
**ARCHAEOLOGICAL EVALUATION
ON LAND OFF WHATTON ROAD,
KEGWORTH,
LEICESTERSHIRE
(KEWR 15)**

Work Undertaken For
SLR Consulting
on behalf of
Push Energy Limited

October 2015

Report Compiled by
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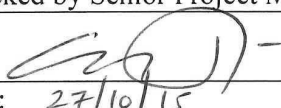
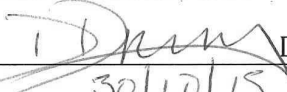
**ARCHAEOLOGICAL
PROJECT
SERVICES**



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Archaeological Evaluation on land off
Whatton Road,
Kegworth,
Leicestershire
KEWR 15

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1. SUMMARY

An archaeological evaluation was undertaken on land off Whatton Road, Kegworth, Leicestershire in advance of a solar farm development. This was because the area is archaeologically sensitive, lying close to remains of prehistoric and Roman date.

The evaluation revealed a concentration of Mid to Late Iron Age features towards the west side of the site. These corresponded with the anomalies of putative enclosure ditches revealed in the prior geophysical survey. Mitigation measures have been applied which have ensured that the remaining archaeological features of the two enclosures have been protected from further disturbance and remain in situ on site

Finds indicated an Iron Age date for the enclosures and included pottery of the Iron Age and post-medieval periods, animal bone, fired clay and flint.

2. INTRODUCTION

2.1 Definition of an Evaluation

An archaeological evaluation is defined as ‘a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site. If such archaeological remains are present Field Evaluation defines their character and extent, quality and preservation, and it enables an assessment of their worth in a local, regional, national or international context as appropriate’ (CIfA 2014).

2.2 Planning Background

Planning permission for the solar farm

development included a condition requiring a programme of archaeological work including a trenching evaluation. Archaeological Project Services (APS) was commissioned by SLR Consulting, on behalf of Push Energy Limited, to carry out this evaluation, which was undertaken between 13th and 21st August 2015, in accordance with a written scheme of investigation (WSI) prepared by SLR (SLR 2015) and approved by the Planning Archaeologist for Leicestershire County Council.

2.3 Topography and Geology

Kegworth is located 8km northwest of Loughborough, in the administrative district of Northwest Leicestershire (Fig. 1).

The site is located approximately 0.3km south of the village, 0.8km east of the M1 motorway and 0.8m west of the River Soar, centred on National Grid Reference SK 4823 2586 (Fig. 2). It encompasses approximately 3.35 hectares.

The site lies at a height of c. 65-69m OD on farmland sloping gently down towards a minor tributary of the Soar 200m to the south.

Soils at the site are mapped as typically argillic pelosols of the Worcester Association (SSEW 1983). The underlying geology is mudstone with extensive sandstone (SLR 2015).

2.4 Archaeological Setting

The historic environment context has been set out in a Heritage Statement prepared by SLR (SLR 2014).

At the time the Heritage Statement was prepared, recorded assets within 500m of the site comprised:

- 6903 medieval seal from west of Welwyn Grange (180m to the north);
- 4634 post-medieval windmill south-west of the Lodge (360m to the north-east)
- 4629 post-medieval brickyard comprising a clay pit and kiln (240m to the north-east)
- 4658 Long Lane, possible Roman road (280m to the east); and
- 8048 Roman pottery from south of the Lodge (380m to the east).

Of these only 8048 Roman pottery may represent an asset with the potential to extend within the Site. The description in the HER is:

In the 1960s small fragments of greyware and black gritted ware sherds were found alongside the possible Roman road.

This find may represent pieces from a single broken pot, a manuring scatter or something more substantial.

A programme of geophysical survey and trial trenching, was completed immediately north of the Site in 2014, revealing a possible prehistoric ditch and two pits containing pottery of uncertain date, but possibly prehistoric, along with fire-cracked pot-boiler stones (Wessex Archaeology 2014).

Prior geophysical survey of the Site identified two undated small potential enclosures and an apparent trackway defined by two parallel ditches. The trackway lay adjacent to a field boundary mapped from 1883 to 1955 and removed in the 1960s (Smith 2015; available online at ADS library, via OASIS).

3. AIMS AND OBJECTIVES

Aims

Known pre-medieval assets within the study area are few. However, the identified potential of the site has been compared with the research objectives in the East Midlands Historic Environment Research Framework. As a result research objectives to which the project as a whole has the potential to contribute include those of Prehistoric and Roman date.

Prehistoric

The prehistoric activity identified in the 2014 trenches was not closely dated and the current fieldwork would have the potential to clarify its date and character should it extend within the Site boundary, and therefore have the potential to contribute to the following research agenda:

- Neolithic/to Middle Bronze Age. Investigate the development and intensification of agriculture:
 - transition from a hunter-gatherer to an agricultural economy;
 - evidence for domesticated crops and animals;
- Late Bronze and Iron Age. Assess the evidence for the evolution of settlement hierarchies:
 - investigate settlement hierarchy and sub-regional variation (results compared with known sites);
- Late Bronze and Iron Age. Investigate intra-regional variations in the development of fields and linear boundary systems:
 - any information on

Leicestershire settlement would contribute to the ability to make intra-regional comparisons: “further research on the origins, functions and interrelationships of pit alignments and linear ditched boundaries and the relationship of these boundaries to field systems as a major priority”.

Roman

The lack of related features found in the 2014 evaluation suggests that the Roman pottery find to the east of the Site may be no more than a manuring scatter. However, should it prove to relate to settlement remains, or tangible features which extend within the Site, such remains would contribute to the following research agenda:

- Investigate the landscape context of rural settlements:
 - “...and targeted excavation all have important parts to play in mapping and interpreting these landscapes”,
 - “appropriate environmental sampling strategies need to be encouraged to accumulate botanical and faunal data that will provide a secure foundation for studies of changing landscape context and site location strategies”.

A final aim is to establish and place on record the extent and significance of any surviving archaeological remains within the Site in order that an appropriate mitigation strategy can be identified.

The objectives were to:

- Excavate the trenches using the methodology set out in the WSI (SLR 2015).
- Identify any archaeological features within the trench areas, and establish their nature and extent by sample-excavation; and
- to form a record of the trenches and features.

4. METHODS

Eleven trenches, each measuring 25-30m by 1.6m, were opened by mechanical excavator using a toothless ditching bucket under archaeological supervision. They were stripped to the highest archaeological horizon or surface of the underlying geology, as appropriate. The exposed surfaces of the trenches were then cleaned by hand and inspected for archaeological features.

Each deposit exposed during the evaluation was allocated a unique reference number (context number) with an individual written description. A list of all contexts and their interpretations appears as Appendix 1. A photographic record was also compiled and sections and plans were drawn at a scale of 1:10 and 1:20 respectively. Recording of deposits encountered was undertaken according to standard Archaeological Project Services practice.

Environmental sampling was undertaken on the advice of the archaeological consultant and carried out in accordance with guidelines established by English Heritage (2011). Seven samples were taken, 4 of them bulk environmental samples and 3 pollen columns, and the subsequent processing and assessment of this is detailed in Appendix 3.

The locations of the trenches were surveyed using a survey grade differential GPS. Raw satellite data is calibrated via the OS NET service resulting in extremely accurate readings. The calibrated data is logged in the field to a mobile device running Fast Survey/Spectrum Survey Field software and subsequently processed in the office by n4ce data processing software which is used to produce customised CAD files.

Following excavation, finds were examined and a period date assigned where possible (Appendix 2). The records were also checked and a stratigraphic matrix produced. Phasing was based on the nature of the deposits and recognisable relationships between them and supplemented by artefact dating.

5. RESULTS (Figs 3-6)

The results of the archaeological evaluation are discussed in trench order. Archaeological contexts are described below. The numbers in brackets are the context numbers assigned in the field.

Trench 1 (Fig. 3)

The natural mid reddish brown and greyish white silty clay (102) was overlain by light greyish brown and greyish white silty clay (103). This was cut, towards the north end of the trench, by a single linear natural feature [104] with steep sides and irregular base which was filled with mid reddish brown silty sand (105). Sealing this was 0.3m thick mid reddish brown silty clay subsoil (101) above which was a 0.3m thickness of topsoil (100) (Fig. 6, Section 1).

Trench 2 (Fig. 3)

At the west end of the trench, there was a mix of reddish brown and grey white silty clay mixed with mudstone (202) with light reddish brown and greyish white silty clay

(201) over the remainder. This was broken by two bands of mid reddish brown silty sand (204) and was overlain by an unexcavated southwest-northeast aligned probable plough furrow comprising mid yellowish brown silty clay (203). Sealing this was 0.3m thick topsoil (200) containing a sherd of post-medieval pottery (Fig. 6, Section 3).

Trench 3 (Fig. 4; Plate 2)

The natural deposit in this trench was a mix of light reddish brown and greyish white silty clay (302).

In the centre of the trench, the natural was cut by a roughly north-south aligned ditch [305]. This had steep sides and was 0.7m wide and 0.64m deep. It was filled with reddish brown sandy silt (306). Cutting the ditch in the south side of the trench was rounded, steep-sided pit [310]. Measuring 1.47m wide and 0.72m deep, the pit was filled by mid brown silty clay (311) with frequent stones. This contained Mid to Late Iron Age pottery and animal bone.

The pit was cut by north-south aligned ditch [312] (Fig. 5, Section 5; Plate 3). This was steep-sided, 0.7m wide and 0.6m deep and filled by reddish brown sandy clayey silt (313) which also contained Mid to Late Iron Age pottery and animal bone. In the opposite section (Fig. 5, Section 4; Plate 4), the ditch was recorded as [307] which was also steep-sided and measured 1.2m wide and 0.95m deep. It had a basal fill of 0.32m thick reddish brown clay silt (309) overlain by 0.76m thick stony reddish brown sand-clay silt (308) which contained Mid to Late Iron Age pottery and animal bone, including sheep/goat teeth (Appendix 2). Assessment of a pollen sample from (308) indicated that the ditch was in a fairly tree-less pasture area (Appendix 3).

Immediately east of the ditch was irregular spread [303] (Fig. 5, Section 6) which was

3.38m long, at least 1.2m wide and 0.13m deep. It was filled by dark greyish brown silty clay with frequent stones (304) from which Mid to Late Iron Age pottery, a piece of fired clay and a burnt stone, possibly a “pot boiler”, were obtained. Animal bone, mostly fragmentary and unidentifiable but including sheep/goat teeth, were also recovered (Appendix 2).

East of the spread, north-south aligned ditch [314] (Fig. 5, Section 7) had steep sides and was 2.4m wide and 0.82m deep. It was filled by mid reddish brown silty clay (315) that yielded a quantity of animal bones including cattle and sheep/goat (Appendix 2). Examination of a pollen sample from (315) suggested the ditch was located in an area of open pasture with few trees and shrubs (Appendix 3).

