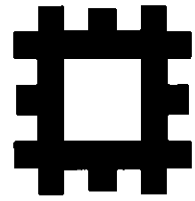
ENGLISH HERITAGE

Stanton Moor Quarry, Derbyshire

Interim report for internal circulation only

Stewart Ainsworth and Trevor Pearson

SURVEY REPORT



STANTON MOOR QUARRY
DERBYSHIRE

NMR Nos: SK 26 SW 164
NGR: SK 2481 6315
RSM: 23315

Surveyed November - December 2000
Surveyed by S Ainsworth and T Pearson
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LIST OF ILLUSTRATIONS (at back of report)

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1. INTRODUCTION AND BACKGROUND TO THE SURVEY

In 1986, the Royal Commission on the Historical Monuments of England (RCHME) carried out a 1:1000 scale survey and archaeological investigation of Stanton Moor, Derbyshire (NGR: SK2481 6315). The RCHME survey was limited to the moor top, and specifically excluded the former quarry areas at the west except where they made convenient topographic boundaries. Comprehensive reports containing the full background to that survey, results of the investigation and the survey plans are deposited in the National Monuments Record in Swindon (Collections reference 917169). This body of material was used by English Heritage to inform scheduling of a large area of the moor in 1995, which principally included Bronze Age burial, ceremonial and settlement remains (Scheduled Monument National Number 23315). When defining the extent of the scheduled area at the west side of the moor, English Heritage determined the boundary to be "the quarry edge" (Scheduled Monument Entry File Reference AA 32535/1) and on the attached maplet (Figure 1) the line was drawn around quarry edges which extended beyond the area surveyed by the RCHME (Figure 2) but had been mapped previously by the Ordnance Survey. This resulted in nine areas being included within the scheduled area which were outside the limits of the earlier RCHME survey.

In 1999, DCMS asked English Heritage to advise on an application for Scheduled Monument Consent by the Mineral Planning Group acting on behalf of Block Stone Ltd for stone extraction within one of those unsurveyed areas (Area 6 – see below). In April 2000, to help inform this process, the English Heritage archaeological field investigation team at York was asked to undertake the survey of the application area where it overlapped with the sheduled area. The extent and method of survey for Area 6 was determined during a reconnaissance visit to site by John Humble (English Heritage Inspector, East Midlands Region) and Stewart Ainsworth (English Heritage Senior Investigator, York) in May 2000. It was agreed that the survey would be completed to the same specification as the original record compiled by the RCHME to ensure consistency of survey and record, and that as well as the application area, all the remaining eight areas would be surveyed. At the request of the East Midlands Region, the survey was timetabled to dovetail with excavations being undertaken on the Nine Ladies stone circle nearby to ease problems of permissions and access. As a result, it was agreed that survey would take place in late November 2000, and that the final report and survey would be compiled and sent to the Region in early 2001. However, as a result of developments regarding the application, a request was made by the inspector to expedite the delivery of an interim statement and plan of Area 6 before 19 December 2000. At the time of preparation of this interim report, historical cartography, air photography and existing desk-top studies were not available for consultation.

This document is thus an interim statement for Area 6 prepared for the Region in advance of the final report, which will include survey and summary of all nine areas.

2. SURFACE INVESTIGATION AND SURVEY - AREA 6

The investigation of this area focused on two main objectives. The first was to establish an accurate plan and record of any archaeological and topographic features; the second was to establish where possible, the limit of the scheduled area as defined in 1995 and correlate this with the boundaries and areas depicted on the plan submitted on behalf of Block Stone Ltd (Figure 3) as part of the application for consent.

2.1 Archaeological and topographic features (see Figure 4)

1. Substantial causeway, *c* 5m wide, constructed of quarry waste and built across the disused quarries to the north and south (Feature 6). The causeway appears to have been in existence for some time and is shown on the 1968 edition of OS 1:2500 mapping (Sheet SK 2463/2563 - surveyed 1966) as part of the disused quarries. This causeway has been subsequently re-used as an access track into Areas 6A, 6B and 6C (see Feature 2).

2. Access track, 3m wide. Not shown on 1968 OS map and therefore of fairly recent origin. The track has been cut through quarry waste (Feature 3) and uses the causeway (Feature 1). Probably associated with relatively recent surface stripping of Area 6A.

3. Quarry waste, maximum 5.5m wide and 0.6m high. This low mound is turf-covered and has been established for some length of time. Probably associated with the quarries marked as disused on the 1968 OS map (Feature 6).

4. Possible, poorly defined, low flat-topped mound of quarry waste, maximum 0.3m high. This low mound is turf-covered and has been established for some length of time. Probably associated with disused quarries marked on the 1968 OS map (Feature 6).

5. Bank of turf-covered quarry waste, maximum 3m wide and 0.5m high. This bank has been established for some length of time. Probably associated with disused quarries marked on the 1968 OS map (Feature 6).

6. Upper limit of former stone quarries to the west. Corresponds to the eastern limit of quarries depicted as disused on the 1968 OS map. The quarries are crossed by a causeway (Feature 1) and have been used as a quarry waste dump.

7. Rectilinear hollow, 2.3m by 2m and 0.3m deep. Cuts through the turf. Possibly caused by a bucket scoop from a mechanical digger during the relatively recent surface stripping of Area 6A/A1.

8. Large free-standing sandstone block, 1.6m by 1.3m and 1m high. Appears to have been deliberately placed to block the access track to Area 6A (Feature 2).

9. Large free-standing sandstone block, 2.4m by 1m and 1.4m high.

10. Bank of quarry waste, 3m wide and 1m high. Lies directly on the surface of Area 6A/A1. May be associated with localised quarrying in Area 6A1.

11. Bank of quarry waste, maximum 6m wide and 1.2m high. Lies directly on the surface of Area 6A/A1. May be associated with localised quarrying in Area 6A1.

12. Area of loose stone blocks and quarry waste. Lies directly on the surface of Area 6A/A1. May be associated with localised quarrying in Area 6A1.

13. Limits of recent quarrying. Not depicted on 1968 OS map. Surfaces appear fresh and are probably the last rock faces quarried in this immediate vicinity, sometime after the date of survey (1966). Some of the edges appear to be cut into the platform of Area 6A and thus post-date it. Some of the vertical quarry faces and steps were not surveyed due to Health and Safety considerations.

14. Limit of former stone quarries. Corresponds to the eastern limit of quarries depicted as disused on the 1968 OS map. Some re-working of old faces at the southern end is probably associated with Feature 13.

15. Track, *c* 4m wide, cut through old land surface. This provides access to Areas 6A, 6B and 6C from the north-west and has a relatively recent appearance. It is not depicted on the 1968 OS map and is probably associated with the surface stripping of Area 6A or dumping in Area 6B.

16. Bank of quarry spoil maximum 3m wide and 1.2m high. Lies adjacent to track (Feature 15) and may be associated with it.

17. Bank of quarry waste, *c* 5m wide and 1.2m high. This bank lies directly on top of a massive quarry waste platform which partially infills the southern end of a former quarry (Feature 18): the extent of the waste dumping within the bottom of the quarry was not deemed relevant to this survey and was not included. The bank forms the northern limit to Area 6B.

18. Upper limit of former stone quarries. Corresponds generally to the limit of disused quarries depicted on the 1968 OS map, apart from the changes caused by cutting and infilling at the south (Area 6B).

