## Sample ID and provenance

**Sample ID:** SP36_AND

**Lithology:** Chert

**Collection:** LusoLit

**Outcrop:** Andorinha

**Unit/facies**: Possible UJ

**Thinsection:** Yes

## Macroscopic description

- COLOR

Color distribution is Mix diffuse. The colors are Pale brown (10YR 6/3), Light brownish gray (10YR 6/2) and Pinkish gray (7.5YR 7/2).

- FABRIC

The luster is Medium and the translucency is Opaque. The feel is Semi-smooth and the grain is Fine. The structure is Uneven, with a Gradual variation. Patterns are Shaded and Spots (50-99%). The spots are Broad mottling, Spotted and Speckling, with an Uneven distribution.

- INCLUSIONS AND FOSSIL CONTENT

-

- CORTEX

Cortex is of Outcrop type, Thin and with a Sharp to Gradual transition. However, due to the extensive alterations to the samples, it is difficult to distinguish between the cortex of the piece and the post-depositional alterations which altered the surface of the sample. 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. Although there are no fractures, the samples show pits in the interior of the chert. The knapping quality is Good.

- OBSERVATION

All samples are altered. This alteration is probably due to post-depositional alterations, related to the secondary deposition state in which they were found. The alterations are a rounded, smooth and shiny outer patina, with a reddish/brown patina. Between the chert and the outer part, there is a white rim of altered chert which is probably related to post-depositional chemical alterations than the natural cortex of the sample.

# Outcrop description

- OUTCROP CHARACTERISTICS

**Type of outcrop:** Secondary

**Visibility**: Reasonable

**Accessibility:** Difficult

**State of site:** Bad

- CHERT NODULES/BEDS DESCRIPTION

**Type of chert nodule:** Nodule

**Sample variability:** Homogeneous

**Frequency:** Sporadic

**Nodule description:** Angular and small, the chert is altered on the outside surface.

- SHORT DESCRIPTION

The chert can be found at the top of the cliff, by the beach. No signs of the parent rock are present and the chert is present as small, angular chunks and highly patinated.

# Petrography analysis form

## ❖ TEXTURAL COMPOSITION

**Texture:** Packstone

**Microstructure:** Massive

## ❖ COMPOSITION

| ORTHOCHEM | Type | % | Description |
|---|---|---|---|
| MiC quartz (gr) | SE | 98 | - |
| Dolomite | SE | 1 | - |
| Chalcedony (fb) | SE | 1 | - |

| ALLOCHEM | Freq | Description |
|---|---|---|
| Oxides | Common | - |
| Oncolith | Rare | - |

| BIOCLASTS | Freq | Description |
|---|---|---|
| Unidentifiable fossils (ghosts) | Common | - |
| Sponge spicules | Common | - |
| Radiolarians | Common | - |

