Sample ID and provenance

Sample ID: SP14_PBX

Lithology: Chert

Collection: LusoLit

Outcrop: Praia de Belixe

Unit/facies: Lower Jurassic

Thinsection: Yes

Macroscopic description

- COLOR

The color variation is Mix sharp and Mix diffuse. The colors are Weak red (10R 5/2), Light purple (not Munsell), Dark grayish brown (2.5Y 4/2) and Pale yellow (2.5Y 7/3).

- FABRIC

The luster is Medium to Dull and the translucency is Opaque to Sub-translucent (in the Dark grayish brown areas). The feel is Coarse to Semi-smooth and the grain is Fine. The structure is Uneven with a Gradual and Abrupt variation. The patterns are Shaded, Spots (50-99%) and Lines (1-49%). The spots are Broad mottling and Speckling, with an Even distribution. The lines are Horizontal and Concentric Banded and Laminated.

- INCLUSIONS AND FOSSIL CONTENT

-

- CORTEX

The cortex is from an Outcrop source, Thin to Thick. It can present itself rolled, probably due to physical alterations and the proximity to the shoreline. The cortex transition ranges from Sharp to Gradual. When tested with dilute hydrochloric acid (HCL 10%), the reaction was Weak to non-existent. The parent rock may be a dolomite.

- QUALITY

The fracture type is Conchoidal, although it may be Sub-conchoidal or Uneven in certain areas. The surface is Homogeneous. The knapping quality is Medium.

❖ OBSERVATION

The samples at Praia do Belixe area variable and heterogenous. SP14_PBLX shows two types of characteristics which create the illusion of two different types of chert: 1) purple and yellow opaque; 2) dark brown sub-translucent.

Outcrop description

- OUTCROP CHARACTERISTICS

Type of outcrop: Primary

Visibility: Good

Accessibility: Easy

State of site: Good

- CHERT NODULES/BEDS DESCRIPTION

Type of chert nodule: Nodule/Bedded

Sample variability: Variable

Frequency: Abundant

Nodule description: The cherts can be found as nodules, often oval but also irregular, as large as 15cm, but also as bedded cherts.

- SHORT DESCRIPTION

The cherts are embedded in the cliffs, appearing as nodules of varying shapes and sizes, but also bedded. Whenever bedded, the chert seems to be more brittle and fractured. The nodules are more abundant than the bedded cherts. Despite these differences, these cherts are similar.

Petrography analysis form

❖ TEXTURAL COMPOSITION

Texture: Packstone

Microstructure: Massive

❖ COMPOSITION

ORTHOCHEM	Type	%	Description
MiC quartz (gr)	SE	95	-
Dolomite	SE	3	Present filling a fracture.
Chalcedony (fb)	SE	2	-

ALLOCHEM	Freq	Description
Oxides	Common	-

BIOCLASTS	Freq	Description
Ghosts	Very frequent	Poorly preserved.
Sponge spicules	Very frequent	-
Radiolarians	-	-

