Wessex Archaeology

Blackburn Meadows, Alsing Road, Sheffield, South Yorkshire

Archaeological Watching Brief Report

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September 2010

BLACKBURN MEADOWS, ALSING ROAD, SHEFFIELD, SOUTH YORKSHIRE

Archaeological Watching Brief

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DISCLAIMER

QUALITY ASSURANCE

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BLACKBURN MEADOWS, ALSING ROAD, SHEFFIELD, SOUTH YORKSHIRE

Archaeological Watching Brief

Summary

Wessex Archaeology was commissioned by E.ON UK PLC to complete an archaeological watching brief previously undertaken by ARCUS (University of Sheffield) on the site of the former Blackburn Meadows Power Station at Asling Road, Sheffield. The watching brief was carried out during groundwork associated with the construction of a new renewable energy plant, as a condition of planning consent (Planning Application No. 08/01225/OUT). The site is centred on National Grid Reference (NGR) SK439650 391560.

The majority of the site was formerly occupied by the Blackburn Meadows Power Station, much of which was demolished by 1988, with the two western cooling towers demolished in 2008. The eastern area of the site was formerly occupied by sewage works filter beds.

The principal aims of the archaeological watching brief were: to provide information concerning the presence/absence, date, nature and extent of any buried archaeological remains and; to investigate and record archaeological features or deposits revealed during groundwork.

Initial fieldwork was undertaken by ARCUS in 2009. Following the closure of ARCUS in October 2009, Wessex Archaeology was commissioned in May 2010 to complete outstanding archaeological fieldwork and reporting.

The monitoring located no evidence for human activity prior to the modern period, and it was concluded that the ground levels had been significantly truncated in the 20th century during the construction of the power station and sewage works. Modern brick-built culverts, thought to have been associated with the cooling water system of the power station site, were observed to the north-east, east and south-east of an existing sub-station.

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Archaeological Watching Brief

Acknowledgements

This project was commissioned by E.ON UK PLC and Wessex Archaeology would like to thank Jim Wilson for his assistance in implementation of the fieldwork. Wessex Archaeology would also like to thank Jim McNeil of the South Yorkshire Archaeology Service.

Richard O'Neill managed the project for Wessex Archaeology. The fieldwork was undertaken by Rob Barnett and Neil Dransfield. The report was compiled by Rob Barnett. The illustrations were prepared by Chris Swales.

BLACKBURN MEADOWS, SHEFFIELD, SOUTH YORKSHIRE

Archaeological Watching Brief

1 INTRODUCTION

1.1 Project Background

1.1.1 Wessex Archaeology was commissioned by E.ON UK PLC (hereafter 'the Client') to complete an archaeological watching brief previously undertaken by ARCUS (University of Sheffield) on the site of the former Blackburn Meadows Power Station at Asling Road, Sheffield (hereafter 'the Site'). The watching brief was carried out during groundwork associated with the construction of a new renewable energy plant, as a condition of planning consent (Planning Application No. 08/01225/OUT).

1.1.2 Initial fieldwork was undertaken by ARCUS in 2009 in line with a Written Scheme of Investigation (WSI) (O'Neill 2009) agreed with the South Yorkshire Archaeology Service (SYAS). Following the closure of ARCUS in October 2009, Wessex Archaeology was commissioned in May 2010 to complete outstanding archaeological fieldwork and reporting. The following report presents a brief description of the methodology, the results of the monitoring by both ARCUS and Wessex, and the archaeological interpretation of the findings.

1.2 The Site, Location and Land Use

1.2.1 The site is located between Rotherham and Sheffield, centred on National Grid Reference (NGR) SK439650 391560 (**Figure 1**).

1.2.2 The site comprises 10.84 ha (**Figure 2**) excluding a sub-station and the area of two demolished cooling towers in the western area. The site is bordered to the north and east by a sewage works, to the south by a small railway line beyond which are the River Don and the Sheffield and Tinsley canal. To the west, the Tinsley Viaduct supports the M1 and A631 highways. The site is relatively flat at a height of 30-31m AOD.

1.2.3 The site has been derelict since the decommissioning of the coal fired power station in the mid 1980's. At the commencement of the works the site was largely hard standing with large areas colonised by vegetation. The foundations of former buildings remained on the site.

1.2.4 The geology of the site consists of Pennine Middle Coal Measures comprising mudstones and occasional siltstone/sandstone beds overlain by alluvial and fluvioglacial deposits.

2 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 The known history of the site was detailed in a desk study (Mott MacDonald 2007) and was summarised in a Contamination Risk Assessment and Remediation Strategy (Mott MacDonald 2008) and WSI (O'Neill 2009).

2.2 Archaeology

2.2.1 There are no known archaeological sites on or within the immediate vicinity of the development site. However, alluvial deposits associated with the River Don are thought to have the potential to contain structures such as former bridges or boats.

