

Report on a Metal Detecting Survey at:

**'Land off Caddywell and Burwood Lanes', Great Torrington,
Devon**

NGR: SS 503 190

For Beechcroft Land Ltd



ARCHAEOLOGICAL LANDSCAPE INVESTIGATION

22 St David's Crescent, St Anne's Park, Bristol, BS4 4BU

Telephone: 07939 408066

Fax: 01179 728606

E-mail: info@alinvestigation.co.uk

Website: <http://www.alinvestigation.co.uk>

Document Revision	1	Oasis Ref:	archaeol23-275819	Museum Accession No.	
-------------------	---	------------	-------------------	----------------------	--



1 Non Technical Summary

Archaeological Landscape Investigation undertook a metal detecting survey on three fields forming part of a proposed development lying off Caddywell and Burwood Lanes. The survey was carried out over three days during January 2017. Finds from the survey were generally agricultural in origin, with the majority of metal finds coming from breakages of ploughing and cultivating equipment.

A George IV/ Victorian half penny was located in the western field of the proposed development, along with a lead hem/ dress weight. All the metal finds appeared to be of a post medieval date.

Report Date: 28/2/2017



Table of Contents

1 Non Technical Summary.....	2
2 Introduction.....	4
3 Project Aim.....	5
4 Soils and Geology.....	5
5 Methodology for Survey.....	5
6 Limitations and Constraints, Discussion of Survey Accuracy and Conditions.....	6
7 Results.....	7
8 Discussion and Conclusions.....	11
9 Copyright.....	12
10 Bibliography.....	12
11 Appendix A – Find Maps.....	13
12 Appendix B – Report on Coin Find from Site A.....	16

List of Figures

Fig. 1: Site Location on Open OS Data Mapping. Contains OS data © Crown copyright [and database right] 2017.....	4
Fig. 2: Site A (Western Field) Find Locations. Contains OS data © Crown copyright [and database right] 2017.....	13
Fig. 3: Site B (Middle Field) Find locations. Contains OS data © Crown copyright [and database right] 2017.....	14
Fig. 4: Site C (East Field) Find Locations. Contains OS data © Crown copyright [and database right] 2017.....	15

List of Plates

Plate 1: Button or Dress weight from Western Field (Site A) - Find No.....	9
Plate 2: Obverse of coin showing the remains of a left facing bust.....	16
Plate 3: Remains of left facing bust on obverse.....	17
Plate 4: Reverse of coin showing remains of shield on the left.....	17
Plate 5: Remains of shield on the reverse.....	17

2 Introduction

Archaeological Landscape Investigation was instructed by Beechcroft Land Ltd to undertake a metal detecting survey relating to a planning proposal for a development at 'Land off Caddywell and Burwood Lanes', Great Torrington, Devon centred at SS 503 190. The survey forms part of a wider series of archaeological projects related to this planning application including a desk-based assessment and geophysical survey. A full historic background for the site can be found in the desk-based assessment produced for this project (Wellcome, 2017).

