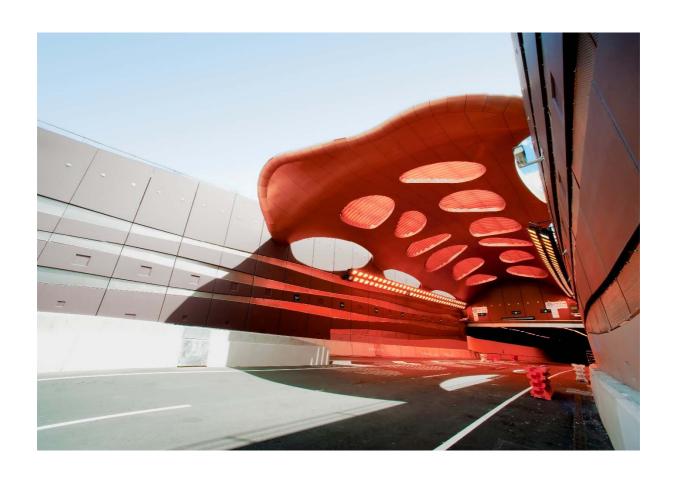
Appendix I

CONTAMINATED LAND DESK STUDY

GREAT YARMOUTH 3RD CROSSING INTERPRETATIVE ENVIRONMENTAL DESK STUDY REPORT







GREAT YARMOUTH 3RD CROSSING INTERPRETATIVE ENVIRONMENTAL DESK STUDY REPORT

FIRST ISSUE

62240375 6TH JULY 2017

WSP

WSP.COM

QUALITY MANAGEMENT

ISSUE/REVISION	FIRST ISSUE	REVISION 1	REVISION 2	REVISION 3
Remarks				
Date	July 2017			
Prepared by	Neil Balderstone			
Signature				
Checked by	Dave Watts			
Signature				
Authorised by	Dave Watts			
Signature				
Project number	62240375			
Report number	62240375-016-R01			
File reference				

SIGNATURES



Neil Balderstone Senior Environmental Geologist

REVIEWED BY



Dave Watts
Principal Environmental Consultant

This report was prepared by WSP Ltd for the account of Norfolk County Council, in accordance with the professional services agreement. The disclosure of any information contained in this report is the sole responsibility of the intended recipient. The material in it reflects WSP's best judgement in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. WSP Ltd accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. This limitations statement is considered part of this report.

The original of the technology-based document sent herewith has been authenticated and will be retained by WSP for a minimum of ten years. Since the file transmitted is now out of WSP's control and its integrity can no longer be ensured, no guarantee may be given to by any modifications to be made to this document.



TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Terms of Reference	1
1.2	Development Proposals / Legislative Context	1
1.3	Scope of Report	1
0	DECK CTUDY DECEMBER	0
2	DESK STUDY RESEARCH	
2.1	Site Location	
2.2	Site Setting and Description	2
2.3	Adjacent Land Use	2
2.4	Environmental Designations and Ecology	3
2.5	Site History	3
2.5.1	Eastern Site Area	3
2.5.2	Western Site Area	3
2.6	Geology	3
2.6.1	Superficial	3
2.6.2	Solid	4
2.6.3	Ground Workings	4
2.6.4	BGS Boreholes	4
2.7	Hydrogeology	5
2.8	Hydrology	5
2.9	Waste Management Facilities	6
2.10	Environmental Permits, Incidents and Registers	6
2.10.1	Part A(1) And IPPC Authorised Activities	6
2.10.2	List 2 Dangerous Substances Inventory Sites	7
2.10.3	Part A(2) and Part B Activities and Enforcements	7
2.10.4		
2.10.4	Licensed Discharge Consents	7
2.10.4	Water Industry Referrals	7 7
2.10.5 2.10.6	Water Industry Referrals Planning Hazardous Substance Consents and Enforcements	7 7
2.10.5 2.10.6 2.10.7	Water Industry Referrals Planning Hazardous Substance Consents and Enforcements COMAH and NIHHS Sites	7 7 7
2.10.5 2.10.6	Water Industry Referrals Planning Hazardous Substance Consents and Enforcements	7 7 7
2.10.5 2.10.6 2.10.7	Water Industry Referrals Planning Hazardous Substance Consents and Enforcements COMAH and NIHHS Sites	7 7 7 7
2.10.5 2.10.6 2.10.7 2.10.8	Water Industry Referrals Planning Hazardous Substance Consents and Enforcements COMAH and NIHHS Sites National Incidents Recording System, List 2	7 7 7 8
2.10.5 2.10.6 2.10.7 2.10.8 2.11	Water Industry Referrals Planning Hazardous Substance Consents and Enforcements COMAH and NIHHS Sites National Incidents Recording System, List 2 Natural Ground Hazards	7 7 7 8 8



2.15	Unexploded Ordnance	9
2.16	Existing Reports	9
2.17	Buried Services	9
3	PRELIMINARY ASSESSMENT	10
3.1	Ground Model	10
3.2	Potential Contaminant Linkages	10
3.2.1	Potential Sources	10
3.2.2	Potential Receptors	11
3.2.3	Potential Pathways	11
3.3	Risk Evaluation	12
3.4	Potential Waste and Sustainability Considerations	13
3.5	Safety, Health and Environmental Considerations	13
4	CONCLUSIONS	14
4.1	Key Findings	14
5	RECOMMENDATIONS	15
5.1	Ground Investigation	15
5.2	Urgent Actions	15
6	LIMITATIONS	16
RIRI	IOGRAPHY	17



TABLES

2	SUMMARY OF ADJACENT LAND USES	TABLE 2.1
	SUMMARY OF NATURAL GROUND	TABLE 2.2
8	HAZARDS	
10	POTENTIAL SOURCES	TABLE 3.1
11	POTENTIAL RECEPTORS	TABLE 3.2
11	POTENTIAL PATHWAYS	TABLE 3.3
	SUMMARY OF POTENTIAL	TABLE 3.3
12	CONTAMINANT LINKAGES	

DRAWINGS

62240375/016/01. SITE LOCATION.

62240375/016/02. STUDY AREA BOUNDARY.

APPENDICES

- A PHOTOS
- **B** GROUNDSURE REPORT
- C SITE HISTORY
- D ZETICA UXO RISK
- E RISK CLASSIFICATION MATRICES

1 INTRODUCTION

1.1 TERMS OF REFERENCE

WSP Ltd were commissioned by Norfolk County Council (NCC) to prepare an Interpretative Environmental Desk Study in relation to the proposed Great Yarmouth Third Crossing. This report assesses the potential environmental risks, constraints and liabilities associated with the proposed development.

1.2 DEVELOPMENT PROPOSALS / LEGISLATIVE CONTEXT

The site will be subject to redevelopment works which will include a new bridge and associated highways and new junction arrangements.

The presence of contaminants which may pose a risk to human health or the environment is a material planning consideration. For planning it should be considered whether the site is suitable for its new use, and the responsibility for securing a safe development (including cumulative effects of pollution on health, and the potential sensitivity of the proposed development to adverse effects from pollution), rests with the developer and/or landowner. Planning is concerned with the site's proposed use not its current use.

Section 57 of the Environment Act 1995, adds Part 2A (ss.78A-18YC) to the Environmental Protection Act 1990 and contains the legislative framework for identifying and dealing with contaminated land. Where development is undertaken on land which may be affected by contamination, the National Planning Policy Framework, paragraphs 120 to 122 considers pollution and remediation.

1.3 SCOPE OF REPORT

The objective of this study is to assess the potential environmental risks, constraints and liabilities associated with the site in respect of potential redevelopment.

The scope of work comprises:-

- A site walkover undertaken by a suitably qualified Geo-Environmental Scientist,
- An interpretation of the information obtained from a Groundsure Report,
- A preliminary assessment of potential geo-environmental risks following the methodology of CLR11,
- Recommendations for further investigation/actions if required.

2 DESK STUDY RESEARCH

2.1 SITE LOCATION

The irregular shaped site is located either side of the River Yare, immediately south of Great Yarmouth town centre. The site is bounded to the north by Boundary Road and Newcastle Road, to the east by Exmouth Road and Admiralty Road, to the south by Swanston's Road and Alpha Road, and to the west by Harfrey's Road.

The site area covers approximately 43ha and is centered on National Grid reference 652320, 306005.

Drawing 62240375/016/OD/01 presents the site location and Drawing 62240375/016/OD/02 presents the study area boundary.

It should be noted that the study area boundary for this report covers a wider area than that indicated on Drawing 62240375/016/OD/02. This is to encompass a suitable Rochdale Envelope in the early stages of the project and will be refined as necessary as the project progresses.

2.2 SITE SETTING AND DESCRIPTION

A site walkover was undertaken by a qualified WSP Geo-Environmental Engineer on 12th July 2017. Photographs and a photograph location plan are presented in Appendix A.

The flat site is split into two unequal parts by the River Yare which flows from north to south through the site.

The eastern part of the site is densely developed, predominantly with commercial / industrial properties including oil / gas storage sites, an operating port facility with associated hard standing and warehouses / depots. Other uses include residential properties (predominantly in the northern part of the area), a petrol filling station and car dealership.

The western part of the site includes a hard standing quayside, the major A12 dual carriageway, William Adams Way highway, residential properties, commercial properties including car and caravan sales, a petrol station, oil and gas storage facilities, docks and port facilities; military properties (air training corps), community facilities and public open space and allotments.

No invasive species were noted during the walkover, however the survey was not undertaken by a trained ecologist.

2.3 ADJACENT LAND USE

The table below summarises the adjacent land uses.

Table 2.1 Summary of Adjacent Land Uses

Direction	Surrounding Land Use
North	Predominantly commercial / industrial with some residential properties on the west side of the river and predominantly residential properties with a few commercial properties on the east side of the river.
East	Predominantly residential properties with occasional commercial properties and a community centre.
South	Commercial / industrial properties on the east side of the river and residential properties, commercial properties and a recreation ground on the west side of the river.
West	Commercial / industrial properties.

2.4 ENVIRONMENTAL DESIGNATIONS AND ECOLOGY

The site is wholly located within a nitrate vulnerable zone. Two other environmentally sensitive areas are located within 500m of the site:-

- Outer Thames Estuary, 465m to the east,
- Broads, 392m to the west,

2.5 SITE HISTORY

The on-site history has been assessed from a review of historical Ordnance Survey maps from the GroundSure report presented in Appendix B. A summary is presented below. A more detailed site history, including the adjacent and surrounding land is presented in Appendix C.

For simplicity, the site has been split into two areas – east of the River Yare and west of the River Yare.

2.5.1 EASTERN SITE AREA

The earliest map provided by GroundSure dated 1883 indicates the eastern area of the site to be densely developed predominantly with commercial / industrial properties including a gasworks, boat building yard and an icehouse. Some residential properties were marked but generally the area is dominated by industry. This eastern area of the site has generally remained a commercial / industrial area up to the present day. Various industries have been present including fish canning, oilskin production, chemical factory and unspecified depots, warehouses and factories.

2.5.2 WESTERN SITE AREA

The earliest map provided by GroundSure dated 1883 indicates the western area of the site to be less developed than the eastern area. The majority of the development was present adjacent to the River Yare and comprised a mix of residential properties and commercial / industrial sites such as an iron works, rope walk, gas works and malthouses. Beyond, towards the western boundary was agricultural land.

By 1906, a railway line running north south was constructed towards the western boundary and by 1926 / 1927, formal gardens and allotments are present towards the centre of the site. A shoe factory is marked adjacent to Queen Anne's Road in 1949 and by 1966 is relabelled as a printing works.

By 1978 the railway line had been dismantled and commercial / industrial units had started to be developed in the far west of the site and beyond. By 1988 the former rail route had started to be redeveloped as a dual carriageway and by 2002 the current major highway routes had been established.

2.6 GEOLOGY

2.6.1 SUPERFICIAL

The British Geological Survey website (www.bgs.ac.uk) indicates the site is underlain by a variety of superficial deposits;-

- South west peat of the Breydon Formation,
- North clay and silt of the Breydon Formation,
- Eastern part beyond the River Yare sand and gravel of the North Denes Formation.
- Within the River Yare Clay and silt tidal river or creek deposits.

2.6.2 SOLID

The British Geological Survey website (www.bgs.ac.uk) indicates the bedrock underlying the site is sand and gravel of the Crag Group.

2.6.3 GROUND WORKINGS

GroundSure records a number of historical ground workings on site, all associated with the quay /wharf immediately adjacent to the River Yare.

2.6.4 BGS BOREHOLES

GroundSure records 107 borehole records within the site boundary but some are confidential and cannot be viewed on the BGS website – www.bgs.ac.uk. A summary of the locations within the likely route corridor is presented below.

Table 2.2 Table 1 - Example

BOREHOLE

REF	LOCATION	SUMMARY
TG50NW27	Close to junction between William Adams Way and Suffolk Road.	Made ground to 2m depth overlying silt, sand and clay.
TG50NW164	Close to junction between William Adams Way and Suffolk Road.	Ash fill to approximately 4ft 6' depth overlying clay (with peat layers) sand and gravel.
TG50NW429	Close to junction between William Adams Way and Suffolk Road.	Fill to 1.05m depth overlying clay, sand, silt and peat.
TG50NW26	Close to junction between William Adams Way and Suffolk Road.	Made ground to 1,2m depth overlying silt, sand, clay (with peat) and gravel.
TG50NW185	Close to junction between William Adams Way and Suffolk Road.	Made ground to approximately 1ft depth overlying clay, silt, sand, peat and gravel.
TG50NW28	Close to junction between William Adams Way and Suffolk Road.	Topsoil overlying clay, peat and sand.
TG50NW472	William Adams Way close to A12 roundabout	Topsoil overlying clay, sand, silt and peat.
TG50NW29	Close to junction of Suffolk Road and Queen Annes Road.	Topsoil overlying clay, sand, silt and peat.
TG50NW184	Junction of Queen Annes Road and Suffolk Road.	Made ground to approximately 3ft 6 depth overlying clay, sand, silt, peat and gravel.
TG50NW4	Adjacent to Suffolk Road, north of Queen Annes Road	Made ground to 1.07m depth overlying clay, sand, silt, peat and gravel.
TG50NW582	Southtown Road, adjacent to the River Yare.	300mm thickness of asphalt and concrete over made ground to 2.2m depth. Underlying natural strata is sand and gravel,

BOREHOLE		
REF	LOCATION	SUMMARY

TG50NW587	Southtown Road, adjacent to the River Yare.	300mm thickness of asphalt and concrete over made ground to 3.0m depth. Underlying natural strata is silt, sand and gravel	
TG50NW581	Southtown Road, adjacent to the River Yare.	200mm thickness of asphalt and concrete over made ground to 2.2m depth. Underlying natural strata is sand and gravel.	
TG50NW586	Southtown Road, adjacent to the River Yare.	400mm thickness of asphalt and concrete over made ground to 2.2m depth. Underlying natural strata is silt (with peat), sand and gravel	
TG50NW368	Quayside on the eastern side of the River Yare.	180mm thickness of reinforced concrete over made ground to 1.2m depth. Underlying natural strata is sand and silt.	
TG50NW342	Quayside on the eastern side of the River Yare.	300mm thickness of reinforced concrete over made ground to 6.6m depth. Underlying natural strata is sand and gravel.	
TG50NW344	Quayside on the eastern side of the River Yare.	300mm thickness of reinforced concrete over made ground to 1.0m depth. Underlying natural strata is sand and gravel.	

2.7 HYDROGEOLOGY

The superficial deposits underlying the site to the east of the River Yare are classified as a Secondary (A) Aquifer with permeable layers. These are defined by the Environment Agency as permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

The superficial deposits underlying the site to the west of the River Yare are classified as unproductive.

The underlying bedrock is classified as a Principal Aquifer. These are defined by the Environment Agency as layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale.

The GroundSure report indicates the site is not within a Source Protection Zone.

There are no groundwater abstraction points on site but there is one approximately 71m from the north-west corner;-

Licence no. AN/034/0015/020 expires in 2030 and is authorised for a maximum daily volume of 210m³ and an annual volume of 60,000m³. The abstraction is authorised for laundry use.

2.8 HYDROLOGY

The River Yare is the only watercourse recorded on site and within 500m of the site.

There are no active surface water abstraction licences within 2km of the site. There is one historical abstraction licence 443m to the north that expired in 2015 (licence no. AN/034/0015/013)

There are no potable water abstraction licences within 2km of the site.

2.9 WASTE MANAGEMENT FACILITIES

No active Environment Agency landfill sites are present within 1km of the site.

One historic Environment Agency landfill site is present within 1km of the site;-

Site reference WD709a, approximately 451m to the west. Licenced to accept inert, industrial, commercial
and household waste and operated by Great Yarmouth Council. The last record of the site held by
GroundSure is dated 1974.

No BGS/DoE non-operational landfill sites are present within 1km of the site.

No Local Authority recorded landfill sites within 1km of the site.

GroundSure records one Environment Agency licensed waste site onsite and eight sites within 250m (although there are multiple records for each);-

- On site (south west corner) waste management licence 71429; EA/EPR/CP3094NZ/V003. Household, commercial and industrial waste transfer station for between 25,000t and 75,000t, operated by Thurtle Walter.
- 13m from the south west corner waste management licence 71417; EA/EPR/FP3394NJ/A001.
 Household, commercial and industrial waste transfer station for less than 25,000t, operated by Folkes Plant and Aggregate Ltd.
- 53m from the south west corner waste management licence 70532; EA/EPR/YP3229NB/A001. Special waste transfer station for greater than 75,000t, operated by Paul Clements.
- 108m from the south east corner waste management licence 71491; EA/EPR/AB3801UE/S002.
 Asbestos waste transfer station. Licence surrendered in 2016.
- 150m from the south west corner waste management licence 103802; EA/EPR/EB3535AM/V002. Inert and excavation waste transfer and treatment for less than 25,000t, operated by E E Green and Son Ltd.
- 163m from the north west corner waste management licence 70505; EA/EPR/KP3898VU/V002. Special waste transfer station for less than 25,000t, operated by Biffa Waste Services Ltd.
- 183m from the north west corner waste management licence 70536; EA/EPR/YP3799NF/V002. Special waste transfer station for less than 25,000t, operated by C+L Waste Oil Collection.
- 229m from the north west corner waste management licence 70535; EA/EPR/YP3199NQ/S004. Special waste transfer station. Licence surrendered in 2007.

2.10 ENVIRONMENTAL PERMITS, INCIDENTS AND REGISTERS

Records of active environmental permits or registers on site and within 250m are detailed below.

2.10.1 PART A(1) AND IPPC AUTHORISED ACTIVITIES

No records on site, but there are three active records within 250m each with multiple entries;-

- 167m from the north west corner Great Yarmouth Wm Resource Centre, EPR/zp3637rm. Operated by Augean North Sea Services Ltd. Records are present for three different processes disposal or recovery of hazardous waste; disposal of greater than 50t / day of non-hazardous waste involving physio-chemical treatment; and temporary storage of hazardous waste.
- 187m from the northern boundary Great Yarmouth Oil Reclaimation Facility, EPR/np3038mb, WP3437RY. Operated by C&L Waste Oil Collection. Records are present for two different processes disposal or recovery of hazardous waste; and temporary storage of hazardous waste.

2.10.2 LIST 2 DANGEROUS SUBSTANCES INVENTORY SITES

No active records on site but one active record within 250m of the site is reported by GroundSure:-

44m from the north west corner – UK Waste Management Ltd, authorised for chromium, copper, lead, nickel, zinc discharged to the North Sea.

2.10.3 PART A(2) AND PART B ACTIVITIES AND ENFORCEMENTS

Three current permits are recorded on site and five current permits within 250m of the site;-

- Part B permit L J Steward for unloading of petrol into storage at service station, South Quay Service Station Southgate Road.
- Part B permit L J Steward for unloading of petrol into storage at service station, Southtown Road Service Station Southtown Road.
- Part B permit CEBO (UK) Ltd for use of bulk cement at Gas House, Quay North, Malthouse Lane.
 There are a further five permits within 250m for various processes use of bulk cement (4 permits) and one permit for 'other metal process'.

2.10.4 LICENSED DISCHARGE CONSENTS

There are four active consents on sites for discharge to the River Yare and three consents within 250m of the site for discharge to the River Yare. A number of on and offsite revoked records are reported by GroundSure but these are not listed here.

- Three onsite records relate to water company discharge sewage discharge from storm overflow (two records) and sewage discharge pumping station (one record).
- One onsite record relates to a trade discharge for site drainage (contaminated surface water).
- Two offsite records 41m east and 189m south east relate to sewage discharge for final / treated effluent (not water company related).
- One offsite record 203m to the south east relates to water company sewage discharge from storm overflow.

2.10.5 WATER INDUSTRY REFERRALS

Two on site records (Weatherford UK Ltd and Great Yarmouth Port Company) and two offsite records within 250m (Total Reclaim Systems Ltd 13m south east and Biffa Waste Services Ltd 167m north) are reported by GroundSure.

2.10.6 PLANNING HAZARDOUS SUBSTANCE CONSENTS AND ENFORCEMENTS

One approved record is reported on site for Transco Plc. No further details are provided.

2.10.7 COMAH AND NIHHS SITES

There are two on site records and one off site record;-

- British Gas historical NIHHS site located on the east side of the site.
- Asco UK Ltd current COMAH site located on site close to the southern boundary adjacent to the River Yare.
- Asco UK Ltd current COMAH site located 15m to the south adjacent to the east bank of the River Yare.

2.10.8 NATIONAL INCIDENTS RECORDING SYSTEM, LIST 2

Three on site pollution incidents and one off site incident within 250m are recorded;-

- The three on site incidents related to pollution from food and drink minor water impact), inorganic chemical or product (no impact) and tyres (minor land impact).
- The offsite incident was 230m to the south and related to solvents (minor air impact).

2.11 NATURAL GROUND HAZARDS

The table below summarises the natural ground subsidence findings presented in the GroundSure report.

Table 2.3 Summary of Natural Ground Hazards

Natural Hazard Hazard Potential

Shrink Swell Clay	Negligible – majority of the site. Low – narrow corridor in the centre of the site associated with the River Yare.
Landslides	Very Low
Dissolution of Soluble Rocks	Negligible
Compressible Ground	Very Low – majority of the site. Moderate - narrow corridor in the centre of the site associated with the River Yare. Negligible – far eastern part of the site. High – Two distinct areas on the southern boundary to the west of the River Yare.
Collapsible Deposits	Negligible
Running Sand	Very Low - majority of the site. Moderate – narrow corridor in the centre of the site associated with the River Yare.

2.12 MINING, EXTRACTION AND NATURAL CAVITIES

The site is not in an area likely to be affected by historical mining, coal mining, non-coal mining, natural cavities, brine extraction, gypsum extraction, tin mining or clay mining.

2.13 RADON

The GroundSure report indicates the site is not in a radon affected area and any new buildings if required as part of the proposed development do not require radon protection measures.

2.14 PART 2A DETERMINATION

GroundSure does not record any sites determined as contaminated land under Part2A of the Environmental Protection Act 1990.

2.15 UNEXPLODED ORDNANCE

A review of the potential for unexploded ordnance (UXO) has been obtained from Zetica Ltd and is presented in Appendix D. The assessment indicates the Great Yarmouth area is a high bomb risk.

2.16 EXISTING REPORTS

WSP Ltd have not been made aware of any existing reports within the study area related to contaminated land.

2.17 BURIED SERVICES

A review of buried services is beyond the scope of this report but it should be noted that given the dense development history of the site, buried and overhead services are highly to be present. Any intrusive works undertaken in this area must take precautions to avoid contacting / damaging any services.

3 PRELIMINARY ASSESSMENT

3.1 GROUND MODEL

The site is generally level and densely developed. Published geology indicates superficial deposits comprise peat (south west), clay and silt (north), sand / gravel (east) and clay / silt tidal river / creek deposits within the River Yare. Bedrock underlying the site is sand and gravel of the Crag Group.

Historical mapping indicates the eastern half of the site, particularly the areas either side of the River Yare have been developed by industry since at least 1883. Some residential properties have been present and the far western area was developed later compared to the eastern part of the site. Identified historical industry includes 3 gasworks, boat building, icehouse, iron works, railways, malthouses, rope walk, saw mill / timber yard, allotments, oilskin works, fish caning, various unspecified depots, warehouses and factories, numerous unspecified sites with tanks, shoe factory and printing works. Many of these historical uses could have resulted in potentially significant sources of contamination being present.

3.2 POTENTIAL CONTAMINANT LINKAGES

3.2.1 POTENTIAL SOURCES

The table below summarises the potential sources of contamination.

Table 3.1 Potential Sources

Ref.	Primary Source	Expected Distribution	Likely Contaminants
S1	Potentially Contaminated Made Ground	Made ground is expected site wide, but contamination is likely to be in discontinuous pockets associated with differing historic industrial uses.	Heavy metals, asbestos, hydrocarbons, polychlorinated biphenyls, organotins and organochloride pesticides, ammonia, polyaromatic hydrocarbons, volatile and semivolatile organic compounds.
S2	Potentially Contaminated Silt	Within the River Yare or immediately adjacent within the historic quayside area. Potential for mobilisation during the construction works or scoured due to changes in waterflow post construction.	Heavy metals, organotins, polychlorinated biphenyls, hydrocarbons, organochloride pesticides, ammonia, polyaromatic hydrocarbons, volatile and semivolatile organic compounds.

3.2.2 POTENTIAL RECEPTORS

The table below details the potential receptors.

Table 3.2 Potential Receptors

Ref.	Receptor	Description
R1	Site users	Pedestrians and maintenance workers
R2	Adjacent site users	Residents (including children) and users of nearby properties (visitors and employees)
R3	Controlled waters	Principal and Secondary (A) aquifers and surface watercourses
R4	On site infrastructure / ecology	Buildings, foundations, buried services and ecology (eg trees and plants in landscaping areas)
R5	Marine ecology	Vertebrates and invertebrates within the River Yare and the adjacent sea.

3.2.3 POTENTIAL PATHWAYS

The table below details the potential pathways.

Table 3.3 Potential Pathways

Ref.	Pathway	Description
P1	Direct contact	Soil contaminants could come into direct contact with the site users.
P2	Ingestion	Soil derived contaminants could be ingested.
P3	Inhalation of fugitive dust	During dry dusty conditions, contaminated dust could be inhaled by site users and adjacent site users.
P4	Leaching and vertical / lateral migration of contaminants	Contaminants could leach and migrate into the underlying aquifers and the surface watercourse including as a result of construction activities such as piling.
P5	Migration and inhalation of landfill / ground gas	Ground / landfill gas could be generated by fill materials

3.3 RISK EVALUATION

Each potential contaminant linkage is identified in Table 3.3 below. This assumes redevelopment with no remediation. An evaluation of the risk that each contaminant linkage poses to the project has been undertaken in general accordance with CIRIA guidance document C552, 2001. Risk classification matrices are presented in Appendix D.

The evaluation and the resultant actions identified are based on the available information presented within this report. Once the final design is known it may be necessary to review the risk evaluation.

During development, there is a potential for short term risk to construction workers and the general public. These should be assessed and mitigated by the construction Con tractor under the CDM 2015 Regulations.

The table below details the potential pathways.

Table 3.4 Summary of Potential Contaminant Linkages

1. Hazard Identification	2. Hazard Assessment				4. Risk Evaluation	5. Managing the Risks
CONTAMINANT SOURCE	RECEPTOR	PATHWAY	CONSEQUENCE OF RISK BEING REALISED	PROBABILITY OF RISK BEING REALISED	CLASSIFICATION	DISCUSSION / ACTION REQUIRED
		P1. Direct Contact	Medium	Unlikely	Low	
		P2. Ingestion	Medium	Unlikely	Low	
	R1. Site Users	P3. Inhalation Of Fugitive Dust	Medium	Low	Moderate	
		P5. Migration And	Minor	Unlikely	Very Low	
	R2. Adjacent	Landfill / Ground Gas	Minor	Unlikely	Very Low	
S1. Potentially	Site Users	P3. Inhalation Of Fugitive Dust	Medium	Low	Moderate	From the previous uses across the site, an environmental ground investigation is considered necessary and is likely to be required by the Planners. It may be possible to incorporate this into any
Contaminated Made Ground	R3. Controlled Waters	P4. Leaching And Vertical / Lateral Migration Of Contaminants	Severe	Likely	High	
	R4. Site Infrastructure	P1. Direct Contact	Mild	Likely	Moderate / Low	
	R5. Marine Ecology		Severe	Likely	High	geotechnical investigation to assess ground
		P2. Ingestion	Severe	Likely	High	conditions for foundation design, which may
		P4. Leaching And Vertical / Lateral Migration Of Contaminants	Severe	Likely	High	reduce costs.
S2. Potentially Contaminated Silt	R3. Controlled Waters	P4. Leaching And Vertical / Lateral Migration Of Contaminants	Severe	Likely	High	
	R4. Site Infrastructure	D4 Diment Contact	Mild	Low	Low	
	R5. Marine Ecology	P1. Direct Contact	Severe	Likely	High	

	P2. Ingestion	Severe	Likely	High
	P4. Leaching And Vertical / Lateral Migration Of Contaminants	Severe	Likely	High

3.4 POTENTIAL WASTE AND SUSTAINABILITY CONSIDERATIONS

The site is proposed to be redeveloped for a new bridge and associated highway. Detailed designs are not available at this stage, but surplus soils may be generated during the redevelopment works. It is possible that these would need to be disposed of offsite to a suitably licensed facility if they cannot be proven to meet the requirements for re-use within the development under a Materials Management Plan.

3.5 SAFETY, HEALTH AND ENVIRONMENTAL CONSIDERATIONS

With respect to any proposed ground investigation, the site should be classified in accordance with the SISG "Guideline Notes for the Safe Investigation by Drilling of Landfills and Contaminated Land". This document makes recommendations for carrying out site investigation on landfills and potentially contaminated ground. Appendix IV of the guidance sets out a record of assessment for potentially contaminated sites, to be completed as part of the ground investigation contract.

Site personnel involved with any intrusive works, including site investigations or maintenance works should be appropriately qualified with experience of working on potentially contaminated sites. Those working in close proximity to fill materials should wear appropriate personal protective equipment. A reasonable standard of hygiene should be maintained.

4 CONCLUSIONS

4.1 KEY FINDINGS

The desk study has indicated that the site was reasonably well developed by the late 1800's with some residential properties but mostly commercial / industrial development, particularly the area immediately bounding the River Yare.

The site is expected to be underlain by demolition and fill material which could be contaminated. Ground gas / landfill gas may be generated by the fill material and could migrate to impact adjacent site users and infrastructure.

From the information reviewed above, contaminated made ground is expected but is unlikely to be sufficiently contaminated or sufficiently widespread to pose a significant constraint for an infrastructure project such as this.

Due to the potential for contaminated made ground and / or silts to be present on site derived from a variety of former industrial uses, the potential for environmental liabilities are considered to be; **high** for controlled waters and marine ecology receptors and in the range **Moderate** to **Very Low** for site users, adjacent site users and infrastructure receptors. The high risks are associated with the controlled waters and marine ecology receptors. It is unknown if remedial works have occurred during redevelopment at any of the potentially contaminative sites such as the iron works or the gas works and this could reduce the potential for environmental liabilities.

5 RECOMMENDATIONS

5.1 GROUND INVESTIGATION

A ground investigation is likely to be required to inform the Environmental Statement, the planning process and outline / detailed design. It is possible that, to reduce costs, works could be incorporated into a geotechnical investigation for foundation design. The ground investigation should include sampling and chemical testing of the major strata encountered including the silts within the Lake.

Any intrusive works must take into account the likelihood that asbestos and / or unexploded ordnance may be encountered.

5.2 URGENT ACTIONS

No urgent actions are considered necessary.

6 LIMITATIONS

Only publically accessible areas were assessed during the walkover.

This report is presented to Norfolk County Council in respect of the proposed Great Yarmouth and may not be used or relied on by any other person or by the client in relation to any other matters not covered specifically by the scope of this Report.

Notwithstanding anything to the contrary contained in the report, WSP Limited is obliged to exercise reasonable skill, care and diligence in the performance of the services required by Norfolk County Council and WSP Limited shall not be liable except to the extent that it has failed to exercise reasonable skill, care and diligence, and this report shall be read and construed accordingly.

This report has been prepared by WSP Limited. No individual is personally liable in connection with the preparation of this report. By receiving this report and acting on it, the client or any other person accepts that no individual is personally liable whether in contract, tort, for breach of statutory duty or otherwise.

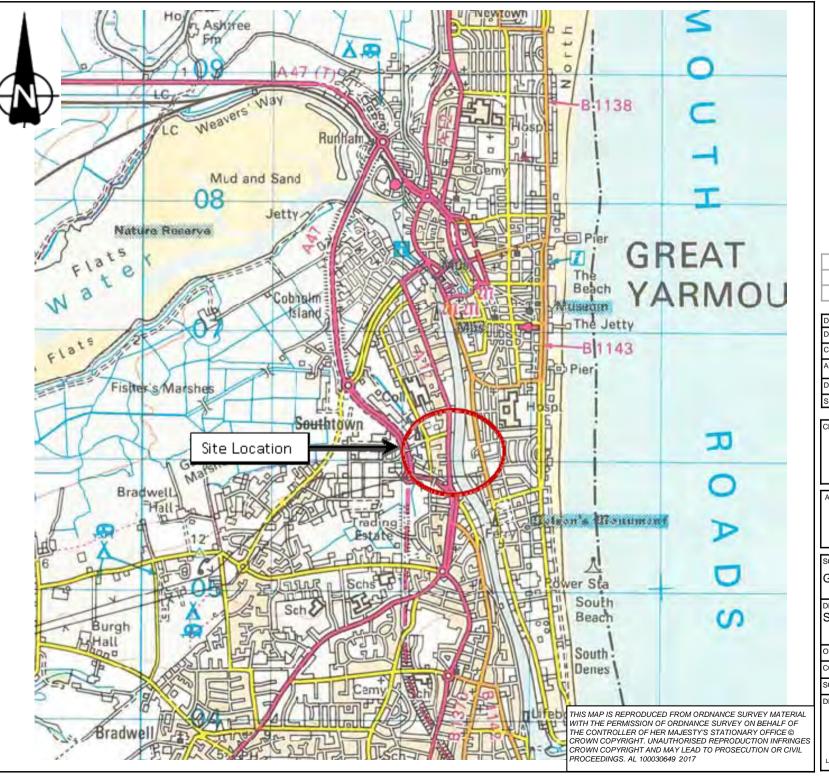
The brief includes an assessment of the previous site usage by review of the sources identified in this report. These effectively provide snapshots of the site through time and although a consistent sequence of site usage has been deduced from these records, the possibility of some activity carried out on the site not being identified on these records cannot be excluded.

New information, changed practices or new legislation may necessitate revised interpretation of the report after the date of its submission.

BIBLIOGRAPHY

- British Geological Survey, www.bgs.ac.uk.
- BS5930, 2015. Code of Practice for Site Investigations, BSI.
- BS10175, 2011. Code of Practice for the Investigation of Potentially Contaminated Sites, BSI.
- C552, 2001. Contaminated Land Risk Assessment, A Guide to Good Practice, CIRIA/DETR.
- Department for Environment, Food and Rural Affairs and the Environment Agency, 2004. Model procedures for the management of land contamination (CLR11).
- Environment Agency, 2006: Underground, Under Threat, Groundwater Protection: Policy and Practice.
- Environment Agency; https://www.gov.uk/government/organisations/environment-agency







REV	DETAILS	CHKD	APPD	DATE

DRAWN: NB	DRAWING STATUS	
DESIGN: JM	WORK IN PROGRESS	
CHKD: NB	PRELIMINARY DRAWING	
APPD: DW	EXTERNAL ISSUE	~
DATE: 24/7/17	AS-BUILT	
SUITABILITY		

CLIEN.



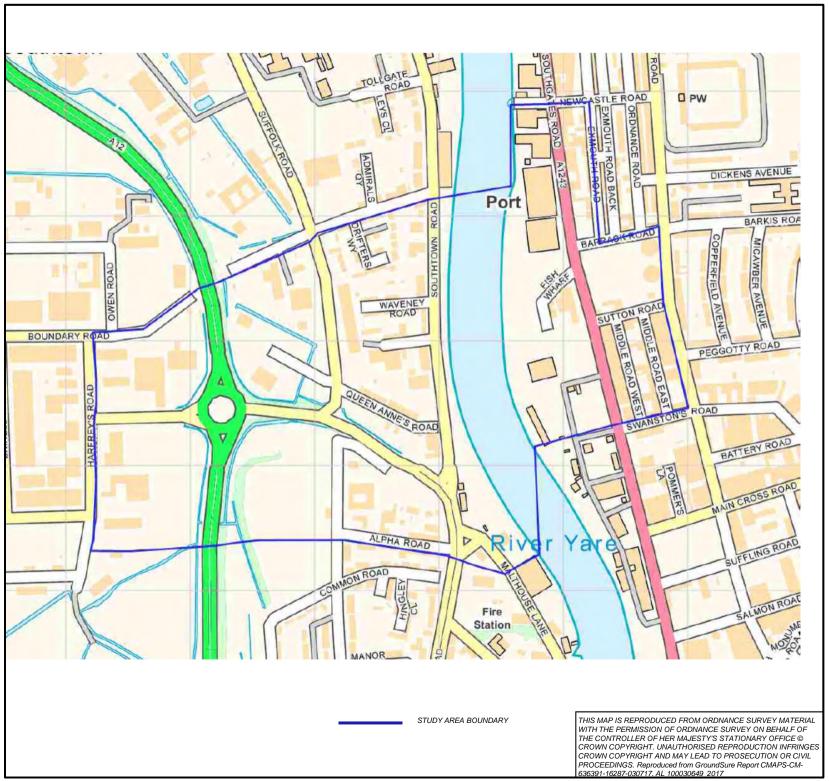
AGENT



Great Yarmouth Third Crossing

DRAWING TITLE
Site Location

Site Location						
ORIG DRAWI	NG SIZE: A3	DIMENSI	DIMENSIONS: m			
COPYRIGHT	©	SCALE: I	N/A			
SCHEME REF	SCHEME REF No. 62240375 REVISION					
DRAWING NU	JMBER		A			
PROJECT	ORIGIN	NATOR	VOLUME			
6223037	5 – WS	SP -	EA			
Α -	DR -	L	- 016/01			
LOCATION	TYPE	ROLE	NUMBER			





REV	DETAILS	CHKD	APPD	DATE

DRAWN: NB	DRAWING STATUS			
DESIGN: JM	WORK IN PROGRESS			
CHKD: NB	PRELIMINARY DRAWING			
APPD: DW	EXTERNAL ISSUE	✓		
DATE: 24/7/17	AS-BUILT			
SUITABILITY				

CLIENT



AGENT



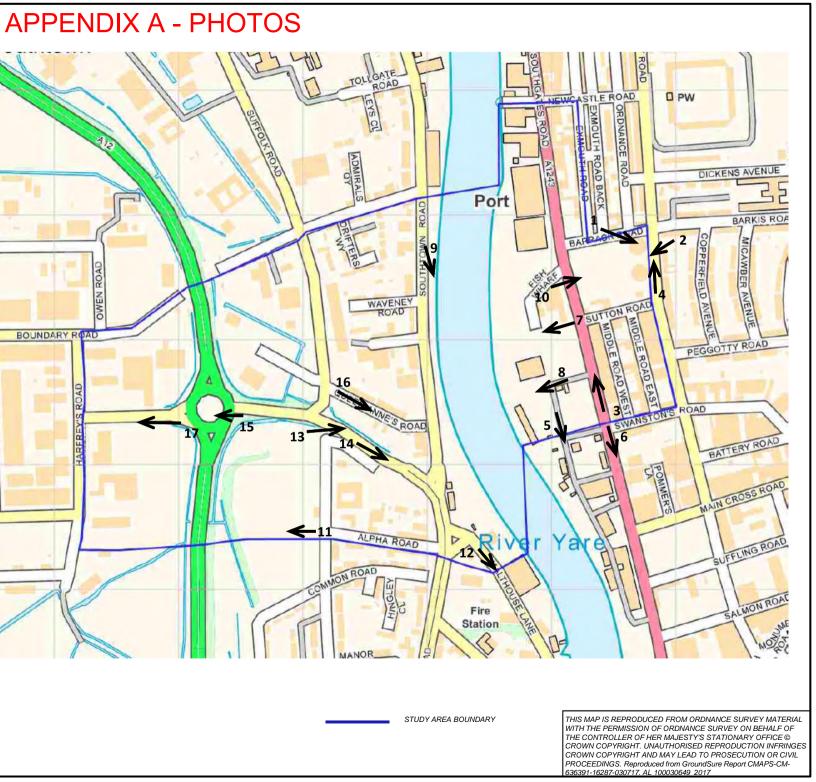
SCHEME NAME

Great Yarmouth Third Crossing

DRAWING TITLE

Study Area Boundary

ORIG DRAWI	DIMENS	DIMENSIONS: m		
COPYRIGHT	SCALE:	SCALE: N/A		
SCHEME REF No. REVISION				N
DRAWING NUMBER A				
PROJECT	ORIGI	NATOR	VOLUM	E
6223037	5 – W	SP -	1	EA
Α -	DR -	L	- 01	6/02
LOCATION	TYPE	ROLE	N	JMBER





REV	DETAILS	CHKD	APPD	DATE

DRAWN: NB	DRAWING STATUS	
DESIGN: JM	WORK IN PROGRESS	
CHKD: NB	PRELIMINARY DRAWING	
APPD: DW	EXTERNAL ISSUE	✓
DATE: 24/7/17	AS-BUILT	
SUITABILITY	-	

CLIENT



AGENT



SCHEME NAME

Great Yarmouth Third Crossing

DRAWING TITLE

Photograph Location Drawing

ORIG DRAWING SIZE: A3	DIMENSIONS: m				
COPYRIGHT ©	SCALE: N/A				
SCHEME REF No. 62230375	REVISION				
DRAWING NUMBER	A				
PROJECT ORIGINATO	DR VOLUME				
LOCATION TYPE	ROLE NUMBER				

APPENDIX A - PHOTO LOG

Photograph 1



Photograph 2



Photograph 3



Photograph 4







Photograph 6



Photograph 7



Photograph 8



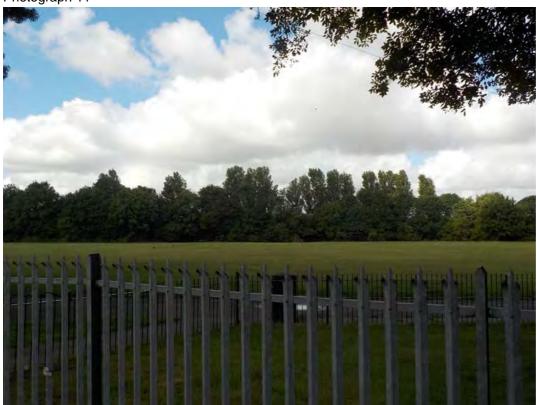
Photograph 9



Photograph 10



Photograph 11



Photograph 12



Photograph 13



Photograph 14



Photograph 15



Photograph 16



Photograph 17



APPENDIX B - GROUNDSURE REPORT



CENTREMAPS

Open Space, Upper Interfields, Worcester, WR14 1UT

Groundsure

CMAPS-CM-636391-16287-

Reference:

030717EDR

Your Reference: 16287

Report Date

3 Jul 2017

Report Delivery Email - pdf

Method:

Enviro Insight

Address: ,

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Enviro Insight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 01886 832972 quoting the above CENTREMAPS reference number.

Yours faithfully,

CENTREMAPS

Groundsure Enviroinsight



Enviro Insight

Address: ,

Date: 3 Jul 2017

Reference: CMAPS-CM-636391-16287-030717EDR

Client: CENTREMAPS

NW NE



Aerial Photograph Capture date: 16-Apr-2014

Grid Reference: 652320,306005

Site Size: 43.58ha

Report Reference: CMAPS-CM-636391-16287-030717EDR

Client Reference: 16287

SW

SE

2





Contents Page

Contents Page	3
Overview of Findings	6
Using this report	10
1. Historical Land Use	11
1. Historical Industrial Sites	12
1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping	
1.2 Additional Information – Historical Tank Database	
1.3 Additional Information – Historical Energy Features Database	27
1.4 Additional Information – Historical Petrol and Fuel Site Database	
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	
1.6 Potentially Infilled Land	34
2. Environmental Permits, Incidents and Registers Map	36
2. Environmental Permits, Incidents and Registers	37
2.1 Industrial Sites Holding Licences and/or Authorisations	37
2.1.1 Records of historic IPC Authorisations within 500m of the study site:	
2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:	
2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m study site:	
2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:	
2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:	41
2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:	
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:	
2.1.8 Records of Licensed Discharge Consents within 500m of the study site:	
study site:	
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:	
2.2 Dangerous or Hazardous Sites	
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents	
2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:	
2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:	
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	
3. Landfill and Other Waste Sites Map	54
3. Landfill and Other Waste Sites	55
3.1 Landfill Sites	
3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site: . 3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study	
3.1.2 Records of Environment Agency/Natural Resources Wales historic landing sites within 1500m of the study	-
3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:	
3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:	
3.2 Other Waste Sites	
3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:	
3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study	
4. Current Land Use Map	67
4. Current Land Uses	68
4.1 Current Industrial Data	
4.2 Petrol and Fuel Sites	
4.3 National Grid High Voltage Underground Electricity Transmission Cables	
4.4 National Grid High Pressure Gas Transmission Pipelines	83

Report Reference: CMAPS-CM-636391-16287-030717EDR





LOCATION INTELLIGENCE

E 1 Autificial Consumal and Manda Consumal	84
5.1 Artificial Ground and Made Ground	
5.2 Superficial Ground and Drift Geology	
5.3 Bedrock and Solid Geology	
6 Hydrogeology and Hydrology	85
6a. Aquifer Within Superficial Geology	85
6b. Aquifer Within Bedrock Geology and Abstraction Licenses	86
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses	87
6d. Hydrogeology – Source Protection Zones within confined aquifer	88
6e. Hydrology – Detailed River Network and River Quality	89
6. Hydrogeology and Hydrology	90
6.1 Aquifer within Superficial Deposits	
6.2 Aquifer within Bedrock Deposits	
6.3 Groundwater Abstraction Licences	
6.4 Surface Water Abstraction Licences	
6.5 Potable Water Abstraction Licences	
6.6 Source Protection Zones	92
6.7 Source Protection Zones within Confined Aquifer	92
6.8 Groundwater Vulnerability and Soil Leaching Potential	
6.9 River Quality	
6.9.1 Biological Quality:	
6.9.2 Chemical Quality:	
6.10 Detailed River Network	
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers	
7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the S Map	96
7 Flooding	97
7.1 River and Coastal Zone 2 Flooding	
7.2 River and Coastal Zone 3 Flooding	
	97
7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating	97 97
7.4 Flood Defences	97 97 98
7.4 Flood Defences7.5 Areas benefiting from Flood Defences	97 97 98 98
7.4 Flood Defences	97 98 98 98
7.4 Flood Defences	97 98 98 98 98
7.4 Flood Defences	9798989898 he boundary of
7.4 Flood Defences	9798989898 he boundary of98
7.4 Flood Defences	97 98 98 98 98 he boundary of 98 lying geological
7.4 Flood Defences	9798989898 he boundary of98 lying geological
7.4 Flood Defences	
7.4 Flood Defences 7.5 Areas benefiting from Flood Defences 7.6 Areas benefiting from Flood Storage 7.7 Groundwater Flooding Susceptibility Areas 7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of t the study site? Yes 7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underl conditions? 7.8 Groundwater Flooding Confidence Areas 8. Designated Environmentally Sensitive Sites Map 8. Designated Environmentally Sensitive Sites 8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site: 8.2 Records of National Nature Reserves (NNR) within 2000m of the study site: 8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site: 8.4 Records of Special Protection Areas (SPA) within 2000m of the study site: 8.5 Records of Ramsar sites within 2000m of the study site:	
7.4 Flood Defences	
7.4 Flood Defences 7.5 Areas benefiting from Flood Defences 7.6 Areas benefiting from Flood Storage 7.7 Groundwater Flooding Susceptibility Areas 7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of t the study site? Yes 7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underl conditions? 7.8 Groundwater Flooding Confidence Areas 8. Designated Environmentally Sensitive Sites Map 8. Designated Environmentally Sensitive Sites 8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site: 8.2 Records of National Nature Reserves (NNR) within 2000m of the study site: 8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site: 8.4 Records of Special Protection Areas (SPA) within 2000m of the study site: 8.5 Records of Ramsar sites within 2000m of the study site:	

Report Reference: CMAPS-CM-636391-16287-030717EDR





LOC	ATION	INITELL	IGENICE

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:	103
8.11 Records of National Parks (NP) within 2000m of the study site:	103
8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:	103
8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:	104
8.14 Records of Green Belt land within 2000m of the study site:	104
9. Natural Hazards Findings	105
9.1 Detailed BGS GeoSure Data	105
9.1.1 Shrink Swell	105
9.1.2 Landslides	105
9.1.3 Soluble Rocks	105
9.1.4 Compressible Ground	
9.1.5 Collapsible Rocks	
9.1.6 Running Sand	
9.2 Radon	106
9.2.1 Radon Affected Areas	
9.2.2 Radon Protection	107
10. Mining	108
10.1 Coal Mining	108
10.2 Non-Coal Mining	108
10.3 Brine Affected Areas	108
Contact Details	109
Standard Terms and Conditions	111

Report Reference: CMAPS-CM-636391-16287-030717EDR





Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	104	25	64	92
1.2 Additional Information – Historical Tank Database	176	28	71	93
1.3 Additional Information – Historical Energy Features Database	92	33	37	53
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	28	2	30	8
1.6 Potentially Infilled Land	23	2	18	38
Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	21	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	1	0	0	1
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	2	2	5
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	3	2	5	6
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	1	0
2.1.8 Records of Licensed Discharge Consents	15	3	8	15
2.1.9 Records of Water Industry Referrals	2	1	1	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	1	0	1	0
2.2 Records of COMAH and NIHHS sites	2	1	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	3	0	1	9
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA	0	0	0	0

Report Reference: CMAPS-CM-636391-16287-030717EDR





LOCATION INTELLIGENCE						FOR A BETTER POINT OF VIEW
Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000- 1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	0	1	0	1
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	2	0	11	1	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	2	3	15	5	5	5
Section 4: Current Land Use	On-site	е	0-50m	51-25	50 2	51-500
4.1 Current Industrial Sites Data	106		47	167	No	ot searched
4.2 Records of Petrol and Fuel Sites	2		0	0		1
4.3 National Grid Underground Electricity Cables	0		0	0		0
4.4 National Grid Gas Transmission Pipelines	0		0	0		0
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?			Y	'es		
5.2 Are there any records of Superficial Ground and Drift Geology			Y	'es		
present beneath the study site? 5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.						
Section 6: Hydrogeology and Hydrology			0-5	00m		
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?			Y	'es		
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?			Y	'es		
	On-site	0-50m	51-250	251-500	501-1000	1000- 2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	1	0	0	1
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	1	0	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	_		_	0		
	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	2	0	0	1	Not searched Not searched	-

Report Reference: CMAPS-CM-636391-16287-030717EDR





LOCATION INTELLIGENCE						
Section 6: Hydrogeology and Hydrology	0-500m					
	On-site	0-50m	51-250	251-500	501-1000	1000- 1500
6.9 Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site?	No	No	No	No	No	No
6.10 Detailed River Network entries within 500m of the site	1	0	0	0	Not searched	Not searched
6.11 Surface water features within 250m of the study site	Yes	Yes	Yes	Not searched	Not searched	Not searched
Section 7: Flooding						
7.1 Are there any Enviroment Agency Zone 2 floodplains within 250m of the study site?	n Yes					
7.2 Are there any Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site			Y	es		
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?			Н	igh		
7.4 Are there any Flood Defences within 250m of the study site?			١	Ио		
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?			١	Мо		
7.6 Are there any areas used for Flood Storage within 250m of the study site?	ne No					
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?			Limited	potential		
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?			Lo	ow		
Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000- 2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	3
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	1	0	1
8.5 Records of Ramsar sites	0	0	0	0	0	1
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	1
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	1	0	1





LOCATION INTELLIGENCE

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000- 2000
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
8.11 Records of National Parks	0	0	0	0	1	1
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	1	0	0	0	0	1
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 What is the maximum risk of natural ground subsidence?	High
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Low
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	High
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Moderate

9.2 Radon

9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?

9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?

The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

No radon protective measures are necessary.

Section 10: Mining

Section 10.1 ming	
10.1 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	No
10.3 Are there any brine affected areas within 75m of the study site?	No

Report Reference: CMAPS-CM-636391-16287-030717EDR





Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

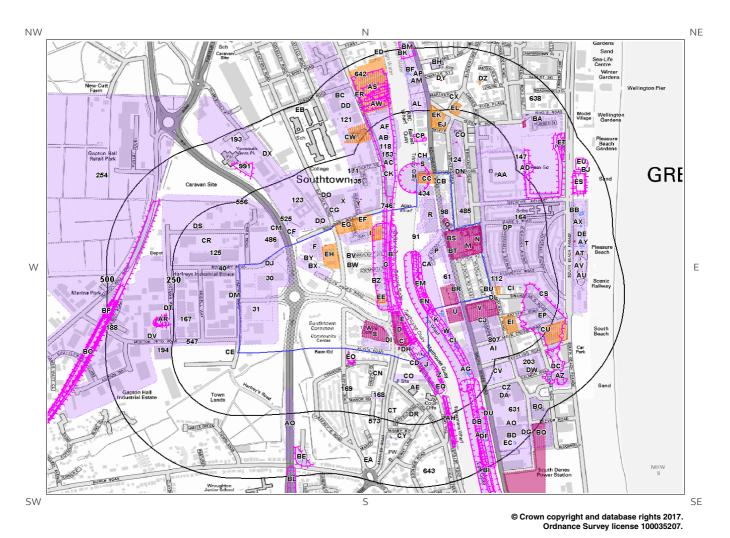
All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

Report Reference: CMAPS-CM-636391-16287-030717EDR





1. Historical Land Use





Report Reference: CMAPS-CM-636391-16287-030717EDR





1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 285

ID	Distance [m]	Direction	Use	Date
1F	0	On Site	Unspecified Depot	1978
2BX	0	On Site	Sawmills	1904
3A	0	On Site	Unspecified Tank	1952
4A	0	On Site	Unspecified Tank	1978
5A	0	On Site	Unspecified Tank	1988
6A	0	On Site	Unspecified Tank	1938
7A	0	On Site	Gasometer	1904
8	0	On Site	Unspecified Commercial/Industrial	1978
9B	0	On Site	Quay	1978
10B	0	On Site	Quay	1988
11B	0	On Site	Quay	1952
12C	0	On Site	Unspecified Tank	1952
13C	0	On Site	Unspecified Tank	1884
14C	0	On Site	Unspecified Tanks	1946
15C	0	On Site	Gasometer	1904
16C	0	On Site	Unspecified Tanks	1938
17D	0	On Site	Unspecified Commercial/Industrial	1938
18C	0	On Site	Gasometer	1884
19D	0	On Site	Gas Works	1904
20D	0	On Site	Unspecified Commercial/Industrial	1946
21C	0	On Site	Unspecified Tank	1952
22D	0	On Site	Unspecified Commercial/Industrial	1952
23D	0	On Site	Gas Works	1884
24D	0	On Site	Quay	1904
25D	0	On Site	Quay	1946
26E	0	On Site	Quay	1988
27E	0	On Site	Quay	1978
28F	0	On Site	Unspecified Depot	1988
291	0	On Site	Iron Works	1884
30	0	On Site	Unspecified Factory	1978
31	0	On Site	Unspecified Works	1978
32A	0	On Site	Gas Holder Station	1988

Report Reference: CMAPS-CM-636391-16287-030717EDR





LOCATION INTELLIGENCE				
33EN	0	On Site	Unspecified Wharf	1988
34D	0	On Site	Quay	1938
35B	0	On Site	Quay	1938
36D	0	On Site	Quay	1938
37B	0	On Site	Quay	1938
38G	0	On Site	Quay	1946
39G	0	On Site	Quay	1904
40	0	On Site	Industrial Estate	1988
41H	0	On Site	Quay	1978
42H	0	On Site	Quay	1988
431	0	On Site	Iron Works	1901
44C	0	On Site	Gasometers	1901
45D	0	On Site	Gas Works	1901
46J	0	On Site	Quay	1938
47J	0	On Site	Quay	1938
48J	0	On Site	Malthouses	1884
49J	0	On Site	Unspecified Works	1988
	0	On Site	Quay	1978
51J	0	On Site	Malthouse	1904
	0	On Site	Malthouse	1946
53K	0	On Site	Unspecified Wharf	1946
54K	0	On Site	Unspecified Wharf	1904
55K	0	On Site	Fish Wharf	1938
56L	0	On Site	Railway Sidings	1938
57DK	0	On Site	Unspecified Wharf	1978
58L	0	On Site	Railway Sidings	1904
59L	0	On Site	Railway Sidings	1946
60BR	0	On Site	Railway Sidings	1946
61	0	On Site	Unspecified Depot	1988
62EM	0	On Site	Unspecified Wharf	1884
63M	0	On Site	Unspecified Tank	1946
64M	0	On Site	Gasometer	1904
65M	0	On Site	Unspecified Tank	1938
66M	0	On Site	Unspecified Tank	1952
67M	0	On Site	Unspecified Tank	1884
68M	0	On Site	Gasometer	1901
69M	0	On Site	Unspecified Commercial/Industrial	1946
70M	0	On Site	Gas Works	1904
71N	0	On Site	Unspecified Tank	1988
72N	0	On Site	Unspecified Tank	1978
73M	0	On Site	Unspecified Commercial/Industrial	1938
74P	0	On Site	Unspecified Depot	1988
75M	0	On Site	Gas Works	1884
76M	0	On Site	Unspecified Commercial/Industrial	1952





LOCATION INTELLIGENCE				FOR A BETTER POINT OF VIEW
77M	0	On Site	Gas Works	1901
78M	0	On Site	Unspecified Depot	1988
79M	0	On Site	Gas Holder Station	1978
800	0	On Site	Unspecified Tanks	1946
810	0	On Site	Gasometers	1904
82P	0	On Site	Railway Sidings	1952
83P	0	On Site	Railway Sidings	1978
840	0	On Site	Unspecified Tanks	1938
850	0	On Site	Unspecified Tank	1952
860	0	On Site	Unspecified Tank	1952
870	0	On Site	Gasometer	1884
880	0	On Site	Gasometer	1901
890	0	On Site	Unspecified Tank	1988
900	0	On Site	Unspecified Tank	1978
91	0	On Site	Ice House	1901
92Q	0	On Site	Unspecified Tank	1904
93Q	0	On Site	Unspecified Tank	1946
94Q	0	On Site	Unspecified Tank	1938
95Q	0	On Site	Unspecified Tank	1884
96Q	0	On Site	Unspecified Tanks	1901
97Q	0	On Site	Unspecified Tank	1884
98	0	On Site	Unspecified Commercial/Industrial	1901
99R	0	On Site	Unspecified Warehouse	1978
100R	0	On Site	Boat Building Yard	1884
101R	0	On Site	Unspecified Warehouse	1988
102R	0	On Site	Boat Building Yards	1901
103J	0	On Site	Malthouses	1901
104S	0	N	Unspecified Stores	1901
105S	2	N	Unspecified Stores	1884
106DN	3	N	Rope Walk	1901
107T	5	Е	Militia Barracks	1901
108N	5	Е	Drill Shed	1901
109W	6	Е	Unspecified Commercial/Industrial	1988
110T	7	Е	Barracks	1904
111N	7	Е	Drill Shed	1884
112	8	E	Hospital	1904
113U	10	S	Unspecified Works	1978
114U	10	S	Unspecified Works	1988
	10	N	Timber Yard	1988
115X				
115X 116V	11	S	Unspecified Commercial/Industrial	1946
		S		1946
116V	11		Commercial/Industrial	





LOCATION INTELLIGENCE				FOR A BETTER POINT OF VIEW
120V	15	S	Unspecified Works	1952
121	16	N	Barracks	1901
122CJ	17	S	Electric Works	1904
123	18	NW	Unspecified Depot	1978
124	20	E	Rope Walk	1884
125	25	N	Unspecified Warehouses	1978
126W	42	E	Fish Wharf	1952
127X	42	N	Engine House	1904
128Y	42	N	Engine House	1946
129Y	45	N	Engine House	1938
130AB	52	N	Dock	1946
131CO	53	S	Malthouse	1978
132CK	55	N	Sawmills	1884
133W	67	E	Railway Sidings	1884
134W	70	E	Unspecified Tank	1988
135	70	N	Rope Walk	1901
136Z	73	SE	Quay	1946
137Z	73	SE	Quay	1904
138AA	76	N	Hospital	1904
139AA	76	N	Hospital	1946
140AA	79	N	Hospital	1938
141AC	79	W	Sawmills	1904
142CL	80	E	Unspecified Tanks	1988
143AB	81	W	Sawmills	1938
144AC	81	W	Sawmills	1946
145AC	81	W	Sawmills	1901
146AA	81	Ν	Hospital	1884
147	82	N	Naval Hospital	1901
148AD	84	N	Hospital	1988
149AD	84	N	Hospital	1978
150AD	84	N	Hospital	1952
151AE	98	S	Fire Station	1978
152AE	98	S	Fire Station	1988
153	99	NW	Timber Yard	1884
154AC	100	NW	Timber Yard	1901
155AF	100	NW	Timber Shed	1978
156AF	100	NW	Timber Shed	1988
157AB	108	NW	Timber Yard	1904
158EP	117	E	Sand Pit	1884
159AG	119	Е	Unspecified Commercial/Industrial	1988
160AB	121	NW	Timber Yard	1901
161EQ	124	SE	Quay	1988
162CP	127	N	Dry Docks	1904
163AB	130	NW	Timber Yard	1884
164	131	E	Barracks	1884





LOCATION INTELLIGENCE				
165AQ	146	S	Railway Sidings	1938
166AG	150	SE	Unspecified Tanks	1988
167	158	W	Unspecified Warehouses	1978
168	160	S	Corn Mill	1884
169	162	S	Corn Windmill	1901
170AJ	164	SE	Quay	1946
171	167	N	Rope Walk	1884
172AH	169	SE	Quay	1978
173AH	169	SE	Quay	1988
174AH	170	SE	Unspecified Quay	1901
175AH	172	SE	Quay	1904
176AH	172	SE	Quay	1946
177AF	174	NW	Boat Building Yard	1901
178AI	175	S	Unspecified Depot	1988
179AI	175	S	Unspecified Factory	1978
180AF	185	NW	Boat Building Yard	1884
181DB	188	SE	Quay	1978
182AJ	188	SE	Quay	1952
183AK	203	NE	Unspecified Ground Workings	1938
184AK	203	NE	Unspecified Ground Workings	1938
185CV	205	Е	Unspecified Depot	1988
186AH	230	SE	Quay	1938
187AH	230	SE	Quay	1938
188	236	W	Industrial Estate	1988
189AL	239	N	Timber Yard	1901
190AW	240	NW	Unspecified Commercial/Industrial	1901
191AL	240	N	Timber Yard	1884
192AD	249	NE	Unspecified Pit	1901
193	250	N	Unspecified Depot	1978
194	252	W	Unspecified Warehouse	1978
195AM	258	N	Unspecified Commercial/Industrial	1988
196AM	258	N	Unspecified Commercial/Industrial	1978
197AN	259	N	Railway Sidings	1978
198AN	259	N	Railway Sidings	1988
199AO	261	SE	Unspecified Factory	1988
200AO	261	SE	Unspecified Factory	1978
201AP	264	N	Railway Sidings	1988
202AP	264	N	Railway Sidings	1978
203	266	S	Unspecified Factory	1952
204AR	269	W	Unspecified Pit	1901
205AQ	270	S	Railway Station	1938
206AQ	271	S	Railway Station	1946





LOCATION INTELLIGENCE				FOR A DELICE POINT OF VIEW
207AQ	271	S	Railway Station	1904
208DF	277	SE	Quay	1988
209AR	279	W	Unspecified Pit	1884
210AR	280	W	Unspecified Pit	1904
211AR	280	W	Unspecified Pit	1946
212AR	291	W	Unspecified Heap	1938
213AR	291	W	Unspecified Heap	1938
214AS	295	N	Dry Dock	1988
215AS	295	N	Dry Dock	1978
216DU	296	SE	Paddock	1901
217AR	298	W	Unspecified Pit	1952
218AT	301	E	Unspecified Commercial/Industrial	1952
219AT	301	Е	Unspecified Commercial/Industrial	1988
220AT	301	Е	Unspecified Commercial/Industrial	1978
221AV	302	E	Railway Sidings	1946
222DC	303	SE	Refuse Heap	1884
223AU	311	Е	Railway Sidings	1988
224AU	311	Е	Railway Sidings	1978
225AV	311	Е	Railway Sidings	1952
226AS	316	N	Dry Docks	1938
227AS	316	N	Dry Docks	1938
228AW	317	NW	Ice House	1901
229AS	329	N	Dry Docks	1904
230AS	329	N	Dry Docks	1946
231AX	332	E	Railway Sidings	1938
232AX	332	E	Unspecified Commercial/Industrial	1938
233AS	345	N	Unspecified Works	1952
234BB	351	Е	Unspecified Tank	1938
235AS	362	NW	Timber Yard	1884
236AS	364	NW	Timber Yard	1901
237BP	367	W	Cuttings	1884
238AY	371	Е	Unspecified Tank	1978
239AY	371	Е	Unspecified Tank	1988
240BA	371	NE	Telegraph House	1901
241AZ	373	SE	Unspecified Works	1952
242AZ	373	SE	Unspecified Works	1978
243AZ	373	SE	Unspecified Works	1988
244BA	374	NE	Telegraph House	1884
245BB	375	Е	Unspecified Tanks	1978
246BB	375	E	Unspecified Tanks	1988
247BC	378	NW	Unspecified Works	1978
248BC	378	NW	Unspecified Works	1988
249BD	379	SE	Ice Factory	1946
· · · · · · · · · · · · · · · · · · ·			·	





