



INDEX DATA	RPS INFORMATION
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**A43 SILVERSTONE BYPASS  
ARCHAEOLOGICAL EVALUATION: STAGE 2  
FIELDWALKING AND GEOPHYSICAL SURVEYS**

**ABSTRACT**

This report forms the second stage of Archaeological Evaluation of the proposed A43 Silverstone Bypass route. It was undertaken by Northamptonshire Archaeology on behalf of the Highways Agency from November 1996 - January 1997. A corridor of land, 7.5km in length and 100m wide, was investigated by non-intrusive techniques comprising geophysical survey and fieldwalking. No archaeological sites were known prior to the work although the proposed road does lie to the south of the former Roman town at Towcester and the Roman road from Towcester to Alchester (Site 1) passes close by. Three potential archaeological sites were identified by the work: Site 2 a large Iron Age to Romano-British enclosure; Site 3 a large enclosure and other smaller enclosures of Iron Age to Romano-British date and Site 4 a slight concentration of Romano-British pottery which may indicate the location of a settlement. Recommendations for further work are made.

**1. INTRODUCTION**

- 1.1 A programme of fieldwalking and geophysical survey was carried out along the line of the proposed A43 Silverstone bypass between November 1996 and January 1997, forming the second stage of archaeological evaluation of the route.
- 1.2 The first stage, carried out in September 1996, comprised a desk-top study to identify sites already known to lie in the area (Chapman and Shaw 1996).
- 1.3 The purpose of the second stage was to identify further sites, and to characterise sites already known, by non-intrusive survey methods (ie techniques which do not involve disturbance to the ground).
- 1.4 The work was undertaken by Northamptonshire Archaeology on behalf of the Highways Agency and working to a brief agreed by them.

**2. BACKGROUND (Fig.1)**

- 2.1 The proposed road line diverges from the present A43 to the south of Silverstone at around SP 650430. It then runs around the east side of the village of Silverstone before rejoining the present route to the west of Towcester at SP 682482, a distance of 7.5km.
- 2.2 For the purpose of the Stage 1 desk-top study a corridor of investigation 200m wide, 100m either side of the road line, was established. No archaeological sites were discovered within the study corridor. The route of the Roman road between Towcester and Alchester does, however, pass close to the corridor at the junction of the A413 and A43 (Fig 1: Site 1).

### 3. STRATEGY

- 3.1 For the non-intensive survey the study area was narrowed to a corridor 100m in width (ie extending 50m either side of the centre line of the published route).
- 3.2 The road corridor crosses 44 parcels of land which have been numbered according to the order in which each field was investigated (Figs 2A, 2B).
- 3.3 The Stage 2 archaeological evaluation comprised:
  - (1) fieldwalking of all available arable fields
  - (2) Scanning by geophysical survey of areas where fieldwalking was not possible (ie pasture, set-aside etc)
  - (3) detailed geophysical survey of "hot-spots" discovered by reconnaissance survey or fieldwalking.
  - (4) a walkover of woodland areas in order to identify and plot earthwork sites.
- 3.4 In the event 11 parcels of land were fieldwalked, 33 were scanned and one area of woodland was walked over. The woodland area (parcel 40) produced no evidence of earthwork sites.

### 4. FIELDWALKING

#### 4.1 Methodology

- 4.1.1 Fieldwalking was the preferred method of survey but can only be undertaken on arable land as it relies on fragments of pottery and other material being brought to the surface by the plough. Eleven (Fields 1-4, 6-12) of the forty-four parcels of land were in a walkable condition. All contained a crop, mostly cereal, which was just showing on the surface of the field or low enough for pottery still to be visible through any crop. These are ideal fieldwalking conditions.
- 4.1.2 All of the fields were walked along parallel transects set at 20m intervals. In most cases the full width of the 100m corridor was walked but in a few cases only 2 or 4 transects were walked as the road corridor did not extend far into those fields.
- 4.1.3 All pottery and tile of medieval or earlier date, together with worked flint, and other significant finds were collected.
- 4.1.4 Where sufficient finds of a particular category were found to indicate a potential archaeological site the findspots were plotted by category and date of artefacts in 20m 'stints' of recovery within each transect.

## 4.2 Results

A summary of the results is presented in Table 1 below.

Table 1

FIELD	NCR	HA	FLINT	POTTERY				
				IA	RB	EMS	MED	UNC
1	SP68154576	1.01	0	0	0	0	0	0
2	SP67704523	2.59	2	3	32	0	43	0
3	SP67614506	0.55	1	0	2	0	1	0
4	SP67634500	1.46	1	1	0	0	0	0
6	SP68294620	2.78	0	20	15	0	18	0
7	SP67604484	1.10	0	0	1	0	4	0
8	SP68184673	2.51	2	24	47	0	14	0
9	SP68104692	0.28	0	0	0	0	0	0
10	SP68364620	1.72	0	4	5	22	5	1
11	SP68224677	1.02	0	0	0	0	0	0
12	SP68314655	0.34	0	0	0	0	0	0

### 4.2.1 Worked Flint

Only a small amount of worked flint was recovered, nowhere in sufficient quantity to indicate an archaeological site. The only diagnostic pieces were an a core rejuvenation flake from Field 2 and a thumb-nail scraper from Field 3.

### 4.2.2 Iron Age Pottery (Fig 3)

The surface collection survey identified significant scatters of Iron Age pottery in Fields 6, 8 and 10.

#### Fields 6 and 10

The Iron Age sherds were concentrated within an area of c 0.12 ha at the north end of the Field 6 and the adjacent area of Field 10 to its east. They have been designated Site 2.

#### Field 8

A further, slightly larger concentration of Iron Age sherds was discovered around 300m to the north of the concentration in Fields 6/10. They have been designated Site 3. A scatter of stone in the same area may mark the position of a feature.

### 4.2.3 Romano-British Pottery (Figs 4, 5)

Small concentrations of pottery were found in Fields 2, 6, 8 and 10. The scatter in Field 2 has been designated Site 4 (Fig 4). A Roman coin was found at its south-west corner. A scarp at the north-west corner of the field may indicate the edge of a former quarry. The

scatters in Fields 6/10 and Field 8 (Fig 5) may be part of Sites 2 and 3. All of the Roman sherds are small and well-abraded, however, and they may represent no more than manuring scatters. A Roman villa lies close by (Fig 1) at Wood Burcote and the surrounding fields may have been intensively farmed.

#### 4.2.4 Early-Middle Saxon Pottery

One definite and one possible sherd of Early-Middle Saxon pottery were recovered in Field 10.