| | | |
|---|---|---|
| Spheres | Common | - |

- OTHER TEXTURAL CHARACTERISTICS

**Total porosity (%):** 1

**Porosity type:** Vuggy, Moldic

**Other sedimentary structures:** -

## Observations

- -

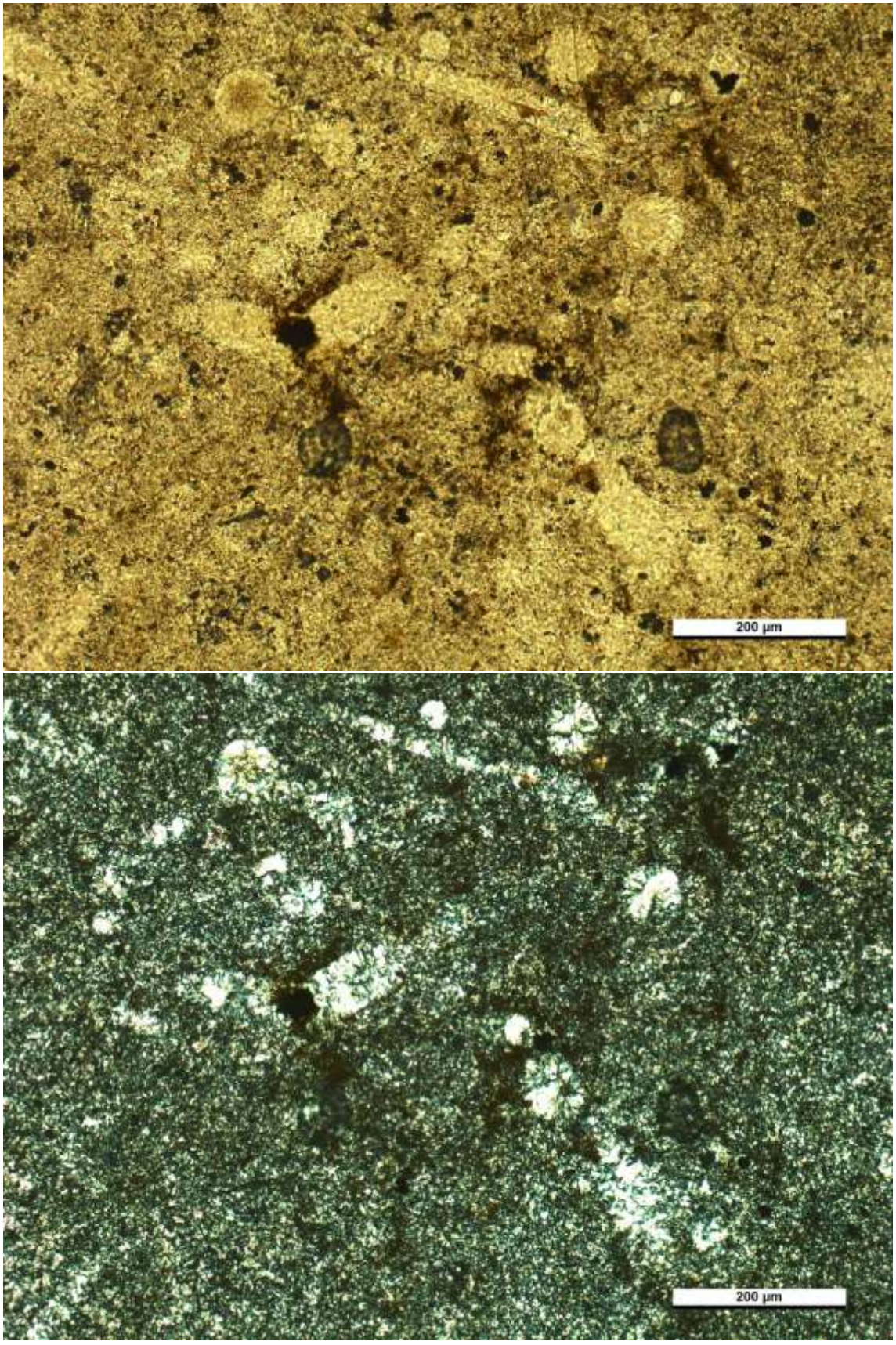
## Analysis information

- ANALYST: JB
- DATE: 02.23.2022
