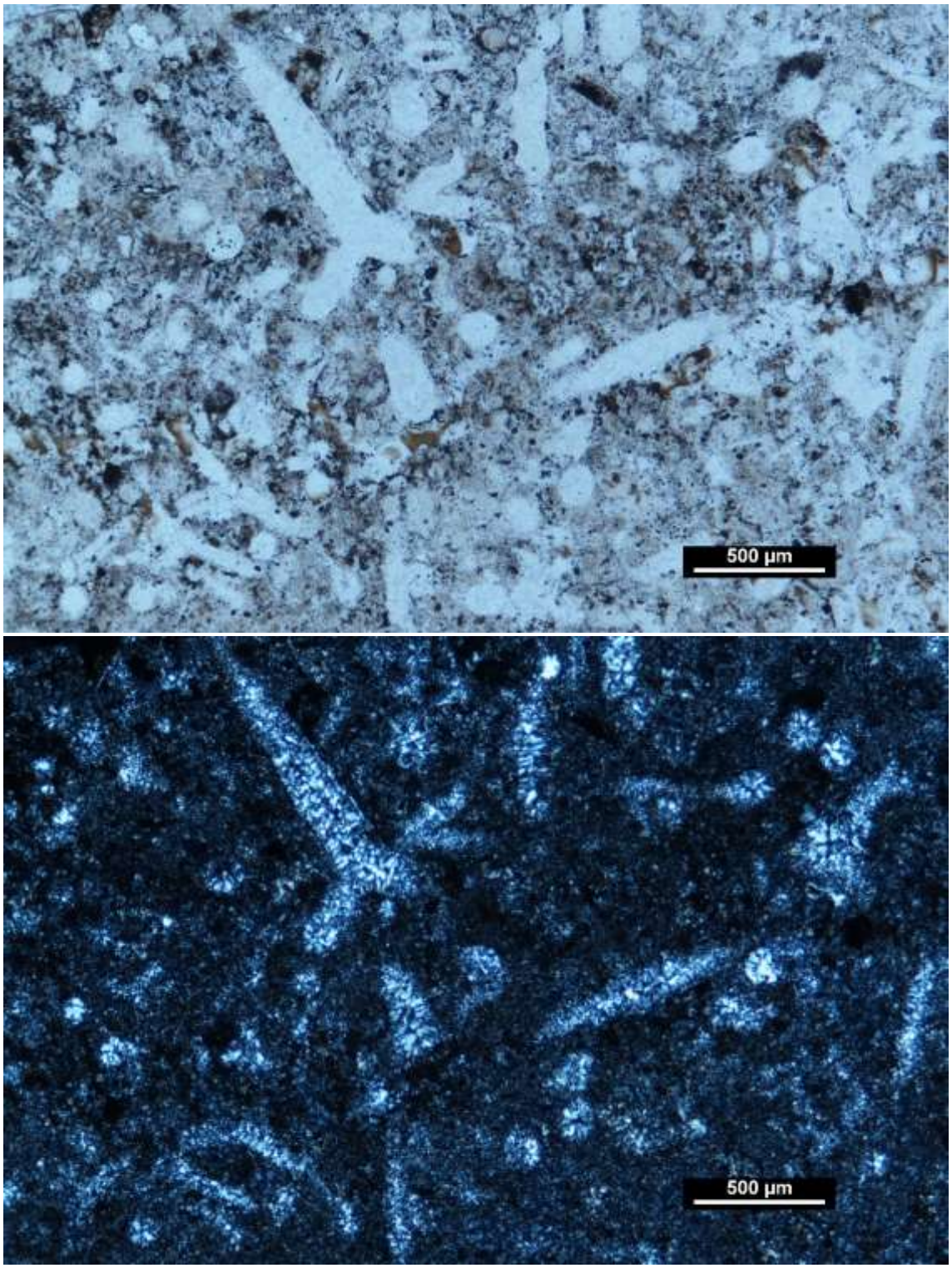
Petrography photos



