

Sample ID and provenance

Sample ID: SP40_FER_a

Outcrop: Ferrel

Lithology: Chert

Unit/facies: Lower Jurassic

Collection: LusoLit

Thinsection: Yes

Macroscopic description

❖ COLOR

The color distribution is Mix sharp and Mix diffuse. The main colors of the sample are Dark purple (not Munsell), Reddish gray (10R 5/1) and Weak red (10R 5/2).

❖ FABRIC

The luster is Dull to 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 and Abrupt variation. The patterns are Shaded, Spots (50-99%) and Lines (1-49%). The spots are Broad mottling and Speckling, with an Uneven distribution. The lines are Horizontal Laminated with an Even distribution.

❖ INCLUSIONS AND FOSSIL CONTENT

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❖ CORTEX

The cortex is from an Outcrop, albeit rolled. It is Thin and with a Sharp Transition. When tested with dilute hydrochloric acid (HCL 10%), the reaction was Strong. The parent rock may be a Limestone.

❖ QUALITY

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

❖ OBSERVATION

Although once documented as an outcrop, Ferrel is currently dismantled and the samples can be found scattered in a gravel path. Another problematic of the

outcrop is its proximity to an archaeological site. Without a clear notion of where the samples are coming from, it is difficult to ascertain whether the samples are geological and from the outcrop, or archaeological and not belonging to the outcrop.

SP40_FR_1 has one very altered sample, which changes the complete appearance of the chert. This alteration, present only in one surface of the sample, has Greenish gray (Gley1 5/1) and Light greenish gray (Gley1 8/1) colors with Broad mottling.

Outcrop description

❖ OUTCROP CHARACTERISTICS

Type of outcrop: Primary

Visibility: Good

Accessibility: Easy

State of site: Bad

❖ CHERT NODULES/BEDS DESCRIPTION

Type of chert nodule: Nodule

Sample variability: Variable

Frequency: Abundant

Nodule description: -

❖ SHORT DESCRIPTION

The outcrop seems to be destroyed and dismantled, possibly due to construction works in the area. The chert can be found on the floor, either in small pieces or embedded in fragments of parent rock. The state of the outcrop is bad and it may be considered sub-primary.

Petrography analysis form

❖ TEXTURAL COMPOSITION

Texture: Packstone

Microstructure: Massive

❖ COMPOSITION

ORTHOCEM	Type	%	Description
MiC quartz (gr)	SE	95	-
Dolomite	SE	1	-
Chalcedony (fb)	SE	4	-

ALLOCEM	Freq	Description
Oxides	Uncommon	-
Opakes	Uncommon	-

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

Spheres (?)	Common	-
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❖ OTHER TEXTURAL CHARACTERISTICS