- EQUIPMENT: Leica DM2500 P

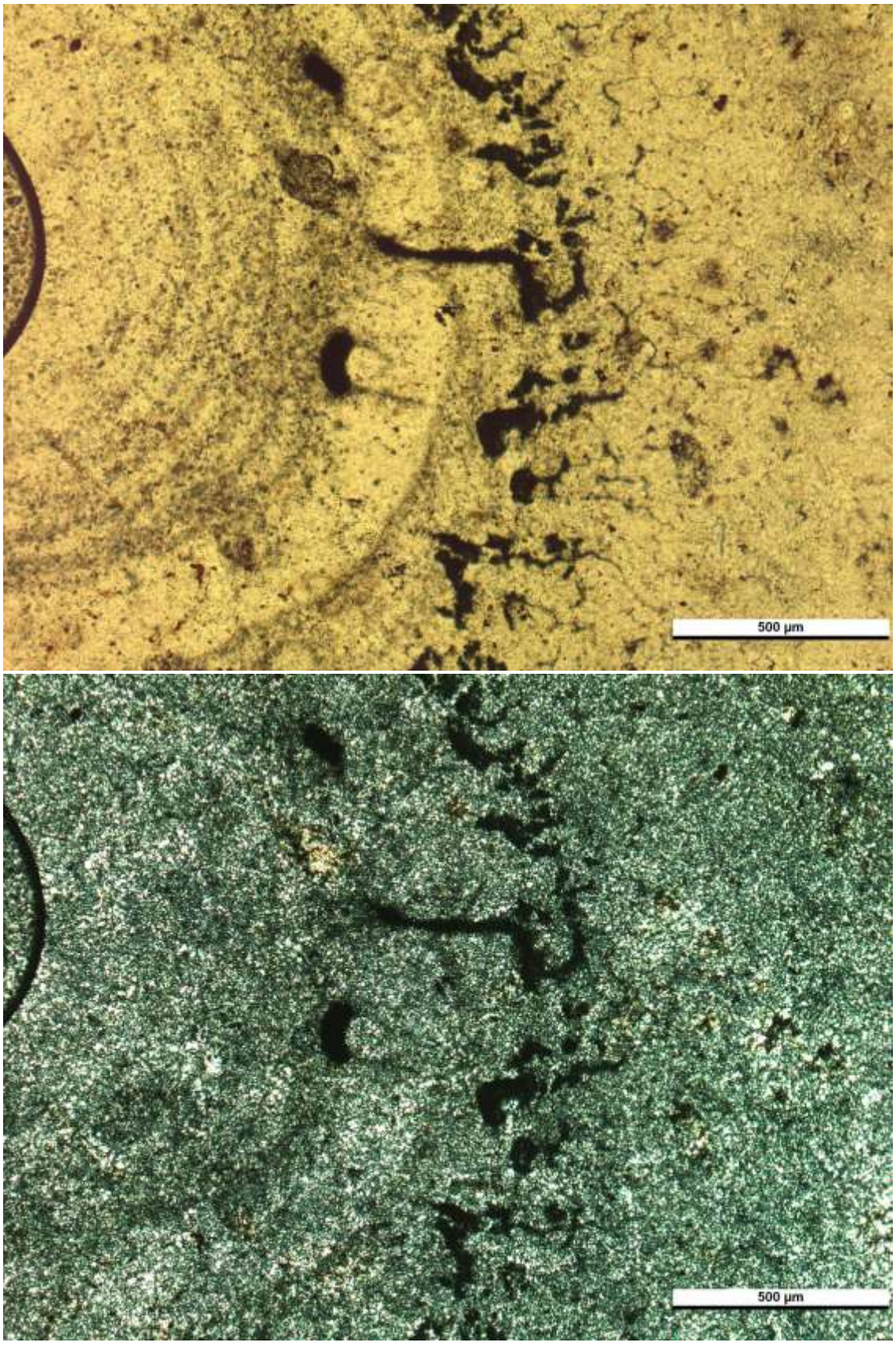
## Photos

| Photo ID | Aug. | Description |
|---|---|---|
| SP39_001 | 10x | General view of ghosts, iron oxides and porosity. |
| SP39_002 | 5x | Oncolith replaced by siliceous material. |
| SP39_003 | 5x | Sponge spicules. |