The ditches match the recorded geophysical anomalies which defined a small square enclosure measuring c. 7m x 7m.

The features were overlain by up to 0.23m thick yellowish brown silty clay subsoil (301) above which was 0.28m thick topsoil (300) which contained a piece of probable Bronze Age flint debitage.

Trench 4 (Fig. 4; Plate 5)

In Trench 4, the natural deposit of reddish brown and greyish white silty clay (402) was cut by a single north-south aligned ditch [403] (Fig. 5, Section 8; Plate 6). Measuring c. 1.9m wide and 0.55m deep, this had uneven sides and base. It was filled with yellowish brown clayey silt (404) which contained Mid to Late Iron Age pottery. An environmental sample produced four flakes of hammerstone (Appendix 3). Assessment of a pollen sample from (404) indicated that the local environment in the area of the ditch was open pasture with few trees and shrubs with the exception of alder, which often grows on wet ground. In addition, there

was pollen of reeds suggesting that the ditch was consistently damp/wet. A small amount of cereal pollen was also identified but the quantities are low and do not suggest arable agriculture in the adjacent fields but may be due to crop-processing activities (Appendix 3). The ditch matched the geophysical anomaly of the east side of a potential enclosure. The west side was not revealed in the trench. The ditch was sealed by up to 0.12m thick mid reddish brown silty clay subsoil (401) which was overlain by 0.29m thick topsoil (400).

Trench 5 (Fig. 3)

Natural mid reddish brown silty clay (502) was disturbed by three east-west aligned furrows (503-505). These were unexcavated and comprised mid brown sandy silt with moderate pebble inclusions and occasional charcoal flecks. They were sealed by 0.3m thick topsoil (501) (Fig. 6, Section 14).

Trench 6 (Fig. 4)

The natural deposits comprised light grey and yellow mudstone (606) overlain by reddish brown silty sand (605) and mid red clayey silt (602) (Fig. 6, Section 13).

The silt was cut by a single sub-circular post hole [603] (Fig. 5, Section 9). With concave sides and a flat base, this measured 0.3m in diameter and 0.05m deep. It was filled with grey brown sandy clayey silt (604) which was sealed by 0.15m thick mid reddish brown silty clay subsoil (601), above which was 0.32m thick topsoil (600).

Trench 7 (Fig. 3)

In Trench 7, natural deposits comprised light grey and yellow mudstone (702) overlain by reddish brown silty sand (701). This was cut by ditch [703] (Fig. 6, Section 15; Plate 7) which was very steep sided, 1m wide and at least 0.48m deep. It contained a large diameter land drain and had been backfilled with a mix of

redeposited natural and topsoil (704). The ditch is on the line of a field boundary mapped between 1883 and 1955 and a geophysical anomaly. It was sealed by a 0.3m depth of topsoil (700).

Trench 8 (Fig. 3)

A natural deposit of mid reddish brown silty clay (802) was cut by three parallel agricultural furrows. The southernmost of these, furrow [803] (Fig. 6, Section 2) was c. 2.1m wide and 0.2m deep and filled with mid reddish brown silty clay (801). The furrows were overlain by 0.3m thick topsoil (800).

Trench 9 (Fig. 3)

In Trench 9, the natural deposit of mixed reddish and greyish white clay silt (902) was overlain by mid brown sandy silt furrow remnant (903). This was sealed by 0.3m thick topsoil (901) (Fig. 6, Section 10).

Trench 10 (Fig. 3)

Natural mixed reddish and greyish white clayey silt (1002) was overlain by mid brown sandy silt furrow remnant (1003) above which was 0.31m thick topsoil (1001) (Fig. 6, Section 11). Post-medieval artefacts, including pottery, roof tile, slate and glass, were recovered during machine excavation of the trench and assigned context number (1004).

Trench 11 (Fig. 3; Plate 8)

The natural mixed reddish and greyish white clay silt (1102) was cut by three east-west aligned furrows (1103-5) comprising mid brown sandy silt. They were sealed by 0.29m thick topsoil (1101) (Figure 6, Section 2).

6. DISCUSSION

The natural deposits across the site were a mix of mid reddish brown and greyish white silty clay with occasional mudstone

outcrops.

There was a small concentration of Mid to Late Iron Age features towards the west side of the site in Trenches 3 and 4. These corresponded to enclosures postulated from the geophysical anomalies (Smith 2015). Enough pottery was retrieved to suggest the enclosures may represent a small farmstead. A quantity of animal bones from the Trench 3 features further indicates that the remains there represent settlement activities and also indicates the diet of the inhabitants included cattle and sheep/goat. Pollen assessment (see below) indicated that the local environment was open grassland. It seems likely, therefore, that the cattle and sheep/goat were pastured locally in the fields surrounding the enclosures.

However, the environmental samples taken from the Trench 3 and 4 features contained little archaeological material. This is perhaps part due to the small portion of the features excavated and consequent small volumes of the samples, combined with the nature of some of the sampled deposits which were extremely stony with little soil matrix. However, a small amount of hammerscale was retrieved from the Trench 4 ditch fill sample and indicates probable iron smithing somewhere in the vicinity. Assessment of pollen sampled in the ditches in Trenches 3 and 4 indicated that the Mid-Late Iron Age enclosure were in open pastoral grassland with few trees, though alder was growing close to the Trench 4 enclosure. In addition to the alder, which typically grows on wet or swampy ground, there was pollen of reeds and together these suggest that the Trench 4 enclosure ditch was consistently damp/wet. Cereal pollen was also present but in low quantities that do not suggest arable agriculture in the adjacent fields but may be due to crop-processing activities.

The evaluation confirmed the presence of

medieval or early post-medieval ridge and furrow cultivation on the site, in a roughly east-west alignment.

A ditch in Trench 7, corresponding to a field boundary shown on maps from 1883 to 1955, had been used to accommodate a large diameter land drain.

7. CONCLUSIONS

An archaeological evaluation was undertaken on land off Whatton Road, Kegworth, Leicestershire as the site lay close to remains of prehistoric and Roman date.

A concentration of Mid to Late Iron Age features was revealed in two trenches in the western part of the site. These corresponded with anomalies of postulated enclosure ditches identified in the earlier geophysical survey.

Finds included pottery of Iron Age and post-medieval date, animal bone, fired clay and flint. Environmental samples contained little material, though this is probably part due to the small sizes of the samples obtained. Pollen preservation was poor though adequate enough to indicate the Iron Age enclosures were in an open pastoral landscape.

Following the evaluation the remaining archaeological features were protected by redesigning the solar farm to avoid ground disturbance over the two enclosures. The mitigation arrangements, negotiated by SLR, have ensured that these remains have been protected. The site therefore retains significant potential for future investigation following decommissioning of the solar farm, should the opportunity or need arise.

8. ACKNOWLEDGEMENTS

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9. PERSONNEL

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 Site Team: Andy Pascoe, Fiona Walker, Chris Moulis, Gary Taylor
 Surveying: Neil Jefferson, Andy Pascoe, Fiona Walker
 Finds Processing: Denise Buckley
 Photographic reproduction: Neil Parker, Mark Peachey
 CAD Illustration: Neil Parker, Mark Peachey, Jonathon Smith
 Post-excavation Analysis: Mark Peachey

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SLR 2014 *Push Energy Limited. Land off Whatton Road, Kegworth, Leicestershire Proposed Solar Farm. Heritage Statement*, SLR Ref: 404-04990-00003

SLR, 2015 *Push Energy Limited. Land off Whatton Road, Kegworth, Leicestershire Proposed Solar Farm. Written Scheme of Investigation for Archaeological Trial Trenching*, SLR Ref: 403-04990-00011

Smith, J, 2015 *Land off Whatton Road, Kegworth, Leicestershire*
Unpublished APS Report No: **63/15**

SSEW 2013 *Sheet 3: Soils of Midland and Western England*

Wessex Archaeology 2014 *East Midlands Gateway, Lockington, Leicestershire-Archaeological Evaluation* (Ref 101402.01)