❖ OTHER TEXTURAL CHARACTERISTICS

Total porosity (%): 1

Porosity type: -

Other sedimentary structures: -

Observations

- -

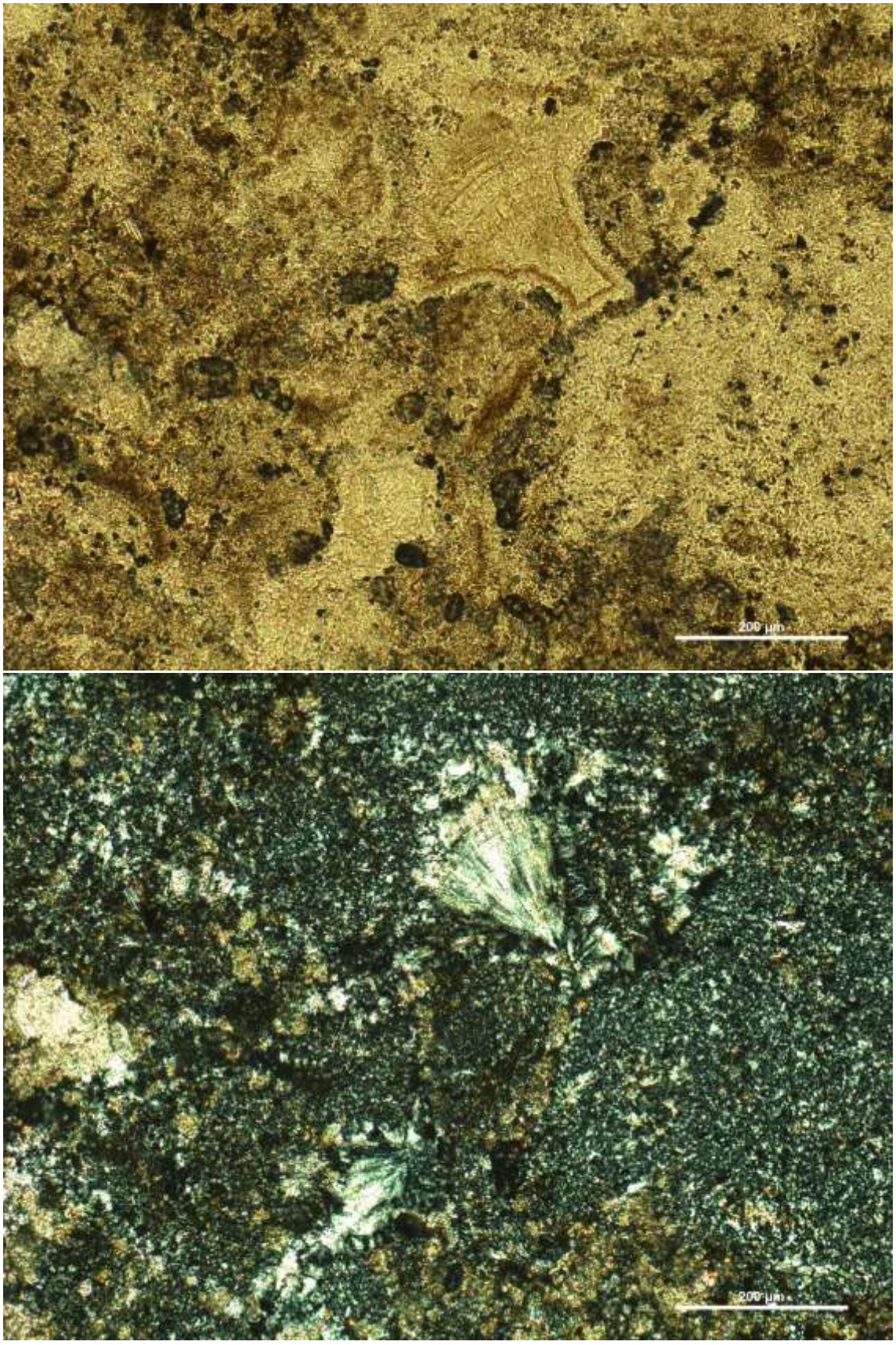
Analysis information

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

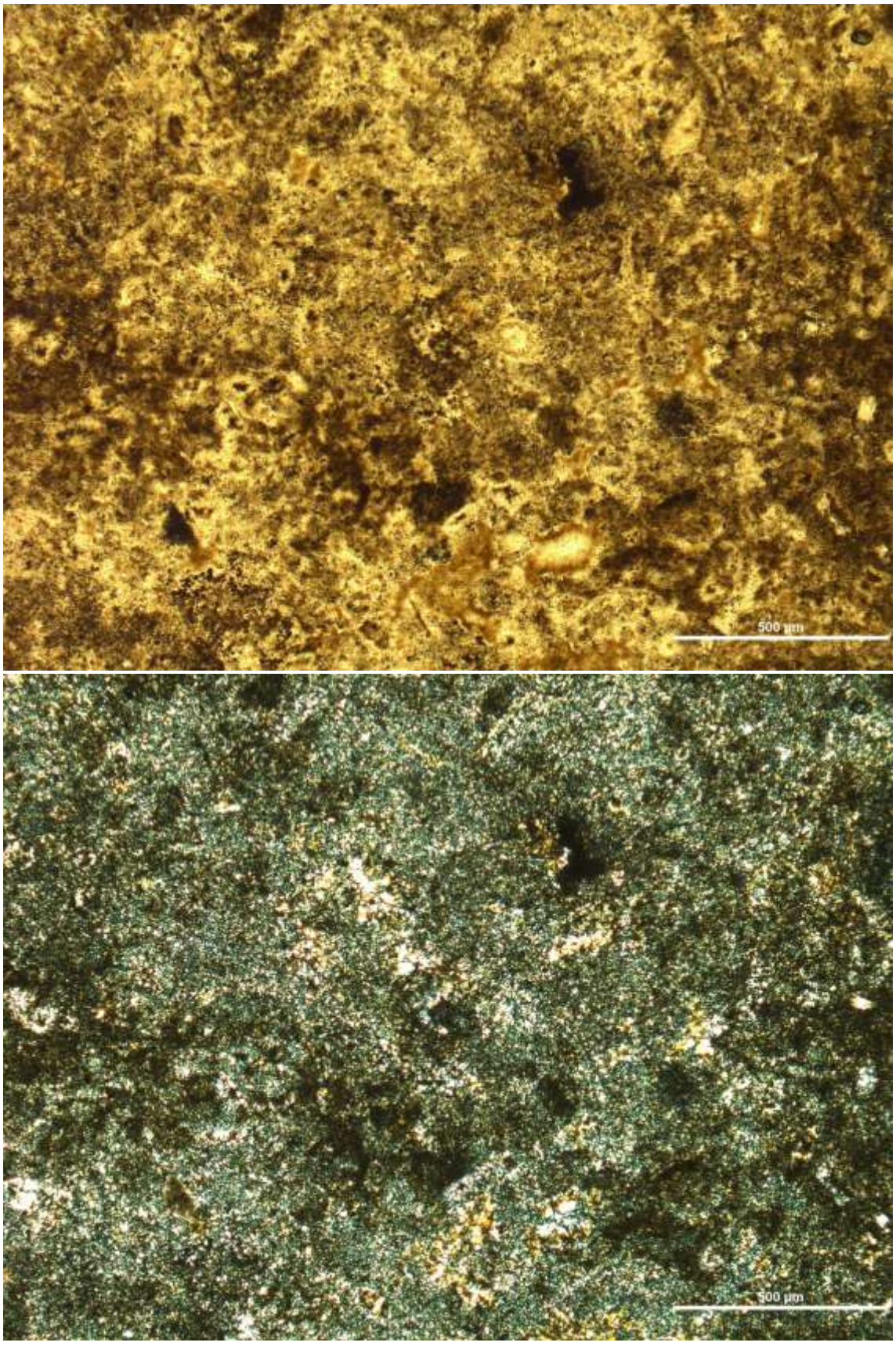
Photos

Photo ID	Aug.	Description
SP14_001	10x	Fossil filled with fibrous chalcedony.
SP14_002	5x	General view of the packstone texture.

