Supplementary TABLE 1: Details of published rock samples from the Pantelleria Vecchia Bank discussed in the text

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Structure** | **Sampled object** | **Sample code** | **General classification** | **Clasts** | **Cement** | **Remarks** | **Age** | **Reference** |
| Half-ring 1 | Block (3 m long) | Half-ring 1 | Very compact quartz-rich arkose | Quartz, feldspar, A certain amount of fossil material is also present in the sample (foraminifera and gastropods) | Presence of poikilitic cement composed of rhombohedral calcite crystals | This is the only site in the whole Pantelleria Vecchia Bank where this type of rock has been sampled |  | Lodolo et al. 2024 |
| Half-ring 1 | The top of the semi-circular ridges | 9A | Bioclastic limestone | Clasts & bioclasts:  benthic foraminifera, fragments gastropods, corals and molluscs | Cemented |  | Late Miocene (Tortonian) | Lodolo and Ben-Avraham 2015 |
| Half-ring 1 | The top of the semi-circular ridges | 8A | Bioclastic limestone | Clasts & bioclasts: benthic foraminifera, fragments gastropods, corals & molluscs | Cemented |  | Late Miocene (Tortonian) | Lodolo and Ben-Avraham 2015 |
| Half-ring 1 | The top of the semi-circular ridges | 3A | Bioclastic limestone | Clasts & bioclasts:  benthic foraminifera, fragments gastropods, corals & molluscs | Cemented |  | Late Miocene (Tortonian) | Lodolo and Ben-Avraham 2015 |
| Half-ring 3 | The top of the semi-circular ridges | 5 | Bioclastic limestone | Clasts & bioclasts:  benthic foraminifera, fragments gastropods, corals & molluscs | Cemented |  | Late Miocene (Tortonian) | Lodolo and Ben-Avraham 2015 |
| Half-ring 4 | Steep scarp | Half-ring 1 | Compacted biomicrite | Bioclasts: mainly fusulinids, planktonic & benthic foraminifera remains of bivalves, brachiopods, Green algae echinoderms, gastropods | Micrite between the larger grains |  |  | Lodolo et al. 2024 |
| Ridge 1 | Block | S3\_A  TR\_2 | Bioclastic sandstone (calcirudite) | Quartz & rhodolith fragments. Shell fragments of echinoderm spines, foraminifera | Micrite and fibrous aragonite |  | C14 ages of two samples:  36,0 00–45,000 Cal. yr BP | Lodolo and Ben-Avraham 2023 |
| Ridge 1 | Top of the inner ridge | 7A | Bioclastic  calcirudite | Fragments of shells, red algae and corals, with rare, well rounded lithoclasts | Thin  layer of calcite |  | Pleistocene | Lodolo and Ben-Avraham 2015 |
| Ridge 1 | Blocks composing the outer rectilinear ridge | 6A | Bioclastic  calcirudite | Fragments of shells, red algae and corals, with rare, well rounded lithoclasts | Thin  layer of calcite |  | Pleistocene | Lodolo and Ben-Avraham 2015 |
| Ridge 1 | Blocks composing the outer rectilinear ridge | 4A | Bioclastic  calcirudite | Fragments of shells, red algae and corals, with rare, well rounded lithoclasts | Thin  layer of calcite |  | Pleistocene | Lodolo and Ben-Avraham 2015 |
| Ridge 1 | Blocks composing the outer rectilinear ridge | 1 | Bioclastic  calcirudite | Fragments of shells, red algae and corals, with rare, well rounded lithoclasts | Thin  layer of calcite |  | Pleistocene | Lodolo and Ben-Avraham 2015 |
| Ridge 1 | Blocks composing the outer rectilinear ridge | 2 | Bioclastic  calcirudite | Fragments of shells, red algae and corals, with rare, well rounded lithoclasts | Thin  layer of calcite |  | 43,89 5± 490  Cal. yr BP | Lodolo and Ben-Avraham 2015 |
| Ridge 1 | Blocks composing the outer rectilinear ridge | 3 | Bioclastic  calcirudite | Fragments of shells, red algae and corals, with rare, well rounded lithoclasts | Thin  layer of calcite |  | 36,960 ± 500  Cal. yr BP | Lodolo and Ben-Avraham 2015 |
| Ridge 2 | The tip of the seaward end of the ridge | Half-ring 1 | Porous mudstone | Microfossil content: bioclastic (mainly benthic foraminifera) that also contains a siliceous fraction | Lightly cemented | This lithology is different from the rock samples from some blocks of Ridge 1 | Late Miocene (Tortonian) | Lodolo and Ben-Avraham 2023 |
| Ridge 2 | Elongated rectangular  flat top ridge | 6 | Calcarenite and bioclastic limestone | Rich micro-fauna: benthic foraminifera, ostracods, gastropods |  |  | Late Miocene (Tortonian) | Lodolo and Ben-Avraham 2015 |
| Monolith | North-East site | 1A | Bioclastic  calcirudite | Fragments of shells, red algae and corals, with rare, well rounded lithoclasts | Thin  layer of calcite |  | 44,560 ± 1270  Cal. yr BP | Lodolo and Ben-Avraham 2015 |
| Monolith | South-West side | 2A | Bioclastic  calcirudite | Fragments of shells, red algae & corals, with rare, well rounded lithoclasts | Thin  layer of calcite |  | Pleistocene | Lodolo and Ben-Avraham 2015 |
| Monolith | Center | 5A | Bioclastic  calcirudite | Fragments of shells, red algae & corals, with rare, well rounded lithoclasts | Thin  layer of calcite |  | Pleistocene | Lodolo and Ben-Avraham 2015 |