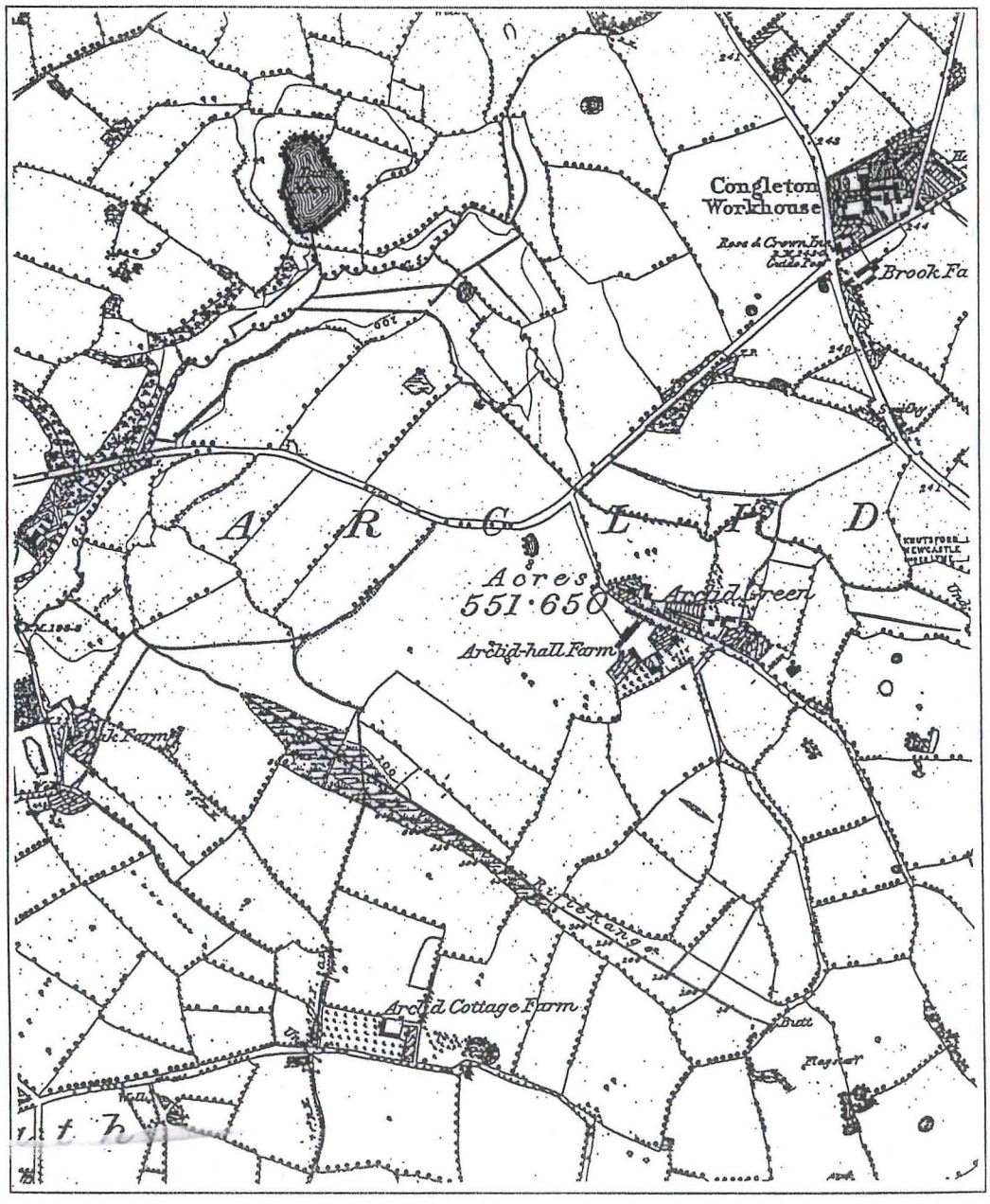
THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

Planning Application for Minor Western Extension to Silica Sand Workings at South Arclid, Arclid Quarry, Near Sandbach, Cheshire

ARCHAEOLOGICAL ASSESSMENT



CPAT Report No 823

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ARCHAEOLOGICAL ASSESSMENT

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November 2006

Report for Sloane Mead on behalf of Archibald Bathgate Group Ltd

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1 INTRODUCTION

1.1 In October 2006 the Field Services Section of the Clwyd-Powys Archaeological Trust (CPAT) was invited by Sloane Mead, on behalf of Archibald Bathgate Group Ltd, to investigate the archaeological potential of land adjacent to South Arclid, Arclid Quarry, near Sandbach, Cheshire (henceforward termed the Application Site), and to assess the archaeological impact of proposals to extend the quarry workings. The assessment forms part of a broader Environmental Impact Assessment, a statement on which is to be submitted in support of the application.

1.2 Two archaeological assessments have already been undertaken for the area within the existing planning boundary in connection with applications for the determination of new working conditions and a previous extension to the quarry workings (Jones 2000a and 2000b). These identified a number of archaeological sites, of which only one lies partly within the area of the present Application Site. The present assessment consisted of a desk-based study and a field survey which investigated the whole area of the proposed extension. The results have been used to provide a historical background for the Application Site, to identify known archaeological sites and to assess the archaeological potential of the area concerned.

