HBPW
CONSULTING ENGINEERS

Phase 1 Preliminary Risk Assessment Report
For
Proposed Development
At
63-71, High Street, Hampton Hill, TW12 1NH

REPORT PREPARED ON BEHALF OF **LEIGH AND GLENNIE LTD**

Issue record:

Report Ref: SL06837-REP-01			
Issue	Description	Written By	Date
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3	Minor Amendment	JO	12th November 2020

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Date: 19th May 2016

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Date: 12th November 2020

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1. INTRODUCTION

HBPW LLP (HBPW) was instructed by Leigh and Glennie Ltd (the 'Client') to undertake a Phase 1 Preliminary Risk Assessment of a Site known as 63-71 (High Street), Hampton Hill, TW12 1NH.

The primary purpose of the investigation was to obtain information on the environmental setting and potential for contamination and ground gas issues to affect the development. In particular any foreseeable abnormal development costs and associated remediation relating to ground conditions or contamination resulting from previous uses of the Site and its environs are to be evaluated by undertaking a preliminary risk assessment.

The key objectives of this study are to:

- Identify any potentially contaminative current and historical uses of the site, and potential sources of contamination on the site.
- Identify potentially contaminative current and historical uses of adjacent sites that may have resulted in cross boundary migration of contamination onto the site.
- Identify potential risks to human health, groundwater, surface water and ecological targets as a result of any potential sources of contamination beneath the site.
- Provide a recommended scope of intrusive investigation for the site to enable assessment of potential contamination.

This report is based upon archival research including the analysis of historical maps, geological and hydrological data and other relevant Third Party environmental information that HBPW LLP have taken to be correct, and no liability can be accepted for any inaccuracies contained within the Third Party information referenced.

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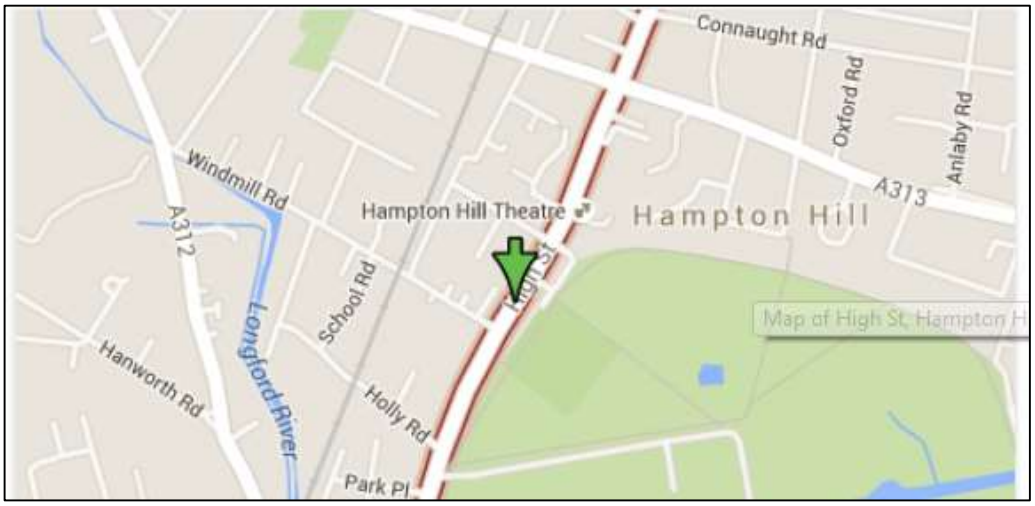
2. SITE DETAILS AND DESCRIPTION

2.1 Site Details

The Site is located at 63-71 High Street Hampton Hill TW12 1NH. The Site is on the western side of High Street centered at approximately national grid reference TQ 1424 7084.

The Site location is shown below and the context can be seen at Appendix 2 within the Database Report.



Site Location Plan

The Site forms an approximately rectangular parcel of land (68m by 38m) and is currently occupied by 3 buildings. Two office buildings located at the frontage to High Street are joined by an enclosed overhead link walk way at first floor level. Another building, St Clare Studio, is located in the south west quadrant backing onto the access road to the St Clare Business Park.

To the south of the Site are residential terraces. To the north, the land to the rear of the retail/residential frontage is, at time of writing, being developed with a number of 2 storey town houses.

The external areas are predominantly laid to hard standing with a number of semi mature trees. There is a raised fish pond to the south boundary.

There are a number of drainage manholes, some are surface water gulleys which take surface water to a number of soakaway chambers located beneath the car parking areas.

Currently vehicular access to the Site is via the metal powered gates located centrally between the frontage buildings and there is a pedestrian entrance (door) in the rear (west) boundary adjacent to the studio building.

2.2 Proposed Development

The proposed development includes the refurbishment and redevelopment of existing office buildings into residential apartments with associated areas of hard surfacing, car parking and access.

3. ENVIRONMENTAL SETTING

3.1 Introduction

A Landmark historical map dataset and an Envirocheck data report has been obtained for the site (refer to Appendix 1 and 2 respectively) and this information has been reviewed from the perspective of identifying potential sources of contamination, potential receptors that may be impacted by those contamination sources (i.e. the Site), and the potential pathways that may be active allowing the source of contamination to reach the receptor.

3.2 Site History

A historical map review has been undertaken to identify previous land uses for the Site and its environs and the key findings are as follows.

Table 3.2.1 Historical Map Review

SITE HISTORY			
Date(s)	**Scale**	**On-Site**	**Off-Site**
1869 1866	1:10,560 1:2,500 1:2,500	Probably 3no.residential buildings fronting High Street with gardens extending to present day west boundary of Site. Boundary of Site bisects northern most garden. South of site is probably the garden of property to located to south east corner of Site or a commercial use.	Properties opposite side of High Street. No development to west of Site. Except 2 small buildings. House and gardens to the south.
1896	1:10,560 1:2,500	Development of housing with large building (subdivided) extending back over former garden.	By 1896 green houses built to west with small gravel pit beyond adjacent to railway cutting. Development has occurred along the south boundary of the Site. A Smithy is shown to the east of the Site.
1898-1899	1:10,560	No significant changes	No significant changes
1915	1:10,560	No significant changes	Nursery has expanded to the west and north west.
1920	1:10,560	No significant changes	No significant changes
1932-1935	1:10,560	No significant changes	Public House to east of Site.
1938 -1968	1:10,560	No significant changes	No significant changes
1959-1961 1960 - 68	1:1,250 1:10,000	Northern half of Site is called Builder's Yard. The Southern half is called Works which appear to extend to the south of the Site.	Nursery buildings have gone and what appears to be St Clare's Business Estate has been constructed to south west of Site. Area closest to the railway is called Builder's Yard.

1975-1976	1:10,000	Building in centre of Site has gone and a new building in the north east corner has appeared.	Further infill development to south of the Site and this has become a Depot.
1985	1:10,000	Studio building has appeared in south west quadrant of Site.	No significant changes
1991 and 1993-1994 1999-	1:1,250 10k Raster Mapping 1:10,000	Present day developments shown.	No significant changes
2006	10k Raster Mapping 1:10,000	No significant changes	No significant changes
2016	10k Raster Mapping 1:10,000	No significant changes	No significant changes

3.3 Environmental Data Research

The Envirocheck report identifies registered Local Authority and Environment Agency sites with licenses /permits, enforcement and prohibition notices, Local Authority Pollution Prevention and Controls Enforcements, pollution incidents to controlled waters, prosecutions relating to controlled waters, prosecutions relating to authorised processes and substantiated pollution incident register entries.