11. ABBREVIATIONS

APS Archaeological Project Services

CIfA Chartered Institute for
Archaeologists

SSEW Soil Survey of England and
Wales



Figure 1 - General location map

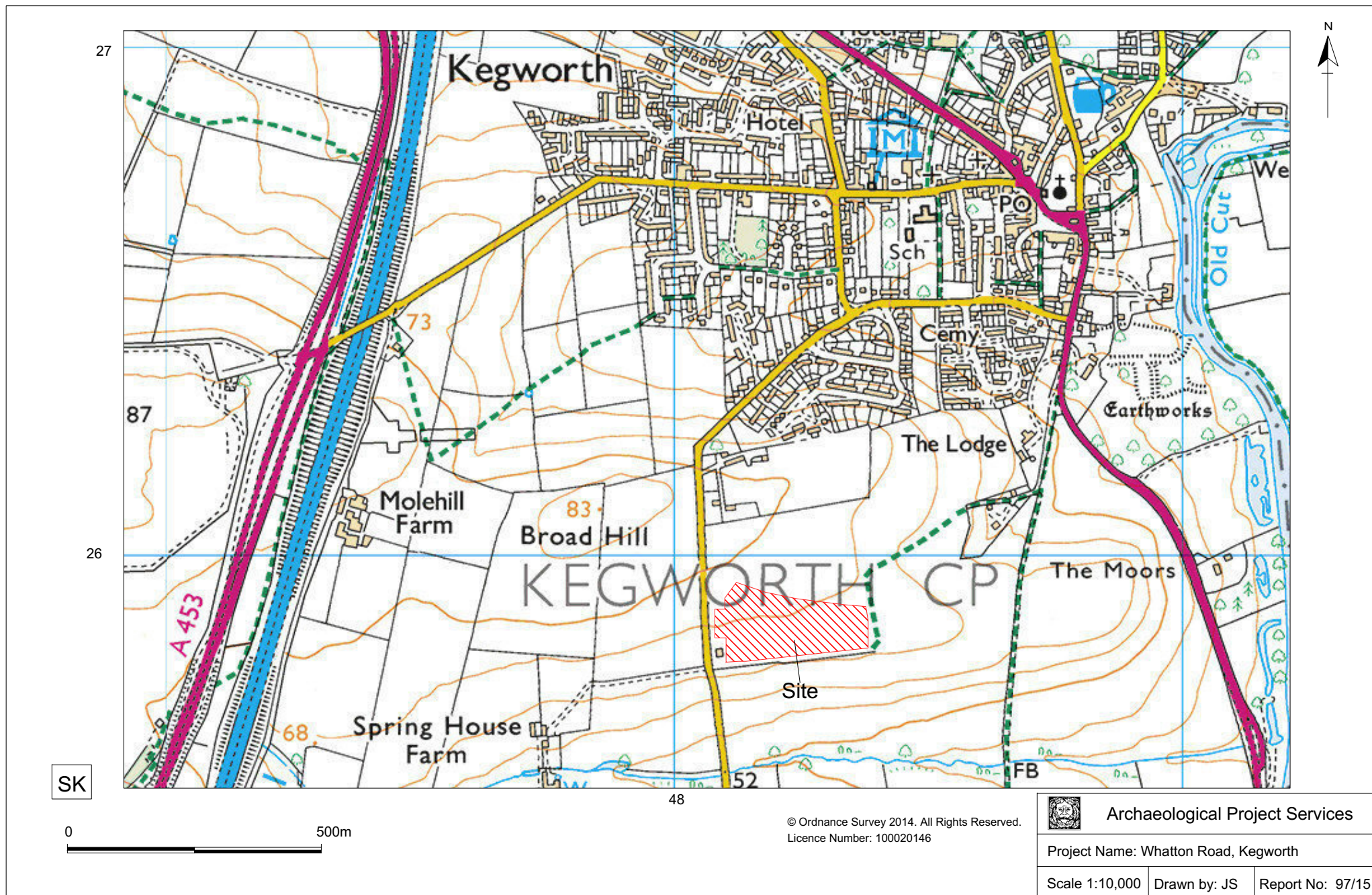


Figure 2 - Site location plan

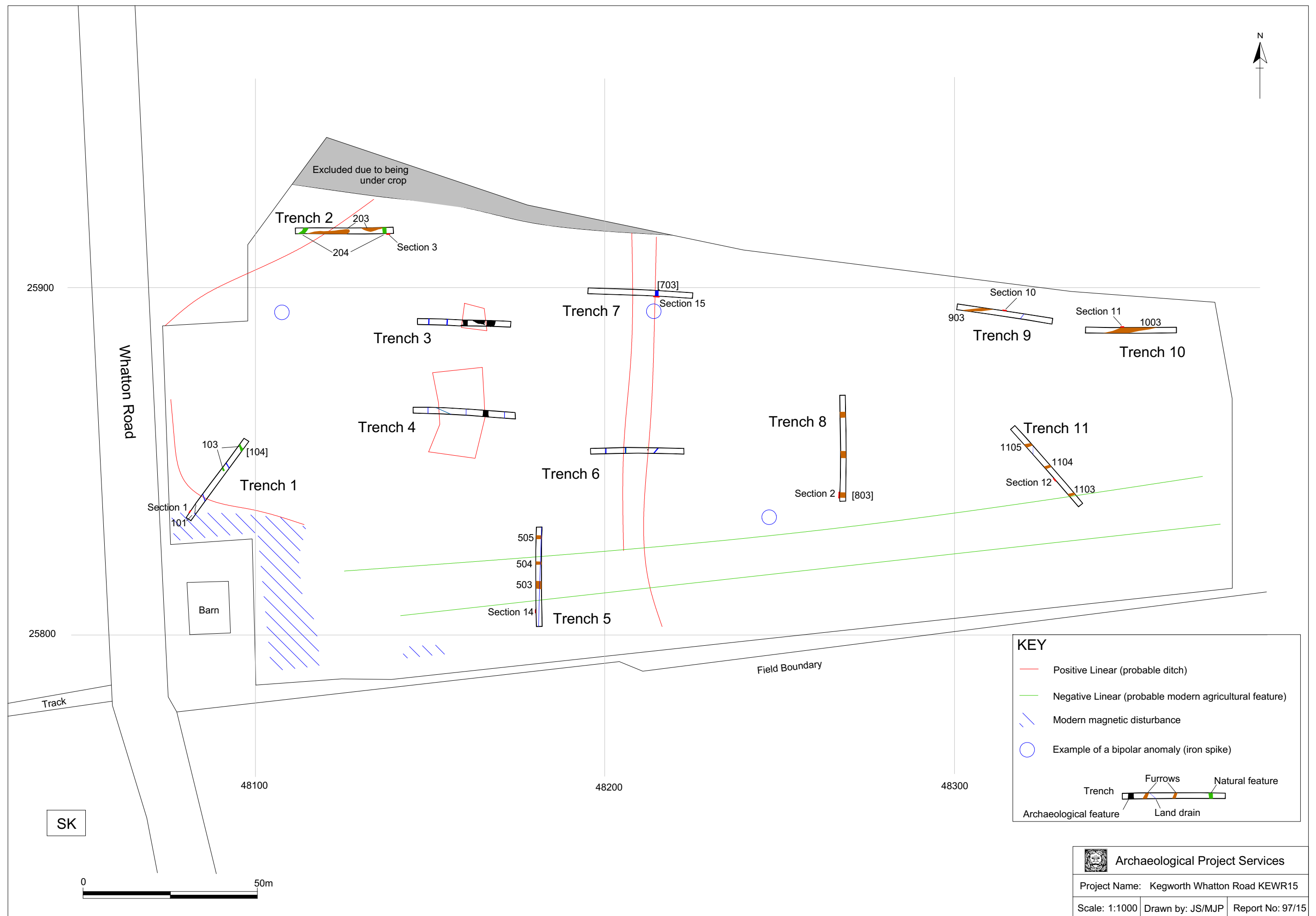
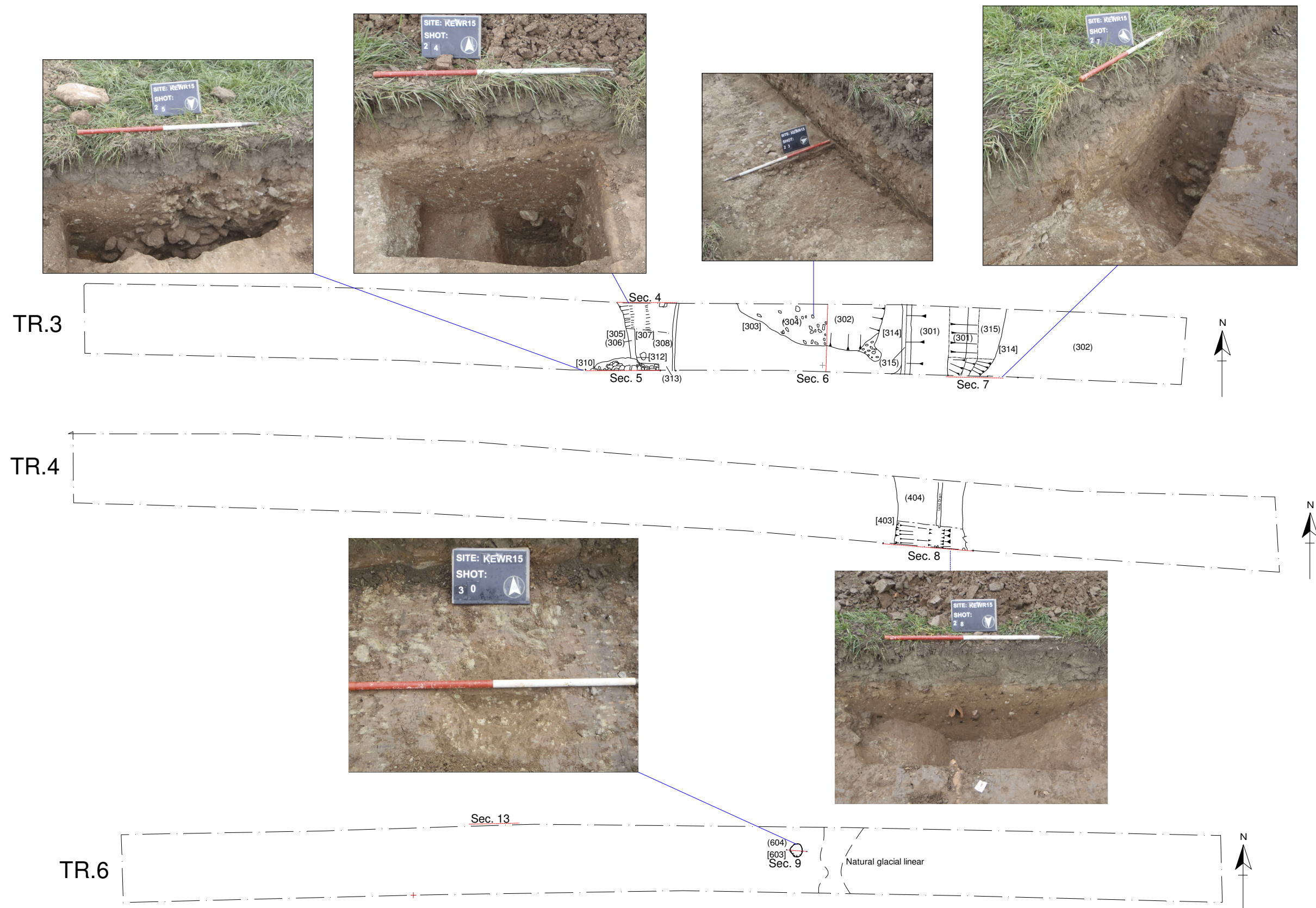