19. Loose dumping of quarry waste. Lies adjacent to track (Feature 15) and may be associated with it.

20. Dump of quarry waste (mostly turf-covered). Associated with the former quarry to the north (Feature 18).

21. Bank of quarry waste, maximum 4m wide and 1.6m high. Some grass covering, but clearly has been stacked later than the silver birch trees, which in places it partially buries. These trees are probably less than 20-30 years old. Possibly associated with overburden removal in Area 6A.

22. Possible flat-topped mound of quarry waste. The covering of grass and heather would indicate this is an old surface and probably associated with the former quarries to the north (Feature 18). Pre-dates Feature 21.

23. Turf-covered stony heap, *c* 5m diameter and 0.3m high. Open ended at south, and hollowed at the centre. The remains have been disturbed and there is therefore a degree of uncertainty as to whether this is a genuine small prehistoric cairn associated

with the extensive field system to the east and south (NAR no. SK 26 SW 164), or is alternatively associated with small-scale surface quarrying.

24. Dressed, rectangular stone measuring 0.24m by 0.4m and 0.42 high, set upright into the ground. Has the appearance of being a re-used broken gatepost. It is one of two stones (see also Feature 25) set on the east side of a track (Feature 26).

25. Dressed, rectangular stone measuring 0.20m by 0.35m and 0.60 high, set upright into the ground. Has the appearance of being a re-used broken gatepost. It is one of two stones (see also Feature 24) set on the east side of a track (Feature 26).

26. Track, visible as a slight hollow way during the RCHME survey of 1986, but now mostly overgrown with heather and only partially evident. The route of the track is cut by the quarries shown on the 1968 OS map. Relationship with Feature 33 is unclear.

27. Mound of quarry waste. Partially infills arm of quarry (Feature 44) which is part of the disused quarry shown on the 1968 OS map (Feature 6). Possibly associated with quarrying to south (Feature 42) or the quarries to the west (Feature 6).

28. Small, (partially turf-covered) heap of naturally weathered stones, measuring 1.4m in diameter and 0.3m high. It is possible that this is a small prehistoric cairn associated with the field systems to the east (NAR no. SK 26 SW 164), but this interpretation should be treated with caution. Although the weathered character of the stones suggest that this is not a small heap of quarry waste, it does appear to be situated immediately between an area of quarry spoil to the north-west (Feature 27) and the quarrying to the south (Feature 42). The survival of such a small prehistoric feature intact in close proximity to the later quarrying would be surprising.

29. Grass-covered mound of quarry waste, maximum 6m in diameter and 1.9m high. Overlies carefully constructed stone causeway (Feature 31) and bank (Feature 30). Probably associated with quarrying activity identified in Feature 42.

30. Flat-topped, linear bank, 2.2m wide and 0.3m high with possible central rut. Overlain by Feature 29 and probably associated with quarrying activity identified in Feature 42.

31. Carefully constructed, stone causeway, 3.6m wide, and 0.3m high. Was traced 35m west from Feature 29, but appears to extend beyond the area surveyed, and has a branch to the north. No specific relationship between this branch and the waste mound (Feature 27) could be established. Probably associated with quarrying activity identified in Feature 42

32. Line of unconsolidated stones lying in an approximate east-west direction identified by the RCHME survey of 1986 but now heather covered and not visible. It lies parallel to a number of field boundaries associated with the prehistoric field system to the south and east (NAR no. SK 26 SW 164) and may represent a field clearance edge, although this identification cannot now be confirmed due to heather cover. Alternatively, this may be a natural, loose stony edge: such edges have been observed to mark limits of prehistoric fields on other moors surveyed by the RCHME on the Derbyshire gritstones.

33. Collapsed or unfinished drystone wall, 2.5m wide and 0.3m high, of possible early 19th-century date identified in the RCHME survey of 1986 (NAR no. SK 26 SW 164). Turf-covered but still visible. Relationship with Feature 26 is unclear.

34. Slight hollow, way 2m wide and 0.2m deep. Identified in the RCHME survey of 1986 (NAR no. SK 26 SW 140) and thought to be one of many pre-enclosure routes across the moors. This feature is still visible and is cut by the quarry to the south (Feature 42).

35. Stone walls of now ruined quarry buildings depicted on the 1968 OS map. As the walls only are depicted on the map (no roof shown) it is probable that they were abandoned by the date of survey (1966).

36. Deep quarry face. Not depicted on the 1968 OS map and seems to be contemporaneous with the recent quarry face to the east (Feature 13). Probably created sometime after 1966.

37. Limit of overburden stripping. Defines the west and south limits of quarry platform (Area 6A/A1). Not depicted on OS map of 1968. Appears relatively recent. Depth from old ground surface above varies between 3m and 1.5 m.

38. Mixture of former quarry edge and recent cuts into the land surface. Forms the southern boundary to Areas 6B and 6C. Corresponds generally to the quarry edge depicted on the 1968 OS map, but in places the old land surface has been cut back recently, probably during the removal of overburden (Area 6A) and waste dump (Area 6B).

39. Post and wire fence. This fence is not shown on the 1968 map but was shown on the 1986 RCHME survey.

40. Series of ruts caused by wheeled vehicles, possibly carts. Pre-date causeway to the south (Feature 31) and mound of quarry waste to the north (Feature 27).

41. Many shallow delves into the land surface were observed in this area. These are the result of surface extraction of stone and are evident all across the moor. Although undated, these features are likely to be post-medieval or early modern in date. Because they were so numerous they were not included in the original RCHME survey and have not been individually recorded in this current investigation.

42. Limit of former quarry and quarry shelf. These features are not depicted on the 1968 OS map suggesting that this is an extension to the quarries to the south and was created sometime between 1966 (the date of survey) and 1986, the date of the RCHME survey.

43. Unsurfaced path through the trees as shown on 1986 RCHME survey. This still exists but numerous other wear-lines caused by walkers are now visible and none are formally established or public footpaths. As they were not included in the original 1986 RCHME specification they were not included in this survey.

44. Spur of quarry face. Part of disused quarry (Feature 6) shown on 1968 OS map.

Area 6A (Figure 5)

A level platform below the natural land surface, defined mostly by quarried edges and cuts at depths varying from 1.5m to 3m and which mostly appears to have been created by the removal of overburden. Secondary activity appears to have occurred at the west end (Area 6A1). The eastern boundary of Area 6A is indistinct as it merges with Area 6B. This zone of uncertainty has been designated as Area 6C for the purposes of area measurement.

Measured area 6A (includes area 6A1) = 850 sq m

Area 6A1

Removal of stone and localised waste is evident at the west end of Area 6A. The activities in Area 6A1 appear to post-date the removal of overburden from Area 6A. Metrically, this area correlates almost exactly with the "Area within SAM where extraction by NSP took place" as defined on the plan supplied on behalf of Block Stone Ltd (see Figure 3).

Measured area 6A1 = 379 sq m

Area 6B

Levelled and rammed dump of quarry waste continuing the level from Area 6A so that the whole appears as a single large platform. This has partially infilled the quarry to the north (Feature 18). It is defined by a mixture of former quarry scarps and new cuts into the land surface to the south (Feature 38) and bank of quarry waste to the north (Feature 17).

Measured area 6B = 128 sq m

Area 6C

Area within which it is not possible to determine with any confidence where the boundary between overburden removal (Area 6A) and infilling (Area 6B) has occurred.