The key findings of the searches are summarised and presented below.

Table 3.3.1 Key Findings Database Records

DATABASE RECORDS		
Geological Setting	**Made Ground/Artificial Geology**	A thin veneer of Made Ground is expected related to previous development of the Site. Excavations on the adjacent Site indicate similar conditions.
	Superficial Deposits	With reference to the Envirocheck report superficial deposits of Taplow Gravel Formation (Sands and Gravels) underlie the whole Site to a depth of at least 8m.
	Solid Geology	The Bedrock is London Clay Formation.
BGS Historical Borehole Records	There are no records sufficiently close to the Site as to be relevant.	
Hydrology and Flooding	The nearest surface water course is the Longford River (Secondary River) 200m away at its closest point and which flows to the south towards the Thames. The GQA Grade is River Quality B. The Site is not shown to be affected by Flooding from Rivers or Sea.	

	The Site is not shown to be affected by surface water flooding. Although BGS list the Site due its basement to present a risk of groundwater flooding.
Hydrogeology	Aquifer Designations: • Superficial Deposits (alluvium): Principal Aquifer • Bedrock (Mudstone): Unproductive Strata Groundwater Vulnerability: • Major Aquifer - High leaching potential Source Protection Zones • The Site is not in a SPZ.
Sensitive Land Uses	Bushy Park is located 50m to the east of the Site and is listed as a Site of Special Scientific Interest.
Mining	No Coal Authority Report required.
Unexploded Ordnance	Where significant piling or other intrusive ground works are planned consideration could be given to assessing the risk of UXO in more detail through detailed desk studies undertaken by a specialist in UXO risk assessment.
Geotechnical Risks	The site is not located in an area affected by coal mining or unstable ground. Groundwater levels are not thought to be high due to the elevation of the Site. The railway cutting to the west will also tend to lower groundwater levels in proximity to the Site.
BGS Recorded Mineral Sites	None recorded.
Pollution Incidents	There are no recorded incidents within 500m of the Site.
Local authority Pollution Prevention Controls and Integrated Pollution Prevention Controls	There are 2 entries close to the Site. Regal Dry Cleaners located 155 m NE. Hampton Hill Service Station 224m NE of the Site.
Licensed Industrial Activity (Contemporary Trade Directory)	There are 3 no. Contemporary Trade Directory Entries within 100m of the site. The majority relate to the businesses at St Clare's Business Park, Windmill Road and High Street. Potentially contaminative businesses include garages, printers and dry cleaners. These land-uses are only likely to affect the Site if groundwater has become contaminated and migrated beneath the Site. The PCSM will consider these off-Site potential sources. There are multiple entries for a PFS located approximately 240m to the NE of the Site at 68-78 High Street.
Hazardous Substances	None recorded.
Landfills and Waste Management	There is Commercial Waste Processing Site located 348m NE of the Site.

Water Abstractions and Discharge Consents	There are no abstractions within 500m of the Site.
Radon Gas	The Site is not located in a Radon Affected Area. Less than 1% of homes are above the action level.

4. QUALITATIVE CONTAMINATED LAND ASSESSMENT

4.1 Initial Conceptual Site Model

An initial Conceptual Site Model (CSM) has been developed for the Site adopting the Source-Pathway-Receptor approach. The initial CSM is developed during the preliminary risk assessment stage and is used to design the Phase 2 Intrusive Investigations.

- **Sources (S)** are potential or known contaminant sources e.g. soil contamination resulting from a former land use;
- **Pathways (P)** are environmental systems thorough which a contaminant could migrate e.g. air, groundwater;
- **Receptors (R)** are sensitive environmental receptors that could be adversely affected by a contaminant. e.g. Human Site occupiers, surface or groundwater resources and ecology.

Where a source, relevant pathway and receptor are present, a plausible pollutant linkage is considered to exist whereby environmental harm could occur and a potential environmental liability could be realised.

The potential pollutant linkages considered to exist at this Site are summarised below.

Sources

S1: Potential for asbestos containing materials (ACMs) present in existing buildings and made ground soils;
S2: Contamination of soils from previous historical contaminative uses of the Site;
S3:Potential for on-Site groundwater contamination resulting from previous contaminative Site use;
S4: Potential for hazardous ground gas; and
S5: Potential for off-Site sources of groundwater contamination.

Pathways

P1: Human uptake pathways;
- Ingestion of excavated or exposed soils;
- Inhalation of soil/dust/volatile compounds or hazardous ground gases via migration through permeable strata/conduits; and
- Dermal contact with exposed soils or leachates.

P2: Horizontal and vertical migration of contaminants through the unsaturated zone;
P3: Horizontal and vertical migration of contaminants within groundwater;
P4: Direct contact of soils with construction materials.

Receptors

R1: Construction/maintenance workers/end users;
R2: Controlled waters (groundwater within Principal Aquifer);
R3: Ecological receptors;
R4: Construction Materials - Buried concrete and potable water supply pipes;
R5: Buildings - Hazardous ground gas accumulation and explosion.

4.2 Risk Evaluation

For each potential pollutant linkage identified the potential risk has been evaluated for potential receptors using a Preliminary Qualitative Risk Assessment based on the probability of the pollution event, and the severity it poses to site users and the environment.

The assessment is presented in Table 4.2.1 below.

Table 4.2.1 Preliminary Qualitative Risk Assessment

Potential Source	Potential Receptor	Potential Pathway	Consequence	Probability	Risk	Comments
S1: Potential for asbestos containing materials (ACMs) present in existing buildings and made ground	**R1**: Construction/ maintenance workers/end users	**P1**: Human uptake pathways (inhalation of fibres).	Medium	Low likelihood	Low	There is a potential for asbestos to be present within buildings at the site and within the made ground. Inspection of existing asbestos register, if present or appropriate asbestos inspections of buildings prior to refurbishment followed by appropriate removal will mitigate risks. As a precautionary measure, asbestos screening of soils during Phase 2 Intrusive Investigations will be undertaken.
S2: Potential for contamination within any made ground at the site.	**R1**: Construction/ maintenance workers/end users.	**P1**: Human uptake pathways (inhalation, dermal, ingestion).	Medium	Low likelihood	Low/Very Low	Phase 2 Intrusive Site investigation works with appropriate testing will assess the presence and concentration of contamination in made ground. This will inform risk based assessment of contamination. The overall risk to human health is considered likely to be low as the existing buildings and infrastructure are anticipated to remain in-situ.
S3: Potential for on-Site groundwater contamination resulting from previous contaminative Site use	**R2**: Controlled waters (groundwater beneath the site) **R4**: Construction Materials - Buried concrete and potable water supply pipes.	**P2**: Horizontal and vertical migration of contaminants through the unsaturated zone. **P3**: Horizontal and vertical migration of contaminants within groundwater.	Medium	Low likelihood	Moderate/Low	Groundwater is thought to be located at the boundary between the Taplow Gravels and the London Clay at approximately 8m bgl. There is likely to be a thick unsaturated zone but mobile contaminants can migrate vertically relatively quickly.
S4: Potential off-site sources of hazardous ground gas.	**R1**: Construction/ maintenance workers/end users.	**P1**: Human uptake pathways (inhalation).	Medium	Low likelihood	Moderate/Low	There are no landfills close to the Site or natural Peat or other organic soils with the potential to generate ground gases.