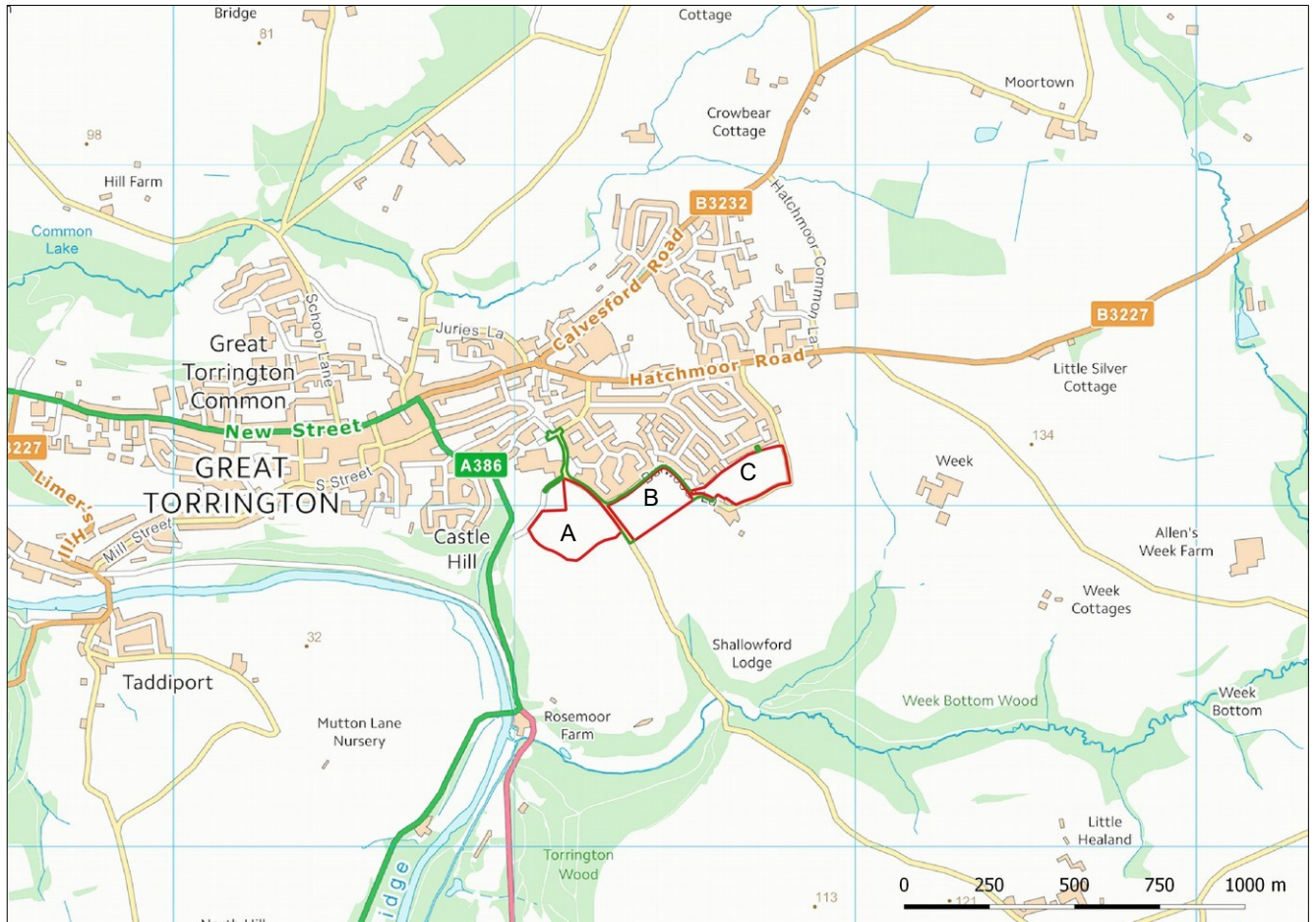


Fig. 1: Site Location on Open OS Data Mapping. Contains OS data © Crown copyright [and database right] 2017

Site Description

The survey area (Fig. 2) consists of three fields situated on the southern outskirts of the historic town of Great Torrington, Devon. The westernmost field (Site A) is located approximately 100m SE of Great Torrington Infants School and is bounded to the E by Caddywell Lane and to the N by an unnamed road branching SW of Caddywell Lane. The middle field (Site B) is located about 120m WNW of Burwood Farm and it is bounded to the N and E by Burwood Lane and to the W by Caddywell Lane. The easternmost field (Site C), lies immediately N of Burwood Farm and is bounded on the E, S and W sides by Burwood Lane and on the N by a modern housing estate. Two of the three fields appear to have been subject to regular recent ploughing, with the west and east, currently appearing to be under crop.



3 Project Aim

The aim of the programme of metal detecting survey is to record the extent, quantity and location of metal finds within the three areas comprising site and produce a report detailing those findings.

The metal detector survey was designed to be minimally intrusive to archaeological remains. The information gathered will potentially enable the local authority archaeologist to identify whether further more extensive archaeological mitigation is required and to avoid or minimise conflict between a heritage asset's conservation and any aspect of the development proposal.

4 Soils and Geology

The predominant soil type within the N part of the study area comprises typical brown earths of the NEATH (541h) series, consisting of well drained fined loamy soils often over rock with small patches of similar soils with slowly permeable subsoils and slight seasonal waterlogging; the underlying geology comprising Carboniferous sandstone and shale. Within the S and SW parts of the study area, the predominant soil type consists of typical brown podzolic soils of the MANOD (611c) series comprising well drained fine loamy or fine silty soils over rock with shallow soils in places and bare rock locally, the underlying geology being Palaeozoic shale, mudstone and siltstone (SSEW, 1983).