Petrography photos

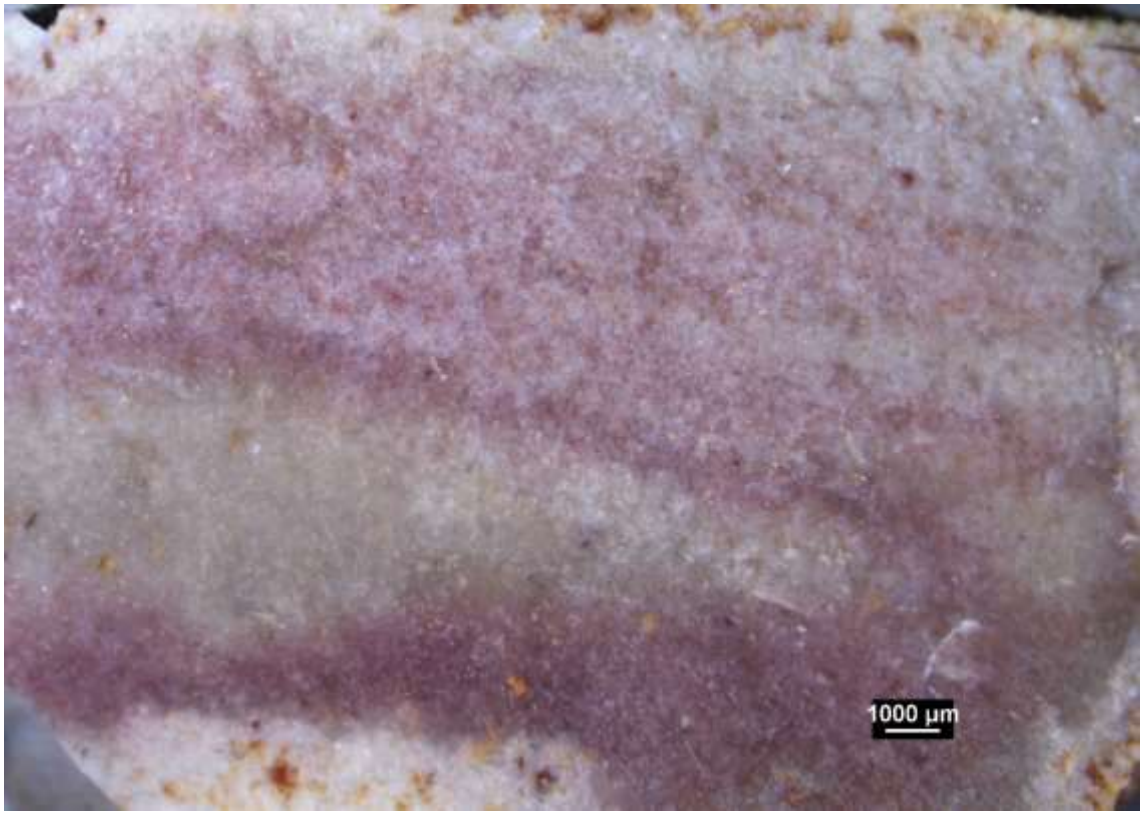


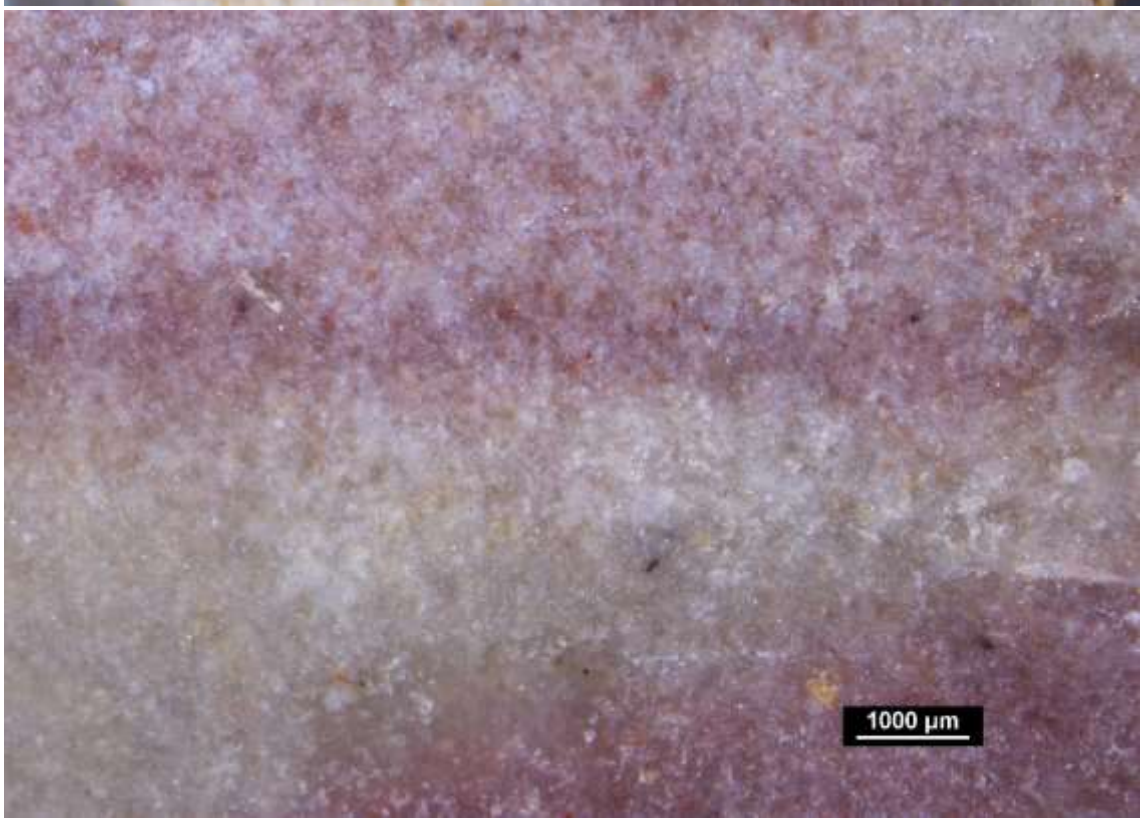
SP14_PBX_001 (PPL and XPL)