Figure 3. Trench location plan with geophysical results



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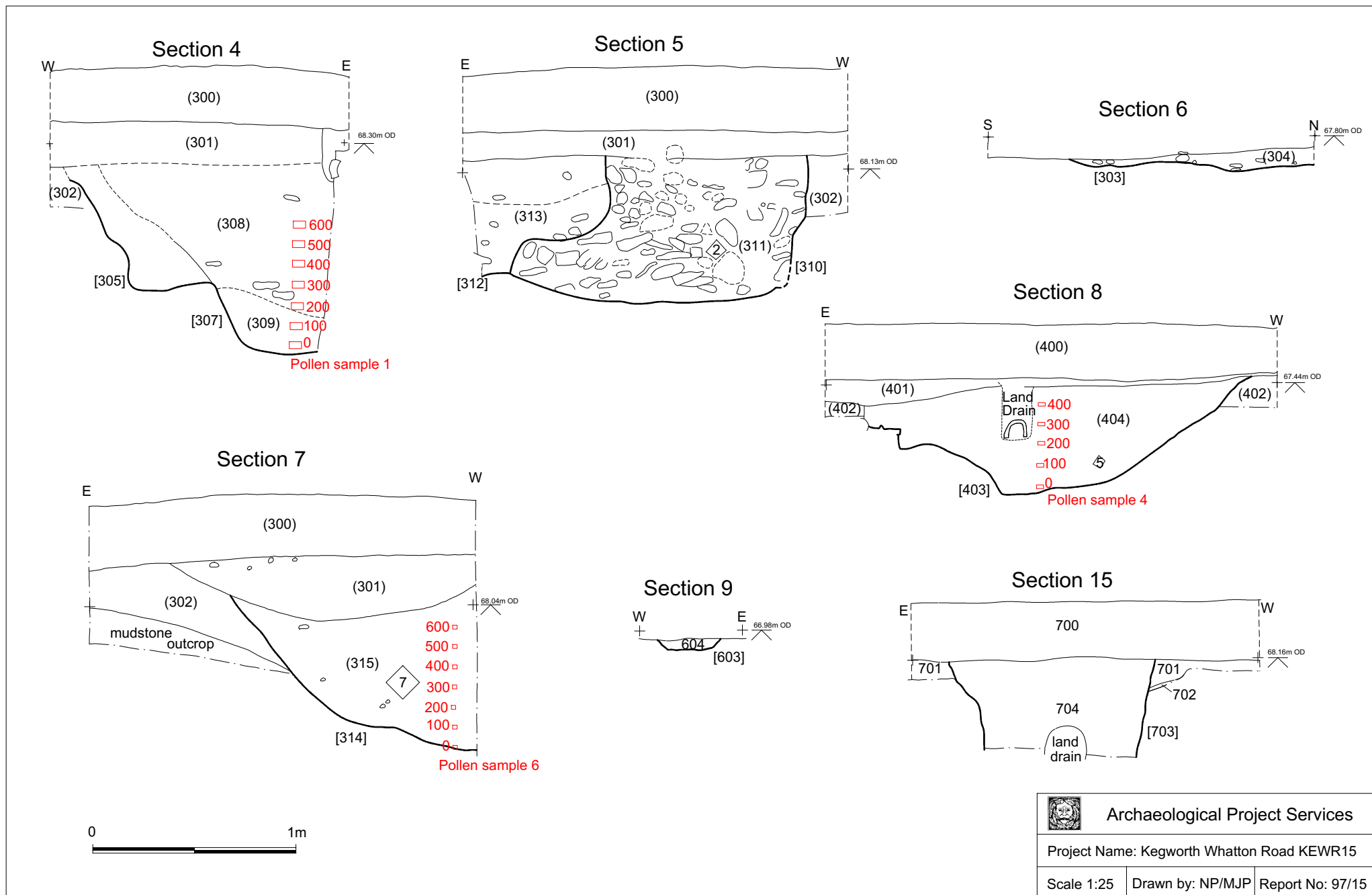

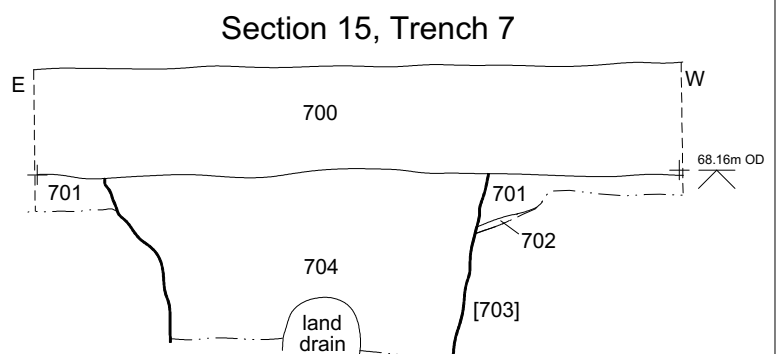
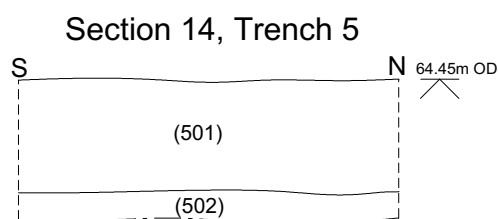
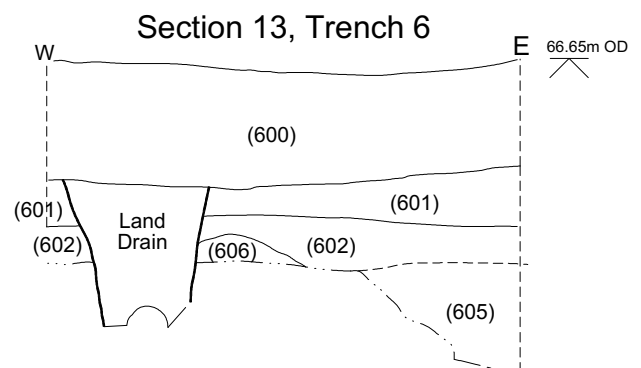
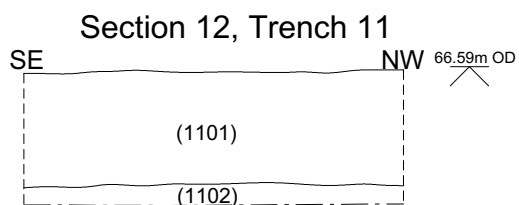
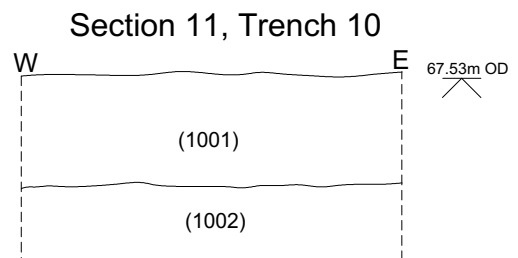
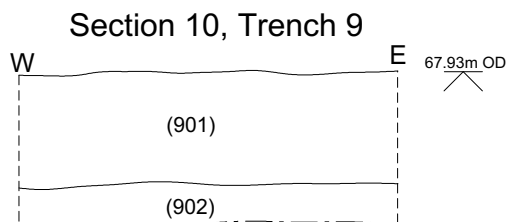
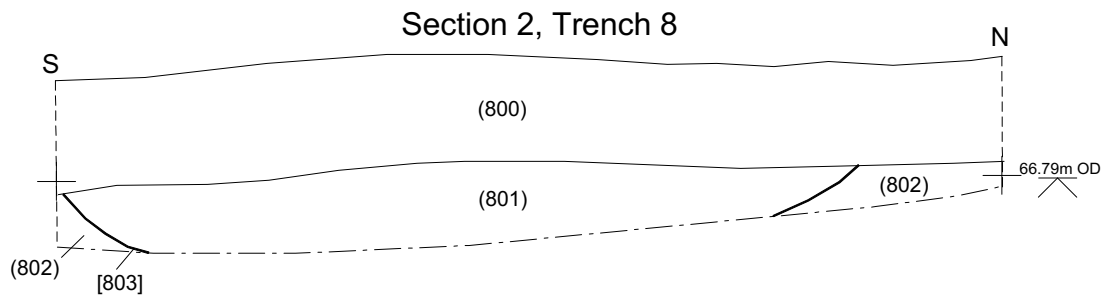
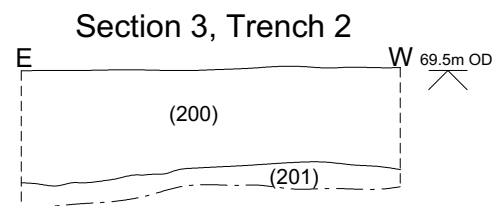
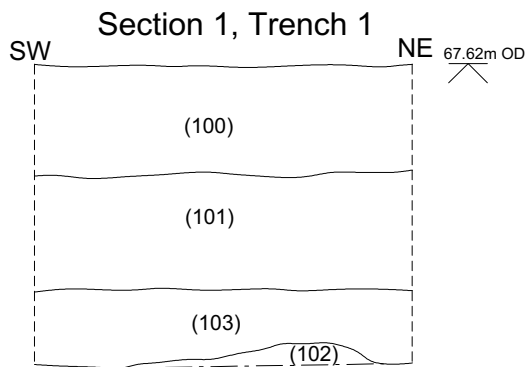


Figure 5. Sections

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Archaeological Project Services

Project Name: Kegworth Whetton Road KEWR15

Scale 1:20

Drawn by: MJP

Report No: 97/15

Figure 6. Representative sections



Plate 1. Pre-machining view of site looking northeast



Plate 2. General view of Trench 3 features looking west with Ditch [314] in foreground



Plate 3. Trench 3, Pit [310] truncated by Ditch [312/307], Section 5, looking southeast



Plate 4. Trench 3, Ditch [305], Section 4, looking north



Plate 5. Trench 4 looking east



Plate 6. Trench 4, Ditch [403], Section 7, looking south



Plate 7. Trench 7, land drain in former field boundary ditch [703], Section 15, looking south



Plate 8. Trench 11 looking northwest showing ridge and furrow

Appendix 1

Context Descriptions

Context	Description	Interpretation	Date
Trench 1			
100	Firm, mid greyish brown silty clay with moderate rounded and sub-rounded stones, 0.3m thick.	Topsoil	
101	Firm, mid reddish brown silty clay with moderate rounded and sub rounded stones, 0.3m thick.	Subsoil. Possible headland.	
102	Hard, mix of mid reddish brown and greyish white silty clay with frequent mudstone throughout.	Natural. Under (103)	
103	Hard, mix of light reddish brown and greyish white silty clay.	Natural above (102)	
104	Linear with sharp break of slope and steep-vertical straight sides and flat irregular base.	Natural feature.	
105	Firm, mid reddish brown silty sand rare manganese.	Fill of natural sand of [104]	
Trench 2			
200	Firm mid greyish brown silty clay with moderate rounded and sub-rounded stones, 0.3m thick.	Topsoil	
201	Hard mix of light reddish brown and greyish white silty clay.	Natural.	
202	Hard, mid reddish brown and grey white mix of silty clay with abundant mudstone fragments and mudstone.	Natural mudstone outcrop.	
203	Firm, mid yellowish brown silty clay with moderate sand and occasional small rounded and sub-rounded pebbles.	Subsoil. Associated with ridge and furrow.	
204	Firm, mid reddish brown silty sand with frequent rounded and sub-rounded cobbles.	Natural sand deposit.	
Trench 3			
300	Firm mid greyish brown silty clay with moderate rounded and sub-rounded stones, 0.28m thick.	Topsoil	
301	Firm, mid yellowish brown silty clay with moderate sand and occasional small rounded and sub-rounded pebbles, 0.23m thick.	Subsoil. Associated with ridge and furrow.	
302	Hard mix of light reddish brown and greyish white silty clay.	Natural.	
303	Irregular/ oval with a gradual break of slope and gentle straight sided slope and an irregular base. 0.13m deep, 1.20m wide,	Cut for spread.	Iron Age