5 Methodology for Survey

Instrumentation

The survey was undertaken using a Maplin N86KA discriminating metal detector on the three fields comprising the proposed development. The machine was mainly be operated in a non-discrimination setting so that all finds for each survey area will be located, and survey results will not discriminate against 'low value' metal finds. Where unusually high levels of metallic rubbish/ refuse were encountered some level of discrimination may be used to reduce the level of finds of limited value, although in general usage of discrimination in these circumstances was kept to a minimum and restricted to localised areas of the survey. The metal detector allows for individual metal types to be discriminated against so undetected finds in areas of high noise will be kept to a minimum.

Survey

Each field in the survey was gridded (where this is possible, some ground conditions may prevent a full grid being established.) and walked in a series of zigzag transects interspaced at 2m (the width of sweep for the metal detector) to ensure full coverage of the field surface area. Each transect will be detected with a degree of overlap to ensure full coverage. A GPS system was used to continuously log and record the areas surveyed and provide confirmation that the site has been systematically covered. An appropriate working offset was employed to either side of any upstanding metal fences, power-lines or other obstructions, in order to avoid unnecessary interference.

Field Recording

Finds were numbered and logged on a proforma sheet after discovery. These sheets were recorded into a MS Access database on completion of each work day.

A handheld Garmin GPS reading will be taken for each find at point of discovery, where the find lies within a modern plough soil. While hand held GPS are known to be inaccurate to up to 5-10m on newer models, it has been established that finds in plough soil can move up to 5m each season and are unlikely to



located in their original point of deposition (Minter 2016). Given the ploughed nature of the survey fields this level of accuracy is judged to be suitable enough for most finds located in the survey. Where greater accuracy is required, i.e. for finds lying below the current plough soil or areas not disturbed by ploughing; that may be in-situ, a Leica TPS1100+ Total Station was used to accurately log their positions. In the case of this survey, no finds were located in secure contexts.

On-site Find Retention Policy

Finds considered to be 'rubbish', i.e. modern drinks cans etc, were generally not recorded upon detection (although they were excavated to confirm their nature). Iron objects of limited archaeological value (farm machinery related or modern/ late post-med items of limited value) were excavated, their location and description recorded and then reburied on site; although a small representative sample was retained. All other finds were recorded and bagged. All other finds were recorded and retained although their archaeological value was in the case of this survey generally limited.

Archiving

A copy of all digital and physical documents associated with this project will be uploaded to the Archaeological Data Service (ADS) website, with physical (paper) documents converted to digital format. A digital copy of the report will be uploaded to the OASIS website, with the reference number: archaeol23-275819.

6 Limitations and Constraints, Discussion of Survey Accuracy and Conditions

During surveying of the western field (Site A), a notable quantity of 'green' waste was encountered, as well as aluminium detritus including tin cans. Due to this interference over most of this field's surface area, discrimination was used to reduce the quantity of positive readings. The discrimination was set to remove iron and nickel, and this mode was used over most of the eastern and northern quadrants of the field. At regular intervals during this part of the survey discrimination was turned off, to test whether its use was still necessary, and positive responses were excavated to 'ground truth' the results. While these results generally show that no items of importance were being missed with the discrimination, the nature of this method could lead to some iron (Fe) or nickel objects of value not being located. It also may have resulted in a skew to the overall number of objects in this field in comparison to the other fields where no discrimination was used. Overall it was judged that this would have limited effects on the overall results of the survey. Discrimination was not used for the central and eastern fields.

The central field produced a small quantity of finds relative to the other two fields, which could in part be suggested to be the result of the lack of ploughing in this field, combined with a thick turf layer, potentially reducing the depth/ quality of detection. However, the limited di-polar (metallic) readings from this field in the geophysics survey results and the location of a small nail at a depth of c. 0.30m on the northern side of the field suggest that generally the results are reasonably accurate, with the field overall containing fewer metallic objects.

Overall the depth of objects varied from the ground surface to 0.25 – 0.30m (the operational maximum for this metal detector), with smaller finds being found at depths of up to 0.25m. Finds were made of varying materials, suggesting there were no limitations from the soil conditions to certain objects being favoured over others. These suggest reliability in the overall detection was limited to the plough soil/ topsoil, but the results give a good overall level of confidence in the level of representation of the metallic objects in the survey area.



Weather conditions for the survey were cold and frosty, with the ground conditions frozen for most of the mornings during the survey, before thawing in the afternoon. This may have had a limited effect on the overall responsiveness of the machine.

7 Results

The following tables record the finds located during the survey and a brief description. Accompanying maps showing the location of finds can be found in Appendix A on page 13. Grid references are based on OS GB (National Grid), with the letters 'SS' converted into the numbers. The results are grouped into sections based on the fields surveyed, followed by a brief summary text.

