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# A15 D112 Parknook Quarry

## Site information

**Site name:** Parknook Quarry

**Site key:** D112

**Grid reference:** [SE 513 128] (centred on)

**Site type:** active quarries and pits

**Local authority:** Doncaster Metropolitan Borough Council, South Yorkshire

**Site dimensions:** 200 m x 70 m

**Site owner:** Highways Agency

**Conservation status:** Regionally Important Geological Site **Date:** 14/9/97

**Field surveyor:** Scott Engering **Date:** 16/2/07

## Stratigraphy and rock types

**Time unit:** Permian **Rock unit:** Wetherby Member, Cadeby Formation, Zechstein Group

**Rock type:** Dolostone **Details:** Reefs, breccias and massive bedded limestones

## Site map

(Figure 78) — D112 Parknook Quarry

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## Site description

Large quarried exposure in the Wetherby Member of the Cadeby Formation with maximum section of approximately 13 m on the north face. Comprises a succession of massive buff, granular limestone with thick, even beds up to 600 mm thick with no obvious wedge bedding. The lowest 2 m of the north face are distinctly laminated [SE 45145 41270]. A notable feature of the lowest 4-5 m of the north face is the appearance of vertical fracture zones approximately 1 metre wide in at least five locations. Here, the individual fractures are approximately 30 – 50 mm apart and the zones appear to be aligned in both a north-east and north-west direction. These fracture zones are not apparent in the upper parts of the quarry face. In places, the plane of the quarry face is brecciated and probably coincides with the formation of jointing. In one place [SE 45143 41268] there is an irregular depression in the rock face, that has a brecciated appearance but is not accessible. This may be a partially formed reef. It is notable that the disordered rock faces have a distinctly buff colour that stands out from the massive, well bedded rock.

The north-west corner is not accessible but comprises similar lithologies to the above. Here, there are quarry benches and it appears that the building stone was last quarried from here, although the quarry does not appear to have been operational for several years. A recent enquiry by York Minster to the Highways Agency has been made but the outcome

of this is not known.

To the west, 6 m of massive limestone similar to the above is exposed. The rock is well weathered and the jointing and internal fracture pattern associated with this rock formation are well displayed [SE 51487 12659]. Stylolites are also visible.

The quarry is now owned by the Highways Agency and appears to be earmarked for the widening of the A1 although this is not expected for some years. Part of the quarry is occupied by cottages and the southern end now forms a garden area. The foot of the quarry faces are not easily accessible due to the presence of rock debris and thick brambles. There are numerous old vehicles and miscellaneous rubbish in the northern part of the quarry that appears to relate to business carried out by the occupants of the land. Apparently these are removed on a regular basis.

The quarry has past historic associations with the building of most parish churches in the area and Selby Abbey.

## **RIGS assessment of site value**

Ratings: 1–2 very poor; 3–4 poor; 5–6 acceptable/useful; 7–8 quite good; 9–10 very good/excellent; N/A not applicable; D/K don't know

### **Access and safety**

#### **Aspect/Description/Rating**

**Road access & parking** Parking for three vehicles outside private entrance. Immediately adjacent to A1. Rating: 5

**Safety of access** Uneven ground, rock debris, brambles, cars and rubbish prevent easy access to rock faces. Rating: 5

**Safety of exposure** Uneven ground, rock debris, brambles, cars and rubbish prevent easy access to rock faces. Rating: 5

**Permission to visit** Privately owned and partially occupied by residential and business uses. Rating: 5

**Current condition** Commercial use of site and rock waste, rubbish and vegetation etc limit ease of access. Rating: 5

**Current conflicting activities** Commercial and residential use of site. Possibility of extension of the A1

**Restricting conditions** Accessibility and potential redevelopment

**Nature of exposure** Old quarry faces

**Multiple exposures/ prospect for trail** Limited due to its isolated position and private ownership. Other clusters of sites have greater potential

### **Culture, heritage & economic**

#### **Aspect/Description/Rating**

**Historic, archaeological & literary associations** History of use as building stone quarry and associations with local churches and Selby Abbey.. Rating: 6

**Aesthetic landscape** Potential for managed nature reserve, if road widening plans go ahead. Rating: 6

**History of Earth Sciences** Local stratigraphic interest. Rating: 5

**Economic geology** Once used for good quality building stone. Some potential reserves of stone for restoration work.  
Rating: 7

**Notes** Potentially of importance for restoration of historic buildings due to lack of good sources nationwide. Needs to be kept available with scope for expansion