2.2.2 The site of a Roman Fort and civilian settlement (vicus) lie approximately 350m to the south-east, on the site of the former Templeborough Steelworks. There are also two scheduled monuments within a kilometre of the site: two linear earthworks associated with the 'Roman Ridge Dyke', approximately 700m west and 600m to the north of the site.

2.3 Historical Development

2.3.1 There is no evidence for any former coal workings on the site despite the presence of the Swallow Wood and Barnsley coal seams beneath alluvial deposits.

2.3.2 The earliest mapping of the area dating from 1854, 1892, 1893 &1906 shows little or no development on the site which may have been in agricultural use at that time. The site was recorded as being prone to flooding.

2.3.3 The former coal fired power station appears to have been constructed and perhaps operated in three phases, summarised from historic cartographic data:

- Phase 1 from mapping of 1923-1935
- Phase 2 from mapping 1935-1965
- Phase 3 from mapping 1965-Mid 1980's

3 METHODOLOGY

3.1 Aims and Scope

3.1.1 The principal aims of the watching brief were:

- to provide information concerning the presence/absence, date, nature and extent of any buried archaeological remains and;

- to investigate and record archaeological features or deposits revealed during the groundwork.

3.1.2 Remediation groundwork involving excavation through the lower levels of made ground and/or into alluvial deposits were subjected to archaeological monitoring.

3.2 Watching Brief

3.2.1 In accordance with the WSI (O'Neill 2009) the watching brief was carried out by a suitably qualified archaeologist.

3.2.2 Groundworks were undertaken by tracked 360^{o} excavators fitted with toothed buckets. These works comprised concrete slab removal and ground reduction.

3.2.3 All recording was undertaken using a *pro forma* recording system supported by a photographic record.

3.3 Best Practice

3.3.1 The work was carried out in accordance with current industry best practice and Institute for Archaeologists (IfA 2008) guidelines.

3.4 Copyright

3.4.1 This report may contain material that is non-Wessex Archaeology copyright (e.g. Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which we are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferrable by Wessex Archaeology. You are reminded that you remain bound by the conditions of the Copyright, Designs and Patents Act 1988 with regard to multiple copying and electronic dissemination of the report.

4 WATCHING BRIEF RESULTS

4.1 Introduction

4.1.1 Site visits were made by members of ARCUS staff between 23rd July 2009 and 6th October 2009. A further site visit was made by Wessex Archaeology staff on 18th August 2010. The following section presents and discusses the results of archaeological monitoring undertaken by both ARCUS and Wessex Archaeology.

4.2 Stratigraphic Sequence

4.2.1 No topsoil or subsoil deposits were encountered within the monitored areas. All deposits above natural were modern, with earlier deposits most likely having been truncated during the construction of the former power station.

4.2.2 Natural clay substrates were noted immediately below the concrete hard standing. This consisted of yellow and grey alluvial clay deposits. Removal of the hard standing and upper alluvial deposits was undertaken with a toothed bucket. This resulted in the disturbance and contamination of the upper levels of the alluvial deposit and made it unsuitable for palaeo-environmental sampling. Un-contaminated deposits were preserved *in situ* beneath the level of the monitored groundworks.

4.2.3 A trial hole through the alluvial deposits was machine excavated alongside the southern perimeter in the western corner of the site. The trial hole showed the natural greyish-brown clays to overlie grey gravel at *c.*1.55m depth below the current ground surface (**Plate 1**).

4.2.4 No archaeological features were encountered during the monitoring.

4.3 Structures

4.3.1 Three sections of modern brick culvert (**Figure 2**) were observed north-east, east and south-east of an existing electricity sub station. The longest (Culvert 2; **Plate 2**), *c.*13m in length, was aligned north-east to south-west. A second culvert, *c.*10m in length, was aligned north-west to south-east,

turning through 90° at its southern extent and running north-east (Culvert 1). A third culvert was aligned east-north-east to west-south-west (Culvert 3) and was *c.*6m in length. The culverts were all of red brick construction. Culverts 1 and 2 were *c.*1.2m in depth and Culvert 3 was *c.*2.5m deep. All the culverts were *c.*1.5m in external diameter. The culverts were thought to have been associated with the cooling water system for the power station site.

4.4 Finds

4.4.1 No artefacts were recovered during the monitoring.

5 CONCLUSIONS

5.1.1 Archaeological monitoring undertaken during groundwork located no evidence for human activity prior to the construction of the former power station and sewage works, which appeared to have truncated the site down to alluvial deposits. Three large brick-built culverts observed were most likely associated with the cooling water system for the power station site.