Site A (Western Field)

Find No.	Easting	Northing	Description
1	250262	118906	Slag
2	250272	118944	Un-diagnostic Iron Fragment
3	250307	118936	Hem or Dress weight or Button (Lead)
4	250182	118856	Metal Fragment (Steel) – Likely modern
5	250295	118938	Iron Bar (Modern)
6	250209	118877	Iron plough fragment
7	250281	118969	Coin – Decimal Penny (1970+)
8	250214	118925	Un-diagnostic Iron Fragment
9	250252	118963	Modern hinge
10	205220	118939	Iron farm machinery part
11	250250	118971	Copper pipe bend (plumbing)
12	250290	118928	Part of plough or cultivator blade
13	250208	118941	Harrow 'tooth' (Modern)
14	250231	118969	Coin – George IV or Victoria Half Penny
15	250198	118961	Brass runner
16	250182	118951	Chain link from chain harrow
17	250193	118987	Copper Washer
18	250154	118958	Iron Nail (Machine made)
19	250102	118915	Iron Pin (Modern)
20	250192	118991	Aluminium clip



21	250182	118985	Metal fragment
22	250202	119026	Iron farming machinery part
23	250148	118993	Folded lead piece weighing 78g (probably post med.)
24	250052	118928	Horse Shoe (Fe)
25	250181	119032	Iron Nail (Machine made)
26	250172	119027	Iron wire (modern)
27	250123	118985	Iron plough blade fragment
28	250054	118931	Shot gun cartridge case
29	250095	118968	Harrow 'tooth' (Modern)
30	250056	118937	Iron Nail (Machine made)
31	250196	119039	Lead (Window frame fragment)
32	250095	118999	Iron hook
33	250148	119046	Iron Nail (Machine made)
34	250188	119057	Iron plough blade fragment

Summary

There were only two finds of note in this field, the first, a Victorian or George IV halfpenny (14), is detailed in Appendix B on page 16. The second find was a hem/ dress weight or button (3) dating to the post medieval period, which is pictured below.

The other coin located during the survey of this field was a post-decimalisation penny dating to the 1970s (3). Both coins were located very close to the north-eastern boundary of the site. The overall density of finds decreased markedly over distance from Caddywell Lane.

The remaining finds are a variety of materials and origins, some originating from agricultural activity, with the remainder presumably being deposited via the green waste present in this field.

This field (and possibly others in this survey) had reportedly been metal detected in the past, with apparently limited results, although a couple of coins were said to have been located.



Plate 1: Button or Dress weight from Western Field (Site A) - Find No.

Site B (Central Field)

Find No.	Easting	Northing	Description
35	250348	118915	Iron Water Pipe (Fe)
36	250307	118996	Iron Nail (Machine made)
37	250299	119011	Iron clip from farm machinery
38	25071	118929	Iron/ steel cable (Modern)
39	250389	118937	Horse Shoe (Fe)
40	250439	118975	Fence cable (Fe)
41	250385	119057	Fence cable (Fe)
42	250449	118988	Tooth from harrow/ iron stake (Modern)
43	250390	119069	Small section of flat lead piece
44	250431	119038	Iron Water Pipe (Fe)
45	250465	118993	Fence cable (Fe)
46	250411	119088	Thin nail (Fe) hand made probably
47	250446	119111	Iron pipe/ bar



Summary

A large proportion of the finds from this field relate to an iron water pipe and fence line located along the southern boundary of the site. Overall the quantity of finds in this field is lower than the other two sites, and those finds located generally lie along the edges of the field.

Site C (Eastern Field)

Find No.	Easting	Northing	Description
48	250566	119043	Modern Iron Plate
49	250580	119053	Undiagnostic Iron Fragment
50	250624	119105	Iron Pin (Modern)
51	250631	119110	Iron Nail (Machine made)
52	250780	119178	Iron Nail (Machine made)
53	250685	119144	Iron Nail (Machine made)
54	250593	119079	Un-diagnostic Iron Object
55	250696	119142	Section of Horse Shoe
56	250752	119164	Iron Nail (Machine made)
57	250765	119164	Blade section (broken) from Cultivator
58	250764	119153	Part of plough or cultivator blade
59	250719	119128	Iron Part of Farm Machinery
60	250786	119134	Hook from farm machinery (Fe)
61	250713	119090	Blade from Cultivator
62	250714	119084	Thick broken iron object weighing 299g (probably from farm machinery)
63	250708	119079	Iron bolt from farm machinery
64	250672	119050	Harrow 'tooth' (Modern)
65	250668	119049	Iron connector pipe (Tractor Part)
66	250731	119085	Iron 'grate' (part of farm machine)
67	250637	119024	Chrome 'ball' (modern, part of machine, decorative)
68	250695	119056	Harrow 'tooth' (Modern)
69	250681	119044	Hook or part of chain harrow (Fe)
70	250660	119033	Brace or hook from farm machinery (Fe)
71	250659	119024	Modern/ Post med. Iron Plate