2 SITE DESCRIPTION

2.1 Arclid Quarry lies 2.5km north-east of Sandbach, 8.5km west of Congleton and 5km south of Holmes Chapel (Fig. 1). The A534 Congleton to Sandbach road splits the Quarry and crosses the M6 Motorway at Junction 17, some 300m west of the Quarry boundary. The A5022 joins the A534 some 200 metres west of the Quarry boundary. The Quarry is situated within Congleton District in the County of Cheshire.

2.2 That part of the Quarry lying to the south of the A543 Congleton to Sandbach road is known as South Arclid, and is located in a mainly rural area, which is crossed by a number of important road links.

2.3 South Arclid is the current, active, sand extraction area, although the north-western portion has not yet been worked and still comprises agricultural land. The south-eastern portion of South Arclid is the current working area and comprises a quarry void. The north-western boundary of the current working area is a farm track that runs north to south across the permitted extraction area, from Arclid Hall Farm to Arclid Cottage Farm. The quarry void lies approximately 1km from the processing plant at North Arclid and is linked to it by two parallel underground pipelines.

2.4 The workings currently reach a depth of approximately 36m AOD, but approximately the lowest 2m are water filled. The height of the surface of the land around the extraction void varies from 60m AOD in the west to 76m AOD in the north.

2.5 As of 1 November 2006 the permitted workable reserves at South Arclid will be around 2.6 million tones, which equates to a life of around 5.5 years at current output rates of 475,000 tonnes per annum. The whole of this mineral reserve already has planning permission for extraction.

2.6 The present application relates to proposals to extend silica sand extraction into an area known as the Western Extension (Fig. 2), which occupies 5.7ha with a reserve of around 1.2 million tonnes. The Application Site occupies a slightly larger area of 8.1ha surrounding the Western Extension. This is mostly pasture, with the exception of two small areas of woodland and a playing field in the north-eastern corner.

3 DESK-BASED STUDY

3.1 Stage one of the assessment involved the examination of all readily available primary and secondary records relating to the Application Site, including documentary, cartographic and aerial photographic sources. Archives and repositories consulted included the following: the County Sites and Monuments Record (SMR) and Dept. of Environmental Planning, Cheshire County Council; Cheshire County Records Office (CCRO), Chester.

3.2 A search of the SMR revealed that there were no recorded archaeological sites within the Application Site boundaries, although seven sites lay within a 1km radius, including six listed buildings (Record nos 1105/1, 1104/0/1, 1104/0/2, 1308/1, 1308/2, 1308/0/1 and an undefined cropmark (Record no. 1179). The listed buildings included Arclid Hall Farmhouse (Record no 1105/1), a brick-built house dating from *c.*1700, which lies immediately to the north of the Application Site. The farmhouse, which was owned by the Moreton family during the 19th century, probably stands on the site of an earlier building which was formerly the seat of the Arclyds and Mainwarings (Earwaker 1972, 112; Ormerod 1882, 117).

3.3 Arclid is first recorded as *Erclid* between 1188 and 1209. The placename undertakes numerous changes in spelling over the centuries, but is thought to have been originally derived from the old Norse or Danish meaning 'Arnkell's hill-side (Watts 2004, 16). The placename might therefore suggest that there has been some form of occupation in the general area from at least the early medieval period. The name Arclid Green, referring to the small settlement immediately to the north of South Arclid Quarry, also suggest a possible medieval origin as 'Green' placenames are often first recorded at this time, although some may be as late as the 15th or 16th centuries (Prof. N Higham, pers comm.).

3.4 Selected cartographic sources have been used to undertake a map regression analysis of the Application Site (Fig. 3) from the 18th century to the present day, illustrating the changes in field patterns and the development of the area. There is no substantive information for the area until the earliest available cartographic source, which was an 18th-century estate map depicting lands belonging to Mr John Sutton of Arclid Hall, and Mrs Thornycroft of Moreton Hall (Fig 3a). Although this gives an indication of the field pattern at the time, it provides no information regarding potential archaeological sites within the Application Site.

3.5 The Tithe Survey for Arclid Township in Sandbach parish dates from 1840 (Figs 3b). A study of the fieldnames listed in the Tithe Apportionment provides useful information relating to the archaeological potential of the area. A number of fieldnames relate to the existence, or former existence, of peat deposits which can be mapped to indicate the likely extent of peat deposits at this time (Fig. 3b), which include a small area on the south-east side of the Application Site. The peat deposit, most of which has already been removed by quarrying, is part of a small basin mire. The Tithe Survey revealed no further evidence for potential archaeological sites.

3.6 The Ordnance Survey 1st edition 25" map (Fig. 3c), surveyed in 1873-4, shows most of the area little changed from the 1840 Tithe Survey. The map provides no indication of any features of archaeological significance within the Application Site.

3.7 An examination of the aerial photographic sources revealed no indication of any features of archaeological significance within the Application Site.

