

AN ARCHAEOLOGICAL WATCHING BRIEF

AT

DIAMOND LIGHT SOURCE, HARWELL SCIENCE & INNOVATION CENTRE, HARWELL, OXFORDSHIRE

SU 4776 8619

On behalf of

Diamond Light Source Ltd

REPORT FOR Diamond Light Source Ltd

Diamond House

Harwell Science and Innovation Campus

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CONTENTS

SUMMAR	Y	0011121110	Page 1
1 INTRODUCTION			1
1.1 Site Location			1
1.2 Planning Background		1	
1.3 Archaeological Background			1
2 AIMS OF THE INVESTIGATION			3
3 STRAT	EGY		3
3.1 Research Design			3
3.2 Methodology		3	
4 RESULTS		3	
5 FINDS		4	
6 DISCUSSION 7 ARCHIVE 8 BIBLIOGRAPHY		6	
		6	
		7	
FIGURES			
Figure 1	Site location		2
Figure 2	Plans and Sections		5
Plate 1	Pit 15 section		6
Plate 2	Pit 17 section		6
Plate 3	Pit 19 section		6

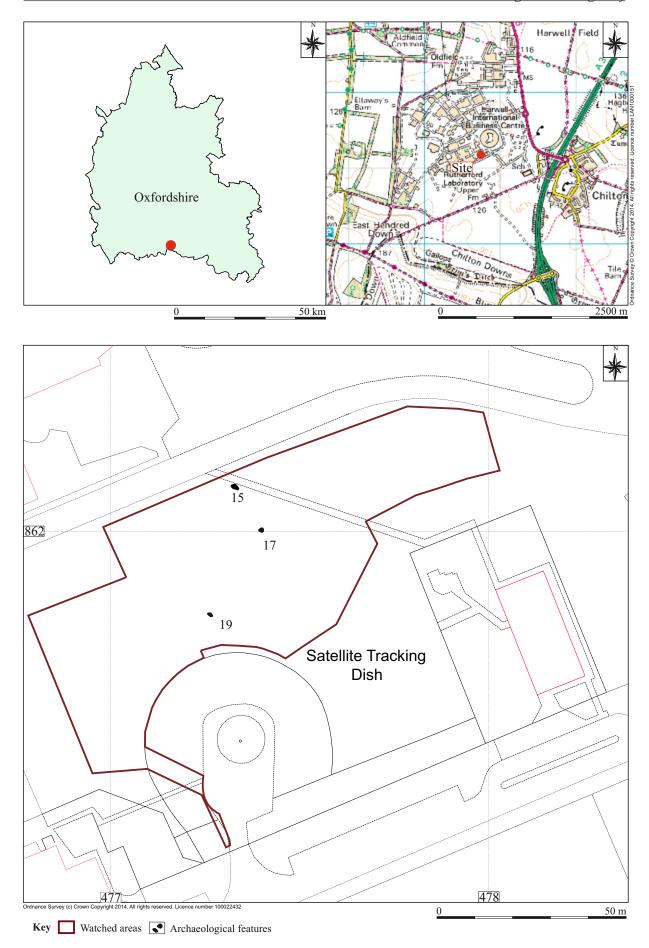


Figure 1: Site location

Summary

John Moore Heritage Services conducted a watching brief during the ground reduction within the footprint of a new building at the Harwell Science and Innovation Centre, Harwell Oxfordshire. Three undated pits were discovered on the west side of the site.

1 INTRODUCTION

1.1 Site Location (Figure 1)

The development area lies on the south west side of the Diamond Synchrotron within the Science & Innovation Centre at Harwell (NGR SU47768619). It lies at approximately 115m OD and the geology is chalk. The previous land use was mostly grass.

1.2 Planning Background

In July 2013 planning permission was sought from the Vale of white Horse District Council for the Installation of a new beam line (I14) from the Diamond Synchrotron to the south of the main building and the erection of a two storey building to house experimental hutches and cabins together with offices, meeting rooms, preparation labs and workshop and ancillary facilities (P13/V1584/FUL). Due to the potential disturbance of archaeological features a condition was attached requiring that a programme of archaeological work is undertaken and maintained during the period of ground-works. This wass in line with NPPF and Local Plan policies. Oxfordshire Historic and Natural Environment Team (OHaNET) was consulted about the scope of such archaeological work and a Written Scheme of Investigation that outlined the method by which an archaeological watching brief would be carried out in order to preserve by record any archaeological remains of significance was agreed with OHaNET.