	R5: Buildings - Hazardous ground gas accumulation and explosion.	**P2**: Horizontal and vertical migration of contaminants through the unsaturated zone;				Degradation of hydrocarbons may lead to the generation of hazardous ground gases, which will be assessed as part of the Phase 2 investigation.
S5: Potential for groundwater contamination from off-Site sources	**R1**: Construction/ maintenance workers/end users. **R2**: Controlled waters (groundwater with Secondary Principal Aquifer); **R4**: Construction Materials - Buried concrete and potable water supply pipes.	**P1**: Human uptake pathways (ingestion, dermal contact). **P3**: Horizontal and vertical migration of contaminants within groundwater.	Medium	Low likelihood	Moderate/Low	There are a number of adjacent historical and on-going potentially contaminative Site uses that could have led to groundwater contamination.

5. PRELIMINARY ENGINEERING ASSESSMENT

At the time of writing, the proposed development includes the refurbishment and redevelopment of the existing buildings. Therefore it is considered unlikely for any extensive groundworks to be undertaken as part of the development.

However, the Taplow Gravels are unlikely to remain stable in any open excavations and groundwater is expected to be encountered at around 8m or shallower below ground level. Provision will need to be made to support any open excavations and dewatering may be required.

Building Control hold no records of the foundations of the buildings on Site. Buildings at St Clare's Business Park are thought to have adopted strip foundations.

There are no known incidences of ground instability or high groundwater in the area of the Site.

It is noted that the existing basement at the Site is dry and contains no groundwater sump or pump. The lift shaft base was also dry.

6. DISCUSSION OF FINDINGS AND RECOMMENDATIONS

6.1 Conclusions

This Report has been prepared to consider the potential risks from contamination at the Site from on and off Site Sources and whether these Sources could represent a risk to human health, controlled waters or the wider environment. It is intended that this Report be submitted to the local authority as part of the planning application associated with the redevelopment of the site at 63-71 High Street, Hampton Hill, TW12 1NH.

The CSM and preliminary qualitative risk assessment presented in this Report, at Table 4.2.1 have identified potential sources, pathways and receptors which are considered to represent a significant potential risk to identified site receptors. The primary potential source of contamination is the made ground at the site and from groundwater contamination resulting from previous and existing potentially contaminative use of the site and its environs. The underlying geology, Taplow Gravels, is a Principal Aquifer and the assessment of contamination risk to groundwater is an important consideration for this site.

The previous historical developments and the more recent developments all present the possibility of Asbestos Containing Materials (ACM) being present in the buildings and/or the made ground soils.

6.2 Proposals for Phase 2 Site Investigations

At the time of writing this report, the proposed development will convert the existing buildings from offices into residential apartments, with the improvement and reinstatement of existing hard standing to include areas of carparking and access from High Street. However, a limited site investigation is recommended to assess potential levels of contamination within the soils and enable assessment of ground gas and groundwater, where appropriate.

It is proposed that the site investigation will include the advancement of 2 no. cable percussion boreholes to depths of approximately 15m bgl and installation with monitoring wells to facilitate the monitoring for hazardous ground gases and groundwater.

Up to 6 trial pits will be excavated in order to obtain samples of near surface soils for geochemical and geotechnical analysis.

Based on guidance in accordance with BS8485: 2015, it is recommended that ground gas monitoring be undertaken on a minimum of 4no. occasions for concentrations of methane, carbon dioxide and oxygen. The results coupled with information confirming the physical characteristics of the ground will enable the classification of the ground gas regime at the site to take place followed by the design of mitigation measures, if required, in accordance with BS8485 2015 and following the guidance contained in CIRIA C665. Groundwater, if encountered, will be sampled and tested for a broad suite of analyses to inform human health protection of construction workers and end users of the site and also consider risks to the Principal Aquifer.

A Phase 2 Geoenvironmental Assessment Report will be produced including risk based assessment of contamination as it relates to the proposed development.

It is recommended that a pre-demolition or refurbishment asbestos survey of existing properties be undertaken.

7. LIMITATIONS

The locations of the exploratory holes will be influenced by the proximity to buried services and other existing infrastructure.

Any other issues not listed in the scope of works, but subsequently identified during the completion of the investigations and reported herein (such as the potential presence of Japanese knotweed, flood assessment studies or ecological surveys) are provided for information only and fall outside the scope of this Assessment. The Report does not therefore constitute an archaeological or ecological assessment, nor does it constitute an asbestos inspection or flood assessment.

The Consultant's conclusions, opinions and recommendations are based upon this information and the information obtained during the investigation. There is no warranty regarding the accuracy of the information provided to the Consultant and they will not be responsible for any opinions that have been expressed, or conclusions which it has reached in reliance upon information which is subsequently proven to be inaccurate.

Appendix 1
Historical Mapping

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
Sunken Road
Raised Road
Road over Railway
Railway over River
Railway over Road
Level Crossing
Road over River or Canal
Road over Stream
Road over Stream
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. Rural District Boundary
Civil Parish Boundary

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Electricity Transmission Line
Pylon
Sloping Masonry
Pole
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

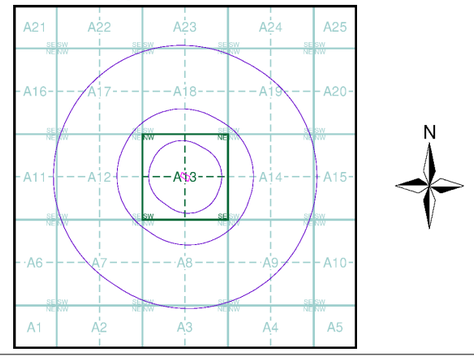
Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Mud
Sand
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

Envirocheck®

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:10,560	1869	3
Surrey	1:10,560	1871	4
London	1:10,560	1896	5
Middlesex	1:10,560	1897	6
Surrey	1:10,560	1898 - 1899	7
Middlesex	1:10,560	1920	8
Middlesex	1:10,560	1920	9
Surrey	1:10,560	1920	10
Surrey	1:10,560	1920	11
Middlesex	1:10,560	1932 - 1935	12
Surrey	1:10,560	1933	13
Middlesex	1:10,560	1934	14
Surrey	1:10,560	1938	15
Middlesex	1:10,560	1938	16
Middlesex	1:10,560	1938	17
Surrey	1:10,560	1938	18
Ordnance Survey Plan	1:10,000	1940	19
Historical Aerial Photography	1:10,560	1948	20
Ordnance Survey Plan	1:10,000	1960 - 1966	21
Ordnance Survey Plan	1:10,000	1965 - 1968	22
Ordnance Survey Plan	1:10,000	1975 - 1976	23
Ordnance Survey Plan	1:10,000	1985 - 1987	24
London	1:25,000	1985	25
Ordnance Survey Plan	1:10,000	1991 - 1992	26
10K Raster Mapping	1:10,000	1999	27
Historical Aerial Photography	1:10,000	1999	28
10K Raster Mapping	1:10,000	2006	29
VectorMap Local	1:10,000	2016	30

Historical Map - Slice A



Order Details

Order Number: 85332498_1_1
Customer Ref: SL05030
National Grid Reference: 514240, 170830
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Flat, 64 High Street, Hampton Hill, HAMPTON, Middlesex, TW12 1PD

Landmark® Information Group
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale

- Government and Administrative Buildings
- Military and Industrial Buildings
- Military and Communication Areas
- Subway Entrance
- Fireproof Building
- Prominent Fireproof Building
- Non-fireproof Building
- Non-fireproof Building (non-dwelling)
- Factory, mill, and flour mill, with chimneys
- Factory, mill, and flour mill, without chimneys
- Power Station, drawn to scale
- Hydroelectric Power Station
- Radio Station, drawn to scale
- Telephone Station, drawn to scale
- Abandoned Open-pit Mine or Quarry
- Open-pit Salt Mine
- Pit
- Oil Deposit or Well
- Oil Seepage
- Tailings Pile
- Fuel Storage Tanks
- Natural Gas Tank
- Bench Mark
- Drill Hole
- Burial Mound
- Triangulation Point on Burial Mound
- Single-track Railroad
- Double-track Railroad and Station Building
- Coniferous Forest
- Deciduous Forest
- Mixed Forest
- Lawns
- Citrus Orchard
- Wet Ground
- Scattered Vegetation

243,8 — Values for prominent elevations

186.0 — Numbers for spot elevations, depth soundings, contour lines, etc.

