

GEOLOGIC MAP OF LUMIGNANO AREA (Vicenza, North of Italy)

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LEGEND

- BED ATTITUDES
- SUB-HORIZONTAL BED ATTITUDES
- SEALED FAULT
- INFERRED FAULT
- FAULT
- [Rf] **ROCKFALL DEPOSITS:** clusters of boulders (up to tens of metres in diameter) accumulated at the base of steep walls.
Age: Quaternary
- [AL] **ALLUVIAL DEPOSITS:** deeply weathered sand and silt deposited by rivers of the Venetian plain.
Age: Quaternary
- [CD] **COLLUVIAL DEPOSITS:** reworked terra rossa soils and poorly sorted gravel deposits with soil matrix at the foot of the hills.
Age: Quaternary
- [Tr] **TERRA ROSSA:** reddish-coloured residual deposits (soils and colluvium) that fills karstic depressions (dolines). It may include weathered blocks of limestone.
Age: Quaternary
- [Qs] **QUARTZ SAND:** medium-fine layered quartz sand with silt intercalations bearing plant fragments, filling the San Rocco Doline. The unit has been almost completely mined.
Age: ?Miocene - Pliocene
- VOLCANIC DIKES:** sub-vertical dikes, up to 1 m wide, filled by altered basalt with sparse vesicles.
Age: ?Chattian - Rupelian p.p.
- [VBd] **INTRA-DIATREMATIC BRECCIA:** volcanic breccias filling pipes which cutting across the Priabona and Castelgomberto formations. These breccias are made of vesicular basalt and limestone fragments up to some dm in diameter, and seldom include also some isolated fossils (corals and large molluscs). The intergranular space is filled by volcanic ash and by a blocky calcite cement. Layering and normal grading are seldom observed.
Age: Rupelian p.p.
- [VBt] **EXTRA-DIATREMATIC BRECCIA:** tuffs and tuffites intercalated within the Castelgomberto formation, in layers up to some metres thick. Internal lamination and normal grading are common. Usually very altered and seldom include limestone clasts.
Age: Rupelian p.p.

MAP SCALE:
1:10000

COORDINATE REFERENCE SYSTEM:
Monte Mario (Rome) - Italy zone 1
EPSG: 3003

BASEMAPS

1- Hillshade (Azimuth 300 - Angle 40°) derived from the DTM of the Veneto region (5 m/p). 2- Regional Technical Map of the Lumignano area 1:10000.



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ACKNOWLEDGMENT:
 Research supported by "GeoKarst", a project of the Interreg V-A Italy-Slovenia 2014-2020 Cooperation Program, financed by European regional development fund of European Union.

CASTELGOMBERTO FORMATION - AGE: Rupelian p.p.

- [CCa] **LAYERED GRAINSTONE-RUDSTONE LITHOFACIES:** well-sorted grainstone/rudstone with diverse skeletal fragments, including miliolids, other benthic foraminifera and fragmented red algae. Encrusting (epiphytic) forms are common. Bedding is decimetric to metric and distinct, bed joints are unfoliose. Bioturbation is common. Corals are also common, both fragmented and transported and in life positions. In situ corals occur in layers (biostromes), or may form patch reefs few meters in diameter, with minimal relief. Additionally, mollusc shells, echinoids and fragments of crabs may be found.
Thickness: > 250 m (the upper boundary does not outcrop in this area)
- [CCc] **CORAL BOUNDSTONE LITHOFACIES:** Massive limestone containing branching or massive corals in life position, immersed in a grainstone/packstone matrix with mostly fragmented red algae. At the core of walls, packstone and wackestone matrix prevail. Grainstones are instead prevalent at the margin or in the basal portions of the units composed of this lithofacies.
- [CCm] **CORALLINE ALGAL LITHOFACIES:** limestone (rudstone or floatstone), marly limestone or marlstone in poorly defined metric layers, with abundant branching coralline algae (maërl) and rhodoliths, and with a variable clay component. Small nummulitids and bryozoans are common, large oyster shells and irregular echinoids may also occur. Locally, rodolith rudstone with coral fragments at the nucleus of rodoliths is present.
- [CCo] **MARL AND FINE PACKSTONE LITHOFACIES:** marlstone or marly limestone, poorly cemented, in decimetric layers. The main components are bryozoans, echinoderms and small foraminifera, including planktonic foraminifera. Brachiopods and molluscs also occur. Layers of rudstone with rhodoliths, dm- to m-scale, are locally intercalated.
- [CCg] **VICENZA STONE LITHOFACIES:** massive, white/yellowish porous grainstone, very well sorted. It forms stratiform bodies, continuous for many hundreds of metres to a few kilometres, with a thickness up to few tens of metres, embedded in the layered grainstone-rudstone lithofacies. It also forms a horizon up to 40 metres thick at the base of the formation in the easternmost portion of the area.
- [Prm] **PRIABONA FORMATION:** marlstone to marly limestone where individual grains are easily recognizable and can be often isolated. Benthic larger foraminifera, including nummulitids and Orthophragminae, are common along with red algae, which can be encrusting, branched or often form rhodoliths. In the field, it crops out with undefined layers, cm to m thick, which are poorly cemented, erodible and often covered with vegetation.
Thickness: up to 200 m (base is not exposed in the study area)
Age: Rupelian p.p. - Priabonian