LOCATION INTELLIGENCE				
250BD	380	SE	Unspecified Factory	1952
251BD	381	SE	Ice Factory	1938
252BE	382	S	Unspecified Pit	1904
253BE	382	S	Unspecified Pit	1946
254	387	W	Marshes	1901
255BK	390	N	Railway Sidings	1884
256BF	394	N	Unspecified Tanks	1988
257BF	394	N	Unspecified Tanks	1978
258ET	397	NE	Unspecified Heap	1952
259BG	416	SE	Unspecified Works	1988
260BG	416	SE	Unspecified Works	1978
261BH	418	N	Fire Station	1978
262BH	418	N	Fire Station	1988
263BI	436	SE	Quay	1938
264BI	436	SE	Quay	1938
265BO	436	W	Cuttings	1901
266BJ	442	NE	Boat House	1938
267BJ	444	NE	Boat House	1946
268BK	448	N	Railway Sidings	1988
269BK	448	N	Railway Sidings	1978
270BM	448	N	Railway Sidings	1938
271BL	458	S	Unspecified Heap	1978
272BL	458	S	Unspecified Heap	1988
273BN	461	N	Quay	1904
274BM	461	N	Railway Sidings	1946
275BN	461	N	Quay	1946
276BM	461	N	Railway Sidings	1904
277BO	463	W	Cuttings	1938
278BO	464	W	Cuttings	1904
279BO	464	W	Cuttings	1946
280BP	469	W	Cuttings	1952
281BQ	474	SE	Net Works	1946
282BQ	475	SE	Net Works	1938
283BK	476	N	Railway Building	1938
284BQ	477	SE	Unspecified Works	1952
285BO	496	W	Cuttings	1952

1.2 Additional Information - Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Report Reference: CMAPS-CM-636391-16287-030717EDR





Records of historical tanks within 500m of the search boundary:

368

ID	Distance (m)	Direction	Use	Date
286BR	0	On Site	Tanks	1949
287BR	0	On Site	Tanks	1949
288M	0	On Site	Unspecified Tank	1927
2890	0	On Site	Unspecified Tank	1927
2900	0	On Site	Unspecified Tank	1949
2910	0	On Site	Unspecified Tank	1949
2920	0	On Site	Unspecified Tank	1966
293M	0	On Site	Unspecified Tank	1949
294M	0	On Site	Unspecified Tank	1949
295M	0	On Site	Unspecified Tank	1963
296M	0	On Site	Unspecified Tank	1927
297M	0	On Site	Unspecified Tank	1966
298M	0	On Site	Tanks	1949
299M	0	On Site	Tanks	1963
300M	0	On Site	Tanks	1949
3010	0	On Site	Gasometer	1887
3020	0	On Site	Unspecified Tank	1927
3030	0	On Site	Gasometer	1966
3040	0	On Site	Gasometer	1949
3050	0	On Site	Gasometer	1949
3060	0	On Site	Gasometer	1963
3070	0	On Site	Unspecified Tank	1927
308N	0	On Site	Tanks	1966
309N	0	On Site	Unspecified Tank	1966
310M	0	On Site	Gasometer	1887
311M	0	On Site	Unspecified Tank	1927
312M	0	On Site	Gasometer	1949
313M	0	On Site	Gasometer	1966
314M	0	On Site	Gasometer	1949
315M	0	On Site	Gasometer	1963
316M	0	On Site	Unspecified Tank	1927
317M	0	On Site	Unspecified Tank	1949
318M	0	On Site	Unspecified Tank	1963
319M	0	On Site	Unspecified Tank	1949
320N	0	On Site	Unspecified Tank	1949
321BT	0	On Site	Unspecified Tank	1966
322Q	0	On Site	Unspecified Tank	1966
323BS	0	On Site	Unspecified Tank	1966
324Q	0	On Site	Unspecified Tank	1927
325Q	0	On Site	Gasometers	1887
326L	0	On Site	Unspecified Tank	1949

Report Reference: CMAPS-CM-636391-16287-030717EDR





LOCATION INTELLIGENCE				
327L	0	On Site	Unspecified Tank	1957
328L	0	On Site	Unspecified Tank	1949
329Q	0	On Site	Unspecified Tank	1966
330BS	0	On Site	Unspecified Tank	1963
331BS	0	On Site	Unspecified Tank	1949
332BT	0	On Site	Unspecified Tank	1949
333BT	0	On Site	Unspecified Tank	1963
334BT	0	On Site	Unspecified Tank	1949
335Q	0	On Site	Unspecified Tank	1963
336Q	0	On Site	Unspecified Tank	1949
337BS	0	On Site	Unspecified Tank	1949
338BS	0	On Site	Unspecified Tank	1963
339BS	0	On Site	Unspecified Tank	1949
340Q	0	On Site	Unspecified Tank	1963
341L	0	On Site	Unspecified Tank	1958
342Q	0	On Site	Unspecified Tank	1949
343N	0	On Site	Unspecified Tank	1963
344N	0	On Site	Unspecified Tank	1949
3450	0	On Site	Unspecified Tank	1927
3460	0	On Site	Gasometer	1966
3470	0	On Site	Gasometer	1949
348BS	0	On Site	Gas Works	1887
3490	0	On Site	Gas Holder	1996
3500	0	On Site	Gasometer	1963
3510	0	On Site	Gasometer	1949
352M	0	On Site	Gasometer	1966
353M	0	On Site	Gas Holder	1996
354N	0	On Site	Unspecified Tank	1949
355N	0	On Site	Unspecified Tank	1963
356BS	0	On Site	Gas Works	1963
357N	0	On Site	Gas Holder Station	1996
358BS	0	On Site	Gas Works	1949
359M	0	On Site	Gas Works	1966
360BU	0	On Site	Unspecified Tank	1968
361BU	0	On Site	Unspecified Tank	1968
362Q	0	On Site	Unspecified Tank	1949
363Q	0	On Site	Unspecified Tank	1949
364BS	0	On Site	Gas Works	1949
365N	0	On Site	Unspecified Tank	1949
366E	0	On Site	Unspecified Tank	1990
367BZ	0	On Site	Unspecified Tank	1990
368BW	0	On Site	Tanks	1990
369BV	0	On Site	Unspecified Tank	1990
370BV	0	On Site	Unspecified Tank	1990
371BW	0	On Site	Tanks	1990
372N	0	On Site	Gas Holder Station	1984
	<u> </u>			





LOCATION INTELLIGENCE				
373M	0	On Site	Gas Holder	1984
3740	0	On Site	Gas Holder	1984
375N	0	On Site	Gas Holder Station	1990
3760	0	On Site	Gas Holder	1990
377M	0	On Site	Gas Holder	1990
378Q	0	On Site	Gasometers	1883
3790	0	On Site	Gasometer	1883
3800	0	On Site	Gas Works	1883
381M	0	On Site	Gasometer	1883
3820	0	On Site	Unspecified Tank	1905
383M	0	On Site	Unspecified Tank	1905
384BX	0	On Site	Unspecified Tank	1949
385BX	0	On Site	Unspecified Tank	1951
386BX	0	On Site	Unspecified Tank	1963
387BY	0	On Site	Unspecified Tank	1949
388BY	0	On Site	Unspecified Tank	1951
389BY	0	On Site	Unspecified Tank	1963
390BX	0	On Site	Unspecified Tank	1963
391BX	0	On Site	Unspecified Tank	1949
392BX	0	On Site	Unspecified Tank	1951
393BV	0	On Site	Unspecified Tank	1996
394BV	0	On Site	Unspecified Tank	1975
395BW	0	On Site	Tanks	1996
396BW	0	On Site	Tanks	1975
397A	0	On Site	Gasholder	1949
398A	0	On Site	Unspecified Tank	1958
399A	0	On Site	Gasholder	1968
400A	0	On Site	Unspecified Tank	1927
401A	0	On Site	Gasholder	1949
402A	0	On Site	Gasholder	1976
403A	0	On Site	Gasholder	1967
404BZ	0	On Site	Unspecified Tank	1976
405BZ	0	On Site	Unspecified Tank	1996
406E	0	On Site	Unspecified Tank	1968
407E	0	On Site	Unspecified Tank	1967
408E	0	On Site	Unspecified Tank	1996
409E	0	On Site	Unspecified Tank	1949
410E	0	On Site	Unspecified Tank	1949
411D	0	On Site	Tanks	1949
412D	0	On Site	Tanks	1949
413E	0	On Site	Unspecified Tank	1968
414E	0	On Site	Unspecified Tank	1967
415D	0	On Site	Unspecified Tank	1968
416D	0	On Site	Unspecified Tank	1967
417C	0	On Site	Gasometer	1949
418D	0	On Site	Unspecified Tank	1968





LOCATION INTELLIGENCE				
419D	0	On Site	Unspecified Tank	1967
420C	0	On Site	Tanks	1927
421C	0	On Site	Gasometers	1887
422D	0	On Site	Gas Works	1887
423C	0	On Site	Gasometer	1949
424C	0	On Site	Tanks	1958
425C	0	On Site	Gasometers	1949
426C	0	On Site	Gasometers	1968
427C	0	On Site	Gasometers	1967
428D	0	On Site	Gas Works	1949
429D	0	On Site	Gas Works	1968
430D	0	On Site	Gas Works	1949
431D	0	On Site	Gas Works	1967
432H	0	On Site	Unspecified Tank	1949
433H	0	On Site	Unspecified Tank	1963
434	0	On Site	Unspecified Tank	1966
435CA	0	On Site	Unspecified Tank	1949
436CA	0	On Site	Unspecified Tank	1966
437CA	0	On Site	Unspecified Tank	1963
438CA	0	On Site	Unspecified Tank	1949
439CB	0	On Site	Unspecified Tank	1963
440BR	0	On Site	Unspecified Tank	1949
441BR	0	On Site	Unspecified Tank	1958
442BR	0	On Site	Unspecified Tank	1957
443BR	0	On Site	Unspecified Tank	1949
444BY	0	On Site	Unspecified Tank	1949
445BX	0	On Site	Unspecified Tank	1949
446BX	0	On Site	Unspecified Tank	1949
447CB	0	On Site	Unspecified Tank	1949
448BZ	0	On Site	Unspecified Tank	1986
449A	0	On Site	Gas Holder Station	1986
450A	0	On Site	Gas Holder	1986
451BW	0	On Site	Tanks	1986
452BV	0	On Site	Unspecified Tank	1986
453C	0	On Site	Gasometers	1883
454D	0	On Site	Gas Works	1883
455CB	0	On Site	Unspecified Tank	1927
456CB	0	On Site	Unspecified Tank	1966
457CB	0	On Site	Unspecified Tank	1949
458H	0	On Site	Unspecified Tank	1928
459H	0	On Site	Unspecified Tank	1949
460CC	0	On Site	Unspecified Tank	1928
461CC	0	On Site	Unspecified Tank	1905
462CD	9	S	Unspecified Tank	1968
463CD	10	S	Unspecified Tank	1968
464K	21	S	Tanks	1990





LOCATION INTELLIGENCE				FOR A BETTER POINT OF VIEW
465K	22	S	Tanks	1984
466K	24	S	Tanks	1990
467CE	30	W	Unspecified Tank	1990
468CE	30	W	Unspecified Tank	1985
469CF	30	NW	Tanks	1996
470CF	30	NW	Unspecified Tank	1990
471CF	30	NW	Unspecified Tank	1990
472V	32	S	Unspecified Tank	1949
473V	33	S	Unspecified Tank	1949
474CF	38	NW	Unspecified Tank	1986
475V	38	S	Tanks	1958
476U	39	S	Tanks	1968
477CF	39	NW	Unspecified Tank	1975
478U	39	S	Tanks	1968
479V	39	S	Tanks	1957
480CF	40	NW	Unspecified Tank	1990
481CF	40	NW	Unspecified Tank	1990
482U	40	S	Tanks	1981
483U	40	S	Tanks	1990
484U	40	S	Tanks	1984
485	44	E	Unspecified Tank	1966
486	44	NW	Unspecified Tank	1980
487CG	46	N	Tanks	1996
488CG	47	N	Tanks	1990
489CG	47	N	Tanks	1990
490S	53	N	Tanks	1996
491S	55	N	Tanks	1966
492S	55	N	Tanks	1984
493S	55	N	Tanks	1990
494CH	62	N	Unspecified Tank	1949
495CH	62	N	Unspecified Tank	1949
496CH	62	N	Unspecified Tank	1963
497CI	70	E	Tanks	1949
498CE	70	SW	Unspecified Tank	1964
499CE	70	SW	Unspecified Tank	1955
500CI	70	E	Tanks	1949
501W	71	Е	Tanks	1990
502CE	71	SW	Unspecified Tank	1978
503CE	73	SW	Unspecified Tank	1990
504CE	73	SW	Unspecified Tank	1985
505CM	73	NW	Unspecified Tank	1978
506CJ	74	S	Unspecified Tank	1927
507CK	79	W	Tanks	1951
508CK	79	W	Tanks	1963
509CK	80	W	Unspecified Tank	1949
510CK	80	W	Unspecified Tank	1949





LOCATION INTELLIGENCE				
511CK	80	W	Unspecified Tank	1949
512CL	80	E	Tanks	1990
513CL	80	E	Tanks	1984
514CM	82	NW	Unspecified Tank	1975
515CJ	87	S	Tanks	1958
516CJ	87	S	Tanks	1968
517CJ	87	S	Tanks	1949
518CJ	87	S	Tanks	1949
519CJ	87	S	Tanks	1968
520CJ	87	S	Tanks	1957
521CN	87	S	Unspecified Tank	1958
522CN	87	S	Unspecified Tank	1949
523CN	88	S	Unspecified Tank	1949
524CO	90	S	Unspecified Tank	1968
525	91	NW	Unspecified Tank	1975
526CO	91	S	Unspecified Tank	1967
527CO	91	S	Unspecified Tank	1976
528CL	94	E	Tanks	1990
529CI	107	E	Unspecified Tank	1957
530CI	107	E	Unspecified Tank	1968
531CI	107	E	Unspecified Tank	1949
532CI	107	E	Unspecified Tank	1949
533CI	107	E	Unspecified Tank	1968
534CI	107	E	Unspecified Tank	1958
535CP	111	N	Unspecified Tank	1949
536CP	112	N	Unspecified Tank	1963
537CP	112	N	Unspecified Tank	1949
538CJ	112	S	Unspecified Tank	1968
539CJ	112	S	Unspecified Tank	1968
540CJ	112	S	Unspecified Tank	1981
541CJ	113	S	Unspecified Tank	1984
542CQ	145	N	Tanks	1966
543CQ	145	N	Tanks	1975
544CR	149	NW	Unspecified Tank	1980
545CR	149	NW	Unspecified Tank	1985
546AG	150	SE	Tanks	1990
547	170	W	Unspecified Tank	1990
548AG	174	SE	Unspecified Tank	1990
549CS	191	Е	Unspecified Tank	1981
550CS	191	E	Unspecified Tank	1990
551CS	191	E	Unspecified Tank	1984
552CS	191	Е	Unspecified Tank	1968
553CS	192	Е	Unspecified Tank	1968
554CT	215	S	Unspecified Tank	1927
555CT	215	S	Unspecified Tank	1905
556	230	NW	Unspecified Tank	1985





LOCATION INTELLIGENCE				FOR A BETTER POINT OF VIEW
557CU	244	SE	Unspecified Tank	1968
558CU	244	SE	Unspecified Tank	1968
559CU	248	SE	Tanks	1968
560CU	248	SE	Tanks	1968
561CU	251	SE	Unspecified Tank	1958
562CU	251	SE	Unspecified Tank	1949
563CU	252	SE	Unspecified Tank	1957
564CU	252	SE	Unspecified Tank	1949
565CV	258	E	Tanks	1981
566CV	259	Е	Tanks	1968
567CV	259	Е	Tanks	1949
568CV	259	E	Tanks	1958
569CV	259	E	Tanks	1957
570CV	259	E	Tanks	1968
571CV	259	E	Tanks	1949
572CV	260	E	Tanks	1984
573	276	S	Unspecified Tank	1927
574CU	283	SE	Unspecified Tank	1968
575CU	283	SE	Unspecified Tank	1964
576CU	283	SE	Unspecified Tank	1971
577CW	285	NW	Unspecified Tank	1928
578CW	285	NW	Unspecified Tank	1887
579CW	285	NW	Unspecified Tank	1905
580CV	286	E	Unspecified Tank	1958
581CV	286	E	Unspecified Tank	1949
582CV	287	Е	Unspecified Tank	1957
583CV	287	Е	Unspecified Tank	1949
584CX	292	N	Unspecified Tank	1975
585CX	292	N	Unspecified Tank	1966
586CX	292	N	Unspecified Tank	1990
587CX	292	N	Unspecified Tank	1990
588CY	304	S	Unspecified Tank	1968
589CY	304	S	Unspecified Tank	1972
590CY	304	S	Unspecified Tank	1968
591CY	304	S	Unspecified Tank	1990
592CY	311	S	Unspecified Tank	1949
593CY	314	S	Unspecified Tank	1949
594CY	314	S	Unspecified Tank	1953
595CY	314	S	Tanks	1972
596CZ	321	SE	Unspecified Tank	1981
597CZ	322	SE	Unspecified Tank	1984
598DA	326	SE	Tanks	1967
599DA	326	SE	Tanks	1968
600CZ	328	SE	Unspecified Tank	1981
601CZ	330	SE	Unspecified Tank	1984
602AM	358	N	Tanks	1928





GO2DB 364 SE	LOCATION INTELLIGENCE				FOR A BETTER POINT OF VIEW
605AY 367 E Unspecified Tank 1970 605DC 371 SE Unspecified Tank 1981 607DC 371 SE Unspecified Tank 1990 60DD 373 NW Tanks 1986 60DDD 374 NW Tanks 1987 61DDD 374 NW Tanks 1987 61DDD 374 NW Tanks 1987 61DDD 374 NW Tanks 1987 61DBB 374 E Unspecified Tank 1963 613BB 374 E Unspecified Tank 1949 613BB 376 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1963 618DE 377 E Unspecified Tank 1949 61	603DB	364	SE	Unspecified Tank	1927
605DC 371 SE Unspecified Tank 1981 607DC 371 SE Unspecified Tank 1990 608DC 371 SE Unspecified Tank 1984 608DD 373 NW Tanks 1968 61DDD 374 NW Tanks 1987 61DDD 374 NW Tanks 1987 61DDD 374 NW Tanks 1987 61DDB 374 E Unspecified Tank 1949 613BB 374 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1963 613DE 376 E Unspecified Tank 1963 613AX 377 E Unspecified Tank 1949 613AX 377 E Unspecified Tank 1949	604DB	366	SE	Unspecified Tank	1967
607DC 371 SE Unspecified Tank 1990 608DC 371 SE Unspecified Tank 1984 609DD 373 NW Tanks 1968 610DD 374 NW Tanks 1987 611DD 374 NW Tanks 1987 612BB 374 E Unspecified Tank 1949 613DD 374 E Unspecified Tank 1949 614BD 375 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1960 615DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1963 619AX 377 E Unspecified Tank 1963 620AX 377 NW Tanks 1968	605AY	367	E	Unspecified Tank	1970
608DC 371 SE Unspecified Tank 1984 609DD 373 NW Tanks 1968 61DDD 374 NW Tanks 1987 61DD 374 NW Tanks 1987 61DD 374 E Unspecified Tank 1963 613DD 374 E Unspecified Tank 1949 614BB 375 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1949 616AX 376 E Unspecified Tank 1990 617DE 376 E Unspecified Tank 1991 618DE 376 E Unspecified Tank 1943 618DE 376 E Unspecified Tank 1943 619AX 377 E Unspecified Tank 1943 62DAX 377 E Unspecified Tank 1943 622DD 377 NW Tanks 1968	606DC	371	SE	Unspecified Tank	1981
609DD 373 NW Tanks 1968 610DD 374 NW Tanks 1987 611DD 374 NW Tanks 1987 612BB 374 E Unspecified Tank 1963 613BB 374 E Unspecified Tank 1949 614BB 375 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1949 616AX 376 E Unspecified Tank 1963 61DE 376 E Unspecified Tank 1963 61DE 376 E Unspecified Tank 1963 61DAX 377 E Unspecified Tank 1963 619AX 377 E Unspecified Tank 1949 62DAX 377 E Unspecified Tank 1949 621DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 622AX	607DC	371	SE	Unspecified Tank	1990
610DD 374 NW Tanks 1987 611DD 374 NW Tanks 1987 612BB 274 E Unspecified Tank 1963 613BB 374 E Unspecified Tank 1949 613BB 375 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1949 616AX 376 E Unspecified Tank 1963 617DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1963 619AX 377 E Unspecified Tank 1963 62DAX 377 E Unspecified Tank 1963 62DAX 377 NW Tanks 1968 62DAX 377 E Unspecified Tank 1949 62AAX 377 E Unspecified Tank 1949 62AAX 377 E Unspecified Tank 1970	608DC	371	SE	Unspecified Tank	1984
611DD 374 NW Tanks 1987 612BB 374 E Unspecified Tank 1963 613BB 374 E Unspecified Tank 1949 614BB 375 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1949 616AX 376 E Unspecified Tank 1960 617DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1949 619AX 377 E Unspecified Tank 1949 62DAX 377 E Unspecified Tank 1949 621DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 623AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990	609DD	373	NW	Tanks	1968
6128B 374 E Unspecified Tank 1943 6138B 374 E Unspecified Tank 1949 6148B 375 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1949 616DE 376 E Unspecified Tank 1990 616DE 376 E Unspecified Tank 1990 617DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1949 619AX 377 E Unspecified Tank 1949 62DD 377 NW Tanks 1968 62DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 623AX 377 E Unspecified Tank 1949 621DD 377 NW Tanks 1968 623AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 333 NW Unspecified Tank 1987 6310 394 NW Unspecified Tank 1987 6310 395 SE Unspecified Tank 1987 6310 395 SE Unspecified Tank 1987 632DF 398 SE Tanks 1990 632DF 398 SE Tanks 1990 633DF 412 N Unspecified Tank 1987 634DF 438 N Unspecified Tank 1966 645DH 438 N Unspecified Tank 1966 646DH 438 N Unspecified Tank 1966 641DH 438 N Unspecified Tank 1966 641DH 438 N Unspecified Tank 1968 643 445 S Unspecified Tank 1968 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949	610DD	374	NW	Tanks	1987
613BB 374 E Unspecified Tank 1949 614BB 375 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1949 616AX 376 E Unspecified Tank 1949 616AX 376 E Unspecified Tank 1990 617DC 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1949 619AX 377 E Unspecified Tank 1949 62DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 623AX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1987 632BF 412 N Unspecified Tank 1987 633BF 412 N Unspecified Tank 1987 633BF 412 N Unspecified Tank 1987 633BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1987 643BH 438 N Unspecified Tank 1987 644BH 438 N Unspecified Tank 1968 646BH 438 N Unspecified Tank 1968 641BH 438 N Unspecified Tank 1968 641BH 438 N Unspecified Tank 1968 641BH 438 N Unspecified Tank 1968 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1968 644BD 467 SE Unspecified Tank 1968 645BC 448D 467 SE Unspecified Tank 1968 646BD 468 SE Tanks 1976 646BD 468 SE Tanks 1990	611DD	374	NW	Tanks	1987
614BB 375 E Unspecified Tank 1949 615DE 376 E Unspecified Tank 1949 616AX 376 E Unspecified Tank 1990 617DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1949 619AX 377 E Unspecified Tank 1963 620AX 377 E Unspecified Tank 1949 621DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 623AX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629D	612BB	374	E	Unspecified Tank	1963
615DE 376 E Unspecified Tank 1949 616AX 376 E Unspecified Tank 1990 617DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1949 619AX 377 E Unspecified Tank 1949 620AX 377 E Unspecified Tank 1949 621DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 622DAX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987	613BB	374	E	Unspecified Tank	1949
616AX 376 E Unspecified Tank 1990 617DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1949 619AX 377 E Unspecified Tank 1949 62DAX 377 E Unspecified Tank 1949 621DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 623AX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1970 625BB 38B E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 631	614BB	375	E	Unspecified Tank	1949
617DE 376 E Unspecified Tank 1963 618DE 376 E Unspecified Tank 1949 619AX 377 E Unspecified Tank 1963 620AX 377 E Unspecified Tank 1949 621DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 623AX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1987	615DE	376	E	Unspecified Tank	1949
618DE 376 E Unspecified Tank 1949 619AX 377 E Unspecified Tank 1963 620AX 377 E Unspecified Tank 1949 621DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 622AX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633	616AX	376	E	Unspecified Tank	1990
619AX 377 E Unspecified Tank 1963 620AX 377 E Unspecified Tank 1949 621DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 622AX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1987 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 636	617DE	376	Е	Unspecified Tank	1963
620AX 377 E Unspecified Tank 1949 621DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 622DAX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 636AJ	618DE	376	Е	Unspecified Tank	1949
621DD 377 NW Tanks 1968 622DD 377 NW Tanks 1968 623AX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 636AJ	619AX	377	Е	Unspecified Tank	1963
622DD 377 NW Tanks 1968 623AX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 636AJ 416 SE Tanks 1976 637BF	620AX	377	Е	Unspecified Tank	1949
623AX 377 E Unspecified Tank 1949 624AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 636AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 639	621DD	377	NW	Tanks	1968
624AX 377 E Unspecified Tank 1970 625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954	622DD	377	NW	Tanks	1968
625BB 388 E Tanks 1990 626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1968 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966	623AX	377	Е	Unspecified Tank	1949
626BB 389 E Unspecified Tank 1970 627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1966 641BH 439 N Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 <	624AX	377	E	Unspecified Tank	1970
627BF 392 N Tanks 1968 628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1966 641BH 439 NW Unspecified Tank 1968 641BH 439 NW Unspecified Tank 1968	625BB	388	Е	Tanks	1990
628DD 393 NW Unspecified Tank 1968 629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 NW Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 <	626BB	389	Е	Unspecified Tank	1970
629DD 394 NW Unspecified Tank 1987 630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 636AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 NW Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1949 <t< td=""><td>627BF</td><td>392</td><td>N</td><td>Tanks</td><td>1968</td></t<>	627BF	392	N	Tanks	1968
630DD 394 NW Unspecified Tank 1987 631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 636AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 N Unspecified Tank 1968 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 <tr< td=""><td>628DD</td><td>393</td><td>NW</td><td>Unspecified Tank</td><td>1968</td></tr<>	628DD	393	NW	Unspecified Tank	1968
631 395 SE Unspecified Tank 1990 632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 636AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 N Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1996 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 <tr< td=""><td>629DD</td><td>394</td><td>NW</td><td>Unspecified Tank</td><td>1987</td></tr<>	629DD	394	NW	Unspecified Tank	1987
632DF 398 SE Tanks 1976 633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 636AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 N Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1990	630DD	394	NW	Unspecified Tank	1987
633BF 412 N Unspecified Tank 1987 634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 636AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 NW Unspecified Tank 1968 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1990	631	395	SE	Unspecified Tank	1990
634BF 412 N Unspecified Tank 1987 635AJ 416 SE Tanks 1976 636AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 N Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	632DF	398	SE	Tanks	1976
635AJ 416 SE Tanks 1976 636AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 N Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	633BF	412	Ν	Unspecified Tank	1987
636AJ 416 SE Tanks 1976 637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 N Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	634BF	412	N	Unspecified Tank	1987
637BF 422 N Unspecified Tank 1968 638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 N Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	635AJ	416	SE	Tanks	1976
638 429 NE Unspecified Tank 1905 639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 N Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	636AJ	416	SE	Tanks	1976
639BH 438 N Unspecified Tank 1954 640BH 438 N Unspecified Tank 1966 641BH 439 N Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	637BF	422	N	Unspecified Tank	1968
640BH 438 N Unspecified Tank 1966 641BH 439 N Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	638	429	NE	Unspecified Tank	1905
641BH 439 N Unspecified Tank 1963 642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	639BH	438	N	Unspecified Tank	1954
642 439 NW Unspecified Tank 1968 643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	640BH	438	N	Unspecified Tank	1966
643 445 S Unspecified Tank 1905 644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	641BH	439	N	Unspecified Tank	1963
644BD 467 SE Unspecified Tank 1949 645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	642	439	NW	Unspecified Tank	1968
645EC 467 SE Unspecified Tank 1949 646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	643	445	S	Unspecified Tank	1905
646BD 468 SE Tanks 1968 647BD 472 SE Tanks 1990	644BD	467	SE	Unspecified Tank	1949
647BD 472 SE Tanks 1990	645EC	467	SE	Unspecified Tank	1949
	646BD	468	SE	Tanks	1968
648BD 477 SE Tanks 1949		472			1990
	648BD	477	SE	Tanks	1949





LOCATION INTELLIGENCE				17 40 00 00 00
649BD	478	SE	Tanks	1949
650DG	479	SE	Tanks	1968
651DG	479	SE	Tanks	1967
652BQ	487	SE	Tanks	1967
653ED	493	N	Unspecified Tank	1968

1.3 Additional Information - Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary:

215

ID	Distance (m)	Direction	Use	Date
654DH	0	On Site	Electricity Substation	1976
655DH	0	On Site	Electricity Substation	1968
656DH	0	On Site	Electricity Substation	1967
657DH	0	On Site	Electricity Substation	1986
658DH	0	On Site	Electricity Substation	1976
659DH	0	On Site	Electricity Substation	1949
660DH	0	On Site	Electricity Substation	1968
661D	0	On Site	Gas Works	1949
662D	0	On Site	Gas Works	1967
663D	0	On Site	Gas Works	1949
664D	0	On Site	Gas Works	1968
665C	0	On Site	Gasometers	1887
666C	0	On Site	Gasometers	1967
667C	0	On Site	Gasometer	1949
668C	0	On Site	Gasometers	1968
669C	0	On Site	Gasometers	1949
670C	0	On Site	Gasometer	1949
671DI	0	On Site	Electricity Substation	1996
672A	0	On Site	Gas Distribution Station	1996
673DI	0	On Site	Electricity Substation	1976
674A	0	On Site	Gas Distribution Station	1976
675DI	0	On Site	Electricity Substation	1967
676A	0	On Site	Gas Distribution Station	1990
677A	0	On Site	Gas Holder Station	1986
678DI	0	On Site	Electricity Substation	1990
679DI	0	On Site	Electricity Substation	1968
680A	0	On Site	Gasholder	1949
681A	0	On Site	Gasholder	1967
682A	0	On Site	Gasholder	1976
683A	0	On Site	Gas Holder	1986

Report Reference: CMAPS-CM-636391-16287-030717EDR





LOCATION INTELLIGENCE				
684A	0	On Site	Gasholder	1949
685A	0	On Site	Gasholder	1968
686D	0	On Site	Electricity Substation	1996
687D	0	On Site	Electricity Substation	1990
688L	0	On Site	Electricity Works	1968
689L	0	On Site	Electricity Works	1968
690L	0	On Site	Electricity Works	1981
691L	0	On Site	Electricity Works	1984
692DJ	0	On Site	Electricity Substation	1980
693DJ	0	On Site	Electricity Substation	1978
694M	0	On Site	Gas Works	1887
695DH	0	On Site	Electricity Substation	1986
696DH	0	On Site	Electricity Substation	1996
697DH	0	On Site	Electricity Substation	1990
698N	0	On Site	Gas Holder Station	1996
699M	0	On Site	Gasometer	1887
700DH	0	On Site	Electricity Substation	1967
701DH	0	On Site	Electricity Substation	1949
702D	0	On Site	Gas Works	1887
703DI	0	On Site	Electricity Substation	1986
704F	0	On Site	Electricity Substation	1986
705F	0	On Site	Electricity Substation	1996
706M	0	On Site	Gas Holder	1996
707N	0	On Site	Electricity Substation	1996
7080	0	On Site	Gasometer	1887
7090	0	On Site	Gasometer	1949
7100	0	On Site	Gasometer	1966
7110	0	On Site	Gasometer	1949
7120	0	On Site	Gas Holder	1996
7130	0	On Site	Gasometer	1949
7140	0	On Site	Gasometer	1966
7150	0	On Site	Gasometer	1963
7160	0	On Site	Gasometer	1949
717Q	0	On Site	Gasometers	1887
718M	0	On Site	Gas Works	1963
719M	0	On Site	Gas Works	1966
720M	0	On Site	Gasometer	1963
721M	0	On Site	Gasometer	1949
722M	0	On Site	Gasometer	1949
723M	0	On Site	Gasometer	1966
724M	0	On Site	Gasometer	1966
725F	0	On Site	Electricity Substation	1990
7260	0	On Site	Gasometer	1963
727M	0	On Site	Gas Holder	1984
7280	0	On Site	Gas Holder	1984
729C	0	On Site	Gasometers	1883





LOCATION INTELLIGENCE				FOR A BETTER POINT OF VIEW
730N	0	On Site	Gas Holder Station	1990
7310	0	On Site	Gas Holder	1990
732M	0	On Site	Gas Holder	1990
733N	0	On Site	Electricity Substation	1990
734D	0	On Site	Gas Works	1883
735DJ	0	On Site	Electricity Substation	1985
736M	0	On Site	Gas Works	1949
737M	0	On Site	Gas Works	1949
738Q	0	On Site	Gasometers	1883
7390	0	On Site	Gasometer	1883
7400	0	On Site	Gas Works	1883
741M	0	On Site	Gasometer	1883
742F	0	On Site	Electricity Substation	1990
743N	0	On Site	Gas Holder Station	1984
744N	0	On Site	Electricity Substation	1984
745DJ	0	On Site	Electricity Substation	1978
746	10	N	Electricity Substation	1951
747DK	13	S	Electricity Substation	1981
748DK	13	S	Electricity Substation	1990
749DK	13	S	Electricity Substation	1984
750V	13	S	Electricity Works	1949
751DL	13	S	Electricity Substation	1949
752U	14	S	Electricity Works	1968
753DL	14	S	Electricity Works	1968
754DL	14	S	Electricity Works	1968
755U	14	S	Electricity Works	1968
756DL	15	S	Electricity Works	1981
757DL	15	S	Electricity Works	1984
758V	15	S	Electricity Works	1949
759DL	15	S	Electricity Substation	1949
760U	15	S	Electricity Works	1981
761U	15	S	Electricity Works	1984
762U	15	S	Electricity Works	1990
763DM	18	W	Electricity Substation	1978
764DM	20	W	Electricity Substation	1985
765DM	20	W	Electricity Substation	1990
766DN	28	E	Electricity Substation	1996
767DN	29	Е	Electricity Substation	1990
768DN	29	Е	Electricity Substation	1984
769DO	34	NW	Electricity Substation	1996
770DO	35	NW	Electricity Substation	1986
771DO	35	NW	Electricity Substation	1990
772DO	35	NW	Electricity Substation	1990
773DO	35	NW	Electricity Substation	1975
774DO	35	NW	Electricity Substation	1968
775CO	39	SE	Electricity Substation	1968





LOCATION INTELLIGENCE				FOR A BETTER POINT OF VIEW
776CO	39	SE	Electricity Substation	1968
777CO	39	SE	Electricity Substation	1984
778CO	39	SE	Electricity Substation	1981
779Y	59	N	Electricity Substation	1986
780Y	59	N	Electricity Substation	1990
781Y	64	N	Electricity Substation	1975
782Y	67	N	Electricity Substation	1996
783DP	98	E	Electricity Substation	1990
784DP	98	E	Electricity Substation	1984
785DP	99	E	Electricity Substation	1949
786DP	99	E	Electricity Substation	1996
787DP	99	Е	Electricity Substation	1949
788CQ	110	N	Electricity Substation	1990
789CQ	110	N	Electricity Substation	1984
790DQ	112	N	Electricity Substation	1986
791DQ	112	N	Electricity Substation	1990
792DQ	112	N	Electricity Substation	1990
793DQ	113	N	Electricity Substation	1996
794CQ	118	N	Electricity Substation	1996
795CQ	120	N	Electricity Substation	1975
796CQ	120	N	Electricity Substation	1990
797CQ	120	N	Electricity Substation	1990
798AC	120	W	Electricity Substation	1949
799AC	121	W	Electricity Substation	1949
800AC	121	W	Electricity Substation	1975
801AC	121	W	Electricity Substation	1951
802AC	121	W	Electricity Substation	1968
803AC	124	W	Electricity Substation	1986
804AC	124	W	Electricity Substation	1990
805AC	124	W	Electricity Substation	1990
806AC	125	W	Electricity Substation	1996
807	180	S	Electricity Substation	1990
808DS	210	NW	Electricity Substation	1978
809DR	214	S	Electricity Substation	1968
810DR	214	S	Electricity Substation	1990
811DR	214	S	Electricity Substation	1967
812DR	214	S	Electricity Substation	1976
813DS	215	NW	Electricity Substation	1978
814DS	215	NW	Electricity Substation	1980
815DS	215	NW	Electricity Substation	1985
816DT	267	W	Electricity Substation	1985
817DT	267	W	Electricity Substation	1990
818DU	290	SE	Electricity Substation	1990
819DU	291	SE	Electricity Substation	1968
820DU	291	SE	Electricity Substation	1976
821DU	291	SE	Electricity Substation	1967
			<u> </u>	





LOCATION INTELLIGENCE				FOR A BETTER POINT OF VIEW
822CY	308	S	Electricity Substation	1972
823CY	312	S	Electricity Substation	1990
824BA	327	NE	Electricity Substation	1949
825DV	328	W	Electricity Substation	1985
826DV	328	W	Electricity Substation	1990
827DV	328	W	Electricity Substation	1978
828BA	328	NE	Electricity Substation	1975
829BA	328	NE	Electricity Substation	1954
830BA	331	NE	Electricity Substation	1949
831BA	333	NE	Electricity Substation	1990
832BA	333	NE	Electricity Substation	1990
833CZ	333	SE	Electricity Substation	1976
834DW	335	SE	Electricity Substation	1968
835DW	335	SE	Electricity Substation	1981
836DW	335	SE	Electricity Substation	1984
837DW	335	SE	Electricity Substation	1990
838DW	336	SE	Electricity Substation	1968
839AY	349	E	Electricity Substations	1970
840AY	349	E	Electricity Substation	1949
841AY	349	E	Electricity Substation	1949
842AM	358	N	Electricity Substation	1954
843AM	359	N	Electricity Substation	1949
844AM	359	N	Electricity Substation	1949
845DX	361	NW	Electricity Substation	1978
846DX	361	NW	Electricity Substation	1980
847DX	361	NW	Electricity Substation	1985
848DY	366	N	Electricity Substation	1975
849DY	366	N	Electricity Substation	1990
850DY	366	N	Electricity Substation	1990
851ER	368	NW	Electricity Substation	1968
852AS	370	NW	Electricity Substation	1987
853AS	370	NW	Electricity Substation	1987
854AS	370	NW	Electricity Substation	1990
855AS	381	NW	Electricity Substation	1987
856AS	381	NW	Electricity Substation	1987
857AS	381	NW	Electricity Substation	1990
858DZ	383	N	Electricity Substation	1990
859DZ	383	N	Electricity Substation	1975
860EA	426	S	Electricity Substation	1972
861EA	426	S	Electricity Substation	1990
862EB	466	N	Electricity Substation	1990
863EB	466	N	Electricity Substation	1987
864EB	466	N	Electricity Substation	1987
865EC	470	SE	Electricity Substation	1990
866	476	SE	Electricity Works	1990
867ED	479	N	Electricity Substation	1990





868BK 480 N Electricity Substation 1990

1.4 Additional Information - Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary:

0

Database searched and no data found.

1.5 Additional Information - Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary:

68

0 0 0 0	On Site On Site On Site On Site	Garage Garage Garage Garage	1963 1976 1967
0	On Site	Garage	1967
0	On Site		
		Garage	1006
0	O = C:+ -	-	1986
	On Site	Garage	1975
0	On Site	Garage	1968
0	On Site	Garage	1975
0	On Site	Garage	1968
0	On Site	Garage	1990
0	On Site	Garage	1951
0	On Site	Garage	1949
0	On Site	Garage	1986
0	On Site	Garage	1990
0	On Site	Garage	1975
0	On Site	Garage	1968
0	On Site	Garage	1968
0	On Site	Garage	1986
0	On Site	Garage	1968
0	On Site	Garage	1996
0	On Site	Garage	1996
0	On Site	Garage	1996
0	On Site	Garage	1996
0	On Site	Garage	1986
0	On Site	Garage	1990
0	On Site	Garage	1990
		0 On Site 0 On Site	0 On Site Garage 0 On Site Garage

Report Reference: CMAPS-CM-636391-16287-030717EDR





LOCATION INTELLIGENCE				
894CC	0	On Site	Garage	1966
895CC	0	On Site	Garage	1990
896CC	0	On Site	Garage	1984
897BU	15	E	Motor Repair Works	1968
898BU	16	E	Motor Repair Works	1968
899EI	93	SE	Garage	1958
900EI	93	SE	Boat Repair Yard	1968
901EI	94	SE	Boat Repair Yard	1968
902EI	126	SE	Garage	1957
903EI	126	SE	Garage	1949
904EJ	170	N	Garage	1990
905EJ	172	N	Garage	1975
906EJ	172	N	Garage	1966
907EK	177	N	Garage	1975
908EK	177	N	Garage	1954
909EK	189	N	Garage	1966
910EK	193	N	Garage	1949
911EK	194	N	Garage	1990
912EK	194	N	Garage	1990
913EK	199	N	Garage	1949
914EK	200	N	Garage	1963
915CW	219	NW	Garage	1963
916CW	223	NW	Garage	1987
917CW	223	NW	Garage	1987
918EL	227	N	Garage	1966
919EL	227	N	Garage	1954
920EL	228	N	Garage	1990
921EL	232	N	Garage	1963
922CW	232	NW	Garage	1949
923CW	232	NW	Garage	1968
924CW	232	NW	Garage	1957
925CU	234	SE	Garage	1971
926CU	235	SE	Garage	1990
927CU	241	SE	Garage	1964
928CU	241	SE	Garage	1968
929EL	261	N	Garage	1990
930EL	261	N	Garage	1990
931AS	286	Ν	Shipbuilding and Repairing Yard	1987
932AS	286	N	Shipbuilding and Repairing Yard	1987
933AS	286	N	Shipbuilding and Repairing Yard	1990
934DZ	365	N	Garage	1954
935DZ	365	N	Garage	1949
936DZ	365	N	Garage	1963





81

1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site:

The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
937J	0	On Site	Quay	1938
938J	0	On Site	Quay	1938
939K	0	On Site	Unspecified Wharf	1946
940J	0	On Site	Quay	1978
941DK	0	On Site	Unspecified Wharf	1978
942D	0	On Site	Quay	1904
943D	0	On Site	Quay	1946
944E	0	On Site	Quay	1978
945E	0	On Site	Quay	1988
946D	0	On Site	Quay	1938
947D	0	On Site	Quay	1938
948EM	0	On Site	Unspecified Wharf	1884
949B	0	On Site	Quay	1952
950EN	0	On Site	Unspecified Wharf	1988
951B	0	On Site	Quay	1988
952B	0	On Site	Quay	1978
953B	0	On Site	Quay	1938
954B	0	On Site	Quay	1938
955G	0	On Site	Quay	1946
956K	0	On Site	Unspecified Wharf	1904
957G	0	On Site	Quay	1904
958H	0	On Site	Quay	1978
959H	0	On Site	Quay	1988
960EO	15	S	Pond	1884
961EO	15	S	Pond	1901
962AB	52	N	Dock	1946
963Z	73	SE	Quay	1946
964Z	73	SE	Quay	1904
965EP	117	Е	Sand Pit	1884
966EQ	124	SE	Quay	1988
967CP	127	N	Dry Docks	1904
968AJ	164	SE	Quay	1946
969AH	169	SE	Quay	1988
970AH	169	SE	Quay	1978
971AH	172	SE	Quay	1904
972AH	172	SE	Quay	1946
973AJ	188	SE	Quay	1952
974DB	188	SE	Quay	1978

Report Reference: CMAPS-CM-636391-16287-030717EDR



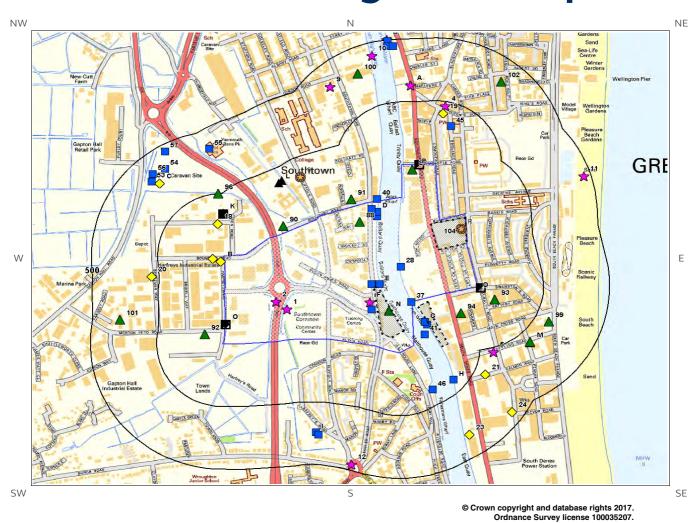


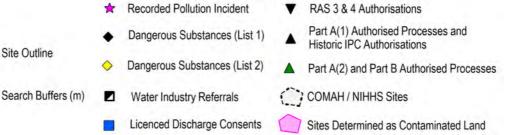
LOCATION INTELLIGENCE				
975AK	203	NE	Unspecified Ground Workings	1938
976AK	203	NE	Unspecified Ground Workings	1938
977AH	230	SE	Quay	1938
978AH	230	SE	Quay	1938
979AD	249	NE	Unspecified Pit	1901
980AR	269	W	Unspecified Pit	1901
981DF	277	SE	Quay	1988
982AR	279	W	Unspecified Pit	1884
983AR	280	W	Unspecified Pit	1904
984AR	280	W	Unspecified Pit	1946
985AR	291	W	Unspecified Heap	1938
986AR	291	W	Unspecified Heap	1938
987AS	295	N	Dry Dock	1988
988ER	295	N	Dry Dock	1978
989AR	298	W	Unspecified Pit	1952
990DC	303	SE	Refuse Heap	1884
991	306	NW	Pond	1952
992ER	316	N	Dry Docks	1938
993ER	316	N	Dry Docks	1938
994AS	329	N	Dry Docks	1904
995AS	329	N	Dry Docks	1946
996BP	367	W	Cuttings	1884
997ES	371	E	Pond	1938
998ES	372	E	Pond	1946
999BE	382	S	Unspecified Pit	1946
1000BE	382	S	Unspecified Pit	1904
1001ES	385	Е	Pond	1988
1002ES	385	E	Pond	1978
1003ET	397	NE	Unspecified Heap	1952
1004EU	421	NE	Boating Lake	1988
1005EU	421	NE	Boating Lake	1978
1006BI	436	SE	Quay	1938
1007BI	436	SE	Quay	1938
1008BO	436	W	Cuttings	1901
1009BL	458	S	Unspecified Heap	1988
1010BL	458	S	Unspecified Heap	1978
1011BN	461	N	Quay	1904
1012BN	461	N	Quay	1946
1013BO	463	W	Cuttings	1938
1014BO	464	W	Cuttings	1946
1015BO	464	W	Cuttings	1904
1016BP	469	W	Cuttings	1952
1017BO	496	W	Cuttings	1952





2. Environmental Permits, Incidents and Registers Map





Red List Discharge Consents

Hazardous Substance Consents

and Enforcements

Report Reference: CMAPS-CM-636391-16287-030717EDR Client Reference: 16287

36





2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

21

The following Part A(1) and IPPC Authorised Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Det	ails
113K	167	N	651840 306180	Operator: Biffa Waste Services Ltd Installation Name: Great Yarmouth Wm Resource Centre Epr/rp3636sr Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING PHYSICO- CHEMICAL TREATMENT	Permit Number: JP3336EE Original Permit Number: RP3636SR EPR Reference: - Issue Date: 15/1/2014 Effective Date: 15/1/2014 Last date noted as effective: 2017-04- 01 Status: Superceded
114K	167	N	651840 306180	Operator: Biffa Waste Services Ltd Installation Name: Great Yarmouth Wm Resource Centre Epr/rp3636sr Process: DISPOSAL OR RECOVERY OF HAZ WASTE WITH CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING BLENDING OR MIXING PRIOR TO SUBMISSION TO ANY OF THE OTHER ACTIVITIES LISTED IN THIS SECTION OR IN SECTION 5.1	Permit Number: JP3336EE Original Permit Number: RP3636SR EPR Reference: - Issue Date: 15/1/2014 Effective Date: 15/1/2014 Last date noted as effective: 2017-04- 01 Status: Superceded
115K	167	N	651840 306180	Operator: Biffa Waste Services Ltd Installation Name: Great Yarmouth Wm Resource Centre Epr/rp3636sr Process: DISPOSAL OF > 50 T/D NON- HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PHYSICO- CHEMICAL TREATMENT	Permit Number: JP3336EE Original Permit Number: RP3636SR EPR Reference: - Issue Date: 15/1/2014 Effective Date: 15/1/2014 Last date noted as effective: 2017-04- 01 Status: Superceded

Report Reference: CMAPS-CM-636391-16287-030717EDR





LO	CATION INTELL	IGENCE			FOR A BEITER POINT OF VIEW
ID	Distance (m)	Direction	NGR	Det	ails
116K	167	N	651840 306180	Operator: Biffa Waste Services Ltd Installation Name: Great Yarmouth Wm Resource Centre Epr/rp3636sr Process: TEMPORARY STORAGE OF HAZ WASTE NOT UNDER S 5.2 PENDING ACTIVITIES LISTED IN S 5.1, 5.2, 5.3 AND PARAGRAPH (B) OF THIS SECTION WITH A TOTAL CAPACITY > 50 TONNES, EXCL TEMP STORAGE WHERE GENERATED	Permit Number: JP3336EE Original Permit Number: RP3636SR EPR Reference: - Issue Date: 15/1/2014 Effective Date: 15/1/2014 Last date noted as effective: 2017-04-01 Status: Superceded
117K	167	N	651840 306180	Operator: Biffa Waste Services Ltd Installation Name: Great Yarmouth Wm Resource Centre Epr/rp3636sr Process: ASSOCIATED PROCESS	Permit Number: JP3336EE Original Permit Number: RP3636SR EPR Reference: - Issue Date: 15/1/2014 Effective Date: 15/1/2014 Last date noted as effective: 2017-04- 01 Status: Superceded
118K	167	N	651840 306180	Operator: Biffa Waste Services Ltd Installation Name: Great Yarmouth Wm Resource Centre Epr/rp3636sr Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING PHYSICO- CHEMICAL TREATMENT	Permit Number: JP3336EE Original Permit Number: RP3636SR EPR Reference: - Issue Date: 15/1/2014 Effective Date: 15/1/2014 Last date noted as effective: 2017-04- 01 Status: Superceded
119K	167	N	651840 306180	Operator: Biffa Waste Services Ltd Installation Name: Great Yarmouth Wm Resource Centre Epr/rp3636sr Process: OTHER WASTE DISPOSAL; WASTE OILS >10 T/D	Permit Number: RP3636SR Original Permit Number: RP3636SR EPR Reference: - Issue Date: 29/6/2006 Effective Date: 29/6/2006 Last date noted as effective: 2017-04- 01 Status: Superceded
120K	167	N	651840 306180	Operator: Biffa Waste Services Ltd Installation Name: Great Yarmouth Wm Resource Centre Epr/rp3636sr Process: OTHER WASTE DISPOSAL; NON-HAZARDOUS WASTE >50T/D BY PHYSICO-CHEMICAL TREATMENT	Permit Number: RP3636SR Original Permit Number: RP3636SR EPR Reference: - Issue Date: 29/6/2006 Effective Date: 29/6/2006 Last date noted as effective: 2017-04-01 Status: Superceded
121K	167	N	651840 306180	Operator: Biffa Waste Services Ltd Installation Name: Great Yarmouth Wm Resource Centre Epr/rp3636sr Process: OTHER WASTE DISPOSAL; HAZARDOUS WASTE >10T/D	Permit Number: RP3636SR Original Permit Number: RP3636SR EPR Reference: - Issue Date: 29/6/2006 Effective Date: 29/6/2006 Last date noted as effective: 2017-04-01 Status: Superceded
122K	167	N	651840 306180	Operator: Biffa Waste Services Ltd Installation Name: Great Yarmouth Wm Resource Centre Epr/rp3636sr Process: OTHER WASTE DISPOSAL; HAZARDOUS WASTE >10T/D	Permit Number: RP3636SR Original Permit Number: RP3636SR EPR Reference: - Issue Date: 29/6/2006 Effective Date: 29/6/2006 Last date noted as effective: 2017-04- 01 Status: Superceded





LO	CATION INTELL	IGENCE		FOR A BETTER POINT OF VIEW		
ID	Distance (m)	Direction	NGR	Det	ails	
123K	167	N	651840 306180	Operator: Augean North Sea Services Limited Installation Name: Great Yarmouth Wm Resource Centre Epr/zp3637rm Process: DISPOSAL OR RECOVERY OF HAZ WASTE WITH CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING BLENDING OR MIXING PRIOR TO SUBMISSION TO ANY OF THE OTHER ACTIVITIES LISTED IN THIS SECTION OR IN SECTION 5.1	Permit Number: ZP3637RM Original Permit Number: ZP3637RM EPR Reference: - Issue Date: 28/4/2016 Effective Date: 28/4/2016 Last date noted as effective: 2017-04- 01 Status: Transfer Effective	
124K	167	N	651840 306180	Operator: Augean North Sea Services Limited Installation Name: Great Yarmouth Wm Resource Centre Epr/zp3637rm Process: DISPOSAL OF > 50 T/D NON- HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING PHYSICO- CHEMICAL TREATMENT	Permit Number: ZP3637RM Original Permit Number: ZP3637RM EPR Reference: - Issue Date: 28/4/2016 Effective Date: 28/4/2016 Last date noted as effective: 2017-04- 01 Status: Transfer Effective	
125K	167	N	651840 306180	Operator: Augean North Sea Services Limited Installation Name: Great Yarmouth Wm Resource Centre Epr/zp3637rm Process: TEMPORARY STORAGE OF HAZ WASTE NOT UNDER S 5.2 PENDING ACTIVITIES LISTED IN S 5.1, 5.2, 5.3 AND PARAGRAPH (B) OF THIS SECTION WITH A TOTAL CAPACITY > 50 TONNES, EXCL TEMP STORAGE WHERE GENERATED	Permit Number: ZP3637RM Original Permit Number: ZP3637RM EPR Reference: - Issue Date: 28/4/2016 Effective Date: 28/4/2016 Last date noted as effective: 2017-04- 01 Status: Transfer Effective	
126K	167	N	651840 306180	Operator: Augean North Sea Services Limited Installation Name: Great Yarmouth Wm Resource Centre Epr/zp3637rm Process: ASSOCIATED PROCESS	Permit Number: ZP3637RM Original Permit Number: ZP3637RM EPR Reference: - Issue Date: 28/4/2016 Effective Date: 28/4/2016 Last date noted as effective: 2017-04- 01 Status: Transfer Effective	
127K	167	N	651840 306180	Operator: Augean North Sea Services Limited Installation Name: Great Yarmouth Wm Resource Centre Epr/zp3637rm Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING PHYSICO- CHEMICAL TREATMENT	Permit Number: ZP3637RM Original Permit Number: ZP3637RM EPR Reference: - Issue Date: 28/4/2016 Effective Date: 28/4/2016 Last date noted as effective: 2017-04- 01 Status: Transfer Effective	
128L	187	NW	652050 306300	Operator: C & L Waste Oil Collection Limited Installation Name: Great Yarmouth Oil Reclamation Facility Epr/np3038mb Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING PHYSICO- CHEMICAL TREATMENT	Permit Number: WP3437RY Original Permit Number: NP3038MB EPR Reference: - Issue Date: 27/4/2016 Effective Date: 27/4/2016 Last date noted as effective: 2017-04- 01 Status: Effective	





ID	Distance (m)	Direction	NGR	Det	tails
129L	187	NW	652050 306300	Operator: C & L Waste Oil Collection Limited Installation Name: Great Yarmouth Oil Reclamation Facility Epr/np3038mb Process: TEMPORARY STORAGE OF HAZ WASTE NOT UNDER S 5.2 PENDING ACTIVITIES LISTED IN S 5.1, 5.2, 5.3 AND PARAGRAPH (B) OF THIS SECTION WITH A TOTAL CAPACITY > 50 TONNES, EXCL TEMP STORAGE WHERE GENERATED	Permit Number: WP3437RY Original Permit Number: NP3038MB EPR Reference: - Issue Date: 27/4/2016 Effective Date: 27/4/2016 Last date noted as effective: 2017-04- 01 Status: Effective
130L	192	NW	652060 306310	Operator: C & L Waste Oil Collection Limited Installation Name: C & L Waste Oil Collection Process: RECOVERY OF WASTE; CLEANING/REGENERATING CARBON ETC BY REMOVING SCHEDULED SUBSTANCES	Permit Number: NP3038MB Original Permit Number: NP3038MB EPR Reference: - Issue Date: 17/10/2007 Effective Date: 17/10/2007 Last date noted as effective: 2011-08-08 Status: Effective
131L	192	NW	652060 306310	Operator: C & L Waste Oil Collection Limited Installation Name: Great Yarmouth Oil Reclamation Facility Epr/np3038mb Process: TEMPORARY STORAGE OF HAZ WASTE NOT UNDER S 5.2 PENDING ACTIVITIES LISTED IN S 5.1, 5.2, 5.3 AND PARAGRAPH (B) OF THIS SECTION WITH A TOTAL CAPACITY > 50 TONNES, EXCL TEMP STORAGE WHERE GENERATED	Permit Number: FP3934ER Original Permit Number: NP3038MB EPR Reference: - Issue Date: 10/12/2013 Effective Date: 10/12/2013 Last date noted as effective: 2017-04- 01 Status: Superceded
132L	192	NW	652060 306310	Operator: C & L Waste Oil Collection Limited Installation Name: Great Yarmouth Oil Reclamation Facility Epr/np3038mb Process: OTHER WASTE DISPOSAL; WASTE OILS >10 T/D	Permit Number: NP3038MB Original Permit Number: NP3038MB EPR Reference: - Issue Date: 17/10/2007 Effective Date: 17/10/2007 Last date noted as effective: 2017-04- 01 Status: Superceded
133L	192	NW	652060 306310	Operator: C & L Waste Oil Collection Limited Installation Name: Great Yarmouth Oil Reclamation Facility Epr/np3038mb Process: DISPOSAL OR RECOVERY OF HAZARDOUS WASTE WITH A CAPACITY EXCEEDING 10 TONNES PER DAY INVOLVING PHYSICO- CHEMICAL TREATMENT	Permit Number: FP3934ER Original Permit Number: NP3038MB EPR Reference: - Issue Date: 10/12/2013 Effective Date: 10/12/2013 Last date noted as effective: 2017-04- 01 Status: Superceded





2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

2

The following List 1 Dangerous Substance Inventory Site records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	С	Details
140	0	On Site	651850 305740	Name: Weatherford Uk Limited Status: Not Active Receiving Water: Na	Authorised Substances: Mercury (other), Cadmium
15C	376	NW	651600 306300	Name: Biffa Waste Services Ltd Status: Active Receiving Water: Na	Authorised Substances: Mercury (other), Cadmium, Carbon tetrachloride, Aldrin, Dieldrin, Endrin, Hexachlorobenzene, Hexachlorobutadiene, Trichlorobenzene, Total DDT

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

9

The following List 2 Dangerous Substance Inventory Site records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Deta	ails
16B	16B 15 W 651830 305990		(//		Authorised Substances: pH
17B	44	W	651800 306000	Name: U K Waste Management Limited Status: Active Receiving Water: North Sea	Authorised Substances: Chromium, Copper, Lead, Nickel, Zinc
18	129	N	651820 306140	Name: Edeco Petroleum Services Ltd Status: Not Active Receiving Water: Na	Authorised Substances: pH
19	200	N	652670 306580	Name: Blackfriars Brewery Status: Not Active Receiving Water: Na	Authorised Substances: pH
20	278	W	651570 305930	Name: Superior Linen Service Ltd Status: Not Active Receiving Water: Na	Authorised Substances: pH
21	294	SE	652830 305540	Name: Asco Uk Ltd Status: Not Active Receiving Water: Na	Authorised Substances: pH

Report Reference: CMAPS-CM-636391-16287-030717EDR





ID	Distance (m)	Direction	NGR	D	etails
22C	376	NW	651600 306300	Name: Biffa Waste Services Ltd Status: Active Receiving Water: Na	Authorised Substances: Arsenic, Chromium, Copper, Cyanide, Dichlorvos, Lead, Nickel, pH, Tributyltin, Triphenyltin, Zinc, Atrazine & Simazine, Azinphos-methyl, Endosulphan, Fenitrothion, Malathion, Trifluralin, Phenol
23	414	SE	652770 305300	Name: Co-operative Cleaners Ltd Status: Active Receiving Water: Na	Authorised Substances: pH
24	456	SE	652930 305390	Name: C-mac Microcircuits Limited Status: Not Active Receiving Water: Na	Authorised Substances: pH

2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

16

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details		
87	0	On Site	652554 306353	Address: L J Steward, South Quay Service Station, Southgate Road, N1 3HU Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified	
88	0	On Site	652355 306146	Address: L J Steward, Southtown Road Service Station, Southtown Road, NR31 0JZ Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified	
89N	0	On Site	652465 305791	Address: CEBO (UK) Ltd, Gas House Quay North, Malthouse Lane, Gorleston, Norfolk, NR31 0GY Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified	
90	24	NW	652066 306129	Address: Cemex UK Materials Ltd, Boundary Road, NR31 OLW Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified	
91	26	N	652324 306236	Address: Jewson, Boundary Road, Great Yarmouth, Norfolk, NR31 0JY Process: timber process Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified	
92	74	W	651771 305697	Address: C & H Quickmix Ltd, Morton Peto Road, Great Yarmouth, Norfolk, NR31 0LT Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified	

Report Reference: CMAPS-CM-636391-16287-030717EDR





ID	Distance (m)	Direction	NGR	Det	tails
93	86	SE	652865 305835	Address: British Metal Treatments Ltd, 40 Battery Road, Great Yarmouth, NR30 3NN Process: Other Metal Processes Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
94	94	S	652738 305781	Address: Haliburton Manufacturing & Services Ltd, Berth 1A, South Denes Road, Great Yarmouth, NR30 3PF Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
95K	165	N	651839 306178	Address: UK Waste Management, Bessemer Way, Great Yarmouth, Norfolk, NR31 0LX Process: waste oil burning process Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
96	245	N	651821 306257	Address: Hope Construction Materials, Harfreys Industrial Estate, Bessemer Way, Great Yarmouth, NR31 0LX Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
97M	299	SE	652998 305667	Address: East Bilney Coachworks Ltd, Fenner Road, Great Yarmouth, Norfolk, NR30 3PS Process: Respraying of Road Vehicles process Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
98M	300	SE	652998 305666	Address: Halls Group Ltd, Operate at Fenner Road, Great Yarmouth, NR30 3PS Process: Respraying of Road Vehicles process Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
99	305	SE	653069 305748	Address: Constitution Motors Ltd, South Beach Parade, Great Yarmouth, NR30 3QN Process: Waste oil Burner Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
100	395	NW	652348 306736	Address: Yeoman Bulk Cargoes, Yeoman Wharf, Southtown Road, Great Yarmouth, Norfolk, NR31 0JJ Process: bulk handling of coal Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
101	398	W	651449 305756	Address: Coastground Ltd, Morton Peto Road, Great Yarmouth, Norfolk, NR31 0LT Process: Metal coating process Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
102	405	NE	652889 306703	Address: Baldwin, Albert Road, Great Yarmouth, NR30 3HP Process: waste oil burning process Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified





2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

1

The following RAS Licence (3 or 4) records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Address	Operato r	Туре	Permissio n Number	Dates	Status
134K	167	N	651840 306180	Tube Care Inspection Ltd, Bessemer Way,harfeys Industrial Estate, Great Yarmouth, Norfolk, NR31 0LX	Tube Care Inspectio n Ltd	Keeping And Use Of Radioactive Materials (was Rsa60 Section 1).	BS0329	Date of Approval:20/5/200 2 Effective from:20/5/2002 Last date of update:2015-01- 01	Revoked/ca ncelled

2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

41

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Det	ails
25D	0	On Site	652420 306190	Address: BOUNDARY RD PS SSO, BOUNDARY RD, GREAT YARMOUTH, NR31 Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AW4TS1735 Permit Version: 2	Receiving Water: River Yare Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 13/12/1991 Effective Date: 13-Dec-1991 Revocation Date: 15/10/1999
26D	0	On Site	652420 306170	Address: BOUNDARY ROAD STORM PUMPING STATION, GREAT YARMOUTH, NORFOLK, NR31 0JY Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: AEETS12173 Permit Version: 1	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 15/10/1999 Effective Date: 15-Oct-1999 Revocation Date: -
27D	0	On Site	652420 306170	Address: BOUNDARY ROAD STORM PUMPING STATION, GREAT YARMOUTH, NORFOLK, NR31 0JY Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS03291/12173 Permit Version: 1	Receiving Water: RIVER YARE Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 21/10/2002 Effective Date: 16-Oct-2002 Revocation Date: 16/10/2002
28	0	On Site	652510 305970	Address: SUTTON ROAD OUTFALL, GREAT YARMOUTH Effluent Type: SEWAGE DISCHARGES - UNSPECIFIED - WATER COMPANY Permit Number: AW4TS1389 Permit Version: 1	Receiving Water: River Yare T Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/10/1987 Effective Date: 14-Oct-1987 Revocation Date: 30/06/1994

Report Reference: CMAPS-CM-636391-16287-030717EDR





ID	Distance	Direction	NGR	Deta	ails
29E	(m)	On Site	652430 305900	Address: SOUTHTOWN/COBHAM OUTFALL, SOUTHTOWN ROAD, GREAT YARMOUTH, NORFOLK, NR31 0LF Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS03293/12171 Permit Version: 1	Receiving Water: R.YARE Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 21/02/2003 Effective Date: 27-Jan-2003 Revocation Date: 01/04/2005
30E	0	On Site	652430 305900	Address: SOUTHTOWN/COBHAM OUTFALL, SOUTHTOWN ROAD, GREAT YARMOUTH, NORFOLK, NR31 0LF Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: AEETS12171 Permit Version: 2	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 24/03/2005 Effective Date: 01-Apr-2005 Revocation Date: -
31E	0	On Site	652430 305900	Address: SOUTHTOWN/COBHAM OUTFALL, SOUTHTOWN ROAD, GREAT YARMOUTH, NORFOLK, NR31 0LF Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS12171 Permit Version: 2	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 24/03/2005 Effective Date: 01-Apr-2005 Revocation Date: -
32E	0	On Site	652430 305900	Address: SOUTHTOWN/COBHAM OUTFALL, SOUTHTOWN ROAD, GREAT YARMOUTH, NORFOLK, NR31 0LF Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS03293/12171 Permit Version: 1	Receiving Water: R.YARE Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 21/02/2003 Effective Date: 27-Jan-2003 Revocation Date: 01/04/2005
33E	0	On Site	652430 305900	Address: SOUTHTOWN/COBHAM OUTFALL, SOUTHTOWN ROAD, GREAT YARMOUTH, NORFOLK, NR31 0LF Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS12171 Permit Version: 1	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 15/10/1999 Effective Date: 15-Oct-1999 Revocation Date: 31/03/2005
34E	0	On Site	652400 305900	Address: SOUTHTOWN COMMON OUTFALL DRAINAGE S, GREAT YARMOUTH, NR31 Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: AW4TS348X Permit Version: 1	Receiving Water: River Yare Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 25/01/1963 Effective Date: 25-Jan-1963 Revocation Date: 07/06/1991
35E	0	On Site	652430 305900	Address: SOUTHTOWN/COBHAM OUTFALL, SOUTHTOWN ROAD, GREAT YARMOUTH, NORFOLK, NR31 0LF Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS12171 Permit Version: 1	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 15/10/1999 Effective Date: 15-Oct-1999 Revocation Date: 31/03/2005
36E	0	On Site	652430 305900	Address: SOUTHTOWN/COBHAM OUTFALL, SOUTHTOWN ROAD, GREAT YARMOUTH, NORFOLK, NR31 0LF Effluent Type: SEWAGE DISCHARGES - UNSPECIFIED - WATER COMPANY Permit Number: AW4TS1387 Permit Version: 1	Receiving Water: River Yare T Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 14/10/1987 Effective Date: 14-Oct-1987 Revocation Date: 22/03/2002
37	0	On Site	652550 305830	Address: FISH WHARF OUTFALL, GREAT YARMOUTH Effluent Type: SEWAGE DISCHARGES - UNSPECIFIED - WATER COMPANY Permit Number: AW4TS1385 Permit Version: 1	Receiving Water: River Yare T Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/10/1987 Effective Date: 14-Oct-1987 Revocation Date: 16/02/1998