1.3 Archaeological Background

During the construction of the Blue Car Park Extension to the south west of the current development site a programme of archaeological investigation was undertaken. Initial evaluation revealed evidence of Romano British and prehistoric activity. Subsequent excavation revealed a range of features dating from the 1st century BC and the late 4th century AD. Major boundary ditches associated with a sub rectangular enclosure appear to have been constructed in the late Iron Age. This survived with some minor alterations into the early Roman period. By the later Romano British period the focus of the settlement had changed with the enclosure being abandoned and the ditches slighted. Whilst the settlement appears to have flourished into the 4th century it remained relatively small with little or no evidence for any marked status differentiation. The settlement appears to have been abandoned during the 4th century (JMHS 2003).

Archaeological monitoring was undertaken during the construction of the Diamond Synchrotron (JMHS 2004). This revealed evidence of an early to middle Iron Age settlement. Although no structural evidence was found it appears that the settlement

Fig 1

was enclosed and took the form of a small farmstead. It is likely that the farm's economy was based on cereal production rather than livestock.

2 AIMS OF THE INVESTIGATION

- To make a record of any significant remains revealed during the course of any operations that may disturb or destroy archaeological remains.
- In particular to record any activity relating to prehistoric or Romano British activity

3 STRATEGY

3.1 Research Design

John Moore Heritage Services carried out the work to a Written Scheme of Investigation agreed with Oxfordshire Historic and Natural Environment Team (OHaNET). Standard John Moore Heritage Services techniques were employed throughout, involving the completion of a written record for each deposit encountered, with photographs, scale plans and section drawings compiled where appropriate and possible.

The recording was carried out in accordance with the standards specified by the Institute for Archaeologists (2008).

3.2 Methodology

The area of the footprint of the development was stripped under archaeological supervision to the archaeological horizon or the natural geological layer, whichever was the highest. This was carried out with a mechanical excavator equipped with a toothless ditching bucket. Exposed archaeological features were cleaned by hand, recorded and excavated.

An archaeologist was present on site during the course of further excavations that would potentially disturb or destroy archaeological remains and again archaeological features or other remains were recorded by written, drawn and photographic record.

4 RESULTS

Each deposit, feature or cut was given an individual context number. Layers and deposits were allocated numbers in brackets and cuts were allocated context numbers without brackets.

The lowest layer was (06) a natural chalk layer. Above this was a layer of mid to dark orange sandy clay (05). This layer contained a frequent inclusion of angular flint which became more dominant towards the west of the site and this was identified as a natural head deposit. At the eastern edge of the site, context (05) was more than 0.5 m

deep but towards the west of the site it became shallower at 0.1m or less. Deposited above (05) was a 0.14m thick, mid yellow sandy clay loam (04) and above (04) was (03) a dark brown stiff silty clay loam that was between 0.14m and 0.2m thick. Deposited above (03) was a 0.08m to 0.14m thick layer of soft mid yellow brown sand identified as a bedding layer and above this a turf layer (01).

In an area towards the south eastern corner of the site a silty layer with a very frequent inclusion of grey and white rubble and stone (08) was deposited above subsoil (04). It was between 0.12m and 0.3m thick and was thicker towards the south section. Deposited above was a 0.16 thick layer of mid brown loamy sand with a very frequent stone inclusion (07). Both context (08) and (07) were considered to be made-up ground related to the deep cutaways and landscaped banks created during previous excavations. Deposited above (08) was (02) and (01).

At 70m from the east side of the site, layer (06) was overlaid by (11). This layer was between 0.1m and 0.02m deep. It was similar in appearance to (05) and was probably the same layer but it had been heavily truncated by recent landscaping. Deposited above (11) was (10) a 0.13m thick layer of mid brown chalky silt loam and above this a 0.18m thick layer of friable loose mid to dark brown silty loam topsoil (09).

The central southern area of the excavation was dominated by layers of rubble tarmac and concrete. This area of the site had previously been the location of modern pathways.

Three undated pits were discovered towards the west half of the site. Pit 15 was an irregular shaped feature that was cut into the vestiges of (11) but which may have been cut into later layers above this (Fig. 2; Plate 1). Pit 15 was 2.2m long by 1.26m wide. It was filled by a 0.34m layer of dark orange sandy clay with a moderate flint inclusions (14). It was re-cut by 13, an irregular re-cut that was 0.3m deep, 1.8m long and 1.6m wide. This re-cut was filled by a very firm dark brown clay loam with moderate flint (12).