#### 4.2.5 Medieval Pottery

Only small amounts of medieval pottery were recovered, never in sufficient quantities to suggest a site of this period. The pottery was generally small and abraded and is likely to represent a manuring scatter.

#### 4.2.6 Other Finds

A single, corroded, Roman coin was recovered from Field 2. It dates perhaps to the 3rd or 4th centuries AD. No other significant objects were found.

### 5. GEOPHYSICAL SURVEY

5.1 The geophysical survey was undertaken using two Geoscan Research FM36 fluxgate gradiometers. Two stages of work were undertaken: reconnaissance survey and detailed survey.

#### 5.2 Reconnaissance Survey

5.2.1 Reconnaissance survey was undertaken across 33 parcels of land (Fields 5, 13-39, 41-45) which are currently under pasture or set-aside. The working corridor was marked within each field by placing ranging poles at either end. Zig-zag and longitudinal traverses were made along the proposed road route similar to the methodology applied on the route of the M3 (Clark 1990, 87-8, Fig 69).

5.2.2 The geophysical survey was undertaken using two Geoscan Research FM36 fluxgate gradiometers. Two stages of work were undertaken. In the first instance a reconnaissance survey was carried out in order to detect archaeologically significant magnetic anomalies. Where significant anomalies were identified, an area was surveyed in detail to confirm their archaeological significance.

### 5.3 Detailed Survey

- 5.3.1 Only one potential anomaly was recovered during the initial scan survey, in field 5. Additionally the areas of the pottery concentrations in Fields 6 and 8 were scanned and when these proved positive detailed survey was undertaken.
- 5.3.2 Detailed survey grids were surveyed within a 20m x 20m square with readings logged at 0.25m intervals along parallel transects set 1m apart using an ST1 sample trigger with the sensitivity level set at 0.1nT. The instrument is set at this level to enable weak magnetic signals to be detected.
- 5.3.3 The sensor alignment or balance was checked upon the completion of survey within each grid square. All data were downloaded in the field into a Toshiba lap-top computer and stored on 3.5" diskettes.
- 5.3.4 The data were analysed using the computer program Geoplot 2.01. Low magnetism is represented as white and high magnetism as black in the resultant plots. The data were processed using zero mean functions in order to correct the unevenness of the plots to give a smoother graphical appearance. The data were also despiked, thereby reducing extreme readings as caused by stray iron fragments and spurious effects due to the inherent magnetism of soils.
- 5.3.5 Further numerical smoothing of the data has been carried out using a low pass filter in order to reduce background noise levels and highlight other features that may be archaeologically significant.

#### 5.3.6 Field 5

During the initial reconnaissance survey, a sub-circular anomaly was detected on the ground which was subsequently surveyed in detail to ascertain its nature and possible extent. Two 20m x 20m grid-squares were surveyed and walked from the south-west to the north-east. The results (not illustrated) indicated anomalies of a non-archaeological nature. No further work was carried out in this field.

#### 5.3.7 Field 6 (Figs 6, 7)

Initially a geophysical scan was carried out and the presence of significant anomalies in the area of the Iron Age and Romano-British pottery concentrations was confirmed. Consequently a detailed survey of 0.64ha was undertaken. The results indicate a ditched enclosure, measuring 65m north - south and at least 80m east - west marked by a strong magnetic signal, up to +25nT. Within the enclosure more weakly magnetic, circular features may denote the location of roundhouses (Fig 7 A and B).

#### 5.3.8 Field 8 (Figs 8, 9)

Initially a geophysical scan was carried out and the presence of significant anomalies in the area of the Iron Age and Romano-British pottery concentrations was confirmed. Consequently a detailed survey of 0.56ha was undertaken. Towards the south end of the survey area part of a large, wide-ditched enclosure (Fig 9A) was revealed. To the north of this were a series of small rectilinear and circular, conjoined enclosures (Fig 9 B, C, D), one of which (D) was apparently

'attached' to a linear ditch (Fig 9E). Similar features were found at the Iron Age site of Ringstead Grange, Northants (Shaw 1992). The internal features of these enclosures are not clearly distinguishable suggesting they are buried at a shallow depth. This may indicate that their preservation is poor.

**6. DISCUSSION**

6.1 No archaeological sites were known to lie within the corridor of the proposed road route before the Stage 2 work. Nevertheless the area was considered to be of some importance archaeologically due to its proximity to the Roman town of Towcester and to the Roman road from Towcester to Alchester (Site 1).

6.2 Three potential archaeological sites were discovered by the Stage 2 work:

Site 2 SP68324630 (Fig 10)

A large enclosure with traces of internal houses of Iron Age to Romano-British date

Site 3 SP68204665 (Fig 10)

A large, wide-ditched enclosure with other small, conjoined rectilinear and circular enclosures and a linear ditch, of Iron Age to Romano-British date

Site 4 SP67684159 (Fig 4)

A slight concentration of Romano-British pottery which may indicate an archaeological site or may be merely an intensively manured section of a contemporary field system.

**7. RECOMMENDATIONS**

7.1 Future evaluation work should be restricted to the area of the road corridor.

7.2 Site 2

- (1) targeted trial trenching should be undertaken in order to establish the condition and importance of the archaeological remains
- (2) on completion of (1) a mitigation strategy designed to preserve the archaeological remains either in situ or by record should be adopted

7.3 Site 3

- (1) geophysical survey should be undertaken around the present survey area in order to establish the extent of the enclosures and linear ditch system.
- (2) targeted trial trenching should then be undertaken in order to establish the condition and importance of the archaeological remains
- (3) on completion of (1) and (2) above a mitigation strategy designed to preserve the archaeological remains either in situ or by record should be adopted

7.4 Site 4

- (1) geophysical survey should be undertaken over the area of the pottery concentration in order to locate buried features
- (2) targeted trial trenching should then be undertaken in order to establish the presence, condition and importance of any archaeological remains
- (3) on completion of (1) and (2) above, and if archaeological remains are encountered, a mitigation strategy designed to preserve the archaeological remains either in situ or by record should be adopted

**REFERENCES**

Chapman, A. & Shaw, M 1996 A43 Silverstone Bypass Archaeological Desk Top Assessment, October 1996, Northamptonshire Archaeology Report.

Clark, A. J. 1990 Seeing Beneath the Soil, Batsford, London.

Shaw, M 1992 Iron Age Settlement Evidence at Top Lodge, near Ringstead Grange, Northamptonshire, Northamptonshire Archaeology 24, 3-12.