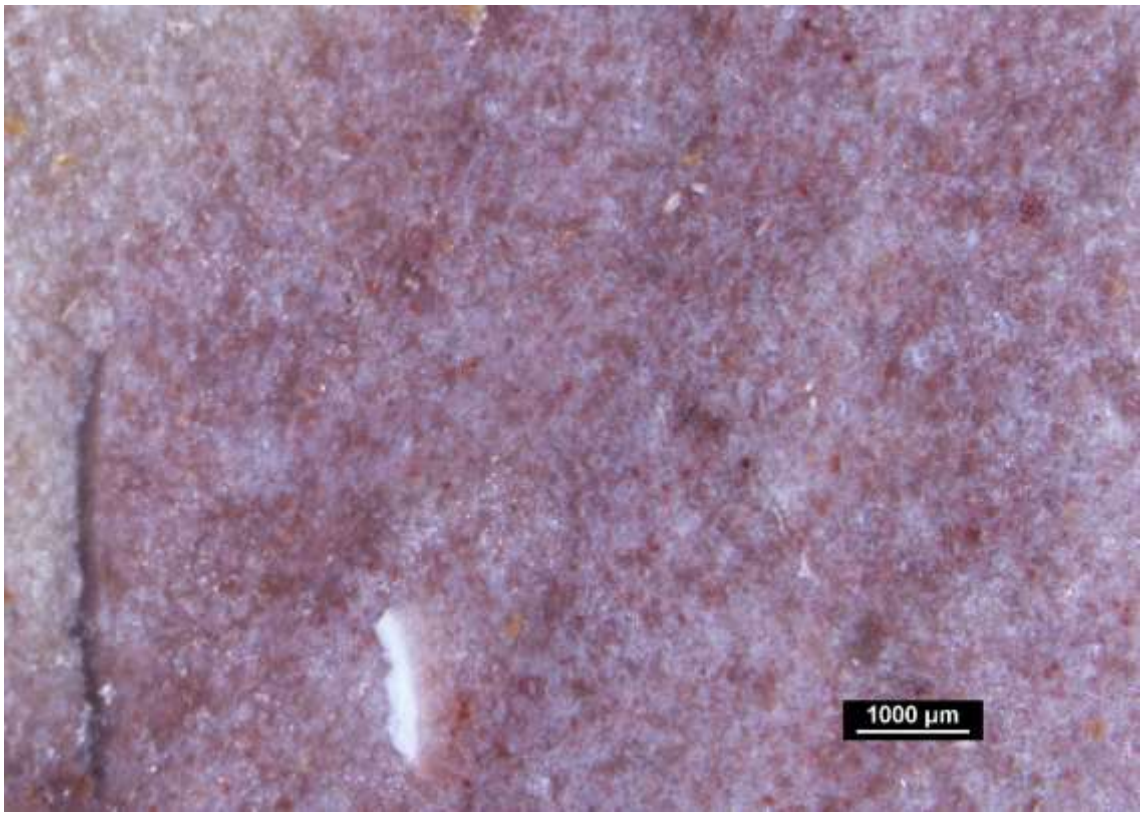


SP14_PBX_002 (PPL and XPL)

Macroscopic photos



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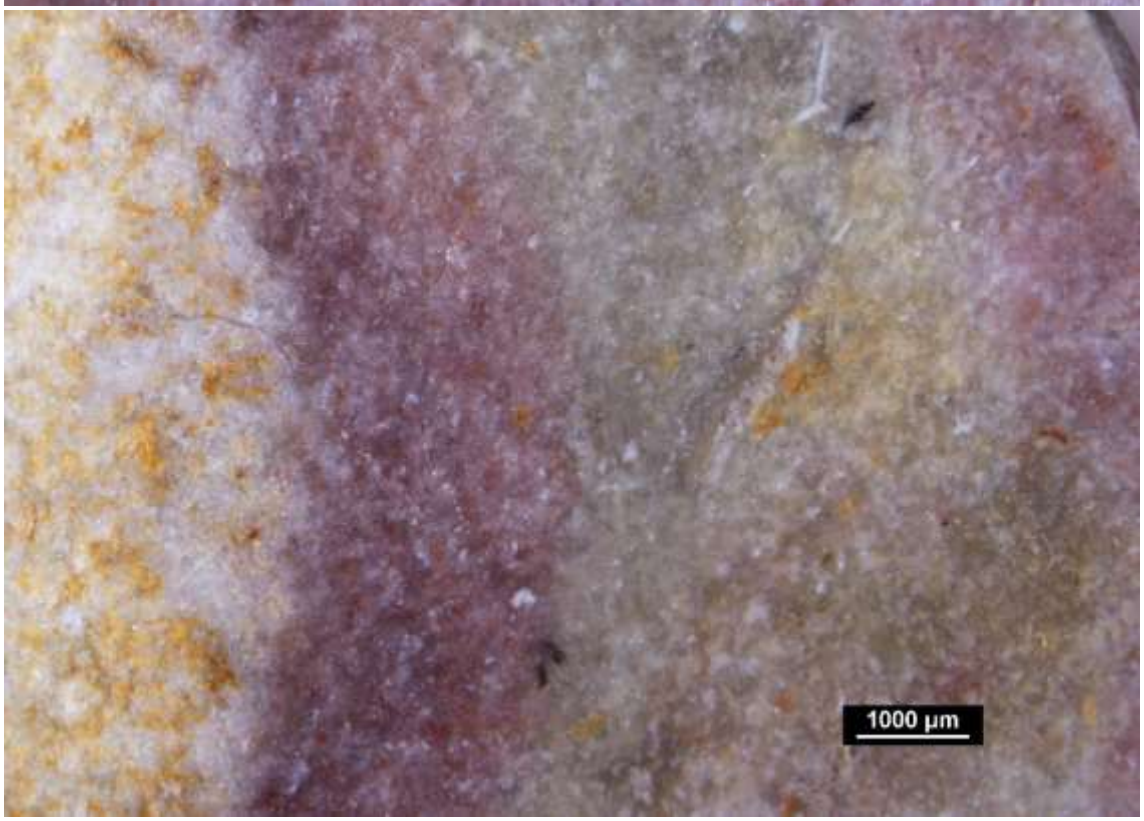