0,2 — Velocity of the current, width of river bed, depth of river

Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

Russian Alphabet (For reference and phonetic interpretation of map text)

А а (A)	З з (Z)	П п (P)	Ч ч (CH)
Б б (B)	И и (I)	Р р (R)	Ш ш (SH)
В в (V)	Й й (Y)	С с (S)	Щ щ (SHCH)
Г г (G)	К к (K)	Т т (T)	ъ (–)
Д д (D)	Л л (L)	У у (U)	ы (Y)
Е е (E)	М м (M)	Ф ф (F)	ь (')
Ё ё (YO)	Н н (N)	Х х (KH)	Э э (E)
Ж ж (ZH)	О о (O)	Ц ц (TS)	Ю ю (YU or IU)
			Я я (YA or IA)

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale

- Government and Administrative Buildings
- Military and Industrial Buildings
- Military and Communication Areas
- Subway Entrance
- Partly Demolished Buildings
- Demolished Buildings
- Built-Up Area with Fireproof Buildings Predominant
- Built-Up Area with Non-Fireproof Buildings Predominant
- Individual Fireproof Building
- Prominent Industrial Building
- Individual Dwelling, Fireproof
- Ruins of an Individual Dwelling
- Factory or Mill Chimney
- Factory or Mill with Chimney
- Factory or Mill without Chimney
- Mine or Open Pit Mine
- Operating Shaft or Mine
- Non-Operating Shaft or Mine
- Salt Mine
- Tailings Pile
- Pit
- Stone Quarry
- Gas Pump or Service Station
- Fuel Storage or Natural Gas Tank
- Oil or Natural Gas Derrick
- Small Hydroelectric Power Station
- Power Station
- Transformer Station
- Cemetery
- Burial Mound (height in metres)
- Triangulation Point on Burial Mound
- Triangulation Point
- Bench Mark
- Bench Mark (monumented)
- Telegraph Office
- Telephone Station
- Radio Station
- Radio Tower
- Airfield or Seaplane Base
- Landing Strip
- Main Highway
- Highway under Construction
- Improved Dirt Road (former truck road)
- Double-track Railroad with First Class Station
- Dismantled Railroad
- Railroad Under Construction
- Shore Embankment
- River or Ditch with Embankment
- Well
- Water Reservoir or Rain Water Pit
- Spring
- Isobath with value
- Heavy (Index) Contour Line
- Contour Line and Value
- Half Contour Line
- Spot Elevation Value
- Coniferous
- Deciduous
- Mixed
- Scrub

Key to Numbers on Mapping

Envirocheck®

Historical Mapping & Photography included:

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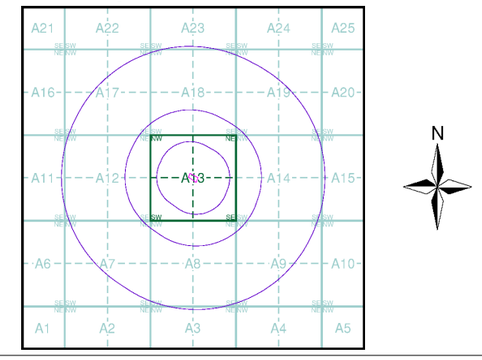
Middlesex	1:10,560	1920	9
Surrey	1:10,560	1920	10
Surrey	1:10,560	1920	11
Middlesex	1:10,560	1932 - 1935	12
Surrey	1:10,560	1933	13
Middlesex	1:10,560	1934	14
Surrey	1:10,560	1938	15
Middlesex	1:10,560	1938	16
Middlesex	1:10,560	1938	17
Surrey	1:10,560	1938	18
Ordnance Survey Plan	1:10,000	1940	19
Historical Aerial Photography	1:10,560	1948	20
Ordnance Survey Plan	1:10,000	1960 - 1966	21
Ordnance Survey Plan	1:10,000	1965 - 1968	22
Ordnance Survey Plan	1:10,000	1975 - 1976	23
Ordnance Survey Plan	1:10,000	1985 - 1987	24
London	1:25,000	1985	25
Ordnance Survey Plan	1:10,000	1991 - 1992	26
10K Raster Mapping	1:10,000	1999	27
Historical Aerial Photography	1:10,000	1999	28
10K Raster Mapping	1:10,000	2006	29
VectorMap Local	1:10,000	2016	30

Russian Map - Slice A



Order Details

Order Number: 85332498_1_1
Customer Ref: SL05030
National Grid Reference: 514240, 170830
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Flat, 64 High Street, Hampton Hill, HAMPTON, Middlesex, TW12 1PD

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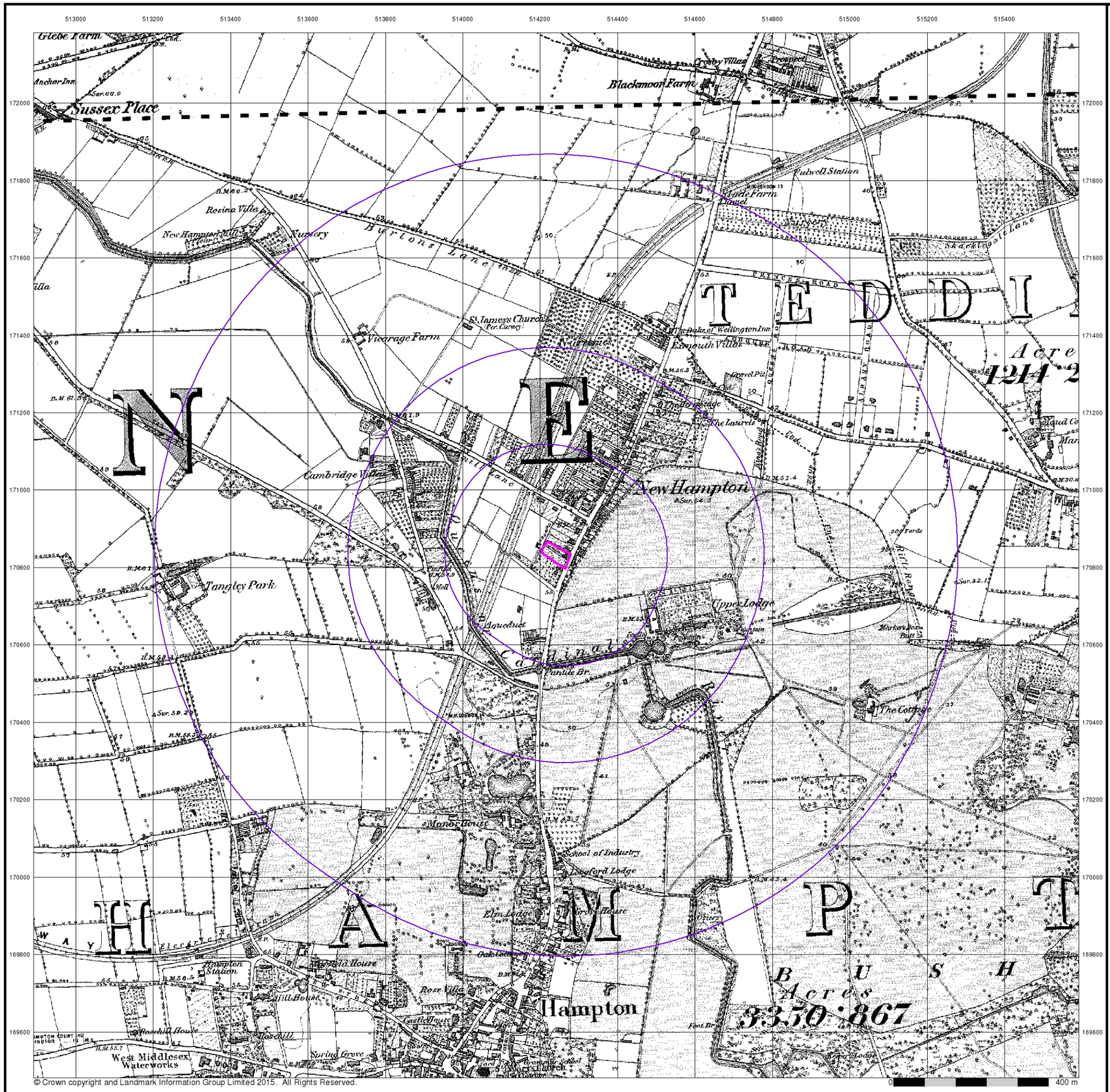
Web: www.envirocheck.co.uk



