

# LION GREEN ROAD SUBSTATION

## Coulsdon

## London CR5

London Borough of Croydon

Watching brief report

July 2012



**UK Power Networks Substation  
Lion Green Road  
Coulsdon  
London  
CR5**

Site Code LGS11

A report on the archaeological investigation

**Sign-off History:**

<b>Issue No.</b>	<b>Date:</b>	<b>Prepared by:</b>	<b>Checked/ Approved by:</b>	<b>Reason for Issue:</b>
1	06-07-2012	Tony Mackinder	Robin Nielsen	First issue

Graphics: A.N. Illustrator xx

© **Museum of London Archaeology**

Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED  
tel 0207 410 2200 fax 0207 410 2201 email [generalenquiries@mola.org.uk](mailto:generalenquiries@mola.org.uk)

## **Summary (non-technical)**

*This report has been commissioned by UK Power Networks in order to record and assess the results of an archaeological investigation carried out at the site of a new UK Power Networks substation at Lion Green Road, Coulsdon, CR5 2NL.*

*Ground reduction/soil stripping was undertaken under archaeological direction and the excavation of two service trenches for the new substation was monitored in June 2012 on semi-derelict land adjacent to the existing substation.*

*Undisturbed natural was not observed at the new formation level, however, there were colluvial deposits probably associated with infilling of the upper parts of the Chipstead Valley. No archaeological deposits were recorded.*

## Table of contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Site background	1
1.2	The planning and legislative framework	1
1.3	Planning background	1
1.4	Origin and scope of the report	3
1.5	Aims and objectives	3
<b>2</b>	<b>Topographical and historical background</b>	<b>5</b>
2.1	Topography	5
2.2	Prehistoric and Roman periods (700,000 BC–AD 410)	5
2.3	Early medieval period (AD 410–1066)	5
2.4	Later medieval period (AD 1066–1485)	5
2.5	Post-medieval period (AD 1485–present)	5
<b>3</b>	<b>The watching brief</b>	<b>7</b>
3.1	Methodology	7
3.2	Results of the watching brief	7
3.2.1	<i>‘Garden area’</i>	7
3.2.2	<i>‘Hardstanding area’</i>	7
3.2.3	<i>Conclusions</i>	9
<b>4</b>	<b>Potential of archaeology</b>	<b>10</b>
4.1	Original research aims	10
4.2	Significance of the data	10
<b>5</b>	<b>Publication and archiving</b>	<b>10</b>
<b>6</b>	<b>Acknowledgements</b>	<b>10</b>
<b>7</b>	<b>Bibliography</b>	<b>11</b>
<b>8</b>	<b>NMR OASIS archaeological report form</b>	<b>12</b>
8.1	OASIS ID: molas1-129773	12

## List of figures

*Front cover: 1894-95 OS map of the area*

<i>Fig 1 site location</i>	2
<i>Fig 2 the watching brief areas</i>	8

## 1 Introduction

### 1.1 Site background

The investigation took place at UK Power Networks' Lion Green Road Substation, Coulsdon, hereafter called 'the site'. The centre of the site is at OS grid reference 529616 159437. The site is bounded to the north by Fourth Drive, Richmond Hall to the west, the existing substation and the grounds of Sovereign House to the south, and Well Cottages to the east (see Fig 1). Modern ground level immediately adjacent to the site is 80.0m OD. The site code is LGS11.

A desk-based *Archaeological desk-based assessment* was previously prepared by MOLA, which covers the whole area of the site (MOLA, 2010). This document should be referred to for information on the natural geology, archaeological and historical background of the site, and the initial assessment of its archaeological potential.

An archaeological watching brief was carried out on geotechnical pits in 2011 (Rapson 2011). No archaeological deposits were recorded in any of the five boreholes and three small test pits monitored. Chalk was observed directly below the topsoil in land adjacent to Well Cottage and below hard-standing for garages to the west of the site.

### 1.2 The planning and legislative framework

The Planning and legislative background to the site has been adequately summarised in the previous Archaeological desk-based assessment (MOLA 2010, Section 3).