	3.38m long. Filled by (304).		
304	Firm, dark greyish brown silty clay with rare sand, frequent rounded and sub-rounded cobbles, moderate rounded and sub-rounded pebbles, occasional medium platy mudstone, rare heated stone. Fill 0.13m thick.	Fill of [303]. Possible floor surface/consolidation layer.	Iron Age
305	Linear, aligned north-south. With sharp break of slope with steep straight sides stepping down to moderate convex and then vertical straight side with a flat base. 1.6m long, 0.70m wide, 0.64m deep. Filled by (306). Cut by [307]	Cut of ditch. Possibly part of square enclosure. Related to [314].	
306	Firm, light reddish brown sandy silt with moderate clay rare decayed mudstone fragments. Fill 0.64m thick.	Fill of [305]. Silting events.	
307	Linear, aligned north-south. With steep convex sides stepping down to steep-vertical convex slope and a slightly concaved base. 1.60m long, 1.20m wide, 0.95m deep. Filled by (308), (309). Cuts linear [305].	Cut of ditch. Possibly part of square enclosure. Related to [314].	Iron Age
308	Firm, light reddish brown sand-clay silt with occasional medium-large mudstones, rare-occasional small round pebbles, rare flint cobbles, rare heated stone fragments, frequent flecks and patches of decayed mudstone. Fill 0.76m thick.	Fill of [307]. Possible backfill.	Iron Age
309	Firm, light reddish brown clay silt with rare charcoal, moderate decayed mudstone fragments, occasional mudstone. Fill 0.32m thick.	Fill of [307]. Probable silting.	
310	Round/oval with a sharp break of slope to the west and vertical straight sides and a flat base. 1.47m wide, 0.72m deep, 0.30m long. Filled by (311).	Cut of pit.	Iron Age
311	Firm/compact mid brown silty clay with frequent medium mudstone, moderate small-medium round pebbles, occasional burnt mudstone and pebbles. Fill 0.72m thick.	Fill of [310]. Probable backfill.	Iron Age
312	Linear aligned north-south. With a sharp break of slope and vertical straight sides stepping down to gentle concaved side stepping down to vertical-steep straight sided slope. 1.60m long, 0.70m wide, 0.60m deep. Filled by (313).	Cut of ditch. Same as [307] cut to square enclosure.	Iron Age
313	Firm, light reddish brown, sandy, clayey silt with occasional medium to large rounded stones	Fill of [312]	Iron Age
314	Linear, aligned north-south with straight, stepped sides and a concave base, 2.4m wide,	Cut of ditch	

	0.82m deep.		
315	Firm, mid reddish brown silty clay, 0.82m thick. Possible backfill.	Fill of [314]	
Trench 4			
400	Firm, mid greyish brown silty clay with moderate rounded and sub-rounded stones, 0.29m thick.	Topsoil	
401	Firm, mid reddish brown silty clay with moderate rounded and sub rounded stones, up to 0.12m thick.	Subsoil	
402	Hard, mix of light reddish brown and greyish white silty clay.	Natural	
403	Cut of linear feature, aligned north-south. Width c. 1.9m approx., depth 0.55m with uneven sides and base	Cut of ditch	Iron Age
404	Mid yellowish brown clayey silt with occasional mudstone	Fill of [403]	Iron Age
Trench 5			
501	Firm, mid greyish brown silty clay with moderate rounded and sub-rounded stones, 0.3m thick.	Topsoil	
502	Firm, mid reddish brown silty clay with moderate rounded and sub rounded stones.	Natural	
503	Firm, mid brown sandy silt with moderate pebble inclusions and occasional charcoal flecks, 2.25m wide	Furrow fill	
504	Firm, mid brown sandy silt with moderate pebble inclusions and occasional charcoal flecks, 0.98m wide	Furrow fill	
505	Firm, mid brown sandy silt with moderate pebble inclusions and occasional charcoal flecks, 1.12m wide	Furrow fill	
Trench 6			
600	Firm, mid greyish brown silty clay with moderate rounded and sub-rounded stones, 0.32m thick.	Topsoil	
601	Firm, mid reddish brown silty clay with moderate rounded and sub rounded stones, 0.15m thick.	Subsoil	
602	Firm, mid red clayey silt	Natural	
603	Sub-circular feature with average diameter of 0.3m, depth 50mm, with concave sides and flat base	Post hole cut	
604	Mid grey brown, sandy, clayey silt with occasional mudstone	Fill of [603]	
605	Reddish brown silty sand with some clay	Natural glacial deposit	
606	Light grey and yellow mudstone	Natural	
Trench 7			

700	Firm mid greyish brown silty clay with moderate rounded and sub-rounded stones, 0.3m thick.	Topsoil	
701	Reddish brown silty sand with some clay	Natural glacial deposit	
702	Light grey and yellow mudstone	Natural	
703	N-S aligned linear cut with steep sides, 1m wide, at least 0.48m deep	Former field boundary ditch	Modern
704	Mottled mix of redeposited natural and topsoil, at least 0.48m thick, contains large land drain	Fill of [703]	Modern
Trench 8			
800	Firm, mid greyish brown clayey silt with moderate rounded and sub-rounded stones, 0.3m thick.	Topsoil	
801	Firm, mid reddish brown silty clay with moderate rounded and sub rounded stones, at least 0.2m thick.	Fill of [803]	
802	Firm, mixed reddish and greyish white, clay silt with frequent mudstone	Natural	
803	East-west aligned linear cut, c. 2.1m wide, 0.2m deep	Ridge and Furrow	
Trench 9			
901	Firm, mid grey brown sandy, clayey silt with moderate small pebbles, 0.3m thick.	Topsoil	
902	Firm, mixed reddish and greyish white, clay silt with frequent mudstone	Natural	
903	Firm, mid brown sandy silt, 0.9m wide	Furrow remains	
Trench 10			
1001	Firm, dark greyish brown, sandy, clayey silt, 0.31m thick	Topsoil	
1002	Firm, mixed reddish and greyish white, clay silt with frequent mudstone	Natural	
1003	Firm, mid brown sandy silt, 2.74m wide	Furrow remains	
1004	Machining finds	Finds	17 th -19 th C
Trench 11			
1101	Firm, dark greyish brown, sandy, clayey silt, 0.29m thick	Topsoil	
1102	Firm, mixed reddish and greyish white, clay silt with frequent mudstone	Natural	
1103	Firm, mid brown sandy silt, 0.87m wide	Furrow	
1104	Firm, mid brown sandy silt, 0.87m wide	Furrow	
1105	Firm, mid brown sandy silt, 1.07m wide	Furrow	

Appendix 2

THE FINDS

PREHISTORIC POTTERY

By Alex Beeby

Introduction

All the material was recorded at archive level in accordance with the guidelines laid out by the Prehistoric Ceramics Research Group (2010). A total of 58 sherds from at least 12 vessels, weighing 650 grams were recovered from the site.

Methodology

The material was laid out and viewed in context order. Sherds were counted and weighed by individual vessel within each context. The pottery was examined visually and using x20 magnification. This information was then added to an Access database. An archive list of the pottery is included in Archive Catalogue 1, with a summary of the material shown in Table 1 below.

Condition

The Pottery is in an abraded and fairly fragmentary condition, although there are also some very large pieces. Much of the material is quite friable.

Results

Table 1 , Summary of the Prehistoric Pottery

Inclusion Class	Cname	Full Name	No. Sherds	No. Vessels	W(g)
Igneous/metamorphic rock	IGMM	moderate medium igneous/metamorphic rock	1	1	1
Igneous/metamorphic rock/ iron oxide/ quartz	IGSC/QUSM/IOSM	Sparse coarse igneous/metamorphic rock, sparse medium quartz/iron oxide	3	1	14
Quartz	QUCC	Common coarse quartz	3	1	52
	QUCM	Common medium quartz	37	6	431
	QUMM	Moderate medium quartz	5	1	21
Quartz/ rock	QUCM/ROCM	Common medium quartz/rock	2	1	36
Quartz/ vegetable	QUCM/VECM	Common moderate quartz/ vegetable	7	1	95
Total			58	12	650

Provenance

Pottery was recovered from ditches [307] and [312] in Trench 3, as well as probable pit [310] and feature [303]. Ditch [403] in Trench 4, was the only feature outside Trench 3 to give pottery.

Range

The majority of the pottery has oxidised or mottled incompletely oxidised surfaces with a dark incompletely oxidised core and internal surfaces. All of the vessels represented here are hand built and most are crudely finished, with uneven surfaces and no burnishing. Two vessels have external finger smearing, brushing or linear wiping (Drawings 2 and 3), but none are decorated. Although most of the sherds are relatively small, there are no deeply scored pieces of the type typical of the middle Iron Age scored ware tradition, although the wiping/brushing seen here could be from items finished in a similar style (D. Knight, Pers Comm).

There are two basal fragments, from two different vessels; both are pinched out and are probably flat (Drawing 4). There are just three rim fragments; one is too fragmentary to be diagnostic, whilst the remaining two, joining rim sherds, have a simple rounded everted profile, of a type current throughout later prehistory (Drawing 1).

The bulk of the sherds have quartz as the main constituent inclusion, although crystalline igneous or metamorphic rock fragments, are also common, with possible feldspar, sandstone and millstone grit also noted. Igneous or metamorphic

rock is the most common secondary inclusion, occurring at least once within pieces from every context that produced pottery. A comparative assemblage from Gamston in Nottinghamshire, dated to the mid to late Iron Age, includes vessels of a similar type, with simple everted rims, roughly finished external surfaces with wiping, and pinched out bases also occurring within that group (Elsdon 1996, figure B.3a). Although pottery of this type was produced throughout the middle and into the later Iron Age, this assemblage is perhaps more typical of middle Iron Age type groups from this area (D. Knight Pers Comm). The total absence of wheel-turned pottery here, also supports a middle Iron Age date between the 5th and 2nd century BC.

Potential

The pottery would benefit from further examination and reappraisal in the event that further work is carried out. The material should be retained as part of the site archive, it is in a relatively stable state, but will still need to be carefully packaged to prevent degradation. Sherds including igneous/metamorphic rock fragments would benefit from thin section analysis to ascertain their content, which would hopefully help to identify their source of origin.

Summary

A moderately sized assemblage of Iron Age pottery was recovered during the evaluation, with almost all of the material retrieved from features in Trench 3. A mid to late Iron Age date is suggested for this group, although the pottery is notably lacking in diagnostic stylistic features. Given the quantity of pottery found and the small scale of the excavation it is likely that the remains, particularly those in Trench 3, represent an area of settlement.

POST ROMAN POTTERY

By Alex Beeby

Introduction

All the material was recorded at archive level in accordance with the guidelines laid out in Slowikowski *et al.* (2001). The pottery codenames (Cname) are in accordance with the Post Roman pottery type series for Lincolnshire, as published in Young *et al.* (2005), which can also be used to record material from surrounding counties. An equivalent code from the type series for Leicestershire (*c.f.* Sawday, unpublished), is included in Table 2 below. A total of two sherds from two vessels, weighing 84 grams were recovered from the site.