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Middlesex

Published 1869

Source map scale - 1:10,560

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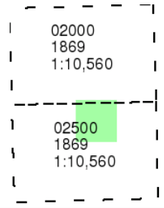
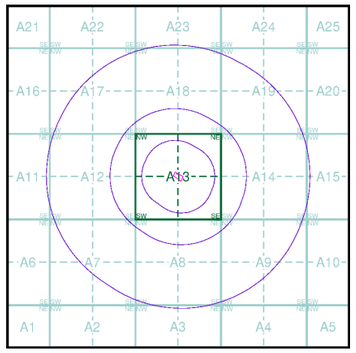
Map Name(s) and Date(s)



Historical Map - Slice A



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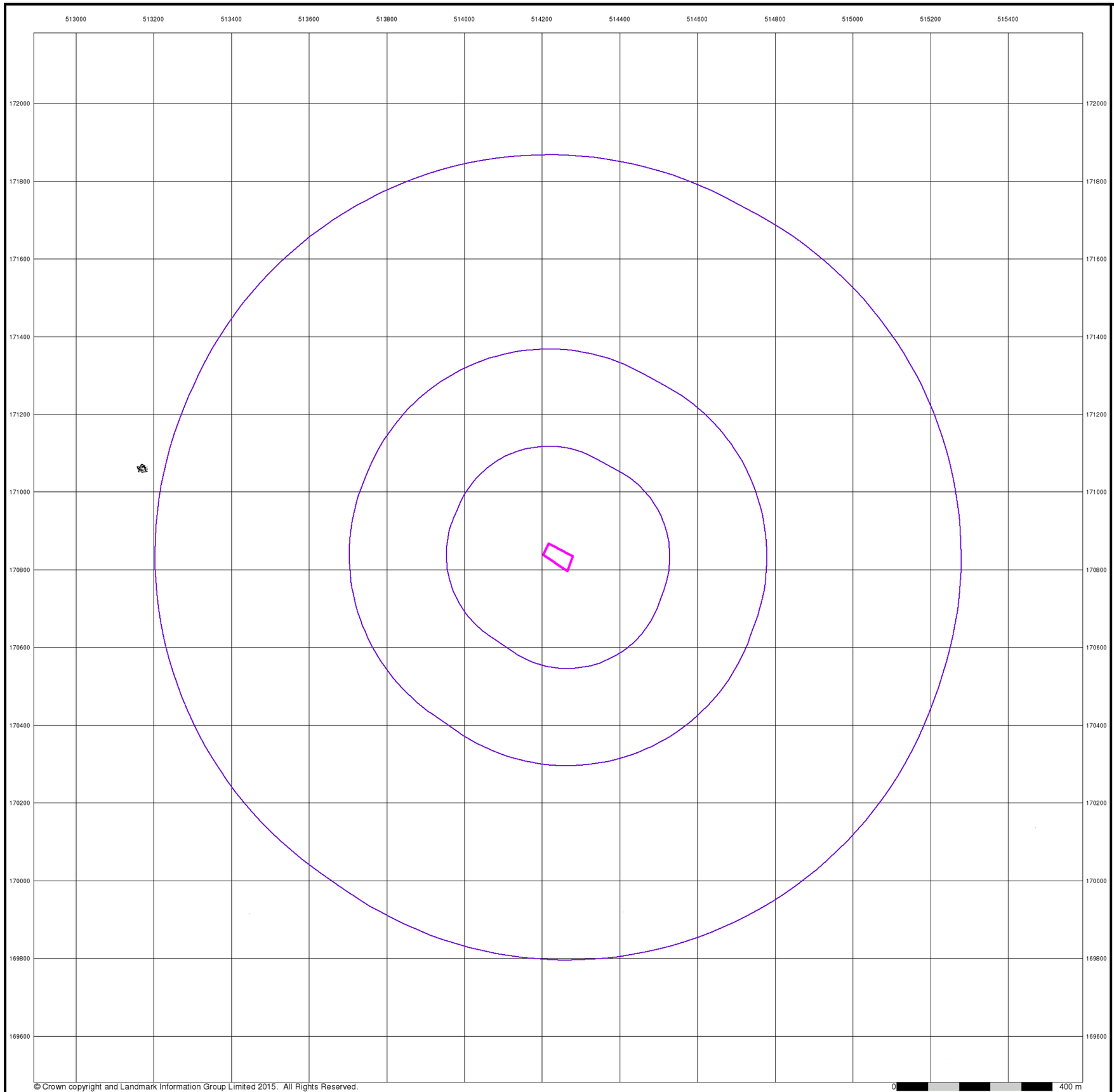