### 1.3 Planning background

On the basis of the archaeological assessment report (2010) and the report on archaeological monitoring of geotechnical boreholes and test pits (2011), English Heritage Greater London Advisory Service recommended that an archaeological condition be attached to any consent granted under the planning application (Planning Ref. 11/01899/P). The condition applied (Condition 1), as notified in the Decision notice of the 26th August 2011, was as follows:

*No development shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme for investigation which has been submitted by the applicant and approved by the Local Planning Authority. The development shall only take place in accordance with the detail scheme pursuant to this condition. The archaeological works shall be carried out by a suitably qualified investigating body acceptable to the Local Planning Authority*

*Reason: To safeguard the heritage of the Borough by providing an adequate opportunity to investigate and excavate archaeological remains on the site before development is carried out, in accordance with Policy UC11 of the Croydon Replacement Unitary Development Plan (The Croydon Plan) 2006*

On the basis of the archaeological assessment, English Heritage Greater London Archaeology Advisory Service recommended that, on the basis of the potential for "... possible prehistoric evidence but primarily the possibility for Saxon period burials to



Fig 1 Site location

*occur...*”, archaeological fieldwork would be required. It was suggested: “... *that the area of ground disturbance is stripped under pro-active archaeological control so that primarily any potential grave feature within the area can be identified, investigated, excavated and recorded ahead of the main redevelopment works.*”

In accordance with this recommendation, a written scheme of investigation was submitted to the London Borough of Croydon (MOLA, 2011). This was approved in respect of the above planning condition (Application no. 11/02676/RES, decision date: 29/09/11).

#### **1.4 Origin and scope of the report**

This report was commissioned by UK Power Networks and produced by Museum of London Archaeology (MOLA). The report has been prepared within the terms of the relevant Standard specified by the Institute for Archaeologists (IFA, 2001) and English Heritage (English Heritage Greater London Archaeology Advisory Service, 2009).

The purpose of the investigation was to determine whether archaeological remains or features were present on the site and, if so, to fully investigate such remains. A number of more site-specific research aims and objectives were established in the preceding *Method Statement* and are listed in the following section.

The purpose of the present report is to analyse the results of the excavation against the original research aims, and to suggest what further work, including analysis or publication (if any), should now take place.

#### **1.5 Aims and objectives**

The following research aims and objectives were established in the *Method Statement* for the watching brief (MOLA 2011 Section 2.2):

The following archaeological research objectives have been compiled after consultation with appropriate specialists, and in particular with consideration of the results of previous archaeological investigations both on the site and on other sites in the area.

- *Can further information be provided regarding the extent of truncation caused by earlier land use on the site? What is the nature and extent of any buried archaeological remains?*
- *Do untruncated natural deposits survive on the site and at what level?*
- *Is there any evidence for prehistoric activity on the site? If so, what form does it take and can it be more precisely dated?*
- *Is there any evidence that the Saxon cemetery excavated in 1912 c 100m to the south-west, extends into the area of the site?*
- *Are any boundary features of Saxon date present on the site? If so, how do they relate to Saxon activity previously recorded in the vicinity?*
- *Is there any evidence of Saxon structures or occupation activity on the site? If so, how does this relate to the previously recorded Saxon cemetery to the south-west?*

All research is undertaken within the priorities established in the Museum of London's *A research framework for London Archaeology*, 2002.



## **2 Topographical and historical background**

### **2.1 Topography**

Ground level within the site is fairly consistent, at c 80.0m OD. The site lies within Smitham Bottom, a dry valley also known as the Chipstead Bourne. The typical geology filling these dry valleys is a colluvial (hillwash) sequence over river gravels and Upper Chalk. Dry valleys are so-called because they generally have extremely ephemeral flow, except during the most intense of storm events, when floods do occur. Given the sites location along the valley bottom, colluvial deposits are likely to be thicker than further up the chalk escarpment.

Recent work to the south, in the Lion Green Road car park, noted the natural chalk was c 0.60m below the modern ground surface, with colluvium deposits to the north and west.

### **2.2 Prehistoric and Roman periods (700,000 BC–AD 410)**

Other than the occasional chance finds of flint tools from the Palaeolithic, Mesolithic and Neolithic prehistoric activity is limited. The surrounding area is known to have been in use during the Prehistoric and Roman periods although no specific finds from these periods have been made from the site.

### **2.3 Early medieval period (AD 410–1066)**

During this period, the site was located within farmland or woodland on the western outskirts of the manor of Coulsdon. A small settlement and wooden church are thought to have existed at this time, near to the modern parish church of St John in Old Coulsdon, c 1.8km east of the site. Burials with grave goods dating from the Saxon period were found at the Lion Green Road car park c 100m south-west of the site, and another small cemetery is reported at Cane Hill Hospital c 500m south-west of the site (Shaw 1970).