3.8 The Application Site includes part of a peat deposit (Site 1) which was identified during the previous archaeological assessments. A recent programme of palaeoenvironmental sampling has been undertaken as a condition of the existing planning permission, comprising three cores, one of which was from a woodland area on the eastern side of the Application Site. The programme of sampling was undertaken in order to assess the depth, condition and potential of the deposit as a palaeoenvironmental resource. A sub-sample was extracted from the base of the deepest core for

palynological (pollen) analysis and radiocarbon dating to determine the date of peat initiation. The study has not yet been completed, but initial results indicate a peat depth of up to 4.8m within a relatively steep-sided, narrow hollow around 100m wide which extends for about 750m in a north-west to south-east direction. The peat consists primarily of wood and monocot peats with a layer of undecomposed wood towards the south-eastern end of the deposit. The presence of a band of sand intercalating the basal peat deposits within one core suggests that the mire may have formed within a linear, salt subsidence hollow. A similar formation process is suggested for Brookhouse Moss *c.*2.5km to the east (Leah *et al.* 1997, 187). Depending on the results from the initial programme of work, and in particular the radiocarbon dating, further, more detailed analysis may be undertaken (F Grant pers com.).

3.9 At the time of writing a report had just come to light regarding a metal detector find somewhere in the area of Arclid Church which lies 100m from the south-west corner of the Application Site. The find consisted of a silver coin of the 8th or 9th centuries known as a Friesian *sceat*, which was the equivalent of a penny. It is not known whether this was an isolated find, or perhaps part of a hoard.

4 FIELD SURVEY

4.1 The whole of the Application Site was examined by a thorough field survey undertaken on 7 November 2006 to identify any surviving upstanding archaeology and to assess the potential for surviving sub-surface deposits.

4.2 Presently, the Application Site comprises a small number of fields on either side of a shallow valley, most of which are pasture. There is an area of woodland to the east of the Application Site which extends into the area and the north-east corner is occupied by a playing field.

4.3 An area of the peat deposit (Site 1) associated with a former basin mire has already been lost to quarrying, within the existing extraction area. The surviving area of peat lies mostly within a small woodland but is likely extend further to the west into an area of improved pasture (see Fig. 4; plate 1).

4.4 The only previously unrecorded site noted during the field survey was a linear bank (Site 2; plate 2) up to 0.2m high and 1.0m wide running north-west to south-east along the crest of the valley in the south-east part of the Application Site. The bank is likely to represent a former field boundary of unknown date.

5 SUMMARY OF ARCHAEOLOGICAL SITES (Fig. 4)

5.1 The archaeological assessment has identified two archaeological sites within the Application Site, a peat deposit associated with former basin mire, and a former field boundary bank. These have been classified according to their perceived significance following guidelines given in the Cadw: Welsh Historic Monuments draft *Archaeology and the Trunk Road Programme in Wales: a Manual of Best Practice.*

Site 1 **Type:** Peat **Period:** Unknown **Form:** Document
NGR: SJ 7811 6142 (centre) **Condition:** Damaged
Source: Tithe Survey of 1840
Field survey
Description: Peat deposit associated with former basin mire, the larger part of which has already been lost to the quarry. Surviving area is *c.* 1.5ha, within woodland.
Category: B - regional importance. Preservation *in situ* is the preferred option but if loss or damage is unavoidable, appropriate detailed recording should be undertaken.

Site 2 **Type:** Bank **Period:** Unknown **Form:** Earthwork
NGR: SJ 7811 6142 (centre) **Condition:** Damaged
Source: Field survey
Description: A linear bank up to 0.2m high and 1.0m wide running north-west to south-east along the crest of a valley. The bank is likely to represent a former field boundary.
Category: D - minor and damaged site for which rapid recording should be sufficient.

6 CONCLUSIONS, POTENTIAL AND PREDICTED IMPACTS

6.1 The assessment has identified two archaeological sites within the Application Site, together with evidence which suggests that the wider area has been occupied and cultivated since at least the medieval period.

6.2 A peat deposit (Site 1) associated with a basin mire extends into the south-east corner of the Application Site. Such deposits may contain preserved organic remains, but perhaps more significantly could provide important information relating to the floral and faunal history of the area. A significant area of peat deposits formerly existed within the area of the present quarry workings, and a programme of sampling and analysis are already underway in connection with existing permissions. Evidence from elsewhere in the county would suggest that such deposits frequently have associated evidence for prehistoric activity in the form of worked flints, much of which belongs to the late Neolithic and Bronze Age (*c.* 6700-3200 cal BC), although occasionally to the late Mesolithic and early Neolithic (*c.* 6700-3200 cal BC). However, the finds imply nothing more than occasional visits to the fringes of wetlands from the later Mesolithic onwards and may be part of a wider picture so that at present there is no evidence for specific wetland-edge activity (Leah *et al.* 1997, 87-90 and 149).

6.3 The field survey identified a former field boundary (Site 2) of unknown date in the south-east corner of the Application Site, extending beyond its boundary.