Total porosity (%): 1

Porosity type: Vuggy, Moldic

Other sedimentary structures: -

Observations

❖ -

Analysis information

❖ ANALYST: JB

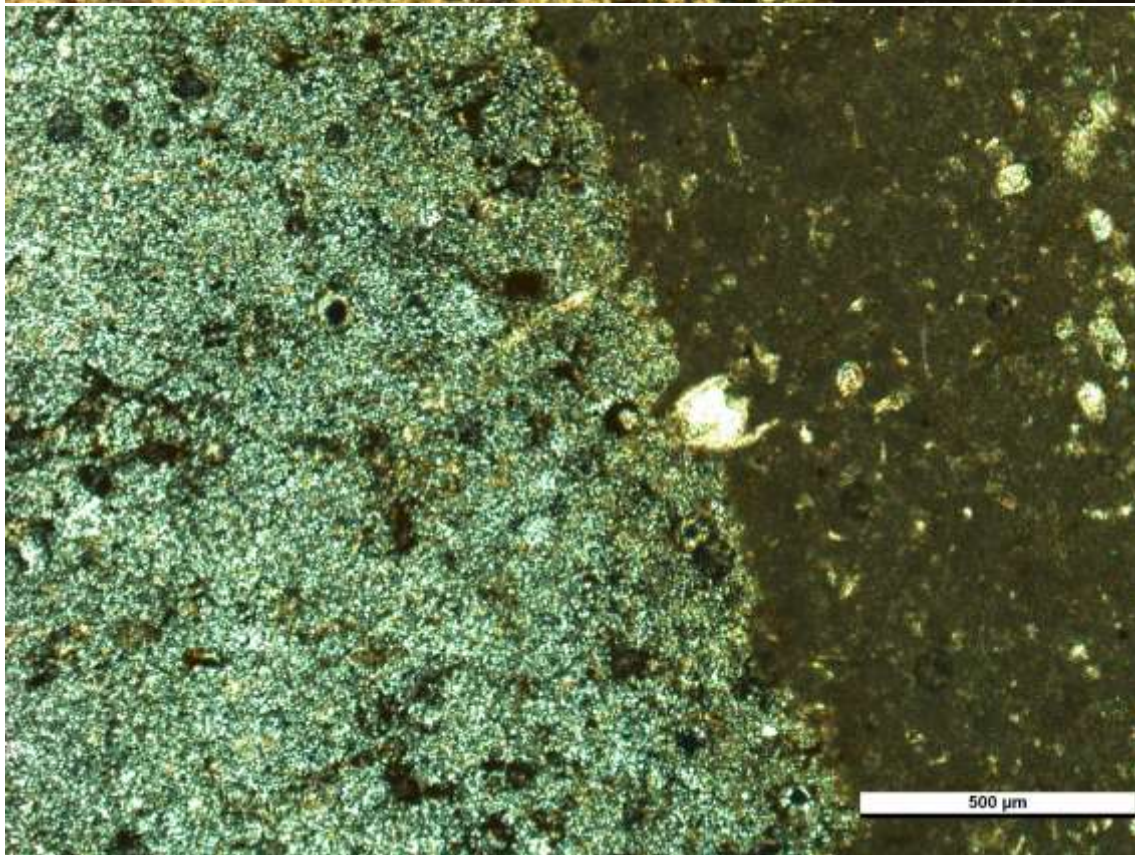
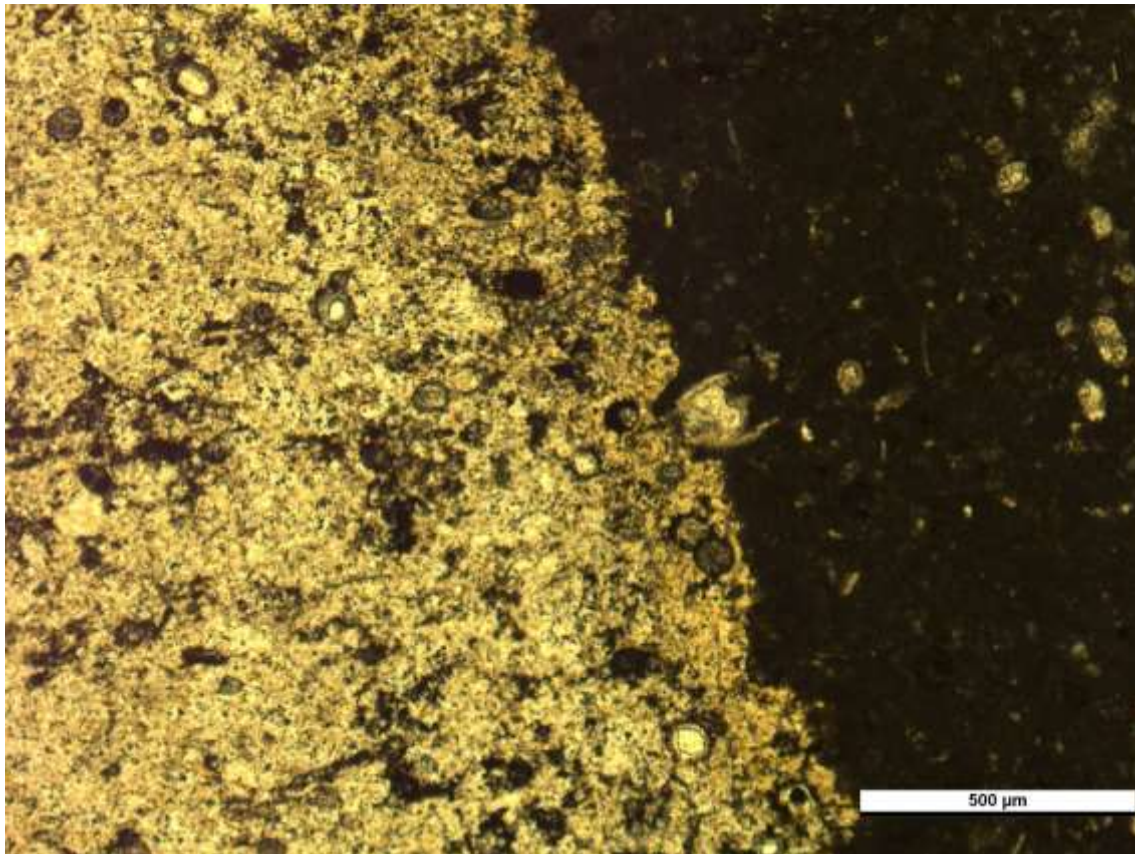
❖ DATE: 02.23.2022