### **2.4 Later medieval period (AD 1066–1485)**

During this period, the site was located within farmland or woodland on the western outskirts of the manor of Coulsdon. A small settlement and wooden church are thought to have existed from the early medieval period, near to the modern parish church of St John in Old Coulsdon, c 1.8km east of the site. The pattern of settlement in the later medieval period is likely to have comprised a rural landscape of hamlets, isolated farmsteads and small fields. It is likely that a road existed not far from the site, on the alignment of the modern Brighton Road.

### **2.5 Post-medieval period (AD 1485–present)**

The earliest map, Rocque's 1762 map of Surrey, is small-scale but shows the site lying in a field on the edge of a slope, adjacent to a relatively important junction of the many roads running along the valley bottoms.

On the Ordnance Survey 1":mile map of 1813–19, the site is shown on ground sloping towards the base of a small valley; the main Brighton–London road runs along the valley bottom and passes east of the site. The map also shows the Croydon, Merstham and Godstone Iron Railway (CMG Railway) running close to the site.

This was built in 1803–5 as an extension of the Surrey Iron Railway to transport goods from the Surrey Canal. A section of the railway embankment survives to the south west as a Scheduled Monument. By 1838, the railway ceased to operate and by 1848, the line had been totally dismantled.

The Ordnance Survey 2nd edition 6":mile map of 1894–5 shows substantial development with a row of houses to the north and two houses that are probably the current Well Cottages. Gravel pits are indicated and one appears to infringe upon the site. The site, until recently, comprised semi-derelict gardens and, to the west, hard standing and garages.

### **3 The watching brief**

#### **3.1 Methodology**

All archaeological excavation and recording during the watching brief was done in accordance with the *Method Statement* (MOLA, 2011) and the *Archaeological Site Manual* (MoLAS, 1994).

The ground was cleared in stages by contractors using a tracked machine under MOLA supervision. Later two trenches for ducting were also excavated by machine. The locations of the areas covered by the investigation, the areas of impact of the new substation, were recorded and plotted onto the OS grid. The heights of observations were recorded relative to Ordnance Datum using the site TBM of 78.99m OD provided by the contractors.

The site has produced: 3 trench location plans with notes; 8 digital photographs. No finds were recovered from the site. The site records can be found under the site code LGS11 in the MoL archive.

#### **3.2 Results of the watching brief**

(See Fig 2)

##### **3.2.1 'Garden area'**

This was an area c 20m x 20m of overgrown semi-derelict garden to the south west of Well Cottages. The deposits observed during controlled machine excavation were as follows:

Topsoil: 0.20m thick

Subsoil: 0.40m thick to the west thinning to 0.10m next to the Cottages

Natural: c 78.40–78.70m OD

Natural was chalk fragments mixed with varying amounts of brown clayey sand. These deposits were also seen in two trenches for ducts that were excavated in this area. Trench 1 was 15m long x 2m wide x 1.0m deep. Trench 2 was 10m long x 1.20m wide x 1.0m deep.

As no solid chalk was observed it would appear all the natural deposits observed are actually colluvial deposits that have been washed down off the escarpment and are infilling the Chipstead Valley.

The only feature of note was an east–west running trench 0.30m wide and 0.30m deep that was filled with small flint nodules. This appears to be a type of field drain and is probably 20th century in date. In addition, two shallow features were observed which were probably modern and associated with garden activities.