Measured area 6C = 102 sq m

2.2 Archaeological summary

On land surfaces within the scheduled area which are also in the area covered by the Ministerial extraction and tipping boundary as defined in Figure 3 only two features of potential archaeological interest were identified (Features 23 and 32). There is some doubt as to whether Feature 23 is a genuine prehistoric cairn with later disturbance or is simply residue from stone extraction. Many other small cairns on this moor of similar appearance have genuine prehistoric context, and until demonstrated otherwise this feature should be considered to be part of the pattern of prehistoric field clearances close by identified in the RCHME survey of 1986. Some 10m to the south of this, the line of loose stones also identified in the RCHME survey (Feature 32 - which is now no longer visible due to heather cover), follows a pattern of spacing and alignment seen in the probable prehistoric field clearance boundaries to the south, also recorded by the RCHME. Although this alignment is not now visible, some stones identified at the western end in the portrayal on the RCHME survey may suggest a continuation of the field system further west into the application area, which cannot now be identified by surface observation. It has been noted on other RCHME surveys in the Derbyshire gritstones, notably at Gardom's Edge, Big Moor and Gibbett Moor, that natural stony edges similar to Feature 32 often mark the extents of clearance and probable cultivation, but are not necessarily deliberately built features: in many cases cleared stone has been thrown or casually deposited on these stony areas.

It is possible that further archaeological surfaces and features related to the prehistoric field clearances nearby may survive below the surface within the application area, but which cannot be detected by surface survey.

The trackway (Feature 26) and the two broken, re-used gate-stones which mark its line (Features 24 and 25), are of probable 19th-century date and have little archaeological value.

All other features in the area are related to the quarrying activities to the north.

2.3 Boundaries

Scheduled Ancient Monument (SAM) Boundary

The SAM boundary defined as "the quarry edge" by English Heritage in 1995 and drawn on the 1:10000 maplet can be given a more precise definition in relation to ground features existing at the time of scheduling (see Figure 6). This boundary differs significantly from that portrayed as the SAM boundary on the Block Stone plan (Figure 3).

The quarries as depicted by the OS 1:10000 map which forms the basis of the scheduling maplet are derived from OS 1:2500 mapping of 1968 (Figure 7). This larger-scale map provides a clearer understanding of the quarry edges. If this 1:2500 scale map is then compared with the 1:1000 scale 1986 RCHME survey it can be seen that most of those quarry edges shown on the map of 1968 were also in existence in 1986, although some slight changes have occurred. Those quarry edges surveyed in 1986 are still in existence and thus it is these features that should define the SAM boundary. Within the area beyond the RCHME survey most of the quarry edges and features shown on the 1968 map can still be identified. Thus, the SAM boundary now can be confidently defined in relation to the ground as it exists today.

This definition of the SAM boundary highlights three problematic areas (Area 6D, Area 6E and Area 6F). It is unclear when the quarry faces which define the southern limit of Area 6D were created (Features 13 and 36), but it is certainly after the date of OS mapping in 1966. If they were in existence at the time of scheduling in 1995, then they should be used for the definition of the SAM boundary. If not, and the quarry edge shown on the OS 1968 map was in existence (the northern limit of Area 6D), then the line of that mapped boundary - which has now been quarried away - would define the scheduled area, and Area 6D would be within the SAM.

With Area 6E, it is clear that the curved boundary shown defining the northern limit of the SAM shown on the Block Stone plan is in error. The true "quarry edge" SAM boundary is further to the west (Feature 6). However, if the waste areas defined by Features 27 and 44 are included as part of the quarry then an alternative SAM boundary can be drawn.

For Area 6F, there is a clear discrepancy between the SAM boundary as defined on the Block Stone Ltd plan and as defined by the schedule.

Ministerial extraction and tipping boundary (METB)

The comparison between the METB as defined on the Block Stone plan and the SAM area as defined above is shown in Figure 8. As this METB boundary is shown on the Block Stone plan, it is not fixed to any obvious ground features within the quarry areas. However, the shape of this boundary can be equated approximately with surveyed and mapped features, particularly at the south west where the boundaries can be equated with the causeway (Feature 1) and the quarry edge (Feature 6). If the boundary is shifted to match these features it has a significant effect on the size of the scheduled area potentially affected by the application (Figure 9). As the source of the METB boundary is not available at the time of preparing this interim report this theoretical shift is speculative and raised purely for information only.

3. METHODOLOGY

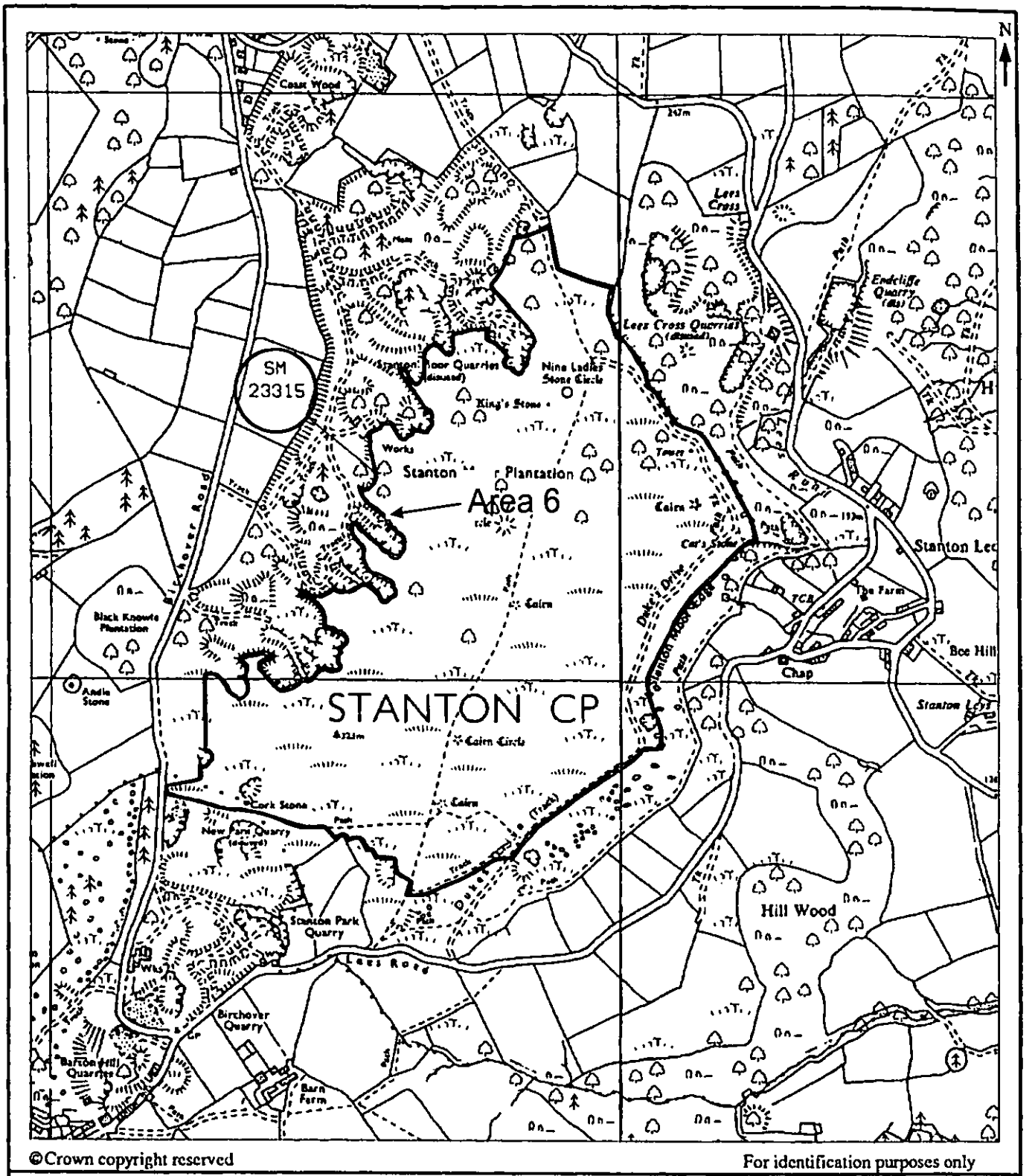
The field investigation was undertaken by Stewart Ainsworth and Trevor Pearson from the English Heritage archaeological field investigation team at York. The ground survey was undertaken on 23rd, 24th and 27th November 2000. This interim report was prepared on 14th and 15th December 2000.