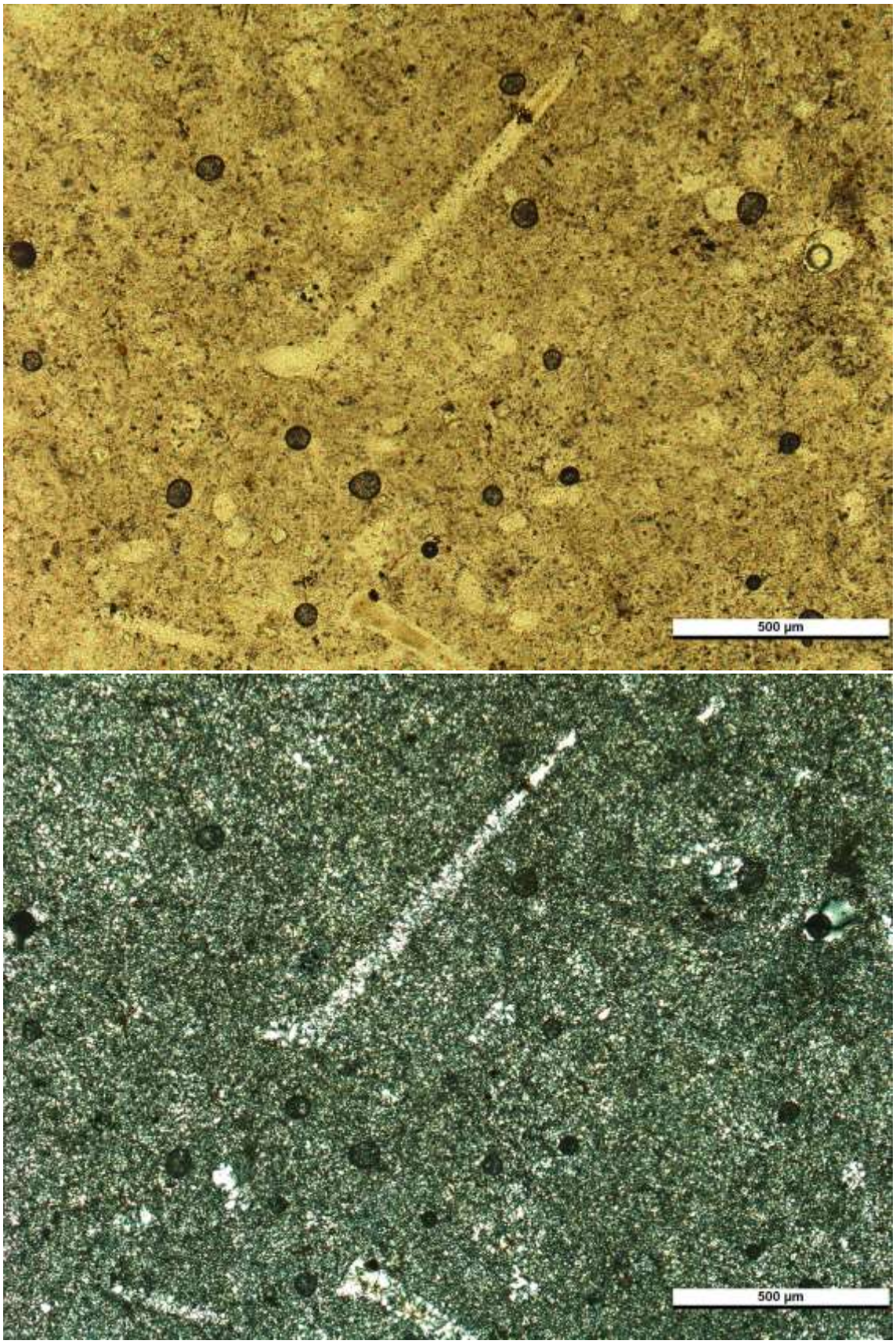
Petrography photos




SP39_AND_001 (PPL and XPL)

