Spireslack Locality 10: View of major fault

NGR: [275188 630710] [NS 75188 30710]

Key categories of interest Rarity Quality

Key category of interest	Rarity	Quality
1. Structural geology	4	4
2. Stratigraphy	3	4

Access: Good access to view the fault from base of void. Hands-on access is not possible.

Current safety: Viewing area would be safe but there is clear evidence of loose rock falling from higher in the fault zone, forming an active debris cone: therefore close approach to this location is dangerous. Deep pond between potential viewing platform and fault.

Measures to enhance site: Flatten out the ground in front of the site as viewing platform.

Key categories in order of interest (1 = primary interest); Rarity, 5 = only example in Spireslack, 1 = many examples in Spireslack; Quality 5 = exceptional preservation in Spireslack, easy access/viewing potential 1 = average preservation in Spireslack, difficult access/viewing potential

Photograph overview with polygon boundary

(Overview of Locality 10). Site boundary includes key rock exposures, immediate access to site and potential viewpoints to the site (foreground in right of photo overview). Note active debris cone accumulating half way up main scarp. Photo looking to the south.

Site description

Geology

At this locality, within the scarp, a major fault displacing the Limestone Coal Formation is observed. The oblique- slip fault throws down the rock sequence in an apparent normal sense to the east, as well as displacing the strata in a northerly direction. This effect is observed in the McDonald Limestone pavement on the north wall of the void, where the footwall of the fault is observed but the equivalent hangingwall limestone is buried beneath quarry spoil. Nevertheless, the locality impressively shows the large scale at which faults can displace rocks within the subsurface.

Access and enhancement suggestions

The fault itself is inaccessible due to the danger of rock fall on the scarp, and also the presence of the deep pond in front of it. This site in any case is better viewed from a distance to appreciate the displacement of the rocks on either side of the fault. Some of the larger spoil piles on the north-west side of the pond could be levelled to provide a viewing platform.

Site photographs

(Spireslack_10 P1): Fault in the south wall, displacing rocks in an apparent normal sense down to the east (left of the image), but also to the north in an oblique sinistral fashion. The weaker fault rocks have been eroded along the fault plane, leaving a cleft marking the position of the fault. Sandstone tends to fracture when faulted — the fractured sandstone has washed out of the fault plane to form a localised debris cone half way up the scarp. Photo facing south. ©

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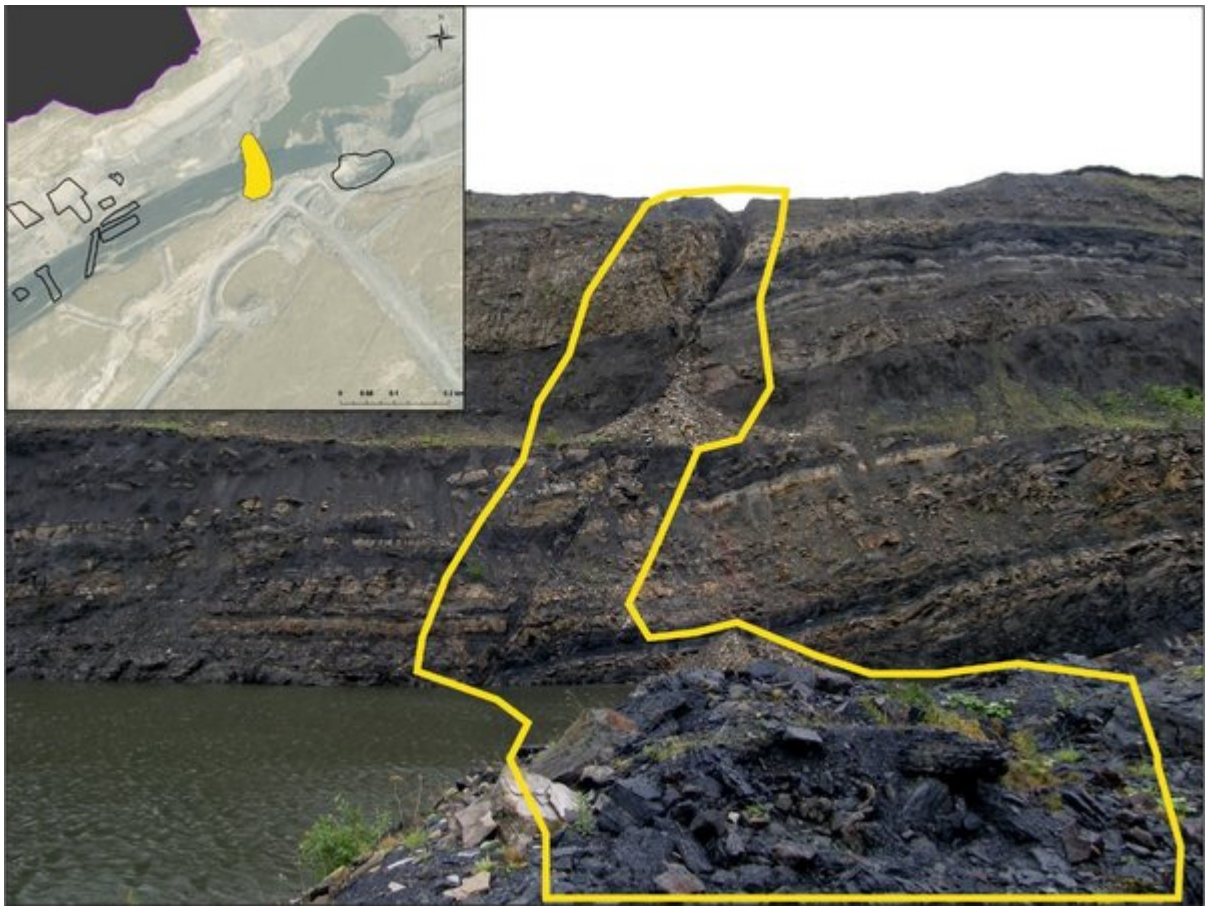
References



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