Features in the area were surveyed using a Leica TC1610 electronic theodolite with integral Electromagentic Distance Measurement (Total Station) from a traverse of three stations. The survey observations were processed using Key Terrafirma software and plots produced in Autocad 14. Using a differential Trimble 4800 dual frequency Global Positioning Satellite (GPS) system ground positions were geo-referenced into the Ordnance Survey (OS) National GPS Network of WGS84/ETRS89 coordinates derived from three OS Active GPS stations. These coordinates were converted to OS GB36 National Grid mapping coordinates using the OS online converter available through their website.

The grid shown on the 1986 RCHME survey is an approximation to OS National Grid based on graphical scaling. As coordinates derived from the GPS data are true mathematical values, some differences would be expected. After processing, a vector discrepancy of 2.8m was identified between the true position for Station 0001 and a graphical adjustment to make the two surveys match. This only affects the relative positioning of the overlying grid and does not affect the plan position and integrity of the survey on the ground.

Boundaries and mapped features were digitised in Autocad 14 and common points were established between the various maps and surveys to allow direct comparison for positions and areas. The interpretative illustrations accompanying this report were produced in Corel Draw 8 and were based on the Autocad plots derived from the survey.

Scheduled Monument



 For identification purposes only

Site Name: Bronze Age burial, ceremonial and settlement remains on Stanton Moor, and evidence for medieval, post-medieval and 19th to early 20th century activity

County:	Derbyshire	**District:**	Derbyshire Dales	**Parish:**	Stanton/Birchover

Notes:
For exclusions - see text record
Site contains listed building - grade II
Guardianship

Key: Monument No. Location/extent of site

Scale: 1:10000 **Derived from:** 1:10000
Centred on NGR: SK24816315
Extract from OS sheet: SK26SW

Date: 21.6.94 **Monument No:** SM23315

English Heritage
Fortress House 23 Savile Row London W1X 1AB Telephone 071-973 3000 Fax 071-973 3001

Figure 1 SAM area defined on maplet accompanying Schedule Entry

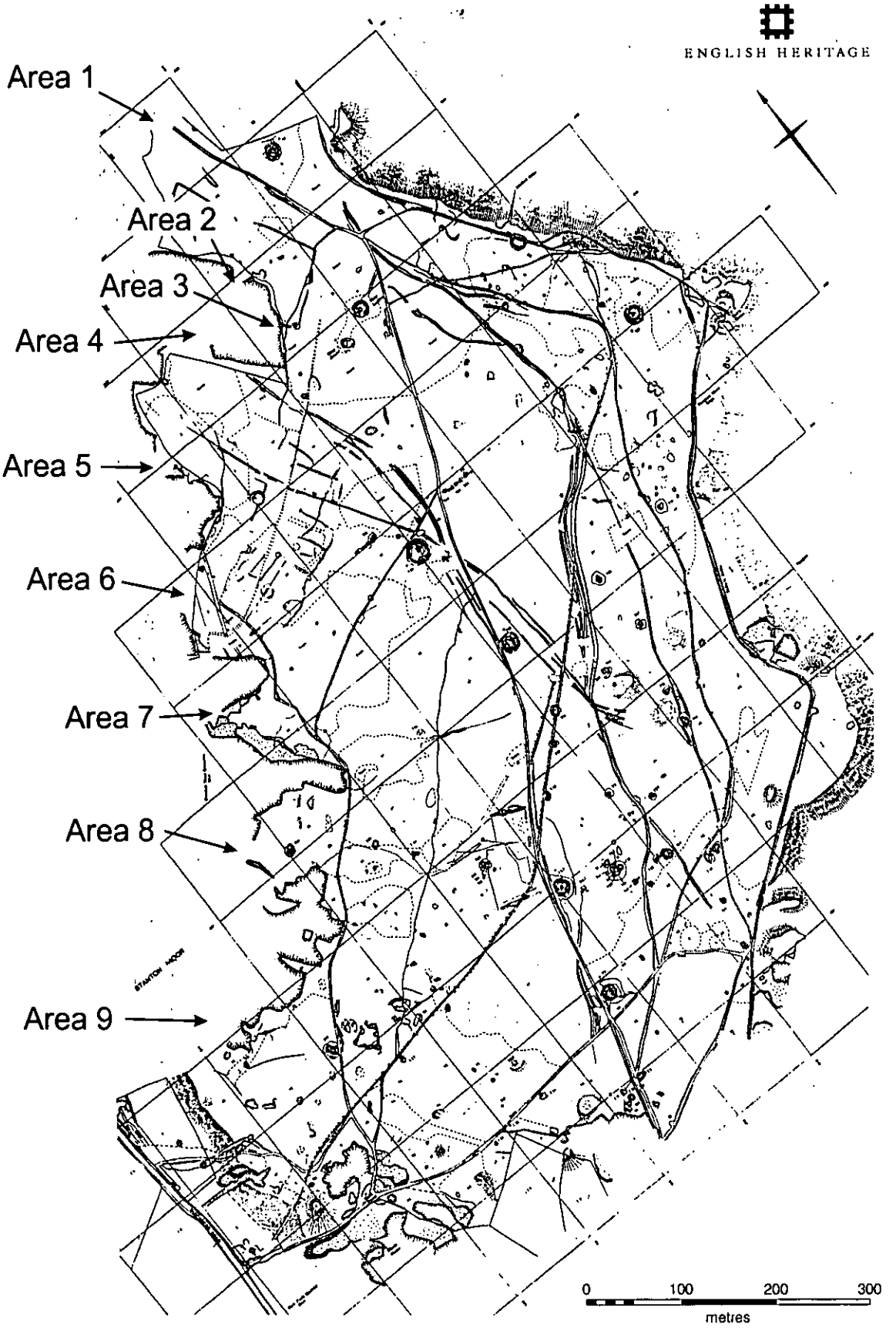


Figure 2 Stanton Moor: Areas of survey November 2000 (based on RCHME survey of 1986)