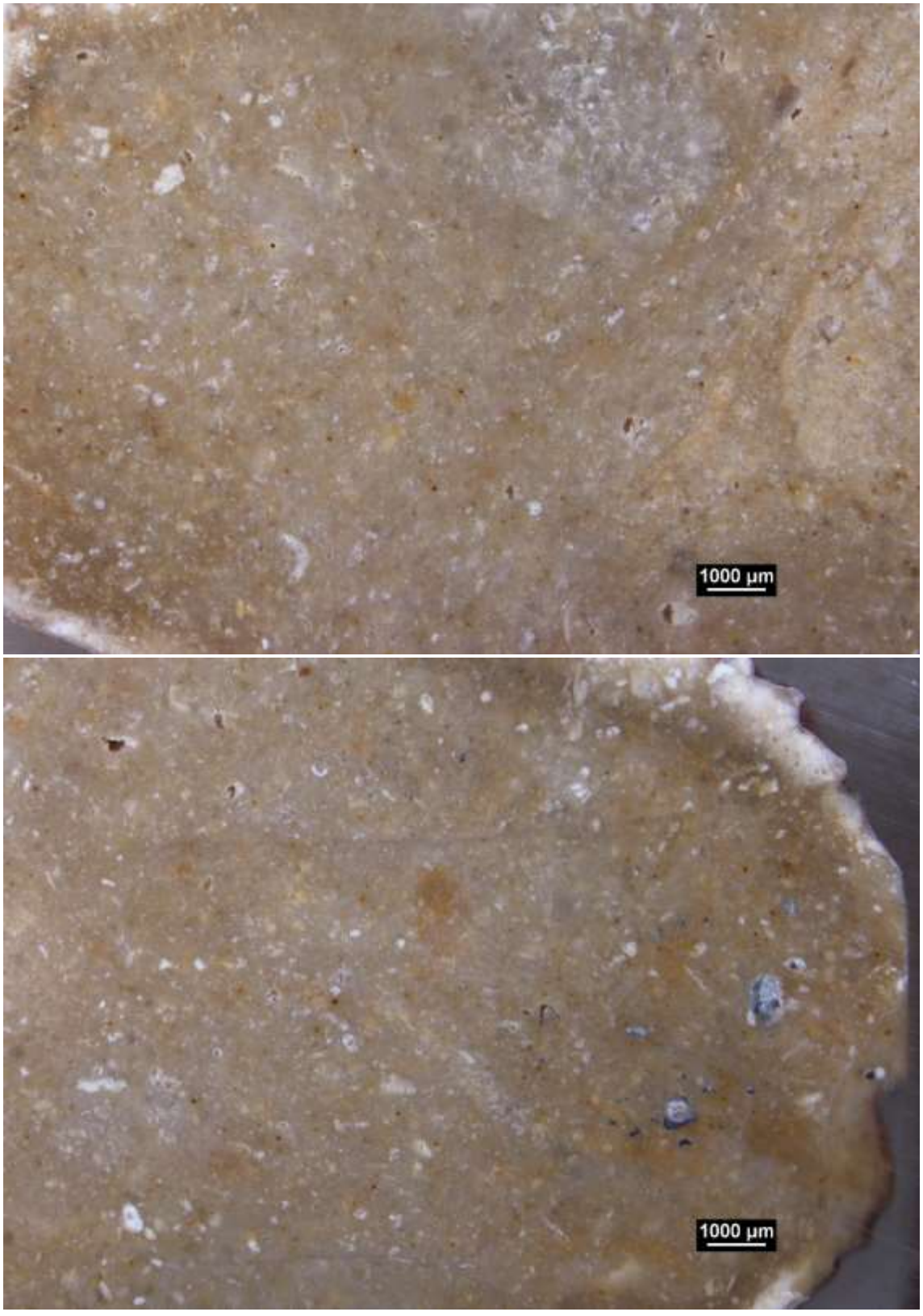