L	OCATION INTE	LLIGENCE			FOR A BEITER POINT OF VIEW			
ID	Distance (m)	Direction	NGR	Details				
38F	0	On Site	652400 305800	Address: GT YARMOUTH CORPORATION, BOUNDARY ROAD Effluent Type: SEWAGE DISCHARGES - UNSPECIFIED - WATER COMPANY Permit Number: AW4TS721X Permit Version: 1	Receiving Water: River Yare Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 09/07/1971 Effective Date: 09-Jul-1971 Revocation Date: 16/02/1998			
39D	0	On Site	652400 306200	Address: YEOMAN WHARF, SOUTHTOWN RD, GREAT YARMOUTH, NORFOLK, NR31 OJX Effluent Type: TRADE DISCHARGES - SITE DRAINAGE (CONTAM SURFACE WATER, NOT WASTE SIT Permit Number: PRETS8519 Permit Version: 1	Receiving Water: tidal River Yare Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 25/10/1993 Effective Date: 25-Oct-1993 Revocation Date: -			
40	8	N	652420 306240	Address: BOUNDARY ROAD PS SSO, BOUNDARY ROAD, GREAT YARMOUTH, NR31 Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: AW4TS1735 Permit Version: 1	Receiving Water: River Yare Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 08/11/1988 Effective Date: 08-Nov-1988 Revocation Date: 12/12/1991			
41	41	E	652600 305700	Address: SOUTH DENES RD, GT.YARMOUTH, NORFOLK (FERRY STEPS PLANT) Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PR4TS385 Permit Version: 1	Receiving Water: Tidal River Yare Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 24/03/1986 Effective Date: 24-Mar-1986 Revocation Date: -			
42G	43	E	652600 305750	Address: YARMOUTH MARINE BASE, SOUTH DENES, GT YARMOUTH, NR30 3LX Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: PRETS4620 Permit Version: 1	Receiving Water: Tidal River Yare Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 16/12/1991 Effective Date: 16-Dec-1991 Revocation Date: -			
43G	53	E	652610 305740	Address: FISH WHARF PS, GREAT YARMOUTH Effluent Type: MISCELLANEOUS DISCHARGES - EMERGENCY DISCHARGES Permit Number: AEETS2306 Permit Version: 1	Receiving Water: Tidal R Yare Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 02/01/1990 Effective Date: 02-Jan-1990 Revocation Date: 30/04/1992			
44G	53	E	652610 305740	Address: FISH WHARF PS, GREAT YARMOUTH Effluent Type: MISCELLANEOUS DISCHARGES - EMERGENCY DISCHARGES Permit Number: AEETS1650 Permit Version: 1	Receiving Water: - Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 15/09/1990 Effective Date: 15-Sep-1990 Revocation Date: 08/04/1991			
45	159	N	652700 306530	Address: SALMON ROAD, GREAT YARMOUTH, NR30 3QS Effluent Type: SEWAGE DISCHARGES - UNSPECIFIED - WATER COMPANY Permit Number: AW4TS1374 Permit Version: 1	Receiving Water: River Yare T Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 14/10/1987 Effective Date: 14-Oct-1987 Revocation Date: 16/02/1998			
46	189	SE	652630 305480	Address: FISHERMEN'S QUAY, GORLESTON, GT.YARMOUTH. Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PR4TS137 Permit Version: 1	Receiving Water: The Tidal River Yare Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 23/04/1985 Effective Date: 23-Apr-1985 Revocation Date: -			





L	OCATION INTE	LLIGENCE			FOR A BETTER POINT OF VIEW
ID	Distance (m)	Direction	NGR	Det	ails
47H	203	SE	652710 305520	Address: SUFFLING ROAD PUMPING STATION, SUFFLING ROAD, GREAT YARMOUTH, NORFOLK, NR30 3PQ Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS12169 Permit Version: 1	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 15/10/1999 Effective Date: 15-Oct-1999 Revocation Date: 22/02/2002
48H	203	SE	652710 305520	Address: SUFFLING ROAD PUMPING STATION, SUFFLING ROAD, GREAT YARMOUTH, NORFOLK, NR30 3PQ Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: AEETS12169 Permit Version: 2	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 23/02/2002 Effective Date: 23-Feb-2002 Revocation Date: -
49H	203	SE	652710 305520	Address: SUFFLING ROAD PUMPING STATION, SUFFLING ROAD, GREAT YARMOUTH, NORFOLK, NR30 3PQ Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS12169 Permit Version: 2	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 23/02/2002 Effective Date: 23-Feb-2002 Revocation Date: -
50H	203	SE	652710 305520	Address: SUFFLING ROAD PUMPING STATION, SUFFLING ROAD, GREAT YARMOUTH, NORFOLK, NR30 3PQ Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS12169 Permit Version: 1	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 15/10/1999 Effective Date: 15-Oct-1999 Revocation Date: 22/02/2002
511	371	S	652190 305310	Address: ATCHIN TAN, HARFREYS ROAD, GORLESTON, GT.YARMOUTH, NORFOLK Effluent Type: UNSPECIFIED Permit Number: PRELF03747 Permit Version: 1	Receiving Water: - Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 30/10/1990 Effective Date: 30-Oct-1990 Revocation Date: 01/10/1996
521	381	S	652200 305300	Address: HARFREYS ROAD, GT YARMOUTH, NORFOLK Effluent Type: UNSPECIFIED Permit Number: PR4LF268 Permit Version: 1	Receiving Water: Soakaway Status: PRE NRA LEGISLATION WHERE ISSUE DATE < 01-SEP-89 (HISTORIC ONLY) Issue date: 27/09/1985 Effective Date: 27-Sep-1985 Revocation Date: 01/10/1996
53	403	NW	651570 306310	Address: GAPTON HALL TRAVELLERS SITE, GAPTON HALL ROAD, GREAT YARMOUTH, NORFOLK, NR31 ONL Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRENF19844 Permit Version: 1	Receiving Water: DITCH TRIB OF TIDAL R. YARE Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 24/02/2006 Effective Date: 24-Feb-2006 Revocation Date: -
54	412	NW	651620 306360	Address: CVAN SITE GAPTONHALL RD, GREAT YARMOUTH, NORFOLK Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: PRENF07708 Permit Version: 1	Receiving Water: Trib River Yare Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 06/02/1991 Effective Date: 06-Feb-1991 Revocation Date: -





L	OCATION INTE	LLIGENCE			FOR A BEITER POINT OF VIEW
ID	Distance (m)	Direction	NGR	Det	ails
55	422	NW	651787 306440	Address: POLICE CUSTODY CENTRE, THAMESFIELD WAY, GREAT YARMOYTH, ., NORFOLK, NR31 0DH Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: EPREP3120GR Permit Version: 1	Receiving Water: TRIB OF THE RIVER YARE Status: NEW ISSUED UNDER EPR 2010 Issue date: 12/08/2010 Effective Date: 12-Aug-2010 Revocation Date: -
56	423	NW	651574 306340	Address: GAPTON HALL ROAD & LAND OF A12, GREAT YARMOUTH, NORFOLK, NR31 OLZ Effluent Type: SEWAGE & TRADE COMBINED - UNSPECIFIED Permit Number: PRENF20271 Permit Version: 1	Receiving Water: TRIB RIVER YARE Status: NEW CONSENT, (WATER INDUSTRY ACT 1991, SECTION 166) Issue date: 31/08/2006 Effective Date: 31-Aug-2006 Revocation Date: -
57	473	NW	651620 306430	Address: GAPTON HALL TRAVELLERS SITE, GAPTON HALL ROAD, GREAT YARMOUTH, NORFOLK, NR31 ONL Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRENF19845 Permit Version: 1	Receiving Water: DITCH TRIB OF TIDAL R. YARE Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 24/02/2006 Effective Date: 24-Feb-2006 Revocation Date: -
58J	474	N	652480 306850	Address: BRYANTS QUAY SPS, GREAT YARMOUTH Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: AW4TS1408 Permit Version: 1	Receiving Water: River Yare T Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 14/10/1987 Effective Date: 14-Oct-1987 Revocation Date: 22/03/2002
59J	475	N	652460 306850	Address: BRYANTS QUAY OUTFALL, GREAT YARMOUTH Effluent Type: SEWAGE DISCHARGES - UNSPECIFIED - WATER COMPANY Permit Number: AW4TS1388 Permit Version: 1	Receiving Water: River Yare T Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 14/10/1987 Effective Date: 14-Oct-1987 Revocation Date: 22/03/2002
60J	495	N	652460 306870	Address: BRYANTS QUAY PUMPING STATION, SOUTH QUAY, GREAT YARMOUTH, NORFOLK, NR30 2RW Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS12175 Permit Version: 2	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 11/01/2000 Effective Date: 11-Jan-2000 Revocation Date: -
61J	495	N	652460 306870	Address: BRYANTS QUAY PUMPING STATION, SOUTH QUAY, GREAT YARMOUTH, NORFOLK, NR30 2RW Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: AEETS12175 Permit Version: 2	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 11/01/2000 Effective Date: 11-Jan-2000 Revocation Date: -
62J	495	N	652460 306870	Address: BRYANTS QUAY PUMPING STATION, SOUTH QUAY, GREAT YARMOUTH, NORFOLK, NR30 2RW Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS12175 Permit Version: 1	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 15/10/1999 Effective Date: 15-Oct-1999 Revocation Date: 10/01/2000





ID	Distance (m)	Direction	NGR	Details				
63J	495	N	652460 306870	Address: BRYANTS QUAY PUMPING STATION, SOUTH QUAY, GREAT YARMOUTH, NORFOLK, NR30 2RW Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS12175 Permit Version: 1	Receiving Water: TIDAL RIVER YARE Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 15/10/1999 Effective Date: 15-Oct-1999 Revocation Date: 10/01/2000			
	495	N	652460 306870	Address: BRYANTS QUAY PUMPING STATION, SOUTH QUAY, GREAT YARMOUTH, NORFOLK, NR30 2RW Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS03290/12175 Permit Version: 1	Receiving Water: RIVER YARE Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 01/10/2002 Effective Date: 05-Sep-2002 Revocation Date: 01/10/2002			
	495	N	652460 306870	Address: BRYANTS QUAY PUMPING STATION, SOUTH QUAY, GREAT YARMOUTH, NORFOLK, NR30 2RW Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AEETS03290/12175 Permit Version: 1	Receiving Water: RIVER YARE Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 01/10/2002 Effective Date: 05-Sep-2002 Revocation Date: 01/10/2002			





2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

4

The following Water Industry Referral records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	Address	Permission reference	Local Authority	First Date Received	Last Date Received	Status
135 O	0	On Site	WEATHERFORD UK LIMITED, HARFREY'S ROAD, HARFREY'S IND EST, GREAT YARMOUTH, NORFOLK, NR31 0LS	CA3653	GREAT YARMOUTH BOROUGH COUNCIL	01-Jul-2010	08-Oct-2016	EFFECTIVE
136 P	0	On Site	GREAT YARMOUTH PORT COMPANY, ATLAS TERMINAL, SOUTHGATES ROAD, GREAT YARMOUTH, NORFOLK, NR30 3LL	SCE0092C 2	NORFOLK	01-Jan-2015	08-Oct-2016	EFFECTIVE
137 Q	13	SE	TOTAL RECLAIM SYSTEMS LIMITED, TOTAL RECLAIM HOUSE, ADMIRALTY ROAD, GREAT YARMOUTH, NORFOLK, NR30 3PU	SCE0097C 2	NORFOLK	04-Jan-2013	08-Oct-2016	EFFECTIVE
138 K	167	N	BIFFA WASTE SERVICES LTD, BESSEMER WAY, HARFEYS IND EST, GREAT YARMOUTH, NORFOLK, NR31 0LX	BL8830	GREAT YARMOUTH BOROUGH COUNCIL	01-Jun-2003	08-Oct-2016	EFFECTIVE

Report Reference: CMAPS-CM-636391-16287-030717EDR





2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

2

The following records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distanc e (m)	Directio n	Application Reference Number	NGR	Applicatio n Status	Application Date	Address	Details	Details of Enforcement Action
139R	0	On Site	No Details	652738 306121	Approved	No Details	Transco Plc, Southgates Road, Great Yarmouth, NR30 3DR	No Details	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified
140S	171	NW	HSC/0001	652131 306327	Historical Consent	20/06/1994	Ventureforth Estates Ltd, Ventureforth House, Great Yarmouth Business Park, Suffolk Road, Great Yarmouth	Storage of ammonium nitrate.	Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

3

The following COMAH & NIHHS Authorisation records provided by the Health and Safety Executive are represented as polygons or buffered points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	Company	Address	Operational Status	Tier
104	0	On Site	British Gas	British Gas, Southgates Road, Great Yarmouth	Historical NIHHS Site	-
105N	0	On Site	Asco UK Limited	Asco UK Limited, Gas House Quay, Southtown Road, Great Yarmouth, Norfolk, NR30 3LX	Current COMAH Site	COMAH Lower Tier Operator
106G	15	S	ASCO UK Limited	ASCO UK Limited, Great Yarmouth, South Denes, Great Yarmouth, Norfolk, NR30 3LX	Current COMAH Site	COMAH Lower Tier Operator

Report Reference: CMAPS-CM-636391-16287-030717EDR





2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

13

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details				
1	0	On Site	652080 305800	Incident Date: 23-Mar-2002 Incident Identification: 67348 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Food and Drink	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)			
2	0	On Site	652038 305831	Incident Date: 17-Sep-2003 Incident Identification: 190491 Pollutant: Inorganic Chemicals/Products Pollutant Description: Other Inorganic Chemical or Product	Water Impact: Category 4 (No Impact Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)			
3F	0	On Site	652393 305828	Incident Date: 22-Aug-2003 Incident Identification: 184276 Pollutant: Specific Waste Materials:Specific Waste Materials Pollutant Description: Tyres:Vehicles and Vehicle Parts	Water Impact: Category 4 (No Impact; Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)			
4	230	N	652677 306610	Incident Date: 19-Jul-2003 Incident Identification: 175140 Pollutant: Organic Chemicals/Products Pollutant Description: Solvents	Water Impact: Category 4 (No Impact Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)			
5	268	S	652860 305630	Incident Date: 03-Nov-2002 Incident Identification: 118445 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)			
6A	314	N	652546 306692	Incident Date: 22-Nov-2001 Incident Identification: 44483 Pollutant: Atmospheric Pollutants and Effects:Contaminated Water Pollutant Description: Smoke:Firefighting Run-Off	Water Impact: Category 4 (No Impact Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)			
7A	314	Ν	652546 306692	Incident Date: 22-Nov-2001 Incident Identification: 44483 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)			
8A	314	N	652546 306692	Incident Date: 22-Nov-2001 Incident Identification: 44483 Pollutant: Contaminated Water Pollutant Description: Firefighting Run- Off	Water Impact: Category 4 (No Impact Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)			
9	412	NW	652242 306687	Incident Date: 05-Apr-2002 Incident Identification: 69833 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Animal and Vegetable Oil	Water Impact: Category 4 (No Impact Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)			
10	447	N	652400 306810	Incident Date: 10-Jan-2002 Incident Identification: 51678 Pollutant: Oils and Fuel Pollutant Description: Gas and Fuel Oils	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)			

Report Reference: CMAPS-CM-636391-16287-030717EDR





ID	Distance (m)	Direction	NGR	Details				
11	11 471 E 653200 306330			Incident Date: 21-Nov-2002 Incident Identification: 122176 Pollutant: Oils and Fuel Pollutant Description: Mixed/Waste Oils	Water Impact: Category 1 (Major) Land Impact: Category 1 (Major) Air Impact: Category 4 (No Impact)			
12	477	S	652323 305182	Incident Date: 11-Sep-2001 Incident Identification: 30255 Pollutant: Agricultural Materials and Wastes Pollutant Description: Solid Manure	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)			
13J	500	N	652457 306874	Incident Date: 16-Nov-2002 Incident Identification: 121239 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)			

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?

0

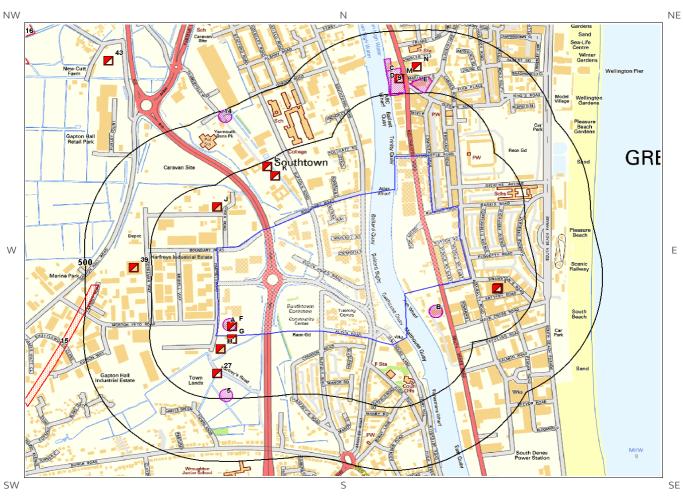
Database searched and no data found.

Report Reference: CMAPS-CM-636391-16287-030717EDR

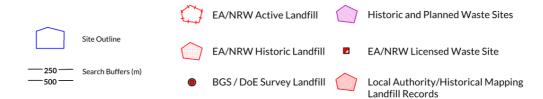




3. Landfill and Other Waste Sites Map



© Crown copyright and database rights 2017. Ordnance Survey license 100035207.



Report Reference: CMAPS-CM-636391-16287-030717EDR





3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

2

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Det	Details		
15	15 451 V		651200 305600	Site Address: Gapton Hall Site, Between Harfeys Road and Burgh Road, Great Yarmouth Waste Licence: - Site Reference: WD 709a Waste Type: Inert, Industrial, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: County Council Licence Holder: Great Yarmouth Council First Recorded: 30-Jun-1973 Last Recorded: 31-Dec-1974		
16	1020	NW	650900 307300	Site Address: Cobholm Tip, Farm Lane, Humberstone, Great.Yarmouth, Norfolk Waste Licence: Yes Site Reference: WD 506, WR 764, NFK/LS/060/0 Waste Type: Inert, Industrial, Commercial, Household Environmental Permitting Regulations (Waste) Reference: AZ1/L/VIN001	Licence Issue: 02-Jan-1974 Licence Surrendered: Licence Holder Address: Humberstone Farm, Southtown, Great Yarmouth, Norfolk Operator: Gt Yarmouth Borough Council Licence Holder: W H Vincent First Recorded: 31-May-1905 Last Recorded: 31-Dec-1995		

 ${\it 3.1.3 Records of BGS/DoE\ non-operational\ land fill\ sites\ within\ 1500m\ of\ the\ study\ site:}$

0

Database searched and no data found.

Report Reference: CMAPS-CM-636391-16287-030717EDR





3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

0

Database searched and no data found.

3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

14

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR		Details	
1A	0	On Site	651890 305707	Type of Site: Waste Recycling Centre Site Address: East Coast Waste, Harfreys Road, Harfreys Industrial Estate, GREAT YARMOUTH, Norfolk, NR31 OLS	Planning Application Reference: 06/07/0901/F Date: -	Further Details: Scheme comprises raise roof of waste recycling centre. An application (ref: 06/07/0901/F) for detailed planning permission was granted by Great Yarmouth B.C. Planning decision obtained Data Source: Historic Planning Application Data Type: Point
2A	0	On Site	651890 305707	Type of Site: Waste Recycling Centre Site Address: East Coast Waste, Harfreys Road, Harfreys Industrial Estate, GREAT YARMOUTH, Norfolk, NR31 OLS	Planning Application Reference: 06/07/0901/F Date: -	Further Details: Scheme comprises raise roof of waste recycling centre. An application (ref: 06/07/0901/F) for detailed planning permission was granted by Great Yarmouth B.C. Planning decision obtained Data Source: Historic Planning Application Data Type: Point

Report Reference: CMAPS-CM-636391-16287-030717EDR





	Distance					FOR A BETTER POINT OF VIEW
ID	(m)	Direction	NGR		Details	
3В	74	S	652669 305759	Type of Site: Waste Transfer Station Site Address: 52 South Denes Road, GREAT YARMOUTH, Norfolk, NR30 3PR	Planning Application Reference: 6/95/593/F Date: -	Further Details: Comprises the installation of four new tanks totalling 82,000 gals for a new waste transfer station. Scheme comprises the installation of four new tanks totalling 82,000 gals for a new waste transfer station to control waste and cleaning within a containment area. This will include security fencing, loading areas and bollards. NEW INFORMATION: We are now advised that the land will be sold with the advantage of planning approval. An application (ref: 6/95/593/F) for Detailed Planning permission was submitted to Great Yarmouth B.C. on 3rd July 1995. Data Source: Historic Planning Application Data Type: Point
4B	74	S	652670 305759	Type of Site: Waste Transfer Station Site Address: ASCO UK Ltd, South Denes Road, GREAT YARMOUTH, Norfolk, NR30 3QF	Planning Application Reference: 06/98/0582/F Date: 01/05/1999	Further Details: Construction of a waste transfer station. The work will involve the construction of a waste transfer station which will include a recycling centre. Also included is a main storage building with roller shutters, laboratory, changing rooms, mess and powerwash bays, portable buildings, toilets, offices and storage tanks. An application (ref: 06/98/0582/F) for Detailed Planning permission was granted by Great Yarmouth B.C. on 4th September 1998. Data Source: Historic Planning Application Data Type: Point





ID	Distance (m)	Direction S	NGR	Details				
5			651877 305425	Type of Site: Waste Transfer Station Site Address: Harfreys Road Industrial Site, GREAT YARMOUTH, Norfolk, NR30	Planning Application Reference: 98/0011 Date: 01/05/1998	Further Details: Improvements to works included 4 bulk storage tanks 2 x 5,000 gallons and 1 x 12,000 gallons. Relocation of canopy tent and re-concreting of part of the yard with a new drainage system. Improvements to works included 4 bulk store tanks 2 x 5,000 gallons and 1 x 10,000 gallons and 1 x 10,000 gallons. Relocation of canopy tent and re-concreting of part of the yard with a new drainage system. NEW INFORMATION: Detailed plans approved by Norfolk County Council on the 3rd March, 1998. An application (ref: 98/0011) for Detailed Planning permission was granted by Great Yarmouth B.C. on 3rd March 1998. Data Source: Historic Planning Application Data Type: Point		
6D	242	N	652491 306670	Type of Site: Scrap Iron Works Site Address: N/A	Planning Application Reference: N/A Date: 1967	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon		
7C	242	N	652495 306663	Type of Site: Scrap Iron Works Site Address: N/A	Planning Application Reference: N/A Date: 1987	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon		
8C	242	N	652495 306663	Type of Site: Scrap Iron Works Site Address: N/A	Planning Application Reference: N/A Date: 1987	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon		
9	242	N	652527 306675	Type of Site: Scrap Iron Works Site Address: N/A	Planning Application Reference: N/A Date: 1975	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon		
10D	242	N	652527 306675	Type of Site: Scrap Iron Works Site Address: N/A	Planning Application Reference: N/A Date: 1966	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon		
11E	249	N	652613 306663	Type of Site: Scrap Metal & Paper Merchants Site Address: N/A	Planning Application Reference: N/A Date: 1954	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon		
12E	249	N	652613 306663	Type of Site: Scrap Metal & Paper Merchants Site Address: N/A	Planning Application Reference: N/A Date: 1966	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon		
13E	250	N	652613 306663	Type of Site: Scrap Metal & Paper Merchants Site Address: N/A	Planning Application Reference: N/A Date: 1963	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon		





ID	Distance (m)	Direction	NGR	Details		
14	450	N	651873 306538	Type of Site: Recycling Centre (Conversion) Site Address: Premier Recycling, Thamesfield Way, Great Yarmouth Business Park, GREAT YARMOUTH, Norfolk, NR31 0DN	Planning Application Reference: 06/06/0399/F Date: -	Further Details: Scheme comprises change of use to allow for metal recycling operations to be included into allowed uses. An application (ref: 06/06/0399/F) for Detailed Planning permission was submitted to Great Yarmouth B.C. on 5th May 2006. Data Source: Historic Planning Application Data Type: Point

3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

35

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction On Site	NGR 651900 305700	Details		
17F				Site Address: Lindgreat Yard, Harfreys Road, Great Yarmouth, Norfolk, NR31 OLS Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: THU005 EPR reference: - Operator: Thurtle Walter Waste Management licence No: 71429 Annual Tonnage: 25000.0	Issue Date: 08/04/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Lindgreat Yard Correspondence Address: Mr Gary Thrurtle, Lindgreat Yard, Harfreys Road, Great Yarmouth, Norfolk, NR31 0LS	
18F	0	On Site	651900 305700	Site Address: W T Waste, Harfreys Road, Harfreys Ind Est, Great Yarmouth, Norfolk, NR31 0LS Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: THU005 EPR reference: EA/EPR/CP3094NZ/V003 Operator: Thurtle Walter Waste Management licence No: 71429 Annual Tonnage: 25000.0	Issue Date: 08/04/2005 Effective Date: - Modified: 27/10/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: W T Waste Correspondence Address: -	
19G	13	S	651900 305650	Site Address: Folkes Plant And Aggregate, Harfrey's Road, Harfrey's Industrial Est, Great Yarmouth, Norfolk, NR31 0LS Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: FOL001 EPR reference: EA/EPR/FP3394NJ/A001 Operator: Folkes Plant & Aggregate Ltd Waste Management licence No: 71417 Annual Tonnage: 24999.0	Issue Date: 13/07/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Folkes Plant And Aggregate Correspondence Address: -	

Report Reference: CMAPS-CM-636391-16287-030717EDR





LOCATION INTELLIGENCE						
ID	Distance (m)	Direction	NGR	Details		
20G	13	S	651900 305650	Site Address: Land Off Harfreys Road, Harfreys Indus Est, Great Yarmouth, Norfolk, NR31 9PY Type: 75kte HCI Waste TS + treatment Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: FOL001 EPR reference: EA/EPR/FP3394NJ/V002 Operator: Folkes Plant & Aggregates Limited Waste Management licence No: 71417 Annual Tonnage: 24999.0	Issue Date: 13/07/2005 Effective Date: - Modified: 22/10/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Folkes Transfer Station Correspondence Address: -	
21G	13	S	651900 305650	Site Address: Harfrey's Road, Harfrey's Industrial Est, Great Yarmouth, Norfolk, NR31 OLS Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: FOL001 EPR reference: - Operator: Folkes Plant & Aggregate Limited Waste Management licence No: 71417 Annual Tonnage: 24999.0	Issue Date: 13/07/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Folkes Plant And Aggregate Correspondence Address: W. A. S. Ltd, P. G Box 151, Lowestoft, Suffolk, NR32 3ZQ	
22H	53	S	651857 305610	Site Address: Hafreys Industrial Estate, Hafreys Road, Great Yarmouth, Norfolk, NR31 0JR Type: Special Waste Transfer Station Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MRP001 EPR reference: - Operator: Clements P Waste Management licence No: 70532 Annual Tonnage: 0.0	Issue Date: 04/01/1990 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Great Yarmouth Correspondence Address: 74, Southdown Road, Great Yarmouth, Norfolk, NR31 OJF	
23H	53	S	651857 305610	Site Address: Harfreys Industrial Estate, Harfreys Road, Great Yarmouth, Norfolk, NR31 OLS Type: Special Waste Transfer Station Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MRP001 EPR reference: EA/EPR/YP3299NB/A001 Operator: Clements Paul Waste Management licence No: 70532 Annual Tonnage: 62500.0	Issue Date: 04/01/1990 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Great Yarmouth Correspondence Address: -	
241	108	SE	652900 305850	Site Address: Hendee House, Battery Road, Great Yarmouth, Norfolk, NR30 3NN Type: Asbestos Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: EAS147 EPR reference: EA/EPR/AB3801UE/S002 Operator: East Coast Insulations Limited Waste Management licence No: 71491 Annual Tonnage: 0.0	Issue Date: 10/11/2006 Effective Date: 14/11/2013 Modified: 17/03/2011 Surrendered Date: 03/05/2016 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Hendee House Correspondence Address: -	





LOCA	ATION INTELLIGE	NCE			FOR A BETTER POINT OF VIEW
ID	Distance (m)	Direction	NGR	Det	tails
251	108	SE	652900 305850	Site Address: Hendee House, Battery Road, Great Yarmouth, Norfolk, NR30 3NN Type: Asbestos Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LEA002 EPR reference: EA/EPR/VP3494NV/V002 Operator: Mr Rodney John Lear And Mrs Pamela Margaret Lear Waste Management licence No: 71491 Annual Tonnage: 3650.0	Issue Date: 10/11/2006 Effective Date: - Modified: 17/03/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Hendee House Correspondence Address: -
261	111	E	652905 305855	Site Address: Hendee House, Battery Road, Great Yarmouth, Norfolk, NR30 3NW Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LEA002 EPR reference: VP3494NV/A001 Operator: R J Lear And P M Lear Waste Management licence No: 71491 Annual Tonnage: 3650.0	Issue Date: 10/11/2006 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Hendee House, Battery Road Correspondence Address: -
27	150	S	651843 305513	Site Address: Hafrey's Road Transfer Station, Harfrey's Road, Townlands, Great Yarmouth, Norfolk, NR31 8JL Type: Inert & excavation Waste TS + treatment Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRE397 EPR reference: EA/EPR/EB3535AM/V002 Operator: E E Green & Son Ltd Waste Management licence No: 103802 Annual Tonnage: 74999.0	Issue Date: 23/01/2012 Effective Date: - Modified: 01/05/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Harfrey's Road Transfer Station Correspondence Address: -
28J	163	N	651844 306177	Site Address: Unit 2, Bessemer Way, Hafreys Industrial Estate, Great Yarmouth, NR31 0LX Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: UKW001 EPR reference: - Operator: U K Waste Management Ltd Waste Management licence No: 70505 Annual Tonnage: 0.0	Issue Date: 01/05/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Great Yarmouth Correspondence Address: Head Office, Coronation Road, Cressex, High Wycombe, HP12 3TZ
29J	163	N	651844 306177	Site Address: Unit 2, Bessemer Way, Hafreys Industrial Estate, Great Yarmouth, Norfolk, NR31 0LX Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: UKW003 EPR reference: EA/EPR/KP3898VU/V002 Operator: Biffa Waste Services Ltd Waste Management licence No: 70505 Annual Tonnage: 4999.0	Issue Date: 01/05/1992 Effective Date: - Modified: 02/04/2012 Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Modified Site Name: Biffa Waste Services Ltd Correspondence Address: -





ID	Distance (m)	Direction	NGR	Details		
30J	163	N	651844 306177	Site Address: Unit 2, Bessemer Way, Hafreys Industrial Estate, Great Yarmouth, Norfolk, NR31 0LX Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AUG012 EPR reference: EA/EPR/EB3001TS/T001 Operator: Augean North Sea Services Limited Waste Management licence No: 70505 Annual Tonnage: 4999.0	Issue Date: 01/05/1992 Effective Date: 19/04/2016 Modified: 02/04/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Great Yarmouth Waste Management Resoucre Centre Correspondence Address: -	
31K	183	NW	652062 306301	Site Address: Yarmouth Business Park, Suffolk Road, Great Yarmouth, Norfolk, NR31 0ER Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MIT001 EPR reference: EA/EPR/YP3799NF/V002 Operator: Mitchell Cliff Waste Management licence No: 70536 Annual Tonnage: 5000.0	Issue Date: 03/09/1991 Effective Date: - Modified: 26/01/2006 Surrendered Date: 0 Expiry Date: - Cancelled Date: - Status: Modified Site Name: C + L Waste Oil Collection Correspondence Address: -	
32K	183	NW	652062 306301	Site Address: Yarmouth Business Park, Thamesfield Way, Great Yarmouth, Norfolk, NR31 0DN Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MIT001 EPR reference: EA/EPR/YP3799NF/V003 Operator: Mitchell C B Waste Management licence No: 70536 Annual Tonnage: 5000.0	Issue Date: 03/09/1991 Effective Date: - Modified: 10/05/2016 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Great Yarmouth Oil Reclamation Facility Correspondence Address: -	
33L	229	NW	652033 306339	Site Address: Yarmouth Business Park, Suffolk Road, Great Yarmouth, Norfolk, NR31 0ER Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MRE001 EPR reference: - Operator: Brown E W Waste Management licence No: 70535 Annual Tonnage: 0.0	Issue Date: 03/09/1991 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Great Yarmouth Correspondence Address: Brookfields Business Centre, Cottenham, Cambridge	
34L	229	NW	652033 306339	Site Address: Yarmouth Business Park, Suffolk Road, Great Yarmouth, Norfolk, NR31 0ER Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MA001 EPR reference: - Operator: Malary Environmental Services Ltd Waste Management licence No: 70535 Annual Tonnage: 0.0	Issue Date: 03/09/1991 Effective Date: 01/07/2004 Modified: 01/07/2004 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Yarmouth Business Park Correspondence Address: D Stapleton, Brookfield Business Centre, Unit B1, Twenty Pence Road, Cottenham, Cambridge, CB4 8PS	





LOCA	ATION INTELLIGE	NCE			FOR A BETTER POINT OF VIEW
ID	Distance (m)	Direction	NGR	Det	ails
35L	229	NW	652033 306339	Site Address: Yarmouth Business Park, Suffolk Road, Great Yarmouth, Norfolk, NR31 0ER Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MAL001 EPR reference: EA/EPR/YP3199NQ/S004 Operator: Malary Ltd Waste Management licence No: 70535 Annual Tonnage: 0.0	Issue Date: 03/09/1991 Effective Date: 23/11/2006 Modified: 01/07/2004 Surrendered Date: 14/03/2007 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Yarmouth Business Park Correspondence Address: -
36L	229	NW	652033 306339	Site Address: Yarmouth Business Park, Suffolk Road, Great Yarmouth, Norfolk, NR31 0ER Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MA001 EPR reference: - Operator: Malary Environmental Services Ltd Waste Management licence No: 70535 Annual Tonnage: 0.0	Issue Date: 03/09/1991 Effective Date: 01/07/2004 Modified: 01/07/2004 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Yarmouth Business Park Correspondence Address: Brookfield Business Centre, Unit B1, Twentypence Road, Cottenham, Cambridge, CB4 8PS
37M	310	N	652531 306688	Site Address: 132b, South Quay, Great Yarmouth, Norfolk, NR30 3LD Type: Metal Recycling Site (mixed MRS's) Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MAY001 EPR reference: EA/EPR/AP3999NE/V002 Operator: Mayer Parry (East Anglia) Ltd Waste Management licence No: 70493 Annual Tonnage: 78000.0	Issue Date: 23/08/1993 Effective Date: - Modified: 11/12/1992 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Great Yarmouth Correspondence Address: -
38M	310	N	652531 306688	Site Address: South Quay, Great Yarmouth, Norfolk, NR30 3LD Type: Metal Recycling Site (mixed MRS's) Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MAY001 EPR reference: - Operator: Mayer Parry East Anglia Ltd Waste Management licence No: 70493 Annual Tonnage: 0.0	Issue Date: 23/08/1993 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Great Yarmouth Correspondence Address: 111, Fordham Road, Snailwell, Newmarket, Suffolk, CB8 7ND
39	319	W	651529 305936	Site Address: Bessemer Way, Hafreys Industrial Estate, Great Yarmouth, Norfolk, NR31 0LX Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TRA001 EPR reference: EA/EPR/YP3699NT/S002 Operator: Transmit Containers Ltd Waste Management licence No: 70534 Annual Tonnage: 432.0	Issue Date: 06/12/1990 Effective Date: - Modified: - Surrendered Date: 14/11/2003 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Great Yarmouth Correspondence Address: -





LOCA	TION INTELLIGE	NCE			FOR A BETTER POINT OF VIEW		
ID	Distance (m)	Direction	NGR	Det	Details		
40N	354	N	652597 306735	Site Address: G A Car Spares, 127/129, South Quay, Great Yarmouth, Norfolk, NR30 3LD Type: Vehicle Depollution Facility <5000 tps Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALL136 EPR reference: EA/EPR/JB3537RX/A001 Operator: Allard Michael Waste Management licence No: 104491 Annual Tonnage: 4999.0	Issue Date: 31/07/2012 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: G A Car Spares Correspondence Address: -		
41N	354	N	652597 306735	Site Address: G & A Car Spares, 127 - 129, South Quay, Great Yarmouth, Norfolk, NR30 3LD Type: Vehicle Depollution Facility <5000 tps Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GAC002 EPR reference: EA/EPR/CB3702FS/V002 Operator: G & A Car Spares Limited Waste Management licence No: 104491 Annual Tonnage: 4999.0	Issue Date: 31/07/2012 Effective Date: 06/06/2015 Modified: 18/08/2016 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: G & A Car Spares Correspondence Address: -		
Not shown	766	W	651080 305911	Site Address: D&j Metals, Vanguard Road, Gapton Hall Ind Est, Great Yarmouth, Norfolk, NR31 0NT Type: Metal Recycling Site (mixed MRS's) Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DOU001 EPR reference: EA/EPR/RP3099NN/A001 Operator: Mr Douglas Victor Gray And Mr John Gray Waste Management licence No: 70504 Annual Tonnage: 24999.0	Issue Date: 22/02/1995 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Great Yarmouth Correspondence Address: -		
43	853	NW	651432 306761	Site Address: Land / Premises At, High Mill Link Road, Cobholm, Great Yarmouth, Norfolk, NR31 0DL Type: Metal Recycling Site (Vehicle Dismantler) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DOC001 EPR reference: EA/EPR/KP3694NT/A001 Operator: Docwra Mike Waste Management licence No: 71385 Annual Tonnage: 2499.0	Issue Date: 25/11/2004 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Mike Docwra Car Breakers Correspondence Address: -		
Not shown	874	W	650971 305888	Site Address: Vanguard Road, Gapton Hall Ind Est, Great Yarmouth, Norfolk, NR31 ONT Type: Metal Recycling Site (mixed MRS's) Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DOU001 EPR reference: - Operator: D & J Metals Waste Management licence No: 70504 Annual Tonnage: 0.0	Issue Date: 22/02/1995 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Great Yarmouth Correspondence Address: Vanguard Road, Gapton Hall Ind. Est, Great Yarmouth, Norfolk, NR31 0NT		





LOCA	TION INTELLIGE	NCE			FOR A DETTER POINT OF VIEW
ID	Distance (m)	Direction	NGR	Def	tails
Not shown	874	W	650971 305888	Site Address: Vanguard Road, Gapton Hall Ind Estate, Great Yarmouth, Norfolk, NR31	Issue Date: 13/11/1998 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Great Yarmouth Correspondence Address: Vanguard Road Gapton Hall Ind Estate, Great Yarmouth, Norfolk, NR31 0NT
Not shown	874	W	650971 305888	Site Address: Land / Premises At, Vanguard Road, Gapton Hall Ind Estate, Great Yarmouth, Norfolk, NR31 0NT Type: 75kte HCI Waste TS + asbestos Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRA001 EPR reference: EA/EPR/DP3699LH/V003 Operator: Gray Douglas Victor Waste Management licence No: 71237 Annual Tonnage: 24999.0	Issue Date: 13/11/1998 Effective Date: - Modified: 19/03/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: D And J Metals Correspondence Address: -
Not shown	1329	SE	653041 304410	Site Address: Technical Waste Management Centre, South Denes Road, Great Yarmouth, Norfolk, NR30 3LY Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ASC002 EPR reference: - Operator: A S C O (U K) Ltd Waste Management licence No: 71257 Annual Tonnage: 0.0	Issue Date: 24/01/2001 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Great Yarmouth Correspondence Address: Offshore Supply Base, South Denes Road, Great Yarmouth Norfolk, NR30 3LY
Not shown	1329	SE	653041 304410	Site Address: Technical Waste Management Centre, South Denes Road, Great Yarmouth, Norfolk, NR30 3LY Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ASC002 EPR reference: - Operator: A S C O (U K) Ltd Waste Management licence No: 71257 Annual Tonnage: 24999.0	Issue Date: 24/01/2001 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Great Yarmouth Correspondence Address: Offshore Supply Base, South Denes Road, Great Yarmouth Norfolk, NR30 3LY
Not shown	1329	SE	653041 304410	Site Address: Technical Waste Management Centre, South Denes Road, Great Yarmouth, Norfolk, NR30 3LY Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ENV230 EPR reference: EA/EPR/QP3898NL/T002 Operator: Enviroco Ltd Waste Management licence No: 71257 Annual Tonnage: 24999.0	Issue Date: 24/01/2001 Effective Date: 13/03/2008



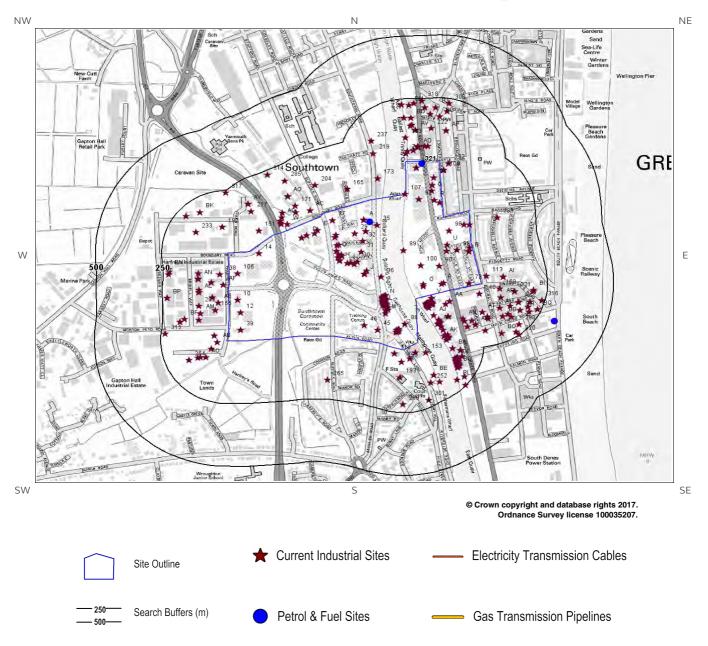


ID	Distance (m)	Direction	NGR	Details		
Not shown	1359	SE	653066 304389	Site Address: Great Yarmouth Technical Waste Management Centre, Berths 2-4, South Denes Road, Great Yarmouth, Norfolk, NR30 3QF Type: Physical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ENV230 EPR reference: EA/EPR/PP3532UT/V005 Operator: Enviroco Limited Waste Management licence No: 71257 Annual Tonnage: 24999.0	Issue Date: 24/01/2001 Effective Date: 13/03/2008 Modified: 25/01/2016 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Great Yarmouth Technical Waste Management Centre Correspondence Address: -	
Not shown	1359	SE	653066 304389	Site Address: Great Yarmouth Technical Waste Management Centre, Berths 2-4, South Denes Road, Great Yarmouth, Norfolk, NR30 3QF Type: Physical Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ENV230 EPR reference: EA/EPR/PP3532UT/V004 Operator: Enviroco Ltd Waste Management licence No: 71257 Annual Tonnage: 24999.0	Issue Date: 24/01/2001 Effective Date: 13/03/2008 Modified: 16/05/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Great Yarmouth Technical Waste Management Centre Correspondence Address: -	





4. Current Land Use Map



Report Reference: CMAPS-CM-636391-16287-030717EDR





4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

320

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
1H	0	On Site	Simpsons Skoda	652263 305982	Simpsons Skoda, Unit 1, Suffolk Road, Great Yarmouth, NR31 0LN	New Vehicles	Motoring
2D	0	On Site	3 Sun Group	652140 306084	3 Sun Group, 3sun House, Boundary Road, Great Yarmouth, NR31 0FB	Electronic Equipment	Industrial Products
3A	0	On Site	Kirkley Tyres & Wheels	652355 306146	Kirkley Tyres & Wheels, 126, Southtown Road, Great Yarmouth, NR31 0JZ	Vehicle Repair, Testing and Servicing	Repair and Servicing
4A	0	On Site	BP Service Station	652355 306146	BP Service Station, 126, Southtown Road, Great Yarmouth, NR31 0JZ	Petrol and Fuel Stations	Road and Rail
5B	0	On Site	Stalwart Signs & Industrial Supplies Ltd	652752 306021	Stalwart Signs & Industrial Supplies Ltd, Anglian House, Admiralty Road, Great Yarmouth, NR30 3DY	Special Purpose Machinery and Equipment	Industrial Products
6B	0	On Site	Discount Sheds & Stables	652752 306021	Discount Sheds & Stables, Anglian House, Admiralty Road, Great Yarmouth, NR30 3DY	Garden Goods	Consumer Products
7F	0	On Site	Suffolk Road Motoring Services	652250 306086	Suffolk Road Motoring Services, Unit 8-9, Suffolk Road, Great Yarmouth, NR31 0LN	Vehicle Repair, Testing and Servicing	Repair and Servicing
8C	0	On Site	J D Moore	652362 306101	J D Moore, 128, Southtown Road, Great Yarmouth, NR31 0LA	Vehicle Repair, Testing and Servicing	Repair and Servicing
9C	0	On Site	Southtown Cars	652362 306101	Southtown Cars, 128, Southtown Road, Great Yarmouth, NR31 0LA	Secondhand Vehicles	Motoring
10	0	On Site	L G Perfect	651878 305826	L G Perfect, Harfreys Road, Great Yarmouth, NR31 OJL	Vehicle Repair, Testing and Servicing	Repair and Servicing
11R	0	On Site	Afordable Cars	652621 306224	Afordable Cars, 41a, Southgates Road, Great Yarmouth, NR30 3LL	Secondhand Vehicles	Motoring
12	0	On Site	Weatherford UK	651890 305776	Weatherford UK, Harfreys Road, Great Yarmouth, NR31 0LS	Special Purpose Machinery and Equipment	Industrial Products
13E	0	On Site	Pumping Station	652180 306105	Pumping Station, NR31	Water Pumping Stations	Industrial Features

Report Reference: CMAPS-CM-636391-16287-030717EDR





ID	Distance (m)		Company	NGR	Address	Activity	Category
14	0	On Site	Electricity Sub Station	651959 306013	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
15D	0	On Site	Depot	652121 306075	Depot, NR31	Container and Storage	Transport, Storage and Delivery
16E	0	On Site	Electricity Sub Station	652169 306091	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
17	0	On Site	Mitchells Renault	652238 306144	Mitchells Renault, Suffolk Road, Great Yarmouth, NR31 0LN	Vehicle Repair, Testing and Servicing	Repair and Servicing
18F	0	On Site	Warehouse	652246 306076	Warehouse, NR31	Container and Storage	Transport, Storage and Delivery
19G	0	On Site	Warehouse	652253 306022	Warehouse, NR31	Container and Storage	Transport, Storage and Delivery
20G	0	On Site	Works	652254 306045	Works, NR31	Unspecified Works Or Factories	Industrial Features
21G	0	On Site	Depot	652257 305997	Depot, NR31	Container and Storage	Transport, Storage and Delivery
22G	0	On Site	Warehouse	652260 306010	Warehouse, NR31	Container and Storage	Transport, Storage and Delivery
23G	0	On Site	Tank	652262 306047	Tank, NR31	Tanks (Generic)	Industrial Features
24H	0	On Site	Works	652265 305985	Works, NR31	Unspecified Works Or Factories	Industrial Features
25H	0	On Site	Tank	652271 306007	Tank, NR31	Tanks (Generic)	Industrial Features
261	0	On Site	Warehouse	652293 305974	Warehouse, NR31	Container and Storage	Transport, Storage and Delivery
271	0	On Site	Works	652306 305976	Works, NR31	Unspecified Works Or Factories	Industrial Features
281	0	On Site	Works	652320 305970	Works, NR31	Unspecified Works Or Factories	Industrial Features
29	0	On Site	Works	652322 306092	Works, NR31	Unspecified Works Or Factories	Industrial Features
30	0	On Site	Depot	652330 305980	Depot, NR31	Container and Storage	Transport, Storage and Delivery
31	0	On Site	Works	652345 306019	Works, NR31	Unspecified Works Or Factories	Industrial Features
32	0	On Site	Works	652351 306061	Works, NR31	Unspecified Works Or Factories	Industrial Features
33J	0	On Site	Peter Doidge	652359 305931	Peter Doidge, Southtown Road, Great Yarmouth, NR31 0LA	Vehicle Parts and Accessories	Motoring
34J	0	On Site	Tank	652366 305943	Tank, NR31	Tanks (Generic)	Industrial Features
35	0	On Site	Quay	652406 306126	Quay, NR31	Moorings and Unloading Facilities	Water
36	0	On Site	Quay	652420 305919	Quay, NR31	Moorings and Unloading Facilities	Water
37J	0	On Site	Depot	652358 305931	Depot, NR31	Container and Storage	Transport, Storage and Delivery
38G	0	On Site	Tank	652272 306002	Tank, NR31	Tanks (Generic)	Industrial Features





ID	Distance (m)		Company	NGR	Address	Activity	Category
39	0	On Site	East Coast Waste	651890 305707	East Coast Waste, Harfreys Road, Great Yarmouth, NR31 OLS	Construction and Tool Hire	Hire Services
40A	0	On Site	Southtown Service Station	652355 306146	Southtown Service Station, 126, Southtown Road, Great Yarmouth, NR31 0JZ	Petrol and Fuel Stations	Road and Rail
41K	0	On Site	Tank	652479 305698	Tank, NR31	Tanks (Generic)	Industrial Features
42K	0	On Site	Tank	652477 305700	Tank, NR31	Tanks (Generic)	Industrial Features
43K	0	On Site	Tank	652482 305704	Tank, NR31	Tanks (Generic)	Industrial Features
44K	0	On Site	Tank	652489 305704	Tank, NR31	Tanks (Generic)	Industrial Features
45	0	On Site	Electricity Sub Station	652408 305708	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
46	0	On Site	Gas Distribution Station	652358 305726	Gas Distribution Station, NR31	Gas Features	Infrastructure and Facilities
47L	0	On Site	Tank	652428 305809	Tank, NR31	Tanks (Generic)	Industrial Features
48M	0	On Site	Electricity Sub Station	652438 305774	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
49L	0	On Site	Tank	652437 305786	Tank, NR31	Tanks (Generic)	Industrial Features
50M	0	On Site	Tank	652448 305789	Tank, NR31	Tanks (Generic)	Industrial Features
51L	0	On Site	Tank	652447 305798	Tank, NR31	Tanks (Generic)	Industrial Features
52L	0	On Site	Tank	652435 305804	Tank, NR31	Tanks (Generic)	Industrial Features
53L	0	On Site	Tank	652434 305820	Tank, NR31	Tanks (Generic)	Industrial Features
54L	0	On Site	Tank	652428 305805	Tank, NR31	Tanks (Generic)	Industrial Features
55L	0	On Site	Tank	652439 305805	Tank, NR31	Tanks (Generic)	Industrial Features
56L	0	On Site	Tank	652439 305825	Tank, NR31	Tanks (Generic)	Industrial Features
57L	0	On Site	Tank	652425 305831	Tank, NR31	Tanks (Generic)	Industrial Features
58L	0	On Site	Tank	652432 305811	Tank, NR31	Tanks (Generic)	Industrial Features
59L	0	On Site	Tank	652435 305811	Tank, NR31	Tanks (Generic)	Industrial Features
60L	0	On Site	Tank	652439 305812	Tank, NR31	Tanks (Generic)	Industrial Features
61L	0	On Site	Tank	652427 305815	Tank, NR31	Tanks (Generic)	Industrial Features
62L	0	On Site	Tank	652431 305816	Tank, NR31	Tanks (Generic)	Industrial Features
63L	0	On Site	Tank	652425 305824	Tank, NR31	Tanks (Generic)	Industrial Features





ID	Distance (m)		Company	NGR	Address	Activity	Category
64L	0	On Site	Tank	652429 305825	Tank, NR31	Tanks (Generic)	Industrial Features
65L	0	On Site	Tank	652439 305832	Tank, NR31	Tanks (Generic)	Industrial Features
66L	0	On Site	Tank	652430 305832	Tank, NR31	Tanks (Generic)	Industrial Features
67N	0	On Site	Tank	652433 305836	Tank, NR31	Tanks (Generic)	Industrial Features
68N	0	On Site	Tank	652425 305840	Tank, NR31	Tanks (Generic)	Industrial Features
69N	0	On Site	Tank	652434 305841	Tank, NR31	Tanks (Generic)	Industrial Features
70N	0	On Site	Tank	652437 305846	Tank, NR31	Tanks (Generic)	Industrial Features
710	0	On Site	Broadland Fuels	652580 305882	Broadland Fuels, Fishwharf, Great Yarmouth, NR30 3LX	Fuel Distributors and Suppliers	Household, Office, Leisure and Garden
720	0	On Site	Depot	652581 305889	Depot, NR30	Container and Storage	Transport, Storage and Delivery
73	0	On Site	Works	652752 305893	Works, NR30	Unspecified Works Or Factories	Industrial Features
74K	0	On Site	Tank	652485 305706	Tank, NR31	Tanks (Generic)	Industrial Features
75L	0	On Site	Tank	652434 305832	Tank, NR31	Tanks (Generic)	Industrial Features
76K	0	On Site	Tank	652489 305711	Tank, NR31	Tanks (Generic)	Industrial Features
77L	0	On Site	Tank	652426 305819	Tank, NR31	Tanks (Generic)	Industrial Features
78L	0	On Site	Tank	652443 305812	Tank, NR31	Tanks (Generic)	Industrial Features
79N	0	On Site	Tank	652432 305845	Tank, NR31	Tanks (Generic)	Industrial Features
80L	0	On Site	Tank	652443 305805	Tank, NR31	Tanks (Generic)	Industrial Features
81K	0	On Site	Tank	652484 305700	Tank, NR31	Tanks (Generic)	Industrial Features
82L	0	On Site	Tank	652424 305835	Tank, NR31	Tanks (Generic)	Industrial Features
83K	0	On Site	Tank	652484 305710	Tank, NR31	Tanks (Generic)	Industrial Features
84N	0	On Site	Tank	652429 305836	Tank, NR31	Tanks (Generic)	Industrial Features
85P	0	On Site	Works	652649 305892	Works, NR30	Unspecified Works Or Factories	Industrial Features
86P	0	On Site	Electricity Sub Station	652658 305895	Electricity Sub Station, NR30	Electrical Features	Infrastructure and Facilities
87K	0	On Site	Tank	652479 305707	Tank, NR31	Tanks (Generic)	Industrial Features
88	0	On Site	Gashouse Quay	652510 305731	Gashouse Quay, NR31	Moorings and Unloading Facilities	Water
89	0	On Site	Fish Wharf	652506 306025	Fish Wharf, NR30	Moorings and Unloading Facilities	Water





ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
90	0	On Site	Works	652640 305962	Works, NR30	Unspecified Works Or Factories	Industrial Features
915	0	On Site	BP Service Station	652554 306353	BP Service Station, Southgates Road, Great Yarmouth, NR30 3LL	Petrol and Fuel Stations	Road and Rail
92	0	On Site	Warehouse	652564 306228	Warehouse, NR30	Container and Storage	Transport, Storage and Delivery
93Q	0	On Site	Depot	652613 306262	Depot, NR30	Container and Storage	Transport, Storage and Delivery
94Q	0	On Site	Score Group Plc	652614 306284	Score Group Plc, 33-36, Southgates Road, Great Yarmouth, NR30 3LL	Seals, Tapes, Taps and Valves	Industrial Products
95	0	On Site	Works	652619 306314	Works, NR30	Unspecified Works Or Factories	Industrial Features
96R	0	On Site	Depot	652643 306215	Depot, NR30	Container and Storage	Transport, Storage and Delivery
97U	0	On Site	Depot	652670 306047	Depot, NR30	Container and Storage	Transport, Storage and Delivery
98	0	On Site	Depot	652678 306104	Depot, NR30	Container and Storage	Transport, Storage and Delivery
99	0	On Site	Factory	652708 306026	Factory, NR30	Unspecified Works Or Factories	Industrial Features
100	0	On Site	Depot	652571 305965	Depot, NR30	Container and Storage	Transport, Storage and Delivery
101T	0	On Site	Electricity Sub Station	652755 306127	Electricity Sub Station, NR30	Electrical Features	Infrastructure and Facilities
102B	0	On Site	Works	652755 306035	Works, NR30	Unspecified Works Or Factories	Industrial Features
1035	0	On Site	South Quay Service Station	652554 306353	South Quay Service Station, Southgates Road, Great Yarmouth, NR30 3LL	Petrol and Fuel Stations	Road and Rail
104T	0	On Site	Gas Holder Station	652734 306128	Gas Holder Station, NR30	Gas Features	Infrastructure and Facilities
105U	0	On Site	H S Fishing 2000 Ltd	652669 306023	H S Fishing 2000 Ltd, Sutton Road, Great Yarmouth, NR30 3NA	Fish, Meat and Poultry Products	Foodstuffs
106	0	On Site	Noritake Itron	651879 305932	Noritake Itron, Vantage House, Harfreys Road, Great Yarmouth, NR31 OLS	Electrical Components	Industrial Products
107	2	N	Atlas Wharf	652511 306249	Atlas Wharf, NR30	Moorings and Unloading Facilities	Water
108V	11	S	Electricity Sub Station	652611 305835	Electricity Sub Station, NR30	Electrical Features	Infrastructure and Facilities
109	13	E	Factory	652657 306344	Factory, NR30	Unspecified Works Or Factories	Industrial Features
110	22	S	C L S Offshore	652471 305612	C L S Offshore, Maltings House, Malthouse Lane, Gorleston, Great Yarmouth, NR31 0GY	Special Purpose Machinery and Equipment	Industrial Products
111A F	23	W	Electricity Sub Station	651824 305887	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
112W	24	NW	Tank	652066 306129	Tank, NR31	Tanks (Generic)	Industrial Features





ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
113	24	Е	Southgates UK	652817 305922	Southgates UK, Oilmar House, Admiralty Road, Great Yarmouth, NR30 3NG	Vehicle Repair, Testing and Servicing	Repair and Servicing
114V	24	S	Tank	652599 305818	Tank, NR30	Tanks (Generic)	Industrial Features
115V	25	S	Tank	652595 305816	Tank, NR30	Tanks (Generic)	Industrial Features
116V	25	S	Tank	652604 305818	Tank, NR30	Tanks (Generic)	Industrial Features
117V	25	S	Tank	652608 305819	Tank, NR30	Tanks (Generic)	Industrial Features
118V	26	S	Tank	652613 305820	Tank, NR30	Tanks (Generic)	Industrial Features
119V	26	S	Tank	652592 305814	Tank, NR30	Tanks (Generic)	Industrial Features
120V	28	S	Tank	652597 305813	Tank, NR30	Tanks (Generic)	Industrial Features
121V	29	S	Tank	652594 305812	Tank, NR30	Tanks (Generic)	Industrial Features
122V	29	S	Tank	652590 305810	Tank, NR30	Tanks (Generic)	Industrial Features
123V	30	S	Tank	652609 305815	Tank, NR30	Tanks (Generic)	Industrial Features
124V	30	S	Tank	652615 305816	Tank, NR30	Tanks (Generic)	Industrial Features
125V	30	S	Tank	652605 305813	Tank, NR30	Tanks (Generic)	Industrial Features
126V	31	S	Tank	652599 305811	Tank, NR30	Tanks (Generic)	Industrial Features
127Y	31	SE	Works	652551 305617	Works, NR31	Unspecified Works Or Factories	Industrial Features
128V	32	S	Tank	652612 305813	Tank, NR30	Tanks (Generic)	Industrial Features
129W	33	NW	Tank	652044 306129	Tank, NR31	Tanks (Generic)	Industrial Features
130Z	33	Ν	Trinity Quay	652515 306411	Trinity Quay, NR30	Moorings and Unloading Facilities	Water
131X	34	S	Tank	652592 305806	Tank, NR30	Tanks (Generic)	Industrial Features
132	34	Е	Electricity Sub Station	652676 306372	Electricity Sub Station, NR30	Electrical Features	Infrastructure and Facilities
133X	35	S	Tank	652610 305810	Tank, NR30	Tanks (Generic)	Industrial Features
134X	35	S	Tank	652616 305811	Tank, NR30	Tanks (Generic)	Industrial Features
135A B	37	W	Tank	651803 305659	Tank, NR31	Tanks (Generic)	Industrial Features
136X	37	S	Tank	652599 305805	Tank, NR30	Tanks (Generic)	Industrial Features
137X	37	S	Tank	652594 305803	Tank, NR30	Tanks (Generic)	Industrial Features





ID	Distance (m)		Company	NGR	Address	Activity	Category
138	37	W	Fine Line Communicati ons	651811 305928	Fine Line Communications, Logic House, Harfreys Road, Great Yarmouth, NR31 0LS	Radar and Telecommunications Equipment	Industrial Products
139W	38	NW	Tank	652042 306134	Tank, NR31	Tanks (Generic)	Industrial Features
140	38	S	Electricity Sub Station	652793 305851	Electricity Sub Station, NR30	Electrical Features	Infrastructure and Facilities
141A C	39	NW	Electricity Sub Station	652153 306184	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
142A E	41	W	Harfreys Industrial Estate	651806 305816	Harfreys Industrial Estate, NR31	Business Parks and Industrial Estates	Industrial Features
143Y	41	SE	Electricity Sub Station	652529 305593	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
144A A	41	S	Tank	652680 305822	Tank, NR30	Tanks (Generic)	Industrial Features
145X	42	S	Tank	652597 305799	Tank, NR30	Tanks (Generic)	Industrial Features
146Z	42	N	Travelling Crane	652520 306420	Travelling Crane, NR30	Travelling Cranes and Gantries	Industrial Features
147Z	45	N	Trinity House Depot	652542 306423	Trinity House Depot, NR30	Container and Storage	Transport, Storage and Delivery
148X	45	E	Tank	652600 305795	Tank, NR30	Tanks (Generic)	Industrial Features
149W	46	NW	Tank	652040 306142	Tank, NR31	Tanks (Generic)	Industrial Features
150	47	S	Eastern Monitoring Services	652498 305580	Eastern Monitoring Services, Malthouse Lane, Gorleston, Great Yarmouth, NR31 0GW	Electronic Equipment	Industrial Products
151	48	NW	Tank	651959 306104	Tank, NR31	Tanks (Generic)	Industrial Features
152A A	49	S	Works	652665 305810	Works, NR30	Unspecified Works Or Factories	Industrial Features
153	49	SE	Malthouse Quay	652589 305617	Malthouse Quay, NR31	Moorings and Unloading Facilities	Water
154A B	52	W	C A H Quickmix	651791 305685	C A H Quickmix, Morton Peto Road, Great Yarmouth, NR31 0LT	Concrete Products	Industrial Products
155	53	W	SSCS	651794 305786	S S C S, Harfreys Road, Great Yarmouth, NR31 OLS	Lifting and Handling Equipment	Industrial Products
156A C	55	NW	K S D Fabrication Ltd	652099 306177	K S D Fabrication Ltd, Yarmouth Business Park, Thamesfield Way, Great Yarmouth, NR31 0DN	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
157A D	56	Ν	Tank	652560 306435	Tank, NR30	Tanks (Generic)	Industrial Features
158A G	57	NW	Works	652045 306156	Works, NR31	Unspecified Works Or Factories	Industrial Features
159A D	59	N	Tank	652560 306438	Tank, NR30	Tanks (Generic)	Industrial Features
160A D	61	N	ΕU	652597 306440	E U, 19, Southgates Road, Great Yarmouth, NR30 3LJ	Vehicle Parts and Accessories	Motoring





	OCATION IN	TELLIGENCE					FOR A DELICER POINT OF VIEW
ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
161A D	61	N	Works	652585 306441	Works, NR30	Unspecified Works Or Factories	Industrial Features
162A D	62	N	Tank	652560 306441	Tank, NR30	Tanks (Generic)	Industrial Features
163AJ	63	E	Hardy Craske Fuels	652619 305765	Hardy Craske Fuels, Old Customs House Marine Base, Great Yarmouth, NR30 3LX	Fuel Distributors and Suppliers	Household, Office, Leisure and Garden
164A E	63	W	Atam Group Ltd	651783 305837	Atam Group Ltd, Unit B, Harfreys Road, Great Yarmouth, NR31 OLS	Civil Engineers	Engineering Services
165	67	Ν	Electricity Sub Station	652293 306269	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
166A B	67	SW	Tank	651779 305633	Tank, NR31	Tanks (Generic)	Industrial Features
167A F	68	W	C & M Hydraulics	651779 305896	C & M Hydraulics, Da Vinci House, Harfreys Road, Great Yarmouth, NR31 OLS	Hydraulic Engineers	Engineering Services
168	72	Е	P K M Sign Studios	652869 305873	P K M Sign Studios, 15, Swanston's Road, Great Yarmouth, NR30 3NQ	Signs	Industrial Products
169A G	73	NW	Conveyor	652047 306175	Conveyor, NR31	Conveyors	Industrial Features
170A H	77	Е	Tank	652635 305731	Tank, NR30	Tanks (Generic)	Industrial Features
171	79	NW	Mast	652096 306202	Mast, NR31	Telecommunications Features	Infrastructure and Facilities
172A H	80	E	Tank	652638 305733	Tank, NR30	Tanks (Generic)	Industrial Features
173	81	N	Warehouse	652408 306312	Warehouse, NR31	Container and Storage	Transport, Storage and Delivery
174A H	82	Е	Tank	652639 305748	Tank, NR30	Tanks (Generic)	Industrial Features
175A H	84	Е	Tank	652641 305745	Tank, NR30	Tanks (Generic)	Industrial Features
176A H	84	Е	Tank	652642 305735	Tank, NR30	Tanks (Generic)	Industrial Features
177A H	86	Е	Tank	652643 305741	Tank, NR30	Tanks (Generic)	Industrial Features
178AI	86	E	Wing Mirrors World	652881 305918	Wing Mirrors World, Unit 9, Swanston's Road, Great Yarmouth, NR30 3NQ	Vehicle Parts and Accessories	Motoring
179AI	86	E	Spray N Go	652881 305918	Spray N Go, Unit 9, Swanston's Road, Great Yarmouth, NR30 3NQ	Vehicle Repair, Testing and Servicing	Repair and Servicing
180A H	87	Е	Tank	652645 305737	Tank, NR30	Tanks (Generic)	Industrial Features
181A H	89	Е	Tank	652647 305721	Tank, NR30	Tanks (Generic)	Industrial Features
182A R	91	SE	Works	652873 305837	Works, NR30	Unspecified Works Or Factories	Industrial Features
183	96	N	Ballast Quay	652513 306474	Ballast Quay, NR30	Moorings and Unloading Facilities	Water
184A H	97	Е	Tank	652656 305707	Tank, NR30	Tanks (Generic)	Industrial Features