72	250798	119098	Fire Extinguisher
73	250710	119043	Iron Nail (Fe)
74	250761	119071	Horse Shoe (Fe)
75	250716	119042	Circuit board from pocket translator (case found nearby)
76	250782	119073	Blade from plough/ cultivator/ harrow (Fe)
77	250783	119075	Harrow 'tooth' (Modern)
78	250623	119037	Tonka' Toy

Summary

The majority of finds located in Site C relate to agriculture, mainly parts of harrowing machinery. All the finds that could be dated appeared to be post medieval or modern, and most probably date to the 20th century. A few 'oddities' were located around the edges of the site, a fire extinguisher at the northern end and translator circuit board, can be explained by their proximity to Burwood Lane. The chrome ball object and Tonka Toy are in close proximity to Burwood, and presumably originate from there.

8 Discussion and Conclusions

General Synopsis of Finds

Generally the majority of the finds from the metal detecting survey are associated with agricultural use of the fields during the post medieval period. A high proportion of the finds come from plough/ harrowing/ cultivation equipment used by farmers to break up the soil prior to the sowing of crops. Even those not directly related to agricultural machinery in most cases presence can be explained through the fields use for agriculture. A small number of finds appear to have been deposited as part of the green waste in the western field (Site A).

Finds Distribution

The finds in the central and western fields appear to focus around field boundaries or more specifically Caddywell and Burwood Roads and become increasingly less common as they move away from them. This effect seems likely to stem from the ploughing regimes in the fields in question, with finds being dragged from their point of origin outwards, resulting in decreasing density.

There is notably a cluster of finds around the 'enclosure' feature located during the geophysical survey in the eastern field (Site C), although these are all modern and relate to cultivation practises. The most probable reason for these broken harrow spikes being located in this area is probably related to the difference in ground conditions associated with the ditch of any enclosure. As a drag/ chain harrow or cultivator travelled over the ditch it would likely have penetrated deeper into the soil filling the ditch, before hitting the harder bedrock conditions on either side.



9 Copyright

Archaeological Landscape Investigation shall retain full copyright of any commissioned reports, tender documents or other project documents, under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it hereby provides a licence to the client and the local authority for the use of the report by the client and the local authority in all matters directly relating to the project as described in the Project Specification; to use the documentation for their statutory functions and to provide copies of it to third parties as an incidental to such functions.

10 Bibliography

CIfA (2014) *Code of conduct*

Minter, F. & Plouviez, J. & Skull, C. 2016. *Rendlesham Survey 2008 – 2014, Assessment of Condition and Management Strategy*. Suffolk County Council

Wellicome, T. 2017 *Land on Caddywell and Burwood Lanes, Great Torrington – Unpublished Desk-based assessment* Archaeological Landscape Investigation

11 Appendix A – Find Maps



Fig. 2: Site A (Western Field) Find Locations. Contains OS data © Crown copyright [and database right] 2017