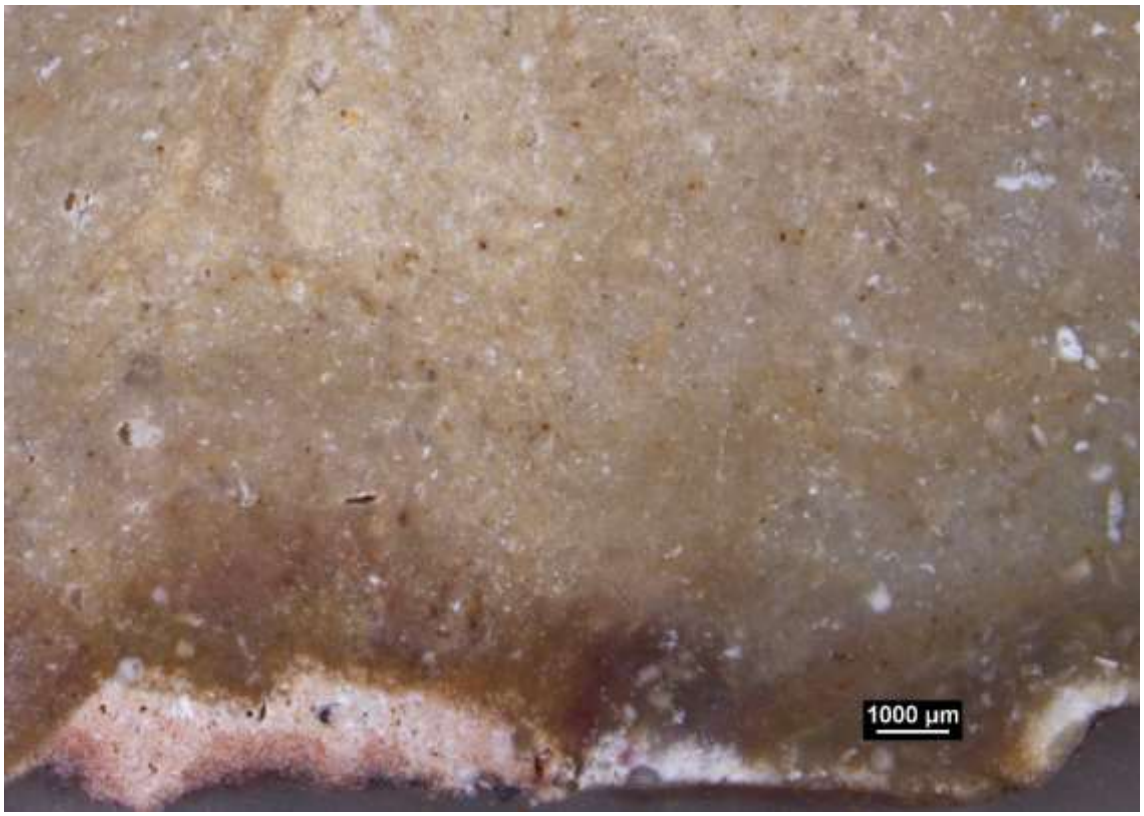

SP39_AND_002 (PPL and XPL)