Methodology

The material was laid out and viewed in context order. Sherds were counted and weighed by individual vessel within each context. The pottery was examined visually and using x20 magnification. This information was then added to an Access database. An archive list of the pottery is included in Table 2 below. The pottery is of post medieval date.

Condition

There is one small piece and one larger fragment. The items are unabraded.

Results

Table 2, Post Roman Pottery Archive

Tr	Cxt	Cname	Full Name	Leics Code	Form	Decoration	Part	Comment	Date	No. Sherds	No. Vessels	W(g)
2	200	NOTS	Nottingham/ Derby Stoneware	EA	Closed	Engine turned decoration?	BS		18th- 19th	1	1	3
10	1004	BERTH	Brown Glazed Earthenware	EA1	Jar		BS	Straight sided vessel; butter pot?; Ticknall type	17th- 18th	1	1	81
Total										2	2	84

Provenance

A single fragment of pottery was recovered from topsoil layer (200) in Trench 2 and a second piece was collected during the machine strip of Trench 10. The item from Trench 10 was assigned context number (1004).

Range

There is a single fragment of Nottingham /Derby type stoneware (NOTS), from (200) and a piece of brown glazed earthenware (BERTH) from Trench 10. The BERTH fragment is most probably a product of the nearby production centre at Ticknall in Derbyshire.

Potential

There is limited potential for further work. The pottery should be retained as part of the site archive and should pose no problems for long-term storage.

Summary

Two fragments of pottery were recovered during the evaluation. The pieces are of Post Medieval date and were not recovered from stratified archaeological deposits.

CERAMIC BUILDING MATERIAL

By Alex Beeby

Introduction

The material was recorded at archive level in accordance with the guidelines laid out by the Archaeological Ceramic Building Materials Group (2002). A single fragment of ceramic building material, weighing 10 grams was recovered from the site.

Methodology

The material was viewed and weighed. The ceramic building material was examined visually and using x20 magnification. This information was then added to an Access database. An archive list of the ceramic building material is included in Table 3 below.

Condition

The fragment is small, but not overly abraded.

Table 3, Ceramic Building Material Archive

Context	Cname	Full Name	Fabric	No. Fragments	Weight (g)	Comment	Date
1004	PANT	Pantile	Oxidised; fine sandy; mica	1	10		17th-19th

Provenance

The ceramic building material was recovered during the topsoil strip of Trench 10. The piece was assigned context number (1004)

Range

There is a single, small fragment from a pantile of post medieval or early modern date.

Potential

There is no potential for further work. The piece should be retained as part of the site archive and should pose no problems for long-term storage.

FIRED CLAY

By Alex Beeby

Introduction

The material was recorded at archive level in accordance with the guidelines laid out by the Archaeological Ceramic Building Materials Group (2002).

Methodology

The material was laid out counted and weighed. This information was then added to an Access database. An archive list

of the fired clay is included in Table 4 below.

Condition

The fired clay is soft and very abraded. The piece has an unusual mottled abraded surface effect.

Results

Table 4, Fired Clay Archive

Tr	Cxt	Classification	Name	Fabric	No. Fragments	W(g)	Comment	Date
3	304	FCLAY	Fired clay	Oxidised; fine; mica	1	6	Abraded; unusual mottled surface	Undated

Provenance

Fired clay was recovered from surface or layer (304) within feature [303]. On the basis of associated pottery it is therefore likely to be Mid-Late Iron Age in date.

Range

There is a single piece of fired clay. The item is undiagnostic and highly abraded.

Potential

There is no potential for further work. The fired clay should be retained as part of the site archive and should pose no problems for long-term storage.

FAUNAL REMAINS

By Paul Cope-Faulkner

Introduction

A total of 54 (252g) fragments of animal bone were recovered from stratified contexts.

Methodology

The faunal remains were laid out in context order and reference made to published catalogues (e.g. Schmid 1972; Hillson 2003). All the animal remains were counted and weighed, and where possible identified to species, element and side. Also fusion data, butchery marks, gnawing, burning and pathological changes were noted when present. Ribs and vertebrae were only recorded to species when they were substantially complete and could accurately be identified. Undiagnostic bones were recorded as micro (mouse size), small (rabbit size), medium (sheep size) or large (cattle size).

The condition of the bone was graded using the criteria stipulated by Lyman (1996), Grade 0 being the best preserved bone and Grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable.

Provenance

The animal bones were recovered from a spread (304), ditch fills (308, 313 and 315) and the fill of a pit (311).

Condition

The overall condition of the remains was poor, averaging at grade 4 on the Lyman Criteria (1996). The fragmentary survival of long bones and teeth may indicate that the soil is acidic, although age may also be a factor.

Results

Table 5, Fragments Identified to Taxa

Cxt	Taxon	Element	Side	Number	W (g)	Comments
304	large mammal	long bone	-	14	19	
	medium mammal	long bone	-	5	11	
	medium mammal	mandible	-	2	2	
	sheep/goat	molar	-	2	2	

308	large mammal	long bone	-	2	1	
	sheep/goat	molar	-	2	2	
311	medium mammal	long bone	-	4	2	
313	medium mammal	rib	-	2	1	
315	cattle	femur	L	3	140	All join
	cattle	mandible	-	11	52	
	sheep/goat	mandible	-	6	15	
	medium mammal	long bone	-	1	5	

Summary

As a small assemblage, falling below the minimum count of *c.* 300 bones required for meaningful analysis, the animal bone has limited potential. The potential is further hampered by the generally poor condition of the bone, perhaps due to soil conditions. Cattle and sheep/goat have been recognised.

The bone should be retained as part of the site archive and will warrant re-examination if further work is undertaken at the site.

GLASS

By Gary Taylor

Introduction

One sherd of glass weighing 8g was recovered.

Condition

The glass is in good condition.

Results

Table 6, Glass Archive

Cxt	Description	No.	W (g)	Date
1004	Dark olive green bottle neck	1	8	19 th -early 20 th century

Provenance

The glass was recovered during machining of Trench 10 (1004).

Range

One fragment of a 19th-early 20th century bottle, part of the neck, was recovered.

Potential

Apart from dating evidence, the glass is of no further potential.

WORKED FLINT

By Tom Lane

Introduction

A single flint was recovered.

Condition

The item has natural breaks and is abraded. It requires no special conservation measures.

Results*Table 7, Worked Flint Archive*

Cxt	Description	No.	W (g)	Date
300	Debitage. Single flake with natural breaks but with limited evidence of flake removal. Some cortex remaining. 21 x 16 x 7mm	1	2	Bronze Age?

Provenance

The flint was recovered from the topsoil in Trench 3 (300).

Range

A single piece ofdebitage, from tool production, was recovered. It is probably of Bronze Age date.

Potential

The item indicates at least a single limited episode of flint working in the area during prehistory.

OTHER FINDS

By Gary Taylor and Denise Buckley

Introduction

Four items together weighing 182g were recovered.

Condition

The finds are in good condition.

Results*Table 8, Other Materials*

Cxt	Material	Description	No.	W (g)	Date
304	Stone	Burnt stone	2	175	
704	Fire residue	Charred wood?	1	1	
1004	Slate	roofing slate	1	6	post-medieval
Totals			4	182	

Provenance

The finds were recovered from a stony spread, possibly a surface (304), ditch fill (704) and finds recovered during machining of Trench 10 (1004).

Range

Two pieces of burnt stone, one piece of slate and a piece of charred wood were recovered. The slate may be from quarries at Swithland, approximately 15km to the south, though it has a strong resemblance to Welsh slate. If Welsh, it would probably be of mid 19th century or later date, as roofing slate from Wales only began to be distributed widely with the advent of the railways in the mid 19th century.

Potential

The other finds are of limited potential.

SPOT DATING

The dating in Table 9 is based on the evidence provided by the finds detailed above.

Table 9, Spot dates

Cxt	Date	Comments
200	18 th -19 th century	based on 1 pot; topsoil
300	Bronze Age?	Based on 1 flint; topsoil
304	Iron Age	

308	Mid to Late Iron Age	
311	Iron Age	
313	Mid to Late Iron Age	
315	undated	
404	Mid to Late Iron Age	
704	undated	Land drain
1004	19 th -early 20 th century	based on 1 glass; finds recovered during machining

ABBREVIATIONS

NB - This list includes additional codes not suggested within the published recording systems.

ABR/VABR	Abraded/Very Abraded
ACBMG	Archaeological Ceramic Building Materials Group
BDY(S)	Body sherd(s)
BS(S)	Body sherd(s)
CBM	Ceramic Building Material
CXT	Context
IA	Iron Age
NCK	Neck
PCRG	Prehistoric Ceramic Research Group
TR	Trench
W (g)	Weight (grams)

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ARCHIVE CATALOGUES

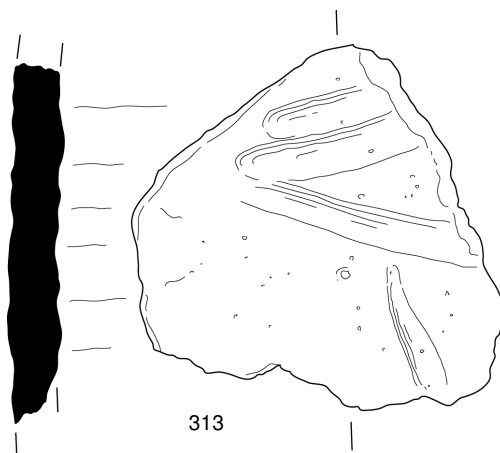
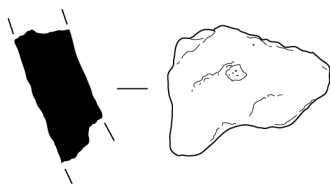
Archive catalogue 1, Prehistoric Pottery

Tr	Cxt	Cname	Fabric	Class/ Form	Neck/ Rim	NoS	NoV	W	Finish	Samp	Cond	Comments	Date	Part	Base
3	304	QUCM	INCOX /R	J?	E/EVR	9	1	1			ABR	Joining rim sherds; some abraded; multiple vessels?; sandstone presumably acid igneous; Drawing 1	IA	BDYS; RIMS	
3	304	QUCM	OX	V	E?/?	1	1	6			VABR	Neck sherd?; appears to be everted; igneous/meta morphic rock;	IA	NCK?	
3	304	QUCM	INCOX /R	V		4	1	45			ABR	SSSC	IA	BDYS	
3	308	QUCM/ VECM	INCOX /R	V		7	1	95				IGMC	IA	BDYS	
3	308	IGMM	R	V		1	1	1				Thin	IA	BDY	
3	311	QUCC	R/ INCOX	V		3	1	52	FS EX		SE	SSMC; IGSM; Drawing 2	IA	BDYS	
3	311	QUCM	R	V		1	1	1		2		Sparse sandstone up to 3mm; rare millstone grit?	IA	BDY	
3	311	QUCM/ ROCM	OX/R	J or B		2	1	36				Millstone grit	IA	BDY	
3	313	QUCM	OX/R	J or B		7	1	303	FS EX			Joining sherds; large vessel; sparse poorly sorted shell; inclusion hollow- some veg?; rough finish IGMC; Drawing 3	IA	BDYS	
4	404	QUCM	INCOX /R	V		15	1	75			ABR	Feldspar fragments; probably from acid igneous rock; ?IGSC? Drawing 4	IA	BASE; BDYS	FLP?
4	404	QUMM	INCOX /R	V		5	1	21			ABR	Vegetation inclusion hollows; IGSC	IA	BASE; BDYS	FLP?
4	404	IGSC/ QUSM/ IOSM	INCOX /R/INC OX	V		3	1	14				Very mixed; quite fine	IA	BDYS	