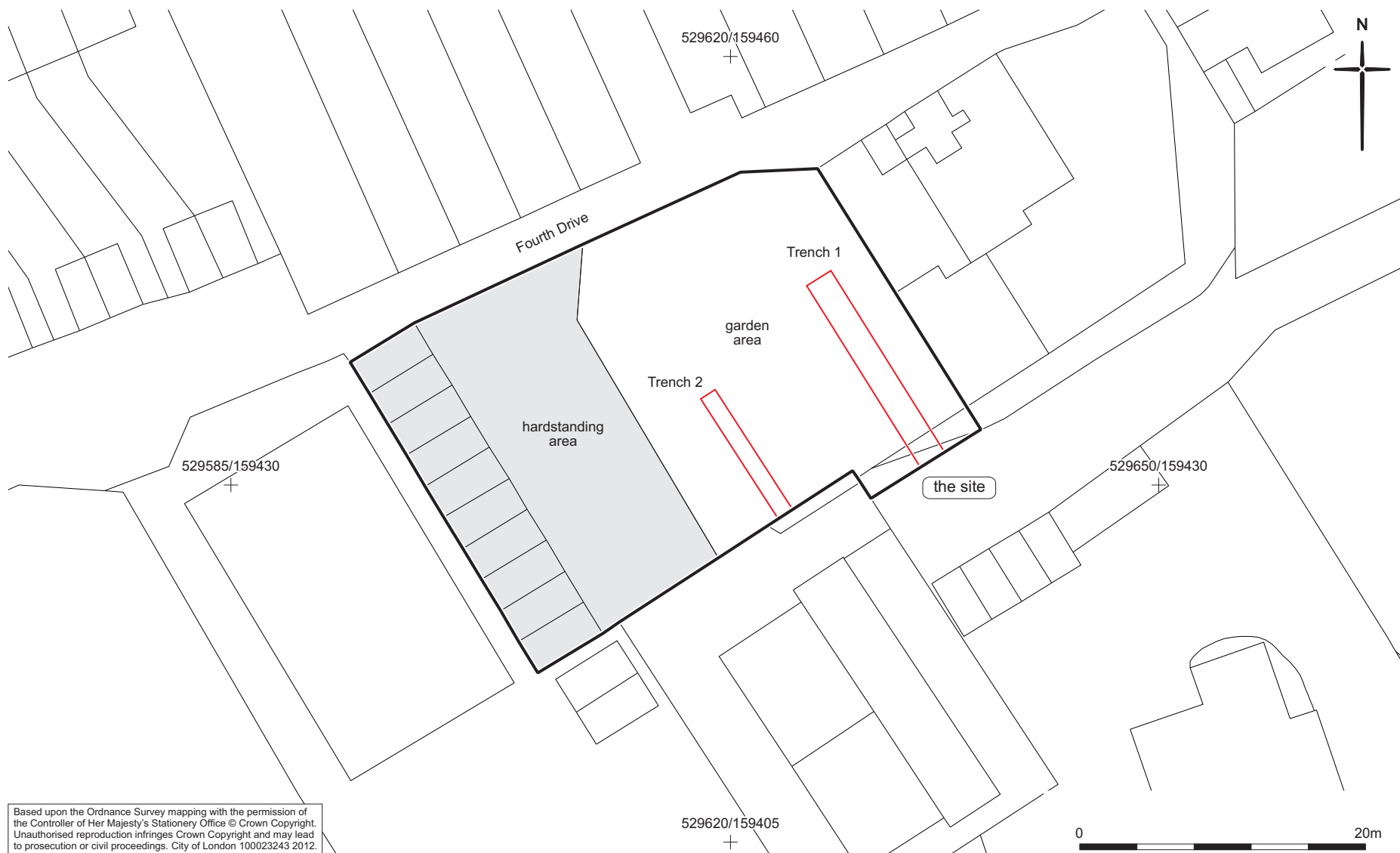
##### **3.2.2 'Hardstanding area'**

This was an area c 15m x 20m comprising lock-up garages and associated hardstanding between the 'garden area' and Richmond Hall. The sequence observed was as follows:

Concrete: 0.20m thick

Hardcore: 0.30m thick

Natural: c 78.50m OD



Based upon the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. City of London 100023243 2012.

Fig 2 Watching brief

Beneath the disturbance caused by the building of the garages, the natural deposits were chalk fragments mixed with brown clayey sand. As in the garden areas these deposits appear to be colluvial. No archaeological features were noted in this area.

### **3.2.3 Conclusions**

There was no evidence of Saxon burials and, other than the field drain and a few shallow features interpreted as recent garden features, no archaeological features were recorded.

## **4 Potential of archaeology**

### **4.1 Original research aims**

Only the following of the research aims (Section 1.4) are relevant;

- *Do untruncated natural deposits survive on the site and at what level?*

No untruncated natural deposits were observed, all the deposits were colluvial in origin and are probably infilling the Chipstead Valley.

- *Is there any evidence for prehistoric activity on the site? If so, what form does it take and can it be more precisely dated?*

There was no evidence of prehistoric activity on the site.

- *Is there any evidence that the Saxon cemetery excavated in 1912 c 100m to the south-west, extends into the area of the site?*

There is no evidence of the Saxon cemetery found to the south-west. Cemeteries of this period tend to be small scale.

### **4.2 Significance of the data**

The results of the investigation are of local significance, in that they demonstrate the low potential for the site to contain significant archaeological remains and demonstrate the geology of the area.

## **5 Publication and archiving**

Information on the results of the excavation will be made publicly available by means of a database in digital form, to permit inclusion of the site data in any future academic researches into the development of London.

The site archive containing original records will be stored in accordance with the terms of the *Method Statement* (MOLA, 2011) and deposited with the Museum of London within 12 months of the end of the watching brief.