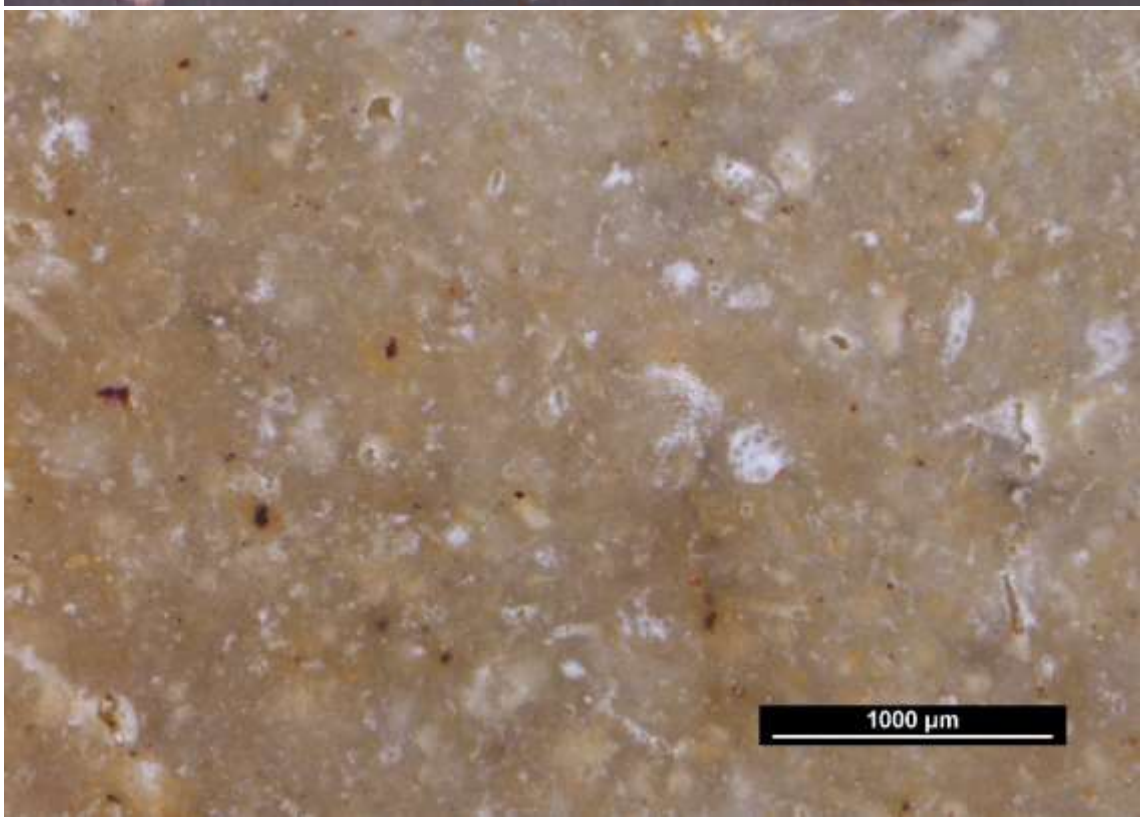


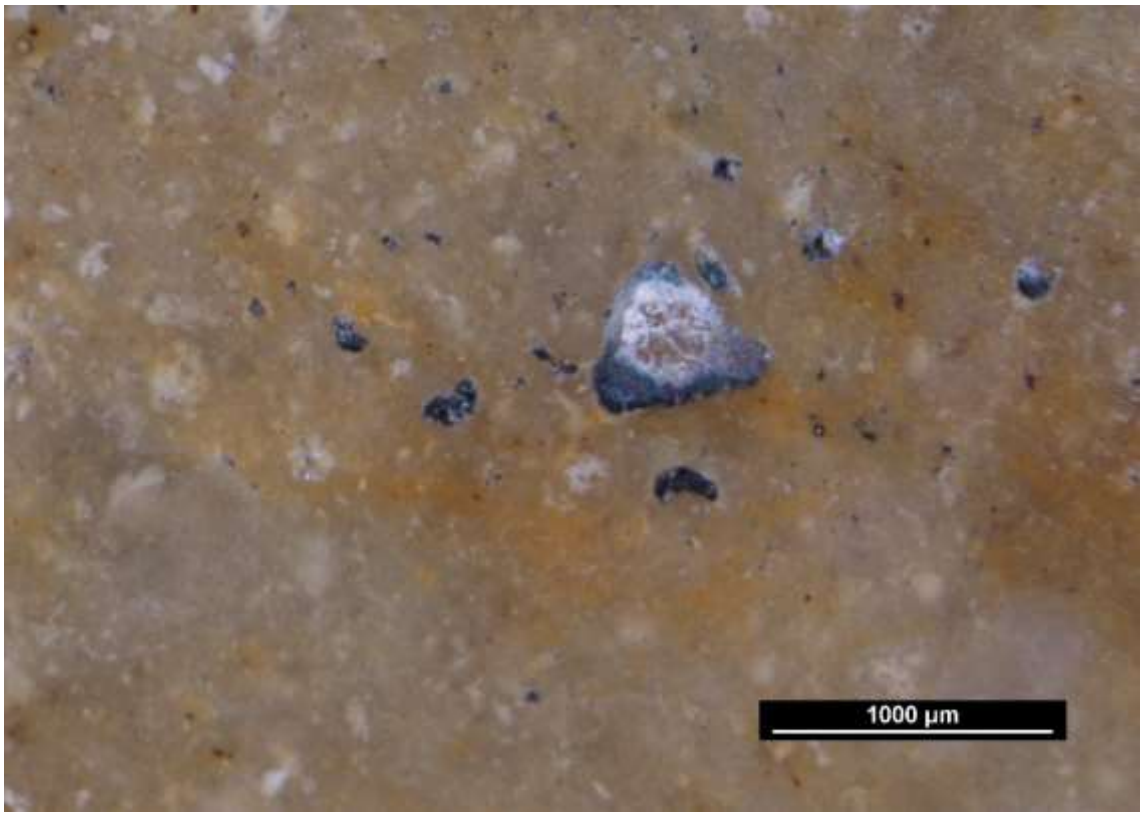

SP39_AND_003 (PPL and XPL)