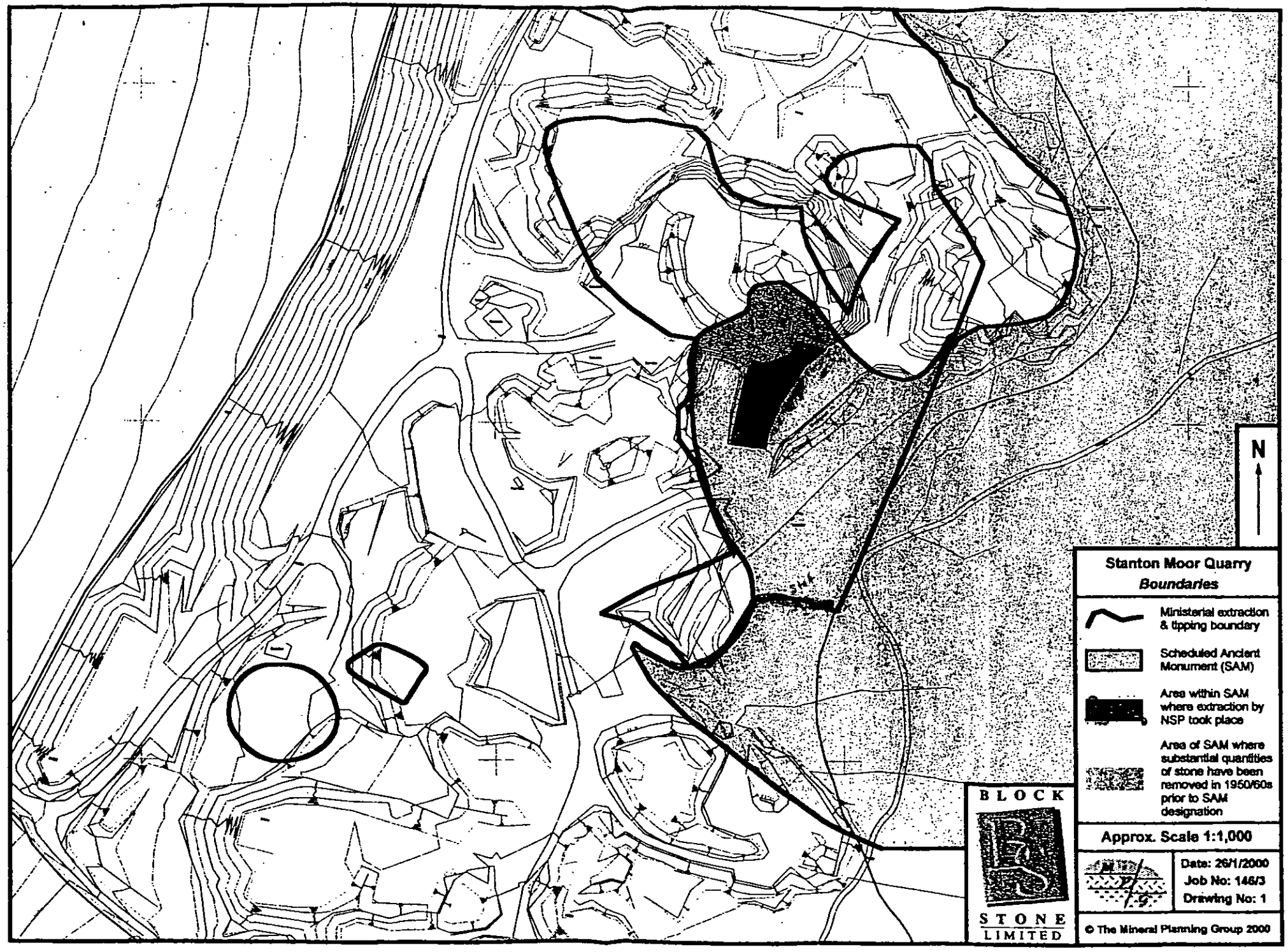


Figure 3 Plan supplied by the Mineral Planning Group on behalf of Block Stone Ltd.