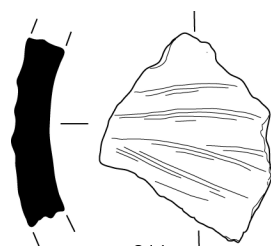
304

Dr. 1



313

Dr. 3

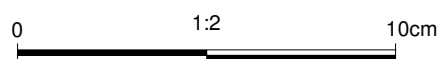


404

Dr. 4

311

Dr. 2



Pottery Illustrations
by David Watt

Appendix 3

ENVIRONMENTAL ARCHAEOLOGY ASSESSMENT

Introduction

A series of seven samples were collected during evaluation excavations by Archaeological Project Services at Kegworth. Four of these (Table 1) were bulk samples submitted to the Environmental Archaeology Consultancy for processing and assessment. The remaining three were each a series of small pollen samples through the basal fills of three ditches (Table 1). The samples are variously from ditch fills and a pit, and all are provisionally dated to the middle to late Iron Age. All the assessed samples derive from Trenches 3 and 4 which lie approximately 25m apart. The sample at location '100' in each of the three ditch sequences (Fig. 1) were submitted for pollen assessment.

Table 1: Kegworth- KEWR15 Samples assessed for environmental evidence

sample no.	context no.	sample vol. (l)	sample weight kg.	feature	date
1	308/9	-	-	Basal ditch fill (series of 7 pollen samples)	Iron Age
2	311	6	8	Stoney backfill of pit 310	Iron Age
3	309	6	8	Probable enclosure ditch 307, silting	Iron Age
4	404	-	-	Basal ditch fill (series of 5 pollen samples)	Iron Age
5	404	6	8	Fill of ditch 403	Iron Age
6	315	-	-	Basal ditch fill (series of 7 pollen samples)	Iron Age
7	315	6	8	Possible backfill of ditch 314	Iron Age

Methods

The soil samples were processed in the following manner. Sample volume and weight was measured prior to processing. The samples were washed in a 'Siraf' tank (Williams 1973) using a flotation sieve with a 0.5mm mesh and an internal wet sieve of 1mm mesh for the residues. Both residues and flots were dried and the residues subsequently re-floated to ensure the efficient recovery of charred material. The dry volume of the flots was measured and the volume and weight of the residues recorded.

The residues were sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheets and bagged independently. A magnet was run through the residues in order to recover magnetised material such as hammerstone and prill, none of which was found. The flots were studied using x30 magnifications and the presence of environmental finds (i.e. snails, charcoal, carbonised seeds, bones, etc) were noted and their abundance and species diversity recorded on the assessment sheets. The flots were then bagged and along with the finds from the sorted residue, constitute the material archive of the samples.

The individual components of the samples were then preliminarily identified and the results are summarised below in Tables 2 and 3.

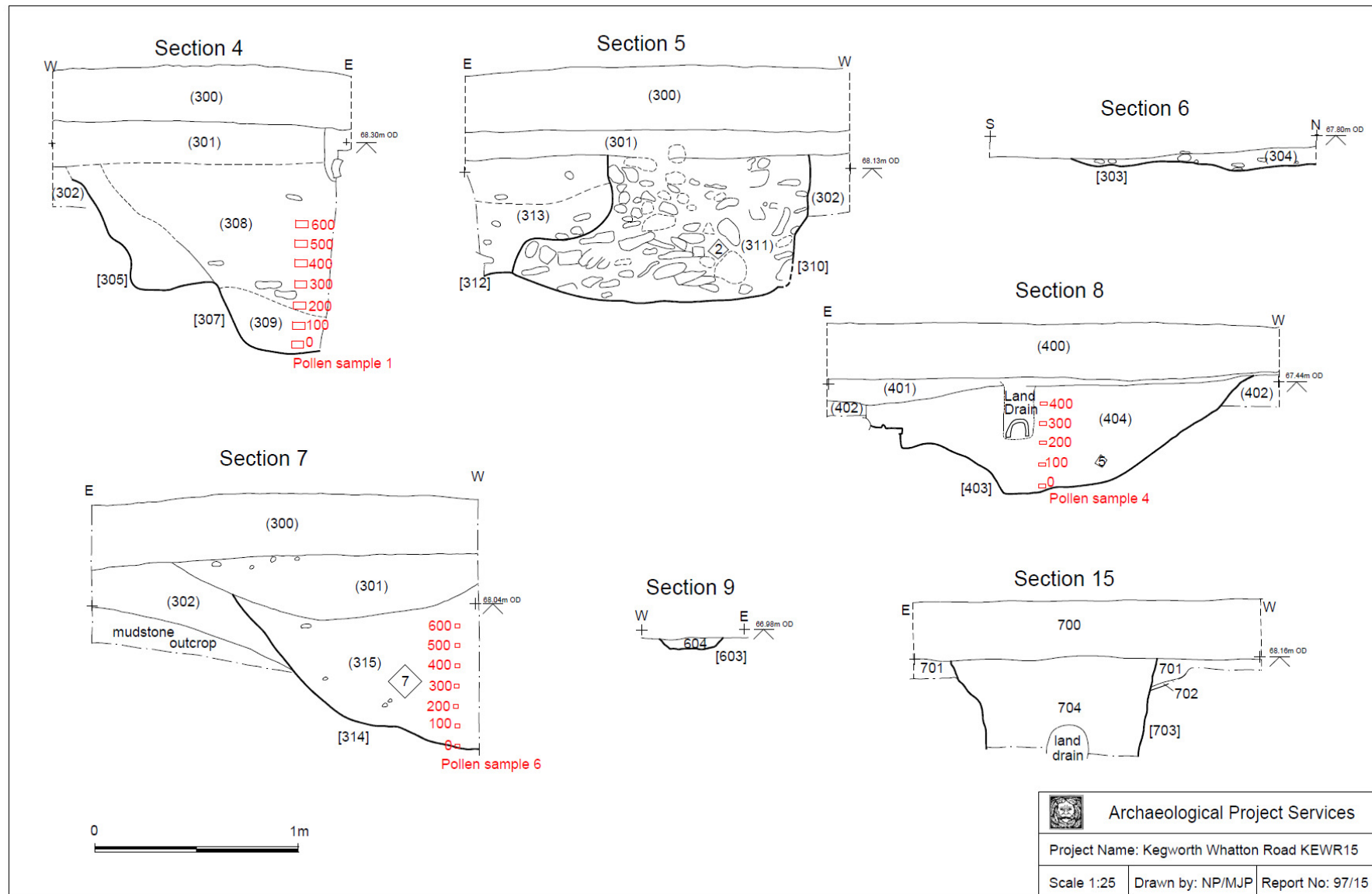
Fig. 1. Location of the pollen samples taken from three of the Iron Age ditch sections at Kegworth.

Table 2: Kegworth – KEWR15. Finds recovered from the processed sample

sample no.	cont. no.	sample vol. (l)	residue vol. (ml)	Pot no/wt g	Flint no/wt g	Fired earth wt. g.	Daub? wt. g	Burnt stone wt. g.	magnetic wt. g.	hammer-scale	bone wt g.	comment
2	311	6	1000	1/3.8							<0.1	A little coal in flot
3	309	6	450									
5	404	6	350			<1			0.1	4	0.8	A little coal in flot
7	315	6	800		1/<0.1			40			2	Firecracked pebbles

Table 3: Kegworth – KEWR15. Environmental evidence from the processed sample (+ present)

sample no.	cont. no.	sample vol. (l)	flot vol. (ml)	char-coal \$	charred grain *	Chaff *	charred seed *	un-charred seed *	snail	comment
2	311	6	0.5	1/1	1	1				1x indet charred grain, 1 x indet chaff; field vole
3	309	6	0.5	1/1		1	1			1x indet charred chaff, 1 x charred seed
5	404	6	0.3	1/2						Cattle molar- enamel only
7	315	6	0.2	-/1	1					1x indet charred grain; sheep sized long bone fragments x2

*frequency 1=1-10; 2=11-50; 3=51-150; 4=151-250; 5=>250

\$ frequency of charcoal >2mm/<2mm

Results

The samples washed down to a residue of small pebbles, flint, mudstone, occasional quartz, ironstone and concretions. Archaeological debris is poorly represented (Table 2) with very little debris being recorded. A single sherd of pottery in sample 2, a little fired earth in sample 5, a chip of flint and fire-cracked pebbles in 7. Sample 5 was the only sample to produce a magnetic fraction which included four flakes of hammerstone suggesting smithing, although flakes are small enough to move down through the soil through worn action and other soil processes if there was recent smithing activity on the site. A few crumbs of coal were present in the flots of two samples.

The environmental evidence is equally poorly represented. Fragments of enamel of a cattle tooth were present in sample 5, a field vole tooth in sample 2, and two fragments of sheep sized long bone in sample 7.

The flots were very poor with very little charcoal or other charred debris present (Table 3). A couple of fragments of charred grain were recovered from samples 2 and 7, and two indeterminate fragments of charred cereal chaff from samples 2 and 3, with a single charred weed seed from the latter.

An absence of snail shells and the survival of only tooth enamel in sample 5 suggests that the burial environment is not generally suited to the survival of calcareous material, although the bone from sample 7 is not burnt and indicates some survival of animal bone.

Discussion

The poor record of material in the assessed samples indicates a generally low level of environmental and archaeological debris in the sampled deposits. The very small flots, even though produced from only 6 litres of sample, with such a low charcoal content is perhaps the most telling aspect, since charcoal is normally the most abundant material when cultural debris is present. All of this material could have blown in from some distance, even the hammerstone. Only the pottery sherd at 3.8g indicates a local source, although such fragments could be introduced through manuring of the fields. The stoney nature of the backfill of this ditch, however, would imply deliberate backfilling perhaps accounting for the pot sherd.