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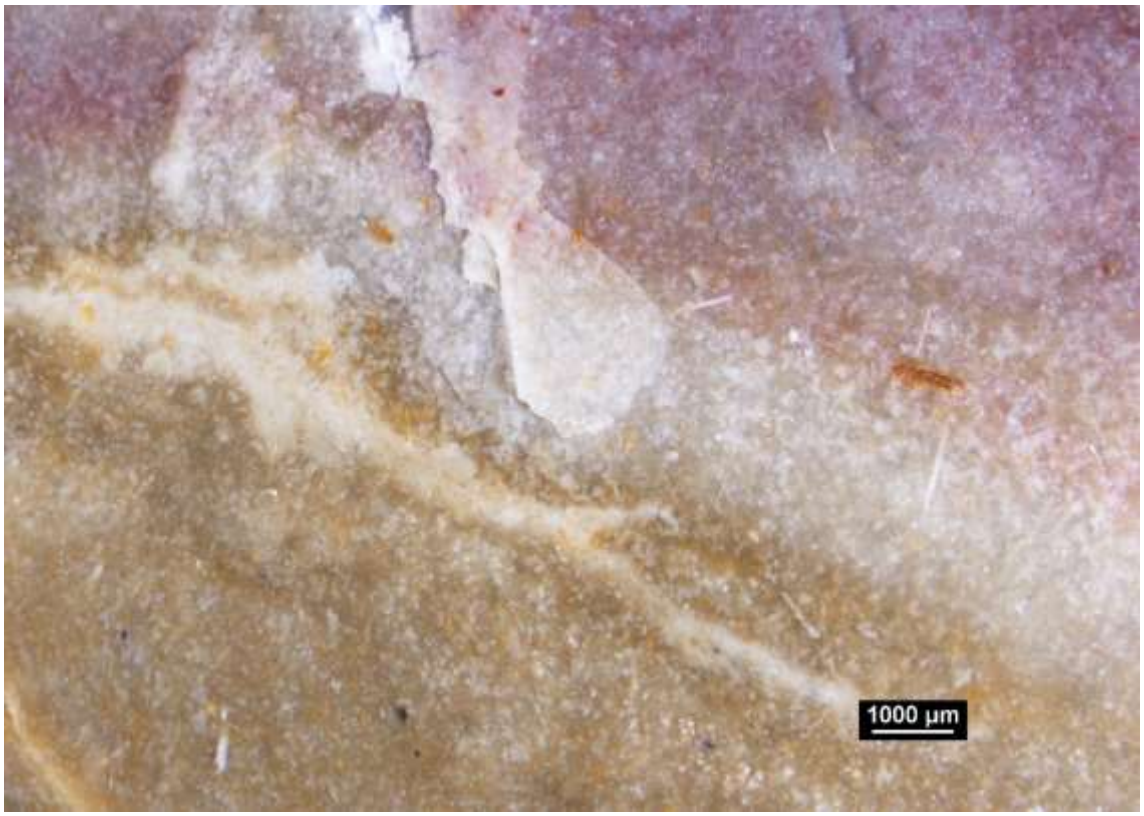
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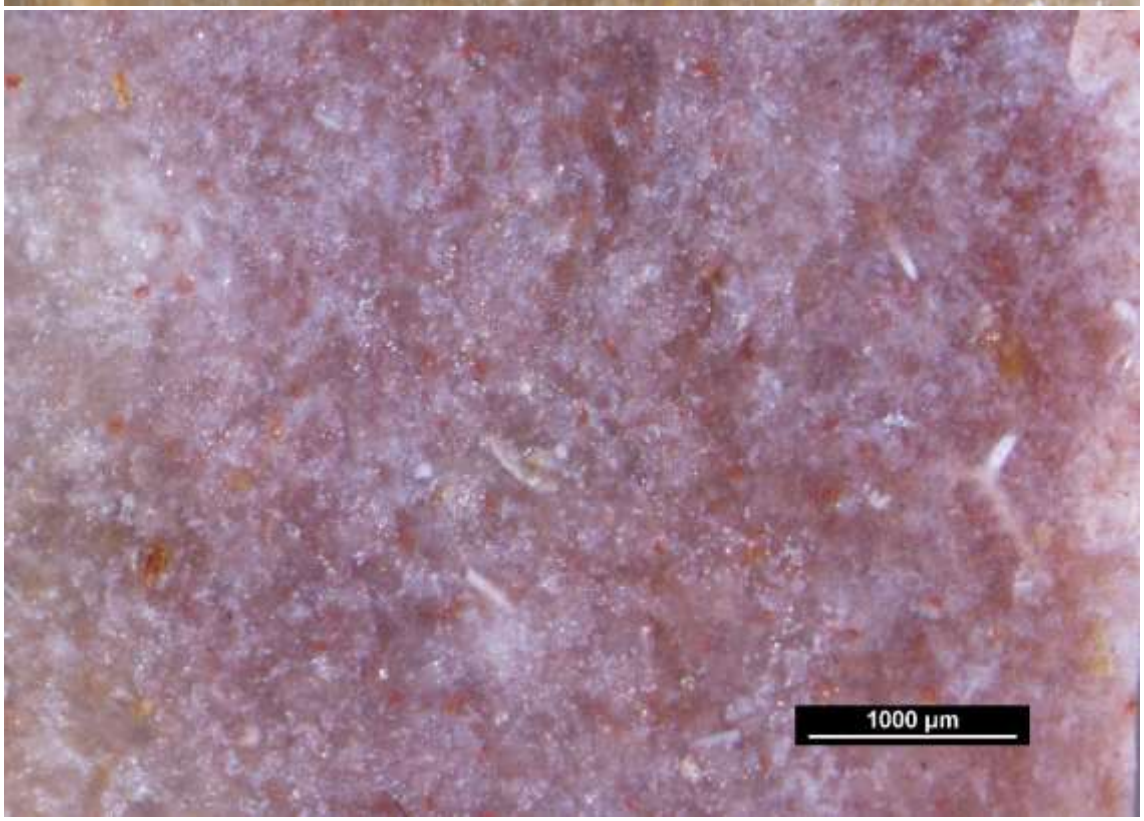
1000 µm