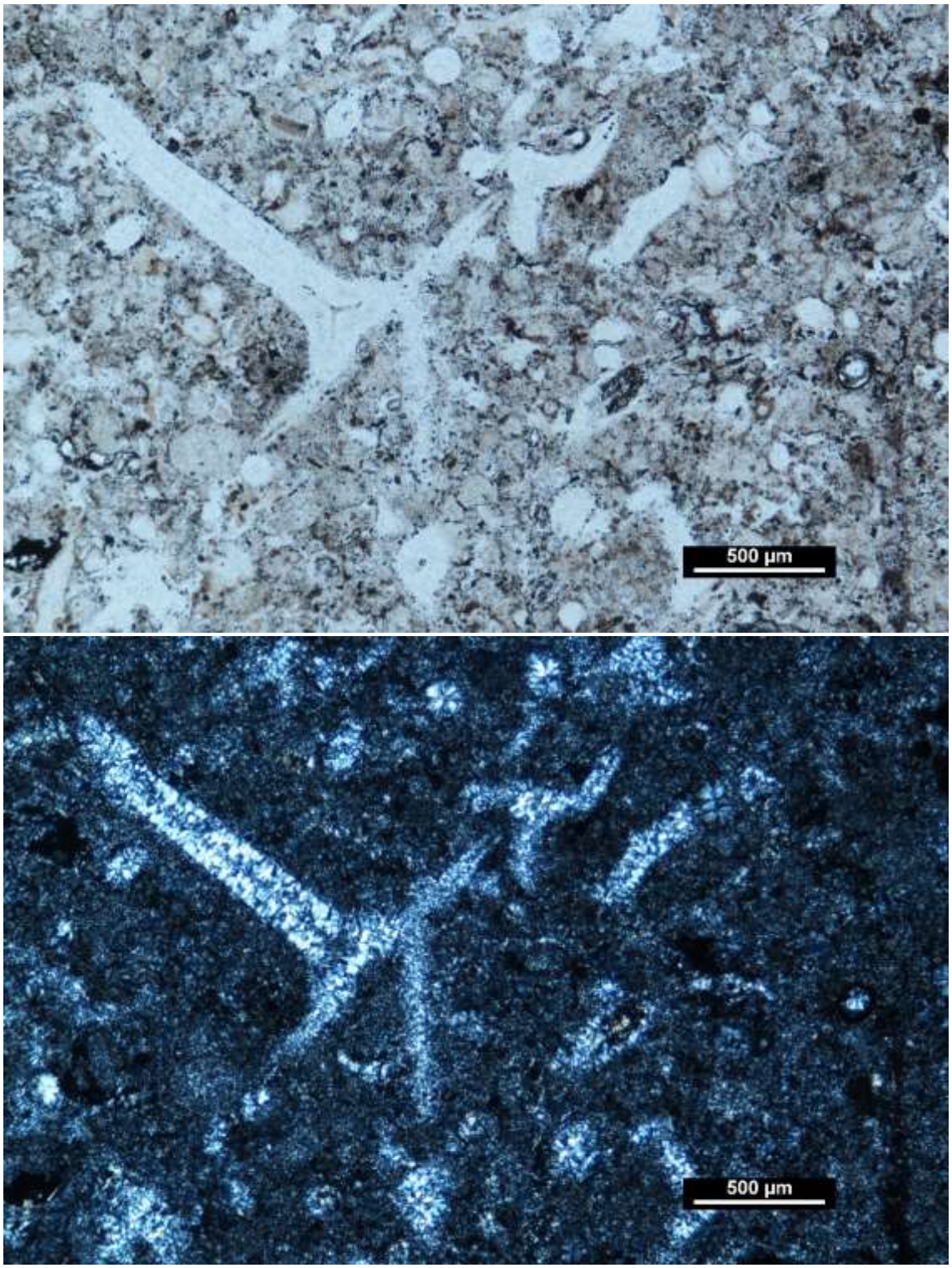
SP54_Gui_001 (PPL and XPL)