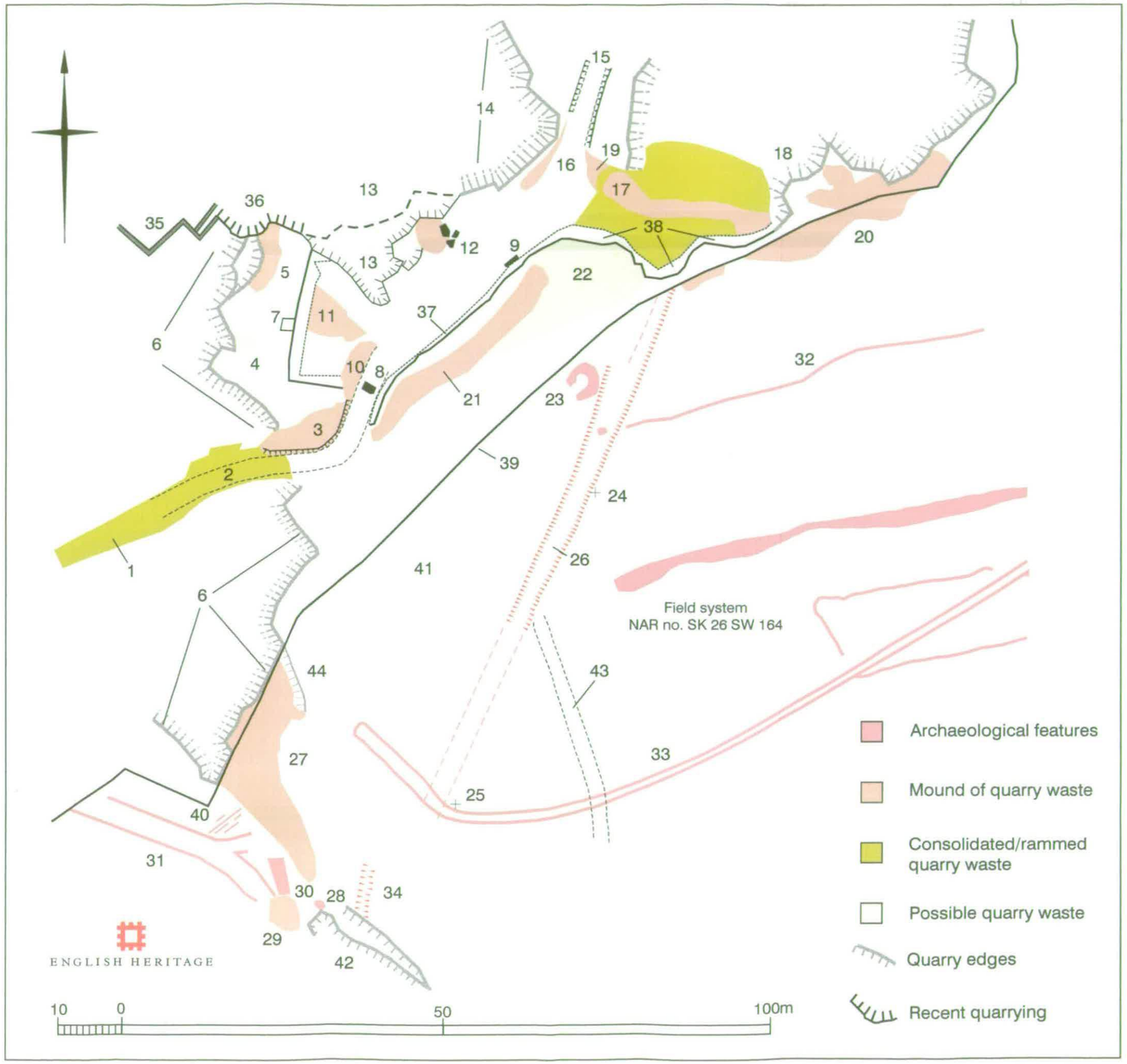


Figure 4 Area 6 - archaeological and topographic features

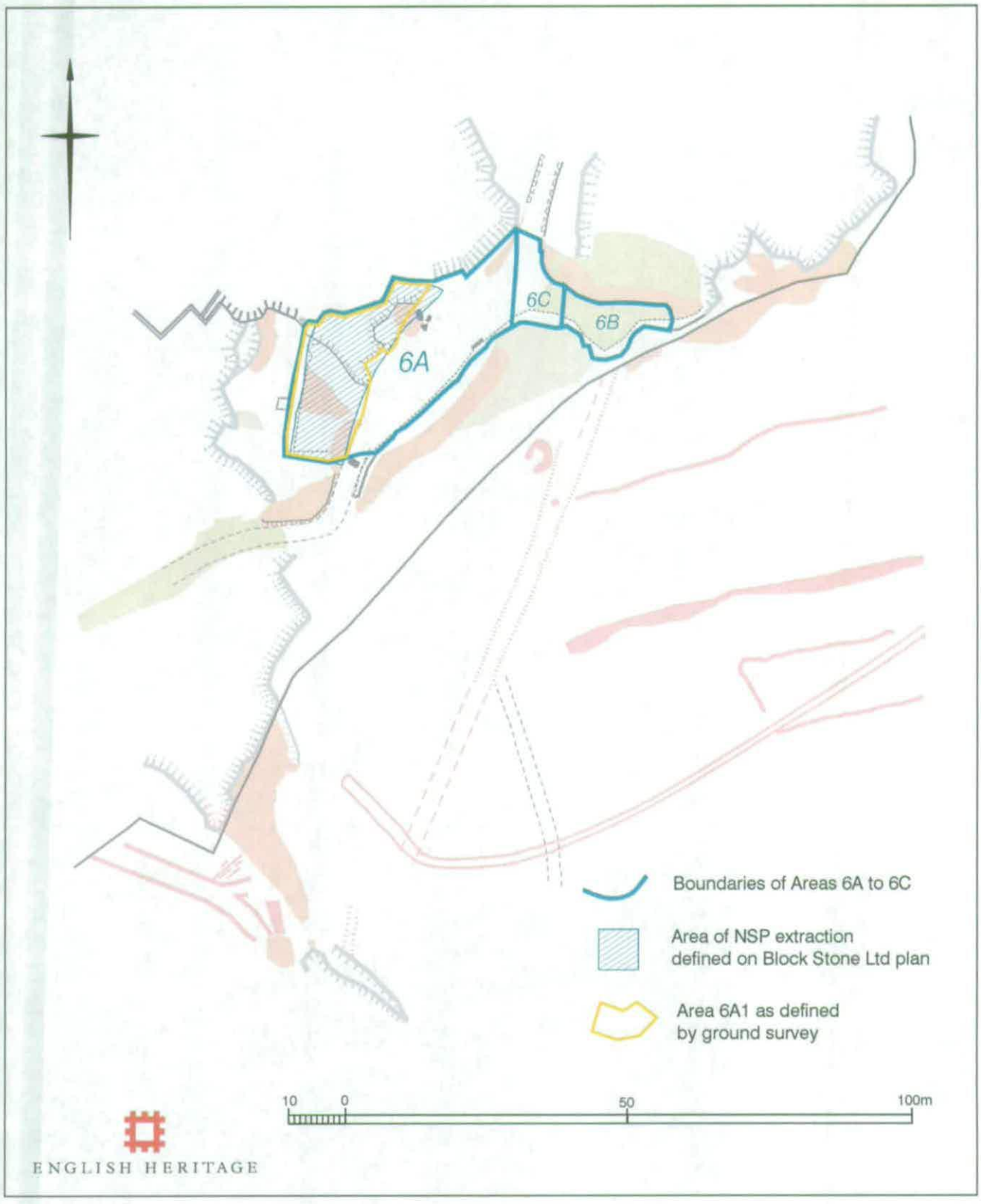