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Surrey

Published 1871

Source map scale - 1:10,560

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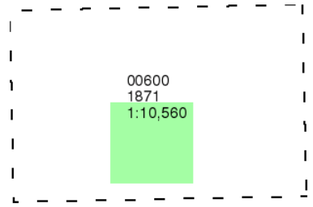
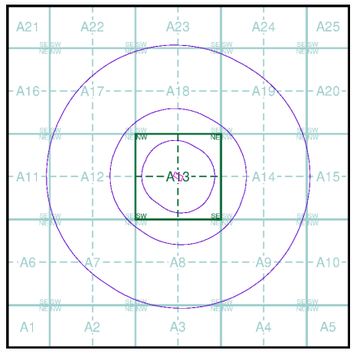
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	85332498_1_1
Customer Ref:	SL05030
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Slice:	A
Site Area (Ha):	0.27
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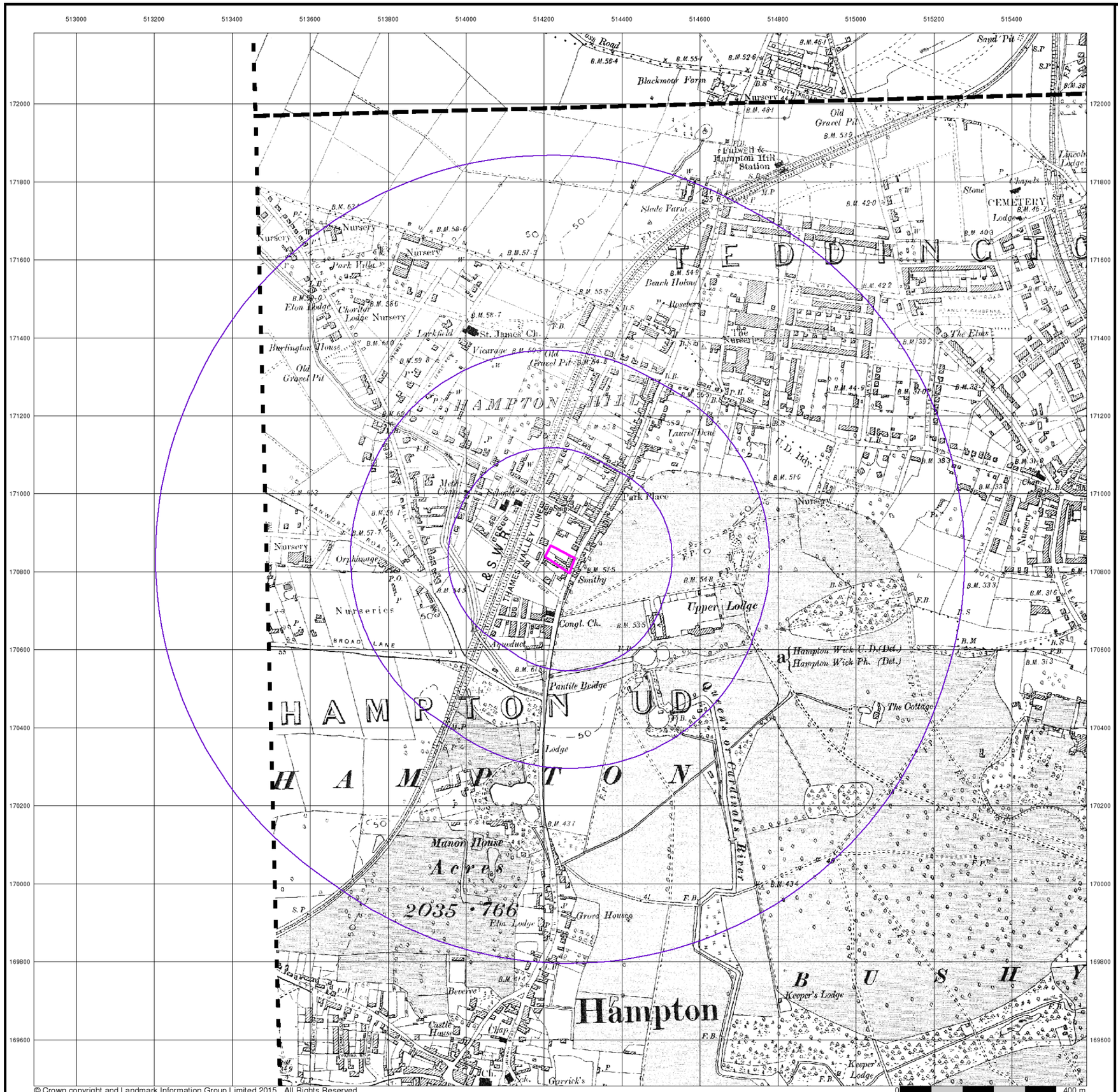

Envirocheck®

London

Published 1896

Source map scale - 1:10,560

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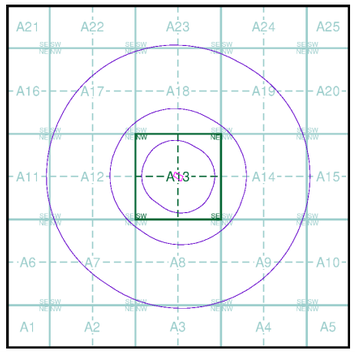
Map Name(s) and Date(s)

009SE
1896
1:10,560

013NE
1896
1:10,560

Historical Map - Slice A



Order Details

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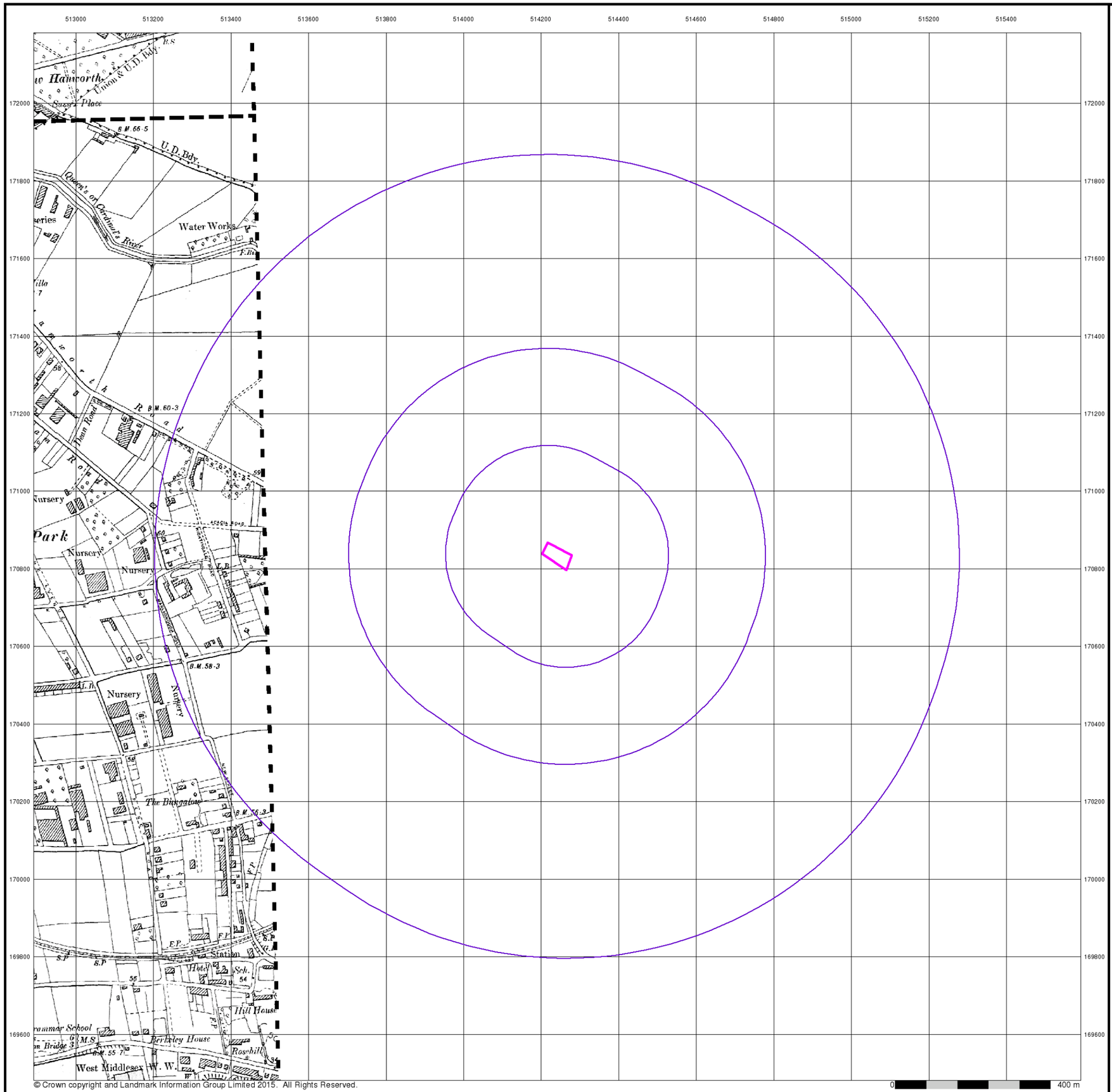