6.4 The recent metal detector find of an early medieval coin close to Arclid Church may indicate that there is the potential for further buried finds or associated deposits within the Application Site, although at present this is entirely speculative.

Potential impact of existing permissions

6.5 The baseline conditions set out in the existing planning permission include an extraction boundary which incorporates the majority of the surviving peat deposit (Site 1) which extends into the present Application Site, and is likely to be affected by the gradual drainage of the area as extraction progresses. A programme of environmental sampling has already been undertaken in connection with the existing planning permission and, depending on the results, further investigation may be forthcoming.

Potential impact of the proposed extension

6.6 The proposed extension will directly affect the peat deposit which extends into the south-eastern part of the Application Site. However, the majority of the deposit lies within the area of existing permissions and the continued extraction within this area will gradually drain the whole peat deposit and degrade its palaeoenvironmental potential. The proposed extension is therefore unlikely to have a significant additional impact on the peat deposit, over and above that resulting from existing permissions.

6.7 The proposals will also directly affect the former field boundary (Site 2), leading to its partial loss.

6.8 There is also the potential for unrecorded archaeological remains to be affected during any sub-surface disturbance, and this may be of particular relevance with regard to the recent discovery of an early medieval coin near Arclid Church and the potential for evidence of prehistoric activity associated with the former wetland area.

7 MITIGATION

7.1 A condition should be attached to allow for a systematic metal detector survey to be undertaken in advance of topsoil stripping, and a further condition should be included to allow for a watching brief during the stripping of topsoil. The potential for further, unrecorded archaeological features and/or artefacts cannot be discounted, and a watching brief is therefore considered sufficient mitigation to enable adequate recording should anything of significance be revealed during the stripping of topsoil.

7.2 The programme of environmental sampling which has already been initiated to investigate the peat deposit (Site 1) is considered sufficient and no further sampling is proposed. With regard to the former field boundary (Site 2), rapid recording is considered to be sufficient as part of the general watching brief during the stripping of topsoil.

8 ACKNOWLEDGMENTS

8.1 The writer would like to thank the following for their assistance: Fiona Grant, CPAT; Malcolm Sloane and Gill Mead, Sloane Mead; Rob Edwards, SMR Officer, and Mark Leah, Cheshire County Council, Environmental Planning; the staff of Cheshire County Records Office, Chester; and Prof N Higham.

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Cartographic sources

18th century map of Arclid. Area of Arclid Hall Farm. CCRO DDX 139
Tithe Survey of Sandbach Parish CCRO EDT 351/2a
Tithe Survey of Arclid Parish CCRO EDT 18/2
Ordnance Survey Surveyor's Drawings, Sheet 80 SE, 1841, scale 2" = 1 mile
Ordnance Survey 1st edition 25", surveyed 1874, Cheshire 50
Ordnance Survey 2nd edition 25", revised 1896-7, published 1898, Cheshire 50.6 and 50.7
Ordnance Survey 1st edition 6", surveyed 1874, Cheshire 50 NE and NW
Ordnance Survey 2nd edition 6", revised 1896-7, published 1898, Cheshire 50 NE and NW
Ordnance Survey Provisional edition revised 1907-8 with additions 1938, Cheshire 50 NE and NW

Aerial photographic sources

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1973 verticals, Run 35, 2685-2688, May 1973
1973 verticals, Run 36, 1221-1224 and 1792-1796, June 1973
1973 verticals, Run 37, 1134-1137, May 1973
1983 verticals, Run 7, 34436-8, October 1983
Geonex 1992 verticals 177 92/012-3 and 233, 31st October 1992

Plate 1 View eastwards along the shallow valley containing the peat deposit (Site 1) with area of woodland in the distance. Photo CPAT 2264.41