Figure 5 Area 6

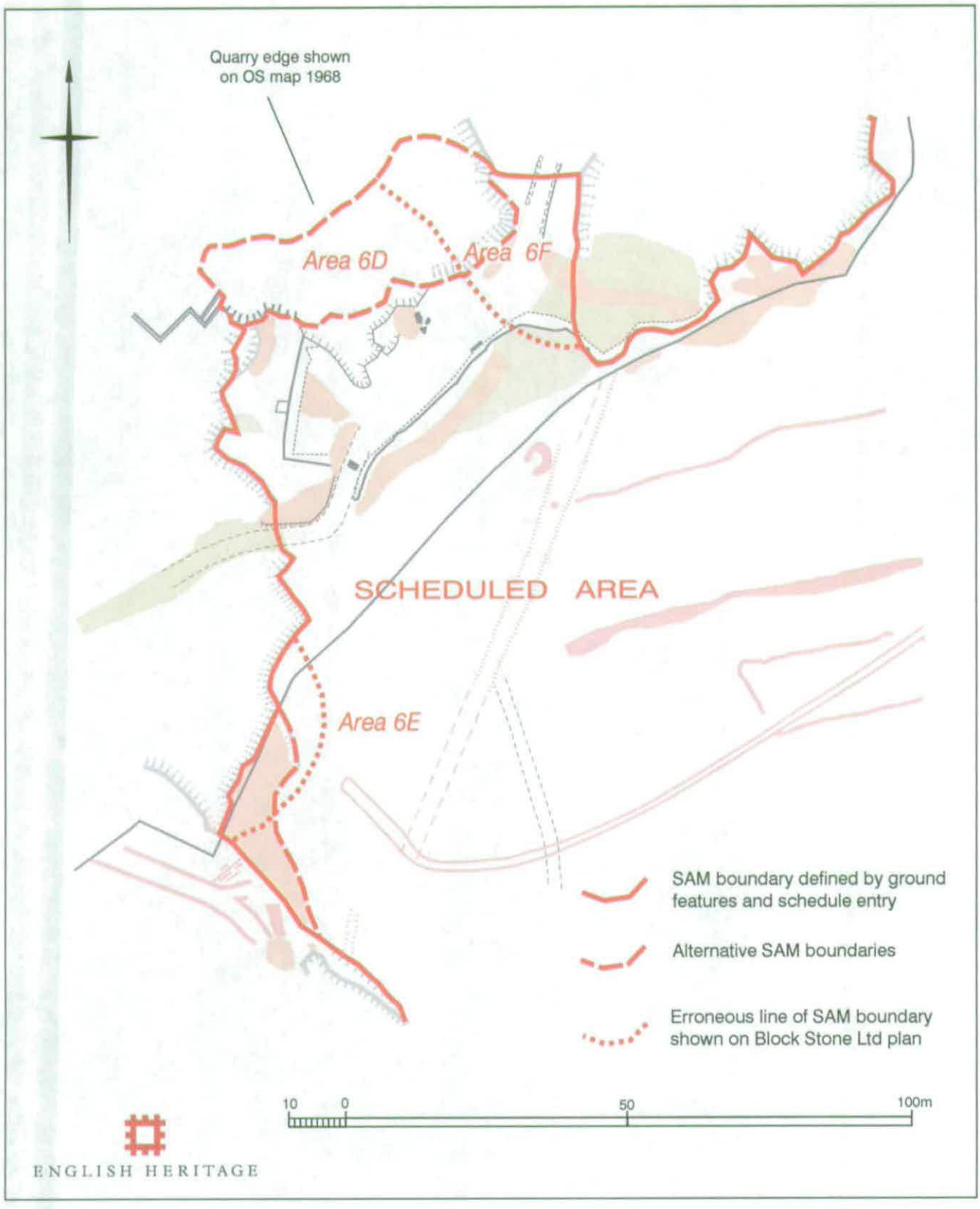
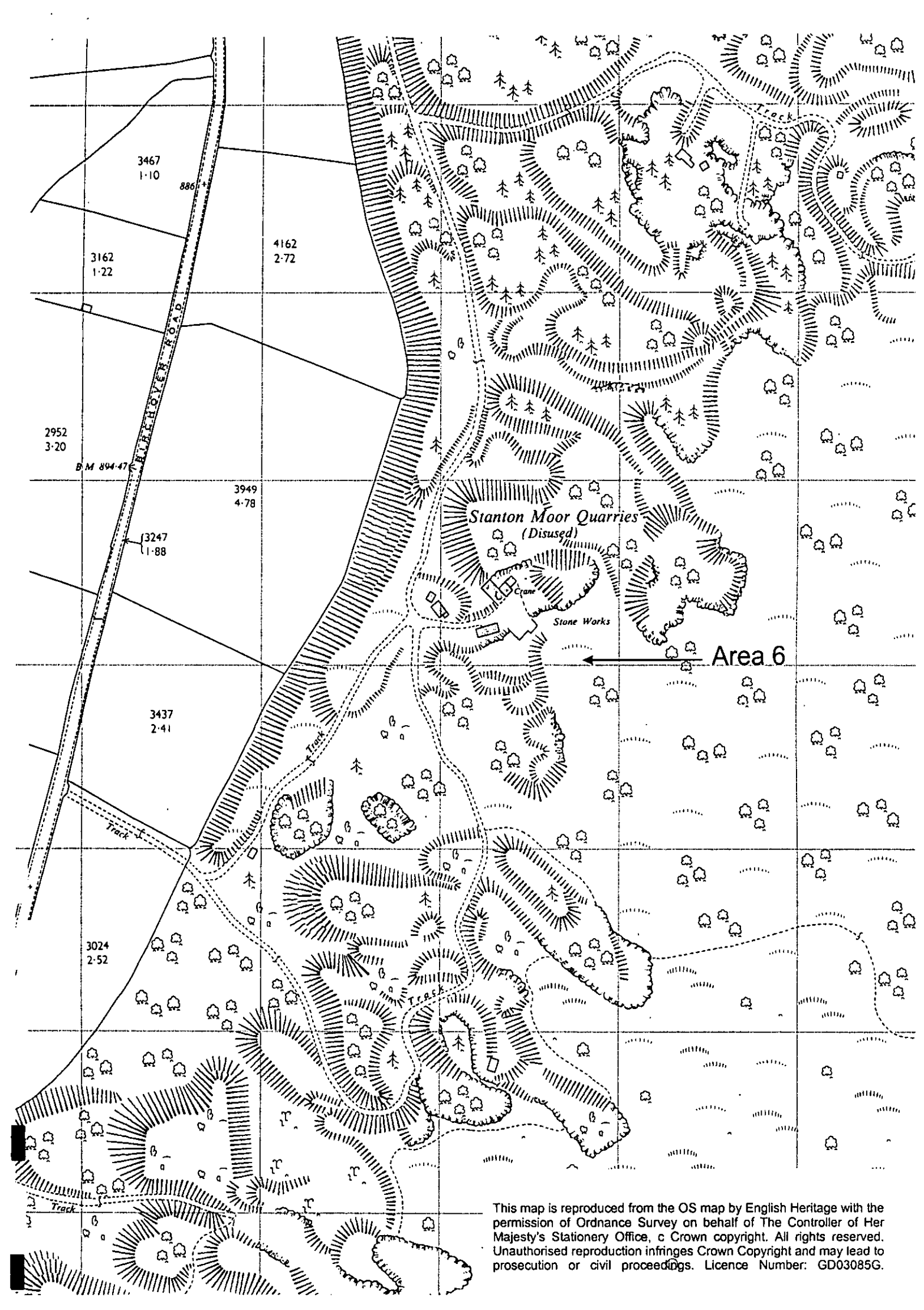