### SCHEDULE OF ILLUSTRATIONS

- Fig 1: Bypass route, survey corridor and known archaeological sites. Scale 1:25000
- Fig 2a: Bypass route (north), survey corridor and areas investigated. Scale 1:12500
- Fig 2b: Bypass route (south), survey corridor and areas investigated. Scale 1:12500
- Fig 3: Fields 6, 8 and 10, fieldwalking results: Iron Age pottery. Scale 1:3000
- Fig 4: Field 8, fieldwalking results: Iron Age pottery. Scale 1:2500
- Fig 5: Fields 6, 8 and 10, fieldwalking results: Romano-British pottery. Scale 1:3000
- Fig 6: Field 6, geophysical survey plot. Scale 1:1000
- Fig 7: Field 6, geophysical survey interpretation. Scale 1:1000
- Fig 8: Field 8, geophysical survey plot. Scale 1:1000
- Fig 9: Field 8, geophysical survey interpretation. Scale 1:1000
- Fig 10: Sites 2 and 3, Fields 6, 8 and 10. Composite plot showing geophysical survey interpretation and Iron Age and Romano-British pottery scatters. Scale 1:3000

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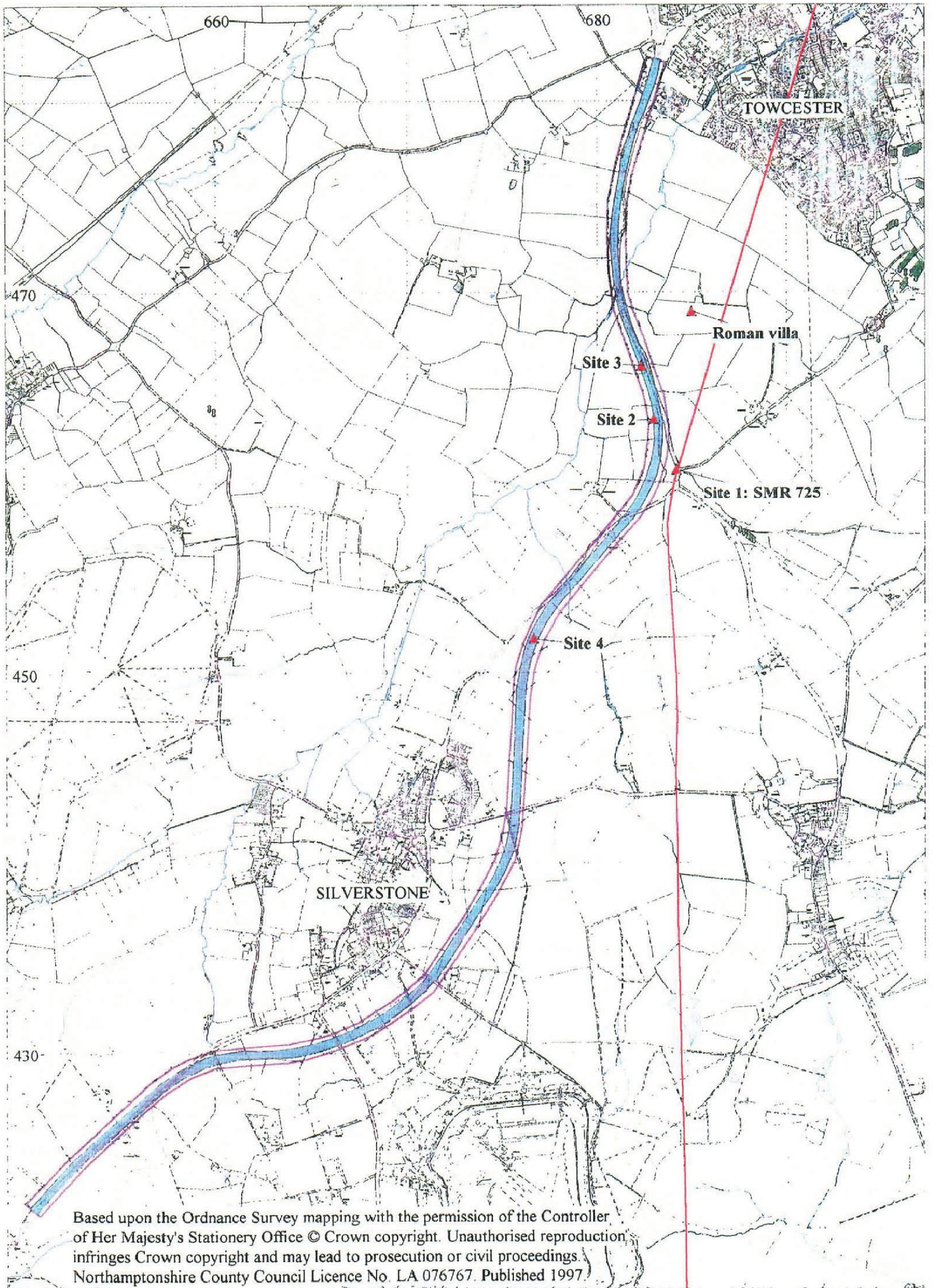
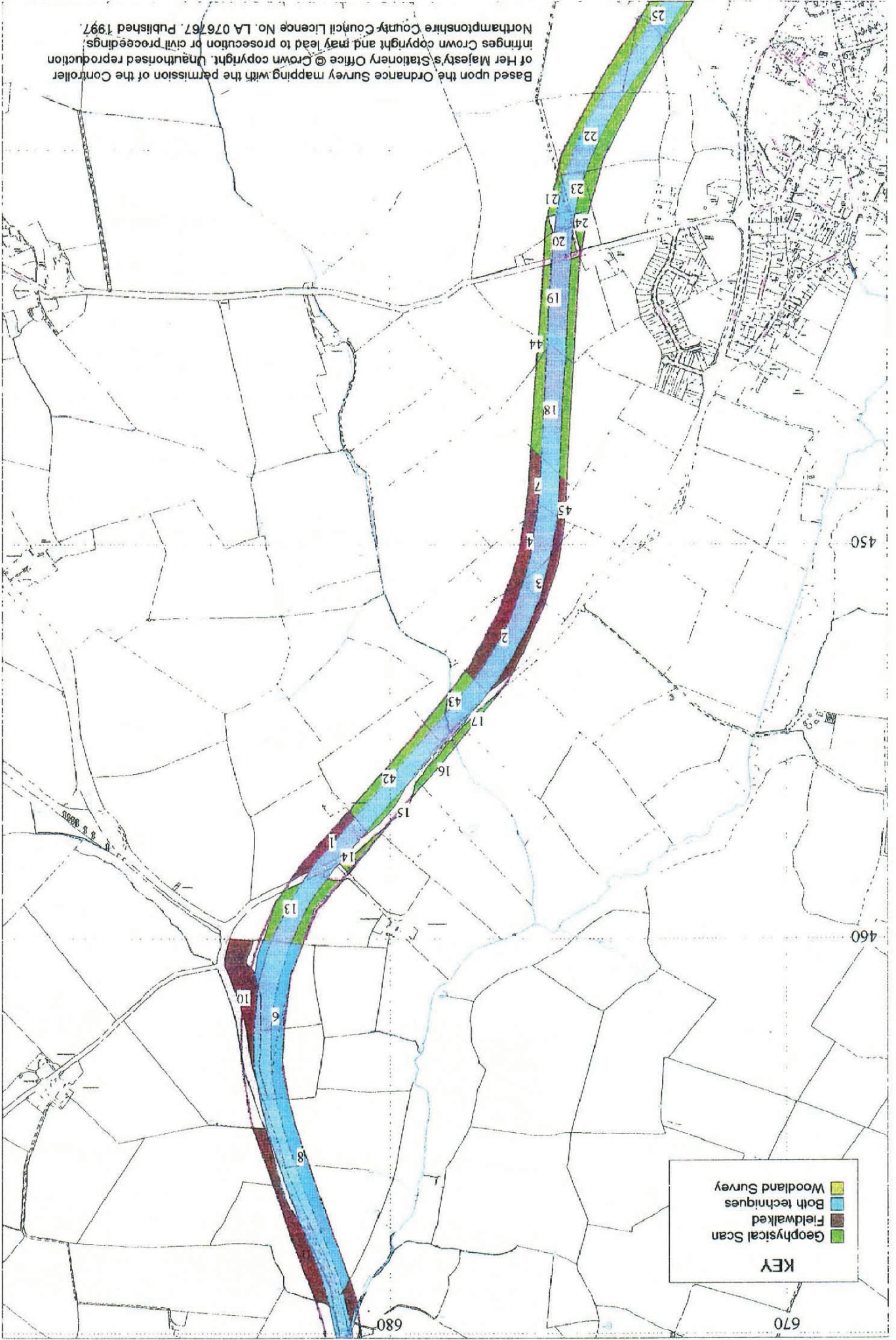