Macroscopic photos

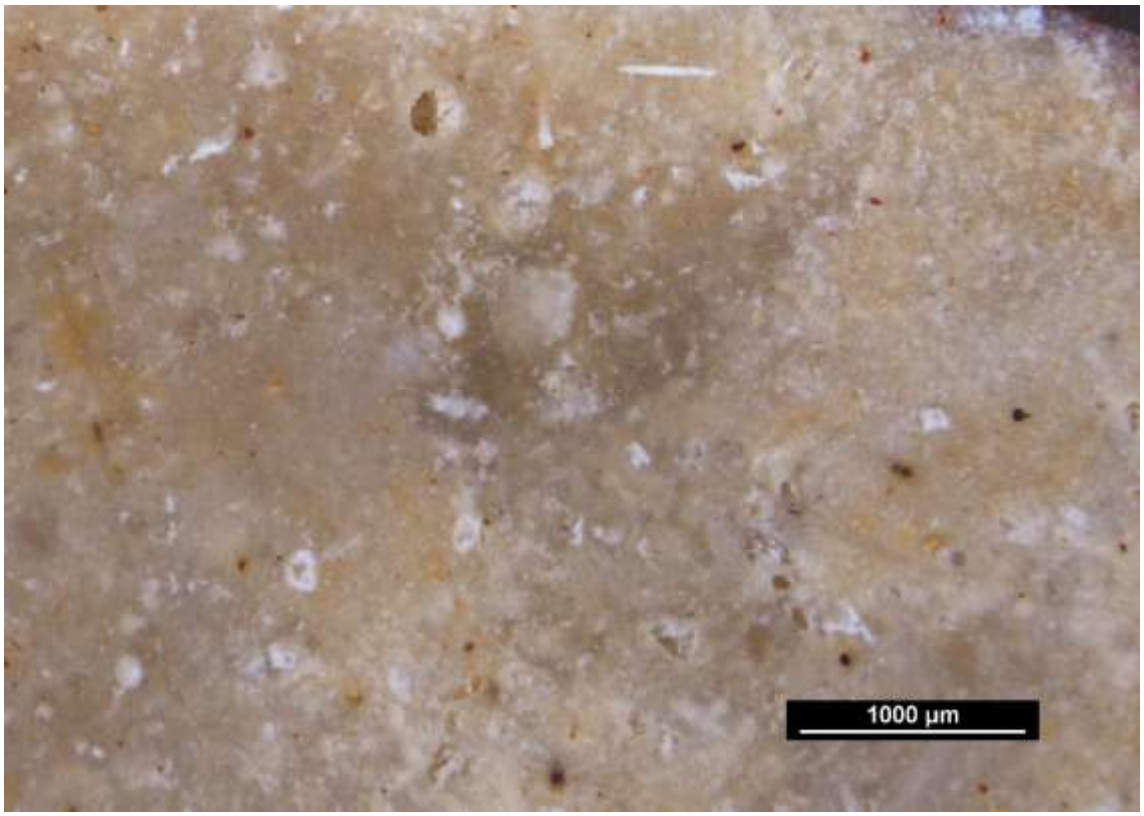



1000 µm


1000 µm


1000 µm


1000 µm


1000 µm