	OCATION INT	relligence					FOR A DELICE POINT OF VIEW
ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
185AJ	99	S	Works	652674 305761	Works, NR30	Unspecified Works Or Factories	Industrial Features
186A K	99	Е	Tank	652659 305683	Tank, NR30	Tanks (Generic)	Industrial Features
187A K	102	Е	Tank	652662 305688	Tank, NR30	Tanks (Generic)	Industrial Features
188A O	103	SW	J W Munnings Ltd	651759 305598	J W Munnings Ltd, 1 Munnings Court, Harfreys Road, Great Yarmouth, NR31 OLS	Construction and Tool Hire	Hire Services
189	104	E	Electricity Sub Station	652859 306156	Electricity Sub Station, NR30	Electrical Features	Infrastructure and Facilities
190	107	N	Simmons Edeco Europe Ltd	651821 306118	Simmons Edeco Europe Ltd, Bessemer Way, Great Yarmouth, NR31 OLX	Special Purpose Machinery and Equipment	Industrial Products
191A K	107	Е	Warehouse	652668 305668	Warehouse, NR30	Container and Storage	Transport, Storage and Delivery
192A K	109	Е	Tank	652669 305675	Tank, NR30	Tanks (Generic)	Industrial Features
193	109	S	Gorlerston Fire Station	652491 305518	Gorlerston Fire Station, Fire Station, High Road, Gorleston, Great Yarmouth, NR31 0PJ	Fire Brigade Stations	Central and Local Government
194A M	109	W	S P P Digital	651738 305773	S P P Digital, Morton Peto Road, Great Yarmouth, NR31 0LT	Published Goods	Industrial Products
195A T	112	S	Nelson Works	652803 305778	Nelson Works, NR30	Unspecified Works Or Factories	Industrial Features
196A K	112	Е	Tank	652672 305678	Tank, NR30	Tanks (Generic)	Industrial Features
197A K	112	Е	Tank	652672 305688	Tank, NR30	Tanks (Generic)	Industrial Features
198AL	113	W	Maverick Engineering Ltd	651732 305857	Maverick Engineering Ltd, 9-11, Brinell Way, Great Yarmouth, NR31 OLU	Industrial Engineers	Engineering Services
199AL	113	W	L V Shipping Ltd	651732 305857	L V Shipping Ltd, 9-11, Brinell Way, Great Yarmouth, NR31 0LU	Distribution and Haulage	Transport, Storage and Delivery
200AL	113	W	East Coast Pipe	651732 305867	East Coast Pipe, Unit 8, Brinell Way, Great Yarmouth, NR31 0LU	Electrical Equipment Repair and Servicing	Repair and Servicing
201A M	114	W	Survitec Survival Craft	651732 305747	Survitec Survival Craft, Unit 16, Brinell Way, Great Yarmouth, NR31 0LU	Marine Engineers and Services	Engineering Services
202	114	W	Softstart UK	651732 305803	Softstart UK, 14, Brinell Way, Great Yarmouth, NR31 0LU	Electrical Equipment Repair and Servicing	Repair and Servicing
203A K	116	E	Tank	652676 305681	Tank, NR30	Tanks (Generic)	Industrial Features
204	116	Ν	Electricity Sub Station	652172 306284	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
205A N	118	W	Enterprise Rent-A-Car	651731 305910	Enterprise Rent-A-Car, Units 4-5, Brinell Way, Great Yarmouth, NR31 OLU	Vehicle Hire and Rental	Hire Services
206A K	118	Е	Tank	652678 305677	Tank, NR30	Tanks (Generic)	Industrial Features





	Distance	Directio					
ID	(m)	n	Company	NGR	Address	Activity	Category
207A U	118	SE	Works	652869 305796	Works, NR30	Unspecified Works Or Factories	Industrial Features
208A N	118	W	Applus R T D	651730 305932	Applus R T D, 1-2, Brinell Way, Great Yarmouth, NR31 OLU	Industrial Engineers	Engineering Services
209A N	119	W	Stuga	651730 305911	Stuga, Unit 4, Brinell Way, Great Yarmouth, NR31 OLU	Tools Including Machine Shops	Industrial Products
210A O	120	SW	Hubble	651739 305598	Hubble, 2 Munnings Court, Harfreys Road, Great Yarmouth, NR31 OLS	General Construction Supplies	Industrial Products
211A S	121	S	Regional Scaffolding	652729 305752	Regional Scaffolding, Canada Buildings, South Denes Road, Great Yarmouth, NR30 3PF	Construction and Tool Hire	Hire Services
212A P	122	N	Electricity Sub Station	652667 306502	Electricity Sub Station, NR30	Electrical Features	Infrastructure and Facilities
213A P	123	N	Electricity Sub Station	652667 306503	Electricity Sub Station, NR30	Electrical Features	Infrastructure and Facilities
214A Q	125	NW	Barford Hire Ltd	652068 306240	Barford Hire Ltd, Yarmouth Business Park, Suffolk Road, Great Yarmouth, NR31 0ER	Vehicle Hire and Rental	Hire Services
215A Q	125	NW	Pat's Floorings	652068 306240	Pat's Floorings, Yarmouth Business Park, Thamesfield Way, Great Yarmouth, NR31 0DN	Construction Completion Services	Construction Services
216A V	127	N	Works	652551 306505	Works, NR30	Unspecified Works Or Factories	Industrial Features
217	127	NW	Survitec Group	651930 306180	Survitec Group, Unit 8, Owen Road, Great Yarmouth, NR31 0NA	Workwear	Industrial Products
218A O	128	SW	M D F Transport Ltd	651729 305597	M D F Transport Ltd, 3 Munnings Court, Harfreys Road, Great Yarmouth, NR31 OLS	Distribution and Haulage	Transport, Storage and Delivery
219	128	W	Electricity Sub Station	652391 306411	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
220A R	129	E	Pinstripe Distribution Ltd	652925 305861	Pinstripe Distribution Ltd, Midas Building, Swanston's Road, Great Yarmouth, NR30 3NQ	Distribution and Haulage	Transport, Storage and Delivery
221	129	E	Gold Cockerel Books	652925 305861	Gold Cockerel Books, Midas Building, Swanston's Road, Great Yarmouth, NR30 3NQ	Published Goods	Industrial Products
222	130	N	Works	652610 306511	Works, NR30	Unspecified Works Or Factories	Industrial Features
223A S	130	S	A B Trade Supplies	652734 305743	A B Trade Supplies, Canada Building, South Denes Road, Great Yarmouth, NR30 3PF	General Construction Supplies	Industrial Products
224B A	132	Е	Electricity Sub Station	652691 305634	Electricity Sub Station, NR30	Electrical Features	Infrastructure and Facilities
225A T	132	S	Hy-tek Engineering Services Ltd	652821 305760	Hy-tek Engineering Services Ltd, 3, Main Cross Road, Great Yarmouth, NR30 3PD	Precision Engineers	Engineering Services

Report Reference: CMAPS-CM-636391-16287-030717EDR





	LOCATION INT	relligence					FOR A DELICE FORM OF NEW
ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
226A T	132	S	Toucam Engineers Ltd	652821 305760	Toucam Engineers Ltd, 3, Main Cross Road, Great Yarmouth, NR30 3PD	Fuel Distributors and Suppliers	Household, Office, Leisure and Garden
227A S	136	S	Displaypro	652764 305744	Displaypro, Display House, Main Cross Road, Great Yarmouth, NR30 3NZ	Office and Shop Equipment	Industrial Products
228A U	140	SE	Depot	652909 305803	Depot, NR30	Container and Storage	Transport, Storage and Delivery
229A T	141	S	Works	652826 305753	Works, NR30	Unspecified Works Or Factories	Industrial Features
230B E	142	SE	Crane	652620 305528	Crane, NR31	Travelling Cranes and Gantries	Industrial Features
231A V	144	N	Warehouse	652532 306522	Warehouse, NR30	Container and Storage	Transport, Storage and Delivery
232A V	146	N	S T M Rewinds Ltd	652536 306524	S T M Rewinds Ltd, A B C Wharf, Southgates Road, Great Yarmouth, NR30 3LQ	Vehicle Repair, Testing and Servicing	Repair and Servicing
233	148	NW	Tank	651721 306097	Tank, NR31	Tanks (Generic)	Industrial Features
234B B	153	SE	Warehouse	652881 305762	Warehouse, NR30	Container and Storage	Transport, Storage and Delivery
235A X	153	SE	Tank	652701 305595	Tank, NR30	Tanks (Generic)	Industrial Features
236A W	155	S	Depot	652777 305728	Depot, NR30	Container and Storage	Transport, Storage and Delivery
237	156	NW	Subsea Protection Systems	652383 306461	Subsea Protection Systems, Holmes Wharf 225, Southtown Road, Great Yarmouth, NR31 0JJ	Concrete Products	Industrial Products
238A W	156	S	Warehouse	652748 305720	Warehouse, NR30	Container and Storage	Transport, Storage and Delivery
239A X	156	SE	Tank	652705 305597	Tank, NR30	Tanks (Generic)	Industrial Features
240A Y	157	NW	Survival-one	651919 306209	Survival-one, Performance House Unit 6-7, Owen Road, Great Yarmouth, NR31 0NA	Special Purpose Machinery and Equipment	Industrial Products
241A U	157	SE	Nelson Works	652901 305772	Nelson Works, NR30	Unspecified Works Or Factories	Industrial Features
242A Y	157	NW	PVS Holdings	651919 306209	P V S Holdings, Unit 6 &7 Owen Road, Great Yarmouth, NR31 0NA	Garden Goods	Consumer Products
243A Z	158	SE	Micro Engineering Ltd	652939 305818	Micro Engineering Ltd, Battery Road, Great Yarmouth, NR30 3NN	Precision Engineers	Engineering Services
244A Z	158	SE	B W Refrigeration & Air Conditioning Ltd	652939 305818	B W Refrigeration & Air Conditioning Ltd, Battery Road, Great Yarmouth, NR30 3NN	Construction Completion Services	Construction Services
245A X	159	SE	Tank	652706 305593	Tank, NR30	Tanks (Generic)	Industrial Features
246A X	159	SE	Tank	652703 305586	Tank, NR30	Tanks (Generic)	Industrial Features
247A X	160	Е	Tank	652709 305598	Tank, NR30	Tanks (Generic)	Industrial Features





	LOCATION INT	ELLIGENCE					PORABETER POINT OF TIEN
ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
248A X	162	SE	Tank	652707 305588	Tank, NR30	Tanks (Generic)	Industrial Features
249A X	162	SE	Tank	652704 305582	Tank, NR30	Tanks (Generic)	Industrial Features
250B A	162	E	D P Services & Supplies Ltd	652720 305626	D P Services & Supplies Ltd, Ferry House, South Denes Road, Great Yarmouth, NR30 3PJ	Container and Storage	Transport, Storage and Delivery
251B A	162	Е	Ebrex UK Ltd	652720 305626	Ebrex UK Ltd, Ferry House, South Denes Road, Great Yarmouth, NR30 3PJ	Distribution and Haulage	Transport, Storage and Delivery
252	163	SE	Great Yarmouth	652608 305498	Great Yarmouth, A1243 South Denes Road And Riverside Road, Barrack Estate, NR31	Ferries and Ferry Terminals	Water
253A X	163	SE	Tank	652711 305594	Tank, NR30	Tanks (Generic)	Industrial Features
254	163	SW	East Coast Insulations Ltd	651695 305587	East Coast Insulations Ltd, Munnings Court, Harfreys Road, Great Yarmouth, NR31 OLS	Recycling, Reclamation and Disposal	Recycling Services
255A X	165	SE	Tank	652709 305584	Tank, NR30	Tanks (Generic)	Industrial Features
256A X	165	SE	Tank	652706 305578	Tank, NR30	Tanks (Generic)	Industrial Features
257A X	165	SE	Tank	652712 305590	Tank, NR30	Tanks (Generic)	Industrial Features
258A X	168	SE	Tank	652712 305585	Tank, NR30	Tanks (Generic)	Industrial Features
259BF	168	W	D N V Gl	651679 305750	D N V Gl, Cooke House, Morton Peto Road, Great Yarmouth, NR31 0LT	Marine Engineers and Services	Engineering Services
260A X	168	SE	Tank	652707 305575	Tank, NR30	Tanks (Generic)	Industrial Features
261A X	168	SE	Tank	652710 305580	Tank, NR30	Tanks (Generic)	Industrial Features
262A X	170	SE	Tank	652707 305570	Tank, NR30	Tanks (Generic)	Industrial Features
263A X	171	SE	Tank	652714 305581	Tank, NR30	Tanks (Generic)	Industrial Features
264A X	171	SE	Tank	652711 305575	Tank, NR30	Tanks (Generic)	Industrial Features
265	172	S	Advanced Machinery Relocations Ltd	652217 305508	Advanced Machinery Relocations Ltd, 18, Suffolk Road, Gorleston, Great Yarmouth, NR31 OQB	Construction Completion Services	Construction Services
266B B	173	SE	Equipment Supply Co G Y Ltd	652911 305759	Equipment Supply Co G Y Ltd, Nelson Works, Main Cross Road, Great Yarmouth, NR30 3NZ	General Construction Supplies	Industrial Products
267A X	173	SE	Tank	652711 305572	Tank, NR30	Tanks (Generic)	Industrial Features
268B C	174	SE	Tank	652709 305566	Tank, NR30	Tanks (Generic)	Industrial Features
269B C	174	SE	Tank	652715 305576	Tank, NR30	Tanks (Generic)	Industrial Features





	LOCATION INT	ELLIGENCE					FOR A BEITER POINT OF VIEW
ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
270B D	175	N	Warehouse	652533 306553	Warehouse, NR30	Container and Storage	Transport, Storage and Delivery
271A X	175	E	Factory	652727 305602	Factory, NR30	Unspecified Works Or Factories	Industrial Features
272B D	175	Ν	Abc Wharf	652508 306553	Abc Wharf, NR30	Moorings and Unloading Facilities	Water
273B G	175	Ν	Works	652643 306558	Works, NR30	Unspecified Works Or Factories	Industrial Features
274B E	176	SE	Landing Stage	652643 305502	Landing Stage, NR31	Moorings and Unloading Facilities	Water
275B C	176	SE	Tank	652712 305567	Tank, NR30	Tanks (Generic)	Industrial Features
276A X	177	SE	Tank	652716 305573	Tank, NR30	Tanks (Generic)	Industrial Features
277B C	177	SE	Tank	652710 305562	Tank, NR30	Tanks (Generic)	Industrial Features
278B C	179	SE	Tank	652713 305564	Tank, NR30	Tanks (Generic)	Industrial Features
279B C	179	SE	Tank	652710 305558	Tank, NR30	Tanks (Generic)	Industrial Features
280B H	179	SE	Warehouse	652945 305786	Warehouse, NR30	Container and Storage	Transport, Storage and Delivery
281A X	179	SE	Tank	652717 305569	Tank, NR30	Tanks (Generic)	Industrial Features
282B C	181	SE	Tank	652717 305565	Tank, NR30	Tanks (Generic)	Industrial Features
283A W	185	S	Electricity Sub Station	652814 305705	Electricity Sub Station, NR30	Electrical Features	Infrastructure and Facilities
284BF	185	W	S M S Auto Care Ltd	651661 305738	S M S Auto Care Ltd, Unit 2 Cooke House, Morton Peto Road, Great Yarmouth, NR31 0LT	Vehicle Repair, Testing and Servicing	Repair and Servicing
285	186	NW	C & L Waste Oil Collection Ltd	652057 306302	C & L Waste Oil Collection Ltd, Yarmouth Business Park, Thamesfield Way, Great Yarmouth, NR31 ODN	Recycling, Reclamation and Disposal	Recycling Services
286B G	187	N	J R Pitchers Ltd	652606 306568	J R Pitchers Ltd, 5, Selby Place, Great Yarmouth, NR30 3LG	Vehicle Repair, Testing and Servicing	Repair and Servicing
287B K	195	NW	Tube Care Inspection Ltd	651736 306176	Tube Care Inspection Ltd, Bessemer Way, Great Yarmouth, NR31 0LX	General Construction Supplies	Industrial Products
288A Z	197	Е	Kingsway Tyres	652982 305819	Kingsway Tyres, Battery Road, Great Yarmouth, NR30 3NN	Vehicle Parts and Accessories	Motoring
289BI	197	E	Shopkit	652995 305867	Shopkit, Unit 1-3, Swanston's Road, Great Yarmouth, NR30 3NQ	Precision Engineers	Engineering Services
290B H	198	SE	Warehouse	652975 305799	Warehouse, NR30	Container and Storage	Transport, Storage and Delivery
291BI	198	Е	Depot	652996 305861	Depot, NR30	Container and Storage	Transport, Storage and Delivery
292B G	199	N	Queen's Road Business Centre	652671 306579	Queen's Road Business Centre, NR30	Business Parks and Industrial Estates	Industrial Features





	OCATION INT	ELLIGENCE					27 - 40 - 00 - 00 - 00 - 00 - 00 - 00 - 0
ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
293BL	208	SE	Quay	652707 305509	Quay, NR30	Moorings and Unloading Facilities	Water
294B O	211	S	Depot	652877 305695	Depot, NR30	Container and Storage	Transport, Storage and Delivery
295B H	212	SE	Warehouse	652980 305780	Warehouse, NR30	Container and Storage	Transport, Storage and Delivery
296BJ	213	N	Works	652628 306595	Works, NR30	Unspecified Works Or Factories	Industrial Features
297BJ	215	N	Pertwee & Back Ltd - Ford	652585 306594	Pertwee & Back Ltd - Ford, Southgates Road, Great Yarmouth, NR30 3LF	Vehicle Repair, Testing and Servicing	Repair and Servicing
298	216	SE	Kirklands Ltd	652942 305730	Kirklands Ltd, Kirklands House, Main Cross Road, Great Yarmouth, NR30 3NZ	Workwear	Industrial Products
299	216	S	Electricity Sub Station	652504 305411	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
300B K	218	NW	Electricity Sub Station	651684 306162	Electricity Sub Station, NR31	Electrical Features	Infrastructure and Facilities
301	220	SE	Carl J Harrison Piano Services	652601 305428	Carl J Harrison Piano Services, 3, Ferry Hill, Gorleston, Great Yarmouth, NR31 0PD	Sports and Leisure Equipment Repair	Repair and Servicing
302BL	221	SE	Depot	652736 305522	Depot, NR30	Container and Storage	Transport, Storage and Delivery
303B M	225	N	Warehouse	652525 306603	Warehouse, NR30	Container and Storage	Transport, Storage and Delivery
304B N	228	W	DTS Solutions	651619 305949	D T S Solutions, Unit 17, Bessemer Way, Great Yarmouth, NR31 0LX	Radar and Telecommunications Equipment	Industrial Products
305B M	228	N	Wharf	652498 306605	Wharf, NR30	Moorings and Unloading Facilities	Water
306B N	228	W	Engraphics Ltd	651619 305939	Engraphics Ltd, Unit 16, Bessemer Way, Great Yarmouth, NR31 0LX	Signs	Industrial Products
307B N	230	W	Smart Buy Tools	651619 305928	Smart Buy Tools, Unit 15, Bessemer Way, Great Yarmouth, NR31 0LX	Tools Including Machine Shops	Industrial Products
308	230	N	Great Yarmouth Coach Works	652677 306610	Great Yarmouth Coach Works, 15, Queens Road, Great Yarmouth, NR30 3HT	New Vehicles	Motoring
309B O	232	SE	C & C Sheds & Timber	652931 305700	C & C Sheds & Timber, Suffling Road, Great Yarmouth, NR30 3QP	Garden Goods	Consumer Products
310B M	233	N	Works	652544 306611	Works, NR30	Unspecified Works Or Factories	Industrial Features
311B P	233	W	Securicom Services	651612 305834	Securicom Services, Unit 6, Bessemer Way, Great Yarmouth, NR31 0LX	Electronic Equipment	Industrial Products
312B P	233	W	ld Asbestos Ltd	651612 305834	Id Asbestos Ltd, Unit 6, Bessemer Way, Great Yarmouth, NR31 OLX	Recycling, Reclamation and Disposal	Recycling Services
313B Q	235	SE	Lacons Brewery	653011 305789	Lacons Brewery, The Courtyard, Main Cross Road, Great Yarmouth, NR30 3NZ	Alcoholic Drinks	Foodstuffs





ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
314	235	NW	B L I Technologies Ltd	651991 306327	B L I Technologies Ltd, Northland Energy Services UK Limited Yarmouth Business Park, Suffolk Road, Great Yarmouth, NR31 0ER	Distribution and Haulage	Transport, Storage and Delivery
315	236	W	Scantech Offshore	651605 305692	Scantech Offshore, Scantech House, Morton Peto Road, Great Yarmouth, NR31 0LT	Special Purpose Machinery and Equipment	Industrial Products
316	237	Е	Yarmouth Rewinds	653027 305826	Yarmouth Rewinds, Swanston's Road, Great Yarmouth, NR30 3NQ	Vehicle Repair, Testing and Servicing	Repair and Servicing
317	241	N	Hopper	651835 306254	Hopper, NR31	Hoppers and Silos	Farming
318	242	N	Nelson Garage	652574 306621	Nelson Garage, Southgates Road, Great Yarmouth, NR30 3LF	Vehicle Repair, Testing and Servicing	Repair and Servicing
319BL	246	SE	Depot	652739 305488	Depot, NR30	Container and Storage	Transport, Storage and Delivery
320	247	SE	Depot	652942 305689	Depot, NR30	Container and Storage	Transport, Storage and Delivery

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

3

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Directio n	NGR	Company	Address	LPG	Status
321	0	On Site	652574 306370	ВР	South Quay Service Station, Southgates Road, Southgates Road, Trinity Square, Great Yarmouth, Norfolk, NR30 3LL	No	Open
322A	0	On Site	652377 306137	ВР	Southtown Service Station, 126, Southtown Road, Southtown Road, Great Yarmouth, Norfolk, NR31 0JZ	No	Open
323B Q	314	SE	653075 305741	Obsolete	South Beach Service Station, South Beach Parade, South Beach Parade, Great Yarmouth, Norfolk, NR30 3QN	Not Applicable	Obsolete

Report Reference: CMAPS-CM-636391-16287-030717EDR





 \cap

0

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site:

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site:

Database searched and no data found.

Report Reference: CMAPS-CM-636391-16287-030717EDR





5. Geology

5.1 Artificial Ground and Made Ground

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

5.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type	
	· ·	•	
NRD-XSV	NORTH DENES FORMATION	SAND AND GRAVEL	
BRYD-P	BREYDON FORMATION	PEAT	
BRYD-XCZ	BREYDON FORMATION	CLAY AND SILT	
BRYD-XCZ	BREYDON FORMATION	CLAY AND SILT	
TRD-XCZ	TIDAL RIVER OR CREEK DEPOSITS	CLAY AND SILT	
HPGL-S	HAPPISBURGH GLACIGENIC FORMATION	SAND	
BSA-S	BLOWN SAND	SAND	

5.3 Bedrock and Solid Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
CRAG-XSV	CRAG GROUP	SAND AND GRAVEL

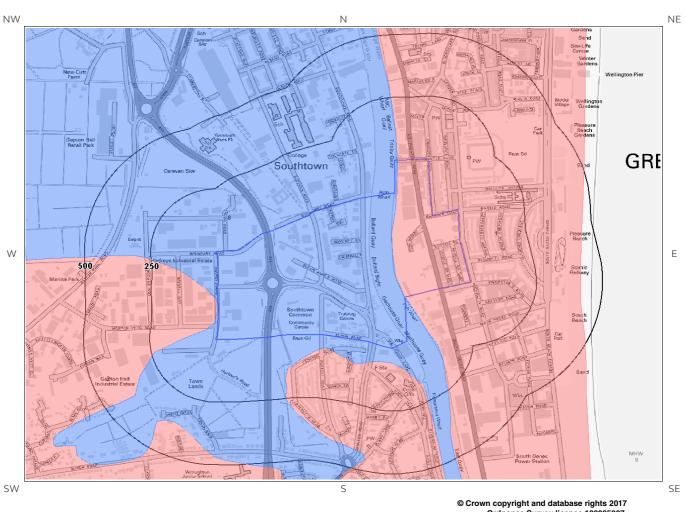
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

Report Reference: CMAPS-CM-636391-16287-030717EDR





6 Hydrogeology and Hydrology 6a. Aquifer Within Superficial Geology



Ordnance Survey license 100035207.

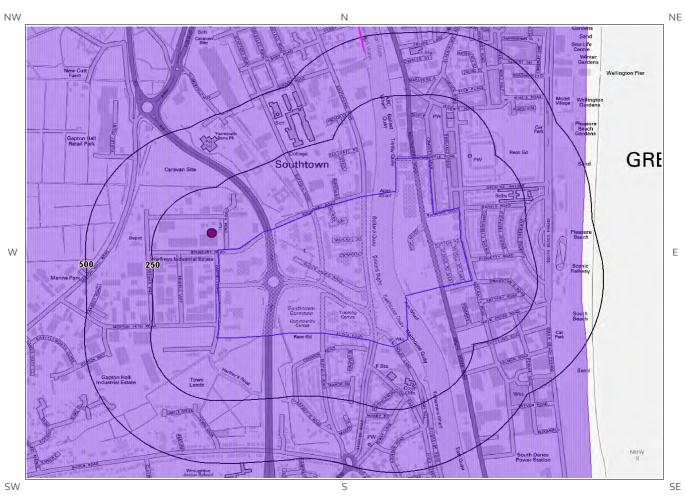


Report Reference: CMAPS-CM-636391-16287-030717EDR

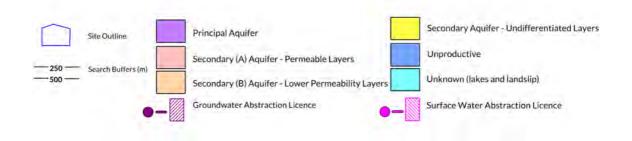




6b. Aquifer Within Bedrock Geology and Abstraction Licenses



© Crown copyright and database rights 2017 Ordnance Survey license 100035207.

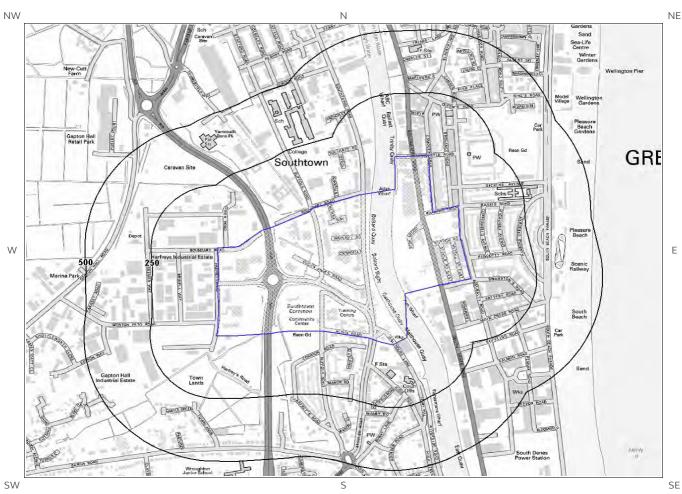


Report Reference: CMAPS-CM-636391-16287-030717EDR

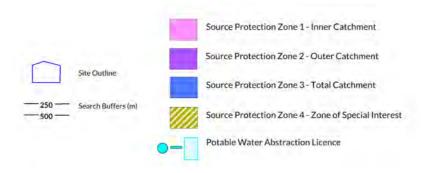




6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



© Crown copyright and database rights 2017 Ordnance Survey license 100035207.

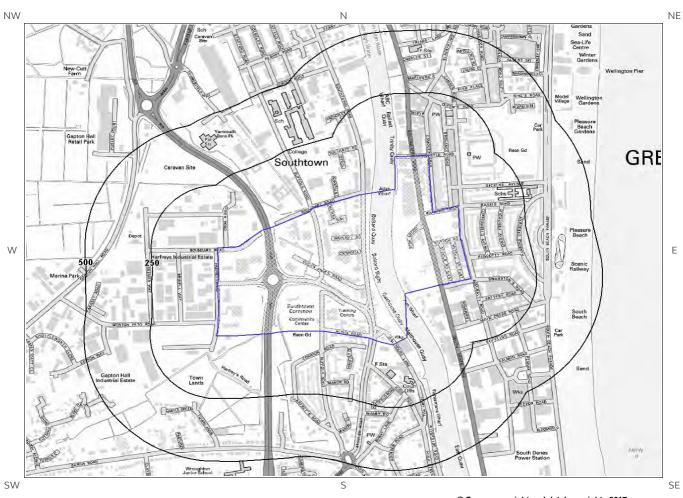


Report Reference: CMAPS-CM-636391-16287-030717EDR

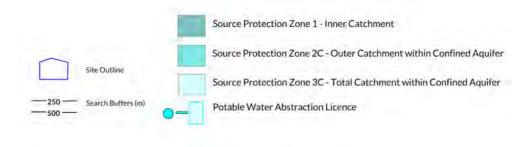




6d. Hydrogeology – Source Protection Zones within confined aquifer



© Crown copyright and database rights 2017 Ordnance Survey license 100035207.

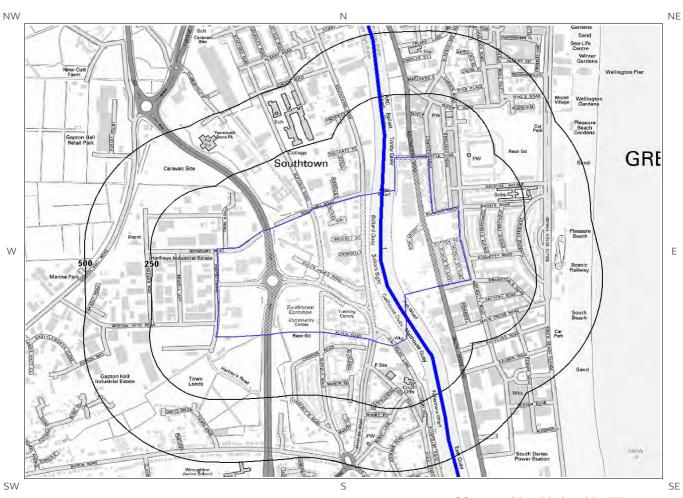


Report Reference: CMAPS-CM-636391-16287-030717EDR

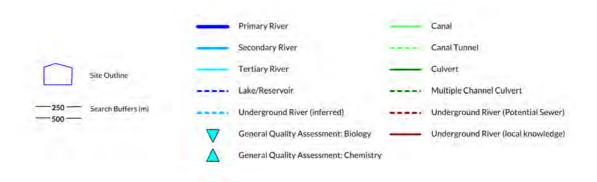




6e. Hydrology – Detailed River Network and River Quality



© Crown copyright and database rights 2017. Ordnance Survey license 100035207.



Report Reference: CMAPS-CM-636391-16287-030717EDR





6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property?

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distanc e (m)	Direction	Designation	Description
1	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
8	0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
2	3	W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

6.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distanc e (m)	Direction	Designation	Description
1	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

Report Reference: CMAPS-CM-636391-16287-030717EDR





6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site?

Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distanc e (m)	Direction	NGR	Details	
3	71	N	651820 306080	Status: Active Licence No: AN/034/0015/020 Details: Laundry Use Direct Source: Ground Water Source Of Supply Point: Wellpoints At The Laundry, Portland Lane, Great Yarmouth Data Type: Point Name: Camplings Limited	Annual Volume (m³): 60000 Max Daily Volume (m³): 210 Original Application No: NPS/WR/024446 Original Start Date: 1/12/2016 Expiry Date: 31/3/2030 Issue No: 1 Version Start Date: 1/12/2016 Version End Date:
Not shown	1187	NE	653140 307460	Status: Historical Licence No: 7/34/15/*G/0220 Details: Make-Up or Top Up Water Direct Source: Ground Water Source Of Supply Point: Wellpoint At Gt Yarmouth Data Type: Point Name: B & M LEISURE	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 1/3/1997 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1997 Version End Date:

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site?

Yes

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
5	443	N	652372 306914	Status: Historical Licence No: AN/034/0015/013 Details: Hydraulic Testing Direct Source: Surface Water Source Of Supply Point: River Yare At Berth 28, Great Yarmouth Data Type: Line Name: INTERSERVE CONSTRUCTION LIMITED	Annual Volume (m³): 4000 Max Daily Volume (m³): 100 Application No: NPS/WR/014706 Original Start Date: 16/12/2013 Expiry Date: 31/3/2015 Issue No: 1 Version Start Date: 16/12/2013 Version End Date:

6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?

No

Database searched and no data found.

Report Reference: CMAPS-CM-636391-16287-030717EDR





6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

No

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site?

Νo

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site?

Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
0	On Site	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
487	W	Major Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.

6.9 River Quality

Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site?

Report Reference: CMAPS-CM-636391-16287-030717EDR





	Database searched and no data found.
6.9.2 Chemical Quality:	
	Database searched and no data found.

6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site?

Yes

The following Detailed River Network records are represented on the Hydrology Map (6e):

ID	Distanc e (m)	Direction		Details
1	0	On Site	River Name: River Yare Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined

Report Reference: CMAPS-CM-636391-16287-030717EDR





6.11 Surface Water Features

Are there any surface water features within 250m of the study site?

Yes

The following surface water records are not represented on mapping:

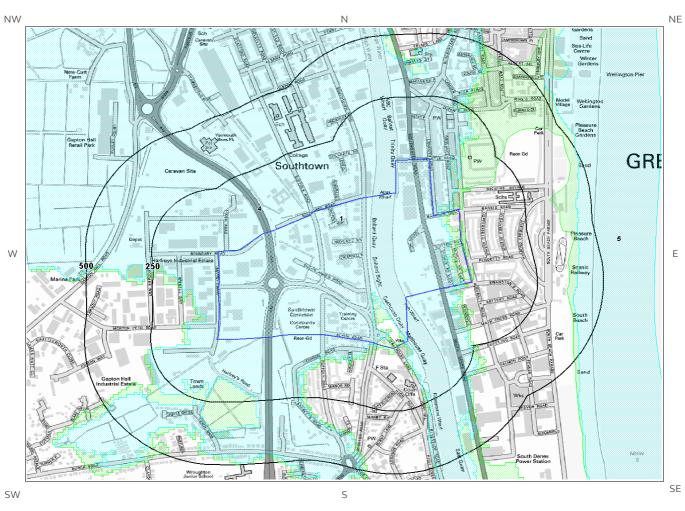
Distance (m)	Direction
0	On Site
17	NW
25	NW
29	N
37	NW
52	NW
74	SW
105	NW
118	S
143	S
158	NW
176	S

Report Reference: CMAPS-CM-636391-16287-030717EDR





7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)



© Crown copyright and database rights 2017. Ordnance Survey license 100035207.

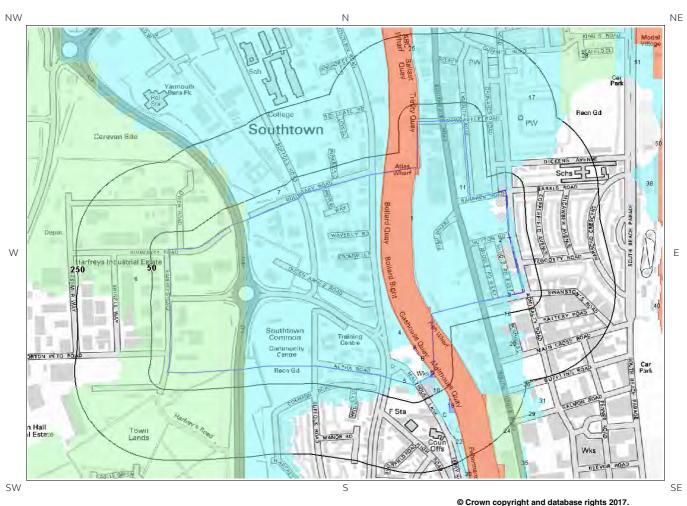


Report Reference: CMAPS-CM-636391-16287-030717EDR

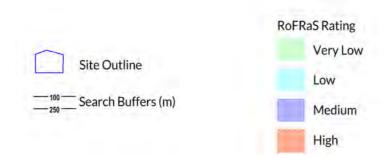




7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map



© Crown copyright and database rights 2017. Ordnance Survey license 100035207.



Report Reference: CMAPS-CM-636391-16287-030717EDR Client Reference: 16287

96





7 Flooding

7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 2 floodplain?

Yes

Environment Agency/Natural Resources Wales Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

ID	Distance (m)	Direction	Update	Туре
1	0	On Site	19-Jun-2017	Zone 2 - (Fluvial /Tidal Models)

7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 3 floodplain?

Yes

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

ID	Distance (m)	Direction	Update	Туре
1	0	On Site	19-Jun-2017	Zone 3 - (Fluvial Models)

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite?

High

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a High (1 in 30 or greater) chance of flooding in any given year.

Any relevant data within 250m is represented on the RoFRaS Flood map. Data to 50m is reported in the table below.

ID	Distance (m)	Direction	RoFRas flood Risk
1	0.0	On Site	Low
2	0.0	On Site	Low

Report Reference: CMAPS-CM-636391-16287-030717EDR





	0 0/ 11/0/11 11/		
3	0.0	On Site	Low
4	0.0	On Site	Low
5	0.0	On Site	Low
6	0.0	On Site	Very Low
7	0.0	On Site	Low
8B	0.0	On Site	Low
9	0.0	On Site	Medium
10	0.0	On Site	Low
11	0.0	On Site	Low
12A	0.0	On Site	Medium
13A	0.0	On Site	Medium
14B	0.0	On Site	Medium
15B	0.0	On Site	Medium
16	0.0	On Site	High
17	5.0	Е	Low
18	30.0	S	Low

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site?

Database searched and no data found.

No

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site?

No

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site?

No

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site?

Does this relate to Clearwater Flooding or Superficial Deposits Flooding?

Clearwater Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

Report Reference: CMAPS-CM-636391-16287-030717EDR





7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Limited potential

Where limited potential for groundwater flooding to occur is indicated, this means that although given the geological conditions there may be a groundwater flooding hazard, unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area, you need take no further action in relation to groundwater flooding hazard.

7.8 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?

Low

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

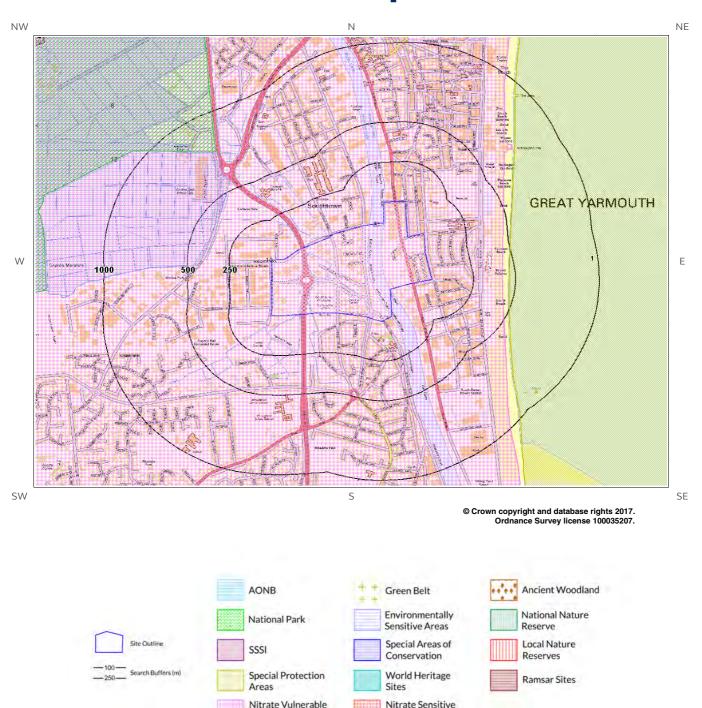
The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

Report Reference: CMAPS-CM-636391-16287-030717EDR





8. Designated Environmentally Sensitive Sites Map



Areas

Report Reference: CMAPS-CM-636391-16287-030717EDR

Zones





8. Designated Environmentally Sensitive Sites

Presence of Designated	I Environmentally	Sensitive Sites	within 2000m	of the study site?

Yes

8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

3

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
Not shown	1794	NW	Breydon Water	Natural England
4	1848	NW	Breydon Water	Natural England
Not shown	1949	NW	Breydon Water	Natural England

8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

0

Database searched and no data found.

8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

2

The following Special Protection Area (SPA) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Directio n	SPA Name	Data Source
1	465	Е	Outer Thames Estuary	Natural England

Report Reference: CMAPS-CM-636391-16287-030717EDR





ID	Distance (m)	Directio n	SPA Name	Data Source
2A	1794	NW	Breydon Water	Natural England

8.5 Records of Ramsar sites within 2000m of the study site:

1

The following Ramsar records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Directio n	Ramsar Site Name	Ramsar Site Status	Data Source
6A	1794	NW	Breydon Water	Listed	Natural England

8.6 Records of Ancient Woodland within 2000m of the study site:

0

Database searched and no data found.

8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

1

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
7	1797	NW	Breydon Water	Natural England

8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

Report Reference: CMAPS-CM-636391-16287-030717EDR





8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

2

The following Environmentally Sensitive Area records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	ESA Name	Data Source
12	392	W	Broads	Natural England
Not shown	1839	W	Broads	Natural England

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

8.11 Records of National Parks (NP) within 2000m of the study site:

2

The following National Park records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NP Name	Data Source
8	754	NW	The Broads	Natural England
Not shown	1839	W	The Broads	Natural England

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

Report Reference: CMAPS-CM-636391-16287-030717EDR





8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

2

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
10	0	On Site	Existing	DEFRA
Not shown	1839	W	Existing	DEFRA

8.14 Records of Green Belt land within 2000m of the study site:

Database searched and no data found.

0

Report Reference: CMAPS-CM-636391-16287-030717EDR





9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **Groundsure Geo Insight**, available from **our website**. The following information has been found:

9.1.1 Shrink Swell

What is the maximum Shrink-Swell** hazard rating identified on the study site?

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

9.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site?

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property no significant increase in insurance risk due to natural slope instability problems.

9.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site?

Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

Report Reference: CMAPS-CM-636391-16287-030717EDR

 ^{*} This indicates an automatically generated 50m buffer and site.





9.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site?

High

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly.

9.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

What is the maximum Running Sand** hazard rating identified on the study site?

Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Significant potential for running sand problems with relatively small changes in ground conditions. Avoid large amounts of water entering the ground (for example through pipe leakage or soak-aways). Do not dig (deep) holes into saturated ground near the property without technical advice. For new build consider the consequences of soil and groundwater conditions during and after construction. For existing property possible increase in insurance risk from running sand, for example, due to water leakage, high rainfall events or flooding.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

Report Reference: CMAPS-CM-636391-16287-030717EDR

Client Reference: 16287

106

^{*} This indicates an automatically generated 50m buffer and site.





Is the property in an area where Radon Protection are required for new properties or extensions to existing

ones as described in publication BR211 by the Building Research Establishment?

No radon protective measures are necessary.

Report Reference: CMAPS-CM-636391-16287-030717EDR





10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site?

No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary?

No

Database searched and no data found.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? Guidance: No Guidance Required.

No

Report Reference: CMAPS-CM-636391-16287-030717EDR





Contact Details

CENTREMAPS

Telephone: 01886 832972 Groundsure@centremaps.co.uk Open Space, Upper Interfields, Malvern, Worcester, WR14 1UT



British Geological Survey Enquiries

Kingsley Dunham Centre Keyworth, Nottingham NG12 5GG Tel: 0115 936 3143. Fax: 0115 936 3276. Email:

Web:www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries:

enquiries@bgs.ac.uk

Environment Agency

National Customer Contact Centre, PO Box 544 Rotherham, S60 1BY Tel: 03708 506 506

Web: www.environment-agency.gov.uk Email: enquiries@environment-agency.gov.uk

Public Health England

Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG www.gov.uk/phe

Email:enquiries@phe.gov.uk
Main switchboard: 020 7654 8000



British

Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

Public Health England

The Coal Authority

200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5

www.coal.gov.uk



Ordnance Survey

Adanac Drive, Southampton SO16 0AS Tel: 08456 050505



Local Authority

Authority: Great Yarmouth Borough Council Phone: 01493 856 100 Web: http://www.great-yarmouth.gov.uk Address: Town Hall, Hall Plain, Great Yarmouth, Norfolk, NR30 2QF

Gemapping PLC

Virginia Villas, High Street, Hartley Witney, Hampshire RG27 8NW Tel: 01252 845444



Report Reference: CMAPS-CM-636391-16287-030717EDR





LOCATION INTELLIGENCE

Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, Natural England who retain the Copyright and Intellectual Property Rights for the data

PointX © Database Right/Copyright, Thomson Directories Limited © Copyright Link Interchange Network Limited © Database Right/Copyright and Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the Groundsure Ltd standard Terms and Conditions of business for work of this nature.

Report Reference: CMAPS-CM-636391-16287-030717EDR





Standard Terms and Conditions

Groundsure's Terms and Conditions can be viewed online at this link: https://www.groundsure.com/terms-and-conditions-sept-2016

Report Reference: CMAPS-CM-636391-16287-030717EDR



CENTREMAPS

Open Space, Upper Interfields, Worcester, WR14 1UT Report Reference: CMAPS-CM-636391-16287-

030717GEO

Your Reference: 16287

Report Date 3 Jul 2017

Report Delivery Email - pdf

Method:

Geo Insight

Address: ,

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geo Insight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 01886 832972 quoting the above CENTREMAPS reference number.

Yours faithfully,

CENTREMAPS

Enc.

Groundsure Geo Insight



Geo Insight

Address: ,

Date: 3 Jul 2017

Reference: CMAPS-CM-636391-16287-030717GEO

Client: CENTREMAPS

NW NE



344

Aerial Photograph Capture date: 16-Apr-2014
Grid Reference: 652320,306005
Site Size: 43.58ha

W

SE





Contents Page

Contents Page	3
Overview of Findings	
1:10,000 Scale Availability	8
Availability of 1:10,000 Scale Geology Mapping	
1 Geology (1:10,000 scale)	10
1.1 Artificial Ground Map (1:10,000 scale)	
1. Geology 1:10,000 scale	
1.1 Artificial Ground	
1.2 Superficial Deposits and Landslips Map (1:10,000 scale)	
1.2 Superficial Deposits and Landslips	
1.2.1 Superficial Deposits/ Drift Geology	
1.2.2 Landslip	
1.3 Bedrock and Faults Map (1:10,000 scale)	
1.3 Bedrock and Faults	
1.3.1 Bedrock/ Solid Geology	
2 Geology 1:50,000 Scale	
2.1 Artificial Ground Map	
2. Geology 1:50,000 scale	
2.1 Artificial Ground	
2.1.1 Artificial/ Made Ground	
2.1.2 Permeability of Artificial Ground	
2.2 Superficial Deposits and Landslips Map (1:50,000 scale)	
2.2 Superficial Deposits and Landslips	
2.2.1 Superficial Deposits/ Drift Geology	19
2.2.2 Permeability of Superficial Ground	
2.2.4 Landslip Permeability	
2.3 Bedrock and Faults Map (1:50,000 scale)	
2.3 Bedrock, Solid Geology & Faults	22
2.3.1 Bedrock/Solid Geology	
2.3.2 Permeability of Bedrock Ground	
3 Radon Data	
3.1 Radon Affected Areas	
3.2 Radon Protection	
4 Ground Workings Map	
4 Ground Workings	
4.1 Historical Surface Ground Working Features derived from Historical Mapping	
4.1 Historical Surface Ground Working Features derived from Historical Mapping	
4.3 Current Ground Workings	
5 Mining, Extraction & Natural Cavities	
5.1 Historical Mining	
5.2 Coal Mining	
5.3 Johnson Poole and Bloomer	
5.4 Non-Coal Mining	
5.1 Non-Coal Mining Cavities	
5.6 Natural Cavities	
5.7 Brine Extraction	
5.8 Gypsum Extraction	
5.9 Tin Mining	
5.10 Clay Mining	
6 Natural Ground Subsidence	
6.1 Shrink-Swell Clay Map	
6.2 Landslides Map	
6.3 Ground Dissolution of Soluble Rocks Map	
6.4 Compressible Deposits Map	
6.5 Collapsible Deposits Map	35
6.6 Running Sand Man	36

Report Reference: CMAPS-CM-636391-16287-030717GEO



6 Natural Ground Subsidence	37
6.1 Shrink-Swell Clays	37
6.1 Shrink-Swell Clays	38
6.3 Ground Dissolution of Soluble Rocks	38
6.4 Compressible Deposits	38
6.5 Collapsible Deposits	39
6.6 Running Sands	39
6.5 Collapsible Deposits	42
8 Estimated Background Soil Chemistry	56
9 Railways and Tunnels Map.	57
9 Railways and Tunnels	58
9.1 Tunnels	58
9.2 Historical Railway and Tunnel Features	58
9.3 Historical Railways	61
9.4 Active Railways	61
9 5 Railway Projects	61





Overview of Findings

The Groundsure Geo Insight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 and 1:10,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Non-coal mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Geolo	gy 1:10,000 Scale	
1.1 Artificial Ground	1.1 Is there any Artificial Ground/ Made Ground present beneath the study site at 1:10,000 scale?	Yes
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site at 1:10,000 scale?*	No
	1.2.2 Are there any records of landslip within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records of faults within 500m of the study site boundary at 1:10,000 scale?	No
Section 2: Geolo	gy 1:50,000 Scale	
2.1 Artificial Ground	2.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	Yes
	2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?	Yes
2.2 Superficial Geology and	2.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	Yes
Landslips	2.2.2 Are there any records of permeability of superficial ground within 500m of the study site?	Yes
	2.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	2.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No





Section 2: Geology 1:50,000 Scale

2.3 Bedrock, Solid

Geology and Faults 2.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.

> 2.3.2 Are there any records relating to permeability of bedrock ground within the study site boundary?

Yes

2.3.3 Are there any records of faults within 500m of the study site boundary?

No

Section 3: Radon

3. Radon

3.1Is the property in a Radon Affected Area as defined by the Health The property is not in a Radon Affected Protection Agency (HPA) and if so what percentage of homes are above the Action Level?

Area, as less than 1% of properties are above the Action Level.

3.2Radon Protection

No radon protective measures are necessary.

Section 4: Ground Workings	On-site	0-50m	51-250	251-500	501-1000
4.1 Historical Surface Ground Working Features from Small Scale Mapping	11	1	12	Not Searched	Not Searched
4.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
4.3 Current Ground Workings	1	2	0	1	4
Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.1 Historical Mining	0	0	0	0	0
5.2 Coal Mining	0	0	0	0	0
5.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
5.4 Non-Coal Mining*	0	0	0	0	0
E E Non Coal Mining Cavities		0	0	0	0
5.5 Non-Coal Mining Cavities	0	0		0	

Report Reference: CMAPS-CM-636391-16287-030717GEO





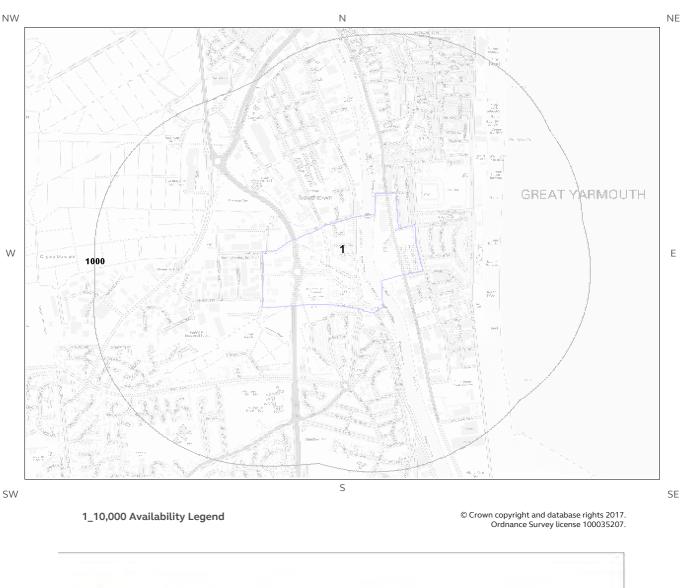
LOCATION INTELLIGENCE					
Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Tin Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0
Section 6: Natural Ground Subsidence	On-sit	e			
6.1 Shrink-Swell Clay	Low				
6.2 Landslides	Low				
6.3 Ground Dissolution of Soluble Rocks	Negligib	ole			
6.4 Compressible Deposits	High				
6.5 Collapsible Deposits	Very Lo	W			
6.5 Running Sand	Modera	te			
Section 7: Borehole Records	On-si	te	0-50m	5	1-250
7 BGS Recorded Boreholes	107		33		77
Section 8: Estimated Background Soil Chemistry	On-si	te	0-50m	5	1-250
8 Records of Background Soil Chemistry	16		3		0
Section 9: Railways and Tunnels	On-site	0-50m	51-250	250-500	
9.1 Tunnels	0	0	0	Not Searched	
9.2 Historical Railway and Tunnel Features	31	6	21	Not Searched	
9.3 Historical Railways	3	0	0	Not Searched	
9.4 Active Railways	0	0	0	Not Searched	
9.5 Railway Projects	0	0	0	0	

Report Reference: CMAPS-CM-636391-16287-030717GEO Client Reference: 16287





1:10,000 Scale Availability



Site Outline

Full

Coverage

Coverage

Search Buffers (m)

Partial

Coverage

Coverage

Report Reference: CMAPS-CM-636391-16287-030717GEO





Availability of 1:10,000 Scale Geology Mapping

The following information represents the availability of the key components of the 1:10,000 scale geological data.

ID	Distance	Artificial Coverage	Superficial Coverage	Bedrock Coverage	Mass Movement Coverage
1	0.0	No deposits are mapped	No coverage	No coverage	No coverage

Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not all themes are mapped or available on every map sheet. Therefore a coverage layer showing the availability of the four themes is presented above.

The definitions of coverage are as follows:

Geology	Full Coverage	Partial Coverage	No Coverage
Bedrock	The whole tile has been mapped	Some but not all the tile has been mapped	No coverage
Superficial	The whole tile has been mapped	Some but not all of the tile has been mapped	No coverage
Artificial	Some deposits are mapped on this tile	-	No deposits are mapped
Mass Movement	Some deposits are mapped on this tile	-	No coverage

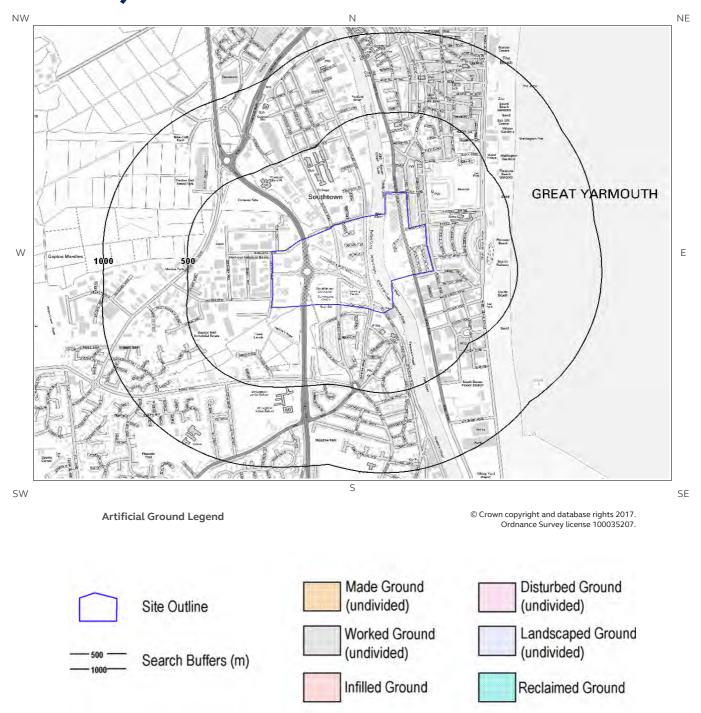
Report Reference: CMAPS-CM-636391-16287-030717GEO





1 Geology (1:10,000 scale).

1.1 Artificial Ground Map (1:10,000 scale)



Report Reference: CMAPS-CM-636391-16287-030717GEO





1. Geology 1:10,000 scale

1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

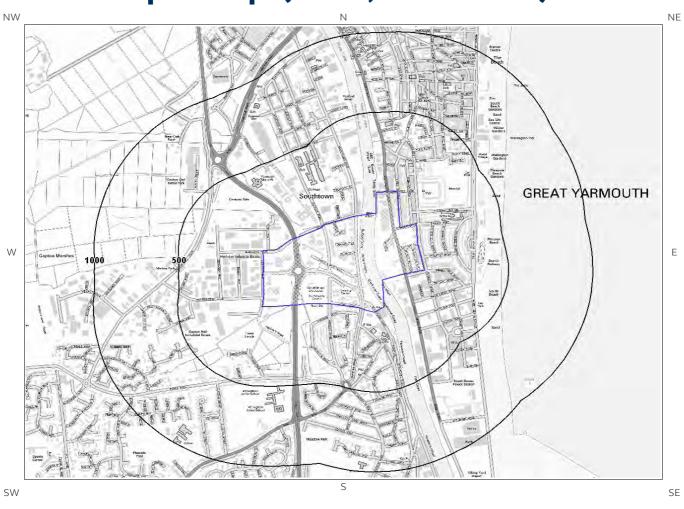
Are there any records of Artificial/ Made Ground within 500m of the study site boundary at 1:10,000 scale? No

Database searched and no data found.





1.2 Superficial Deposits and Landslips Map (1:10,000 scale)



Artificial Ground Legend

© Crown copyright and database rights 2017. Ordnance Survey license 100035207.







1.2 Superficial Deposits and Landslips

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary at 1:10,000 scale?

Database searched and no data found.

1.2.2 Landslip

Are there any records of Landslip within 500m of the study site boundary at 1:10,000 scale?

No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:10,000 scale

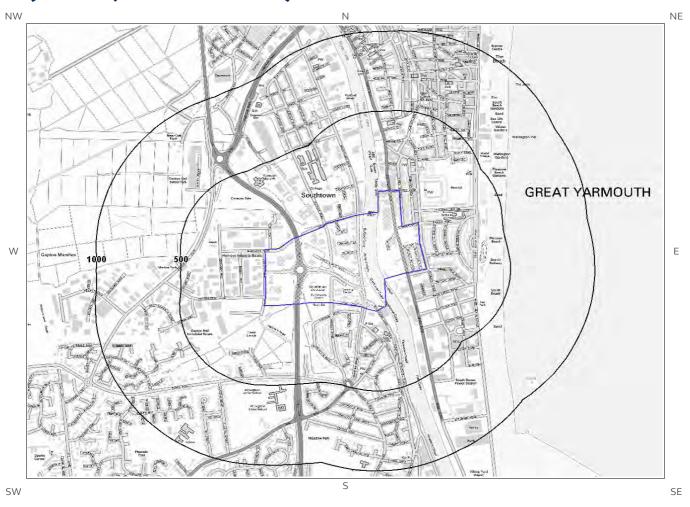
This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

Report Reference: CMAPS-CM-636391-16287-030717GEO



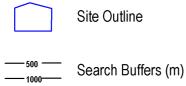


1.3 Bedrock and Faults Map (1:10,000 scale)



Bedrock and Faults Legend

© Crown copyright and database rights 2017. Ordnance Survey license 100035207.



Report Reference: CMAPS-CM-636391-16287-030717GEO Client Reference: 16287





1.3 Bedrock and Faults

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary at 1:10,000 scale.

Database searched and no data found at this scale.

1.3.2 Faults

Are there any records of Faults within 500m of the study site boundary at 1:10,000 scale?

No

Database searched and no data found at this scale.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of great Britain at 1:10,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

Report Reference: CMAPS-CM-636391-16287-030717GEO





2 Geology 1:50,000 Scale2.1 Artificial Ground Map



Report Reference: CMAPS-CM-636391-16287-030717GEO





2. Geology 1:50,000 scale

2.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 162

2.1.1 Artificial/ Made Ground

Are there any records of Artificial/ Made Ground within 500m of the study site boundary?

Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	0.0	On Site	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	300.0	Е	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

2.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary?

Yes

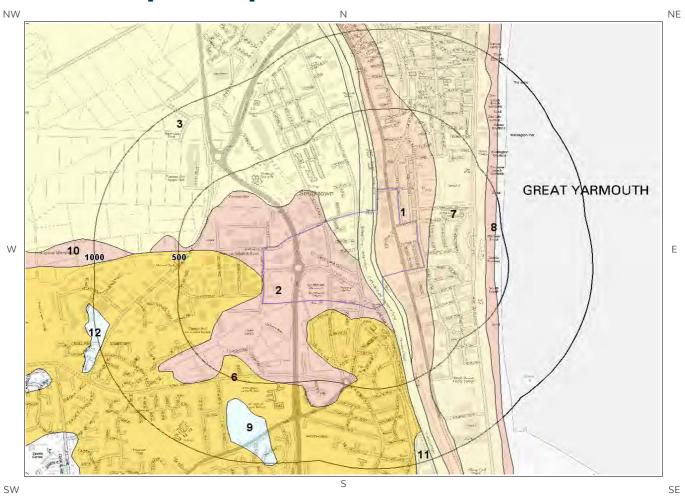
Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	Very High	Low
0.0	On Site	Mixed	Very High	Low

Report Reference: CMAPS-CM-636391-16287-030717GEO





2.2 Superficial Deposits and Landslips Map (1:50,000 scale)



Ground Workings Legend

© Crown copyright and database rights 2017. Ordnance Survey license 100035207.







2.2 Superficial Deposits and Landslips

2.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	NRD-XSV	NORTH DENES FORMATION	SAND AND GRAVEL
2	0.0	On Site	BRYD-P	BREYDON FORMATION	PEAT
3	0.0	On Site	BRYD-XCZ	BREYDON FORMATION	CLAY AND SILT
4	0.0	On Site	BRYD-XCZ	BREYDON FORMATION	CLAY AND SILT
5	0.0	On Site	TRD-XCZ	TIDAL RIVER OR CREEK DEPOSITS	CLAY AND SILT
6	3.0	W	HPGL-S	HAPPISBURGH GLACIGENIC FORMATION	SAND
7	16.0	Е	BSA-S	BLOWN SAND	SAND
8	366.0	E	MBD-XSV	MARINE BEACH DEPOSITS	SAND AND GRAVEL

2.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	Low	Very Low
0.0	On Site	Intergranular	Low	Very Low
0.0	On Site	Mixed	Low	Very Low
0.0	On Site	Mixed	Low	Very Low
0.0	On Site	Intergranular	Very High	High
3.0	W	Intergranular	High	High
16.0	Е	Intergranular	High	High

Report Reference: CMAPS-CM-636391-16287-030717GEO





2.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary?

No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, there are: Artificial/ Made Ground, Superficial/ Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site boundary?

No

Database searched and no data found.

Report Reference: CMAPS-CM-636391-16287-030717GEO





2.3 Bedrock and Faults Map (1:50,000 scale)



Ground Workings Legend

© Crown copyright and database rights 2017. Ordnance Survey license 100035207.







2.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 162

2.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

ID	Distance	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	CRAG-XSV	CRAG GROUP - SAND AND GRAVEL	-

2.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site boundary?

Yes

Distanc e	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	Very High	High

2.3.3 Faults

Are there any records of Faults within 500m of the study site boundary?

No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nation wide coverage.

Report Reference: CMAPS-CM-636391-16287-030717GEO





3 Radon Data

3.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

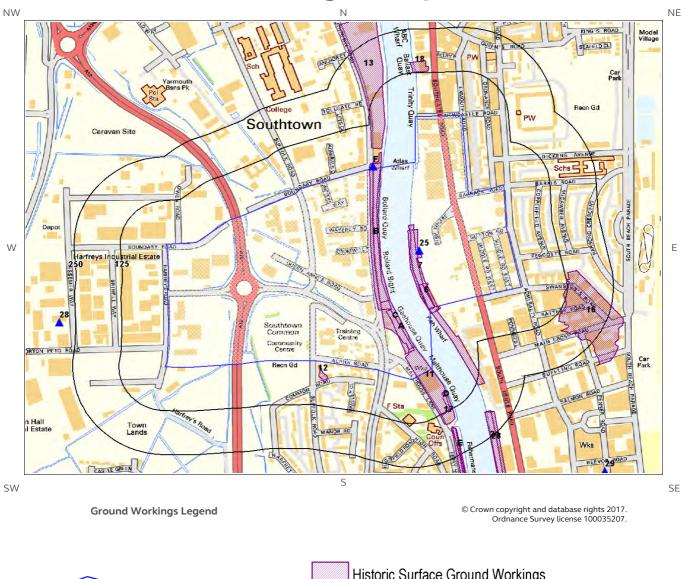
3.2 Radon Protection

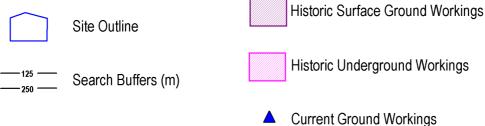
Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.





4 Ground Workings Map









4 Ground Workings

4.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Use	Date
1B	0.0	On Site	652403 306035	Quay	1952
2A	0.0	On Site	652474 305764	Quay	1904
3A	0.0	On Site	652474 305764	Quay	1946
4B	0.0	On Site	652408 306062	Quay	1988
5B	0.0	On Site	652408 306062	Quay	1978
6	0.0	On Site	652545 305863	Unspecified Wharf	1988
7	0.0	On Site	652518 305936	Unspecified Wharf	1884
8C	0.0	On Site	652466 305783	Quay	1988
9C	0.0	On Site	652466 305783	Quay	1978
10	0.0	On Site	652556 305840	Unspecified Wharf	1978
11	0.0	On Site	652552 305622	Quay	1978
12	15.0	S	652266 305643	Pond	1884
13	52.0	N	652371 306479	Dock	1946
14D	73.0	SE	652596 305561	Quay	1946
15D	73.0	SE	652596 305561	Quay	1904
16	117.0	Е	652990 305803	Sand Pit	1884
17	124.0	SE	652602 305523	Quay	1988
18	127.0	N	652526 306521	Dry Docks	1904
19E	169.0	SE	652639 305395	Quay	1978
20E	169.0	SE	652639 305395	Quay	1988
21E	172.0	SE	652636 305385	Quay	1904

Report Reference: CMAPS-CM-636391-16287-030717GEO





ID	Distance (m)	Direction	NGR	Use	Date
22E	172.0	SE	652636 305385	Quay	1946
23	188.0	SE	652776 305268	Quay	1952
24	188.0	SE	652742 305367	Quay	1978

4.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary?