Fig. 1



Fig. 2a



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Fig. 2b

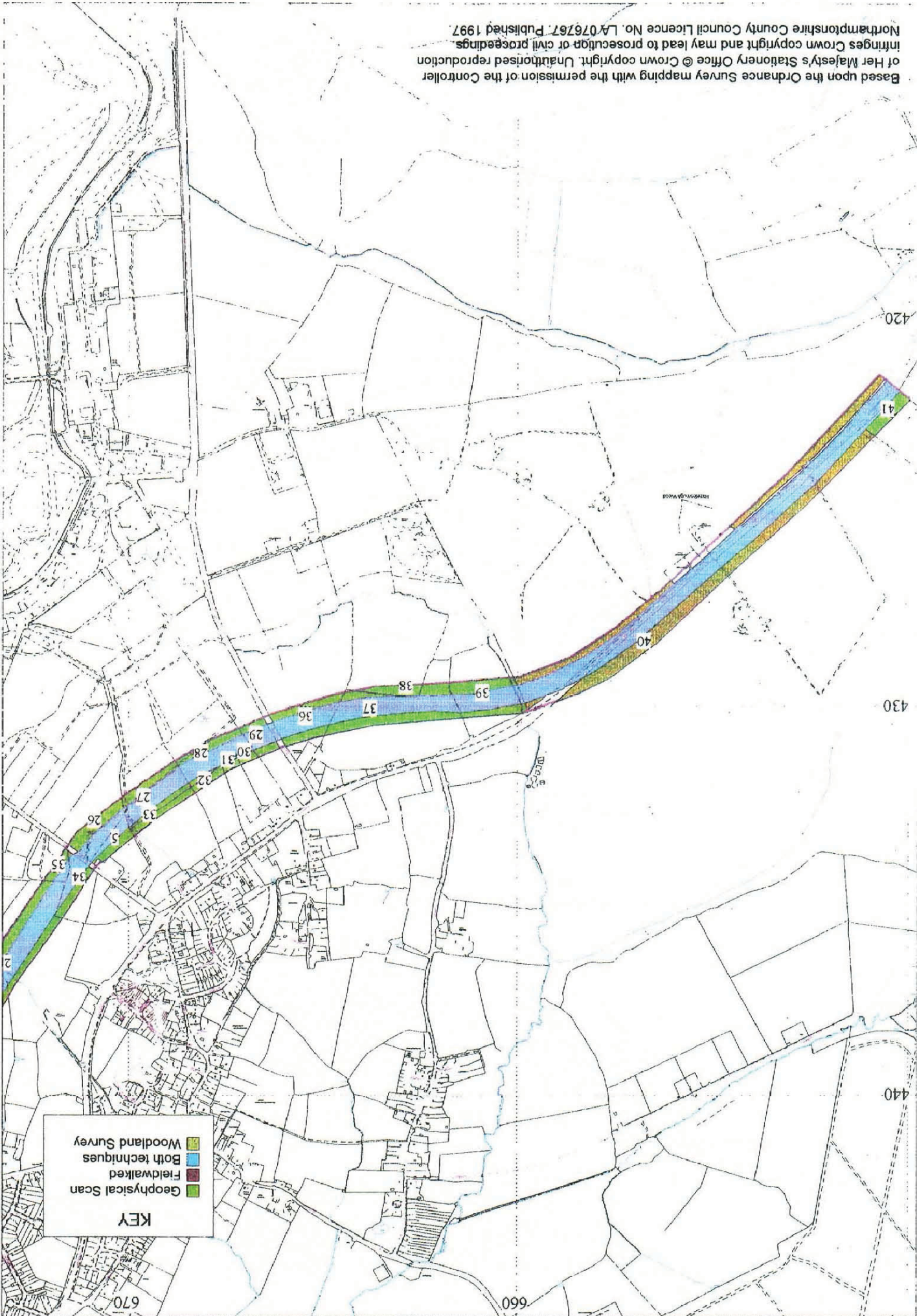
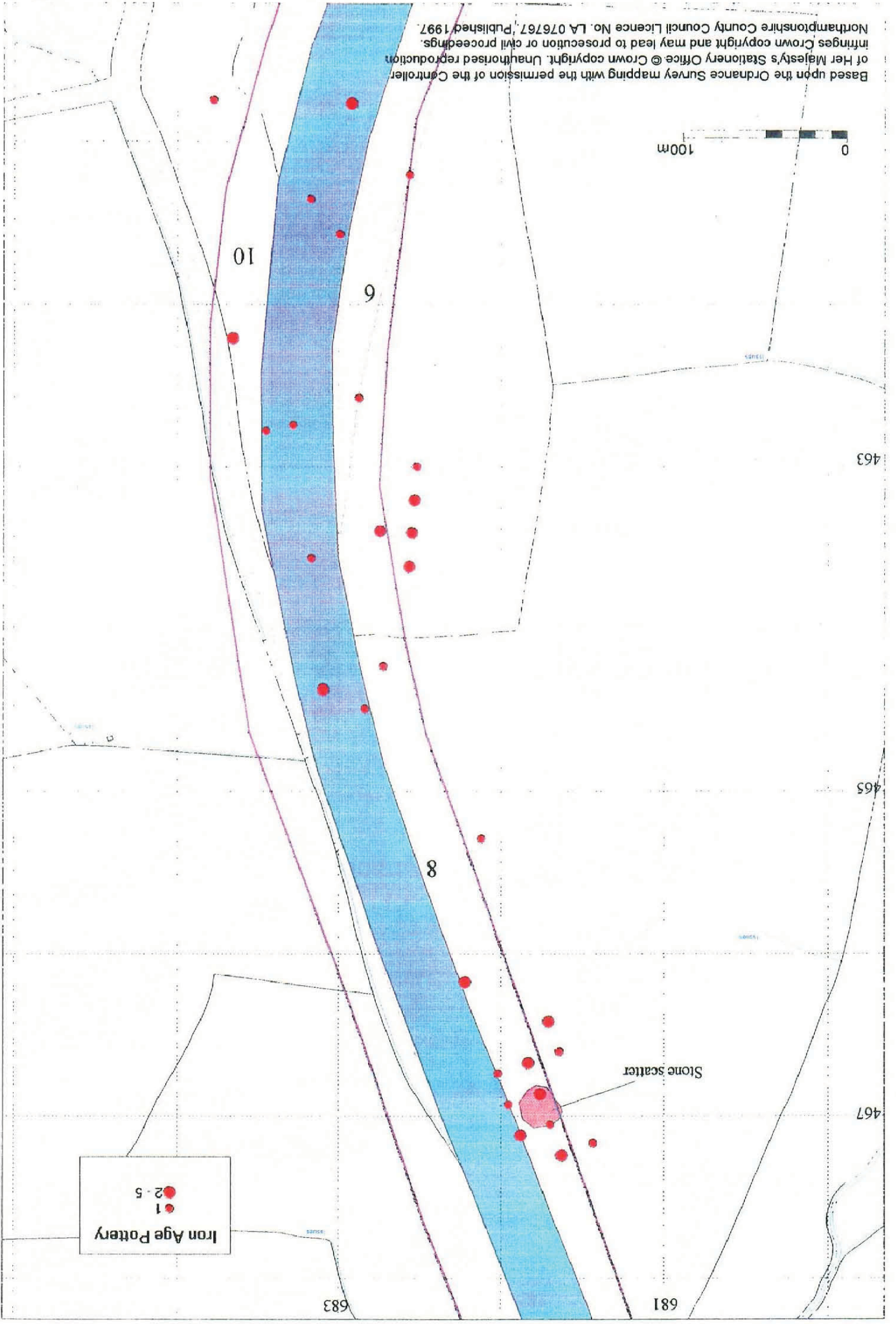