Further south another undated pit 17 was also cut into layer (11). This was a shallow irregular pit that was only 0.16m deep (Fig 2; Plate 2). This pit was 1.34m long by 1.24m and contained a single fill (16). This was a friable dark to mid pinkish orange sandy silty clay.

The last pit identified was context 19 (Fig. 2; Plate 3). This had an irregular sub-oval shape and irregular sides which were difficult to establish during excavation. The pit was 0.38m deep and 1.5m long with a width of 0.76m. Pit 19 appeared to be cut through the subsoil (10). The fill of the pit was a friable grey brown sticky chalky clay with black patches and frequent burning. It contained a moderate amount of flint and stone and one large flattish stone which was 0.25m in length by 0.15m wide.

5 FINDS

No finds were recovered from the site.

Fig 2



Plate 1. Pit 15

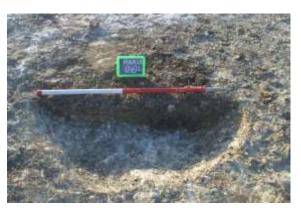


Plate 2. Pit 17



Plate 3. Pit 19

6 DISCUSSION

The stratigraphy of the site suggested that the area had been disturbed in the past by landscaping and excavation with areas of made up ground towards the south west of the site and substantially truncated soil layers in the west. The features found were undated pits and pits 15 and 19 were very irregular and not easy to define in plan. The remains of modern pathways were identified towards the south central area of excavations but no other features were identified.

7 ARCHIVE

Archive Contents

The archive consists of the following:

Paper record
Written scheme of investigation
The project report
The primary site records

The archive currently is maintained by John Moore Heritage Services and will be transferred to Oxfordshire Museum Service with the accession number OXCMS: 2013.162

8 BIBLIOGRAPHY

Institute for Archaeologists, 2008 Standard and Guidance for an archaeological watching brief

John Moore Heritage Services 2003 An Archaeological Investigation at Rutherford Appleton Laboratory – the Blue Car Park Extension, Chilton, Oxfordshire.

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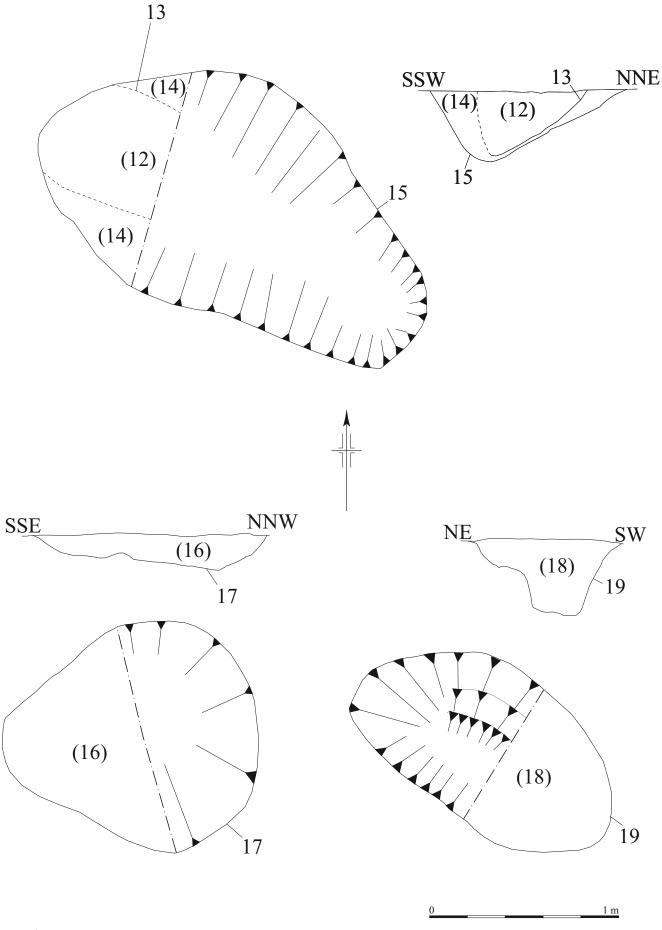


Figure 2: Plans and Sections