Envirocheck®

Middlesex

Published 1897

Source map scale - 1:10,560

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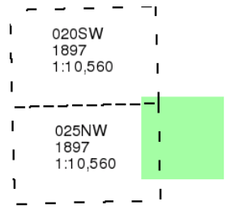
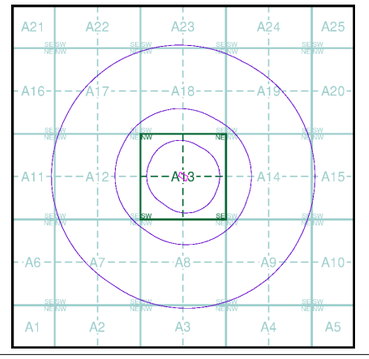


Historical Map - Slice A



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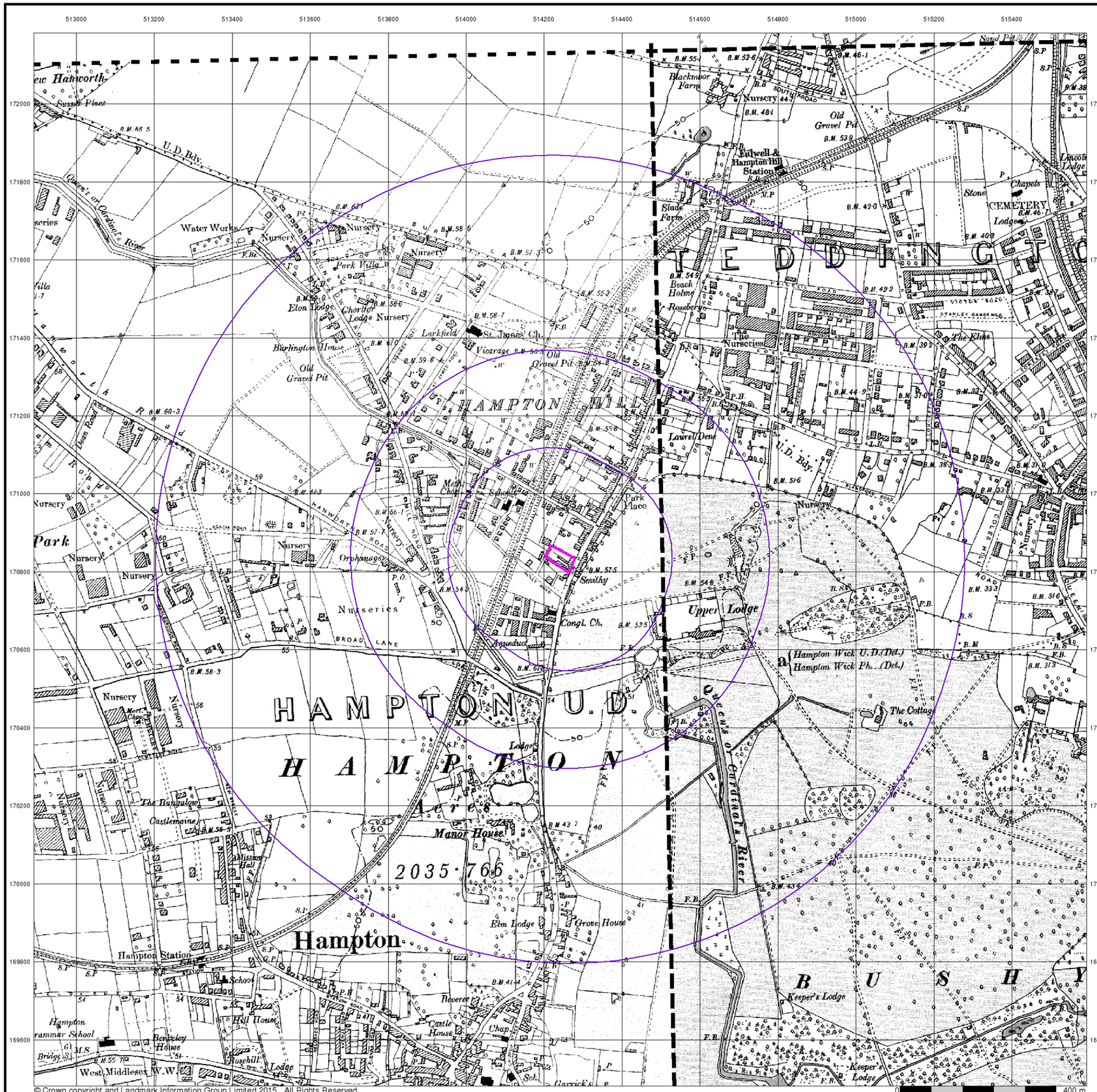

Envirocheck®

Surrey

Published 1898 - 1899

Source map scale - 1:10,560

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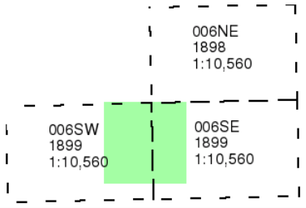
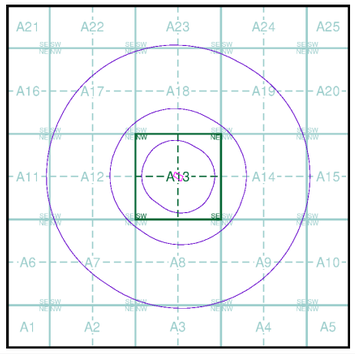