6 ARCHIVE

6.1 Preparation

6.1.1 The project archive, consisting of all primary written documents, plans, sections, photographs, and electronic data, will be prepared by Wessex Archaeology staff in accordance with the requirements of the repository museum and in accordance with standard guidelines for the preparation of excavation archives (Brown 2007; English Heritage 1991, Museums and Galleries Commission 1992 and United Kingdom Institute for Conservation 1990).

6.2 Deposition

6.2.1 The physical Site archive (see **Appendix**) will be deposited with Sheffield Museums under an accession number SHEFM:2009.149.

6.2.2 Two hard copies of the report will be prepared for the client and additional copies will be submitted with the Site archive, and to the South Yorkshire Archaeology Service.

6.2.3 An OASIS form will be completed at http://ads.ahds.ac.uk/project/oasis/ for inclusion in the ADS database. This will include an electronic copy of the report in PDF format.

7 BIBLIOGRAPHY

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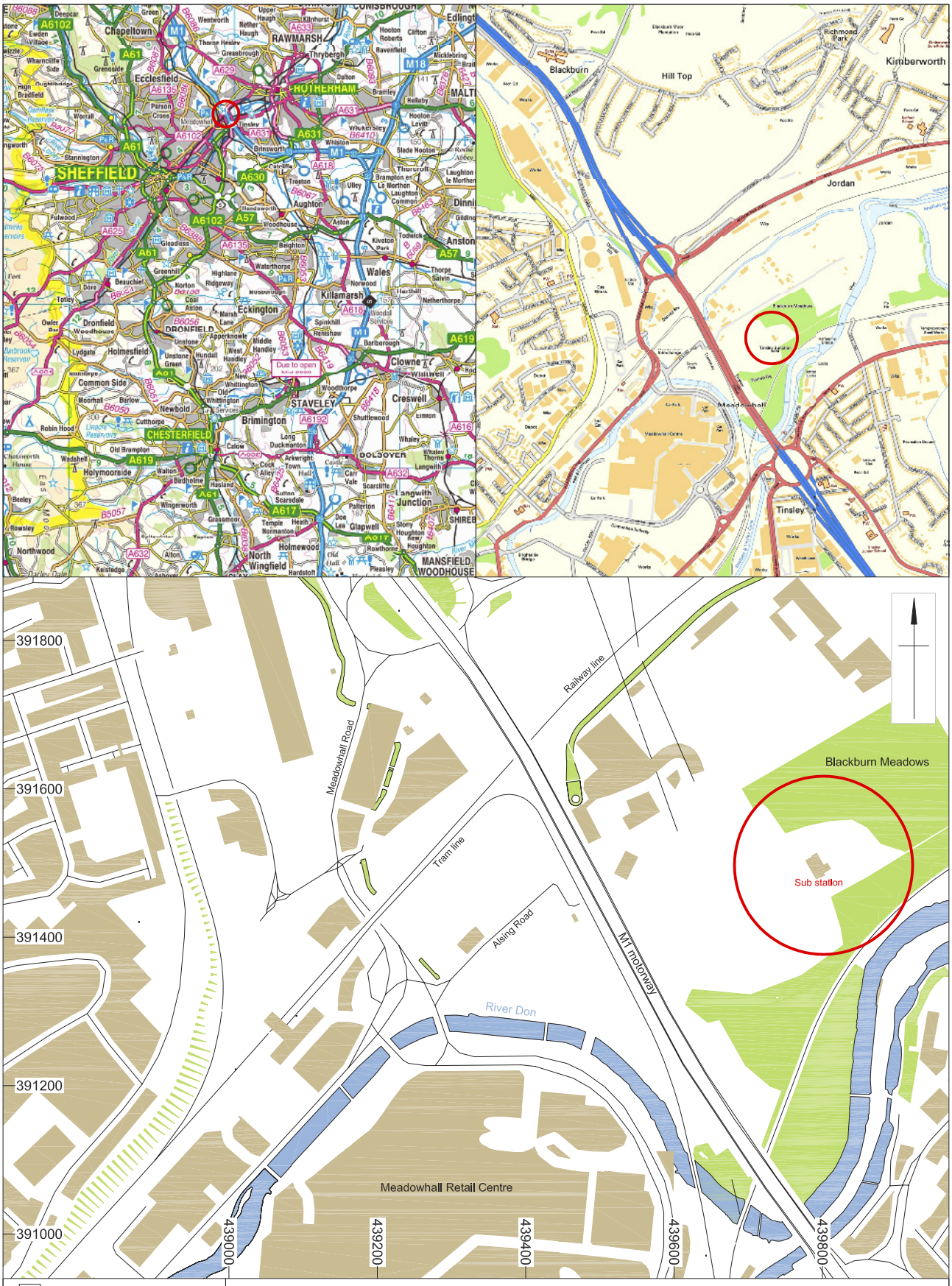
APPENDIX: ARCHIVE INDEX