Plate 2 Boundary bank (Site 2) from the north-west. Photo CPAT 2264.40

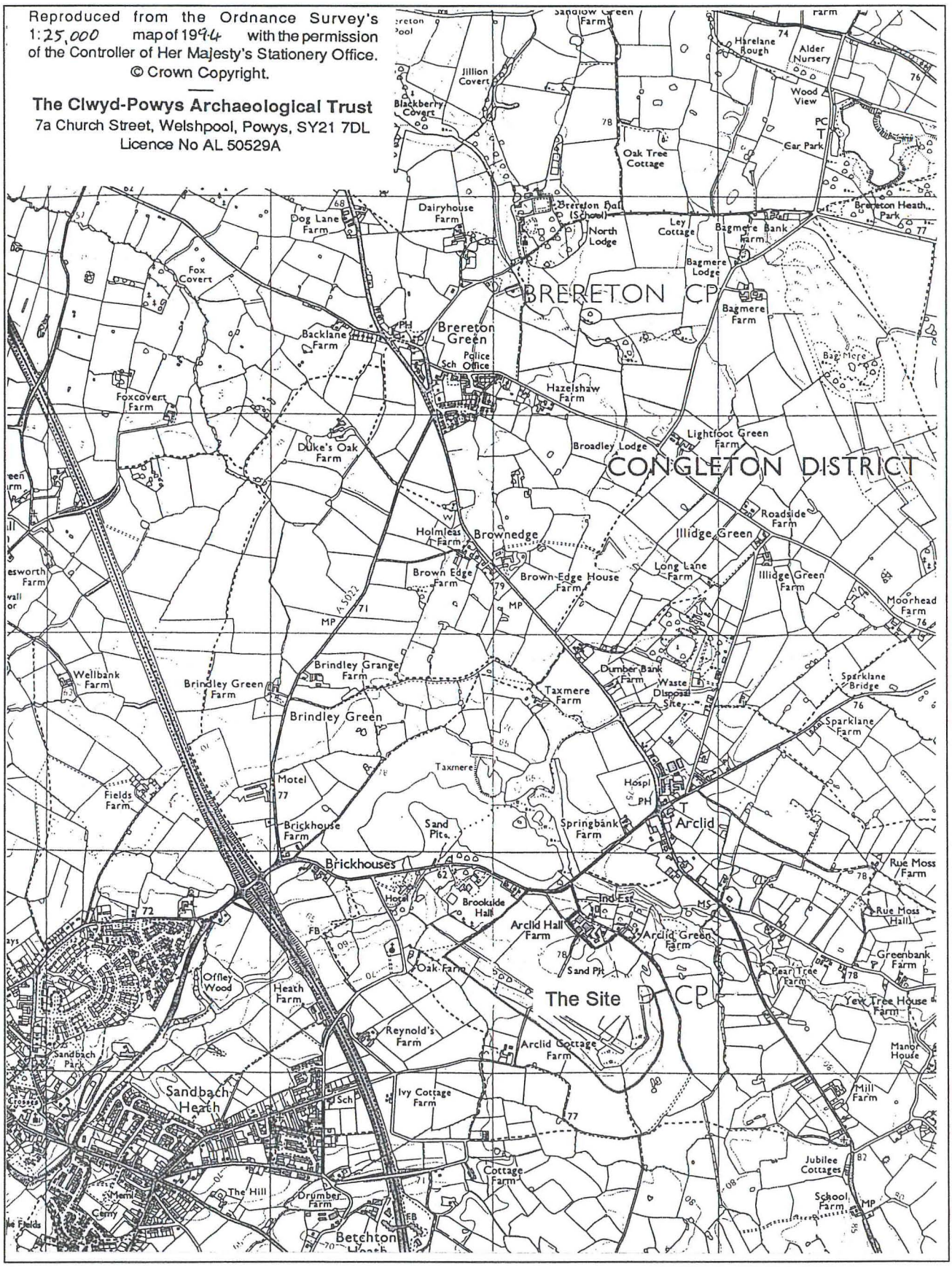


Fig. 1 Site location