Fig. 3



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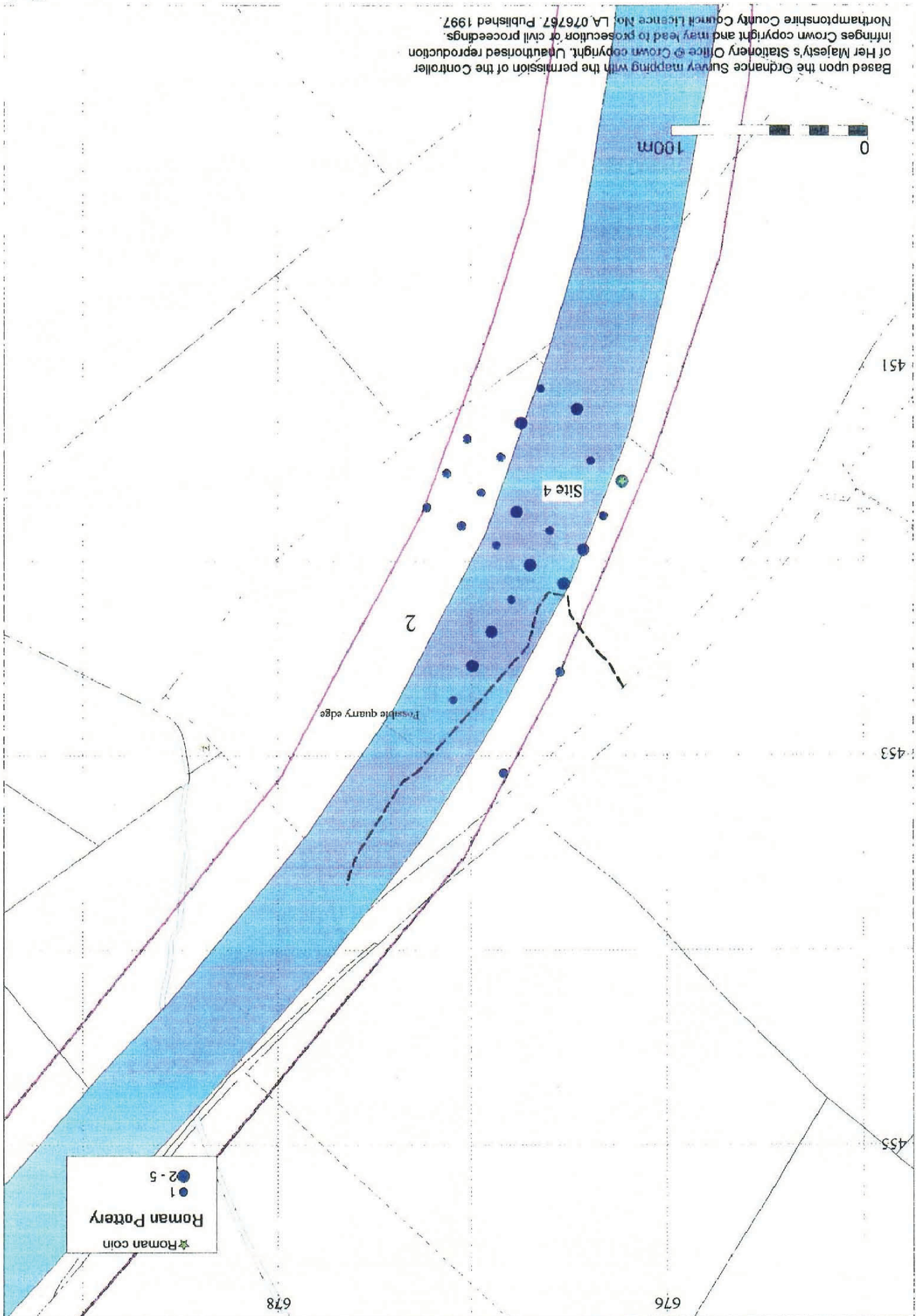