Figure 6 Area 6 - plan showing SAM boundary



Extract from 1:2500 Ordnance Survey map 1968 Sheet SK2463

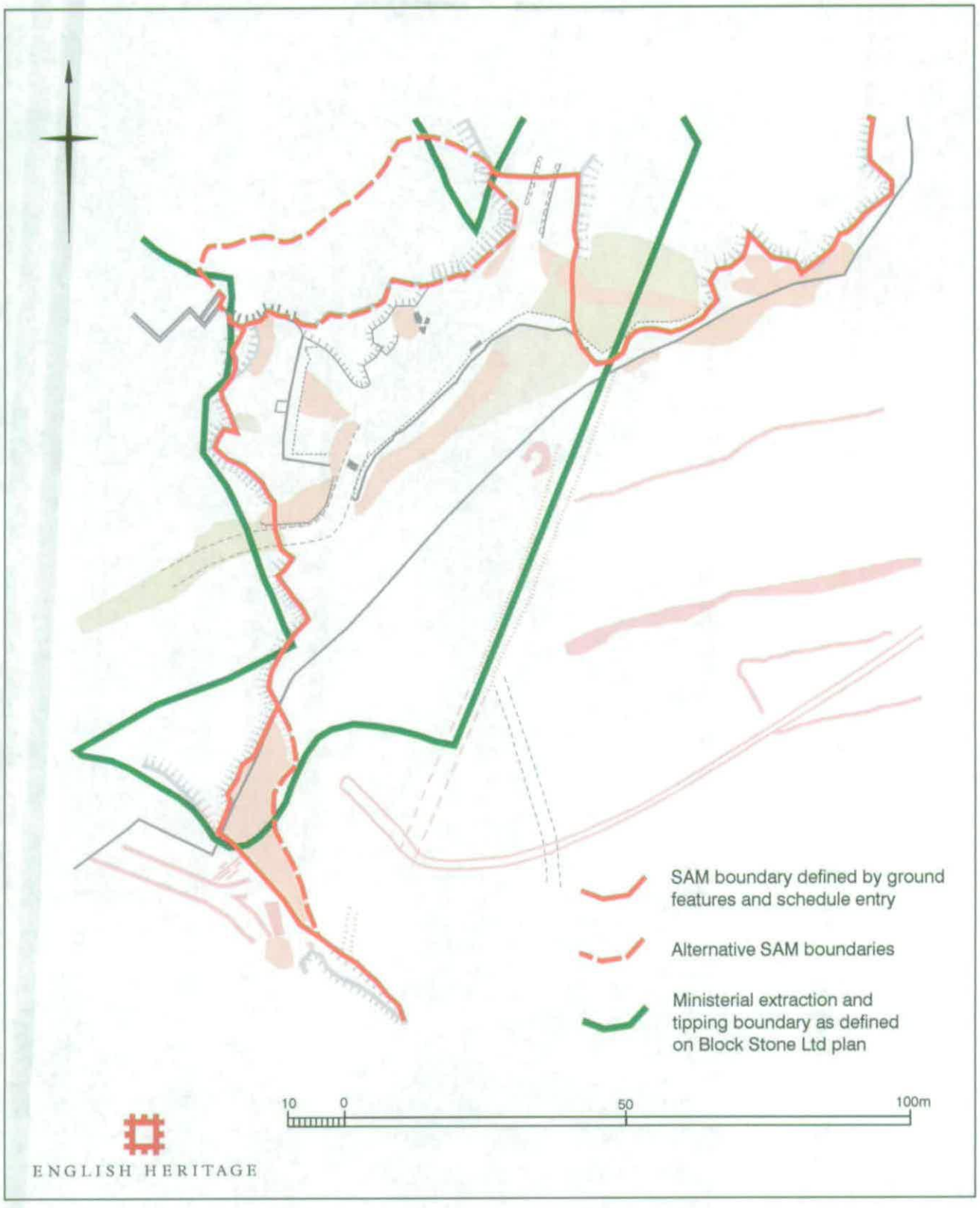


Figure 8 Area 6 - plan showing Ministerial extraction and tipping boundary in relation to SAM boundary

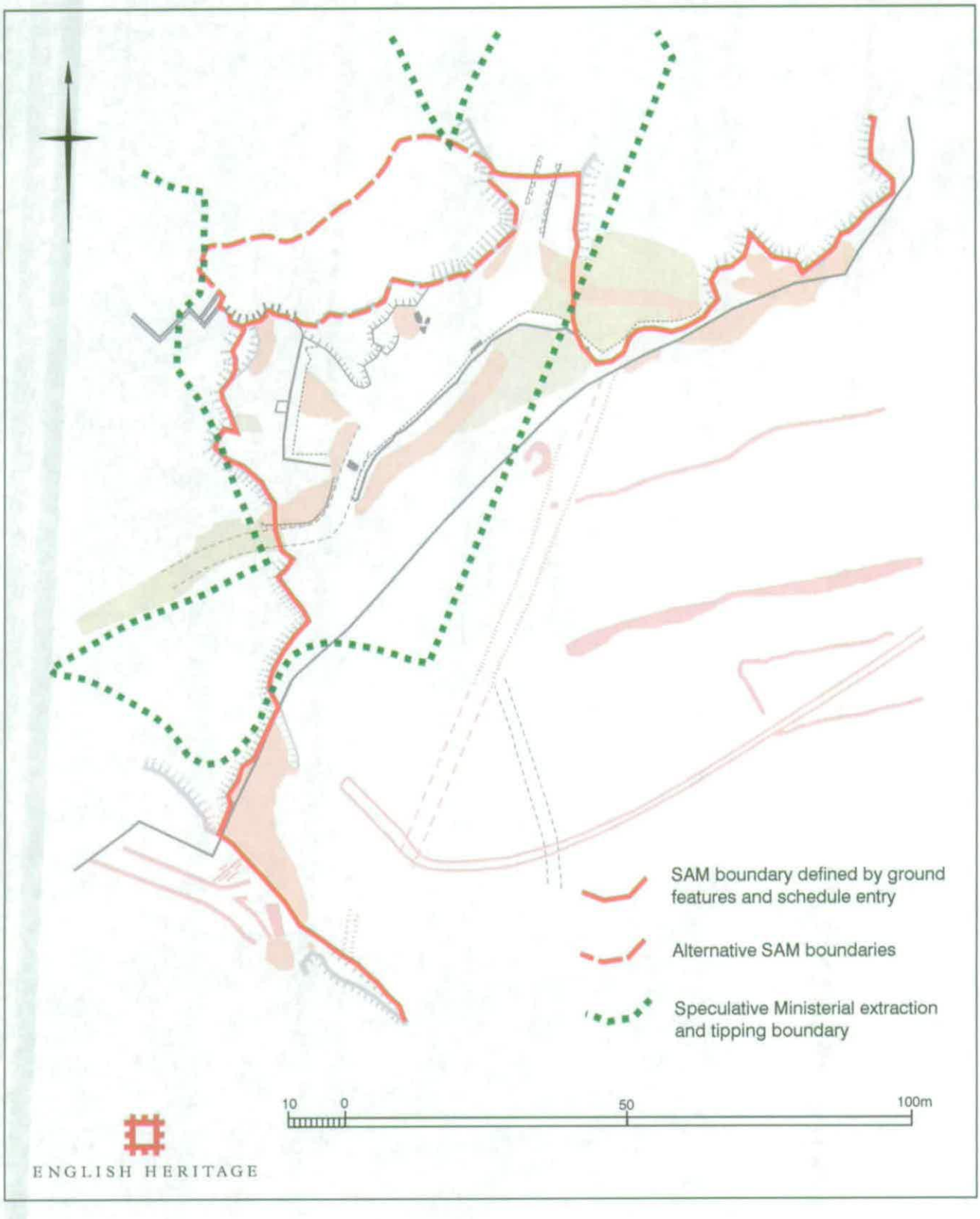
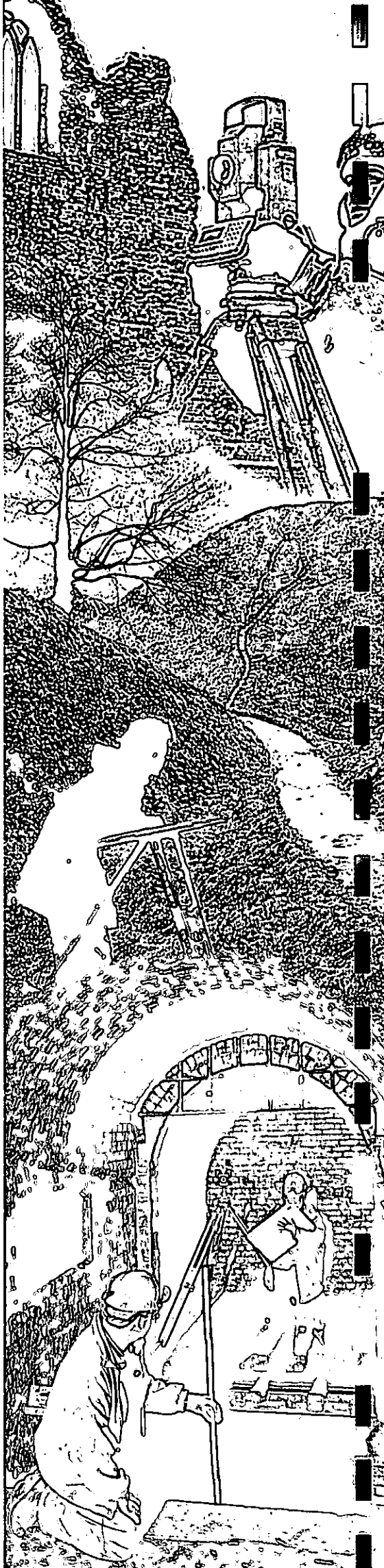


Figure 9 Area 6 - plan showing speculative relationship between SAM boundary and the Ministerial extraction and tipping boundary



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