Historical Map - Slice A



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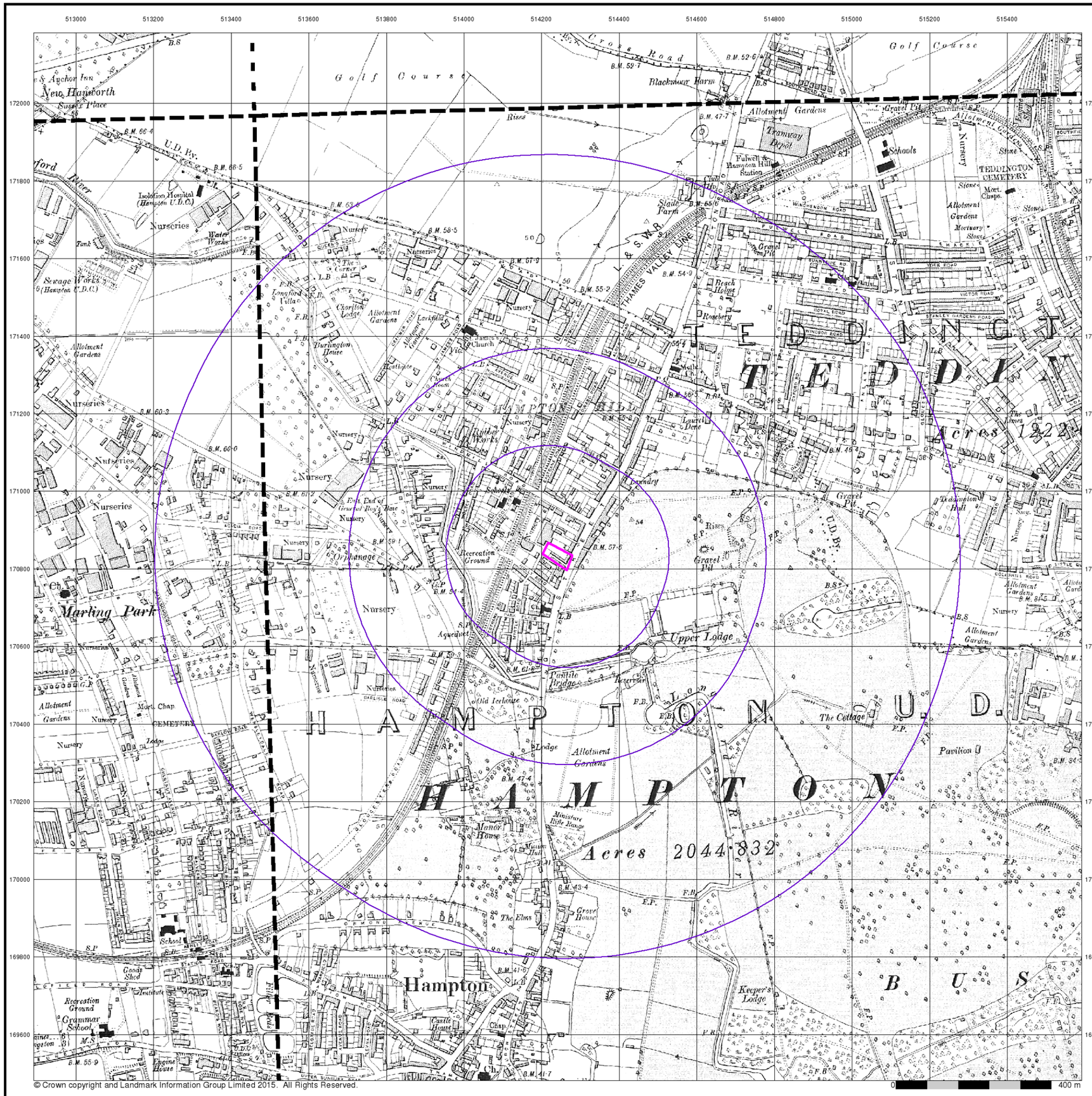

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Middlesex

Published 1920

Source map scale - 1:10,560

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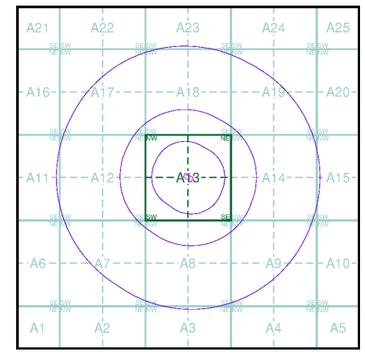
Map Name(s) and Date(s)

020SW 1920 1:10,560	020SE 1920 1:10,560
025NW 1920 1:10,560	025NE 1920 1:10,560

Historical Map - Slice A



Order Details

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Slice:	A
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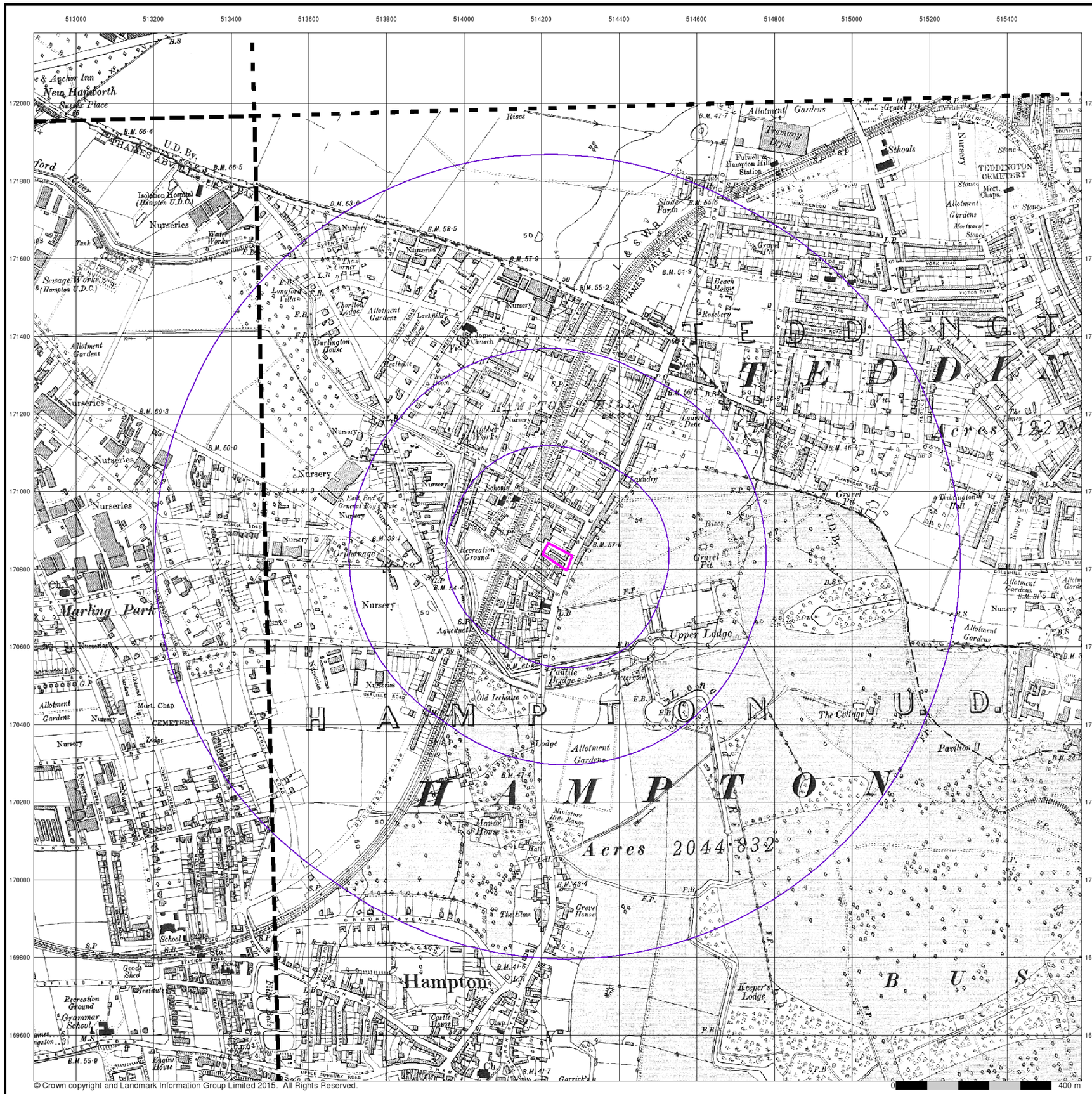

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Middlesex

Published 1920

Source map scale - 1:10,560

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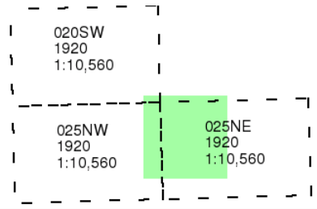
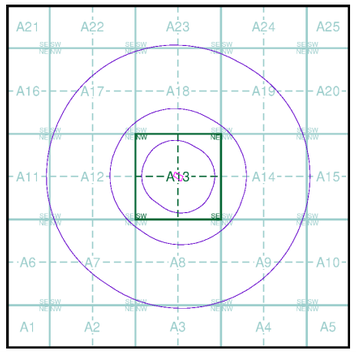


Historical Map - Slice A



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