Fig 4

Fig 5

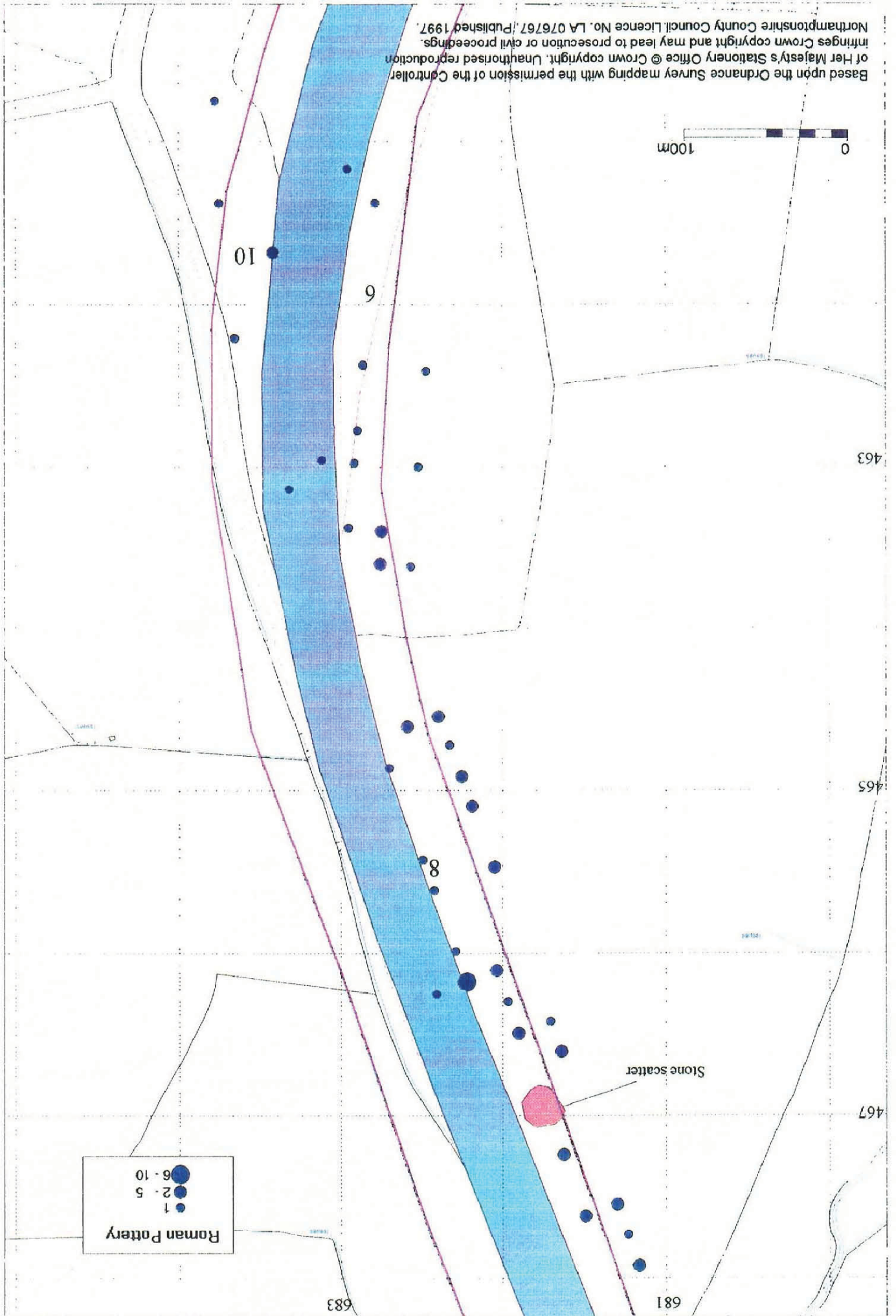
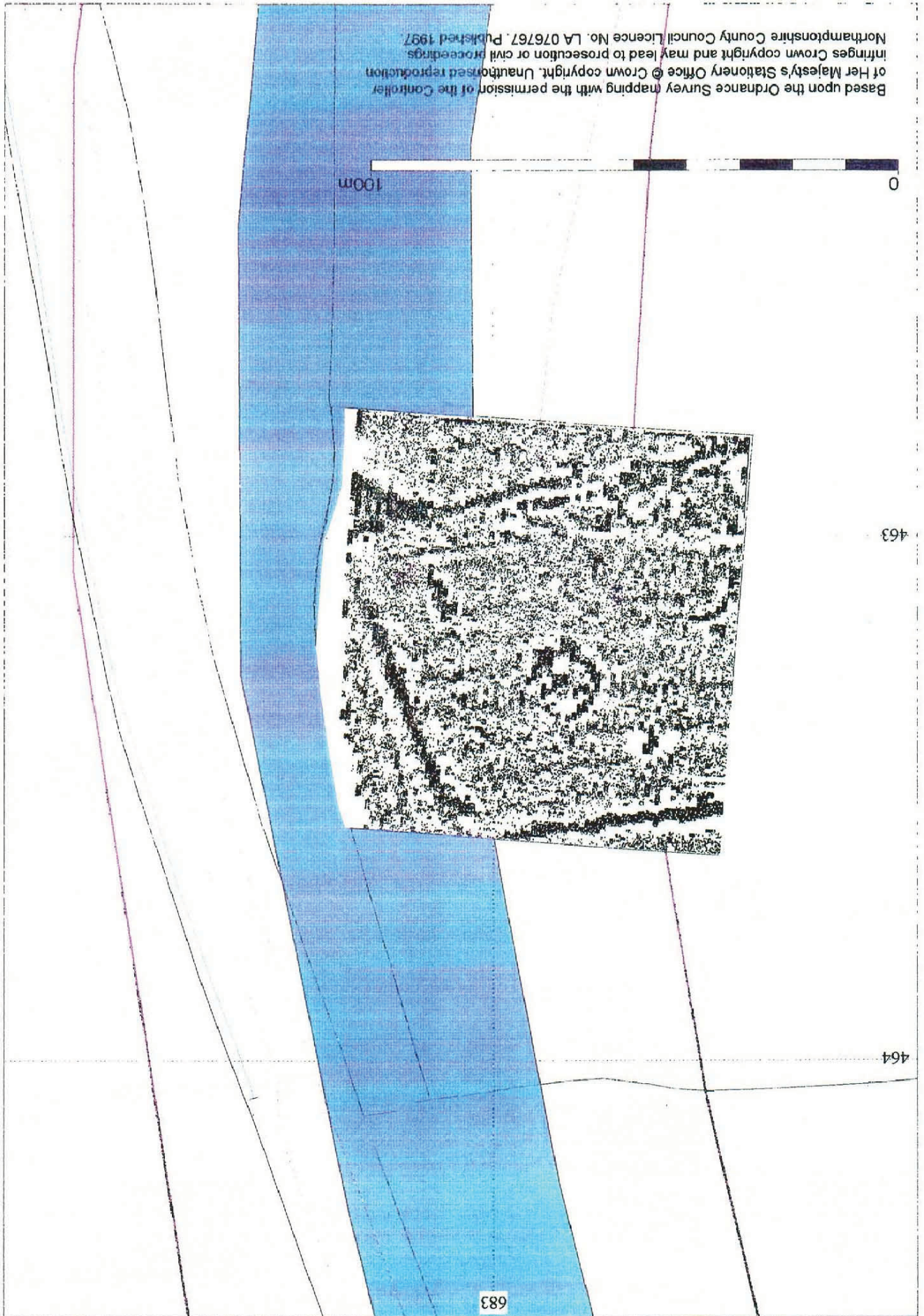




