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## ELC\_23: Kidlaw Erratic

### Site information

#### Location and summary description:

The site comprises a glacially transported mass of limestone located north of Kidlaw Farm, 5 km south west of Gifford; this is the largest known glacial erratic in Scotland.

#### National Grid reference:

Mid-point: [NT 50976 64604]

**Site type:** Natural landform; Artificial quarry works

**Site ownership:** Kidlaw Farm

**Current use:** Agricultural land

**Field surveyors:** John Gordon

**Current geological designations:** None

**Date visited:** 27 September 2014

**Other designations:** None known

### Site map

(Figure 28) Kidlaw Erratic Location Map. The site boundary is drawn to include the main upstanding mass of limestone and its continuation below the adjacent mounded lower ground to the east as marked on the BGS 1:50k solid geology Sheet 33W. The site boundary for the Kidlaw Quarry ([ELC\\_20](#)) to the west is included for reference (shaded area).

### Site description

#### Background

The site is located north of Kidlaw Farm at the foot of the northern flank of the Lammermuir Hills (ELC\_23\_P1). Evidence of former quarrying and working of the limestone erratic at this site includes old lime kilns and quarry works.

#### Quaternary deposits and landforms

The erratic comprises a topographically upstanding mass of shattered Carboniferous limestone belonging to the Lower Limestone Group, c. 0.2km<sup>2</sup> in area surrounded by deposits of glacial till. It is the largest known glacial erratic in Scotland, transported during the Quaternary era. The shattered limestone is exposed in several disused quarries on the site (ELC\_23\_P3). It has been carried by ice several kilometers from source outcrops to the west or north west. Possibly the occurrence of a low escarpment with a long up-ice dip slope may have favoured the detachment and incorporation of the limestone mass beneath a cold-based part of the ice sheet. Kendall & Bailey (1908) noted two further, smaller examples of such rafts near Fala in Midlothian.

The limestone was formerly quarried and burned to produce lime, and the dilapidated lime kilns and disused quarries represent an industrial archaeological interest (ELC\_23\_P2).

## Access and additional information

**Access** is via a gate and track into the field at Kidlaw Farm. There is limited parking on the roadside verge.

N.B. The disused rock quarry 170 m to the west of site is described separately within this audit.

## Stratigraphy and rock types

**Age:** n/a

**Formation:** n/a

**Rock type:** n/a

## Assessment of site: access and safety

**Road access and parking** Access is from the minor road at Kidlaw Farm. The erratic can be easily viewed from the adjacent minor roads. Limited parking is available on the grass verge by the entrance track to the field.

**Safety of access** A rough farm track crosses the site and there are additional animal tracks.

Care is required on the rough ground, around the disused lime kilns and in the disused quarries.

**Safety of exposure** Care is required in accessing the steep slopes in the northern quarry. Access is via agricultural land.

**Current condition** The principal requirement is to maintain the overall visibility of the erratic landform both from outside and within the site, and the access to and visibility of the quarry exposures in the limestone. The former is good, but the sections are degraded and overgrown with limited exposure, and the slopes of the large northern quarry are now wooded.

**Current conflicting activities** The area is used for grazing which is compatible with maintaining the visibility of the erratic mass.

**Restricting conditions** The exposures in the disused pits are degraded and partly vegetated.

**Nature of exposure** Disused artificial quarry works.

## Assessment of site: culture, heritage & economic value

**Historic, archaeological & literary associations** History of lime production and presence of old lime kilns.

**Aesthetic landscape** Limited value

**History of earth sciences** Largest known glacial erratic in Scotland

**Economic geology** History of lime production.

## Assessment of site: geoscientific merit

	Rarity	Quality	Literature/collections	Primary interest
Lithostratigraphy				
Sedimentology				

**Igneous/mineral/metamorphic  
geology**  
**Structural geology**  
**Palaeontology**

**Geomorphology**      Regional/National      Excellent

Kendall & Bailey 1908;  
Simpson, 1928; Jackes X  
1973; Sissons, 1975;  
Hall, 2012

## **Site geoscientific value**

The site provides an excellent example of a large glacial erratic, the largest known in Scotland. The site is certainly of regional importance and a strong candidate for national importance because of its striking topographic expression. The Kidlaw Erratic complements the two glacial erratic features in the Quaternary of Scotland Geological Conservation Review at Leavad in Caithness and the Clochodrick Stone in Renfrewshire.

The Kidlaw Erratic is an excellent example of the glacial erosion and the transport of a large mass of bedrock: it is of regional to national significance.

## **Assessment of site: current site usage**

**Community** Local footpaths around the area may attract some walkers to this rural area.

**Education** Currently probably little used, but has significant potential for education and public interpretation e.g. as an extension to the Hillfoots Trail.

## **Assessment of site: fragility and potential use of the site**

**Fragility** The site is potentially sensitive to development, dumping, natural overgrowth, tree planting and large-scale quarrying.

**Potential use** School education, interpretation linking geological and industrial archaeology interests, and potential link to the Hillfoots Trail. Educational visits could be combined with visits to meltwater channels and deglaciation landforms south of Kidlaw at High Latch and elsewhere along the Lammermuir Hillfoots.