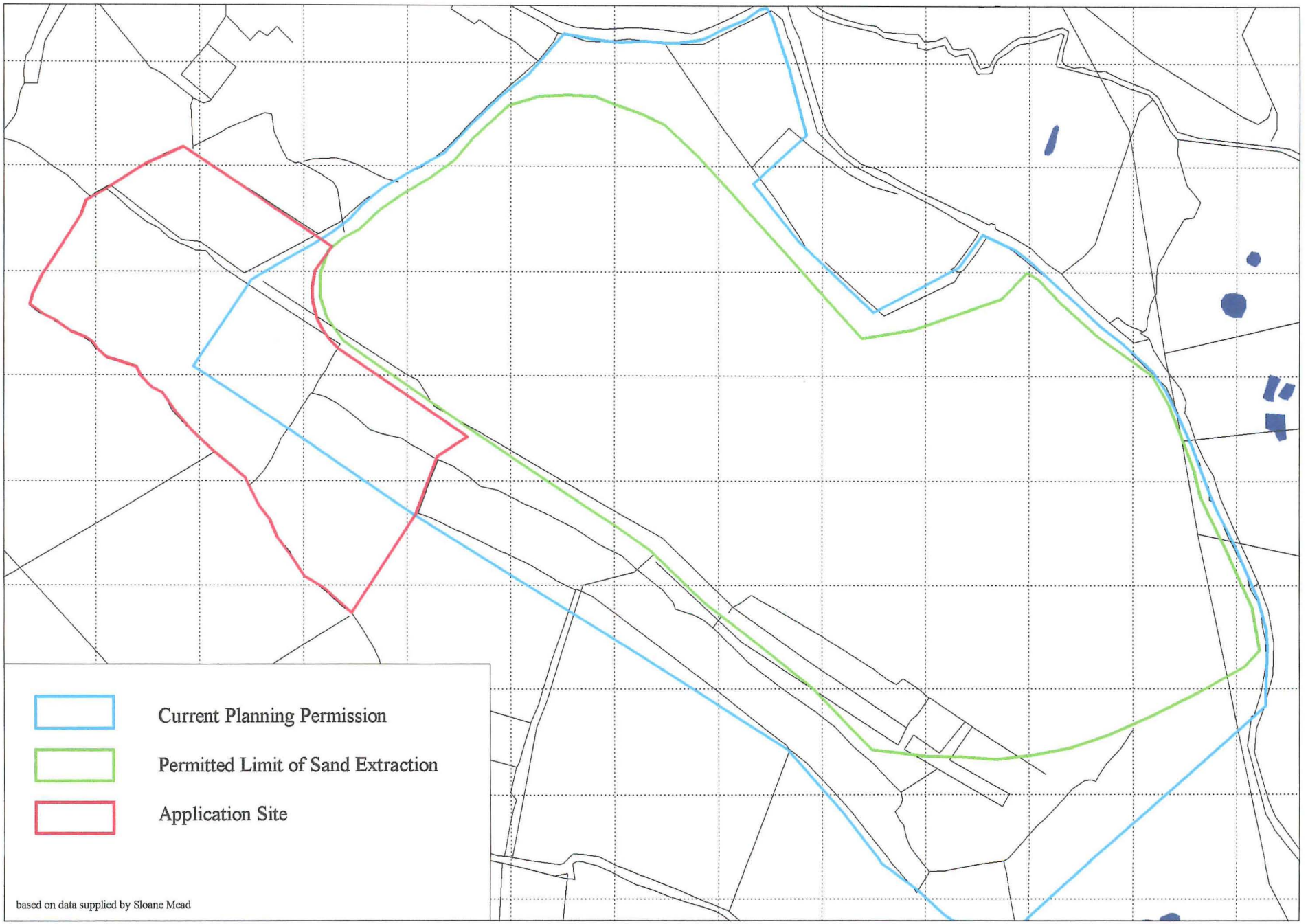
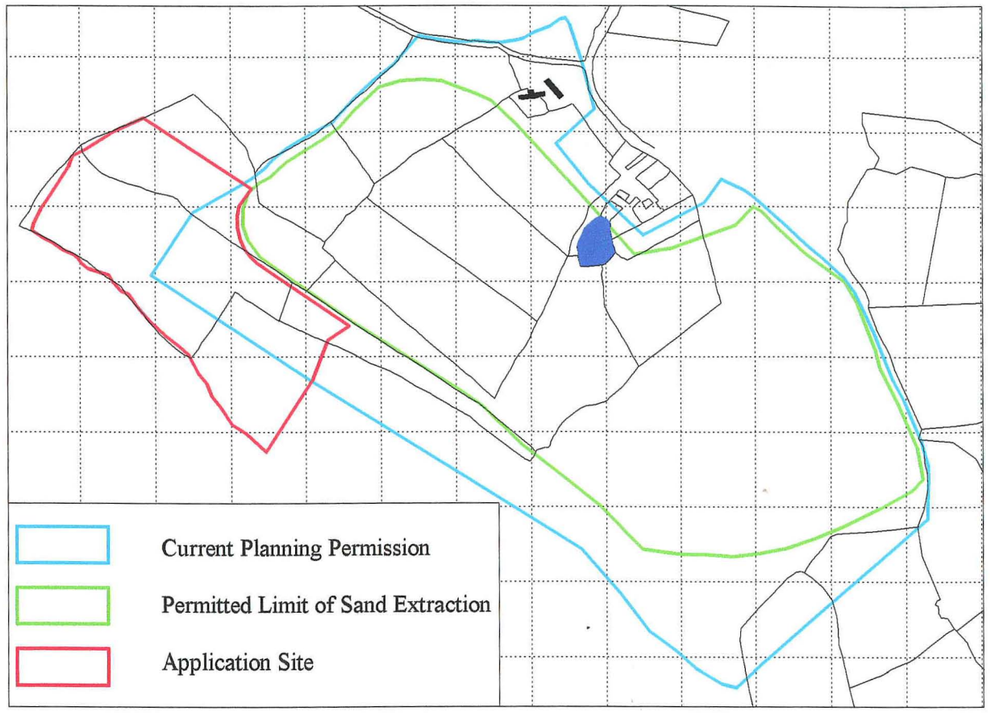
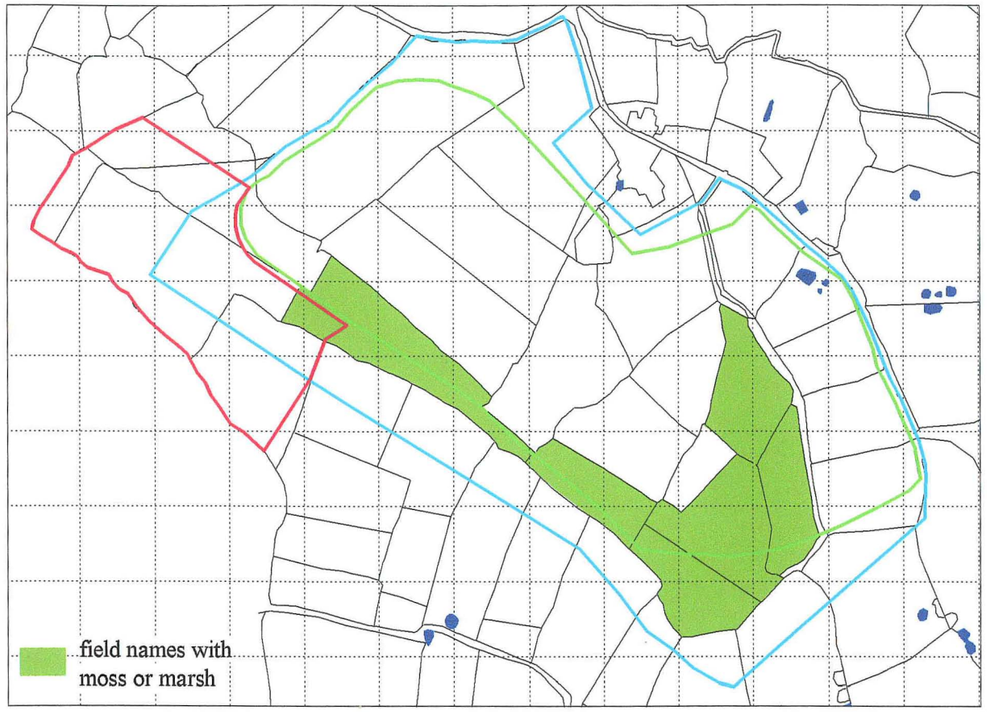