## **Education and science**

**Surface processes** General weathering of rock faces. Rating: 5

**Geomorphology** Not applicable 0

**Sedimentary** A range of lithologies and bedding structures. Rating: 6

**Fossils** Specialist interests in Permian fossils. Rating: 5

**Igneous** Not applicable. Rating: 0

**Metamorphic** Not applicable. Rating: 0

**Tectonic: structural** Evidence of shearing and fracturing. Rating: 6

**Minerals** Not applicable. Rating: 0

**Stratigraphy** Local example of stratigraphic correlation. Rating: 7

**Notes** Examples of geological features that are not obvious in other exposures in the region

## **Geodiversity value**

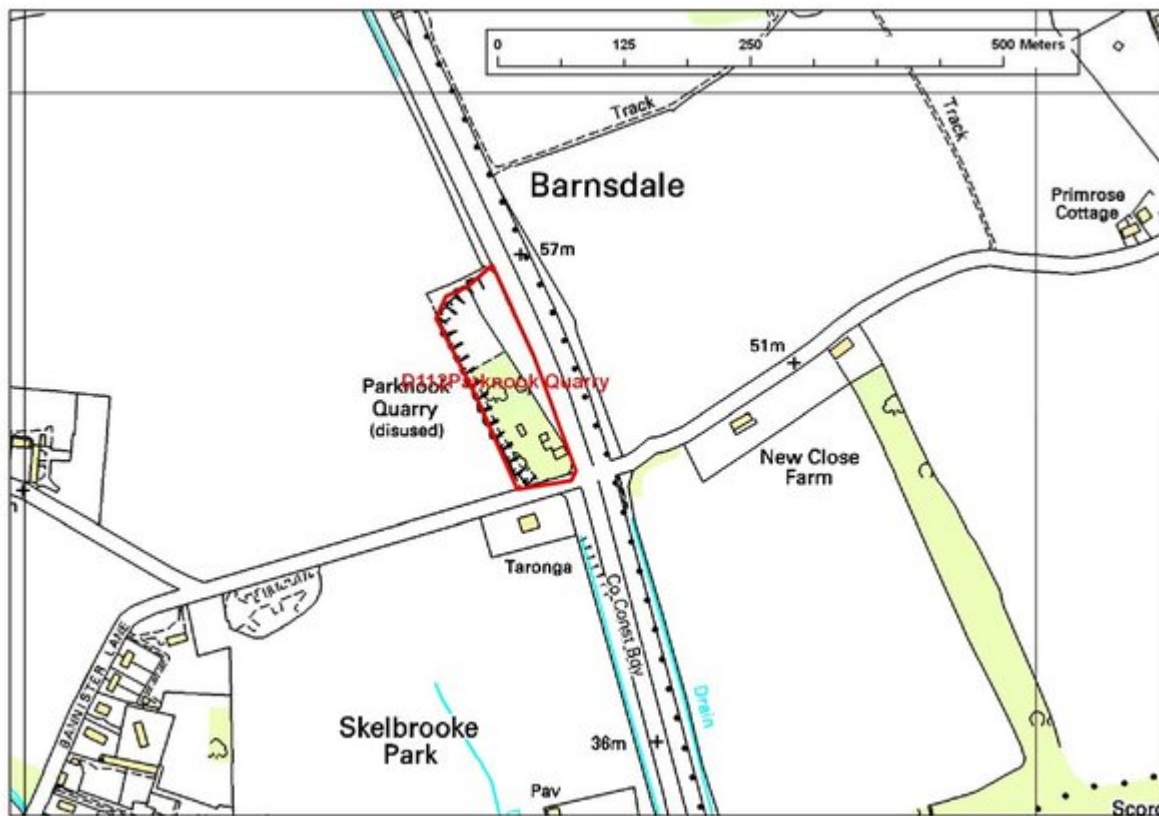
Moderate Geodiversity value. Some interesting geological features but mainly valuable as a potential source of building stone. Rating: 7

## **Site photographs D112 Park Nook Quarry**

(Figure 79) General view of bedded limestone and former quarry benches to the north-west corner. [SE 51400 12835].

(Figure 80) Horizontal bedded limestones showing typical fracture patterns in the west quarry face. [SE 51487 12659].

(Figure 81) Well bedded limestone exposed in the lower section of the north quarry face within the Wetherby member. [SE 51440 12850].



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(Figure 79) General view of bedded limestone and former quarry benches to the north-west corner. [SE 51400 12835].





*(Figure 80) Horizontal bedded limestones showing typical fracture patterns in the west quarry face. [SE 51487 12659].*



*(Figure 81) Well bedded limestone exposed in the lower section of the north quarry face within the Wetherby member. [SE 51440 12850].*