# Spireslack Locality 13: Cannel Coal

NGR: [274777 630440] [NS 74777 30440]

Key category of interest		Rarity		Quality
1. Sedimentary rocks	5		4	

Access: Good access to base of exposure, easily accessible from roadway.

Current safety: Loose material and rocks present a potential hazard.

**Measures to enhance site:** Viewing platform 5 m from base of scarp with examples of cannel coal to avoid any need to approach the main scarp.

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 13). Site boundary includes key rock exposures, immediate access to site and viewpoints to the site.

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## Site description

### Geology

This locality provides a viewable section of a 30–40 cm thick band of cannel coal within the Limestone Coal Formation, set within a thicker, ~75 cm thick section of the Muirkirk Nine Foot Coal. Cannel coal is a bituminous coal more akin to an oil shale than coal, due to its texture and composition. It is rich in oils and burns without smoke, unlike coal. It was accumulated in ponds and shallow lakes in peat forming swamps and bogs under oxygen deficient conditions. Cannel coal breaks with a conchoidal fracture due its very fine-grained nature. This locality provides an opportunity to study a different type of coal to that traditionally mined (i.e. 'sooty' coal) and to place it in stratigraphical context.

### Access and enhancement suggestions

Viewing platform away from the base of exposure, to avoid potential of falling blocks from scarp. Accessible blocks of cannel coal could be placed within the viewing platform to allow hands on access without being at base of the scarp.

## Site photographs

(Spireslack\_13 P1): 20 cm thick band of cannel coal set within the Muirkirk Nine Foot Coal seam. © BGS, NERC.

(Spireslack\_13 P2): Section of the Limestone Coal Formation showing 2 metre section of coal with the light grey band of cannel coal, with overlying sandstone bed (brown-orange coloured rock). © BGS, NERC.

### **References**



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(Spireslack\_13 P1) 20 cm thick band of cannel coal set within the Muirkirk Nine Foot Coal seam. © BGS, NERC.



(Spireslack\_13 P2) Section of the Limestone Coal Formation showing 2 metre section of coal with the light grey band of cannel coal, with overlying sandstone bed (brown-orange coloured rock). © BGS, NERC.