In view of the limited potential of the material (Sections 4) and the limited significance of the data (Section 4.2) it is suggested that a short note on the results of the watching brief should appear in the annual round-up of the *London Archaeologist*

## **6 Acknowledgements**

The author would like to thank the following for their contributions and help in producing this report: Ian Cooper (UK Power Networks), Bob Read (Provia Construction) and Neville Constantine at MOLA.

## 7 Bibliography

Dept. of Communities and Local Government 2010, *Planning Policy Statement 5, Planning for the Historic Environment*

English Heritage, 1991 *Exploring Our Past, Strategies for the Archaeology of England*

English Heritage, 1991 *Management of Archaeological Projects (MAP2)*

English Heritage Greater London Archaeology Advisory Service, June 1998 *Archaeological Guidance Papers 1-5*

English Heritage Greater London Archaeology Advisory Service, 2009 *Archaeological Guidance Papers 1-5*

English Heritage, May 1998 *Capital Archaeology. Strategies for sustaining the historic legacy of a world city*

Institute for Archaeologists (IFA), 2001 *By-Laws, Standards and Policy Statements of the Institute for Archaeologists* (rev. 2001), *Standard and guidance: watching brief*

Institute for Archaeologists (IFA), supplement 2001, *By-Laws, Standards and Policy Statements of the Institute for Archaeologists: Standards and guidance – the collection, documentation conservation and research of archaeological materials*

Museum of London, 1994 *Archaeological Site Manual 3rd edition*

Museum of London, 2002 *A research framework for London archaeology 2002*

MOLA, 2010 *Proposed EDF Substation, Lion Green Road Coulsdon: Archaeological desk-based assessment*

MOLA, 2011 *UK Power Networks Substation. Lion Green Road, Coulsdon, CR5 2NL Method statement/Written scheme of investigation for an archaeological investigation*

Rapson, G, 2011 *UK Power Networks Substation, Lion Green Road, Coulsdon CR5 2NL A report on archaeological monitoring of geotechnical test-pits and boreholes*

Shaw M, 1970 'Anglo-Saxon Burials at Cane Hill, Coulsdon' *Proceedings of the Croydon Natural History and Scientific Society* 14: 541–55.

## 8 NMR OASIS archaeological report form

### 8.1 OASIS ID: molas1-129773

#### Project details

**Project name** Lion Green Road substation, Coulsdon

**Short description of the project** Ground reduction and excavation of two trenches for a new substation was monitored in June 2012 on semi- derelict land adjacent to the existing substation. Undisturbed natural was not observed, however, there were colluvial deposits probably associated with infilling of the upper parts of the Chipstead valley. No archaeological deposits were recorded.

**Project dates** Start: 06-06-2012 End: 22-06-2012

**Previous/future work** Yes / No

**Any associated project reference codes** LGS11 - Sitecode

**Any associated project reference codes** molas1-104222 - OASIS form ID

**Type of project** Recording project

**Site status** None

**Current Land use** Other 5 - Garden

**Monument type** NONE None

**Significant Finds** NONE None

**Investigation type** "Watching Brief"

**Prompt** Electricity Act 1989 Section 36



**Project location**

**Country** England  
**Site location** GREATER LONDON CROYDON COULSDON UK Power Networks substation, Lion Green Road, Coulsdon  
**Postcode** CR5 2NL  
**Study area** 600.00 Square metres  
**Site coordinates** TQ 29616 59437 51 0 51 19 07 N 000 08 23 W Point  
**Height OD / Depth** Min: 79.00m Max: 80.00m

**Project creators**

**Name of Organisation** MOLA  
**Project brief originator** Croydon Council  
**Project design originator** MOLA  
**Project director/manager** Robin Nielsen  
**Project supervisor** Tony Mackinder  
**Type of sponsor/funding body** Local Authority  
**Name of sponsor/funding body** London Borough of Croydon

**Project archives**

**Physical Archive Exists?** No  
**Physical Archive** LAARC

**recipient**

**Digital Archive recipient**      **LAARC**

**Paper Archive recipient**      **Kent County Council**

**Paper Media available**      **"Drawing", "Notebook - Excavation", ' Research', ' General Notes', "Photograph", "Survey "**

**Project bibliography**  
**1**

**Publication type**      **Grey literature (unpublished document/manuscript)**

**Title**      **UK Power Networks substation, Lion Green Road, Coulsdon**

**Author(s)/Editor(s)**      **Mackinder, T**

**Date**      **2012**

**Issuer or publisher**      **MOLA**

**Place of issue or publication**      **London**

**Description**      **A4 client report**

**Entered by**      **tmackinder (tmackinder@mola.org.uk)**

**Entered on**      **6 July 2012**