Fig. 6



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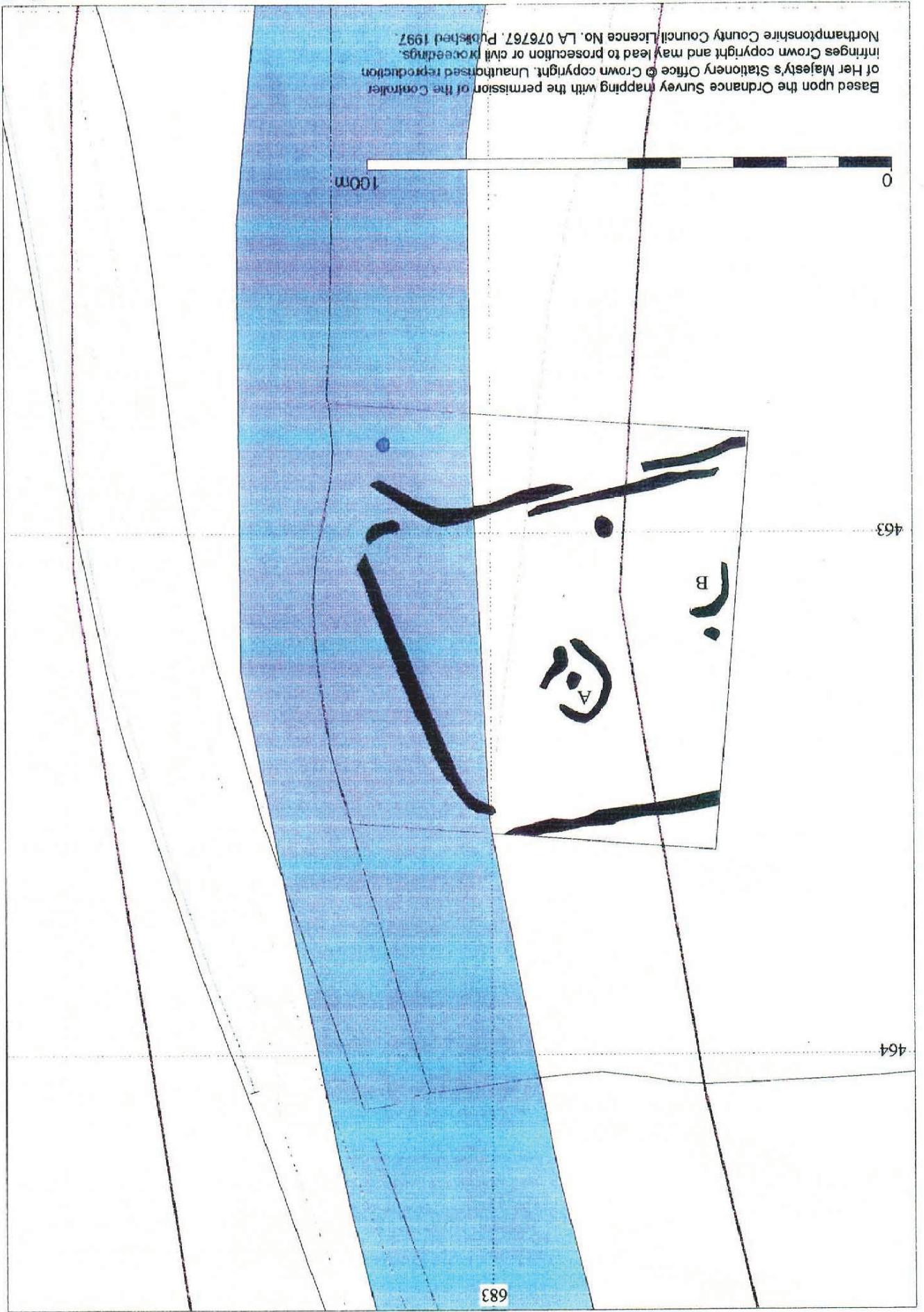
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Fig. 7