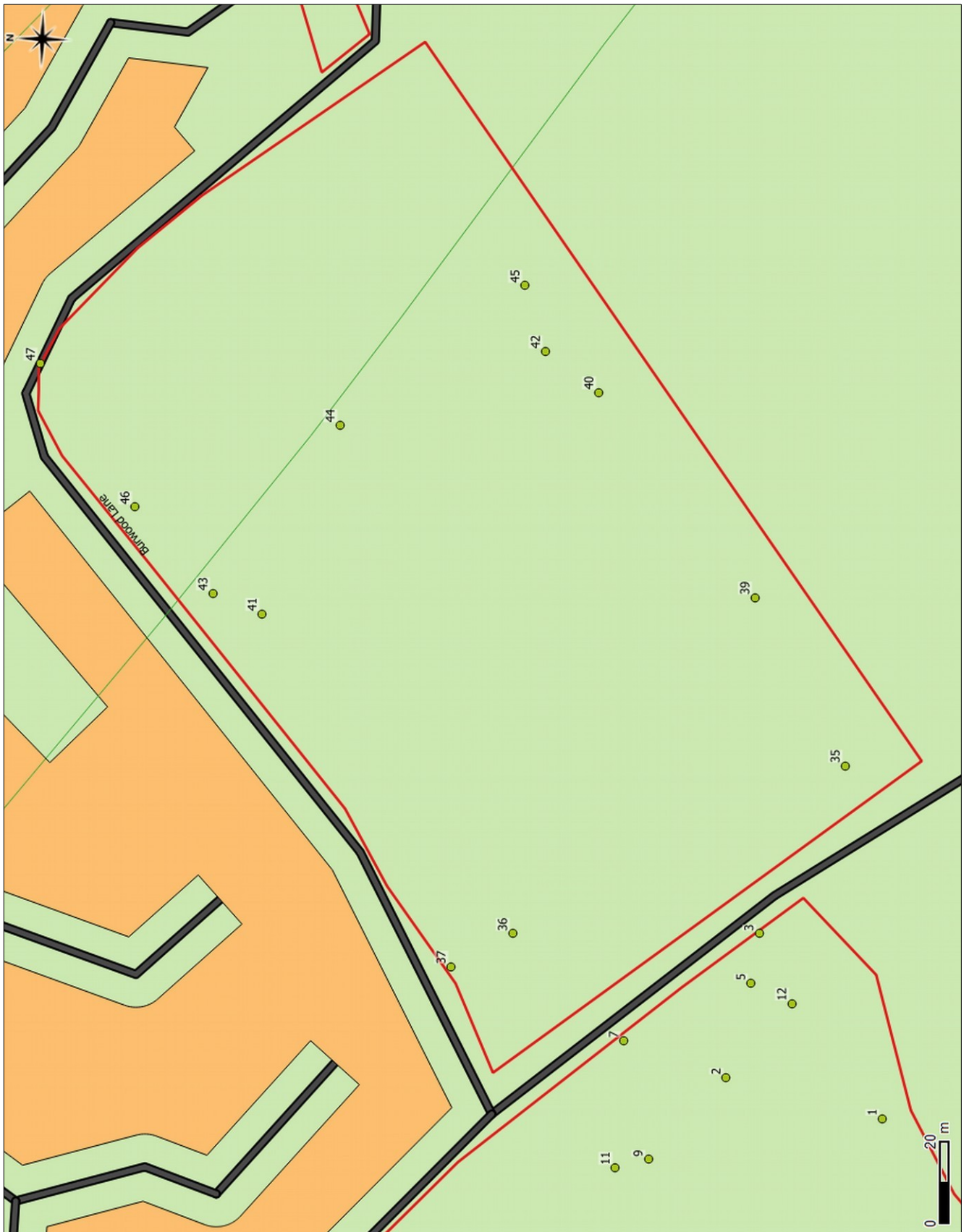


Fig. 3: Site B (Middle Field) Find locations. Contains OS data © Crown copyright [and database right] 2017



Fig. 4: Site C (East Field) Find Locations. Contains OS data © Crown copyright [and database right] 2017

12 Appendix B – Report on Coin Find from Site A

By Carl Savage Bsc MA FSA Scot PCIfA

One worn copper alloy coin with a diameter of 28mm was recovered via metal detector from Site A. The coin has been identified as a halfpenny of either George IV (r.1820-30) second issue (1825-30) or Queen Victoria (r.1837-1901) pre 1860. A lighter bronze penny known as the 'bun' type replaced the older heavier penny in 1860.

The positioning of the remains of the shield of Britannia on the reverse (see Plate 5) on the bottom left of the coin and the remains of a left facing bust (see Plate 3) can still be observed. None of the legends are visible but the obverse legend would read as [GEORGIUS IV DEI GRATIA] or [VICTORIA DEI GRATIA] and the reverse would read as [BRITANNIAR REX/REG FID DEF].



Plate 2: Obverse of coin showing the remains of a left facing bust

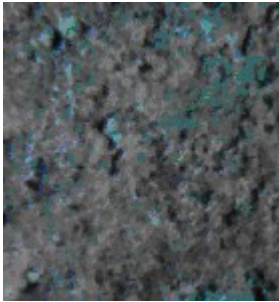


Plate 3: Remains of left facing bust on obverse



Plate 4: Reverse of coin showing remains of shield on the left

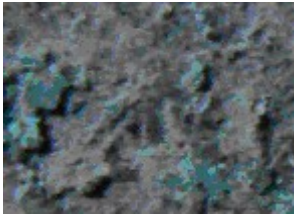


Plate 5: Remains of shield on the reverse