## **Geodiversity summary**

The site is an excellent example of a large glacial erratic with a striking topographic expression. It is relatively accessible and there is potential for developing the value of the site through promoting existing available information (e.g. East Lothian Landscapes [online]) and engagement with schools.

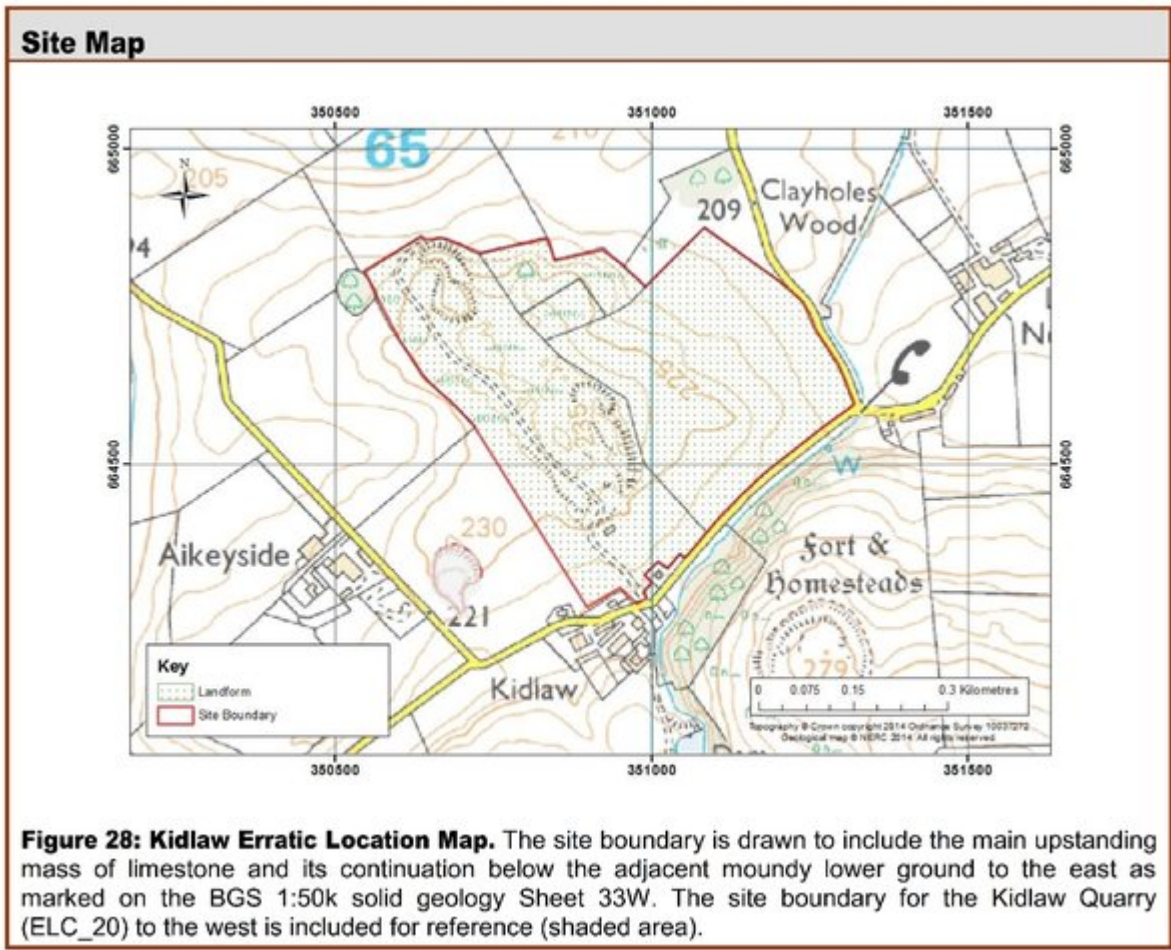
## **Site photos**

(ELC\_23\_P1) A glacially transported mass of mass of limestone forms a striking topographic feature north of Kidlaw Farm (centre). View from the south. © John Gordon.

(ELC\_23\_P2) Disused limestone kiln, Kidlaw. © John Gordon.

(ELC\_23\_P3) Disused limestone pit, Kidlaw. © John Gordon.

## **[References](#)**



(Figure 28) Kidlaw Erratic Location Map. The site boundary is drawn to include the main upstanding mass of limestone and its continuation below the adjacent mounded lower ground to the east as marked on the BGS 1:50k solid geology Sheet 33W. The site boundary for the Kidlaw Quarry (ELC\_20) to the west is included for reference (shaded area).



(ELC\_23\_P1) A glacially transported mass of mass of limestone forms a striking topographic feature north of Kidlaw Farm (centre). View from the south. © John Gordon.





*(ELC\_23\_P3) Disused limestone pit, Kidlaw. © John Gordon.*



*(ELC\_23\_P2) Disused limestone kiln, Kidlaw. © John Gordon.*