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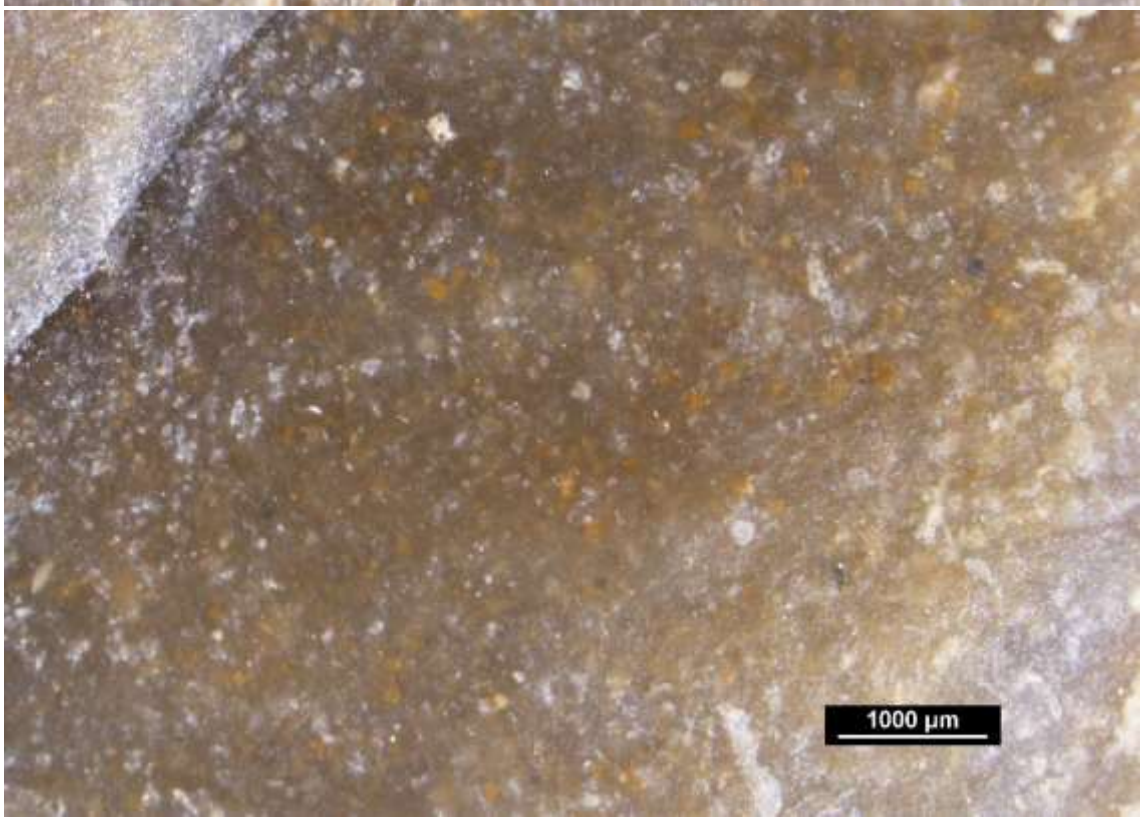
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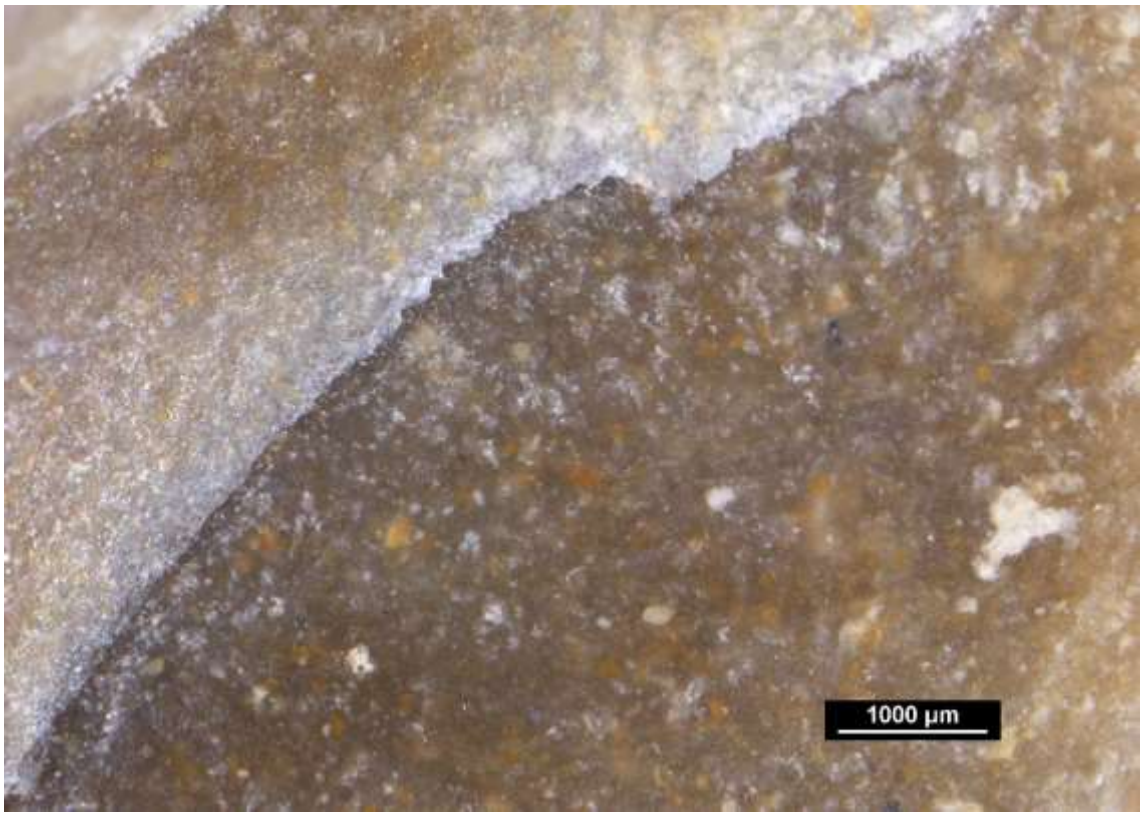
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