Fig. 2 South Arclid Quarry: existing boundaries and proposed extension

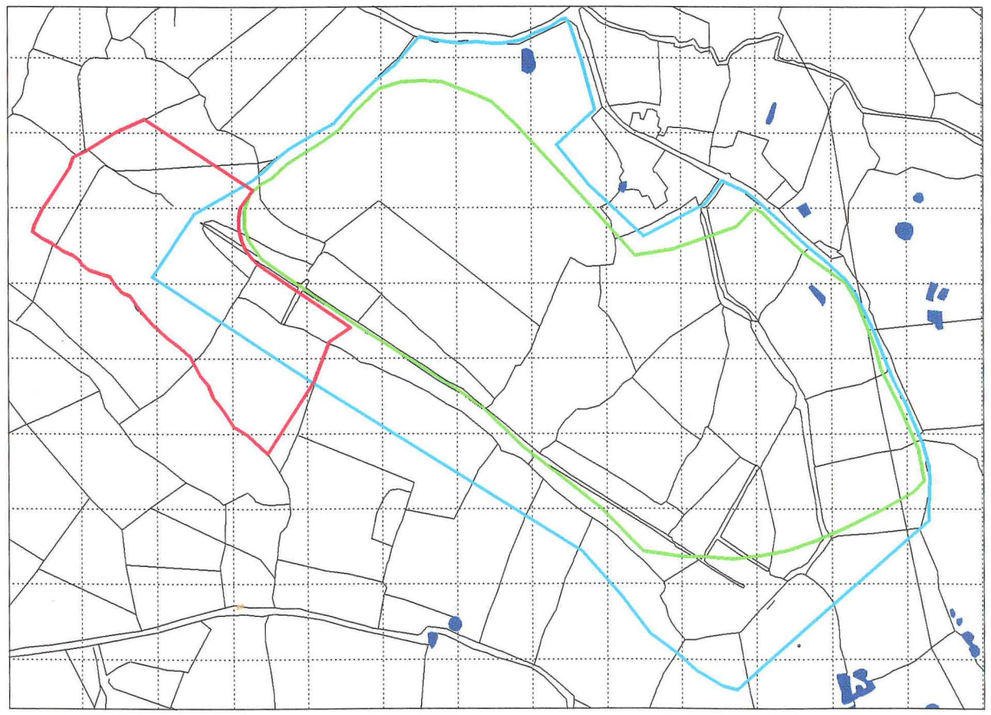
3a 18th-century Estate Map



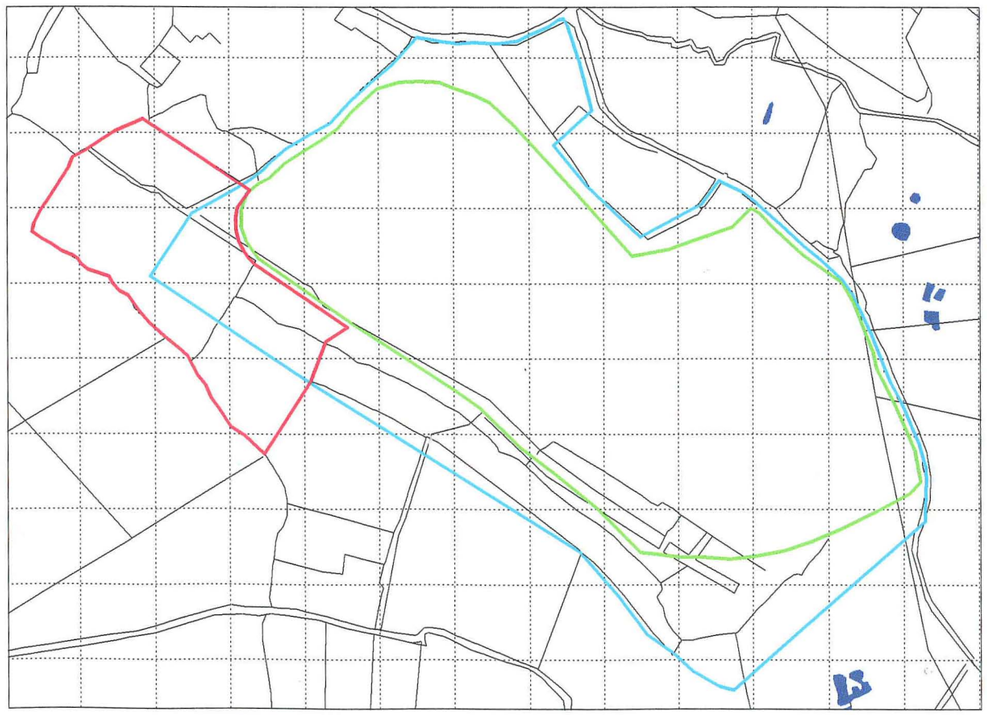
3b Arclid Tithe Survey1840