The evidence from the evaluation samples can make little contribution to the interpretation of the site and there is a probable lack of land snails and well preserved animal bone on the site which also may have a limiting factor. The presence of hammerstone in one sample does however suggest iron smithing was occurring on the site nearby. However the assessed samples give no clue as to the location of any settlement/occupation.

Pollen Analysis of the Iron Age Ditch Fills (Rob Scaife)

Introduction

Three samples from the basal fills of the Iron Age enclosure ditches in Trenches 3 and 4 have been examined to ascertain if sub-fossil pollen and spores are preserved. If so, analysis could provide useful information on the local vegetation, cultivation of the adjacent fields and the overall environment of the site. The study proved only partially successful with pollen and spores recovered but with poor preservation and only small numbers. The data obtained are detailed below.

Pollen method

Standard techniques for pollen concentration of the sub-fossil pollen and spores were used on the three sediment sub-samples (Moore and Webb 1978; Moore *et al.* 1992). Because of the very minerogenic character of the material, samples of 3ml volume were used. Pollen counts of between 50 and 100 grains per sample were made. Taxonomy used in general follows that of Moore and Webb (1978) modified according to Bennett *et al.* (1994). These procedures were carried out in the Palaeoecology Laboratory of the School of Geography and Environment, University of Southampton.

The pollen data

Pollen preservation is poor and absolute numbers are low in all of the samples examined. Pollen counts were, however, obtained but only with difficulty. Sample <6> Tr. 3 was especially poor. The most satisfactory was that from Tr4. <4>. Pollen count data are given in Table 4 below.

<i>Sample context</i>	<6> Tr3 315	<1> Tr3 309	<4> Tr4 404
Trees & Shrubs			
<i>Betula</i>		1	
<i>Pinus</i>	1		3
<i>Quercus</i>			1
<i>Fraxinus</i>			1
<i>Alnus</i>	3	1	36
<i>Corylus avellana</i> type			1
Herbs			
Poaceae	19	48	27
Cereal type	1	1	3
Poaceae (large/non cult.)		2	3
Ranunculaceae			1
<i>Ranunculus</i> type		5	1
Brassicaceae Undiff.			2
<i>Sinapis</i> type			1
<i>Dianthus</i> type	1	1	1
<i>Trifolium</i> type		1	
Apiaceae			1
<i>Rumex</i>			1
Scrophulariaceae			1
<i>Plantago lanceolata</i>	6	17	5
<i>Bidens</i> type			1
<i>Anthemis</i> type		1	
Lactucoideae	19	21	13
Unidentified/degraded	2	3	5
Marsh			
<i>Typha angustifolia</i> type			2
Ferns			
<i>Dryopteris</i> type	6	1	27
<i>Pteridium aquilinum</i>	1	1	3
Miscellaneous			
Liverwort spore			2
Pre-Quaternary	7	1	31

Table 4. Pollen count data from ditches in Trenches 3 and 4

Discussion

It was hoped that pollen from the enclosure ditches might produce evidence for the type of agricultural in use in the adjacent fields. Although pollen preservation is extremely poor, this aim has to some extent been achieved.

It is clear that the local environment was, in general, open with few trees and shrubs with the exception of alder (*Alnus*) in Tr4 <4>. With the exception of ash (*Fraxinus*) also in this sample, all other arboreal/shrub taxa recorded are anemophilous and high pollen producers which have the propensity for long distance transport. The single occurrence of ash possibly indicates some local growth.

Alder in Tr4 <4> and the fen herb reed mace or bur reed (*Typha angustifolia/Sparganium*) suggest that this phase of the ditch was consistently wet/damp.

Overall, the pollen assemblages from all of the samples comprise largely herbs with pastoral types being dominant. That is, grasses (Poaceae), ribwort plantain (*Plantago lanceolata*), buttercups (*Ranunculus* type) and Asteraceae types, especially dandelion types (Lactucoideae). The latter may be over represented due to differential preservation of this robust pollen form in the poor preserving environment.

Occasional cereal type pollen is present and whilst arable associated taxa are less well represented than pastoral elements, the numbers here do not suggest cultivation in the adjacent fields. It is also possible that the pollen is secondary, being derived from crop processing activities such as threshing and winnowing which released pollen trapped in the inflorescences.

Summary and conclusions

The following points have been made.

- Pollen preservation is very poor but some useful data has been obtained which characterises the local environment and land use.
- The environment was open and largely treeless, at least in the region of this site.
- There is a strong representation of grassland taxa and pastoral agriculture was probably being practised in the adjacent fields.
- The small numbers of cereal pollen are not regarded as indicative of any substantial arable activity in the associated fields. It has also been noted that this pollen may have derived from crop processing activities.
- Trench 4 may have been a wetter feature as indicated by alder and reed mace or bur reed.

Additional work: Because of the very poor pollen preservation and small numbers, no additional work is suggested on the samples collected from the evaluation.

Recommendations

The results from the evaluation samples were poor but the small size of the samples is in part responsible for this. If the site is returned to for further archaeological work an effort should be made to ensure that samples are of 30 or 40 litres in size. Metalworking evidence and charred plant remains are likely to be the principle finds from a sampling programme, although a little animal bone may also be present, along with other occasional archaeological finds.

Should further fieldwork be undertaken then sampling should be concentrated on deposits that produce datable finds. None of the evaluation samples produced any material suitable for radiocarbon dating and if the excavated features on future excavations continue to be this poor radio-carbon dating would not be an appropriate option.

The pollen evidence from the base of the three ditches that were sampled has produced indications of an open pastoral landscape, but pollen preservation is poor and it is not considered to be worth pursuing the remaining samples taken from the evaluation and if further archaeological work is undertaken at the site sampling for pollen should be considered of low priority unless better preservational conditions are encountered.

Acknowledgments

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References

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12th October 2015 (revised 27th Oct.)

Appendix 4

GLOSSARY

Briquetage	A coarse ceramic material used to make evaporation vessels and supporting pillars used in extracting salt from seawater.
Bronze Age	A period characterised by the introduction of bronze into the country for tools, between 2250 and 800 BC.
Context	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, <i>e.g.</i> [004].
Cropmark	A mark that is produced by the effect of underlying archaeological or geological features influencing the growth of a particular crop.
Cut	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, <i>etc.</i> Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
Fill	Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) that become contained by the 'cut' are referred to as its fill(s).
Geophysical Survey	Essentially non-invasive methods of examining below the ground surface by measuring deviations in the physical properties and characteristics of the earth. Techniques include magnetometry and resistivity survey.
Iron Age	A period characterised by the introduction of Iron into the country for tools, between 800 BC and AD 50.
Layer	A layer is an accumulation of soil or other material that is not contained within a cut
Medieval	The Middle Ages, dating from approximately AD 1066-1500.
Natural	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity
Neolithic	The 'New Stone Age' period, part of the prehistoric era, dating from approximately 4500 - 2250 BC.
Post hole	The hole cut to take a timber post, usually in an upright position. The hole may have been dug larger than the post and contain soil or stones to support the post. Alternatively, the posthole may have been formed through the process of driving the post into the ground.
Post-medieval	The period following the Middle Ages, dating from approximately AD 1500-1800.
Prehistoric	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD.
Ridge and Furrow	The remains of arable cultivation consisting of raised rounded strips separated by furrows. It is characteristic of open field agriculture.

Romano-British

Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.

Saxon

Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany, Denmark and adjacent areas.

Appendix 5

THE ARCHIVE

The archive consists of:

11	Trench record sheets
13	Context record sheets
2	Photographic record sheets
8	Daily record sheets
1	Plan record sheet
1	Section record sheet
1	Sample record sheet
9	Sheets of scale drawings
1	Stratigraphic matrix
1	Box of finds

All primary records are currently kept at:

Archaeological Project Services
The Old School
Cameron Street
Heckington
Sleaford
Lincolnshire
NG34 9RW

The ultimate destination of the project archive is:

Leicestershire County Council Heritage Services
Room 500
County Hall
Leicester Road
Glenfield
Leicester
LE3 8TE

Accession Number:	X.A83.2015
Archaeological Project Services Site Code:	KEWR 15
OASIS record number	archaeo11-226666

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

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OASIS ID: archaeol1-226666

Project details

Project name	Archaeological Evaluation on land off Whatton Road, Kegworth, Leicestershire
Short description of the project	An 11 trench evaluation revealed a concentration of Mid to Late Iron Age features including ditches which corresponded with a prior geophysical survey. These probably represented an isolated farmstead. There was also a pattern of east-west aligned medieval or early post-medieval ridge and furrow cultivation. A ditch, now containing a large land drain, matched a boundary recorded on OS maps from 1883 to 1955.
Project dates	Start: 13-08-2015 End: 21-08-2015
Previous/future work	Yes / Not known
Any associated project reference codes	KEWR15 - Sitecode
Any associated project reference codes	X.A83.2015 - Museum accession ID
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 3 - Operations to a depth more than 0.25m
Monument type	DITCH Middle Iron Age
Monument type	DITCH Late Iron Age
Monument type	PIT Middle Iron Age
Monument type	FURROW Post Medieval
Monument type	DITCH Post Medieval
Significant Finds	POTTERY Middle Iron Age
Significant Finds	POTTERY Late Iron Age
Methods & techniques	""Sample Trenches"" , ""Targeted Trenches""
Development type	Solar Farm
Prompt	Planning condition
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	LEICESTERSHIRE NORTH WEST LEICESTERSHIRE KEGWORTH Land off Whatton Road
Postcode	DE74 2DU
Study area	3.35 Hectares
Site coordinates	SK 4823 2586 52.827776646609 -1.284104313449 52 49 40 N 001 17 02 W Point
Height OD / Depth	Min: 65m Max: 69m

Project creators

Name of Organisation	SLR Consulting Ltd and Archaeological Project Services
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Archaeological Project Services
Project director/manager	Gary Taylor
Project supervisor	Andy Pascoe
Type of sponsor/funding body	Developer
Name of sponsor/funding body	SLR Consulting on behalf of Push Energy Ltd

Project archives

Physical Archive recipient	Leicestershire Museums Service
Physical Archive ID	X.A83.2015
Physical Contents	"Animal Bones","Ceramics","Environmental","Glass","Worked stone/lithics"
Digital Archive recipient	Leicestershire Museums Service
Digital Archive ID	X.A83.2015
Digital Contents	"Animal Bones","Ceramics","Environmental","Glass","Worked stone/lithics"
Digital Media available	"Images raster / digital photography","Survey","Text"
Paper Archive recipient	Leicestershire Museums Service
Paper Archive ID	X.A83.2015
Paper Contents	"Animal Bones","Ceramics","Environmental","Glass","Worked stone/lithics"
Paper Media available	"Context sheet","Diary","Drawing","Matrices","Photograph","Plan","Report","Section","Survey "

Project

bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Evaluation on land off Whatton Road, Kegworth, Leicestershire
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