❖ EQUIPMENT: Leica DM2500 P

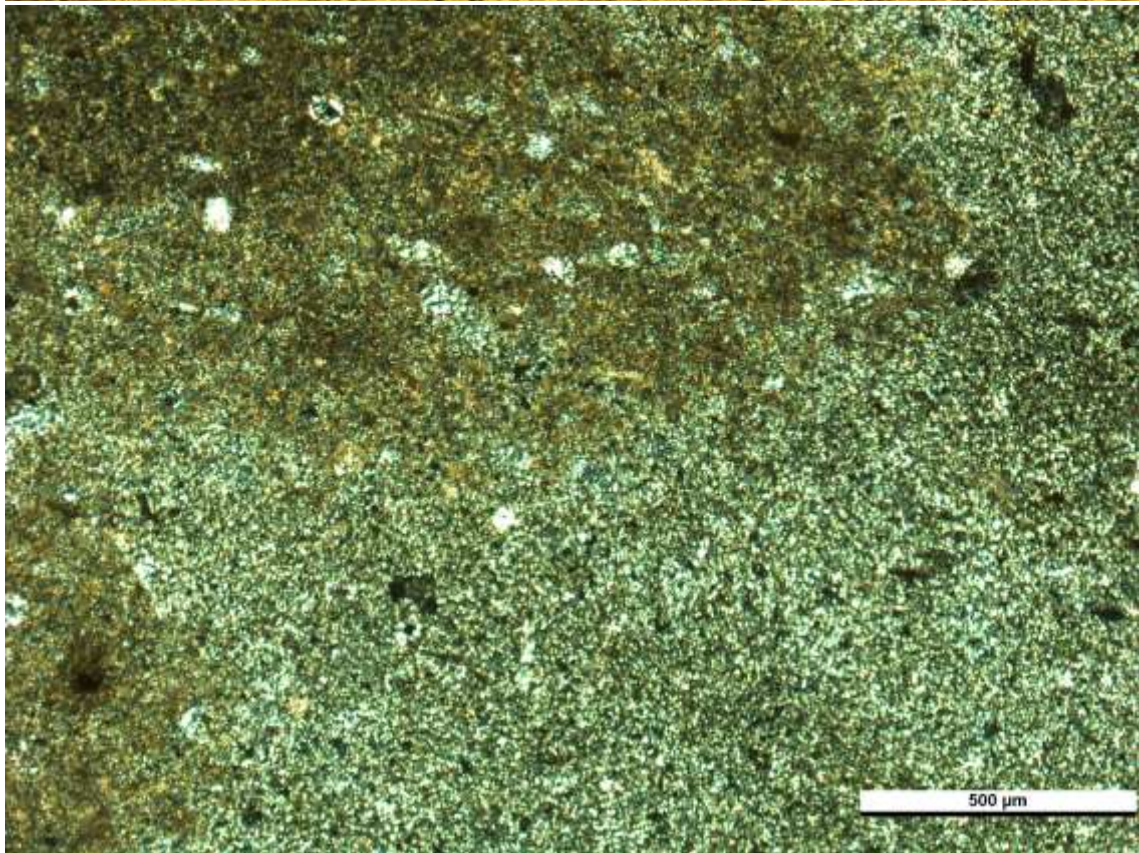
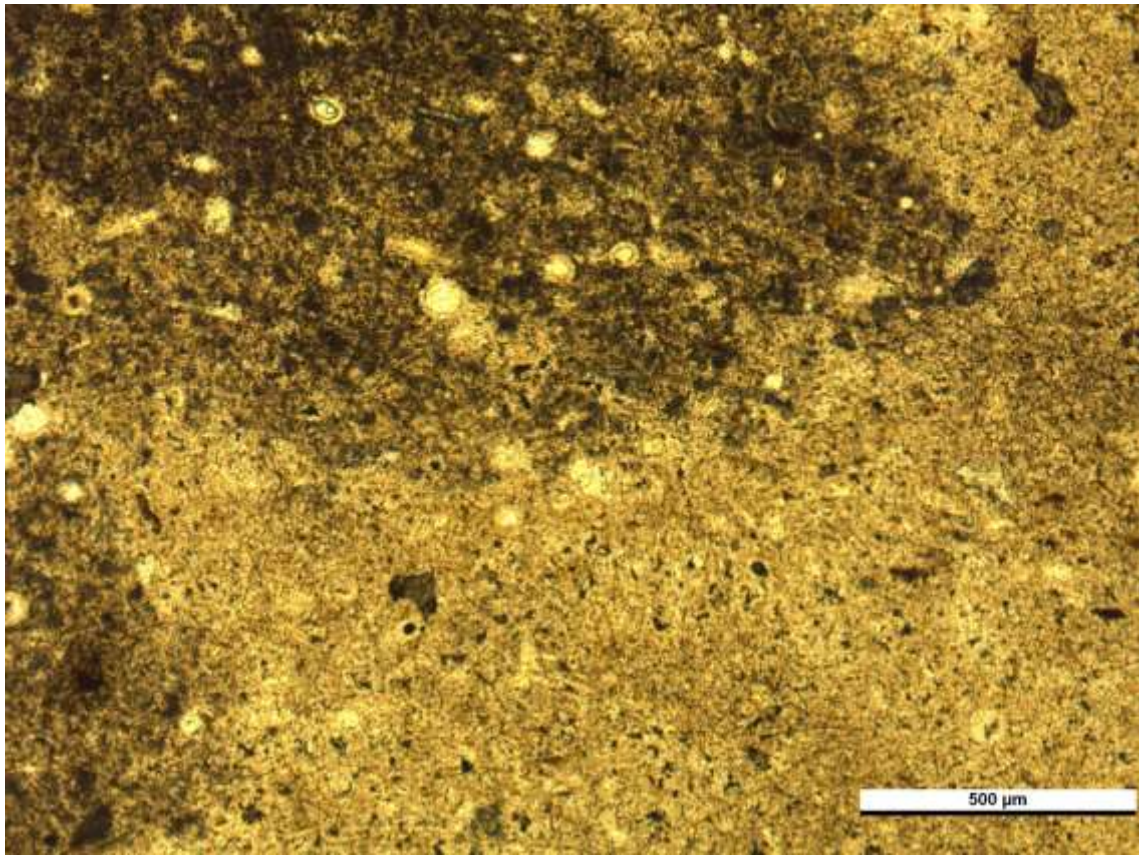
Photos

Photo ID	Aug.	Description
SP40_001	5x	View of limit between chert and cortex.
SP40_002	5x	View of light chert with dark areas.

Petrography photos



SP40_FER_001 (PPL and XPL)



SP40_FER (PPL and XPL)

Macroscopic photos