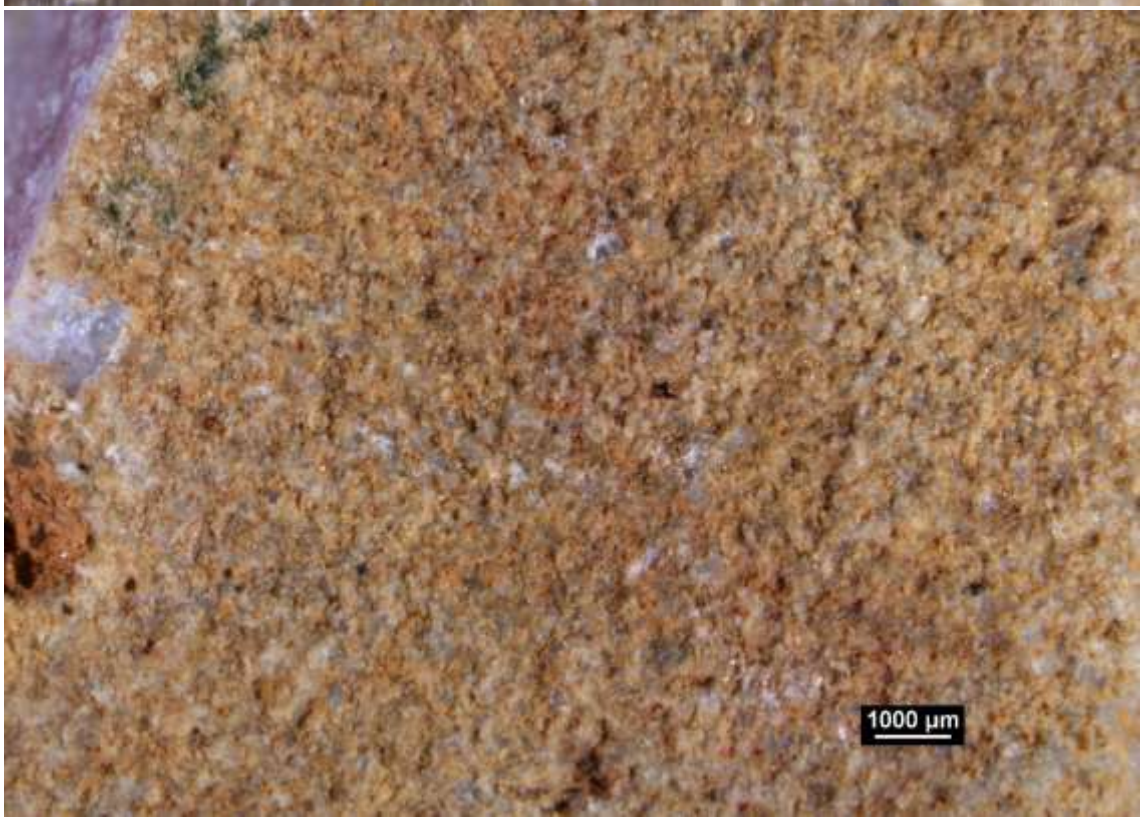
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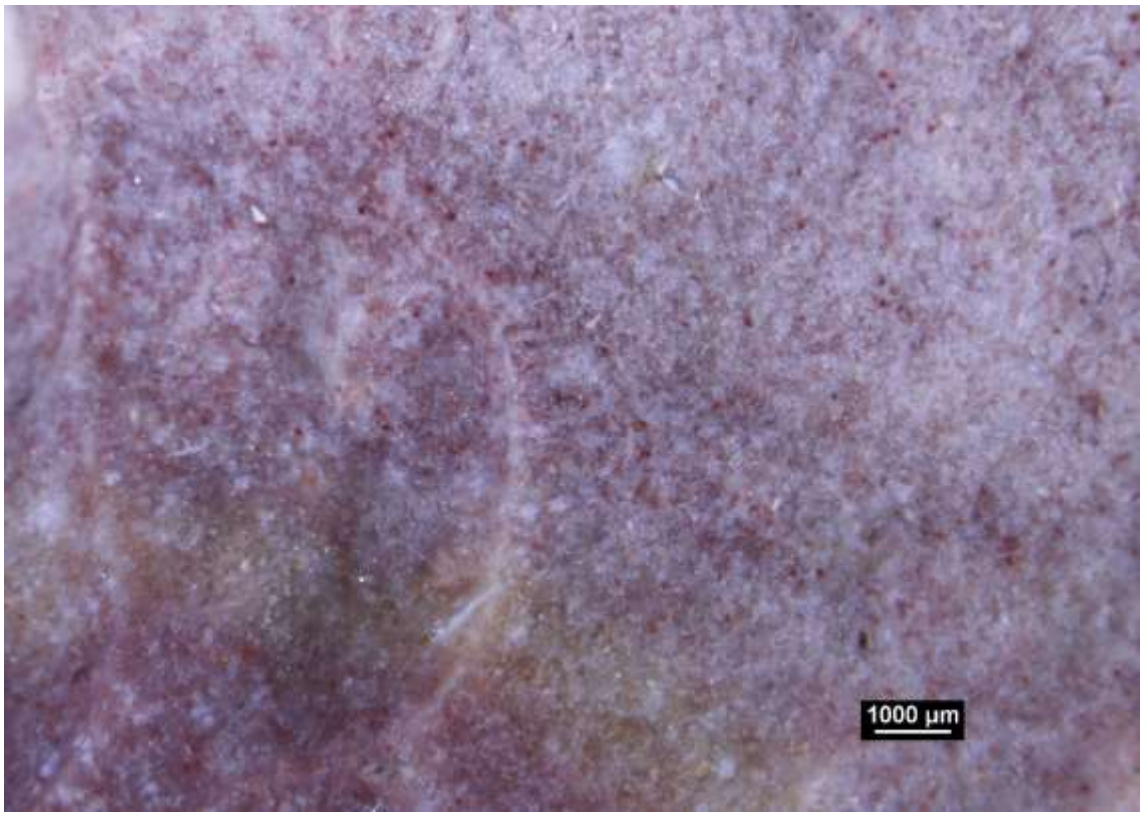
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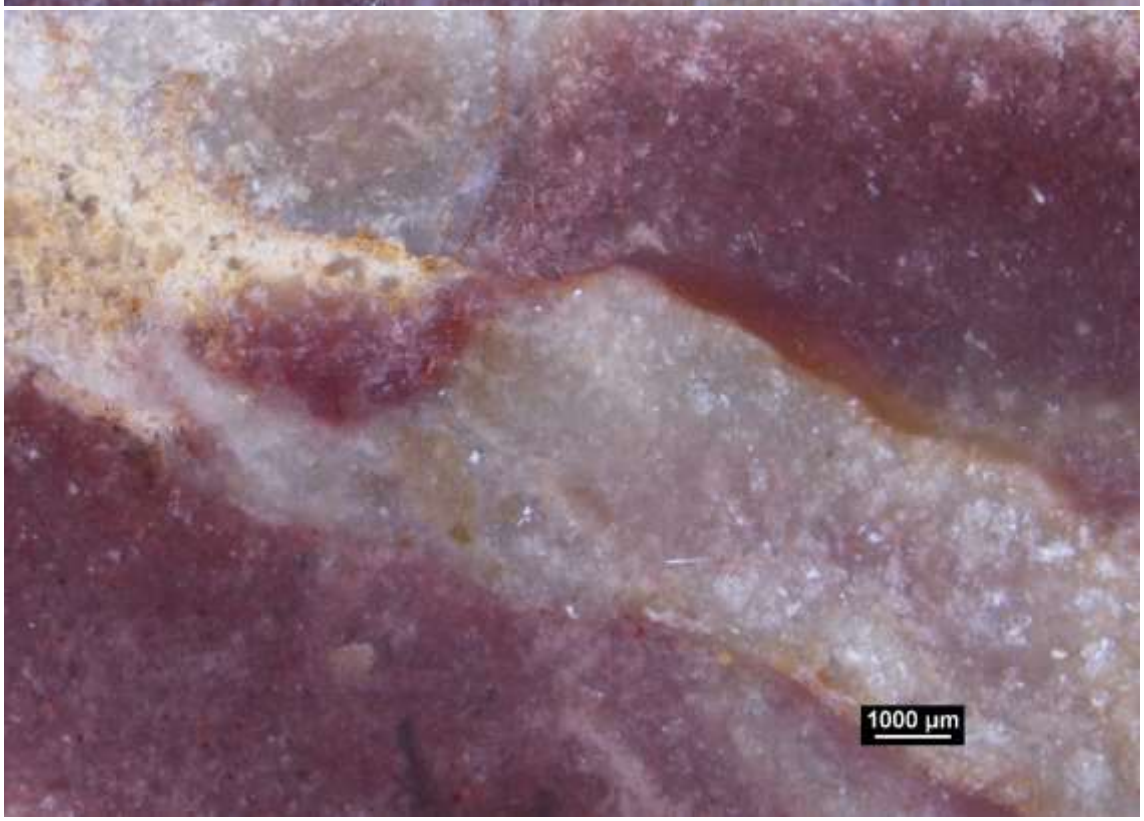