3c Ordnance Survey 1st edition 1873-4



3d Present day



Fig, 3 South Arclid Quarry, map regression

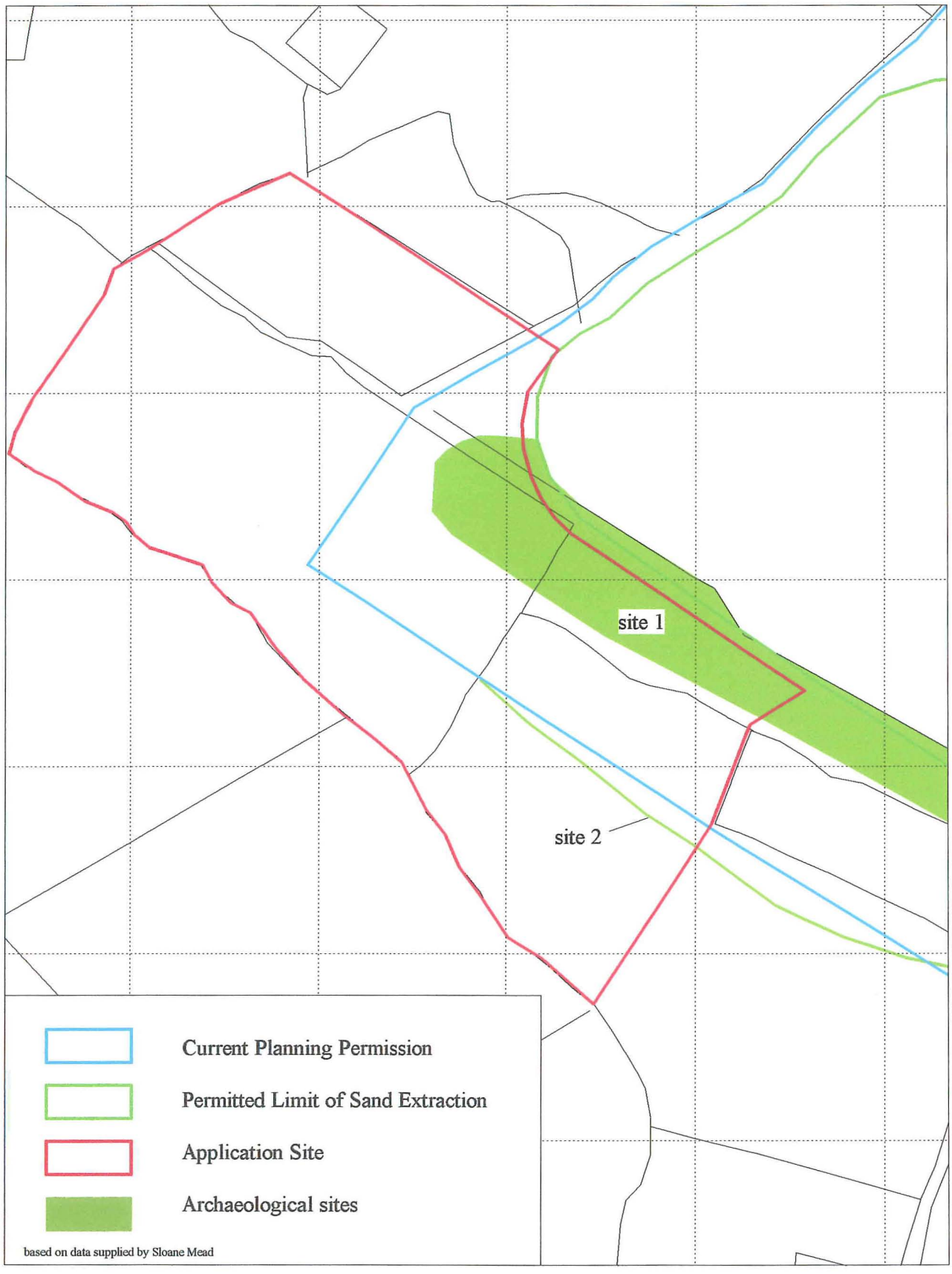


Fig. 4 South Arclid Quarry, Western Extension: archaeological sites, 1:3,000