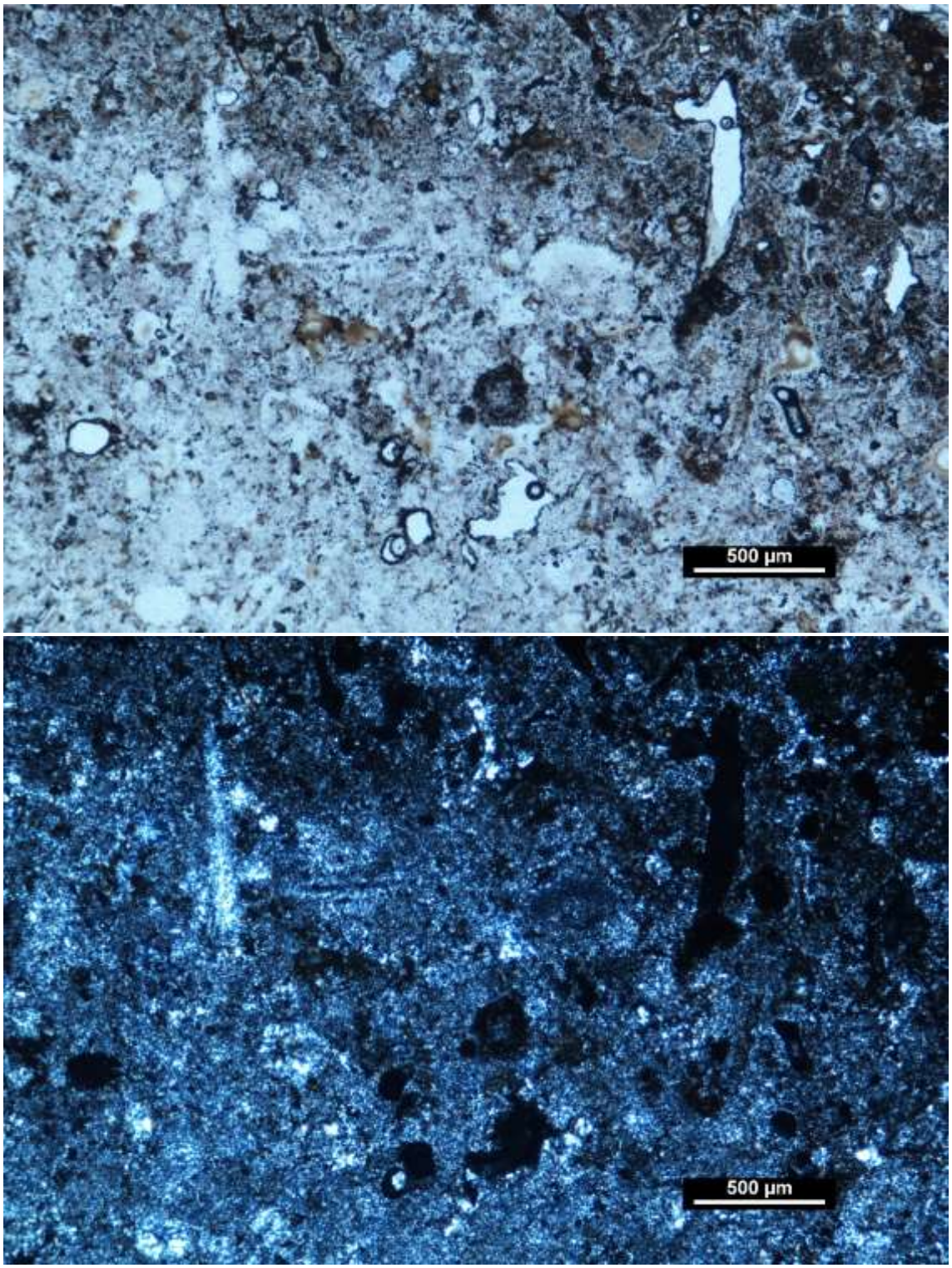
SP54_Gui_002 (PPL and XPL)



SP54_Gui_003 (PPL and XPL)