No

Database searched and no data found.

4.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary?

Yes

The following Current Ground Workings information is provided by British Geological Survey:

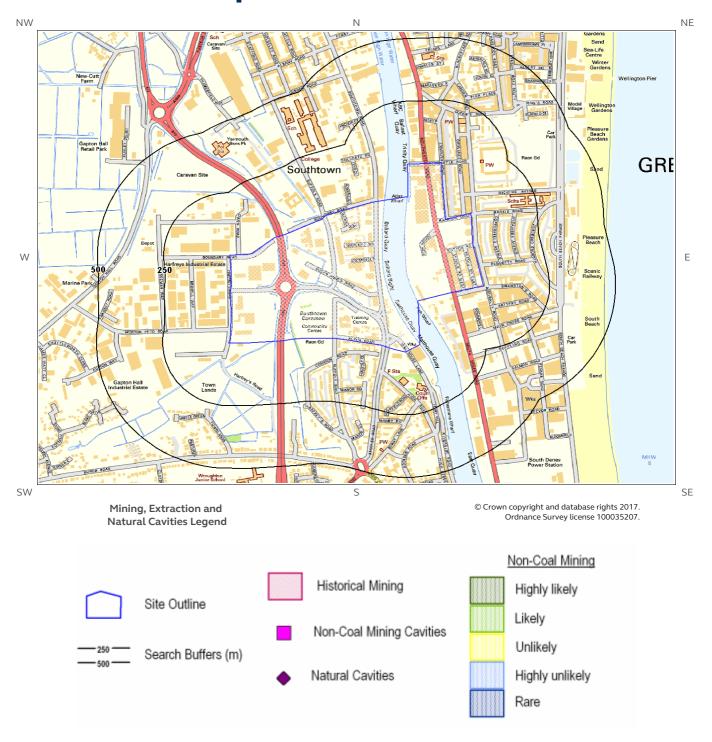
ID	Distanc e (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
25	0.0	On Site	652525 305995	Crushed Rock	Berth 4 Great Yarmouth Docks	Sea, river or canal wharf where mineral commodities are unloaded and stored	Active
26F	6.0	Ν	652400 306235	Crushed Rock	Great Yarmouth Wharf	Sea, river or canal wharf where mineral commodities are unloaded and stored	Inactive
27F	6.0	Ν	652400 306235	Secondary	Great Yarmouth Wharf	Sea, river or canal wharf where mineral commodities are unloaded and stored	Inactive
28	294.0	W	651553 305790	Sand & Gravel	Harfrey's Farm Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
29	549.0	SE	653026 305365	Sand	Nelson Sand Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	686.0	S	651666 304999	Clay & Shale	Lilypit Cottage Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	766.0	S	651860 304897	Clay & Shale	Lily Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	911.0	N	652250 307250	Secondary	Yeoman Wharf	Sea, river or canal wharf where mineral commodities are unloaded and stored	Active

Report Reference: CMAPS-CM-636391-16287-030717GEO





5 Mining, Extraction & Natural Cavities Map



Report Reference: CMAPS-CM-636391-16287-030717GEO





5 Mining, Extraction & Natural Cavities

5.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

5.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

5.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary?

No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

5.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

Report Reference: CMAPS-CM-636391-16287-030717GEO





5.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary?

No

Database searched and no data found.

5.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary?

No

Database searched and no data found.

5.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.

5.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.

5.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level..

Are there any Tin Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

Report Reference: CMAPS-CM-636391-16287-030717GEO





5.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

Are there any Clay Mining areas within 1000m of the study site boundary?

No

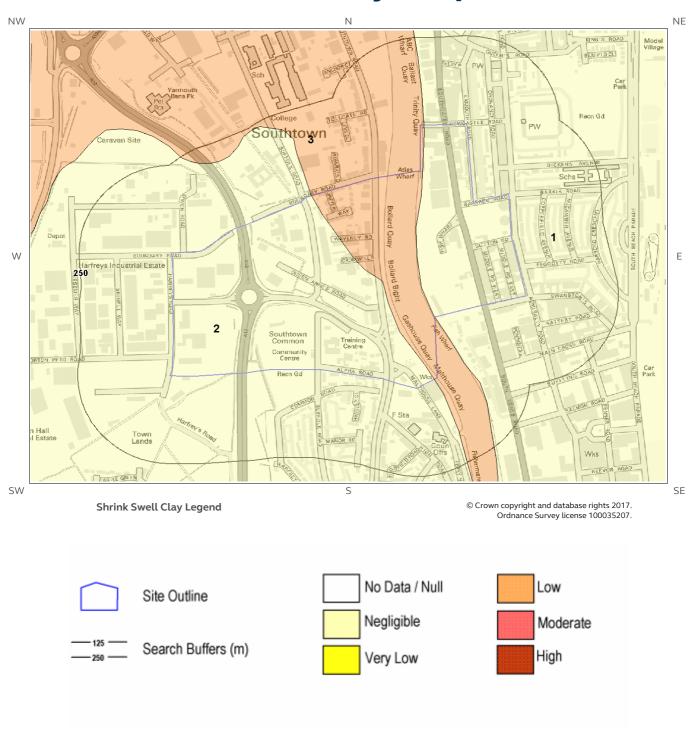
Database searched and no data found.

Report Reference: CMAPS-CM-636391-16287-030717GEO





6 Natural Ground Subsidence6.1 Shrink-Swell Clay Map

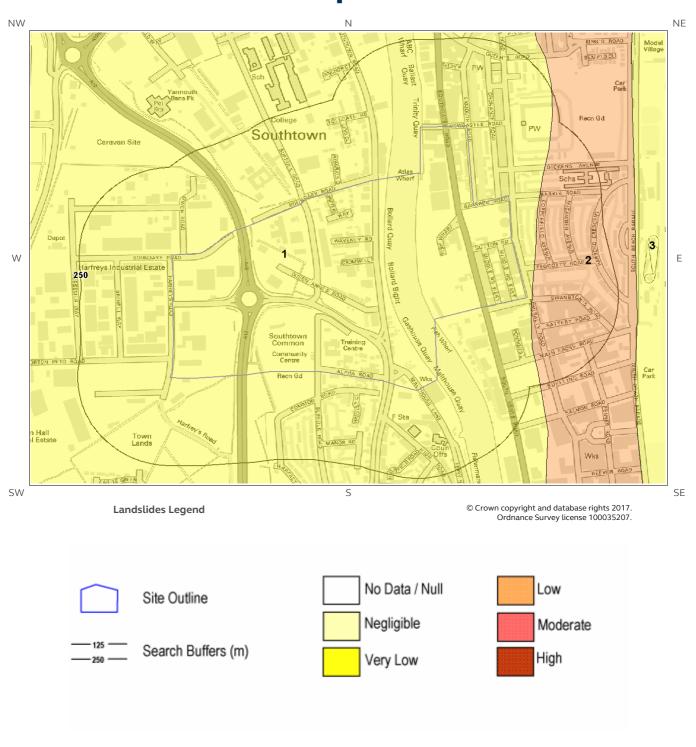


Report Reference: CMAPS-CM-636391-16287-030717GEO





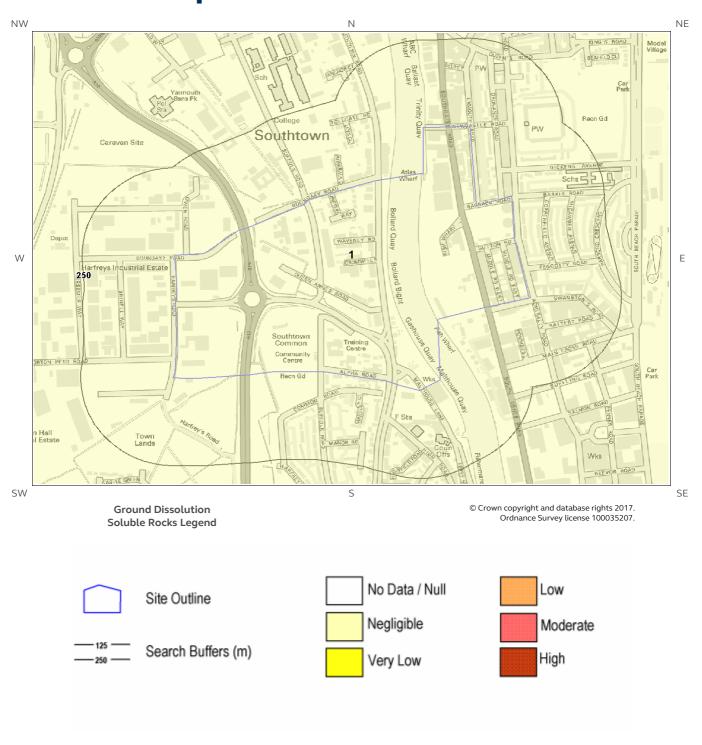
6.2 Landslides Map







6.3 Ground Dissolution of Soluble Rocks Map

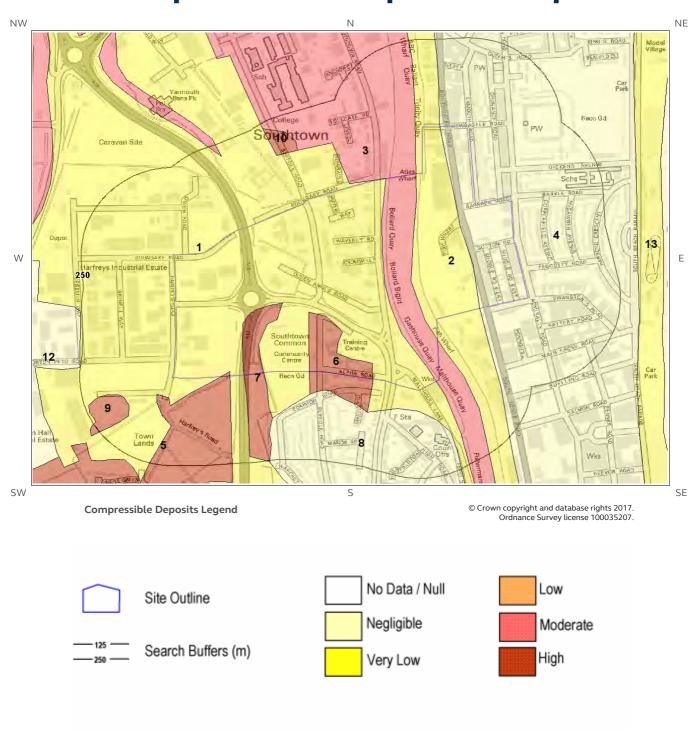


Report Reference: CMAPS-CM-636391-16287-030717GEO





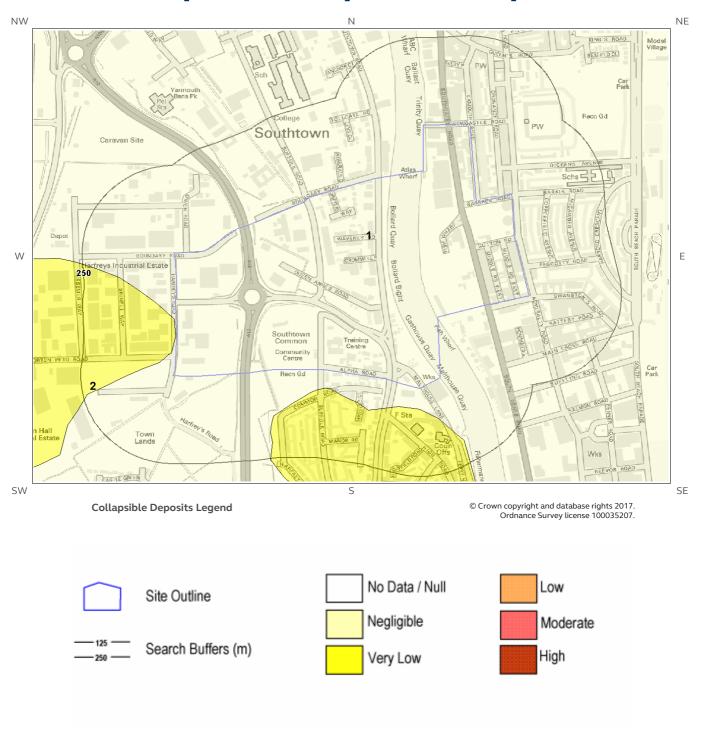
6.4 Compressible Deposits Map







6.5 Collapsible Deposits Map

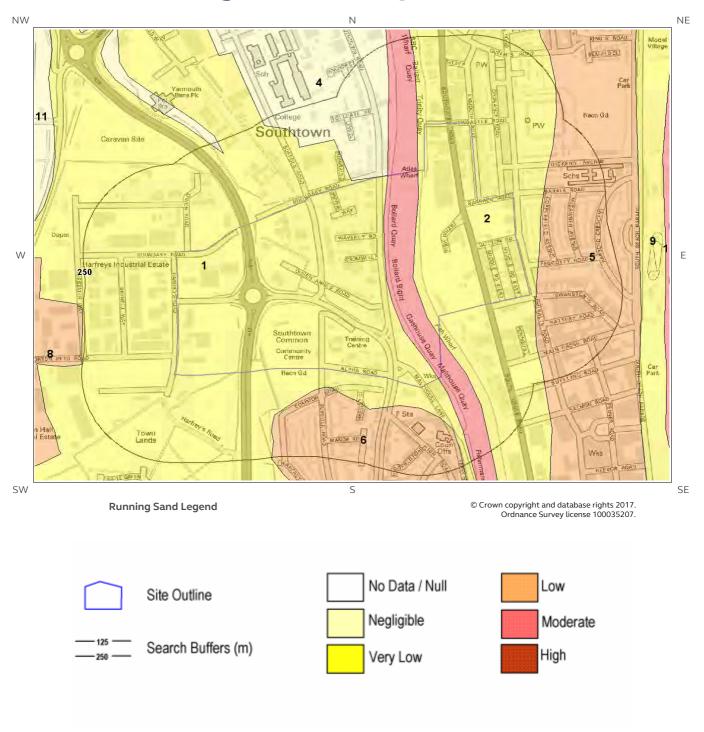


Report Reference: CMAPS-CM-636391-16287-030717GEO





6.6 Running Sand Map







6 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site** boundary?

High

37

6.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
2	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
3	0.0	On Site	Low	Ground conditions predominantly medium plasticity. Do not plant trees with high soil moisture demands near to buildings. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a possible increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a possible increase in insurance risk, especially during droughts or where vegetation with high moisture demands is present.

Report Reference: CMAPS-CM-636391-16287-030717GEO

This includes an automatically generated 50m buffer zone around the site $\,$





6.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
2	16.0	E	Low	Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property - no significant increase in insurance risk due to natural slope instability problems.

6.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

6.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Very low potential for compressible deposits to be present. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.
2	0.0	On Site	Very Low	Very low potential for compressible deposits to be present. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.
3	0.0	On Site	Moderate	Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property - possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

Report Reference: CMAPS-CM-636391-16287-030717GEO





ID	Distance (m)	Direction	Hazard Rating	Details
4	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.
5	0.0	On Site	High	Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property - probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly.
6	0.0	On Site	High	Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property - probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly.
7	0.0	On Site	High	Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property - probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly.
8	50.0	S	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

6.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
2	3.0	W	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

6.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

Report Reference: CMAPS-CM-636391-16287-030717GEO



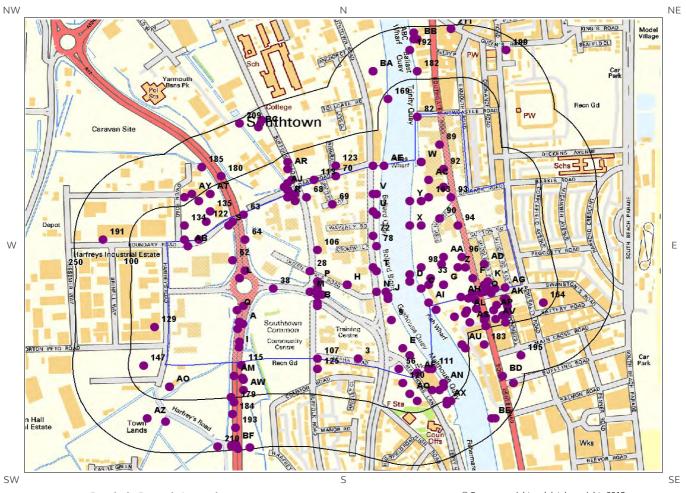


ID	Distance (m)	Direction	Hazard Rating	Details
2	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
3	0.0	On Site	Moderate	Significant potential for running sand problems with relatively small changes in ground conditions. Avoid large amounts of water entering the ground (for example through pipe leakage or soak-aways). Do not dig (deep) holes into saturated ground near the property without technical advice. For new build consider the consequences of soil and groundwater conditions during and after construction. For existing property - possible increase in insurance risk from running sand, for example, due to water leakage, high rainfall events or flooding.
4	1.0	N	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
5	16.0	E	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build - consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property - no significant increase in insurance risk due to running sand problems is likely.
6	50.0	S	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build - consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property - no significant increase in insurance risk due to running sand problems is likely.





7 Borehole Records Map



Borehole Records Legend

© Crown copyright and database rights 2017. Ordnance Survey license 100035207.



Report Reference: CMAPS-CM-636391-16287-030717GEO





7 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

217

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1Q	0.0	On Site	652033 305818	TG50NW45	5.0	A47 GORLESTON RELIEF ROAD
2A	0.0	On Site	652049 305780	TG50NW43	6.2	A47 GORLESTON RELIEF ROAD
3	0.0	On Site	652360 305680	TG50NW332	7.62	GT YAR BOR CNCL ALPHA ROAD 27
4AI	0.0	On Site	652550 305840	TG50NW590	15.0	FISHWHARF ZAPATA QUAY 2
5B	0.0	On Site	652250 305840	TG50NW164	24.38	GT YAR BOROUGH COUNCIL YARE TUNNEL 7
6J	0.0	On Site	652440 305860	TG50NW583	15.5	BOLLARD QUAY 6
7M	0.0	On Site	652230 305870	TG50NW185	6.71	GT YAR BOROUGH COUNCIL DRAINAGE SCHEME 3
8C	0.0	On Site	652530 305880	TG50NW591	15.0	FISHWHARF ZAPATA QUAY 3
9	0.0	On Site	652450 305790	TG50NW840	10.0	GAS QUAY GT YARMOUTH 1
10A	0.0	On Site	652038 305785	TG50NW374	2.3	A12 GORLESTON RELIEF RD GT YAR S BY PASS
11B	0.0	On Site	652250 305830	TG50NW27	12.0	A47 GT YARMOUTH WESTERN BY PASS 237
12C	0.0	On Site	652550 305890	TG50NW592	15.5	FISHWHARF ZAPATA QUAY 4
13H	0.0	On Site	652330 305890	TG50NW1008	18.28	CENTRAL ELECTRICITY BOARD GORLESTON
14D	0.0	On Site	652500 305900	TG50NW892	20.0	SOUTHGATES RD GT YARMOUTH 3
15D	0.0	On Site	652500 305900	TG50NW891	20.0	SOUTHGATES RD GT YARMOUTH 2
16D	0.0	On Site	652500 305900	TG50NW893	20.0	SOUTHGATES RD GT YARMOUTH 4
17A	0.0	On Site	652034 305764	TG50NW32	7.05	A47/A12 GORLESTON RELIEF ROAD
18L	0.0	On Site	652040 305910	TG50NW13	20.12	GORING CEB GREAT YARMOUTH
191	0.0	On Site	652038 305712	TG50NW386	14.3	A12/A47 GORLESTON RELIEF RD REPORT
20E	0.0	On Site	652480 305710	TG50NW942	8.0	GAS HOUSE QUAY GT YARMOUTH 3
21F	0.0	On Site	652670 305910	TG50NW570	-1.0	FISH QUAY TRIAL PIT PS22

Report Reference: CMAPS-CM-636391-16287-030717GEO





		N INTELLIGENCE				
ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
22E	0.0	On Site	652500 305690	TG50NW792	10.0	MALTHOUSE QUAY GT YARMOUTH 7
23D	0.0	On Site	652500 305920	TG50NW571	TG50NW571 -1.0	
24G	0.0	0.0 On Site 652590 305890		TG50NW17/C	17.37	HIPPERSON & SON ELECTRICITY POWER STN
25F	0.0	On Site	652700 305890	TG50NW109	-1.0	CEGB 132 KV TRANSFORMER SITE GT YAR DKM 3
26G	0.0	On Site	652590 305890	TG50NW998	17.1	ELECTRICAL POWER STATION GREAT YARMOUTH NO 1
27H	0.0	On Site	652330 305890	TG50NW995	13.71	CENTRAL ELECTRICITY BOARD GORLESTON
28	0.0	On Site	652230 305930	TG50NW184	7.01	GT YAR BOROUGH COUNCIL DRAINAGE SCHEME 2
29T	0.0	On Site	652410 305930	TG50NW582	15.5	BOLLARD QUAY 5
30K	0.0	On Site	652710 305900	TG50NW108	-1.0	CEGB 132 KV TRANSFORMER SITE GT YAR DKM 2
311	0.0	On Site	652040 305728	TG50NW44	6.2	A47 GORLESTON RELIEF ROAD
32D	0.0	On Site	652500 305900	TG50NW890	20.0	SOUTHGATES RD GT YARMOUTH 1
33	0.0	On Site 652555 305910		TG50NW162	36.58	GT YAR BOROUGH COUNCIL YARE TUNNEL 5
340	0.0	On Site 652700 305870		TG50NW110	-1.0	CEGB 132 KV TRANSFORMER SITE GT YAR DKM 4
35N	0.0	On Site	652410 305870	TG50NW588	20.0	BOLLARD QUAY 11
36J	0.0	On Site	652435 305870	TG50NW163	36.58	GT YAR BOROUGH COUNCIL YARE TUNNEL 6
37K	0.0	On Site	652710 305880	TG50NW107	-1.0	CEGB 132 KV TRANSFORMER SITE GT YAR DKM 1
38	0.0	On Site	652130 305880	TG50NW472	15.0	A12 GT YARMOUTH WESTERN BY-PASS 318
39G	0.0	On Site	652590 305890	TG50NW17/B	14.02	HIPPERSON & SON ELECTRICITY POWER STN
40P	40P 0.0 On Site 652250 TG50NW29	10.0	A47 GT YARMOUTH WESTERN BY PASS 239			
41L	0.0	On Site	652040 305910	TG50NW1026	17.67	CENTRAL ELECTRICITY BOARD GREAT YARMOUTH
42L	0.0	On Site	652040 305910	TG50NW1005	20.11	CENTRAL ELECTRICITY BOARD GREAT YARMOUTH
43M	0.0	On Site	652250 305860	TG50NW26	11.0	A47 GT YARMOUTH WESTERN BY PASS 236
44N	0.0	On Site	652440 305850	TG50NW180	9.15	GT YAR BOROUGH COUNCIL SEWERAGE WORKS 14
450	0.0	On Site	652668 305865	TG50NW1057	8.0	ADMIRALTY ROAD GREAT YARMOUTH 210





	LOCATION	N INTELLIGENCE				FOR A DELICE POINT OF VIEW
ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
46B	0.0	On Site	652262 305862	TG50NW429	7.6	A12 GT YAR W BY PASS DOT REPORT
47P	0.0	On Site	652250 305880	TG50NW28	11.5	A47 GT YARMOUTH WESTERN BY PASS 238
48Q	0.0	On Site	652050 305830	TG50NW46	4.5	A47 GORLESTON RELIEF ROAD
49L	0.0	On Site	652054 305931	TG50NW428	17.0	A12 GT YAR W BY PASS DOT REPORT
50H	0.0	On Site	652330 305890	TG50NW1009	24.38	CENTRAL ELECTRICITY BOARD GORLESTON
51AH	0.0	On Site	652638 305856	TG50NW1050	17.0	ADMIRALTY ROAD GREAT YARMOUTH 202
52L	0.0	On Site	652040 305910	TG50NW1006	16.76	CENTRAL ELECTRICITY BOARD GREAT YARMOUTH
53G	0.0	On Site	652590 305890	TG50NW17/A	17.07	HIPPERSON & SON ELECTRICITY POWER STN
54H	0.0	On Site	652330 305890	TG50NW12	18.29	GORING CEG GREAT YARMOUTH
55AF	0.0	On Site	652520 305640	TG50NW793	19.0	MALTHOUSE QUAY GT YARMOUTH 8
56	0.0	On Site	652470 305650	TG50NW795	10.5	MALTHOUSE QUAY GT YARMOUTH 10
57K	0.0	On Site	652730 305880	TG50NW1063	4.0	ADMIRALTY ROAD GREAT YARMOUTH WS 106
580	0.0	On Site	652691 305868	TG50NW1053	8.5	ADMIRALTY ROAD GREAT YARMOUTH 205
59AG	0.0	On Site	652757 305882	TG50NW1065	5.0	ADMIRALTY ROAD GREAT YARMOUTH WS 108
60AE	3 0.0	On Site	651900 306000	TG50NW687	0.9	BGS AUGR HL 162 GAPTON MARSHES
61S	0.0	On Site	652010 306060	TG50NW467	2.5	A12 GT YARMOUTH WESTERN BY-PASS 235
62	0.0	On Site	652020 305960	TG50NW226	11.8	GT YAR BOR CNCL A12 WESTERN BY PASS
63	0.0	On Site	652050 306090	TG50NW466	24.3	A12 GT YARMOUTH WESTERN BY-PASS 234
64	0.0	On Site	652054 306020	TG50NW430	11.3	A12 GT YAR W BY PASS DOT REPORT
65R	0.0	On Site	652170 306140	TG50NW308	-1.0	GT YAR BOR CNCL HIGH MILL RD CPT 11
66R	0.0	On Site	652190 306150	TG50NW181	14.8	GT YAR BOROUGH COUNCIL SEWERAGE WORKS 25
67R	0.0	On Site	652190 306130	TG50NW306	-1.0	GT YAR BOR CNCL HIGH MILL RD CPT 9
68	0.0	On Site	652220 306140	TG50NW183	7.01	GT YAR BOROUGH COUNCIL DRAINAGE SCHEME 1
69	0.0	On Site	652290 306120	TG50NW307	-1.0	GT YAR BOR CNCL HIGH MILL RD CPT 10
70	0.0	On Site	652300 306200	TG50NW310	-1.0	GT YAR BOR CNCL HIGH MILL RD CPT 13
71S	0.0	On Site	652020 306070	TG50NW468	25.0	A12 GT YARMOUTH WESTERN BY-PASS 235A
72	0.0	On Site	652400 306030	TG50NW586	20.0	BOLLARD QUAY 9
73U	0.0	On Site	652400 306100	TG50NW908	25.0	SOUTHTOWN RD GT YARMOUTH 1





Reference DNW585 DNW587	Drilled Length	Borehole Name BOLLARD QUAY 8
	15.5	BOLLARD QUAY 8
)NW587		
	11.5	BOLLARD QUAY 10
DNW580	15.5	BOLLARD QUAY 3
DNW579	15.0	BOLLARD QUAY 2
)NW581	15.0	BOLLARD QUAY 4
)NW578	15.5	BOLLARD QUAY 1
DNW341	20.5	GREAT YARMOUTH FLOOD DEFENCES 1
DNW342	22.1	GREAT YARMOUTH FLOOD DEFENCES 2
)NW928	26.0	TRINTY QUAY GT YARMOUTH 2
DNW934	20.0	SOUTHGATES RD GT YARMOUTH 12
DNW935	20.0	SOUTHGATES RD GT YARMOUTH 13
DNW933	20.0	SOUTHGATES RD GT YARMOUTH 11
DNW344	25.0	GREAT YARMOUTH FLOOD DEFENCES 4
DNW343	25.0	GREAT YARMOUTH FLOOD DEFENCES 3
DNW210	18.5	GT YAR COUNCIL STH TOWN PUMPING STN 2A
DNW276	-1.0	GT YAR BOR CNCL SOUTHGATE ROAD 2047A
DNW573	-1.0	FISH QUAY TRIAL PIT PS25
)NW577	-1.0	FISH QUAY TRIAL PIT PP4
DNW279	-1.0	GT YAR BOR CNCL SOUTHGATE ROAD 2047D
DNW277	-1.0	GT YAR BOR CNCL SOUTHGATE ROAD 2047B
)NW572	-1.0	FISH QUAY TRIAL PIT PS24
DNW576	-1.0	FISH QUAY TRIAL PIT PP3
)NW574	-1.0	FISH QUAY TRIAL PIT PP1
DNW575	-1.0	FISH QUAY TRIAL PIT PP2
)NW368	3.0	GREAT YARMOUTH FLOOD DEFENCES TP 12
DNW161	24.38	GT YAR BOROUGH COUNCIL YARE TUNNEL 4
DNW996	9.4	SUTTON ROAD GREAT YARMOUTH
	DNW581 DNW578 DNW341 DNW342 DNW928 DNW934 DNW935 DNW933 DNW344 DNW210 DNW276 DNW573 DNW577 DNW279 DNW577 DNW577 DNW575 DNW576 DNW575 DNW576 DNW575 DNW576 DNW575 DNW576 DNW575 DNW576	DNW578 15.5 DNW341 20.5 DNW342 22.1 DNW928 26.0 DNW934 20.0 DNW935 20.0 DNW933 20.0 DNW344 25.0 DNW344 25.0 DNW210 18.5 DNW276 -1.0 DNW577 -1.0 DNW577 -1.0 DNW577 -1.0 DNW577 -1.0 DNW577 -1.0 DNW577 -1.0 DNW576 -1.0 DNW577 -1.0 DNW578 -1.0 DNW579 -1.0 DNW579 -1.0 DNW579 -1.0 DNW579 -1.0 DNW579 -1.0 DNW576 -1.0 DNW576 -1.0 DNW577 -1.0 DNW577 -1.0 DNW578 -1.0 DNW578 -1.0 DNW579 -1.0





		N INTELLIGENCE				FOR A DELICE POINT OF YIEW
ID	Distance (m)	e Direction	NGR	BGS Reference	Drilled Length	Borehole Name
101A B	0.0	On Site	651930 306020	TG50NW1081	5.0	TRAVIS PERKINS GREAT YARMOUTH WS102
102A C	0.0	On Site	652550 306190	TG50NW1046	30.34	GREAT YARMOUTH (FISHWHARF OFF SOUTH DENES ROAD) 3
103	0.0	On Site	652550 306140	TG50NW1045	30.32	GREAT YARMOUTH (FISHWHARF OFF SOUTH DENES ROAD) 2
104A C	0.0	On Site	652590 306170	TG50NW1044	30.45	GREAT YARMOUTH (FISHWHARF OFF SOUTH DENES ROAD) 1A
105A D	0.0	On Site	652700 305950	TG50NW23	9.45	SUTTON RD GT YARMOUTH
106	0.0	On Site	652250 305990	TG50NW4	7.01	GREAT YARMOUTH NO 4
107	0.0	S	652250 305680	TG50NW331	7.62	SUFFOLK ROAD 26
108A E	1.0	N	652400 306230	TG50NW584	20.0	BOLLUAY QUAY 7
109A F	1.0	SE	652550 305650	TG50NW353	25.0	GREAT YARMOUTH FLOOD DEFENCES 13
110A B	4.0	Ν	651890 306020	TG50NW1076	20.2	TRAVIS PERKINS GREAT YARMOUTH 101
111	6.0	SE	652560 305650	TG50NW350	20.0	GREAT YARMOUTH FLOOD DEFENCES 10
112A G	6.0	S	652719 305867	TG50NW1048	8.2	ADMIRALTY ROAD GREAT YARMOUTH 102
113	7.0	Ν	652240 306190	TG50NW309	-1.0	GT YAR BOR CNCL HIGH MILL RD CPT 12
114A H	7.0	S	652658 305852	TG50NW1070	4.0	ADMIRALTY ROAD GREAT YARMOUTH WS 201
115	10.0	S	652045 305662	TG50NW41	7.8	A47 GORLESTON RELIEF ROAD
116R	11.0	NW	652170 306160	TG50NW209	15.25	GT YAR COUNCIL STH TOWN PUMPING STN 1A
117R	11.0	NW	652170 306160	TG50NW182	15.25	GT YAR BOROUGH COUNCIL SEWERAGE WORKS 26
118AI	14.0	S	652570 305820	TG50NW281	-1.0	GT YAR BOR CNCL FISH WHARF B12
1190	15.0	S	652676 305848	TG50NW1051	14.4	ADMIRALTY ROAD GREAT YARMOUTH 203
120	23.0	S	652480 305610	TG50NW796	10.0	MALTHOUSE QUAY GT YARMOUTH 11
121AJ	24.0	NW	652160 306170	TG50NW179	18.3	GT YAR BOROUGH COUNCIL SEWERAGE WORKS 11
122	26.0	NW	651950 306070	TG50NW1079	18.5	TRAVIS PERKINS GREAT YARMOUTH 104
123	28.0	N	652300 306230	TG50NW3	10.67	GREAT YARMOUTH NO 3
124AJ	29.0	NW	652170 306180	TG50NW212	15.0	GT YAR COUNCIL SUFFOLK RD SEWERAGE 5
125	30.0	S	652250 305650	TG50NW5	7.62	GREAT YARMOUTH NO 5
126AJ	30.0	NW	652180 306190	TG50NW178	18.3	GT YAR BOROUGH COUNCIL SEWERAGE WORKS 10





	LOCATION	N INTELLIGENCE				
ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
127A K	31.0	S	652754 305850	TG50NW1067	4.0	ADMIRALTY ROAD GREAT YARMOUTH WS 110
128A K	31.0	S	652760 305851	TG50NW1068	50NW1068 4.0	
129	38.0	W	651810 305770	TG50NW958	-1.0	HARFREYS ROAD GRT YARMOUTH 1
130AL	39.0	S	652653 305817	TG50NW1054	9.0	ADMIRALTY ROAD GREAT YARMOUTH 207
131A M	40.0	S	652025 305630	TG50NW31	9.5	A47/A12 GORLESTON RELIEF ROAD
132AL	41.0	S	652679 305822	TG50NW1052	13.1	ADMIRALTY ROAD GREAT YARMOUTH 204
133A K	43.0	S	652734 305833	TG50NW1066	4.0	ADMIRALTY ROAD GREAT YARMOUTH WS 109
134	44.0	N	651890 306060	TG50NW1080	6.0	TRAVIS PERKINS GREAT YARMOUTH WS101
135	45.0	NW	651960 306100	TG50NW1084	5.0	TRAVIS PERKINS GREAT YARMOUTH WS105
136AL	46.0	S	652649 305809	TG50NW1071	4.0	ADMIRALTY ROAD GREAT YARMOUTH WS 202
137A K	46.0	S	652762 305836	TG50NW1069	4.0	ADMIRALTY ROAD GREAT YARMOUTH WS 112
138AL	47.0	S	652620 305800	TG50NW287	-1.0	GT YAR BOR CNCL FISH WHARF B22
139A Q	47.0	S	652500 305580	TG50NW797	TG50NW797 15.5	
140A M	47.0	S	652048 305625	TG50NW42	TG50NW42 8.0	
141A M	52.0	S	652050 305620	TG50NW385	12.0	A12 GORLESTON RELIEF RD GT YAR S BY PASS
142A K	53.0	S	652763 305829	TG50NW1064	1.0	ADMIRALTY ROAD GREAT YARMOUTH WS 107
143A P	56.0	S	652726 305818	TG50NW1047	8.0	ADMIRALTY ROAD GREAT YARMOUTH 101
144A N	56.0	SE	652590 305610	TG50NW349	20.0	GREAT YARMOUTH FLOOD DEFENCES 9
145A N	59.0	SE	652560 305590	TG50NW794	19.0	MALTHOUSE QUAY GT YARMOUTH 9A
146A R	59.0	NW	652170 306220	TG50NW211	27.0	GT YAR COUNCIL SUFFOLK RD SEWERAGE 4
147	59.0	W	651780 305660	TG50NW225	10.7	GT YAR BOR CNCL A12 WESTERN BY PASS
148A O	63.0	S	651850 305600	TG50NW923	20.0	HARFREYS RD GT YARMOUTH 1
149A O	63.0	S	651850 305600	TG50NW924	20.0	HARFREYS RD GT YARMOUTH 2
150A O	63.0	S	651850 305600	TG50NW925	20.0	HARFREYS RD GT YARMOUTH 3
151A O	63.0	S	651850 305600	TG50NW926	20.0	HARFREYS RD GT YARMOUTH 4
152A N	64.0	SE	652590 305600	TG50NW75	1.2	GT YARMOUTH FLOOD DEFENCES POSFORD PAVRY C15
153A P	68.0	S	652700 305800	TG50NW946	20.0	SOUTH DENES ROAD 1
154A P	68.0	S	652700 305800	TG50NW947	15.5	SOUTH DENES ROAD 2





Distance Direction ID NGR **BGS Reference Drilled Length Borehole Name** (m) 652520 MALTHOUSE QUAY GT 155A 68.0 S TG50NW798 10.0 305560 YARMOUTH 13 Q 156A **GREAT YARMOUTH** 652580 68.0 SE TG50NW352 25.0 FLOOD DEFENCES 12 Ν 305590 157A 652705 ADMIRALTY ROAD GREAT 70.0 S TG50NW1055 8.0 Ρ 305799 YARMOUTH 208 158A 652764 ADMIRALTY ROAD GREAT 70.0 S TG50NW1062 4.0 Ρ 305812 YARMOUTH WS 105 159A 652662 ADMIRALTY ROAD GREAT 74.0 S TG50NW1049 15.35 305783 YARMOUTH 201 S 160A 652750 ADMIRALTY ROAD GREAT 75.0 S TG50NW1060 4.0 Ρ 305804 YARMOUTH WS 103 GT YAR BOROUGH 161A 652170 76.0 NW TG50NW177 9.15 **COUNCIL SEWERAGE** R 306240 WORKS 9 162A 652758 ADMIRALTY ROAD GREAT 76.0 S TG50NW1061 40 Ρ 305804 YARMOUTH WS 104 FISH QUAY TRIAL PIT 163A 652700 77.0 S TG50NW569 -1 0 305790 PS21 S FISHWHARF ZAPATA 652860 164 79.0 SF TG50NW589 15.0 305840 QUAY 1 ADMIRALTY ROAD GREAT 165A 652731 81.0 S TG50NW1059 4.0 305793 YARMOUTH WS 102 FISH WHARF GT 166A 652640 82.0 Ε 10.0 TG50NW871 U 305720 YARMOUTH 1 A47/A12 GORLESTON 167A 652050 S TG50NW39 5.0 82.0 W 305590 **RELIEF ROAD** TRAVIS PERKINS GREAT 651960 168A 85.0 NW TG50NW1078 16.2 306150 YARMOUTH 103 Τ TRINTY QUAY GT 652440 169 NW TG50NW927 22.0 86.0 306420 YARMOUTH 1 TRAVIS PERKINS GREAT 170A 651930 87.0 NW TG50NW1082 5.0 306130 YARMOUTH WS103 171A FISH WHARF GT 652650 91.0 Ε TG50NW872 10.0 U 305710 YARMOUTH 2 ADMIRALTY ROAD GREAT 172A 652704 95.0 S TG50NW1056 8.0 S 305773 YARMOUTH 209 173A ADMIRALTY ROAD GREAT 652758 96.0 S TG50NW1058 40 V 305784 YARMOUTH WS 101 174A 652016 A47 GORLESTON RELIEF 100.0 S TG50NW40 6.1 W 305570 **ROAD** GT YARMOUTH FLOOD 175A 652600 104.0 SE TG50NW76 2.4 **DEFENCES POSFORD** 305560 X PAVRY C16 176A 652610 **GREAT YARMOUTH** 1090 SE TG50NW348 20.0 Χ 305560 FLOOD DEFENCES 8 177A 652600 **GREAT YARMOUTH** 113.0 SE TG50NW351 25.5 Χ 305550 FLOOD DEFENCES 11 TRAVIS PERKINS GREAT 178A 651910 114.0 NW TG50NW1083 5.0 Υ 306150 YARMOUTH WS104 A12 GORLESTON RELIEF 652025 S 179 1150 TG50NW384 147 305555 RD GT YAR S BY PASS GT YAR BOR CNCL A12 651990 180 118 0 Ν TG50NW227 115 306200 WESTERN BY PASS TRAVIS PERKINS GREAT 181A 651890 118.0 NW TG50NW1077 23.0 306140 YARMOUTH 102 SOUTHGATES RD GT 652520 182 122.0 20.0 Ν TG50NW786 306500 YARMOUTH 3

Report Reference: CMAPS-CM-636391-16287-030717GEO





		N INTELLIGENCE				FOR A DETTER POINT OF VIEW
ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
183	142.0	E	652700 305720	TG50NW568	-1.0	FISH QUAY TRIAL PIT PS20
184	148.0	S	652020 305522	TG50NW30	6.2	A47/A12 GORLESTON RELIEF ROAD
185	161.0	NW	651938 306226	TG50NW431	13.0	A12 GT YAR W BY PASS DOT REPORT
186A Z	161.0	S	651790 305510	TG50NW971	7.7	HARFREYS FARM GT YARMOUTH 13
187A Z	163.0	S	651840 305500	TG50NW959	9.0	HARFREYS FARM GT YARMOUTH 1
188B A	167.0	NW	652400 306500	TG50NW895	2.0	INSPECTORATE QUAY GT YAR' 2
189B A	167.0	NW	652400 306500	TG50NW896	25.0	INSPECTORATE QUAY GT YAR' 2A
190B A	167.0	NW	652400 306500	TG50NW894	25.0	INSPECTORATE QUAY GT YAR' 1
191	173.0	W	651670 306020	TG50NW686	1.2	BGS AUGR HL 161 GAPTON MARSHES
192	183.0	N	652500 306560	TG50NW789	25.7	SOUTHGATES RD GT YARMOUTH 1
193	187.0	S	652028 305483	TG50NW383	12.3	A12 GORLESTON RELIEF RD GT YAR S BY PASS CPT 129
194B D	191.0	E	652750 305630	TG50NW567	-1.0	EAST QUAY TRIAL PIT PS19
195	197.0	S	652800 305690	TG50NW283	-1.0	GT YAR BOR CNCL FISH WHARF B14
196B C	203.0	NW	652090 306340	TG50NW176	9.15	GT YAR BOROUGH COUNCIL SEWERAGE WORKS 8
197B B	212.0	N	652520 306590	TG50NW785	17.3	SOUTHGATES RD GT YARMOUTH 2
198B B	212.0	N	652510 306590	TG50NW784	20.0	SOUTHGATES RD GT YARMOUTH 1
199	214.0	NE	652760 306560	TG50NW196	6.1	GT YAR BOR CNCL MAVERS RD PUMPING STN 23
200B C	215.0	NW	652100 306360	TG50NW213	15.4	GT YAR COUNCIL SUFFOLK RD SEWERAGE 6
201B E	217.0	SE	652720 305510	TG50NW991	25.0	GREAT YARMOUTH SALMON ROAD 4
202B D	224.0	Е	652780 305610	TG50NW993	10.5	GREAT YARMOUTH SALMON ROAD 5
203B E	224.0	SE	652730 305510	TG50NW992	25.25	GREAT YARMOUTH SALMON ROAD 4A
204B F	232.0	S	652028 305438	TG50NW388	1.5	A12/A47 GORLESTON RELIEF RD REPORT
205B B	232.0	N	652510 306610	TG50NW790	3.0	SOUTHGATES RD GT YARMOUTH 2
206B B	232.0	N	652510 306610	TG50NW791	26.0	SOUTHGATES RD GT YARMOUTH 2A
207B F	236.0	S	652018 305434	TG50NW37	0.6	A47/A12 GORLESTON RELIEF ROAD
208B F	236.0	S	652030 305434	TG50NW373	0.8	A12 GORLESTON RELIEF RD GT YAR S BY PASS
209	237.0	NW	652040 306350	TG50NW214	15.4	GT YAR COUNCIL SUFFOLK RD SEWERAGE 7
						<u> </u>





ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
210	237.0	S	651980 305430	TG50NW961	8.0	HARFREYS FARM GT YARMOUTH 3
211	239.0	N	652610 306620	TG50NW274	-1.0	GT YAR BOR CNCL QUEENS RD B18
212B F	239.0	S	652032 305431	TG50NW387	1.8	A12/A47 GORLESTON RELIEF RD REPORT
213B F	240.0	S	652020 305430	TG50NW224	6.4	GT YAR BOR CNCL A12 WESTERN BY PASS DKM2
214B F	240.0	S	652018 305429	TG50NW38	10.0	A47/A12 GORLESTON RELIEF ROAD
215B F	241.0	S	652030 305429	TG50NW401	1.8	A12/A47 GORLESTON RELIEF RD REPORT
216B F	246.0	S	652068 305427	TG50NW389	8.05	A12/A47 GORLESTON RELIEF RD REPORT
217B F	249.0	S	652035 305422	TG50NW372	4.3	A12 GORLESTON RELIEF RD GT YAR S BY PASS





The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

Report Reference: CMAPS-CM-636391-16287-030717GEO





#1Q: scans.bgs.ac.uk/sobi_scans/boreholes/519577 #2A: scans.bgs.ac.uk/sobi_scans/boreholes/519575 #3: scans.bgs.ac.uk/sobi_scans/boreholes/519864 #4AI: scans.bgs.ac.uk/sobi_scans/boreholes/520122 #5B: scans.bgs.ac.uk/sobi_scans/boreholes/519696 #6J: scans.bgs.ac.uk/sobi scans/boreholes/520115 #7M: scans.bgs.ac.uk/sobi_scans/boreholes/519717 #8C: scans.bgs.ac.uk/sobi_scans/boreholes/520123 #9: scans.bgs.ac.uk/sobi_scans/boreholes/520372 #10A: scans.bgs.ac.uk/sobi_scans/boreholes/519906 #11B: scans.bgs.ac.uk/sobi_scans/boreholes/519559 #12C: scans.bgs.ac.uk/sobi_scans/boreholes/520124 #13H: scans.bgs.ac.uk/sobi_scans/boreholes/520540 #14D: scans.bgs.ac.uk/sobi_scans/boreholes/520424 #15D: scans.bgs.ac.uk/sobi scans/boreholes/520423 #16D: scans.bgs.ac.uk/sobi_scans/boreholes/520425 #17A: scans.bgs.ac.uk/sobi_scans/boreholes/519564 #18L: scans.bgs.ac.uk/sobi_scans/boreholes/519543 #19I: scans.bgs.ac.uk/sobi_scans/boreholes/519918 #20E: scans.bgs.ac.uk/sobi_scans/boreholes/520474 #22E: scans.bgs.ac.uk/sobi_scans/boreholes/520324 #24G: scans.bgs.ac.uk/sobi_scans/boreholes/519549 #26G: scans.bgs.ac.uk/sobi_scans/boreholes/520530 #27H: scans.bgs.ac.uk/sobi_scans/boreholes/520527 #28: scans.bgs.ac.uk/sobi_scans/boreholes/519716 #29T: scans.bgs.ac.uk/sobi_scans/boreholes/520114 #311: scans.bgs.ac.uk/sobi_scans/boreholes/519576 #32D: scans.bgs.ac.uk/sobi_scans/boreholes/520422 #33: scans.bgs.ac.uk/sobi_scans/boreholes/519694 #35N: scans.bgs.ac.uk/sobi scans/boreholes/520120 #36J: scans.bgs.ac.uk/sobi_scans/boreholes/519695 #38: scans.bgs.ac.uk/sobi_scans/boreholes/520004 #39G: scans.bgs.ac.uk/sobi_scans/boreholes/519548 #40P: scans.bgs.ac.uk/sobi_scans/boreholes/519561 #41L: scans.bgs.ac.uk/sobi_scans/boreholes/520558 #42L: scans.bgs.ac.uk/sobi_scans/boreholes/520537 #43M: scans.bgs.ac.uk/sobi_scans/boreholes/519558 #44N: scans.bgs.ac.uk/sobi_scans/boreholes/519712 #450: scans.bgs.ac.uk/sobi_scans/boreholes/18092227 #46B: scans.bgs.ac.uk/sobi_scans/boreholes/519961 #47P: scans.bgs.ac.uk/sobi_scans/boreholes/519560 #48Q: scans.bgs.ac.uk/sobi_scans/boreholes/519578 #49L: scans.bgs.ac.uk/sobi_scans/boreholes/519960 #50H: scans.bgs.ac.uk/sobi_scans/boreholes/520541 #51AH: scans.bgs.ac.uk/sobi scans/boreholes/18092181 #52L: scans.bgs.ac.uk/sobi_scans/boreholes/520538 #53G: scans.bgs.ac.uk/sobi_scans/boreholes/519547 #54H: scans.bgs.ac.uk/sobi_scans/boreholes/519542 #55AF: scans.bgs.ac.uk/sobi_scans/boreholes/520325 #56: scans.bgs.ac.uk/sobi_scans/boreholes/520327 #57K: scans.bgs.ac.uk/sobi scans/boreholes/18092804 #580: scans.bgs.ac.uk/sobi_scans/boreholes/18092213 #59AG: scans.bgs.ac.uk/sobi_scans/boreholes/18092809 #60AB: scans.bgs.ac.uk/sobi scans/boreholes/520219 #61S: scans.bgs.ac.uk/sobi_scans/boreholes/519999 #62: scans.bgs.ac.uk/sobi_scans/boreholes/519758

Report Reference: CMAPS-CM-636391-16287-030717GEO





#63: scans.bgs.ac.uk/sobi_scans/boreholes/519998 #64: scans.bgs.ac.uk/sobi_scans/boreholes/519962 #66R: scans.bgs.ac.uk/sobi_scans/boreholes/519713 #68: scans.bgs.ac.uk/sobi_scans/boreholes/519715 #71S: scans.bgs.ac.uk/sobi_scans/boreholes/520000 #72: scans.bgs.ac.uk/sobi scans/boreholes/520118 #73U: scans.bgs.ac.uk/sobi_scans/boreholes/520440 #74V: scans.bgs.ac.uk/sobi_scans/boreholes/520117 #75T: scans.bgs.ac.uk/sobi_scans/boreholes/520119 #76U: scans.bgs.ac.uk/sobi_scans/boreholes/520112 #77V: scans.bgs.ac.uk/sobi_scans/boreholes/520111 #78: scans.bgs.ac.uk/sobi_scans/boreholes/520113 #79AE: scans.bgs.ac.uk/sobi_scans/boreholes/520110 #80Y: scans.bgs.ac.uk/sobi_scans/boreholes/519873 #81X: scans.bgs.ac.uk/sobi scans/boreholes/519874 #82: scans.bgs.ac.uk/sobi_scans/boreholes/520460 #83W: scans.bgs.ac.uk/sobi_scans/boreholes/520466 #84W: scans.bgs.ac.uk/sobi_scans/boreholes/520467 #85W: scans.bgs.ac.uk/sobi_scans/boreholes/520465 #86X: scans.bgs.ac.uk/sobi_scans/boreholes/519876 #87Y: scans.bgs.ac.uk/sobi_scans/boreholes/519875 #88R: scans.bgs.ac.uk/sobi_scans/boreholes/519742 #98: scans.bgs.ac.uk/sobi_scans/boreholes/519900 #99AA: scans.bgs.ac.uk/sobi_scans/boreholes/519693 #100AD: scans.bgs.ac.uk/sobi_scans/boreholes/520528 #101AB: scans.bgs.ac.uk/sobi_scans/boreholes/18403322 #102AC: scans.bgs.ac.uk/sobi_scans/boreholes/18062800 #103: scans.bgs.ac.uk/sobi_scans/boreholes/18062798 #104AC: scans.bgs.ac.uk/sobi_scans/boreholes/18062797 #105AD: scans.bgs.ac.uk/sobi scans/boreholes/519555 #106: scans.bgs.ac.uk/sobi_scans/boreholes/519513 #107: scans.bgs.ac.uk/sobi_scans/boreholes/519863 #108AE: scans.bgs.ac.uk/sobi scans/boreholes/520116 #109AF: scans.bgs.ac.uk/sobi_scans/boreholes/519885 #110AB: scans.bgs.ac.uk/sobi_scans/boreholes/18403317 #111: scans.bgs.ac.uk/sobi_scans/boreholes/519882 #112AG: scans.bgs.ac.uk/sobi_scans/boreholes/18092135 #114AH: scans.bgs.ac.uk/sobi_scans/boreholes/18092823 #115: scans.bgs.ac.uk/sobi_scans/boreholes/519573 #116R: scans.bgs.ac.uk/sobi_scans/boreholes/519741 #117R: scans.bgs.ac.uk/sobi_scans/boreholes/519714 #1190: scans.bgs.ac.uk/sobi_scans/boreholes/18092183 #120: scans.bgs.ac.uk/sobi_scans/boreholes/520328 #121AJ: scans.bgs.ac.uk/sobi_scans/boreholes/519711 #122: scans.bgs.ac.uk/sobi scans/boreholes/18403320 #123: scans.bgs.ac.uk/sobi_scans/boreholes/519512 #124AJ: scans.bgs.ac.uk/sobi_scans/boreholes/519744 #125: scans.bgs.ac.uk/sobi_scans/boreholes/519514 #126AJ: scans.bgs.ac.uk/sobi_scans/boreholes/519710 #127AK: scans.bgs.ac.uk/sobi_scans/boreholes/18092813 #128AK: scans.bgs.ac.uk/sobi scans/boreholes/18092816 #130AL: scans.bgs.ac.uk/sobi_scans/boreholes/18092219 #131AM: scans.bgs.ac.uk/sobi_scans/boreholes/519563 #132AL: scans.bgs.ac.uk/sobi_scans/boreholes/18092184 #133AK: scans.bgs.ac.uk/sobi_scans/boreholes/18092811 #134: scans.bgs.ac.uk/sobi_scans/boreholes/18403321

Report Reference: CMAPS-CM-636391-16287-030717GEO





#135: scans.bgs.ac.uk/sobi_scans/boreholes/18403325 #136AL: scans.bgs.ac.uk/sobi_scans/boreholes/18092826 #137AK: scans.bgs.ac.uk/sobi_scans/boreholes/18092818 #139AQ: scans.bgs.ac.uk/sobi_scans/boreholes/520329 #140AM: scans.bgs.ac.uk/sobi_scans/boreholes/519574 #141AM: scans.bgs.ac.uk/sobi scans/boreholes/519917 #142AK: scans.bgs.ac.uk/sobi_scans/boreholes/18092806 #143AP: scans.bgs.ac.uk/sobi_scans/boreholes/18092089 #144AN: scans.bgs.ac.uk/sobi_scans/boreholes/519881 #145AN: scans.bgs.ac.uk/sobi_scans/boreholes/520326 #146AR: scans.bgs.ac.uk/sobi_scans/boreholes/519743 #147: scans.bgs.ac.uk/sobi_scans/boreholes/519757 #148AO: scans.bgs.ac.uk/sobi_scans/boreholes/520455 #149AO: scans.bgs.ac.uk/sobi_scans/boreholes/520456 #150AO: scans.bgs.ac.uk/sobi scans/boreholes/520457 #151AO: scans.bgs.ac.uk/sobi_scans/boreholes/520458 #152AN: scans.bgs.ac.uk/sobi_scans/boreholes/519607 #153AP: scans.bgs.ac.uk/sobi_scans/boreholes/520478 #154AP: scans.bgs.ac.uk/sobi_scans/boreholes/520479 #155AQ: scans.bgs.ac.uk/sobi_scans/boreholes/520330 #156AN: scans.bgs.ac.uk/sobi_scans/boreholes/519884 #157AP: scans.bgs.ac.uk/sobi_scans/boreholes/18092221 #158AP: scans.bgs.ac.uk/sobi_scans/boreholes/18092801 #159AS: scans.bgs.ac.uk/sobi_scans/boreholes/18092175 #160AP: scans.bgs.ac.uk/sobi_scans/boreholes/18092237 #161AR: scans.bgs.ac.uk/sobi_scans/boreholes/519709 #162AP: scans.bgs.ac.uk/sobi_scans/boreholes/18092799 #164: scans.bgs.ac.uk/sobi_scans/boreholes/520121 #165AV: scans.bgs.ac.uk/sobi_scans/boreholes/18092234 #166AU: scans.bgs.ac.uk/sobi scans/boreholes/520403 #167AW: scans.bgs.ac.uk/sobi_scans/boreholes/519571 #168AT: scans.bgs.ac.uk/sobi_scans/boreholes/18403319 #169: scans.bgs.ac.uk/sobi scans/boreholes/520459 #170AT: scans.bgs.ac.uk/sobi_scans/boreholes/18403323 #171AU: scans.bgs.ac.uk/sobi_scans/boreholes/520404 #172AS: scans.bgs.ac.uk/sobi_scans/boreholes/18092224 #173AV: scans.bgs.ac.uk/sobi_scans/boreholes/18092230 #174AW: scans.bgs.ac.uk/sobi_scans/boreholes/519572 #175AX: scans.bgs.ac.uk/sobi_scans/boreholes/519608 #176AX: scans.bgs.ac.uk/sobi_scans/boreholes/519880 #177AX: scans.bgs.ac.uk/sobi_scans/boreholes/519883 #178AY: scans.bgs.ac.uk/sobi_scans/boreholes/18403324 #179: scans.bgs.ac.uk/sobi_scans/boreholes/519916 #180: scans.bgs.ac.uk/sobi_scans/boreholes/519759 #181AY: scans.bgs.ac.uk/sobi scans/boreholes/18403318 #182: scans.bgs.ac.uk/sobi_scans/boreholes/520318 #184: scans.bgs.ac.uk/sobi_scans/boreholes/519562 #185: scans.bgs.ac.uk/sobi_scans/boreholes/519963 #186AZ: scans.bgs.ac.uk/sobi_scans/boreholes/520503 #187AZ: scans.bgs.ac.uk/sobi scans/boreholes/520491 #188BA: scans.bgs.ac.uk/sobi scans/boreholes/520427 #189BA: scans.bgs.ac.uk/sobi_scans/boreholes/520428 #190BA: scans.bgs.ac.uk/sobi_scans/boreholes/520426 #191: scans.bgs.ac.uk/sobi_scans/boreholes/520218 #192: scans.bgs.ac.uk/sobi_scans/boreholes/520321 #193: scans.bgs.ac.uk/sobi_scans/boreholes/519915

Report Reference: CMAPS-CM-636391-16287-030717GEO





#196BC: scans.bgs.ac.uk/sobi_scans/boreholes/519708 #197BB: scans.bgs.ac.uk/sobi_scans/boreholes/520317 #198BB: scans.bgs.ac.uk/sobi_scans/boreholes/520316 #199: scans.bgs.ac.uk/sobi_scans/boreholes/519728 #200BC: scans.bgs.ac.uk/sobi_scans/boreholes/519745 #201BE: scans.bgs.ac.uk/sobi scans/boreholes/520523 #202BD: scans.bgs.ac.uk/sobi_scans/boreholes/520525 #203BE: scans.bgs.ac.uk/sobi_scans/boreholes/520524 #204BF: scans.bgs.ac.uk/sobi_scans/boreholes/519920 #205BB: scans.bgs.ac.uk/sobi_scans/boreholes/520322 #206BB: scans.bgs.ac.uk/sobi_scans/boreholes/520323 #207BF: scans.bgs.ac.uk/sobi_scans/boreholes/519569 #208BF: scans.bgs.ac.uk/sobi_scans/boreholes/519905 #209: scans.bgs.ac.uk/sobi_scans/boreholes/519746 #210: scans.bgs.ac.uk/sobi scans/boreholes/520493 #212BF: scans.bgs.ac.uk/sobi_scans/boreholes/519919 #213BF: scans.bgs.ac.uk/sobi_scans/boreholes/519756 #214BF: scans.bgs.ac.uk/sobi_scans/boreholes/519570 #215BF: scans.bgs.ac.uk/sobi_scans/boreholes/519933 #216BF: scans.bgs.ac.uk/sobi_scans/boreholes/519921 #217BF: scans.bgs.ac.uk/sobi_scans/boreholes/519904

Report Reference: CMAPS-CM-636391-16287-030717GEO





8 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

19

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geo Insight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg	<100 mg/kg
3.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
16.0	Е	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg
48.0	Е	RuralSoil	<15 mg/kg	<1.8 mg/kg	20 - 40 mg/kg	<15 mg/kg	<100 mg/kg

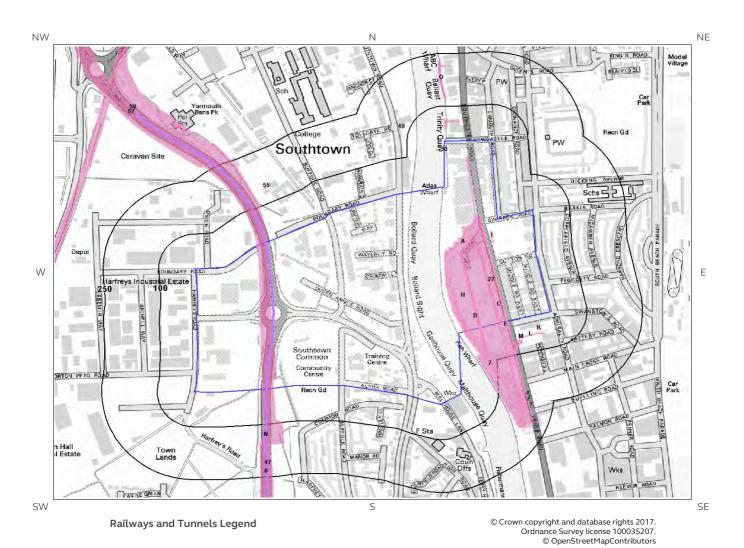
^{*}As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

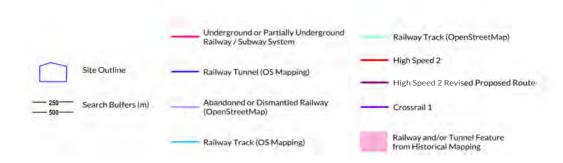
Report Reference: CMAPS-CM-636391-16287-030717GEO





9 Railways and Tunnels Map





Report Reference: CMAPS-CM-636391-16287-030717GEO





9 Railways and Tunnels

9.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary?

No

Have any underground railway lines been identified within 250m of the study site boundary?

No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary?

No

Have any other railway tunnels been identified within 250m of the site boundary?

No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

9.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary?

Yes

Have any historical railway or tunnel features been identified within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Details	Date
1D	0	On Site	652582 305858	Railway Sidings	1946
2B	0	On Site	652582 305860	Railway Sidings	1904
3A	0	On Site	652564 306095	Railway Sidings	1978
4C	0	On Site	652661 305900	Railway Sidings	1946
5A	0	On Site	652564 306095	Railway Sidings	1952
6	0	On Site	652583 305858	Railway Sidings	1938

Report Reference: CMAPS-CM-636391-16287-030717GEO





	LOCATION	INTELLIGEN	CE	FOR A BEITER POINT OF	NEW
ID	Distance (m)	Direction	NGR	Details	Date
9E	0	On Site	652580 305840	Railway Sidings	1958
10F	0	On Site	652683 305838	Railway Sidings	1958
11B	0	On Site	652626 305950	Railway Sidings	1927
12C	0	On Site	652662 305924	Railway Sidings	1981
13D	0	On Site	652558 305882	Railway Sidings	1981
14H	0	On Site	652540 306032	Railway Sidings	1887
15G	0	On Site	652567 306085	Railway Sidings	1966
16E	0	On Site	652580 305840	Railway Sidings	1949
17E	0	On Site	652580 305840	Railway Sidings	1968
18E	0	On Site	652580 305839	Railway Sidings	1957
19E	0	On Site	652580 305839	Railway Sidings	1949
20E	0	On Site	652580 305839	Railway Sidings	1968
21F	0	On Site	652683 305838	Railway Sidings	1968
22F	0	On Site	652683 305837	Railway Sidings	1968
23F	0	On Site	652683 305837	Railway Sidings	1957
24F	0	On Site	652683 305838	Railway Sidings	1949
25F	0	On Site	652683 305837	Railway Sidings	1949
26G	0	On Site	652567 306085	Railway Sidings	1949
27	0	On Site	652641 305980	Railway Sidings	1905
281	0	On Site	652643 306106	Railway Sidings	1949
29H	0	On Site	652585 305922	Railway Sidings	1883
30	0	On Site	652515 306351	Railway Sidings	1905
31	0	On Site	n/a	Railway	1946
321	0	On Site	652643 306106	Railway Sidings	1963
331	0	On Site	652643 306106	Railway Sidings	1949
34J	33	N	652516 306425	Railway Sidings	1928
35J	37	N	652521 306429	Railway Sidings	1949
36K	40	S	652771 305842	Railway Sidings	1958
37K	40	S	652771 305842	Railway Sidings	1949

Report Reference: CMAPS-CM-636391-16287-030717GEO Client Reference: 16287





ID	Distance (m)	Direction	NGR	Details	Date
38K	42	S	652772 305841	Railway Sidings	1949
39K	42	S	652772 305841	Railway Sidings	1957
40L	51	S	652777 305830	Railway Sidings	1958
41L	51	S	652777 305830	Tramway Sidings	1949
42K	52	S	652777 305829	Railway Sidings	1957
43K	52	S	652777 305829	Railway Sidings	1949
44M	54	S	652722 305817	Tramway Sidings	1949
45M	54	S	652718 305816	Railway Sidings	1957
7	67	E	652638 305740	Railway Sidings	1884
46N	97	S	652033 305537	Railway Sidings	1958
47	111	S	652044 305396	Railway Sidings	1927
48N	112	S	652033 305529	Railway Sidings	1905
49	117	W	652398 306417	Railway Sidings	1928
50	117	E	652706 305621	Railway Sidings	1905
510	122	Ν	652505 306558	Railway Sidings	1966
520	122	Ν	652505 306558	Railway Sidings	1975
530	122	N	652505 306558	Railway Sidings	1954
540	127	N	652505 306558	Railway Sidings	1949
55	141	NW	652035 306248	Railway Sidings	1968
8	146	S	652035 305381	Railway Sidings	1938
56	163	N	652500 306574	Railway Sidings	1928
57	235	Ν	n/a	Railway	1906
58	243	Ν	n/a	Railway	1906

Any records that have been identified are represented on the Railways and Tunnels Map.

Report Reference: CMAPS-CM-636391-16287-030717GEO Client Reference: 16287





9.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary?

Yes

Have any historical railway lines been identified within 250m of the study site boundary?

Yes

Distance (m)	Direction	Status
0	On Site	Abandoned
0	On Site	Abandoned
0	On Site	Dismantled

Multiple sections of the same track may be listed in the detail above Any records that have been identified are represented on the Railways and Tunnels Map.

9.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary?

No

Have any active railway lines been identified within 250m of the study site boundary?

No

Database searched and no data found.

Multiple sections of the same track may be listed in the detail above Any records that have been identified are represented on the Railways and Tunnels Map.