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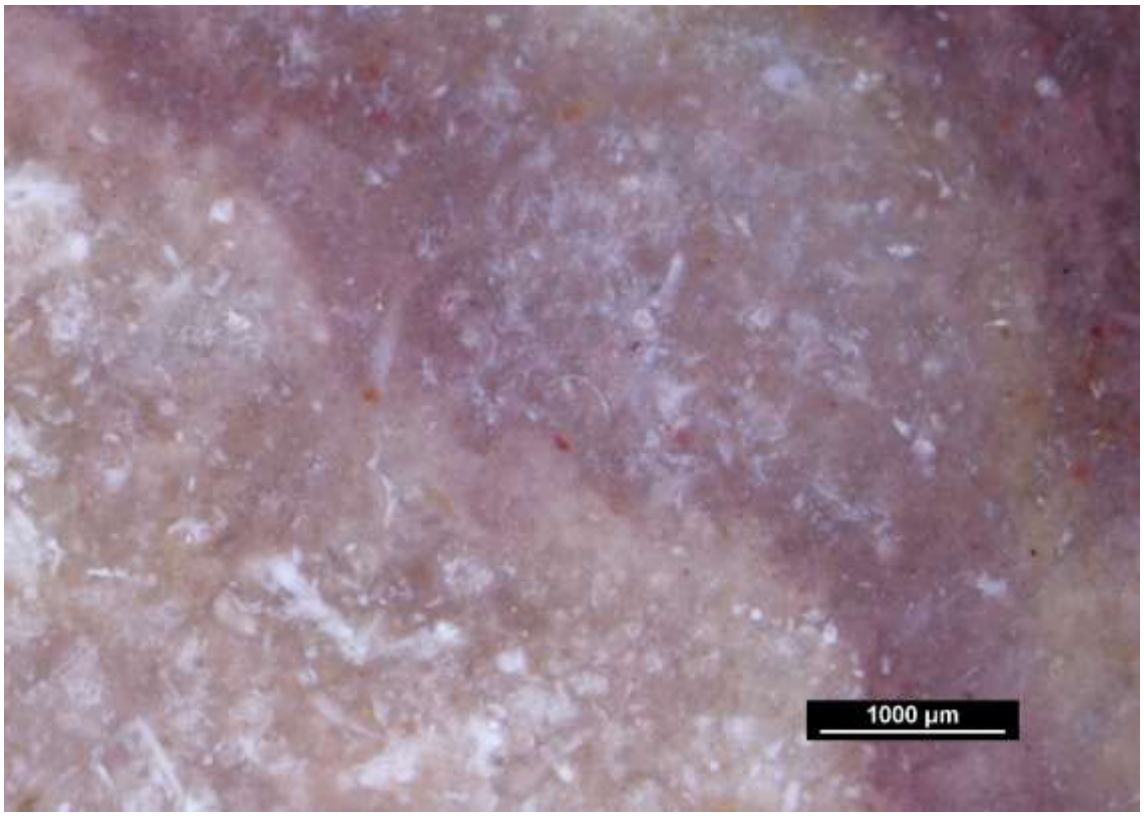
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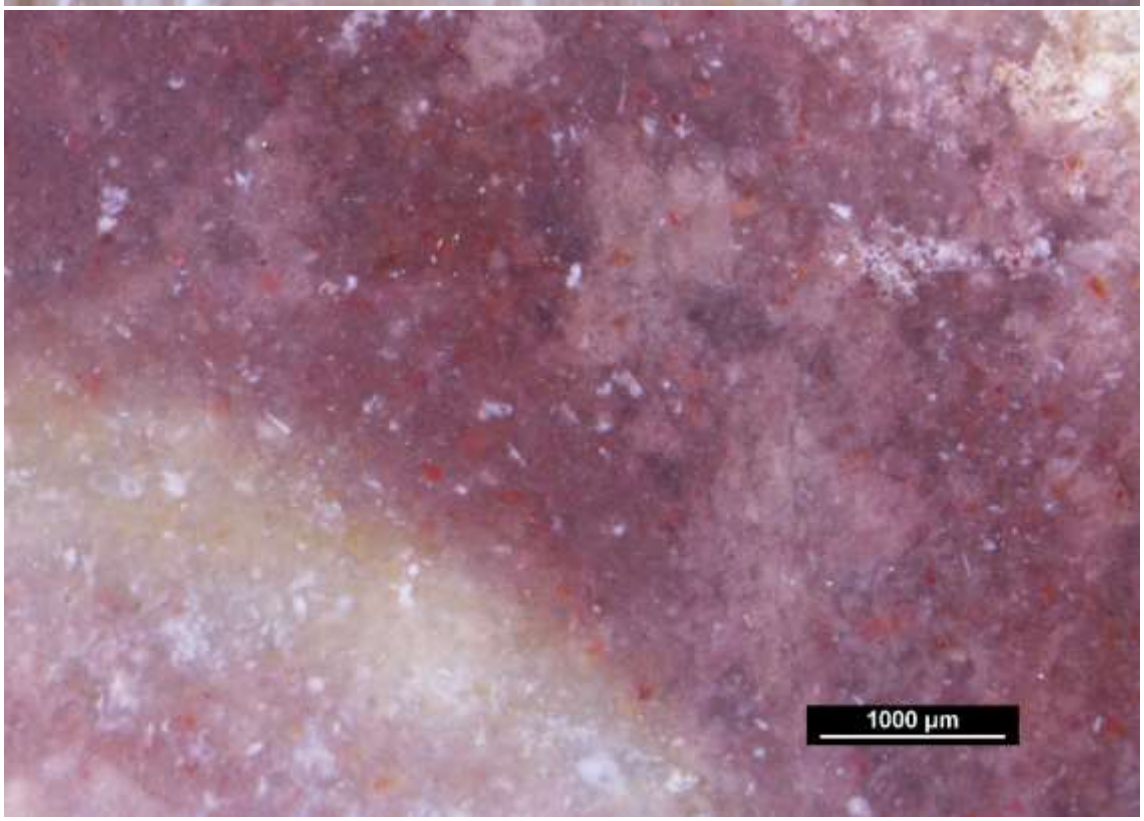
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