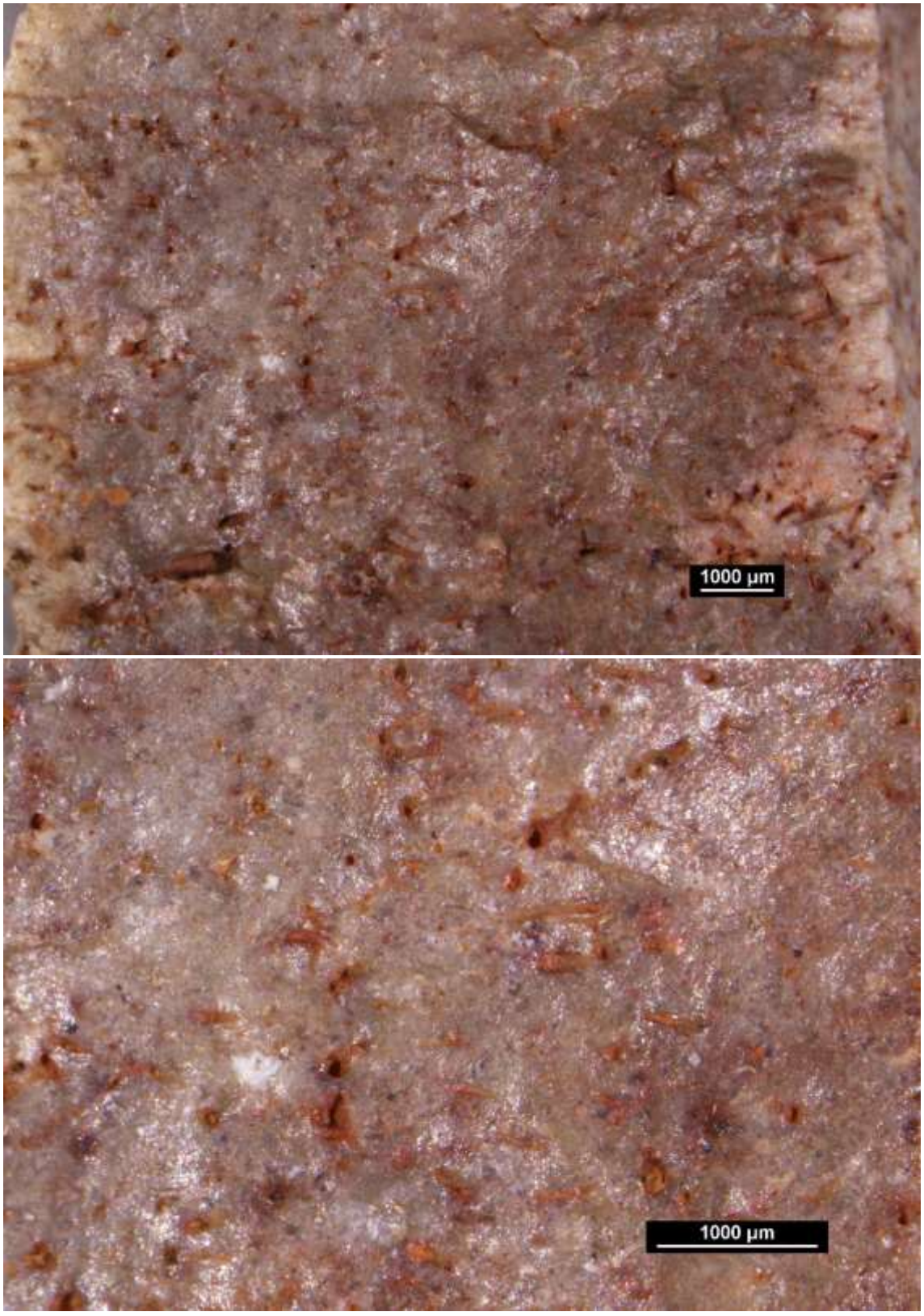


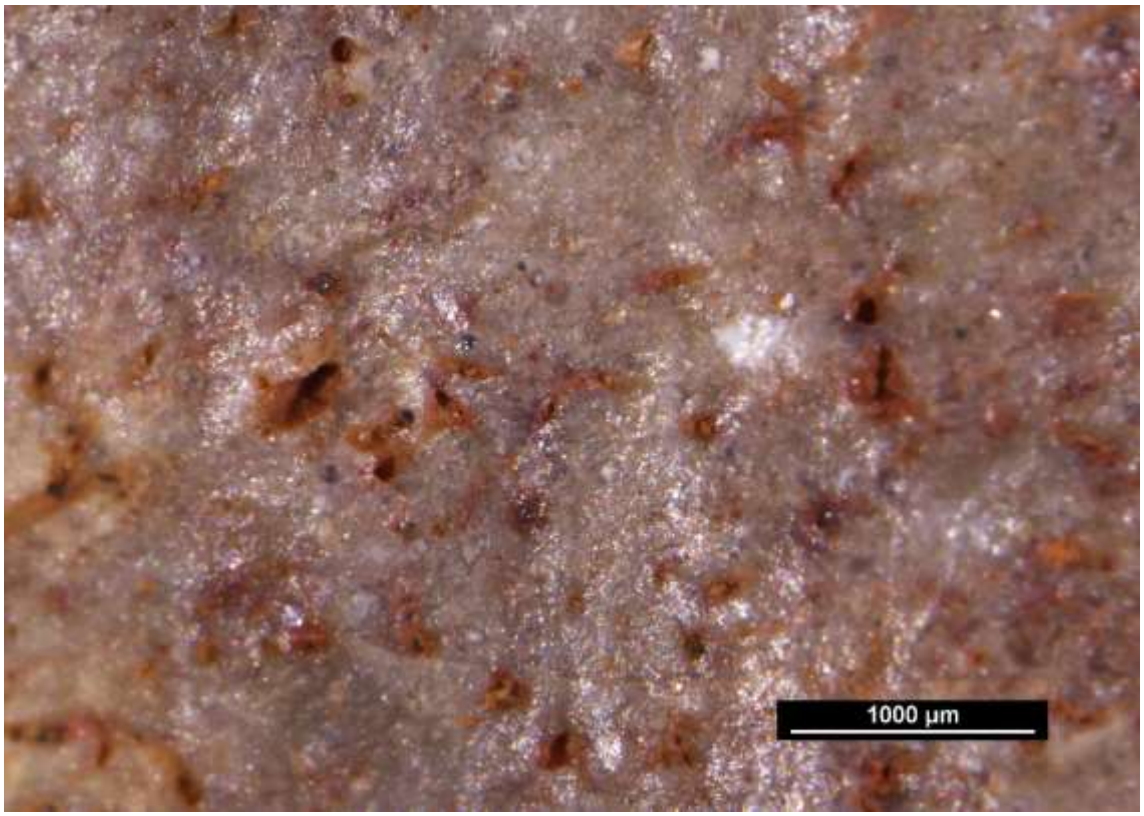
SP54_Gui_004 (PPL and XPL)