9.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1

Is the study site within 5km of the route of the High Speed 2 rail project?

No

Is the study site within 500m of the route of the Crossrail 1 rail project?

No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a **Groundsure HS2** and **Crossrail 1 Report**.

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

Please note that this assessment takes account of both the original Phase 2b proposed route and the amended route proposed in 2016. As the Phase 2b route is still under consultation, Groundsure are providing information on both options until the final route is formally confirmed. Practitioners should take account of this uncertainty when advising clients.

Report Reference: CMAPS-CM-636391-16287-030717GEO





Contact Details

CENTREMAPS

Telephone: 01886 832972 Groundsure@centremaps.co.uk Open Space, Upper Interfields, Malvern, Worcester, WR14 1UT



British Geological Survey Enquiries

Kingsley Dunham Centre Keyworth, Nottingham NG12 5GG Tel: 0115 936 3143. Fax: 0115 936 3276.

Email:enquiries@bgs.ac.uk Web:www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries



British Gypsum Ltd East Leake Loughborough Leicestershire LE12 6HX



Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

British

The Coal Authority

200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk



Public Health England

Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG

https://www.gov.uk/government/organisations/public-healthengland

Email: enquiries@phe.gov.uk Main switchboard: 020 7654 8000



Johnson Poole & Bloomer Limited

Harris and Pearson Building, Brettel Lane Brierley Hill, West Midlands DY5 3LH Tel: +44 (0) 1384 262 000

Email:**enquiries.gs@jpb.co.uk**Website: **www.jpb.co.uk**



Ordnance Survey

Adanac Drive, Southampton SO16 0AS

Tel: 08456 050505

Website: http://www.ordnancesurvey.co.uk/



Getmapping PLC

Virginia Villas, High Street, Hartley Witney, Hampshire RG27 8NW Tel: 01252 845444

Website:http://www1.getmapping.com/



Report Reference: CMAPS-CM-636391-16287-030717GEO





Peter Brett Associates

Caversham Bridge House

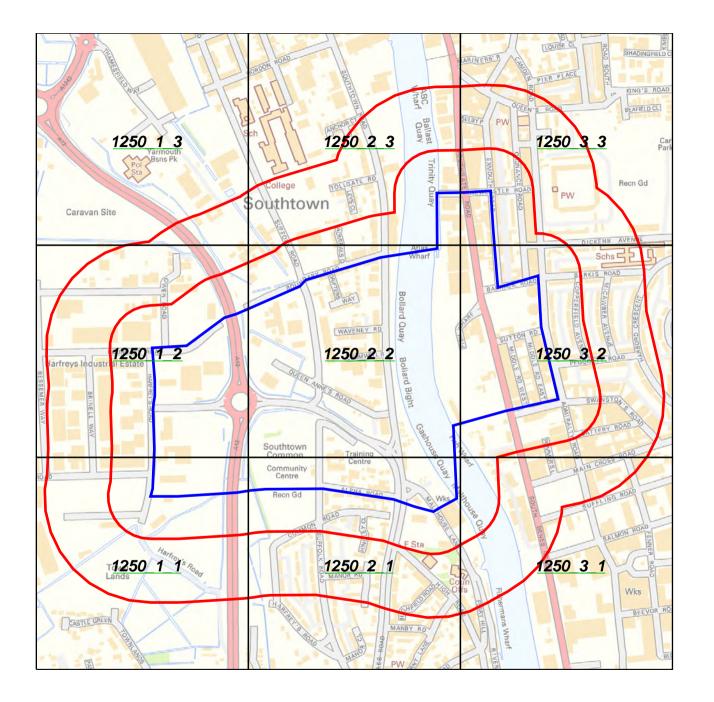
Waterman Place
Reading
Berkshire RG1 8DN
Tel: +44 (0)118 950 0761 E-mail:reading@pba.co.uk
Website:http://www.peterbrett.com/home



Acknowledgements: Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the Groundsure Ltd standard Terms and Conditions of business for work of this nature.

Standard Terms and Conditions

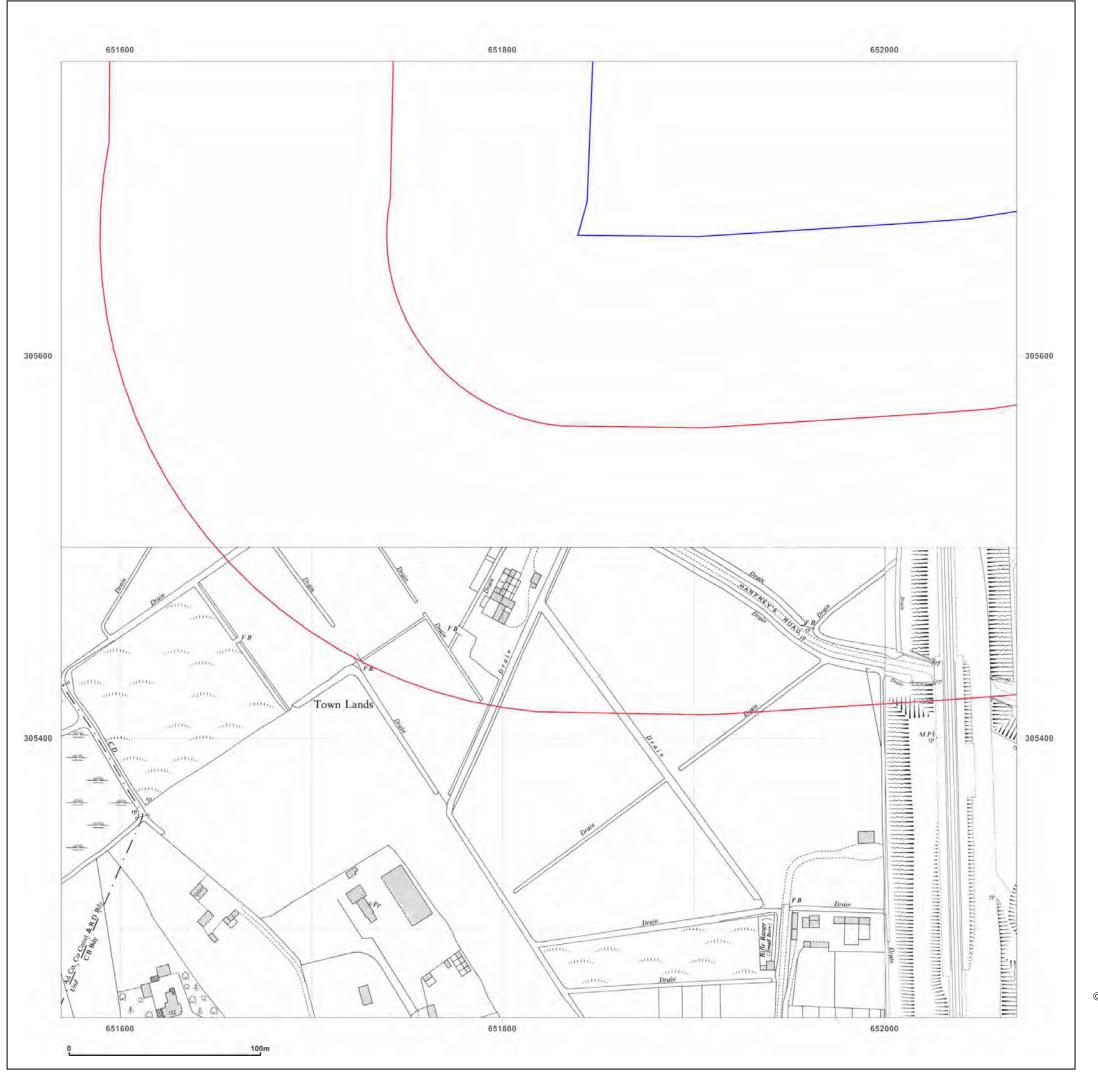
Groundsure's Terms and Conditions can be viewed online at this link: https://www.groundsure.com/terms-and-conditions-sept-2016/



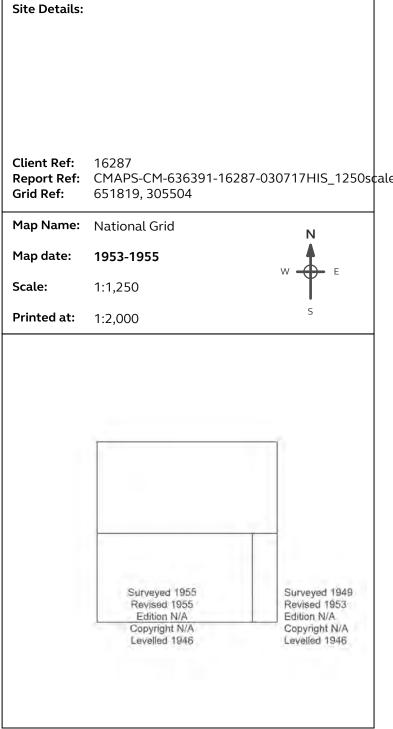




1:1250 Scale Grid Index







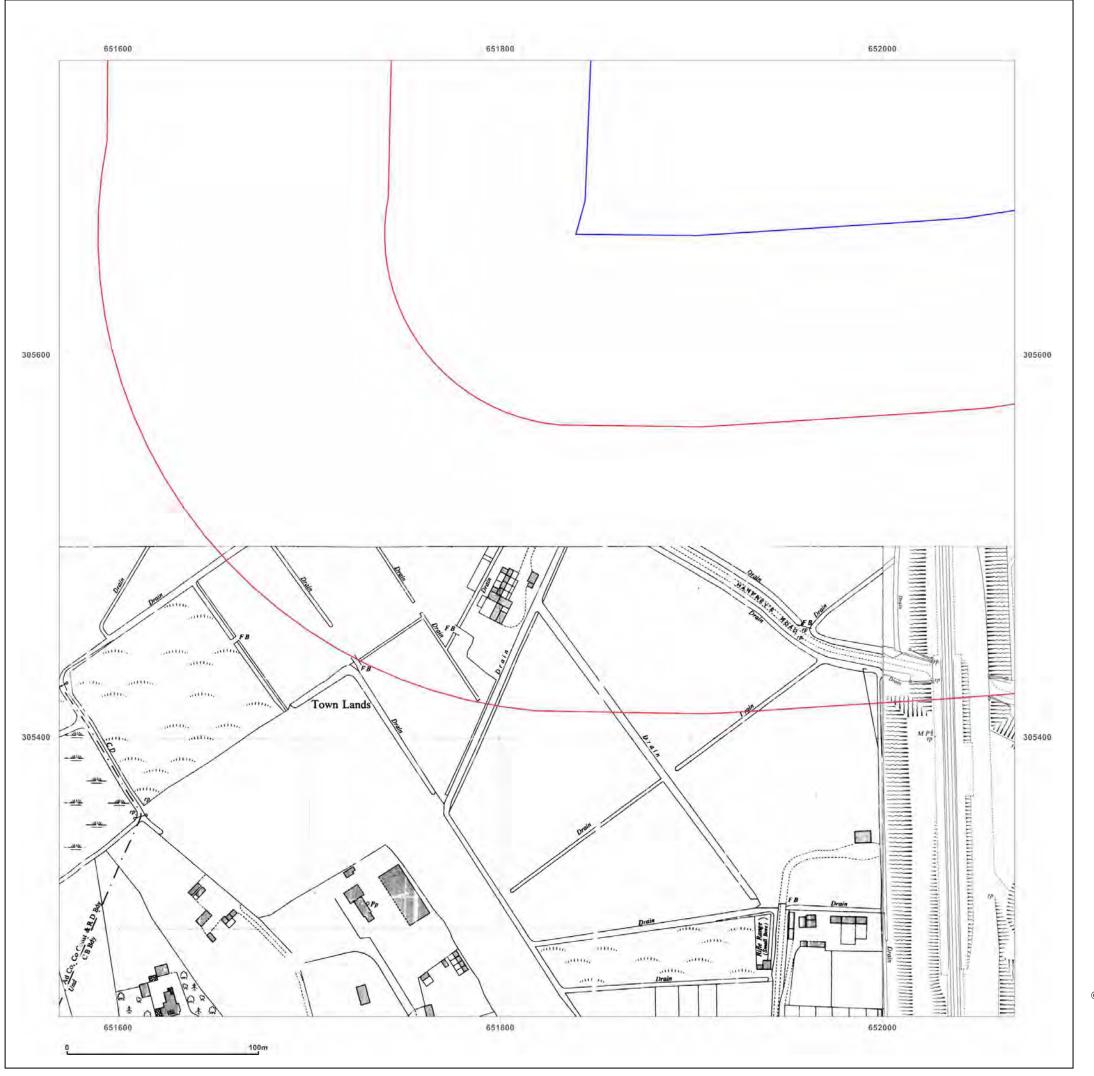




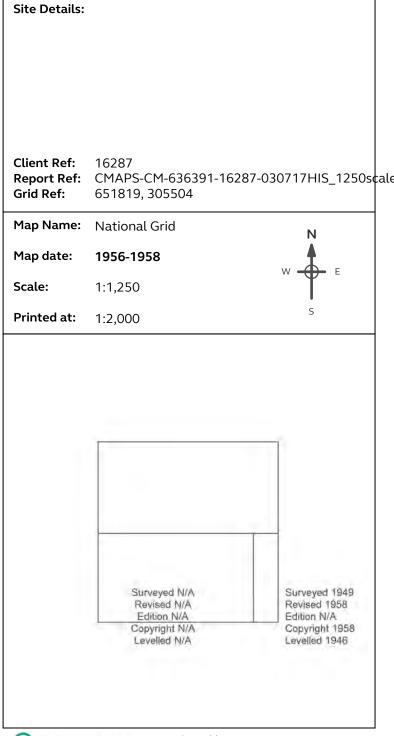
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







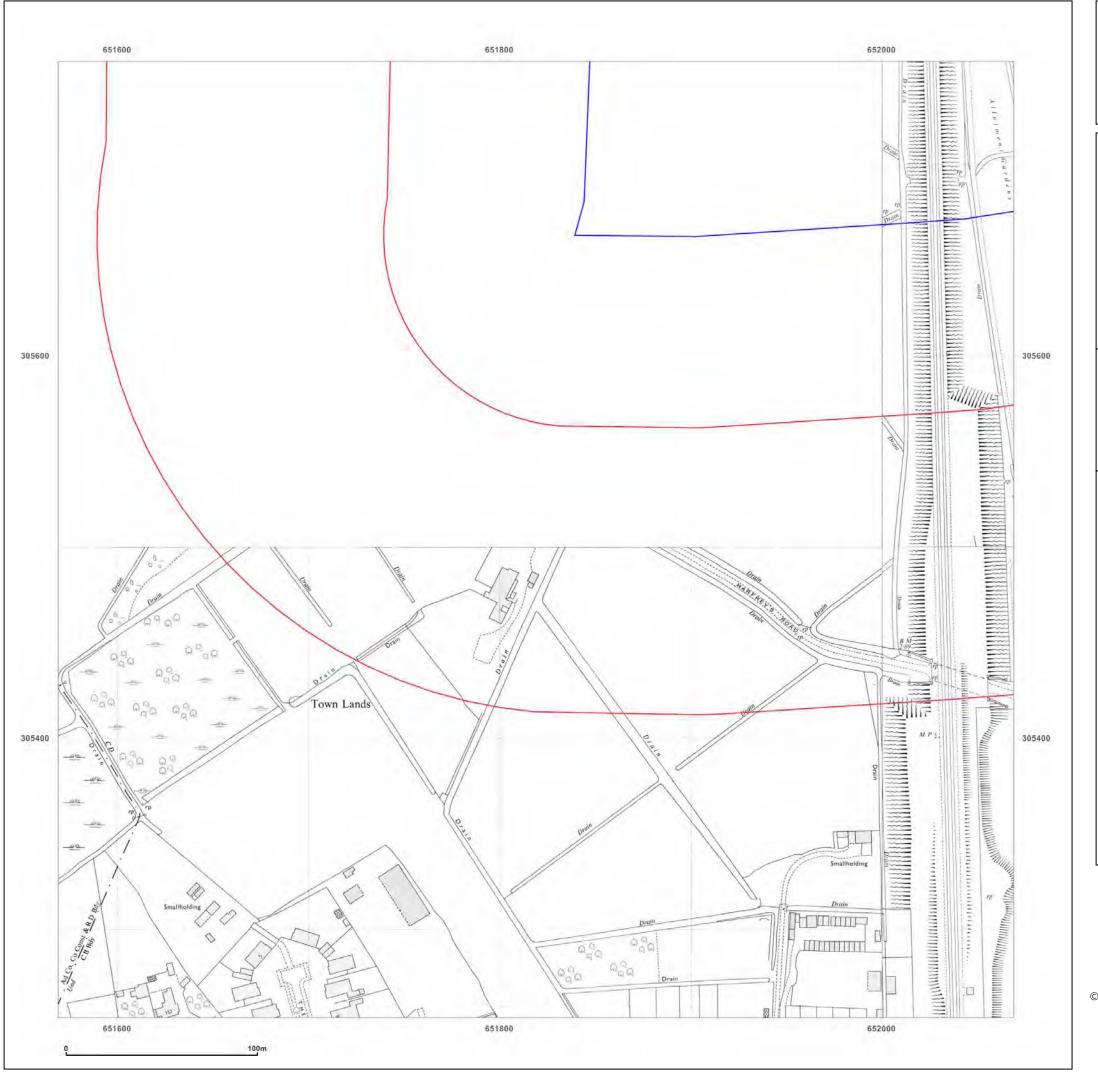




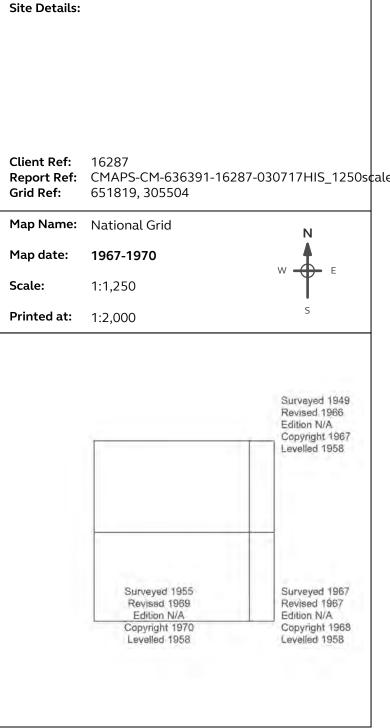
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







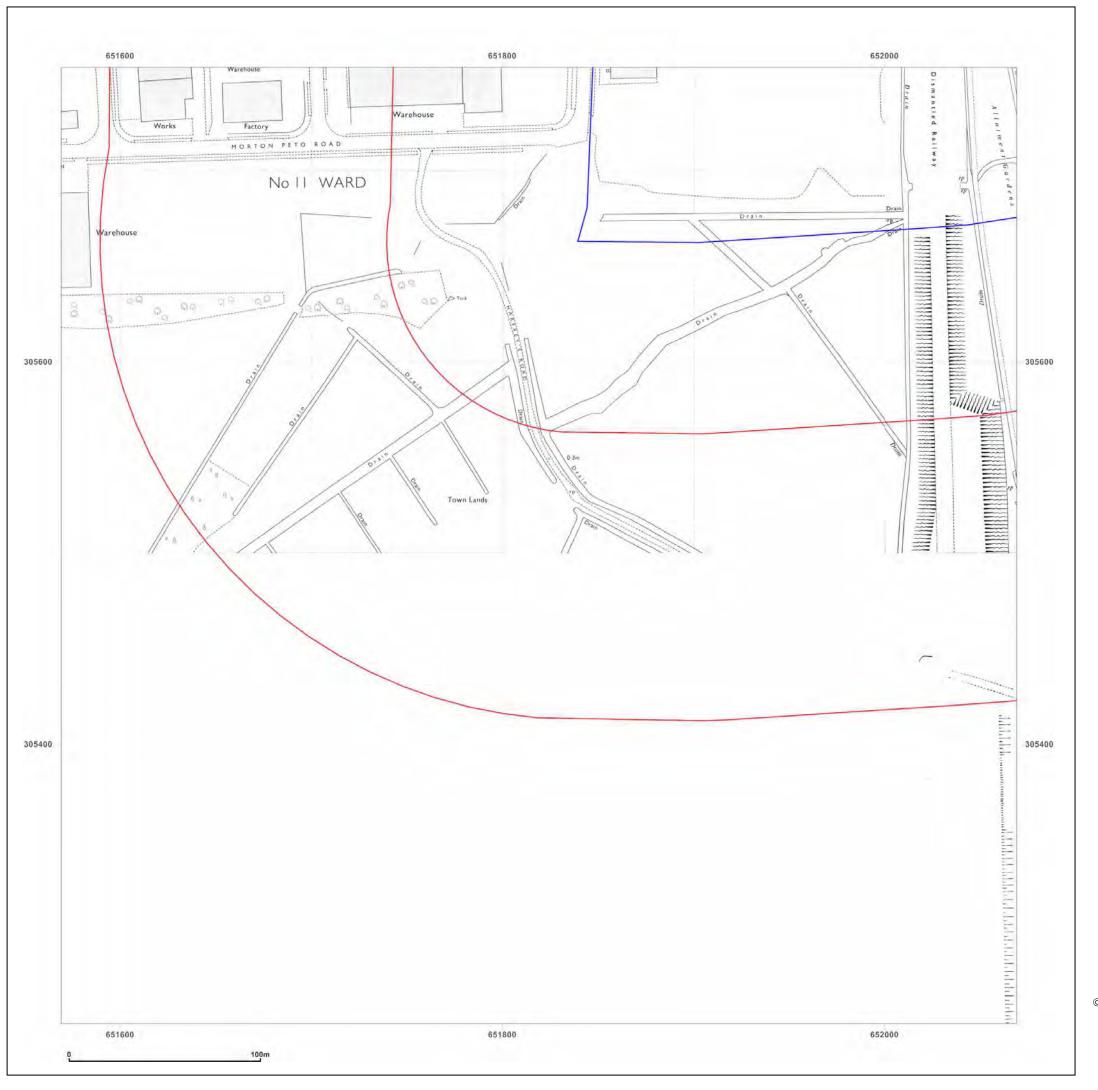




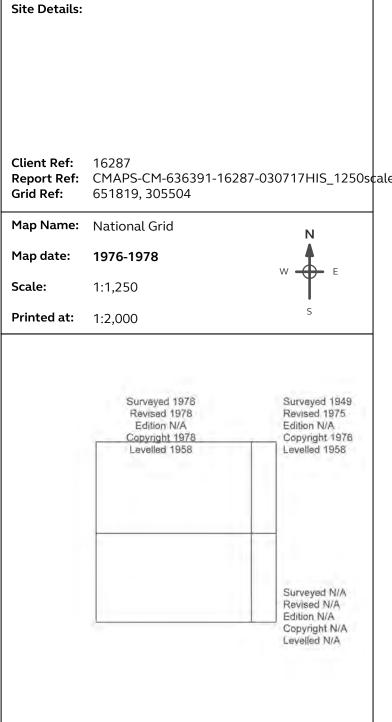
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







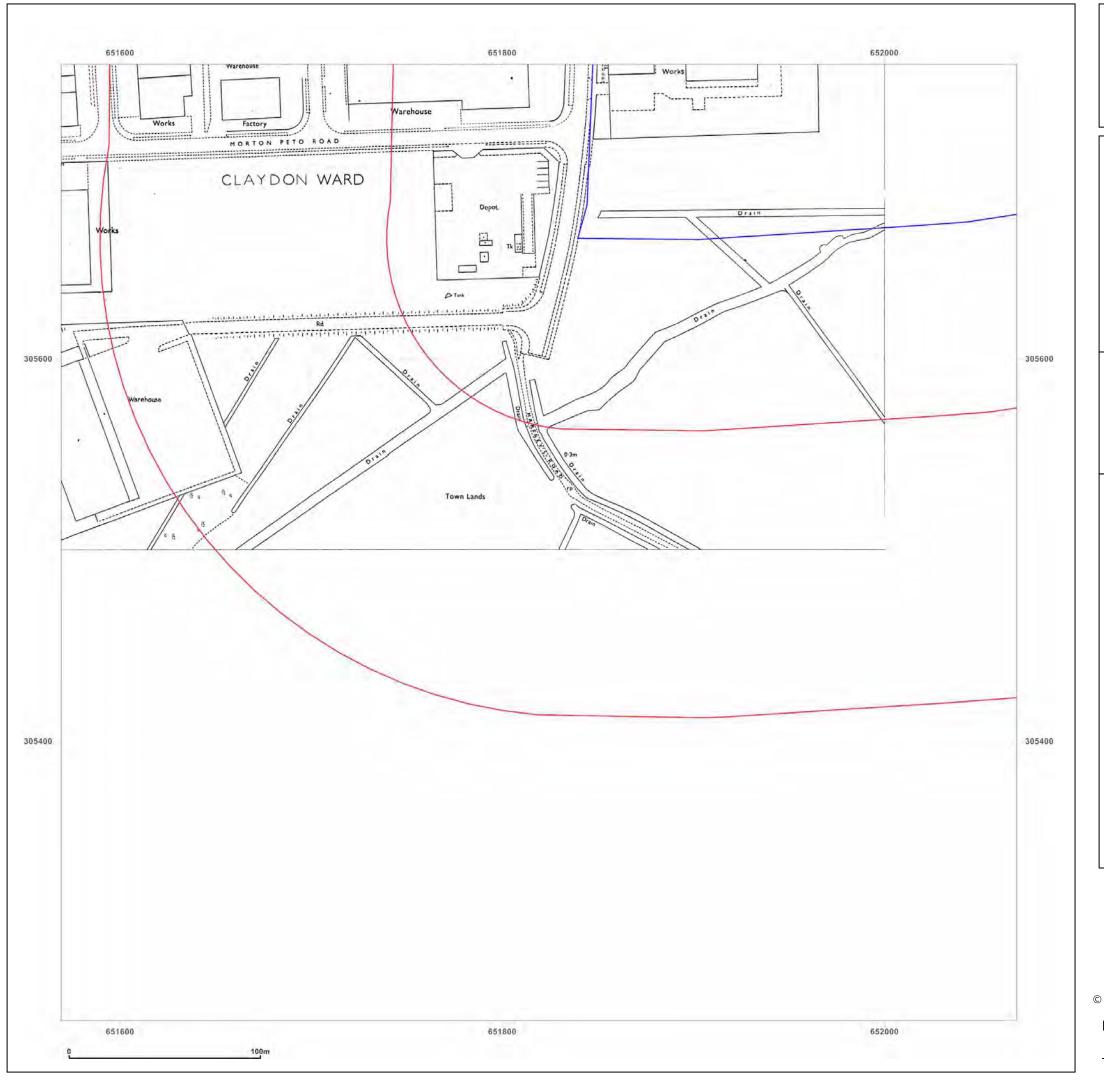




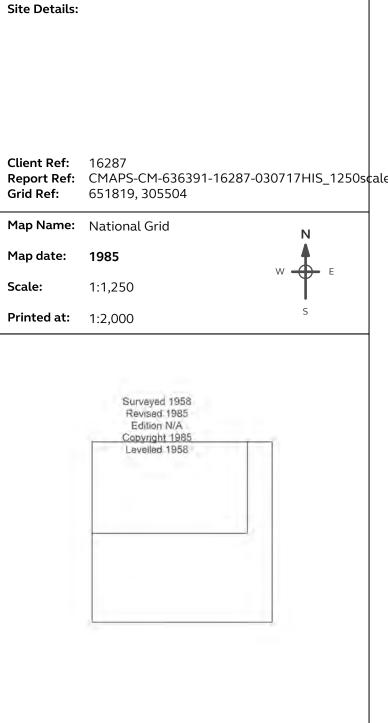
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







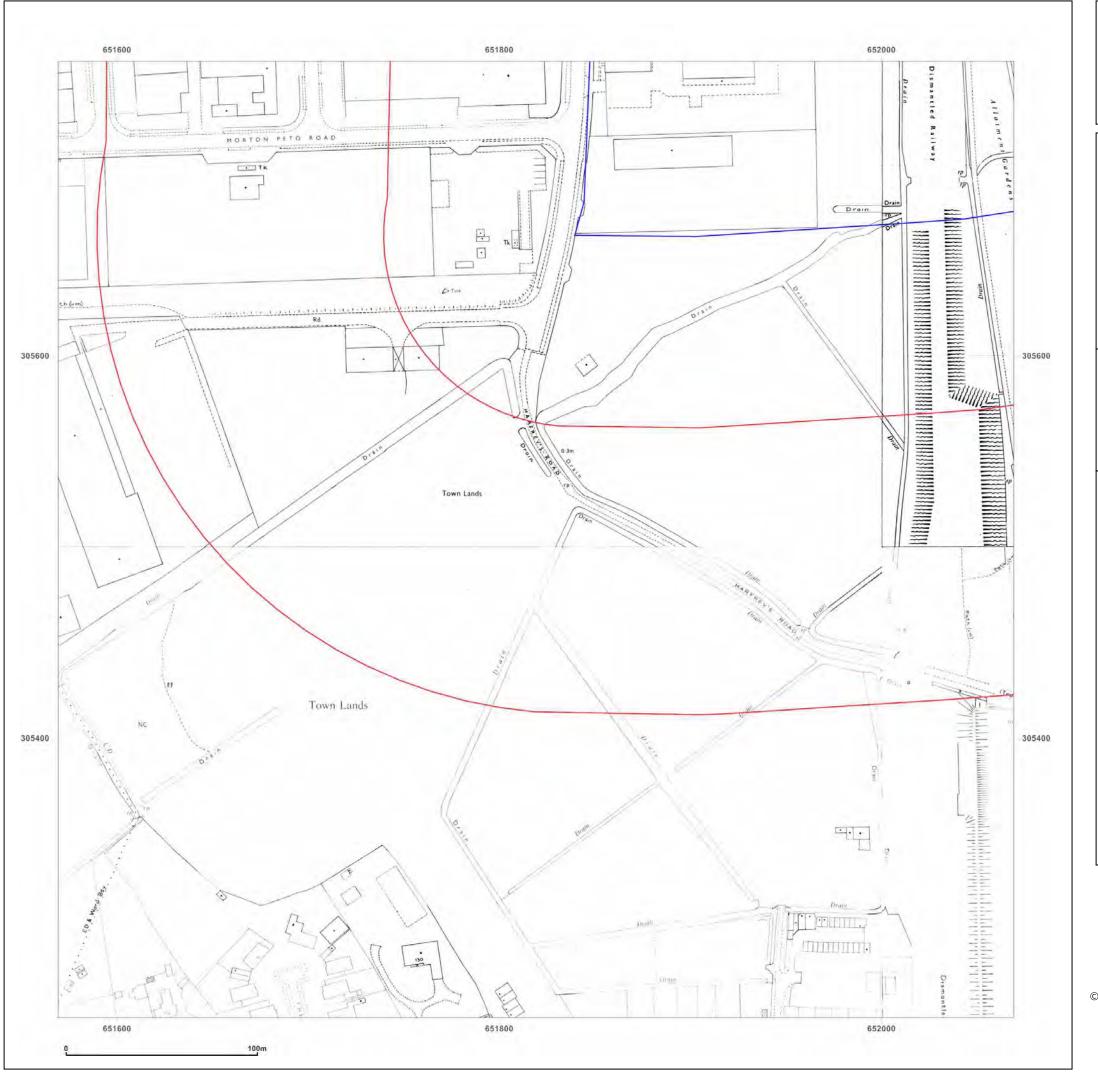




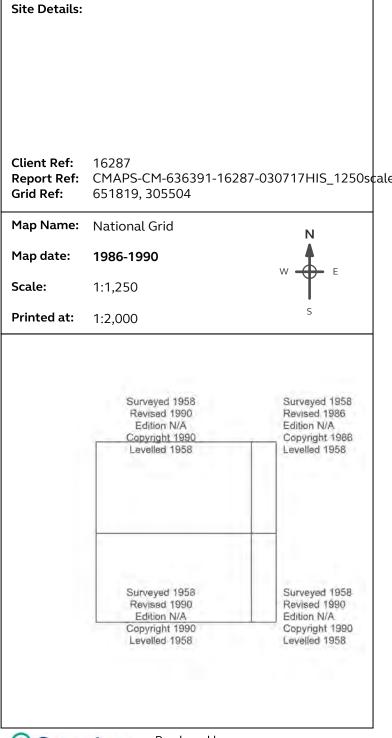
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







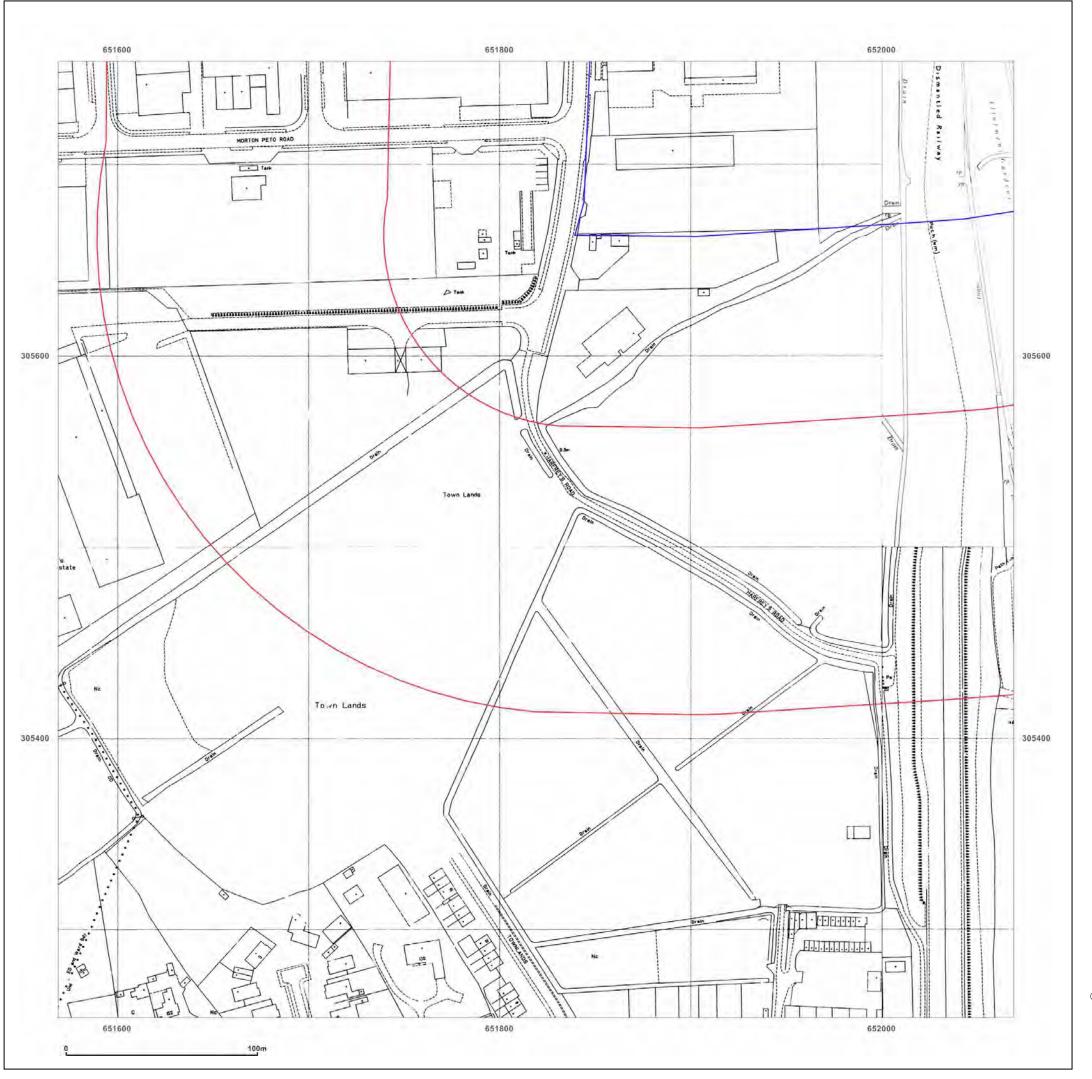




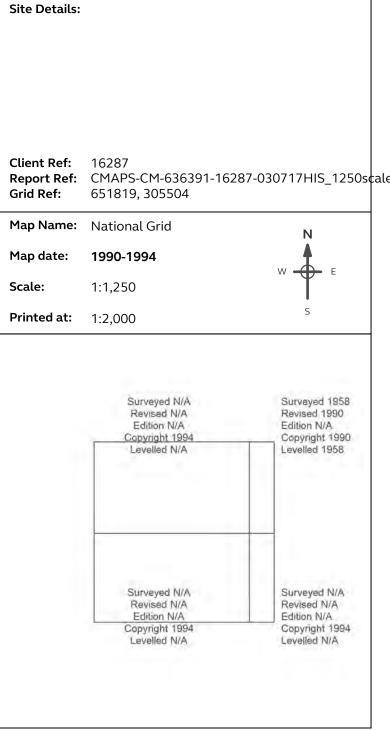
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











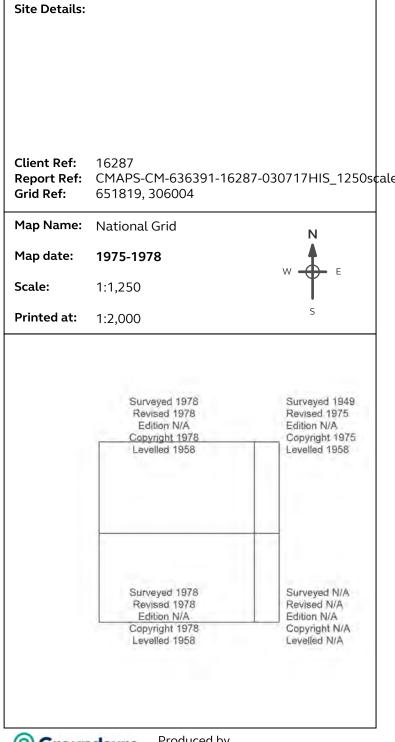
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











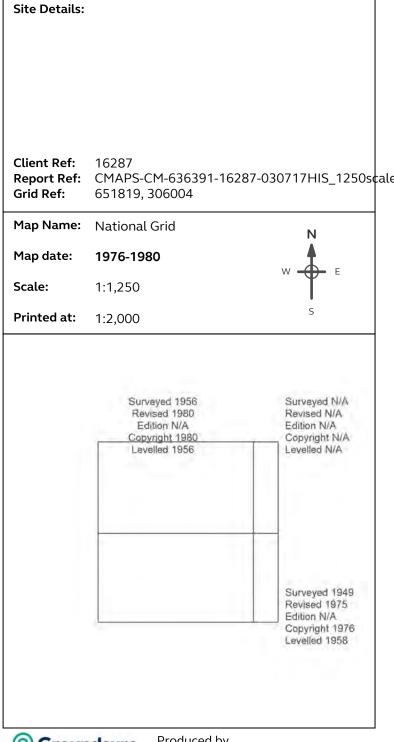
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







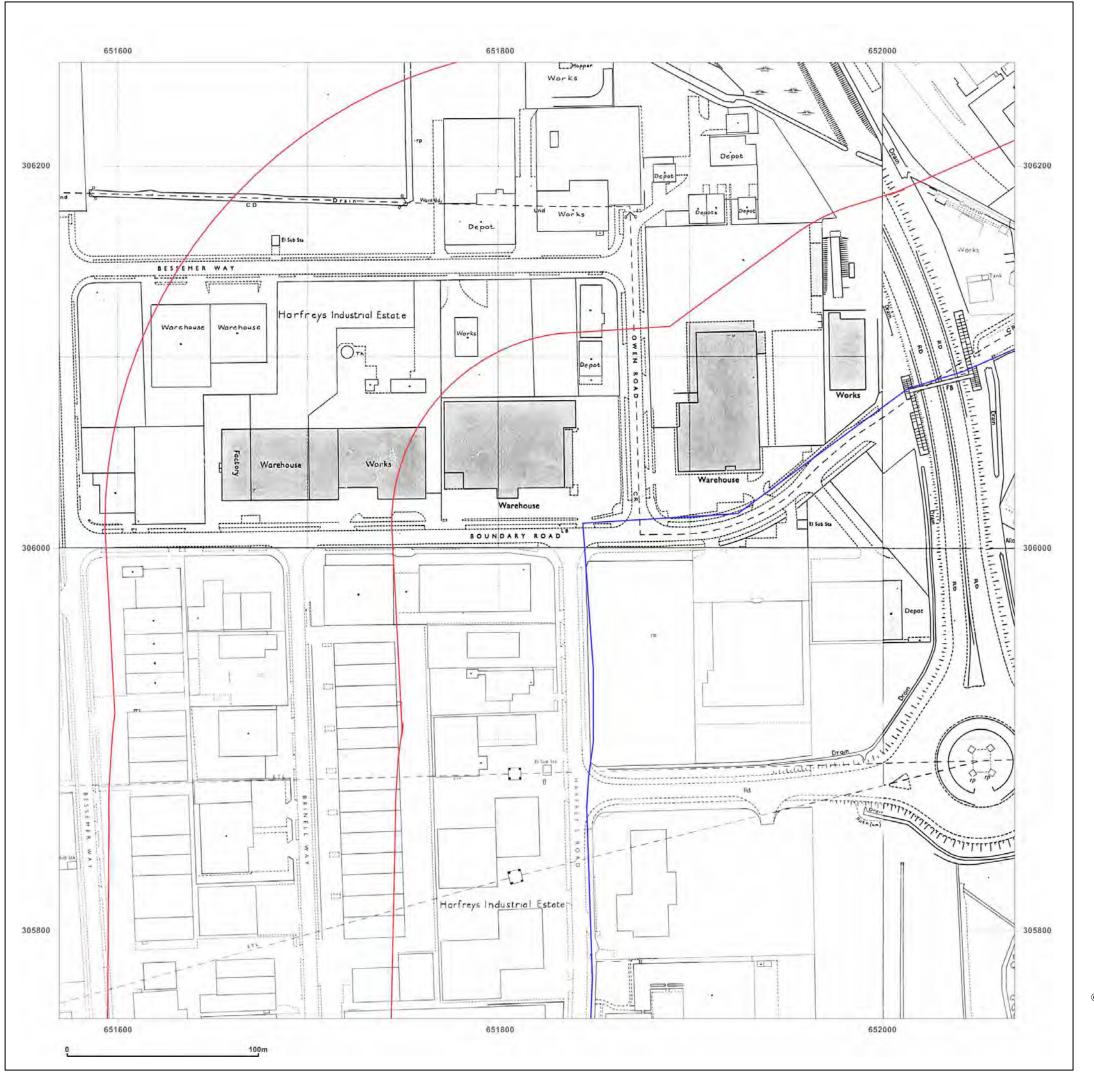




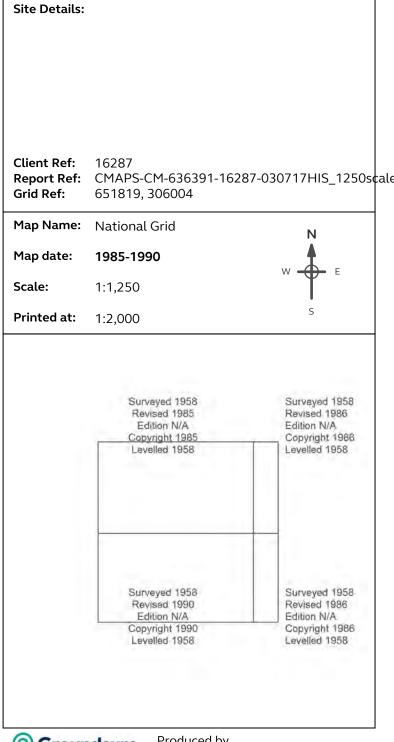
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







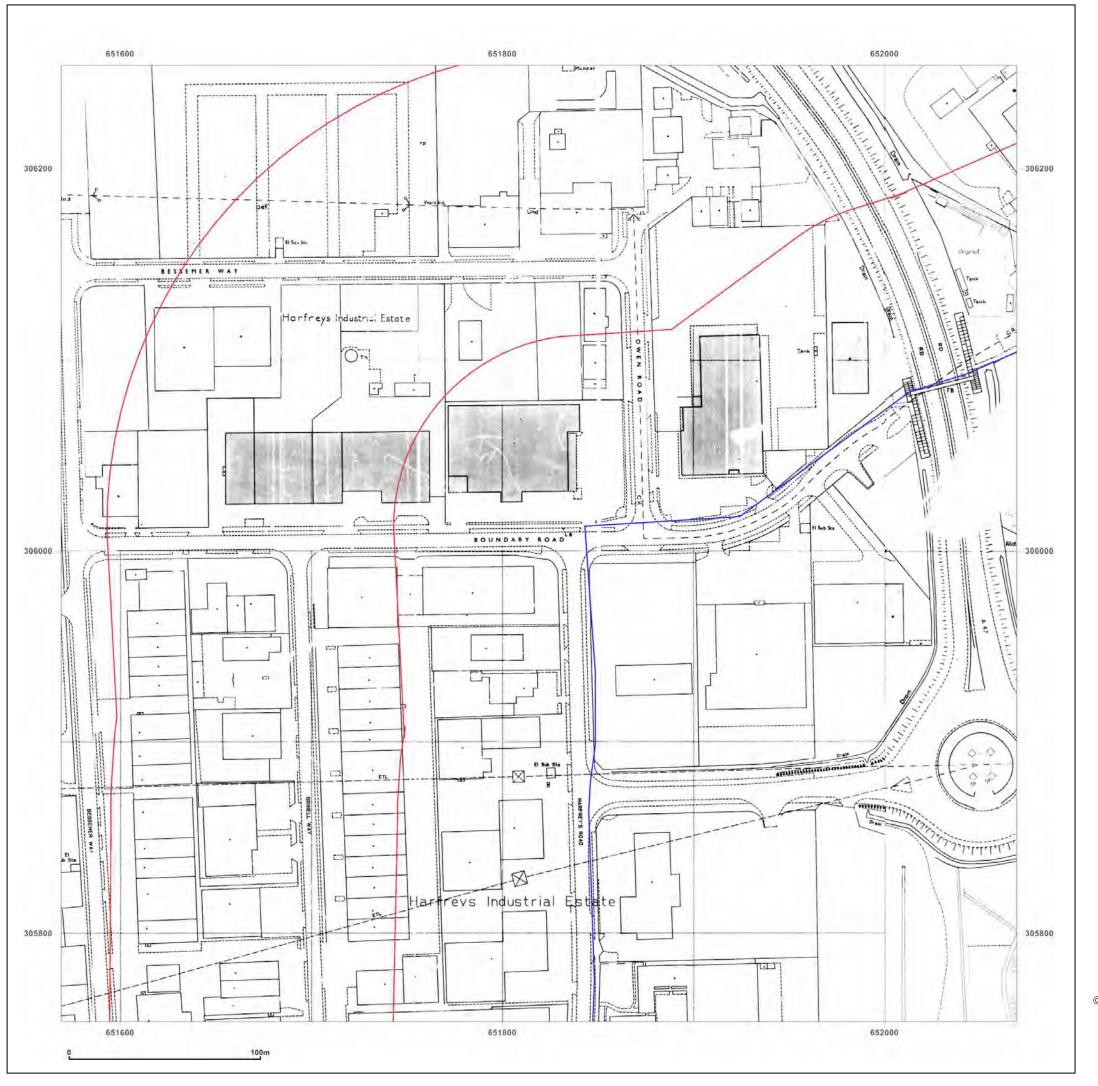




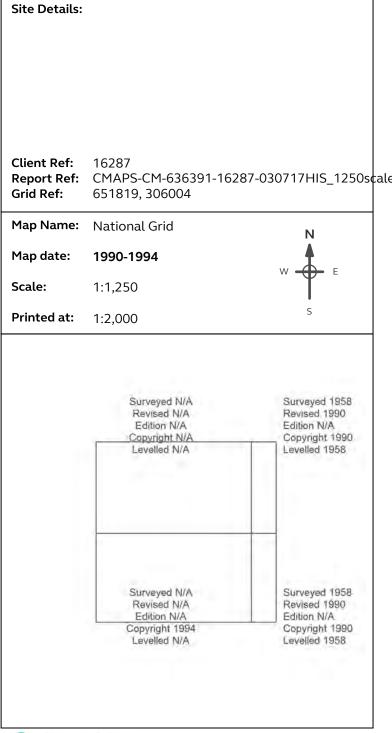
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







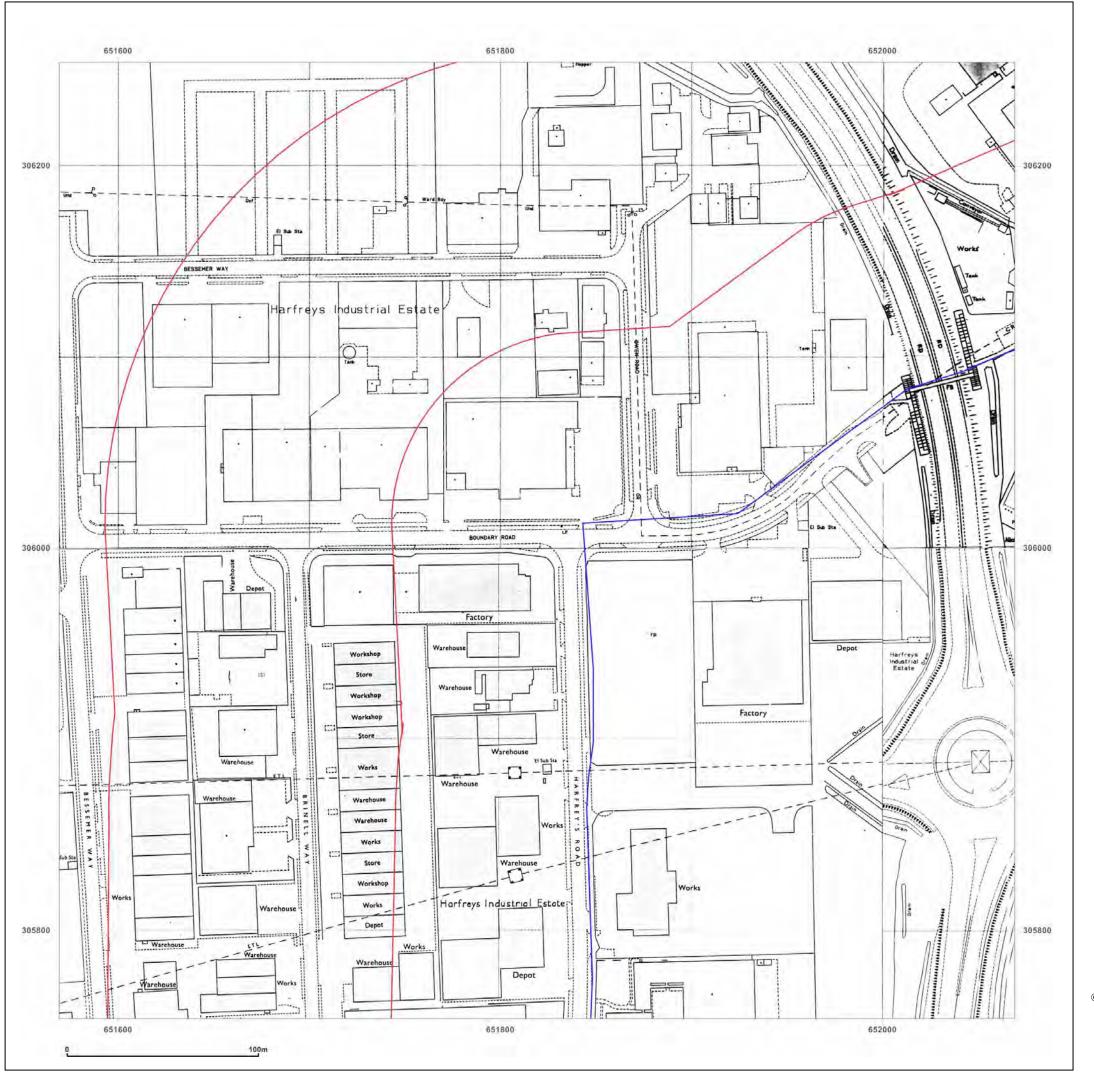




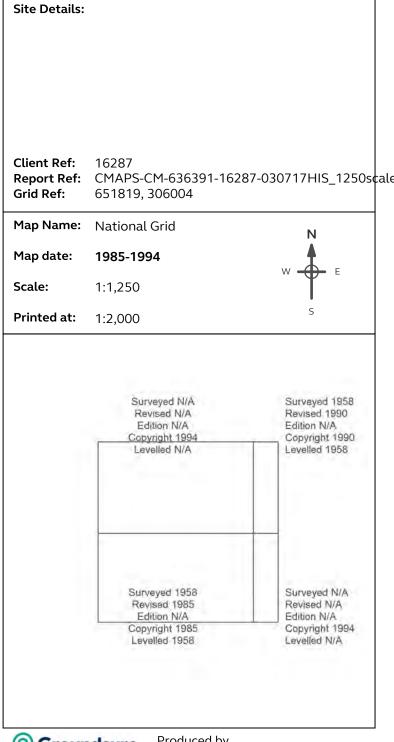
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







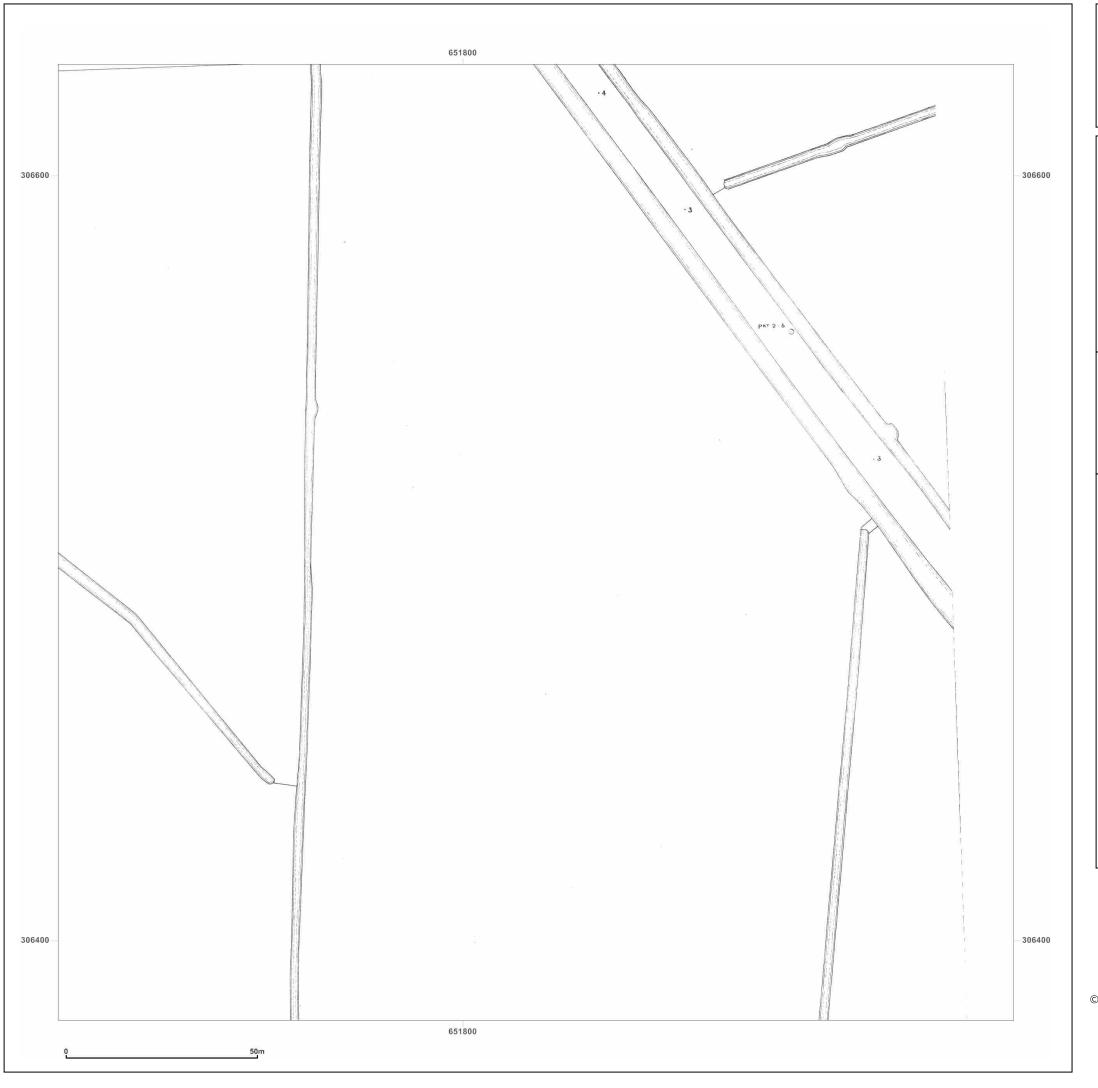




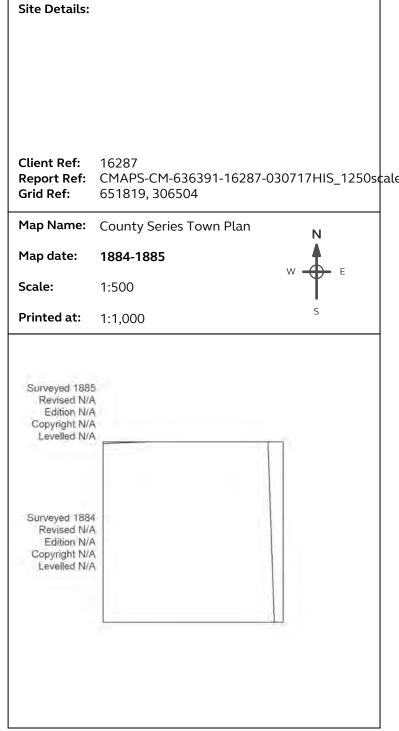
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







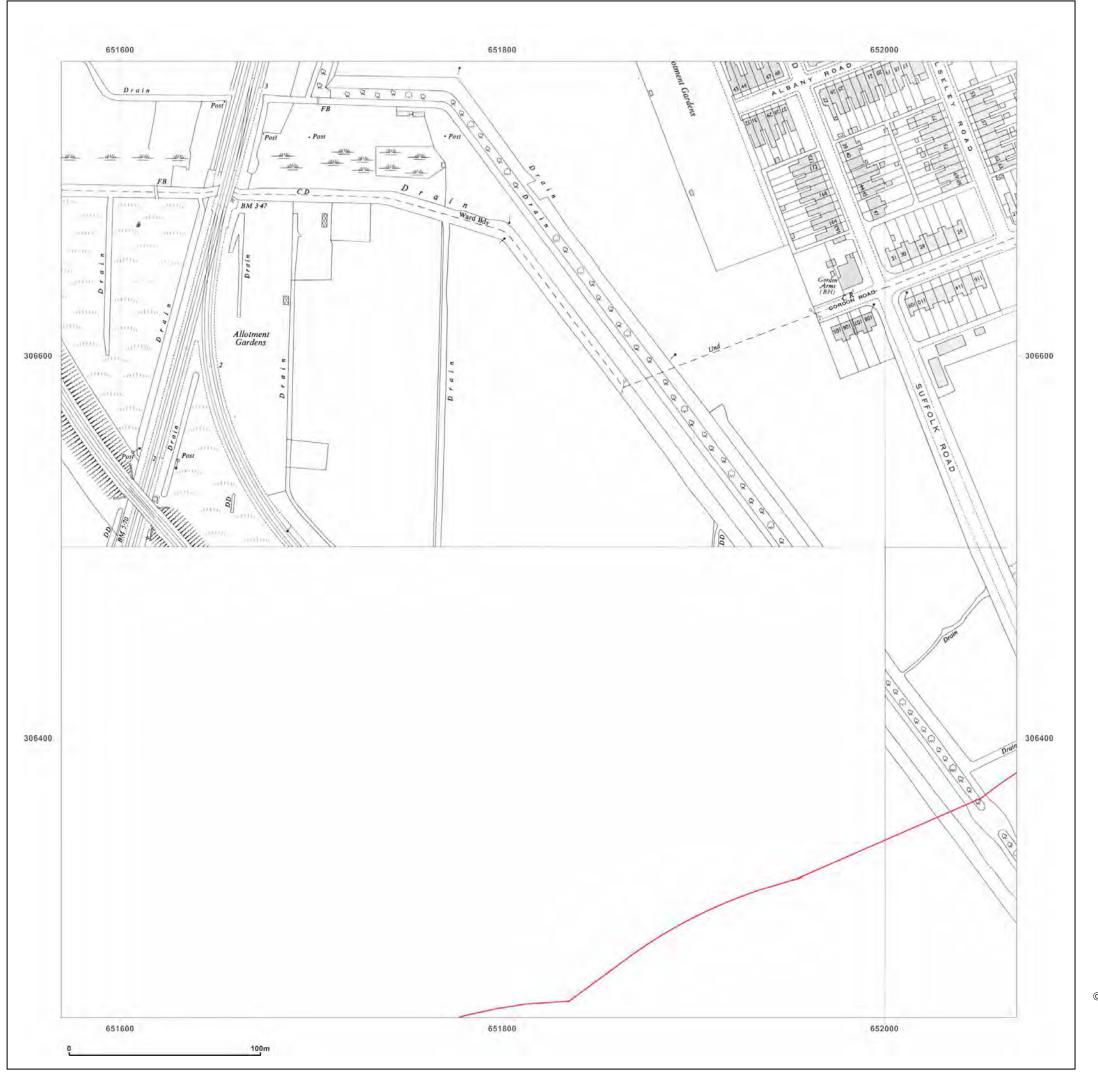




Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:

Client Ref: 16287

Report Ref: CMAPS-CM-636391-16287-030717HIS_1250scale

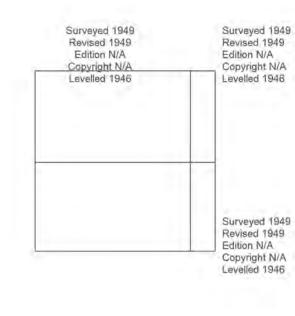
Grid Ref: 651819, 306504

Map Name: National Grid

Map date: 1949

Scale: 1:1,250

Printed at: 1:2,000





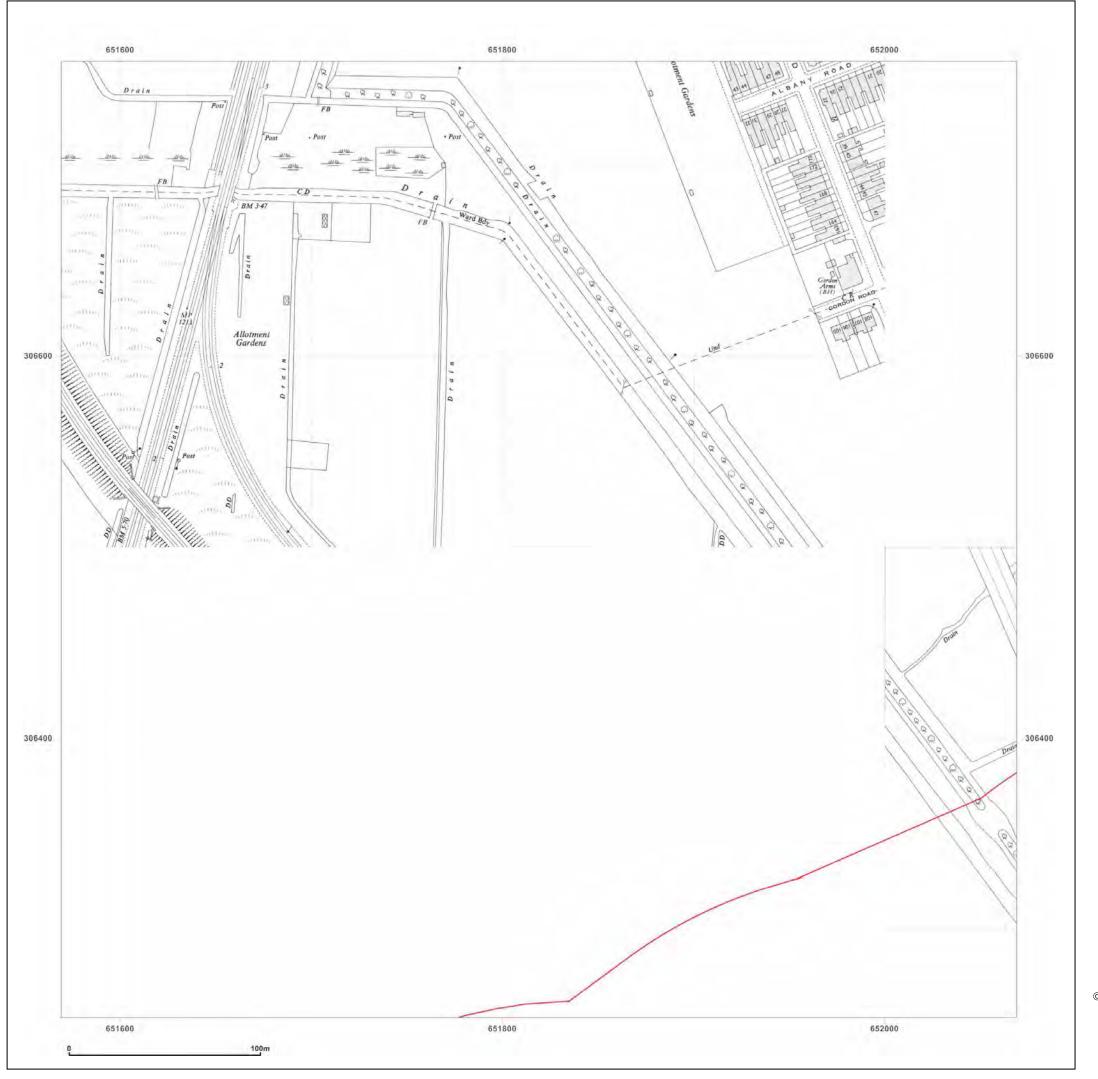
Produced by **Groundsure Insights** www.groundsure.com



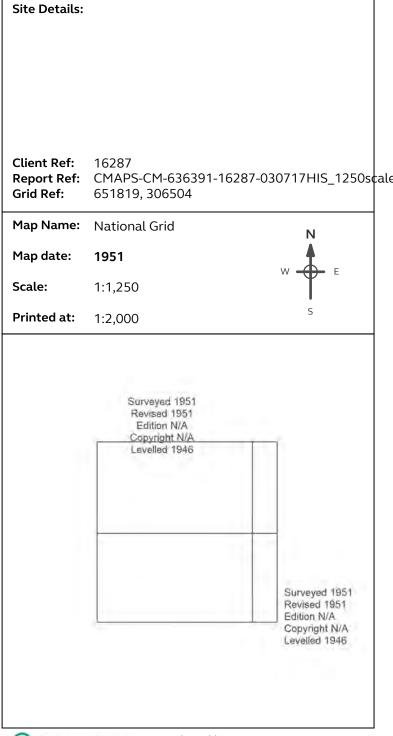
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