File No.	NAR Cat.	Details	Format	No. Sheets
1	-	Index to Archive	A4	1
1	A	Client Report	A4	10
1	-	Project Design	A4	22
1	B	Graphics Register	A4	-
1	B	Watching Brief Record Sheets	A4	5
1	B	Site Graphics	A3	1
1	D	Photographic Register	A4	1
1	-	Digital images	1 CD	



Site location
Natural feature
Standing building
Watercourse

Wessex Archaeology

Date:	02/09/2010	Revision Number:	0
Scale:	Main graphic - 1:7500 @ A4	Illustrator:	CS
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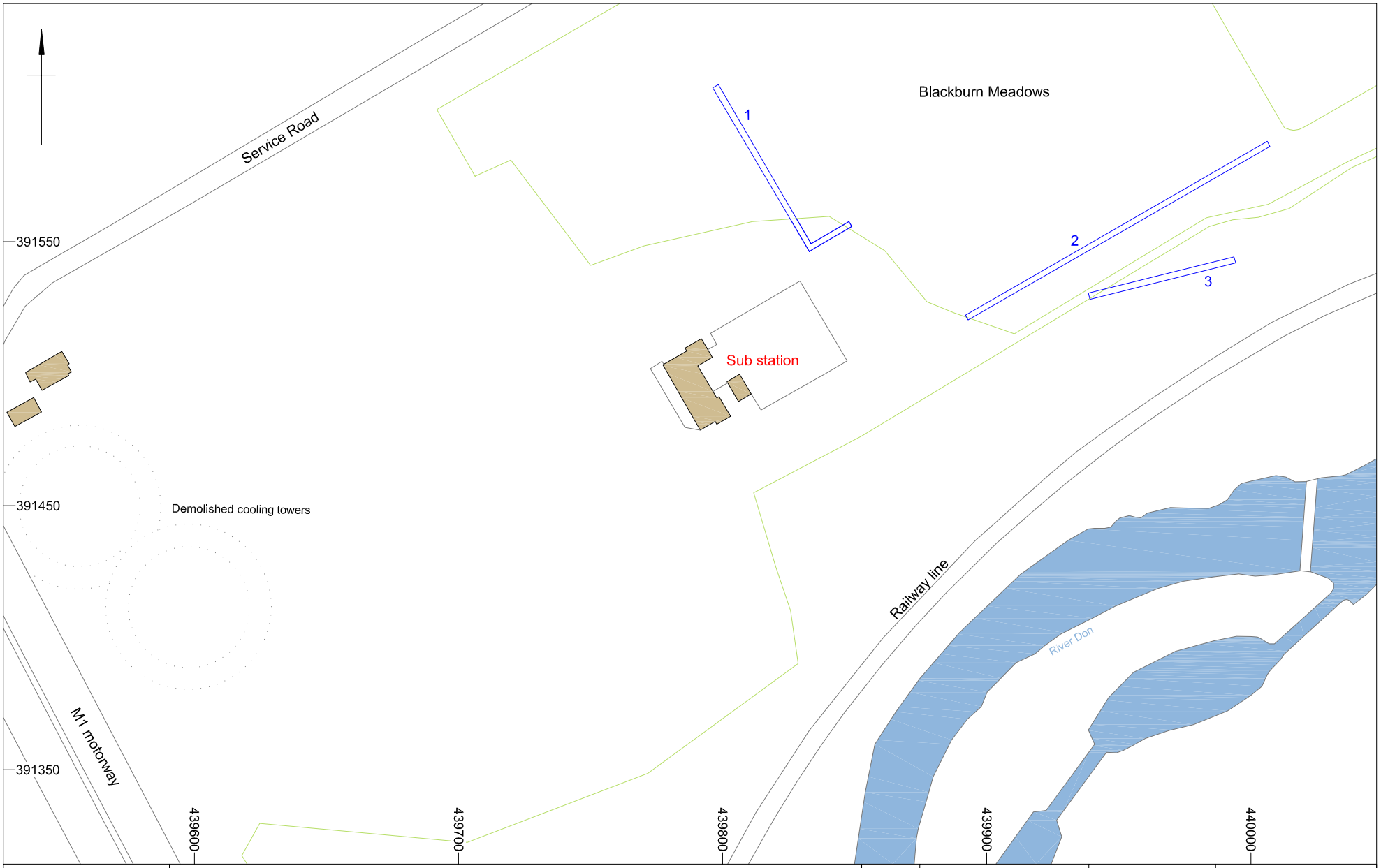
Site location

Figure 1



Location of culverts

Figure 2

Plate 1: Stratigraphy at south of site.

Plate 2: Culvert 2, looking north east.

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