SP54_Gui_005 (PPL and XPL)

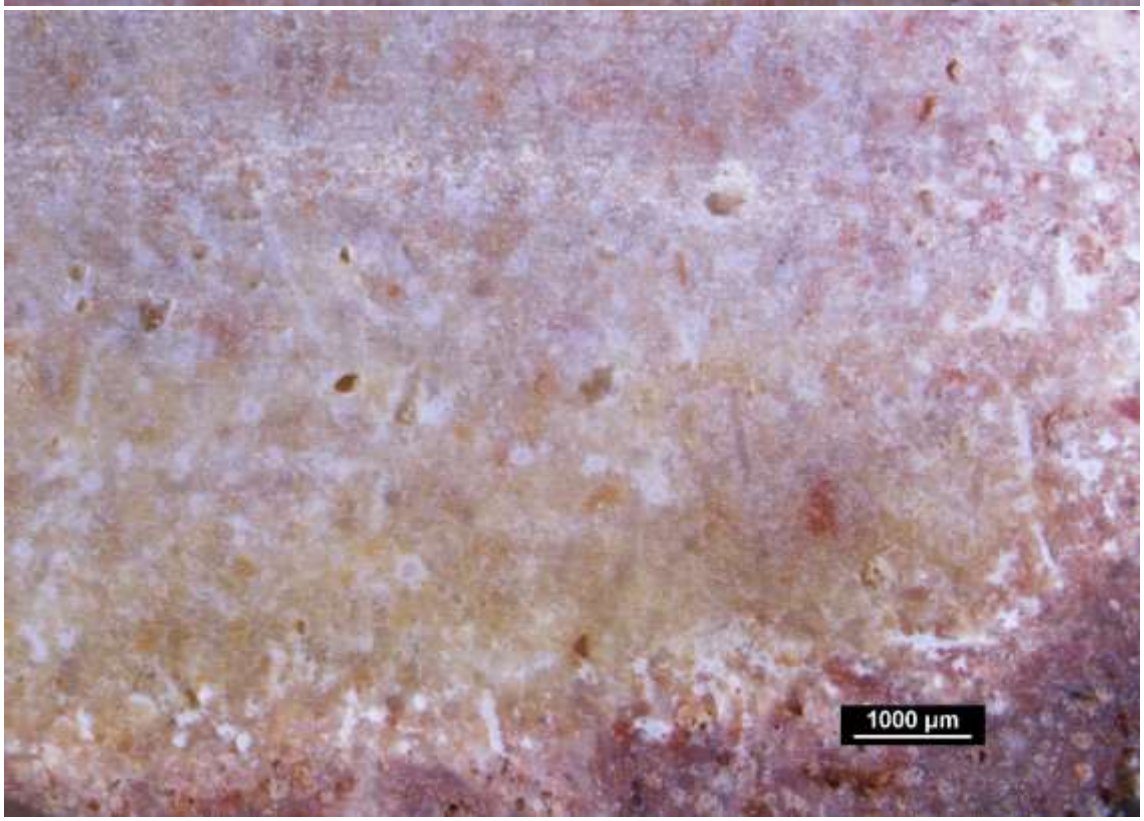
Macroscopic photos




1000 µm


5000 µm


1000 µm


1000 µm