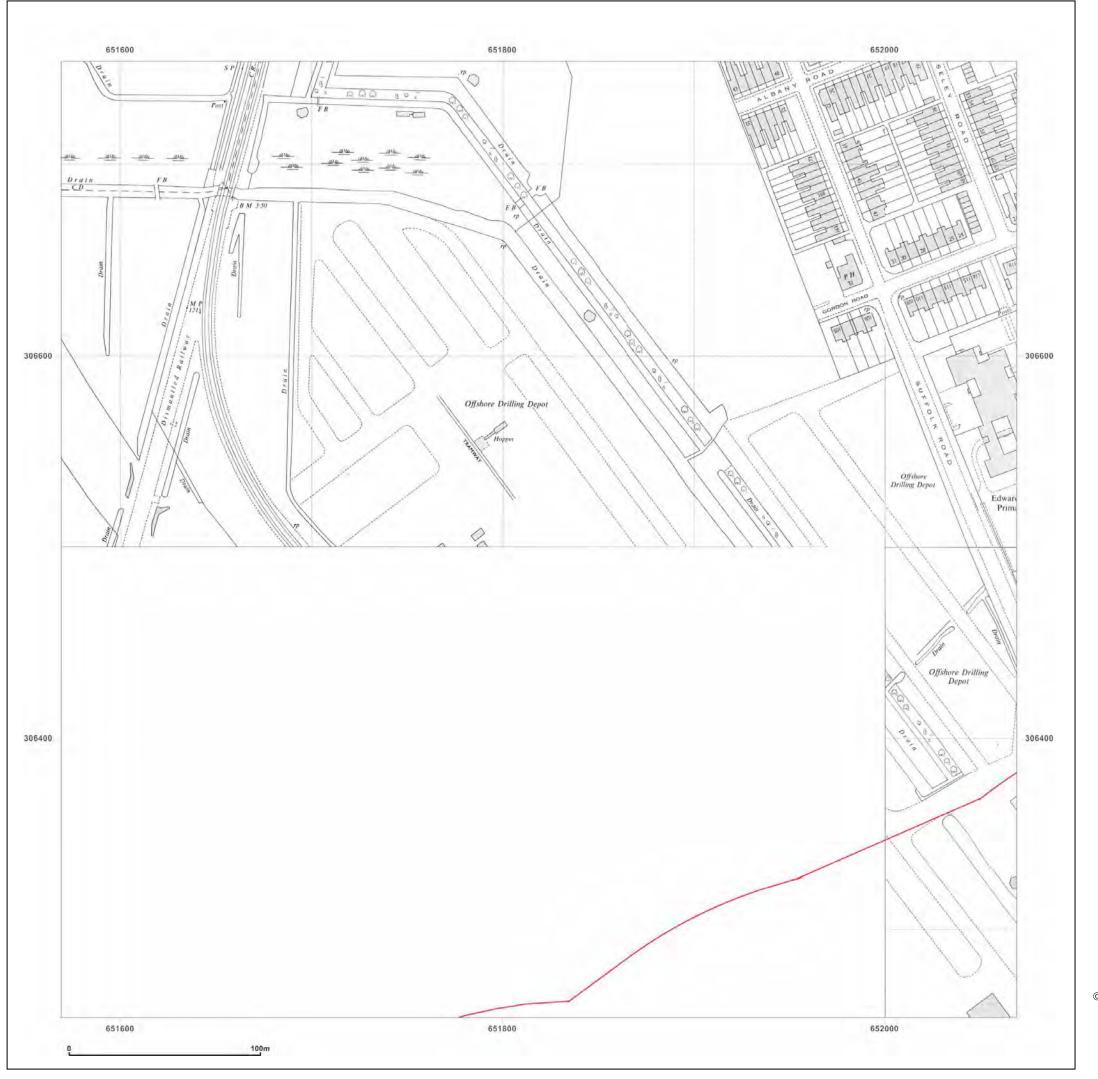




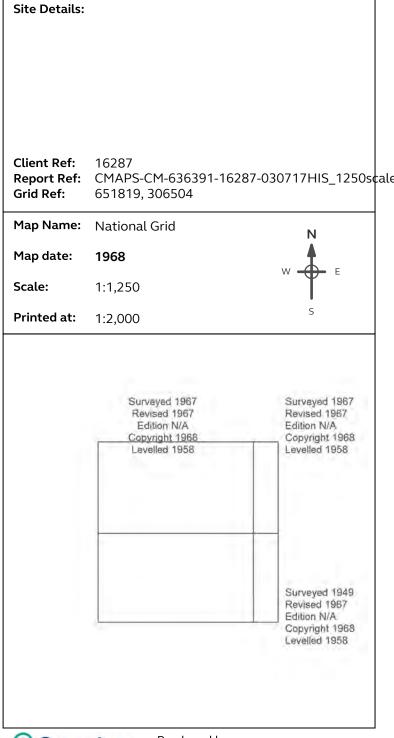
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







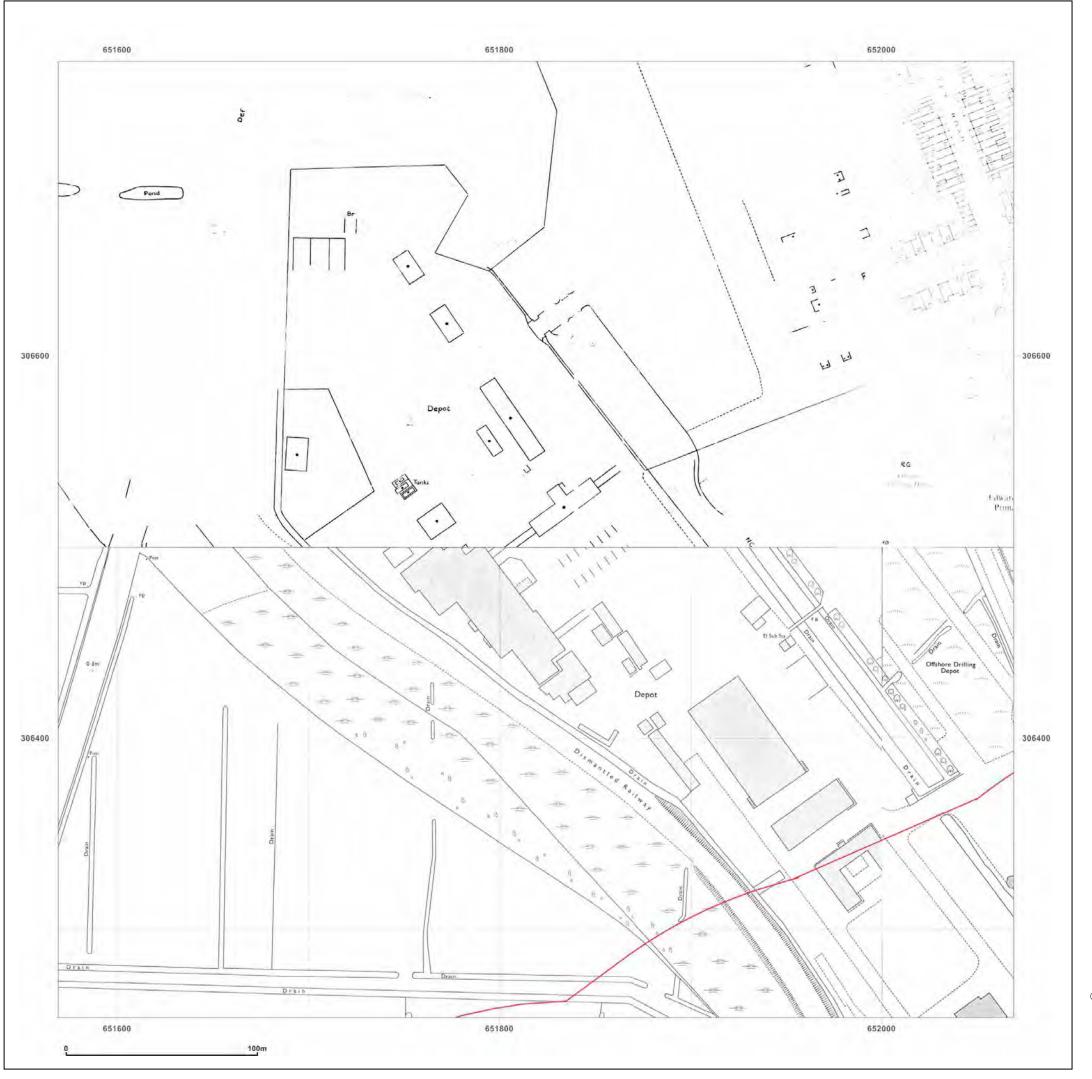




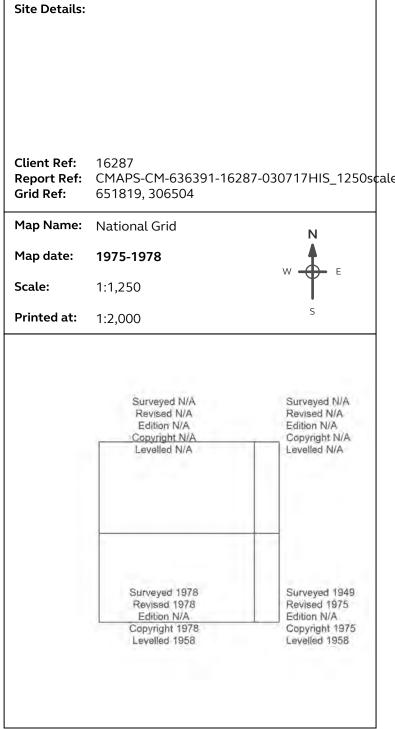
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ ^{\circlearrowright}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







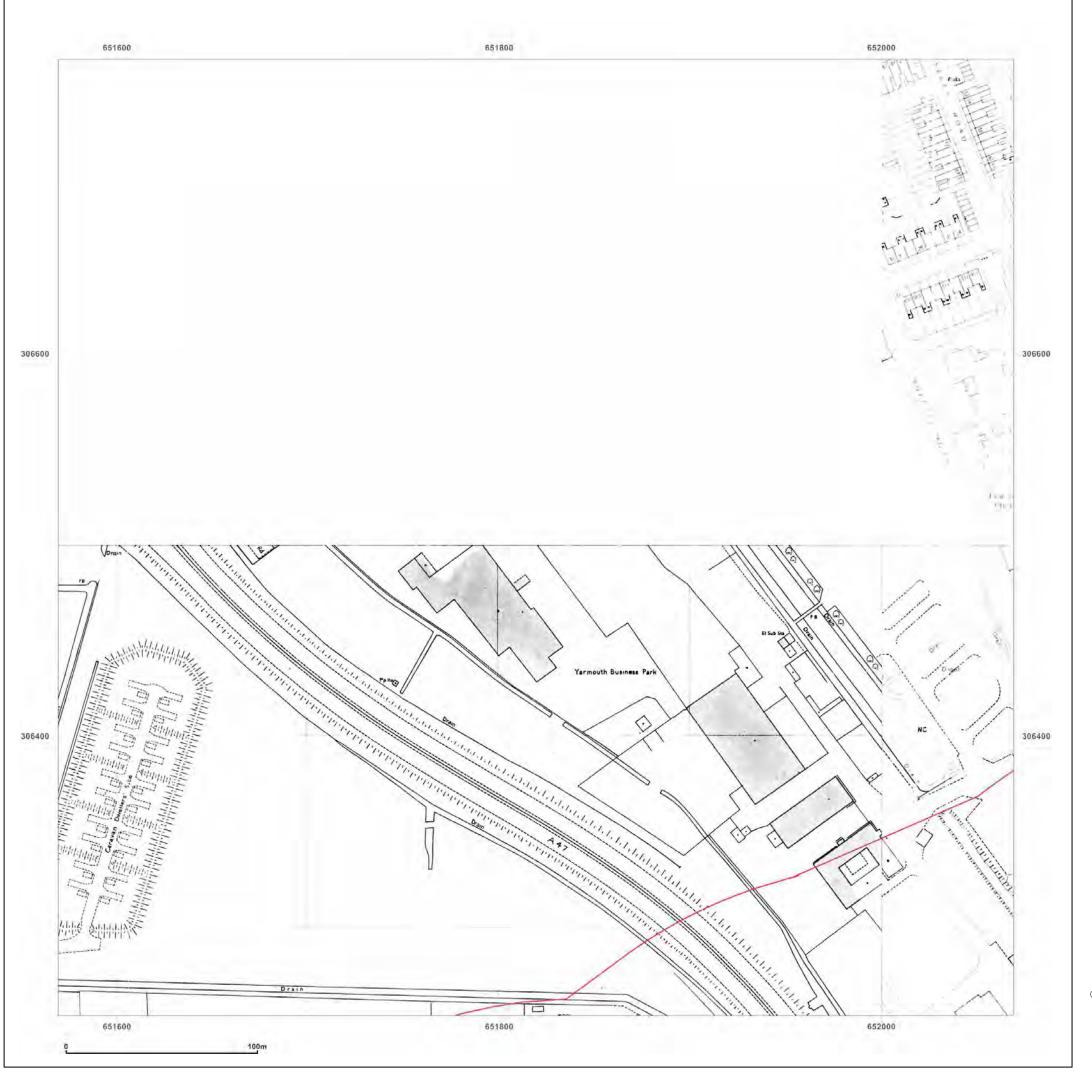




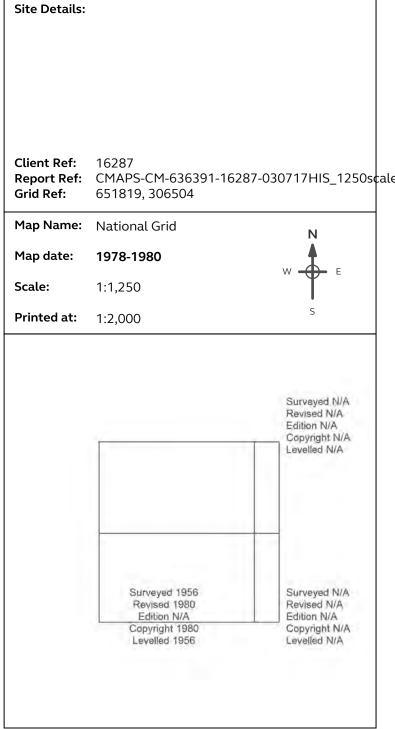
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











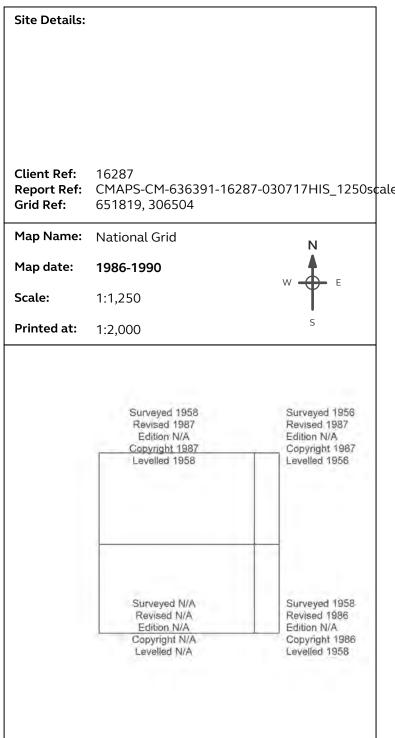
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











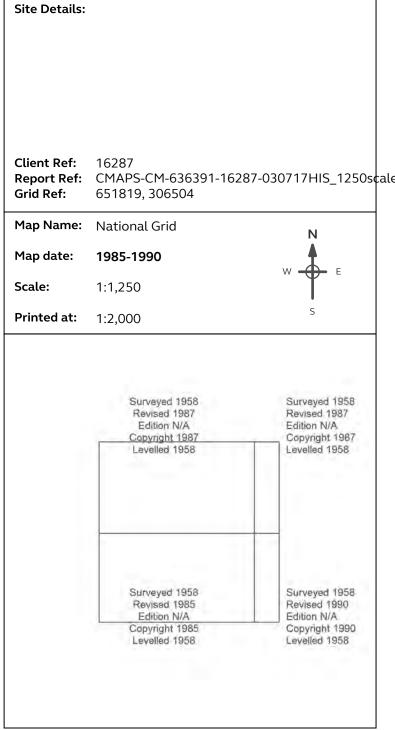
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











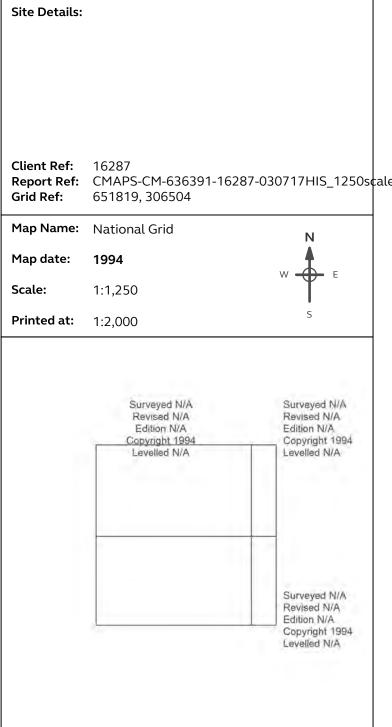
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







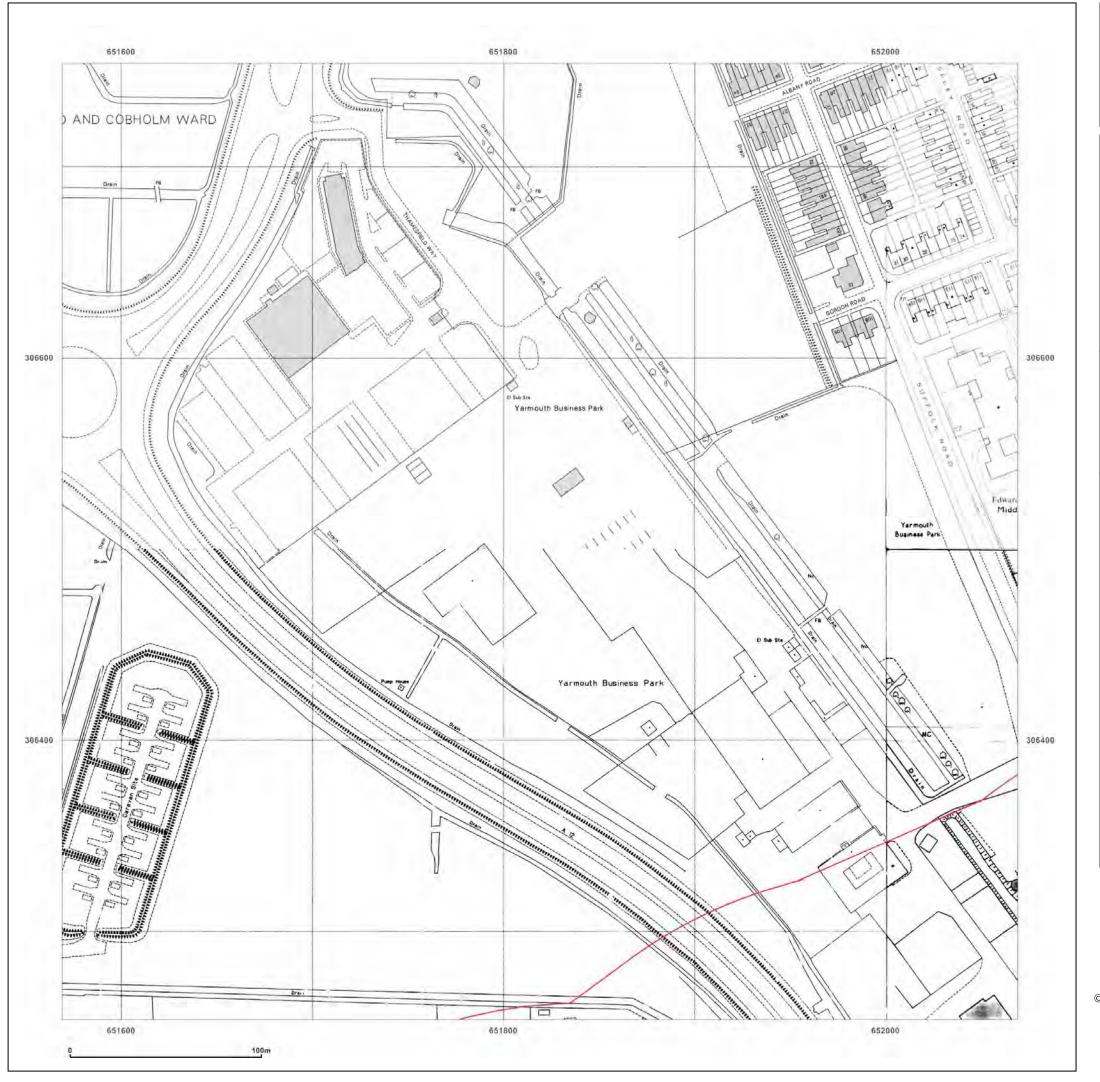




Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details: Client Ref: 16287 **Report Ref:** CMAPS-CM-636391-16287-030717HIS_1250scale Grid Ref: 651819, 306504 Map Name: National Grid Map date: 1989-1994 1:1,250 Scale: **Printed at:** 1:2,000 Surveyed 1959 Revised 1988 Surveyed 1958 Revised 1990 Edition N/A Edition N/A Copyright 1989 Copyright 1990 Levelled 1958 Levelled N/A Surveyed N/A Revised N/A Surveyed 1958 Revised 1990 Edition N/A Copyright 1990 Levelled 1958 Edition N/A Copyright 1994 Levelled N/A



Produced by Groundsure Insights <u>www.groundsure.com</u>



Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:

Client Ref: 16287

Report Ref: CMAPS-CM-636391-16287-030717HIS_1250s cale 652319, 305504

Map Name: County Series Town Plan

1885 Map date:

1:500 Scale:

Printed at: 1:1,000

Surveyed 1885 Revised N/A Surveyed 1885 Revised N/A Edition N/A Edition N/A Copyright N/A Levelled N/A Copyright N/A Levelled N/A

@ Groundsure

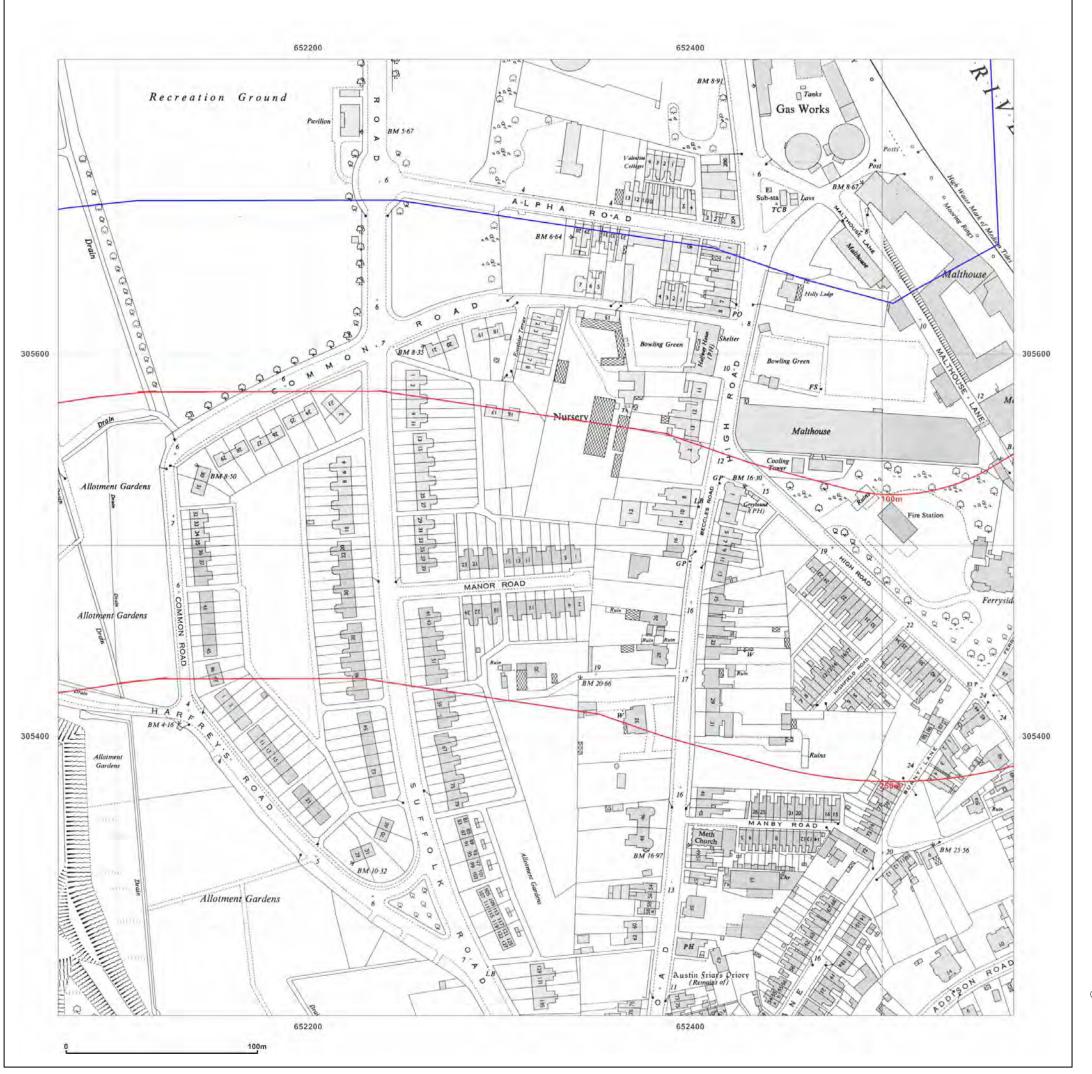
Produced by **Groundsure Insights** www.groundsure.com



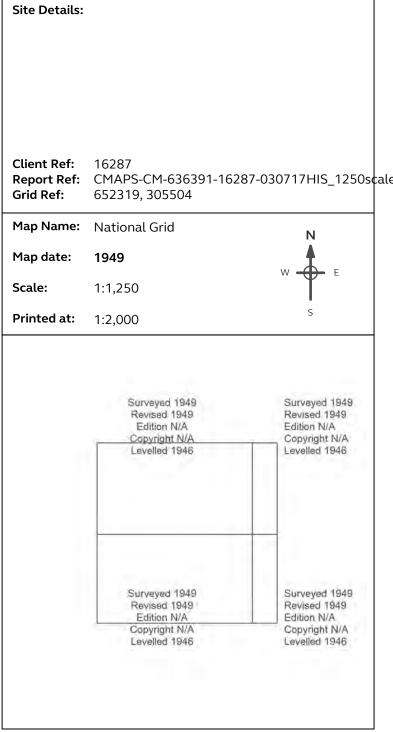
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







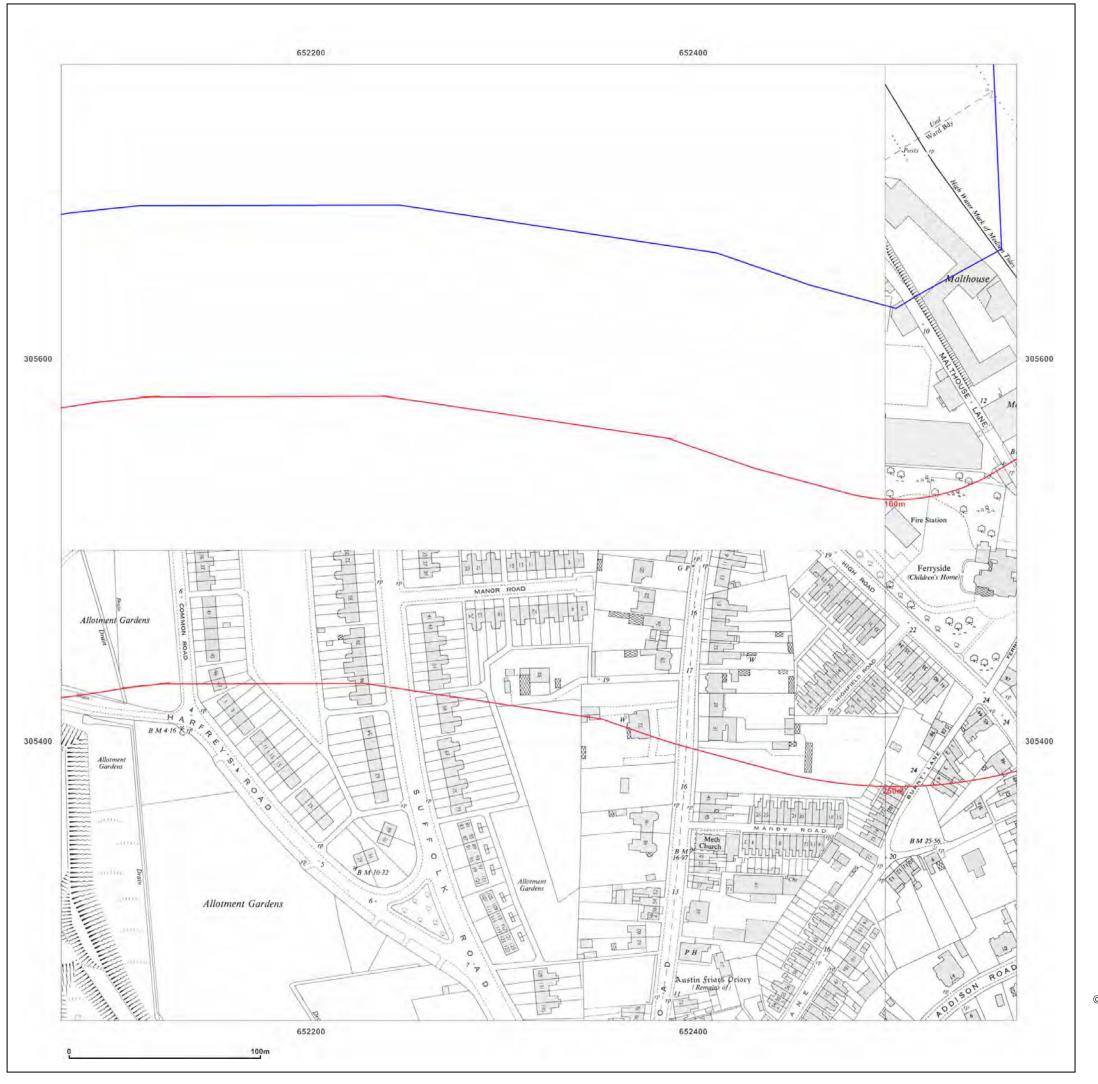




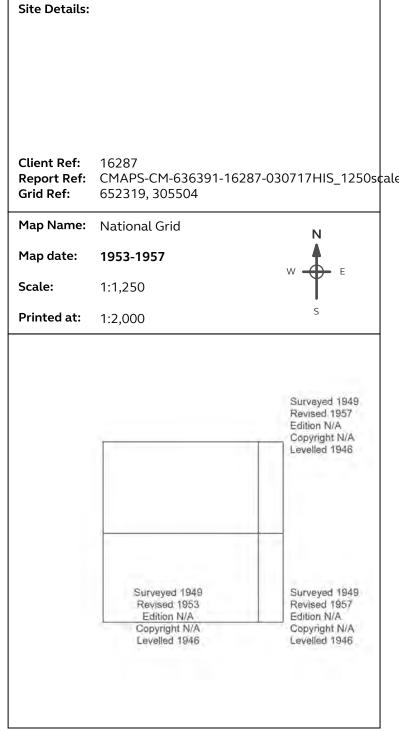
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







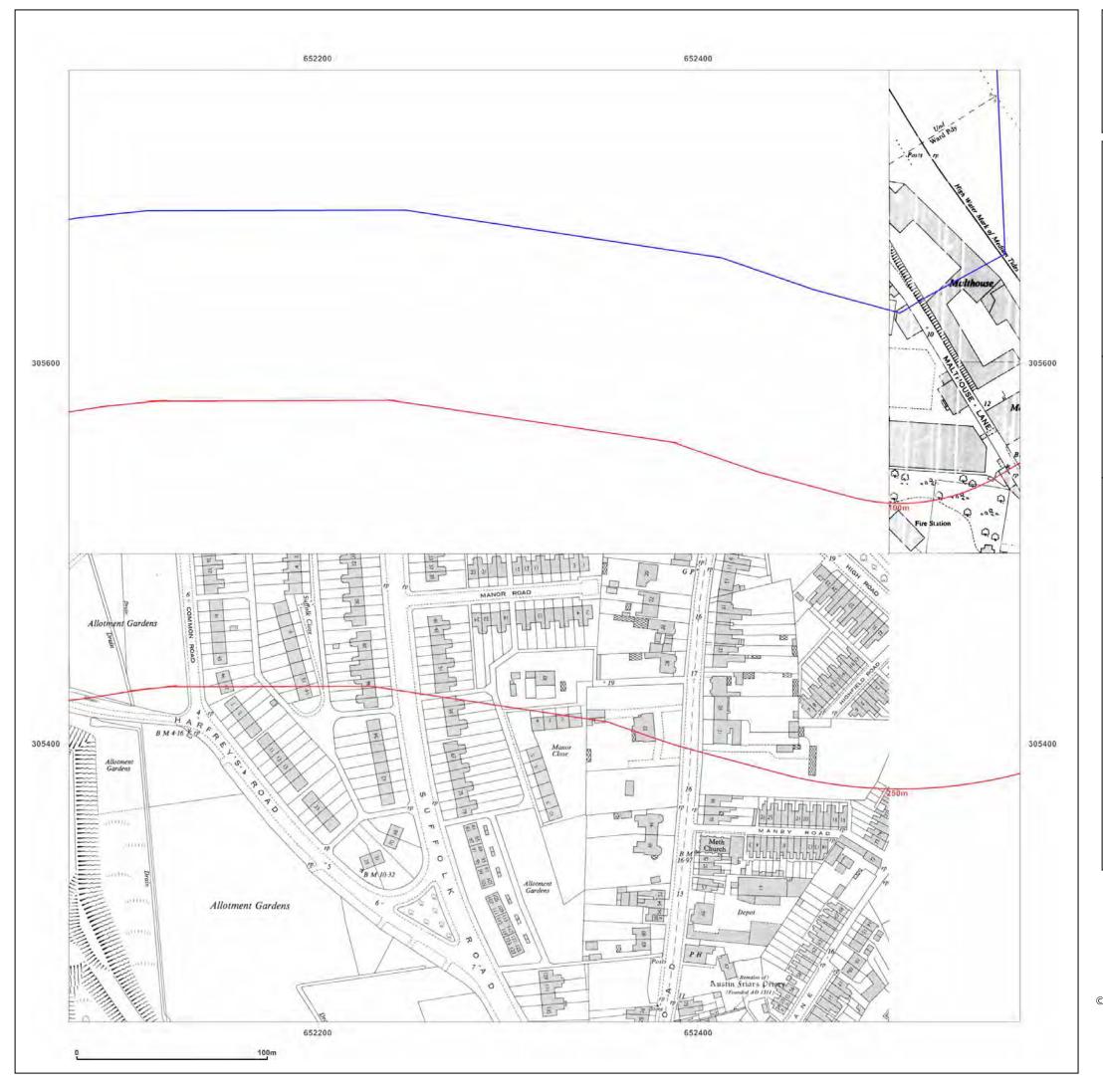




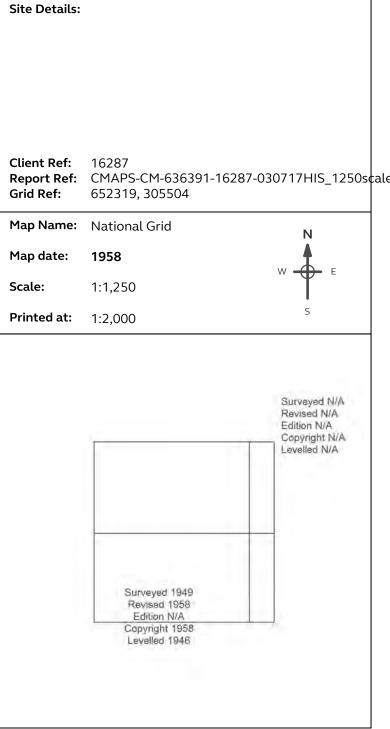
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







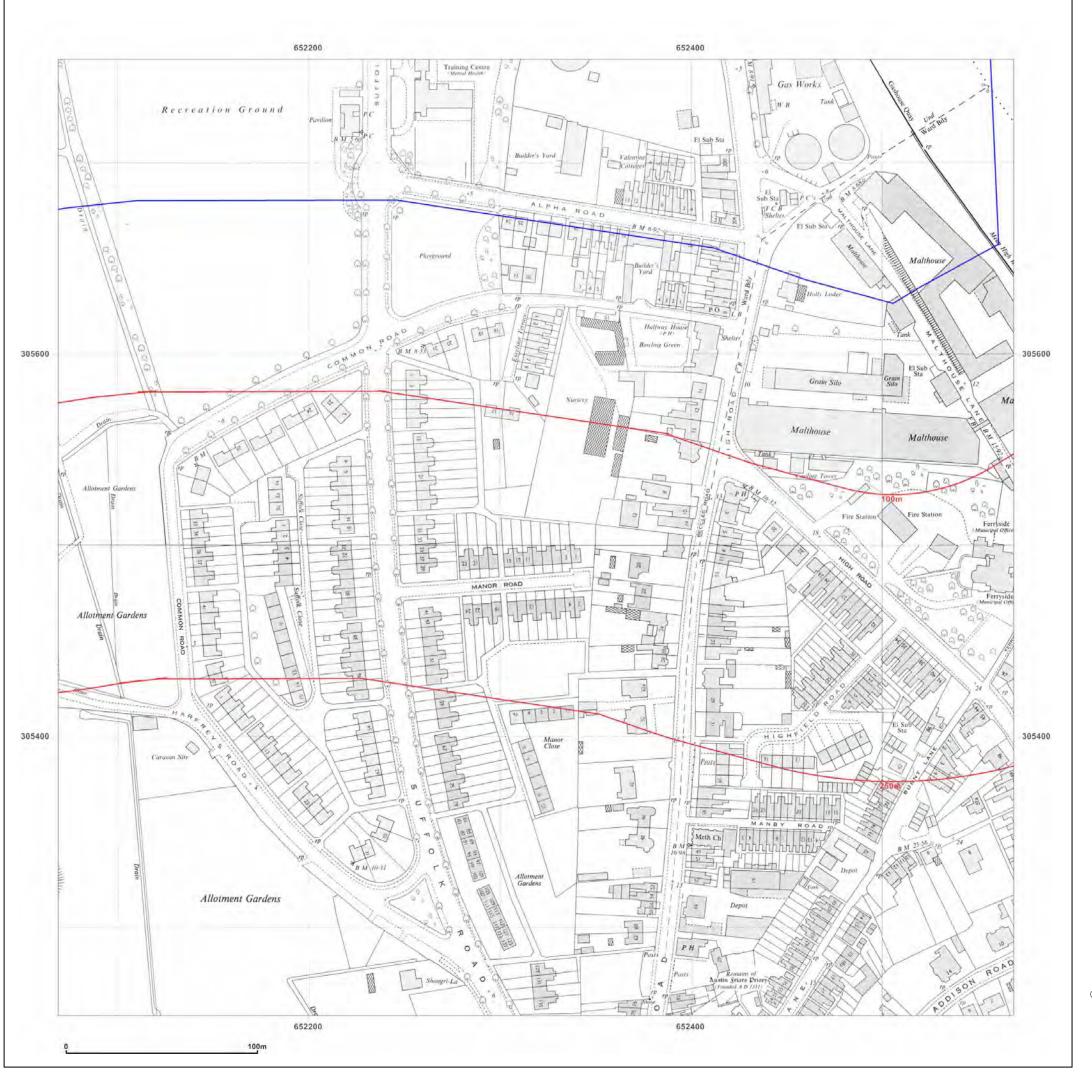




Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details: Client Ref: 16287 Report Ref: CMAPS-CM-636391-16287-030717HIS_1250scale 652319, 305504 **Grid Ref:** Map Name: National Grid 1967-1968 Map date: 1:1,250 Scale: **Printed at:** 1:2,000 Surveyed 1949 Revised 1966 Surveyed 1949 Revised 1967 Edition N/A Edition N/A Copyright 1967 Copyright 1968 Levelled 1958 Levelled 1958 Surveyed 1967 Revised 1967 Surveyed 1949 Revised 1966 Edition N/A Edition N/A Copyright 1967 Levelled 1958 Copyright 1968 Levelled 1958



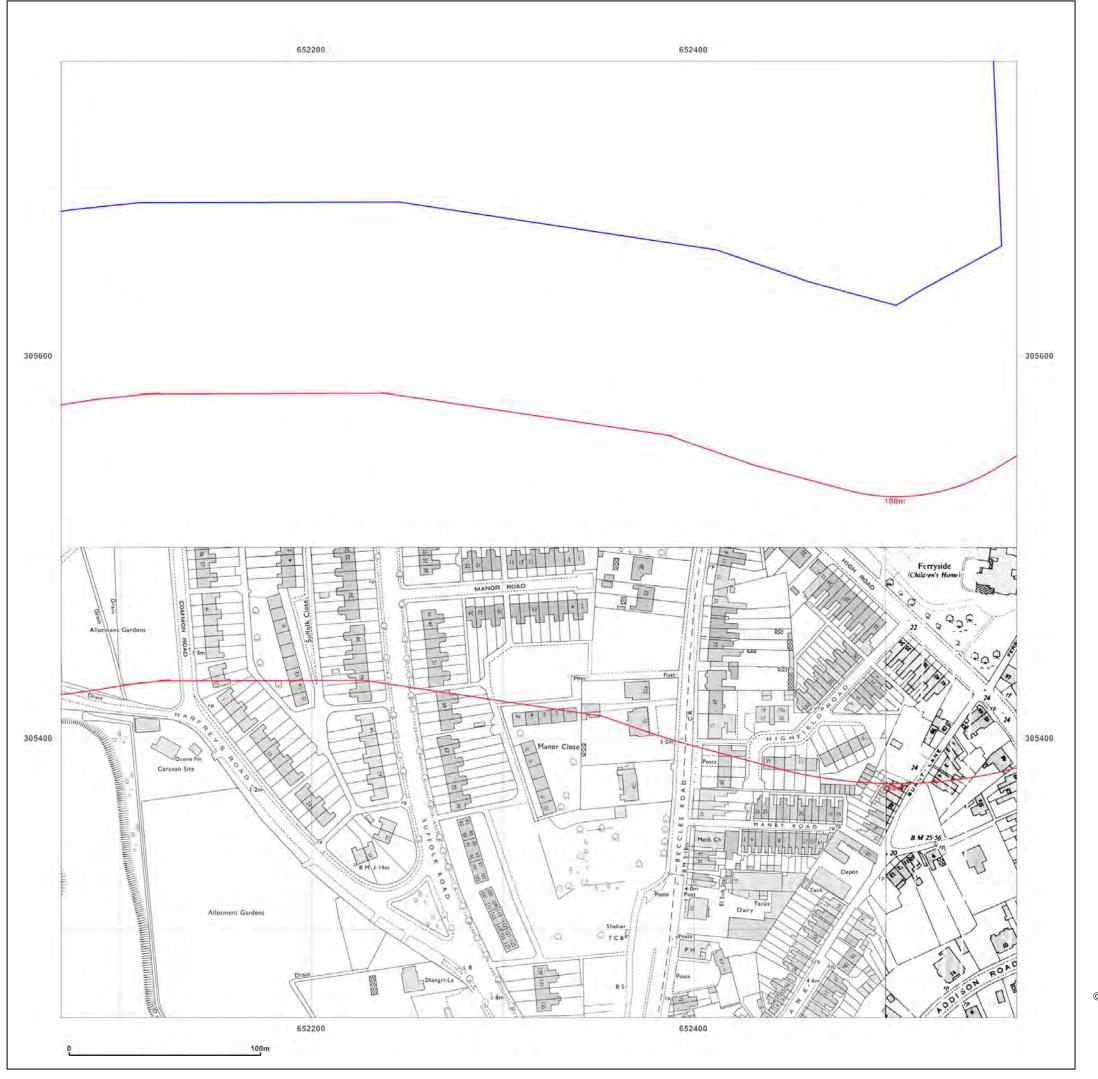
Produced by Groundsure Insights www.groundsure.com



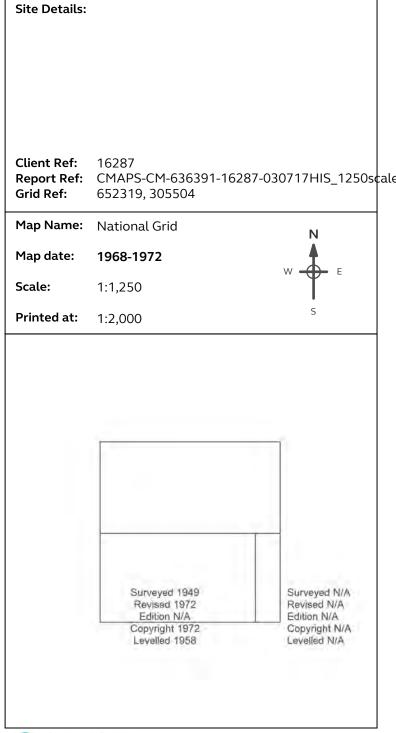
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:

Client Ref: 16287

Report Ref: CMAPS-CM-636391-16287-030717HIS_1250scale

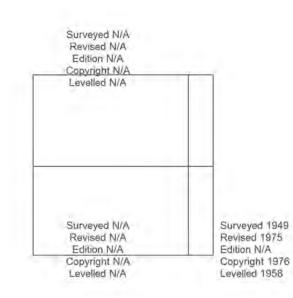
Grid Ref: 652319, 305504

Map Name: National Grid

Map date: 1975-1977

Scale: 1:1,250

Printed at: 1:2,000





Produced by Groundsure Insights www.groundsure.com



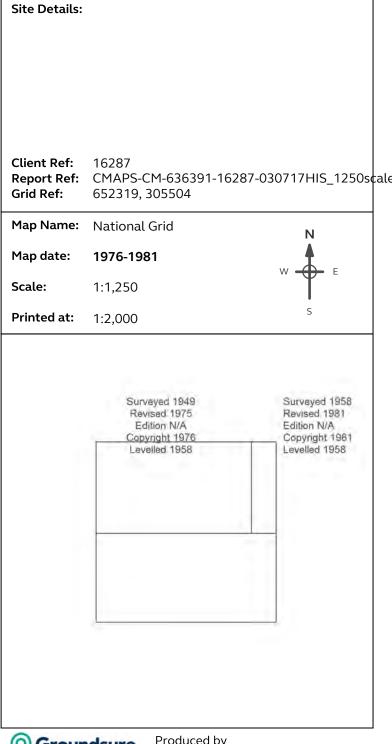
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







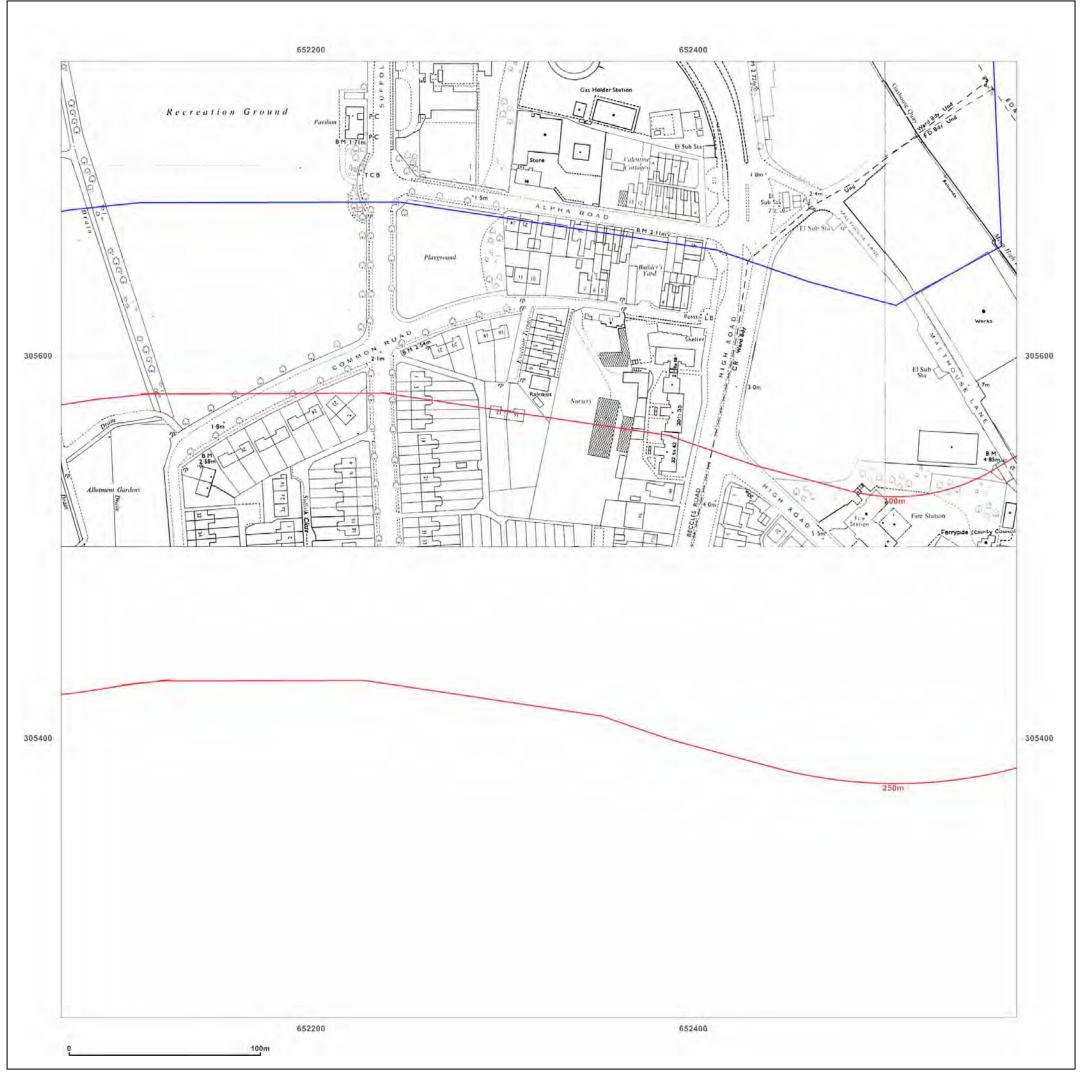




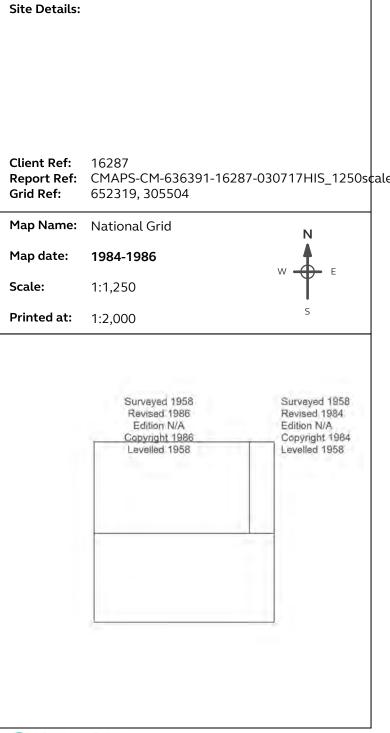
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







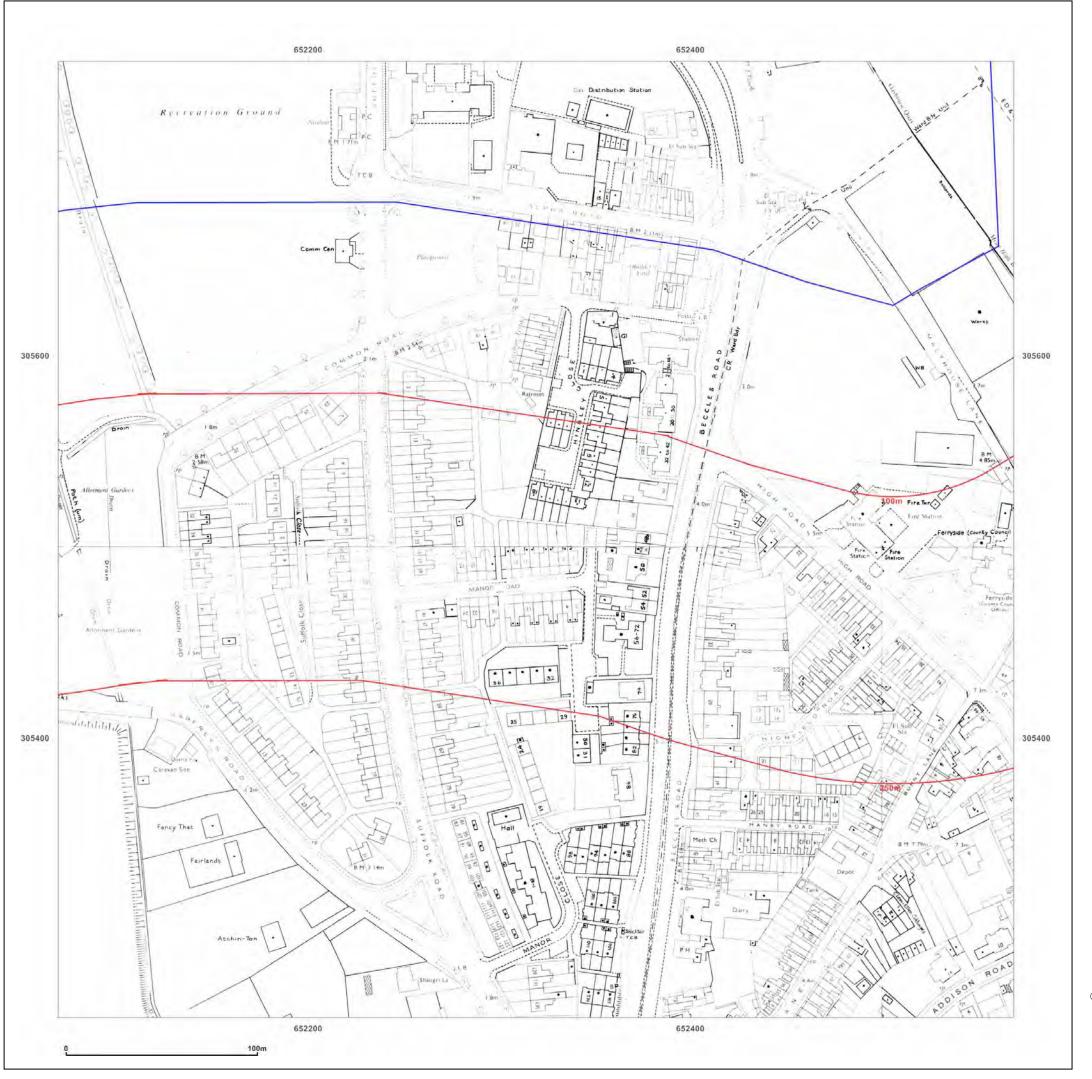




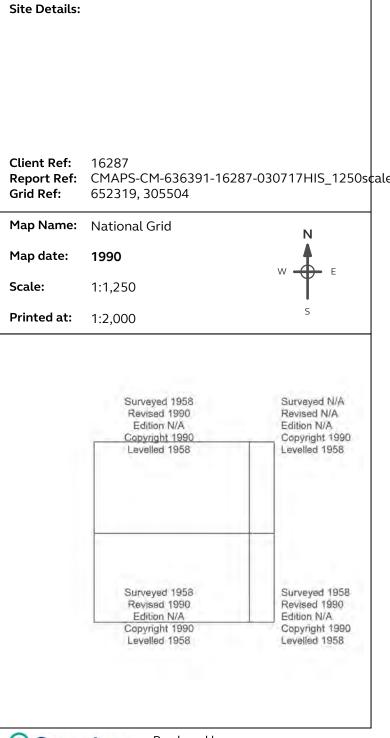
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







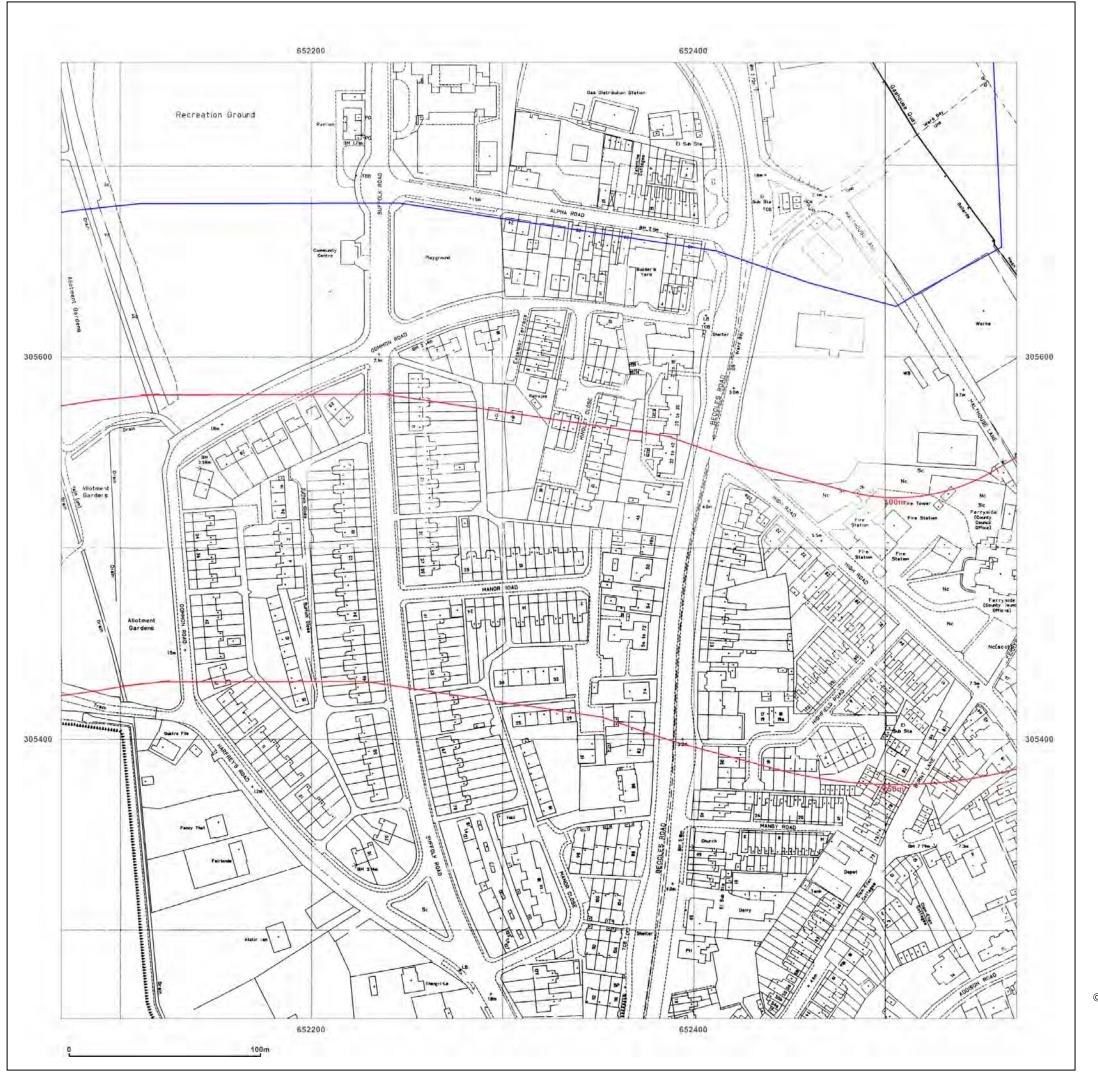




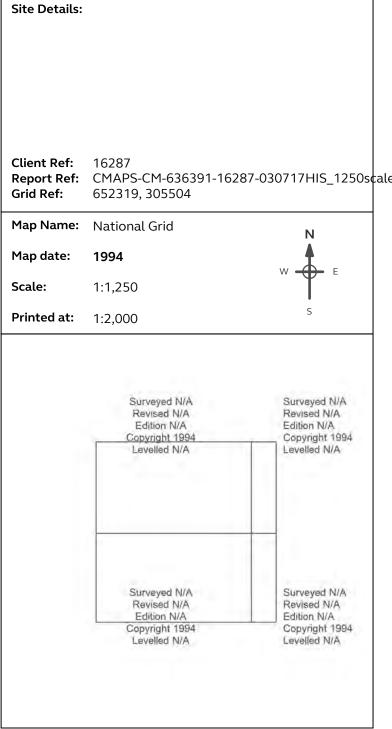
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:

Client Ref: 16287

Report Ref: CMAPS-CM-636391-16287-030717HIS_1250scale

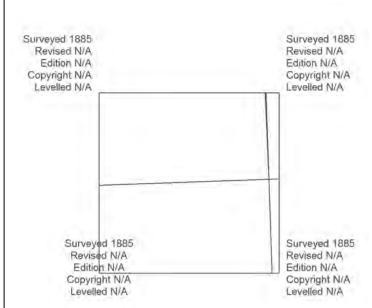
Grid Ref: 652319, 306004

Map Name: County Series Town Plan

Map date: 1885

Scale: 1:500

Printed at: 1:1,000





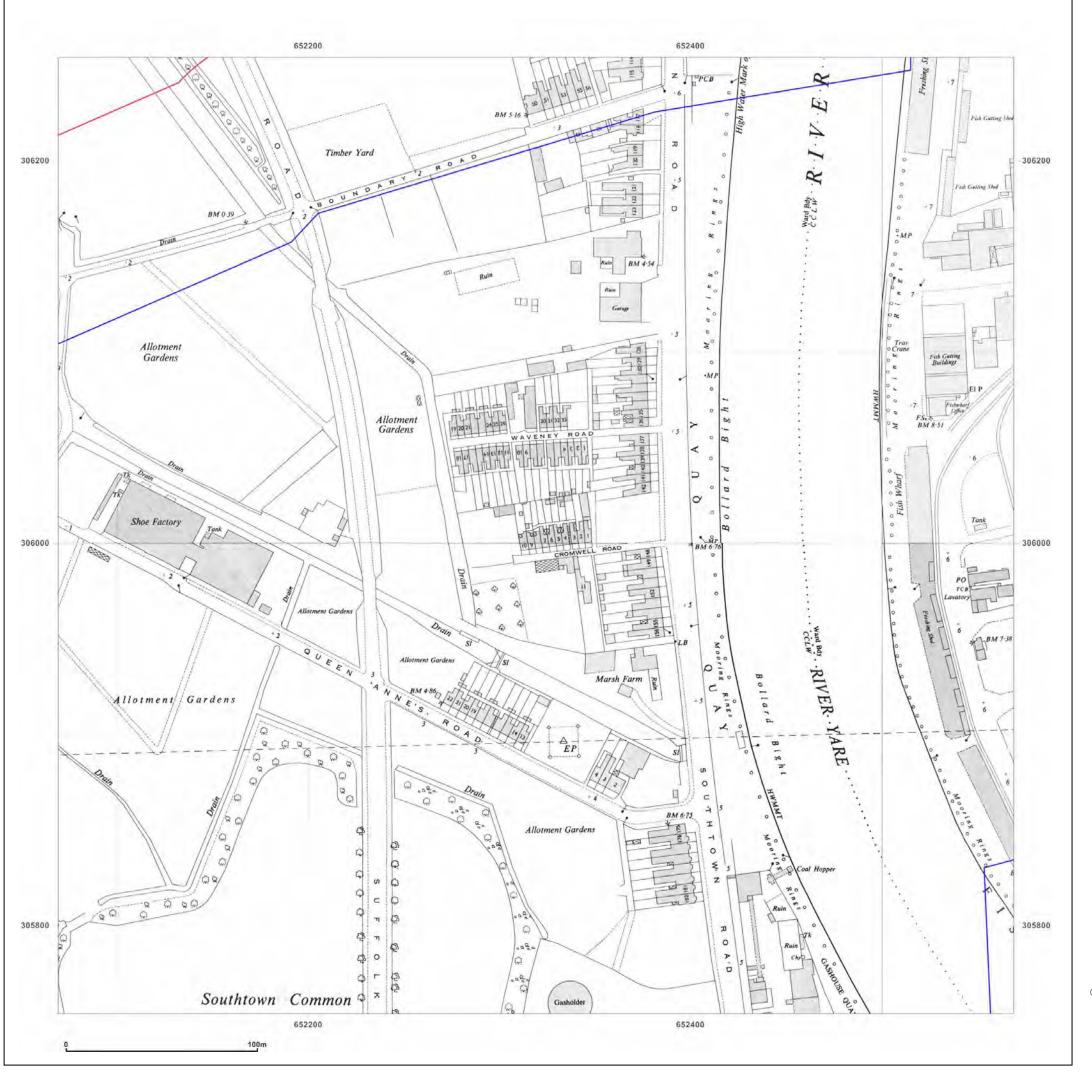
Produced by Groundsure Insights www.groundsure.com



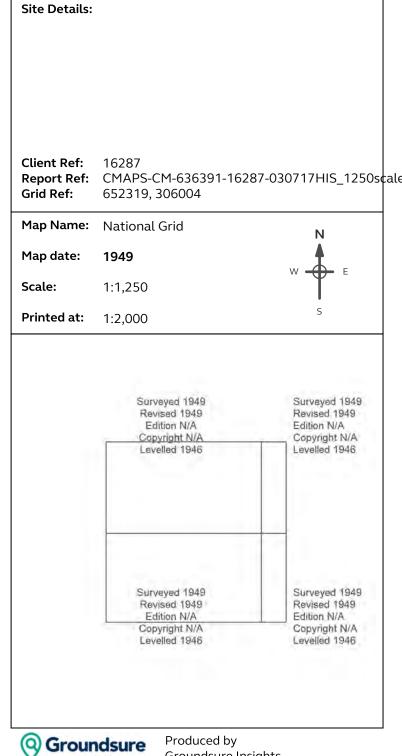
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017