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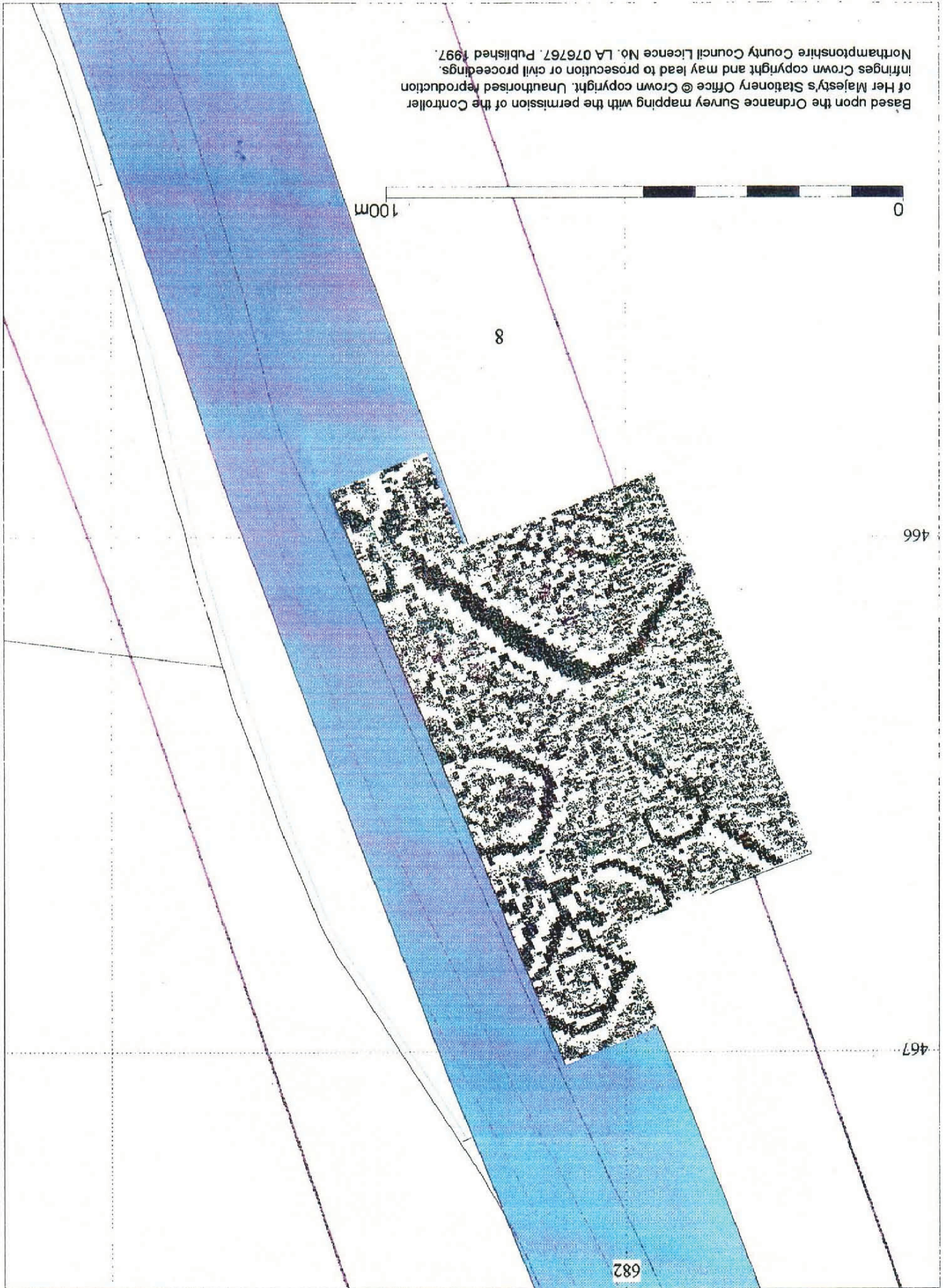


Fig. 8

3.13



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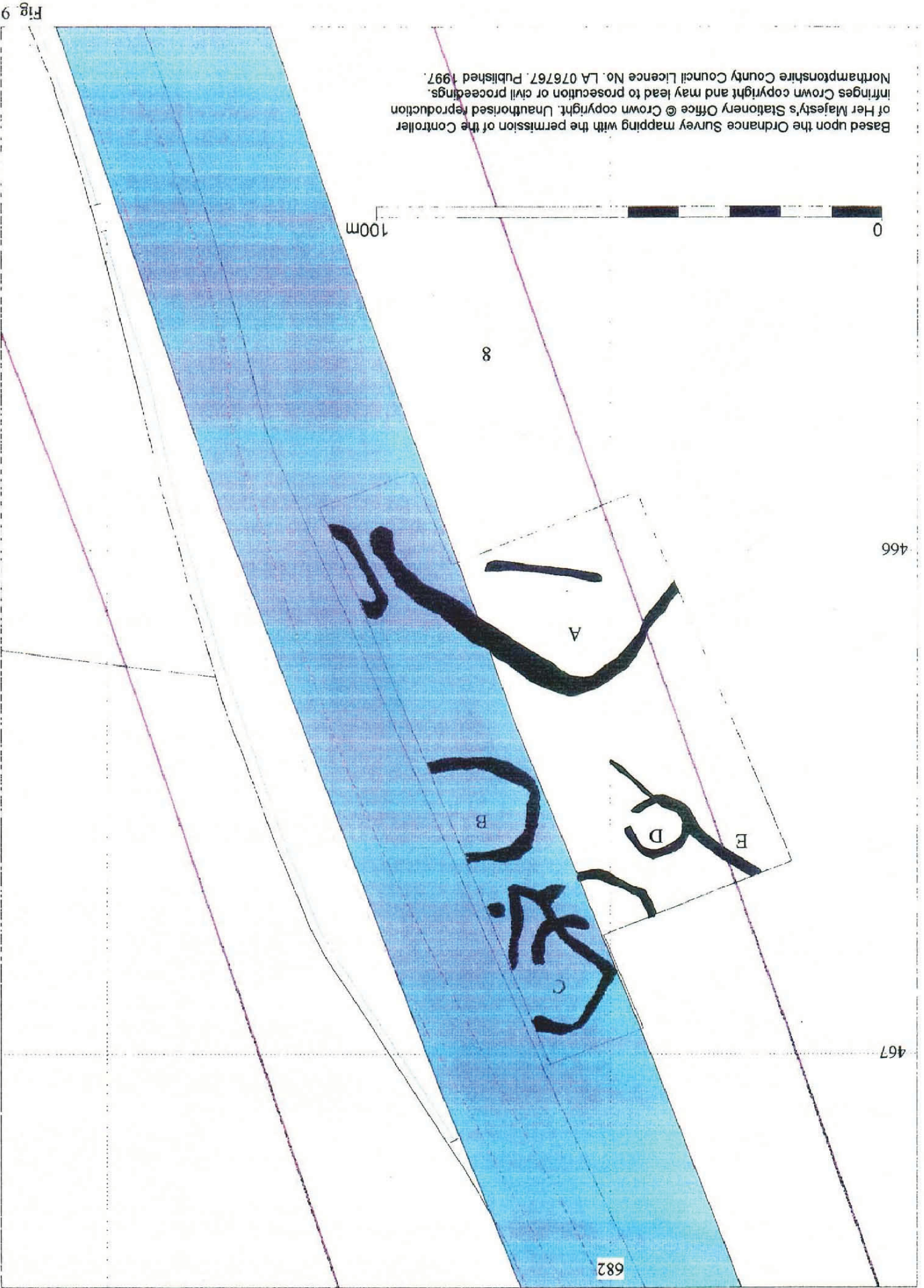


Fig 9

Fig. 10