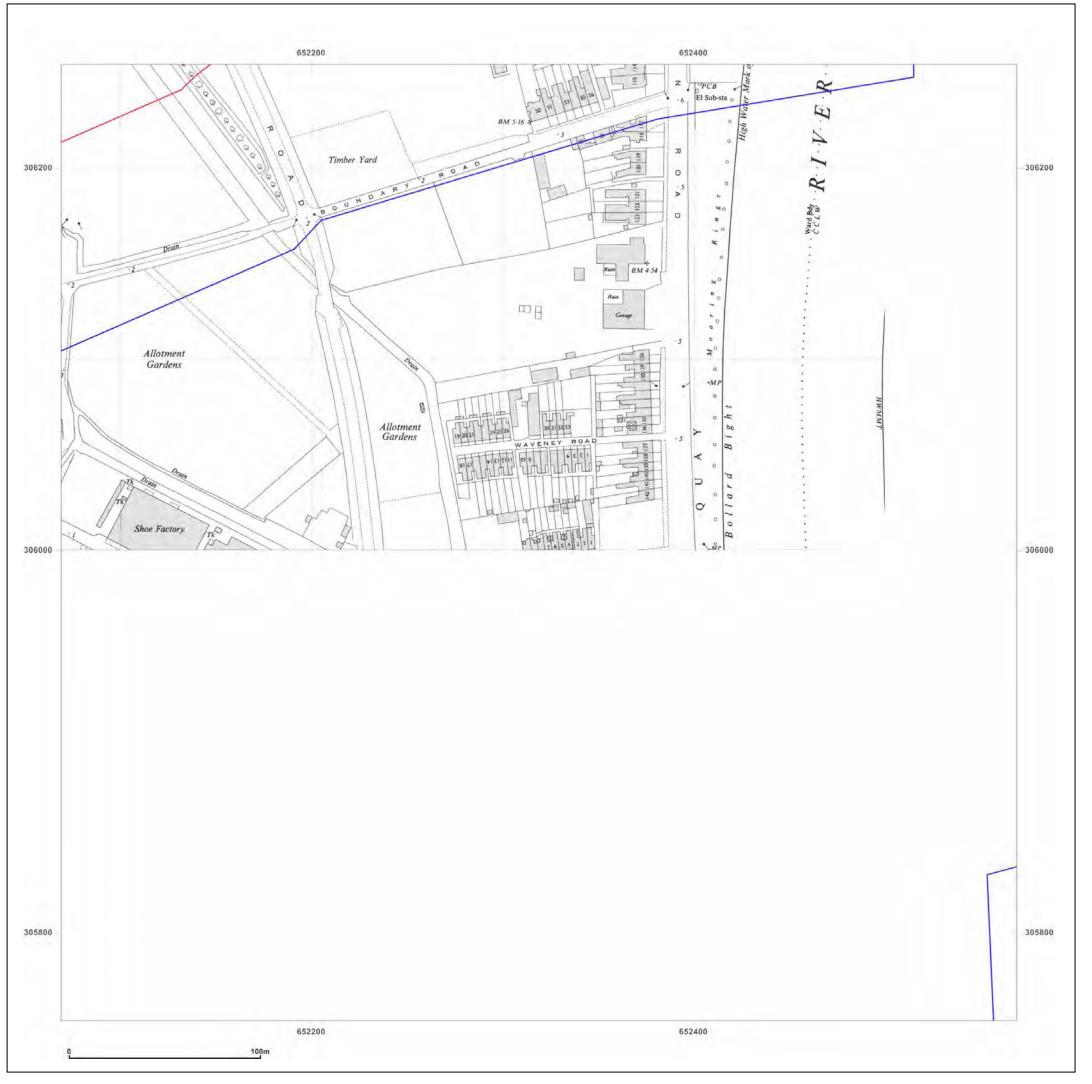
Groundsure Insights www.groundsure.com



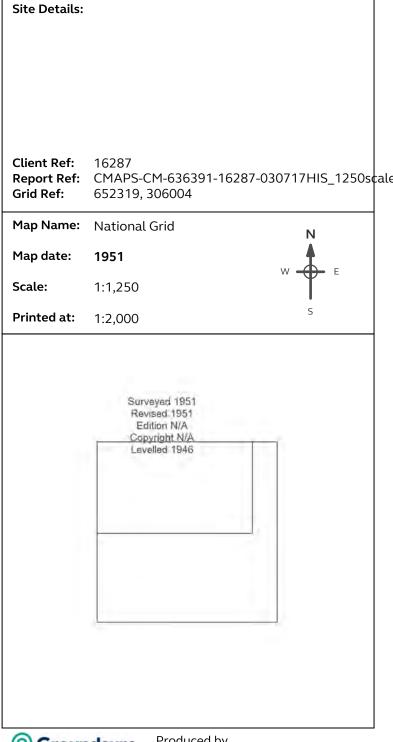
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







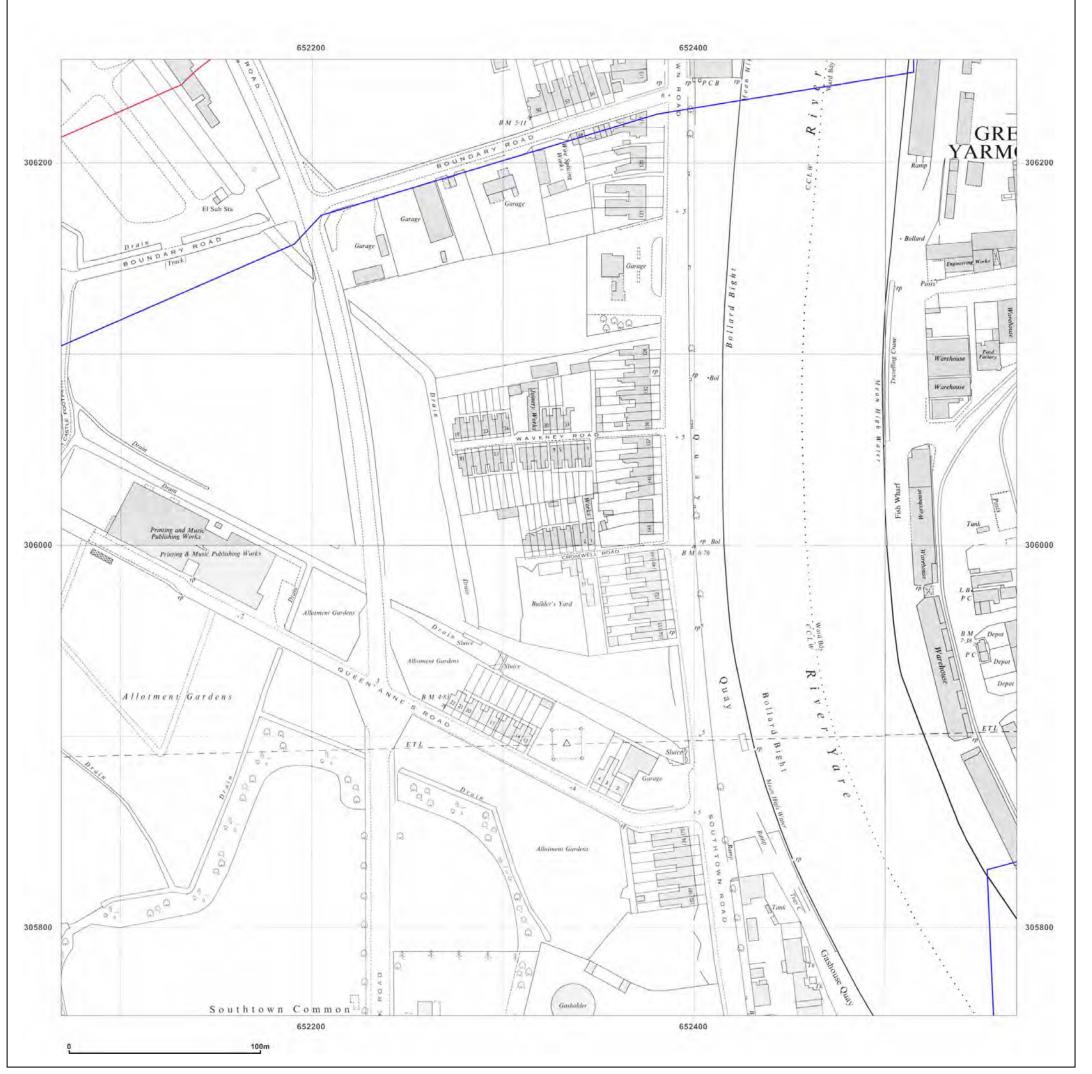




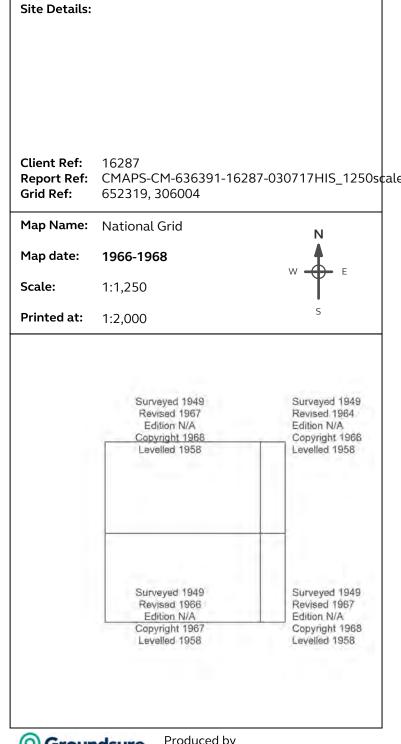
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







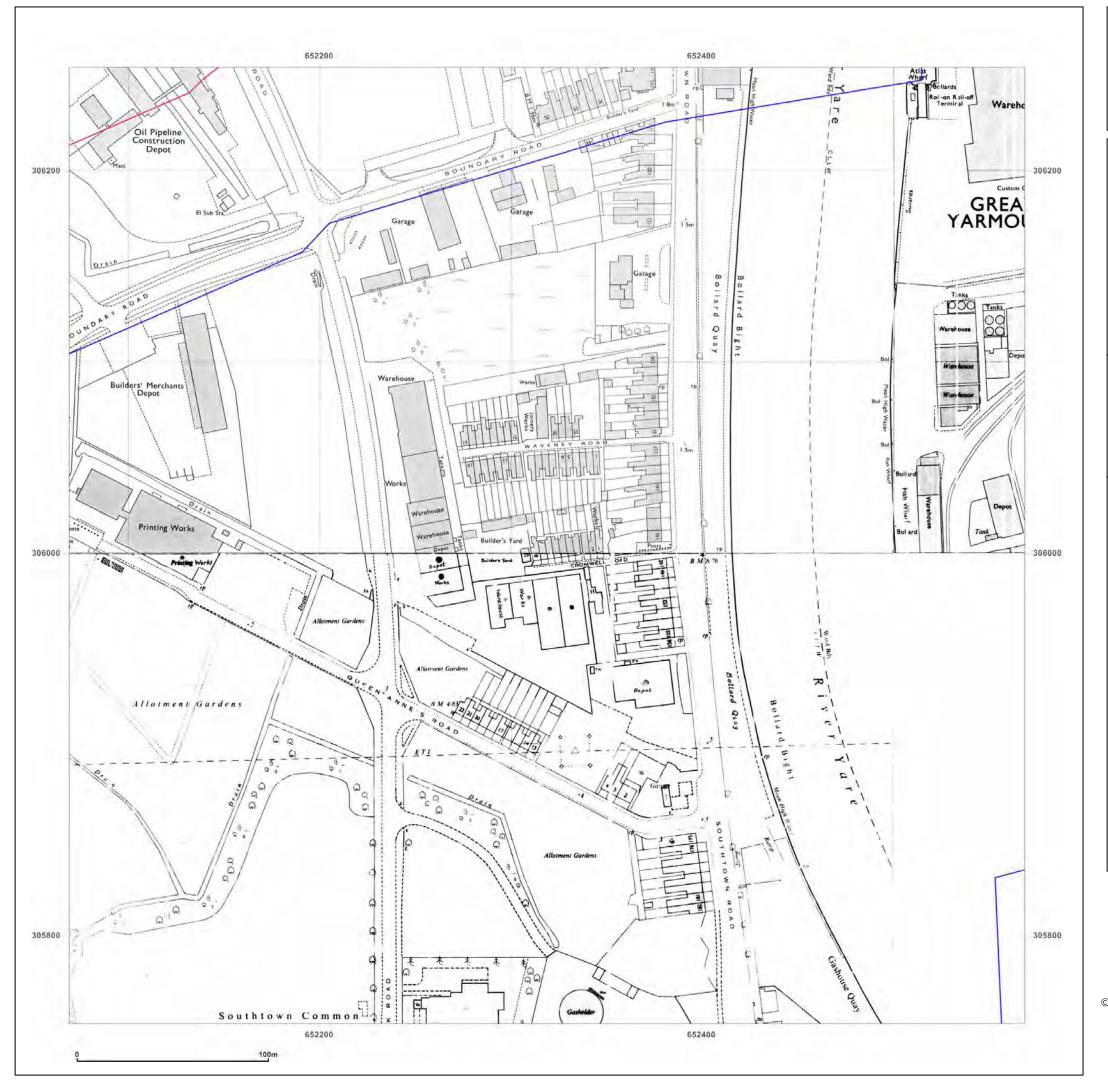




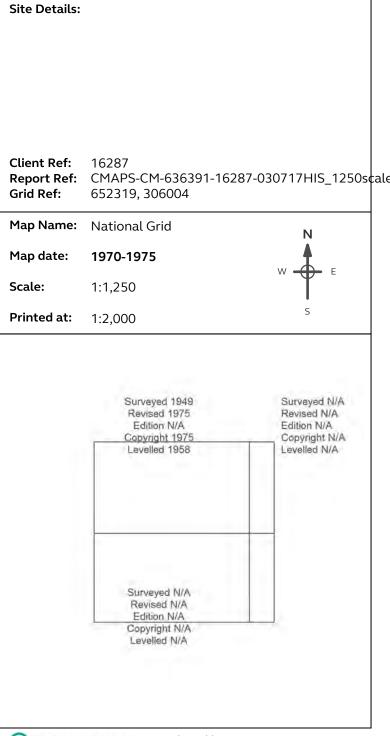
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







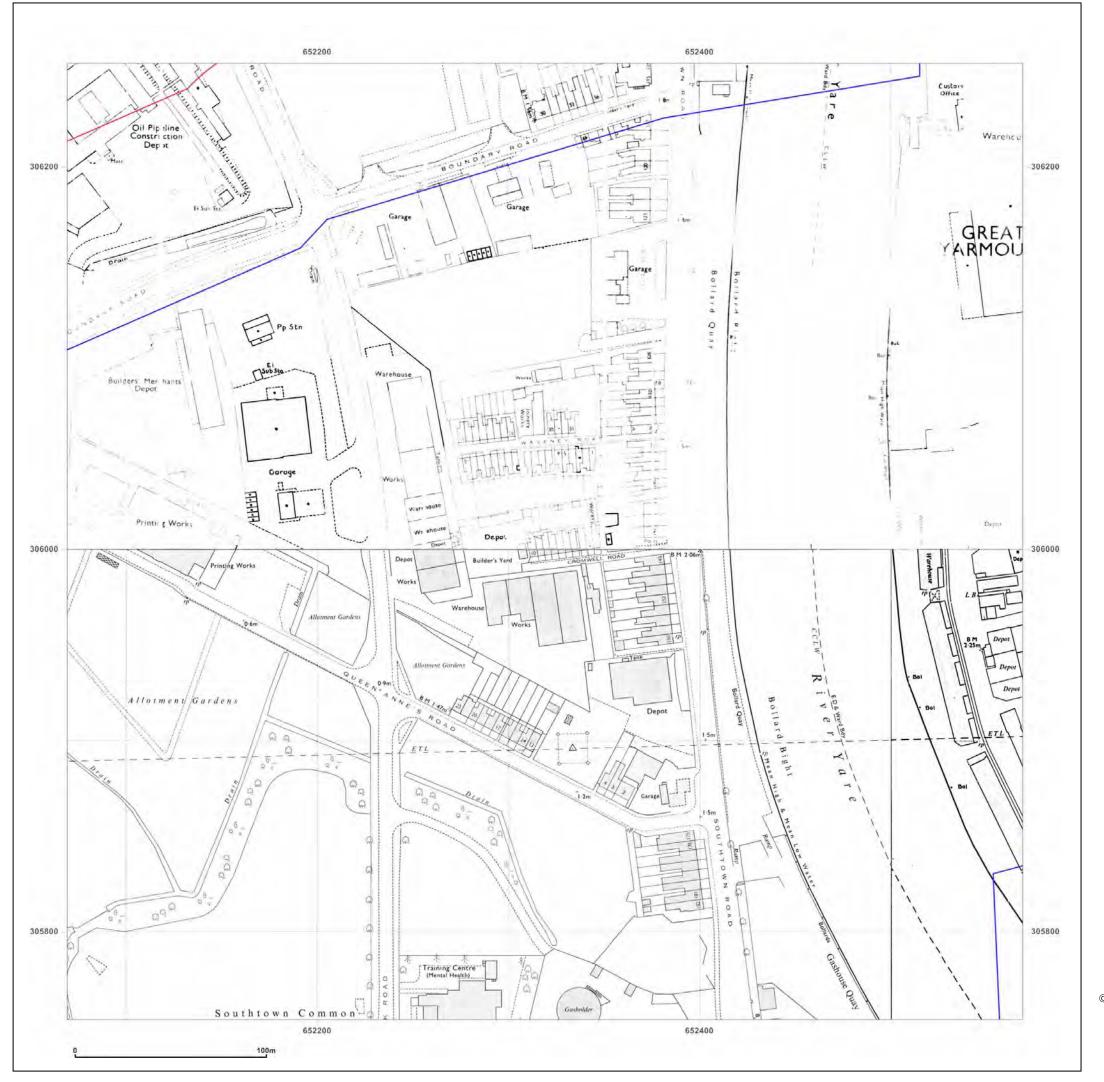




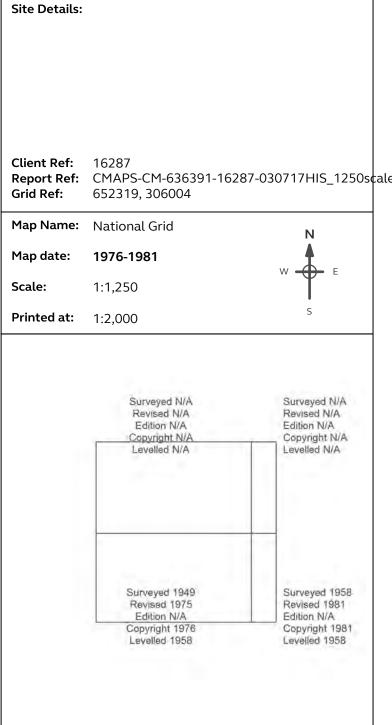
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







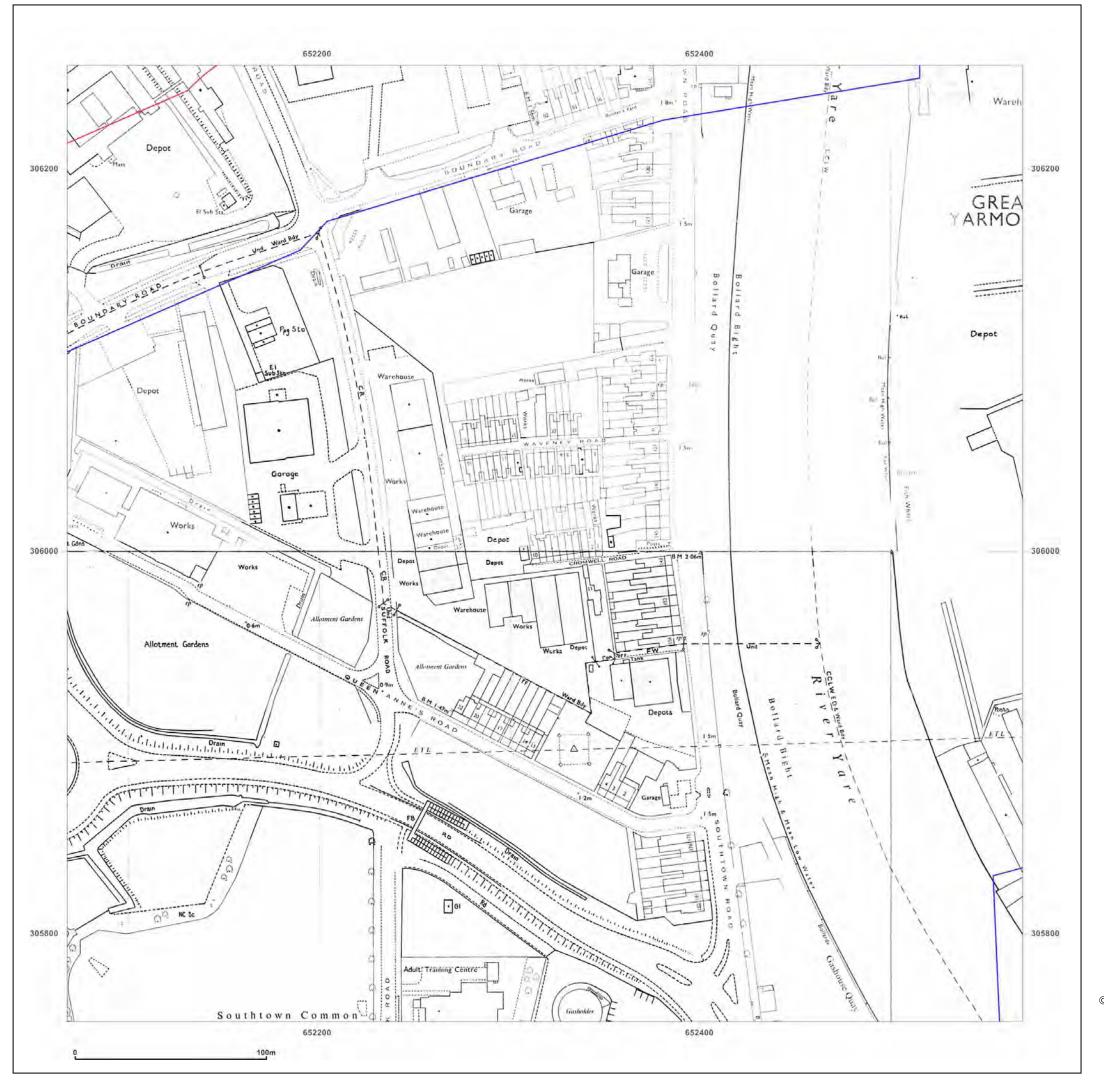




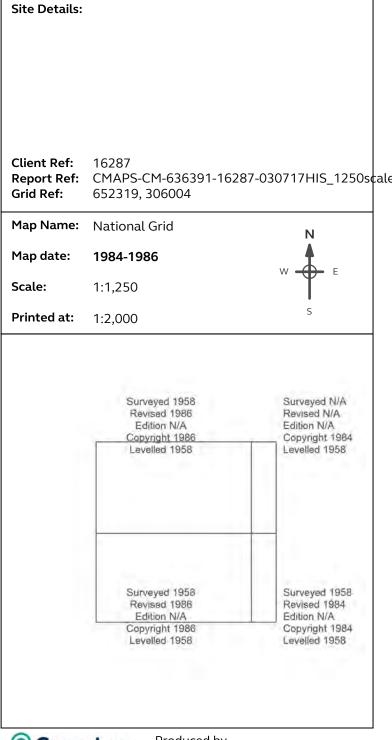
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







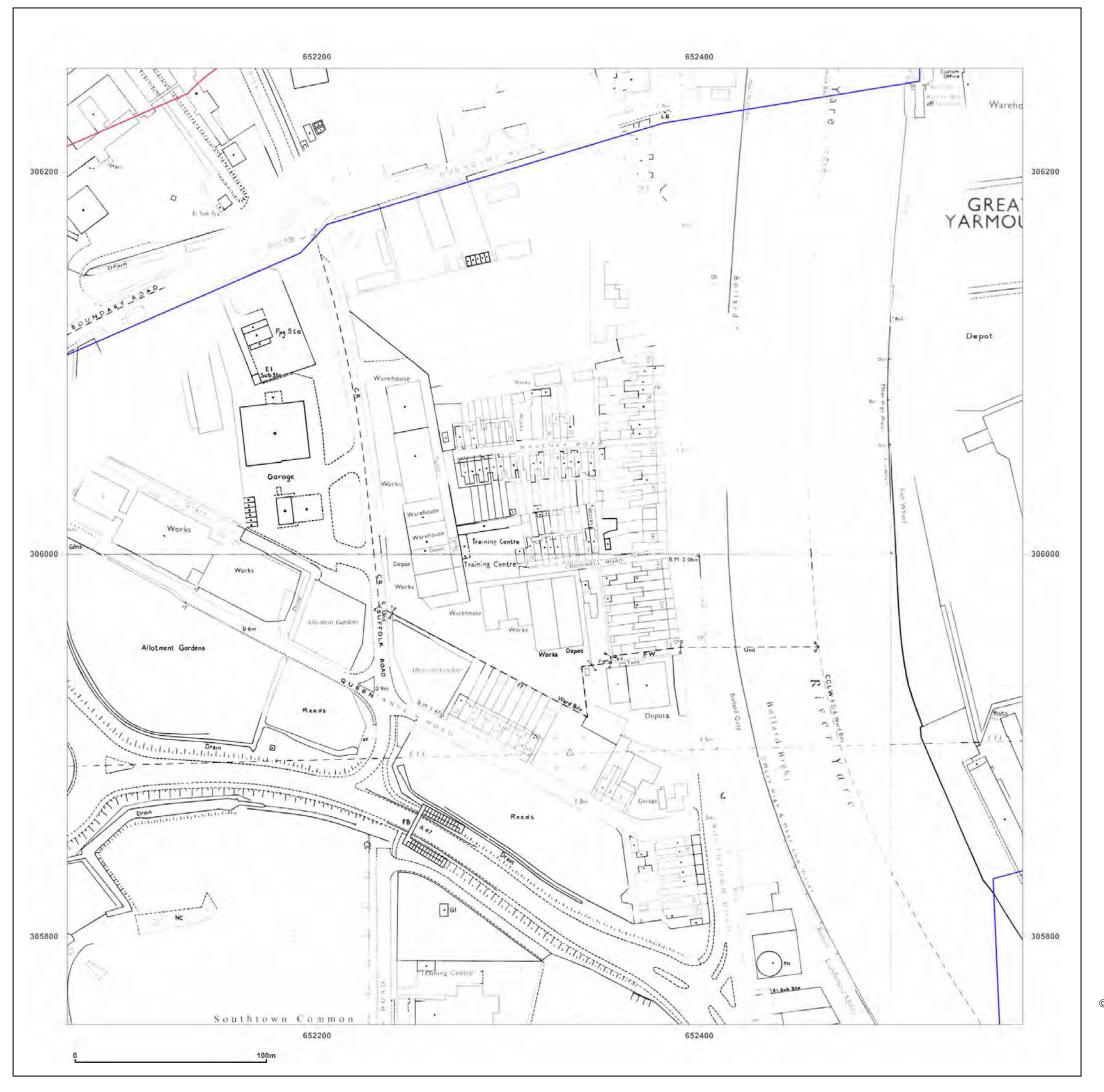




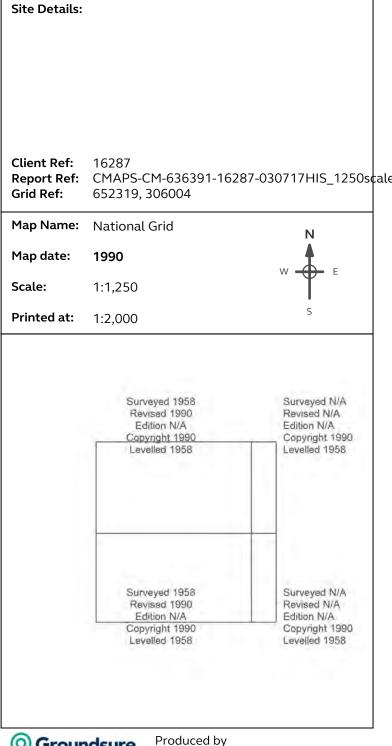
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











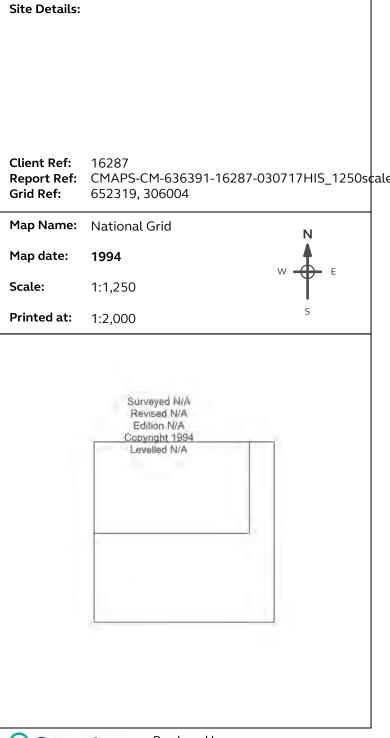
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







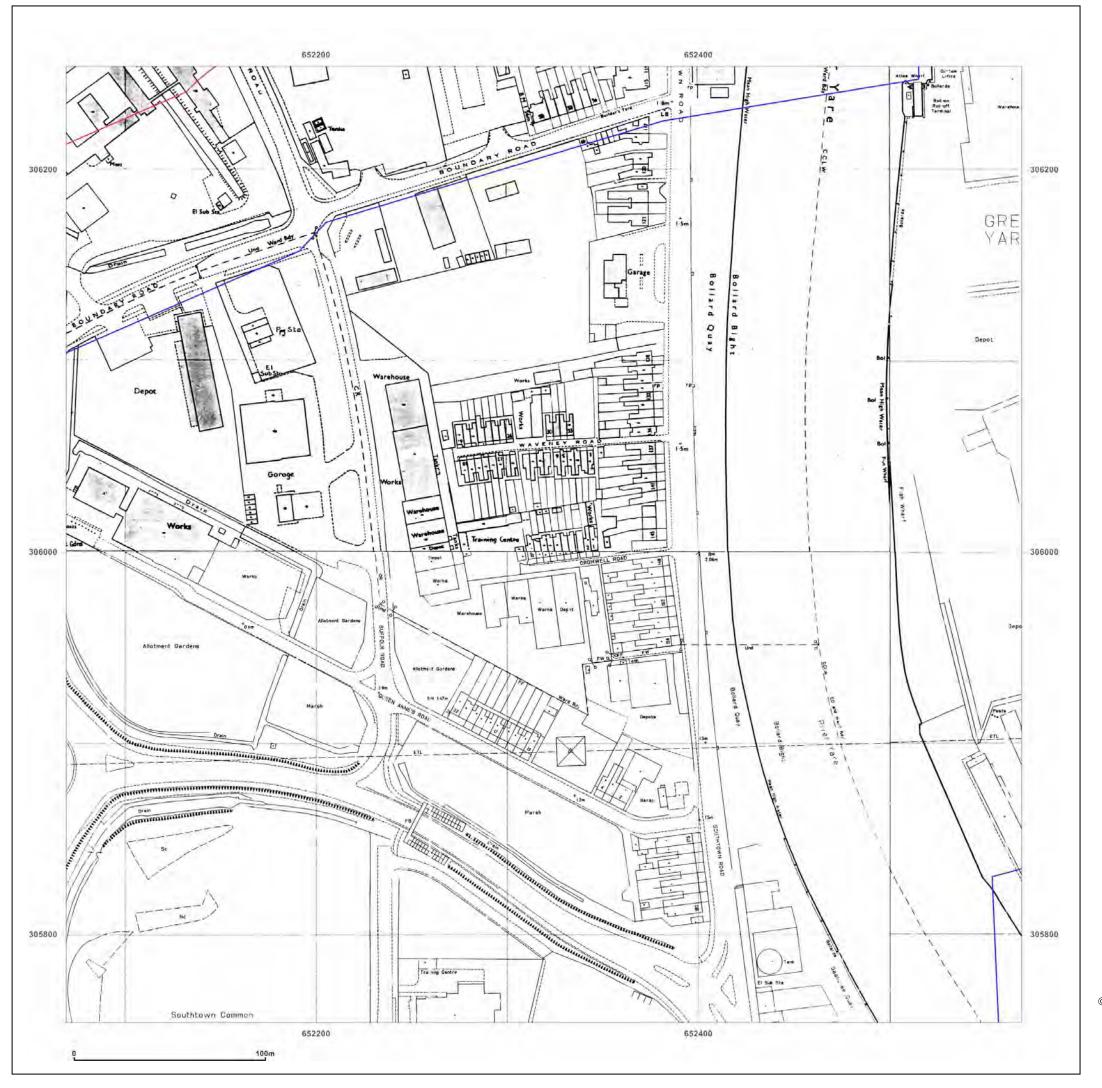




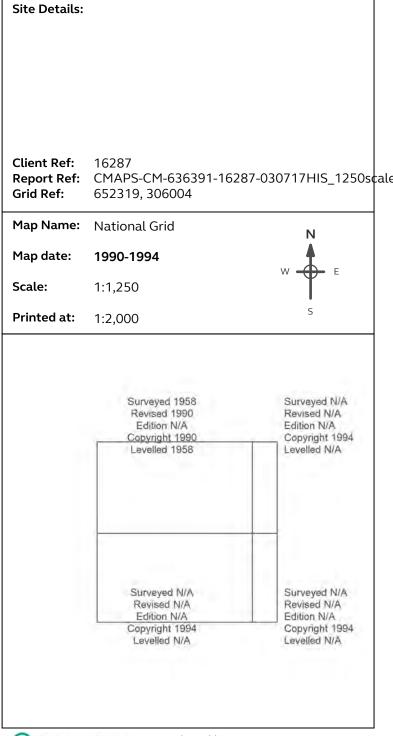
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\hbox{@}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











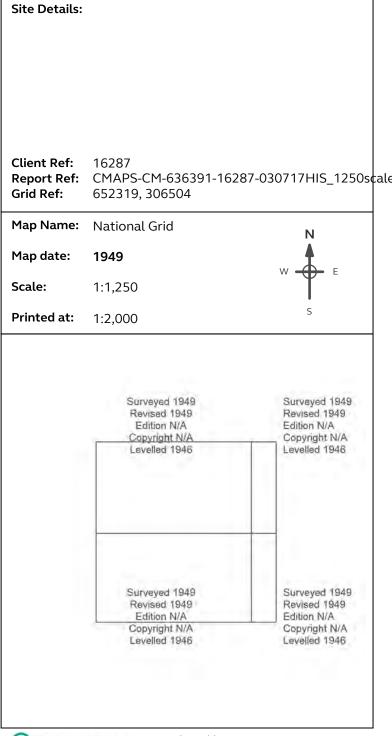
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











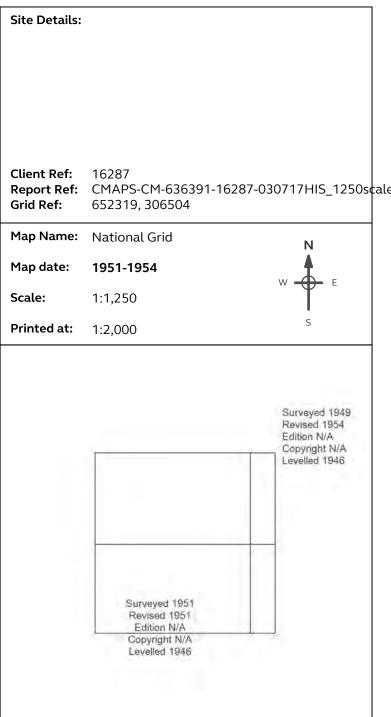
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\hbox{@}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







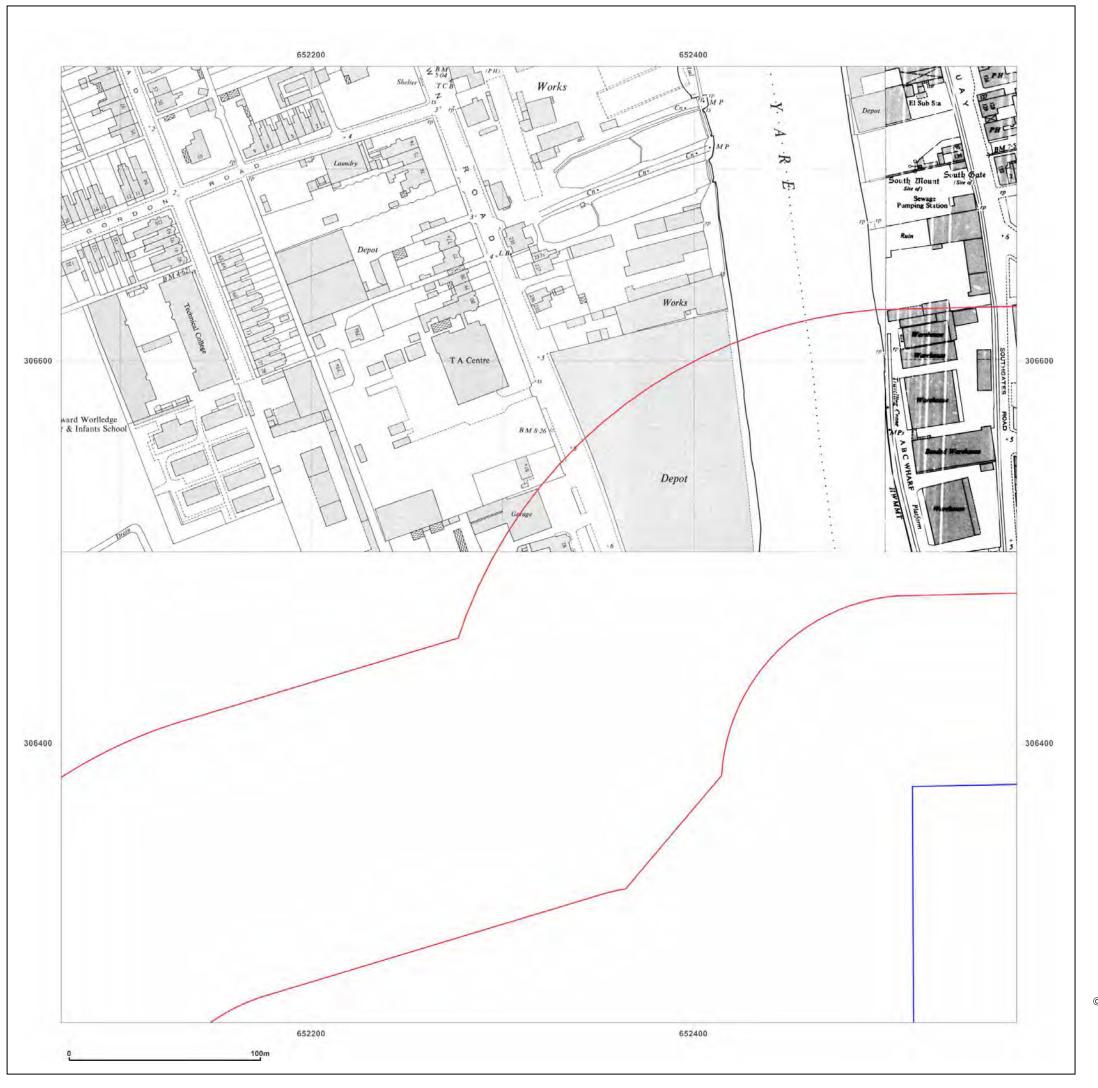




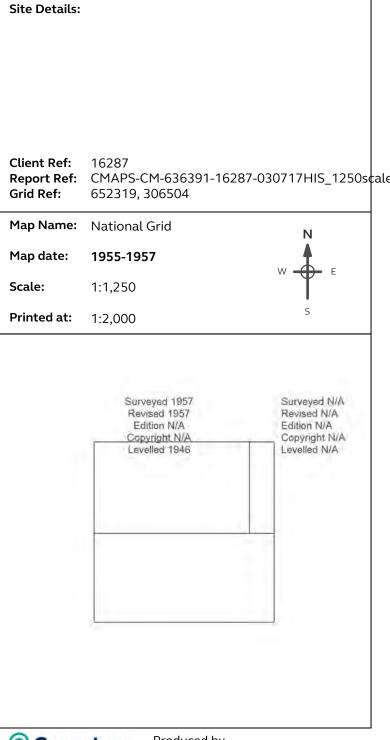
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







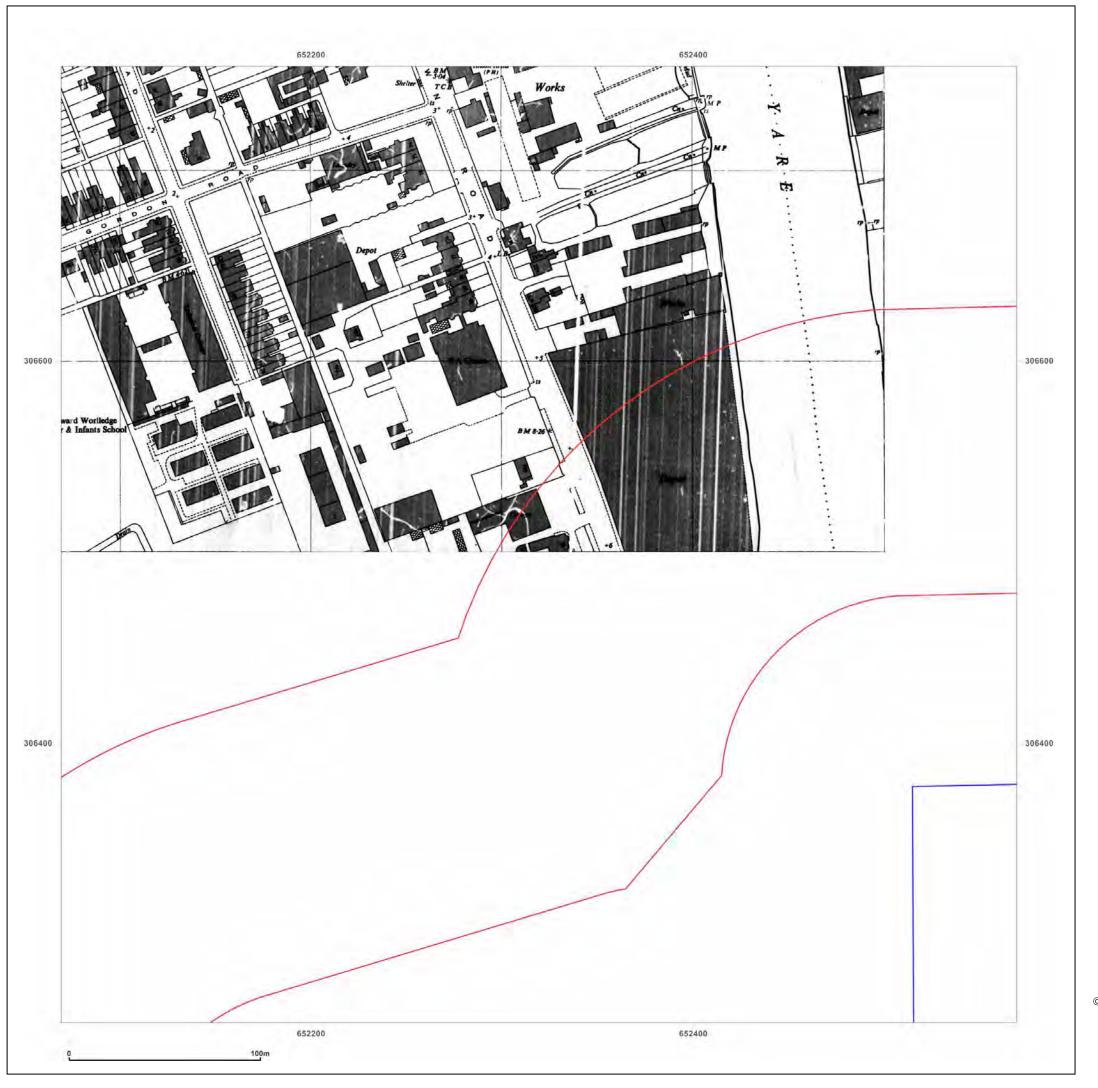




Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:	
Client Ref: Report Ref: Grid Ref:	16287 CMAPS-CM-636391-16287-030717HIS_1250s0 652319, 306504
Map Name:	National Grid N
Map date:	1958
Scale:	1:1,250
Printed at:	1:2,000
	Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A

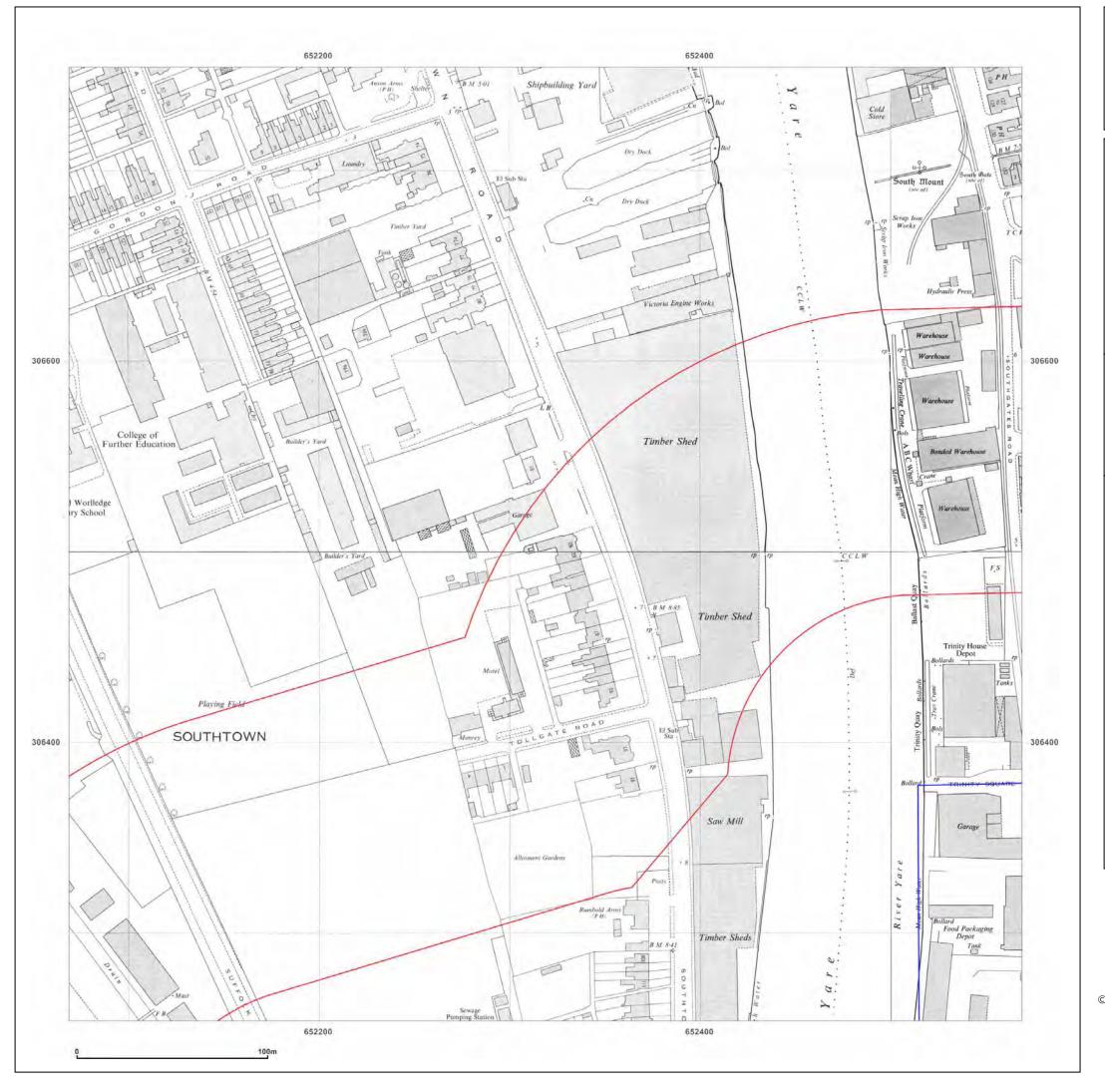




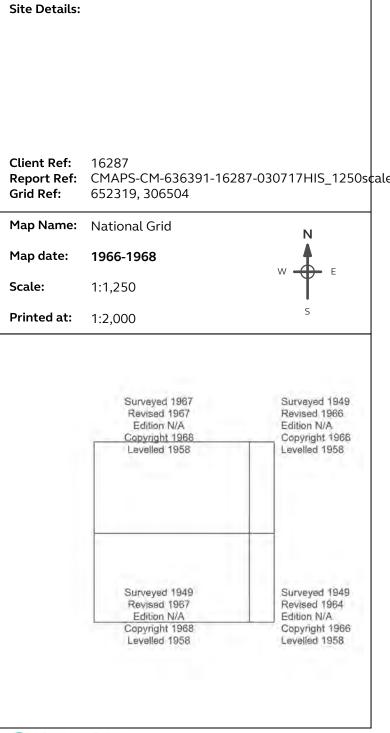
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ \, \hbox{@}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











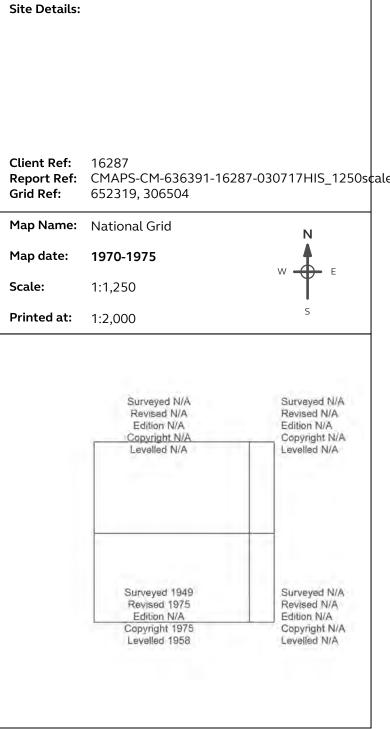
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ ^{\textcircled{\tiny 0}}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







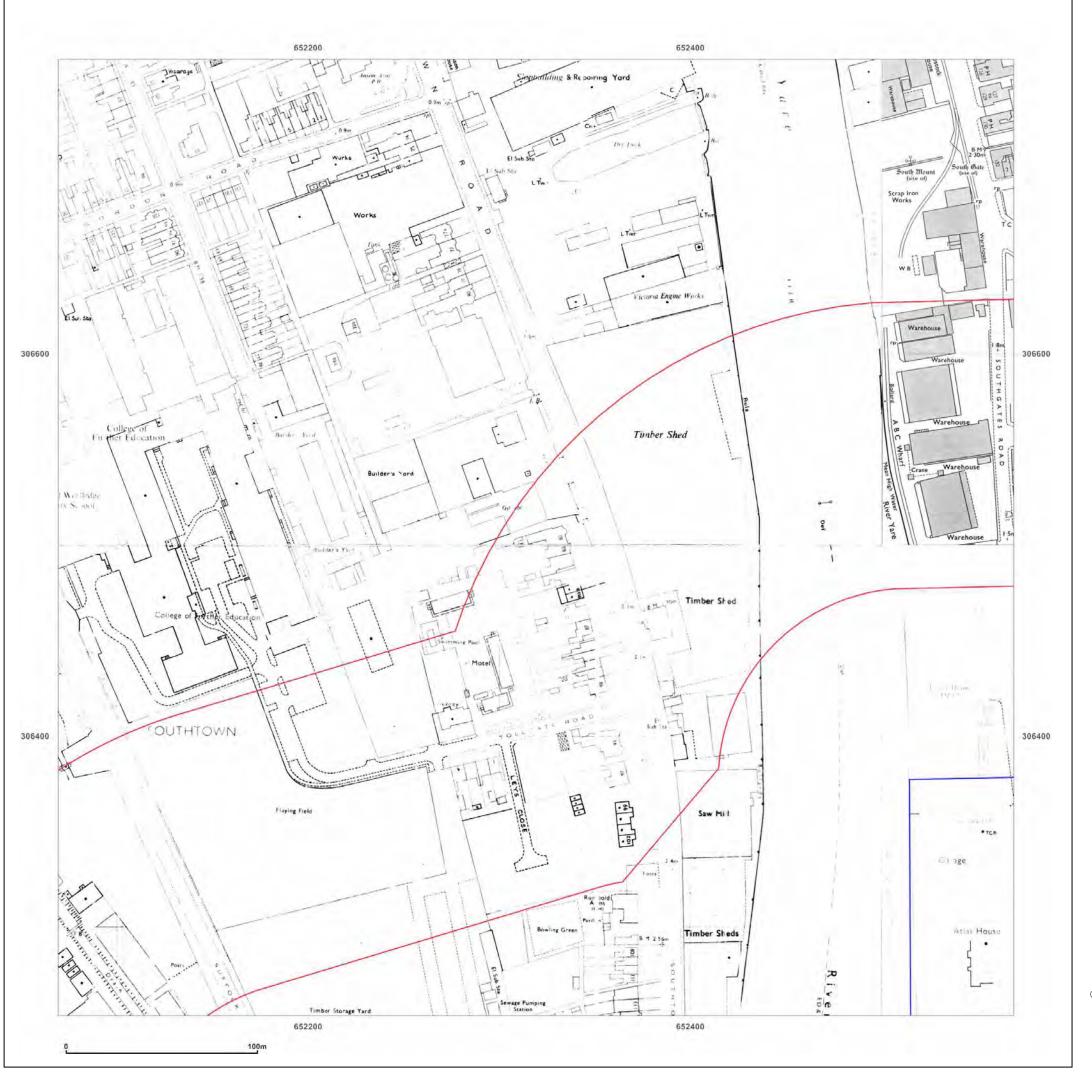




Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:

Client Ref: 16287

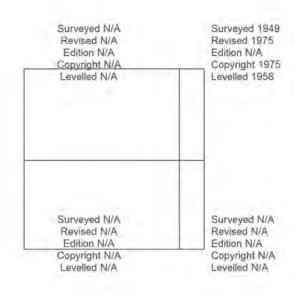
Report Ref: CMAPS-CM-636391-16287-030717HIS_1250scale 652319, 306504

Map Name: National Grid

1975-1978 Map date:

1:1,250 Scale:

Printed at: 1:2,000





Produced by Groundsure Insights www.groundsure.com



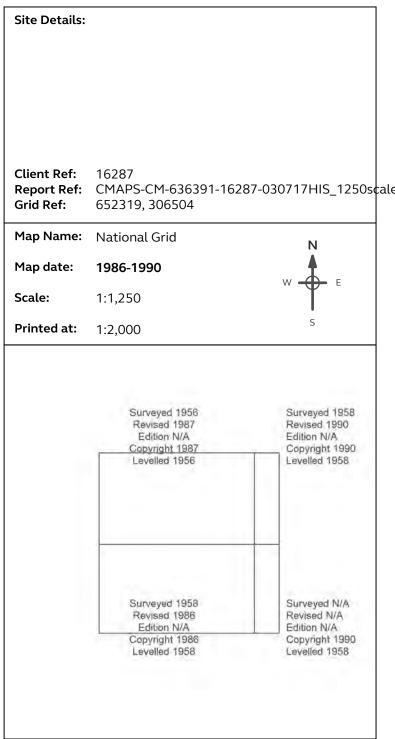
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details: Client Ref: 16287 **Report Ref:** CMAPS-CM-636391-16287-030717HIS_1250scale 652319, 306504 Map Name: National Grid Map date: 1984-1990 1:1,250 Scale: **Printed at:** 1:2,000 Surveyed 1958 Revised 1987 Surveyed N/A Revised N/A Edition N/A Edition N/A Copyright 1987 Copyright 1990 Levelled 1968 Levelled 1958 Surveyed 1958 Revised 1990 Surveyed N/A Revised N/A Edition N/A Edition N/A Copyright 1984 Levelled 1958 Copyright 1990 Levelled 1958



Produced by Groundsure Insights www.groundsure.com



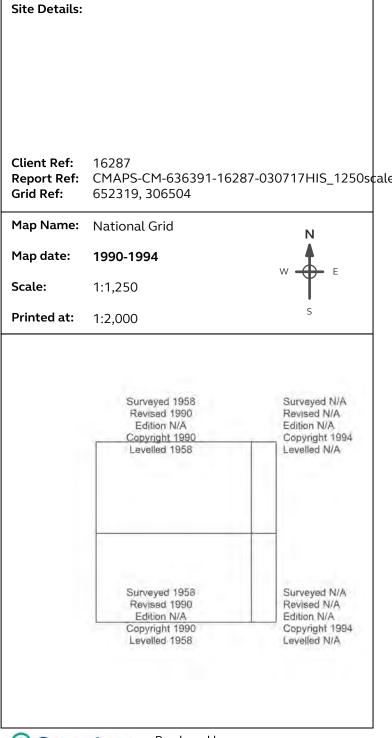
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ ^{\textcircled{\tiny 0}}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











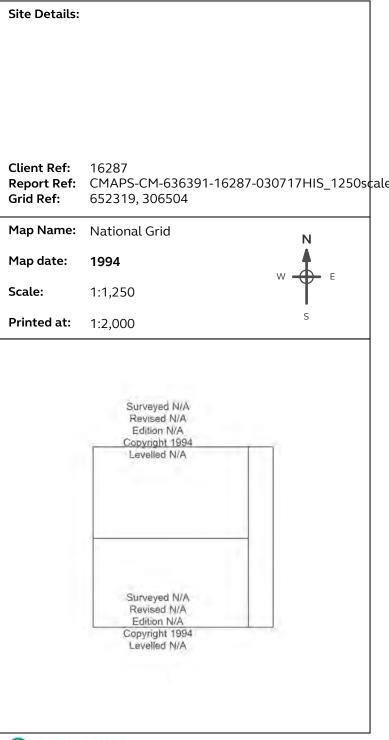
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







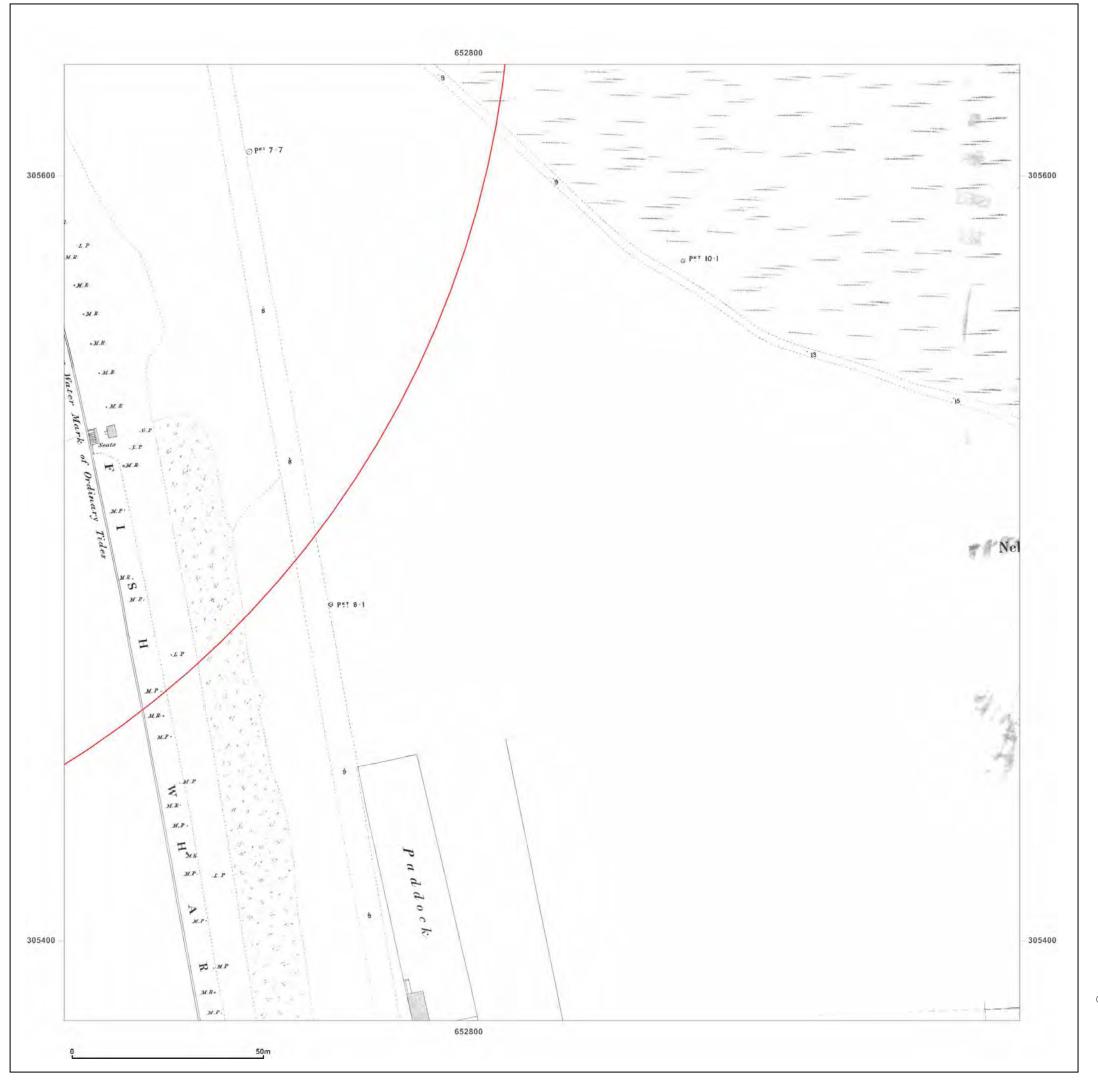




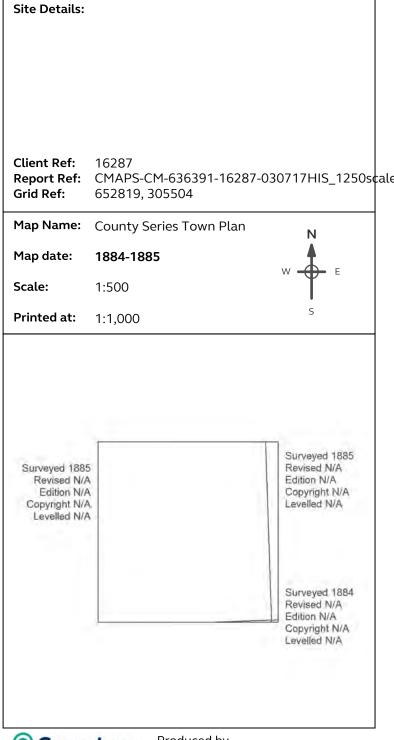
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











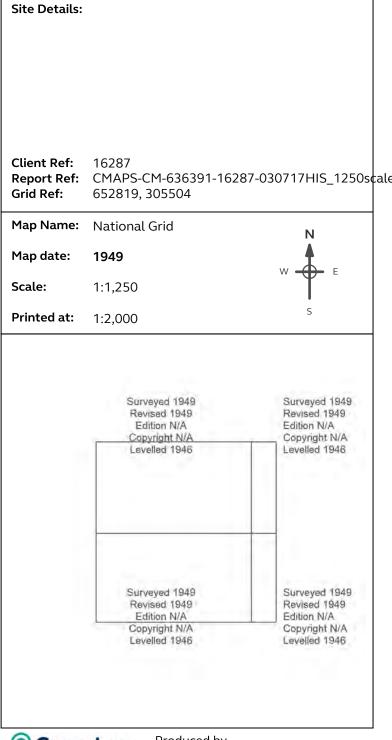
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











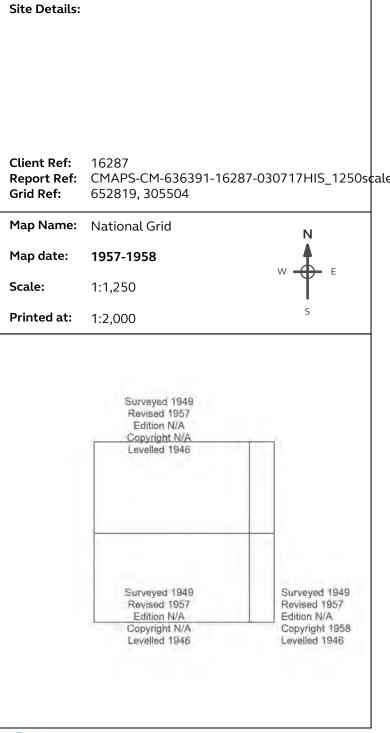
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:	
Client Ref: Report Ref: Grid Ref:	16287 CMAPS-CM-636391-16287-030717HIS_1250sc 652819, 305504
Map Name:	National Grid N
Map date:	1958
Scale:	1:1,250
Printed at:	1:2,000
	Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A





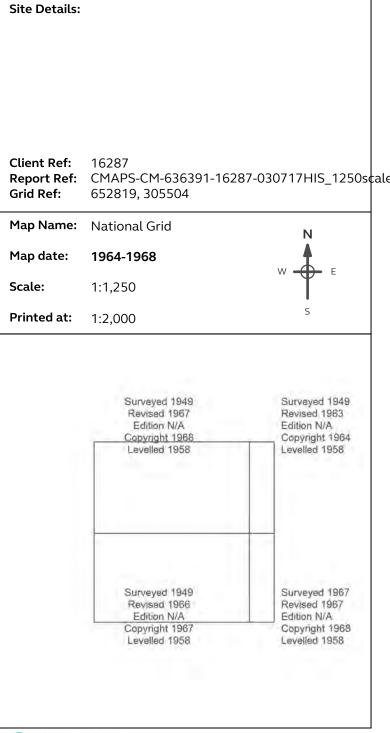
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











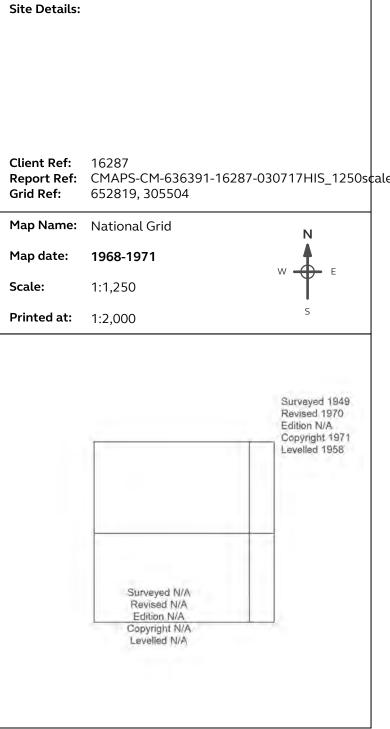
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











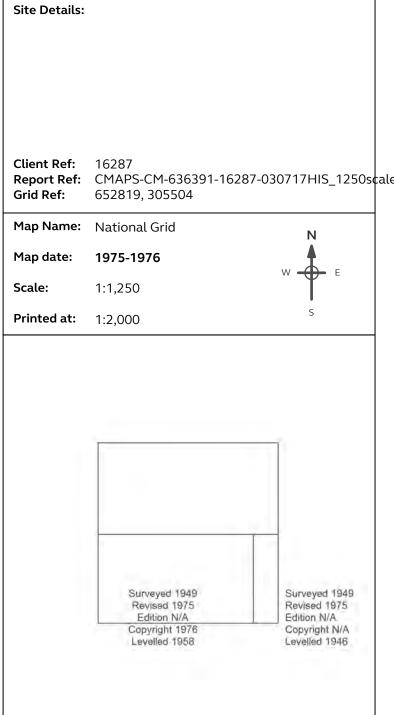
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:	
Client Ref: Report Ref: Grid Ref:	
Map Name:	National Grid N
Map date:	1981
Scale:	1:1,250
Printed at:	1:2,000
	Surveyed 1958 Revised 1981 Edition N/A Copyright 1981 Levelled 1958





Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





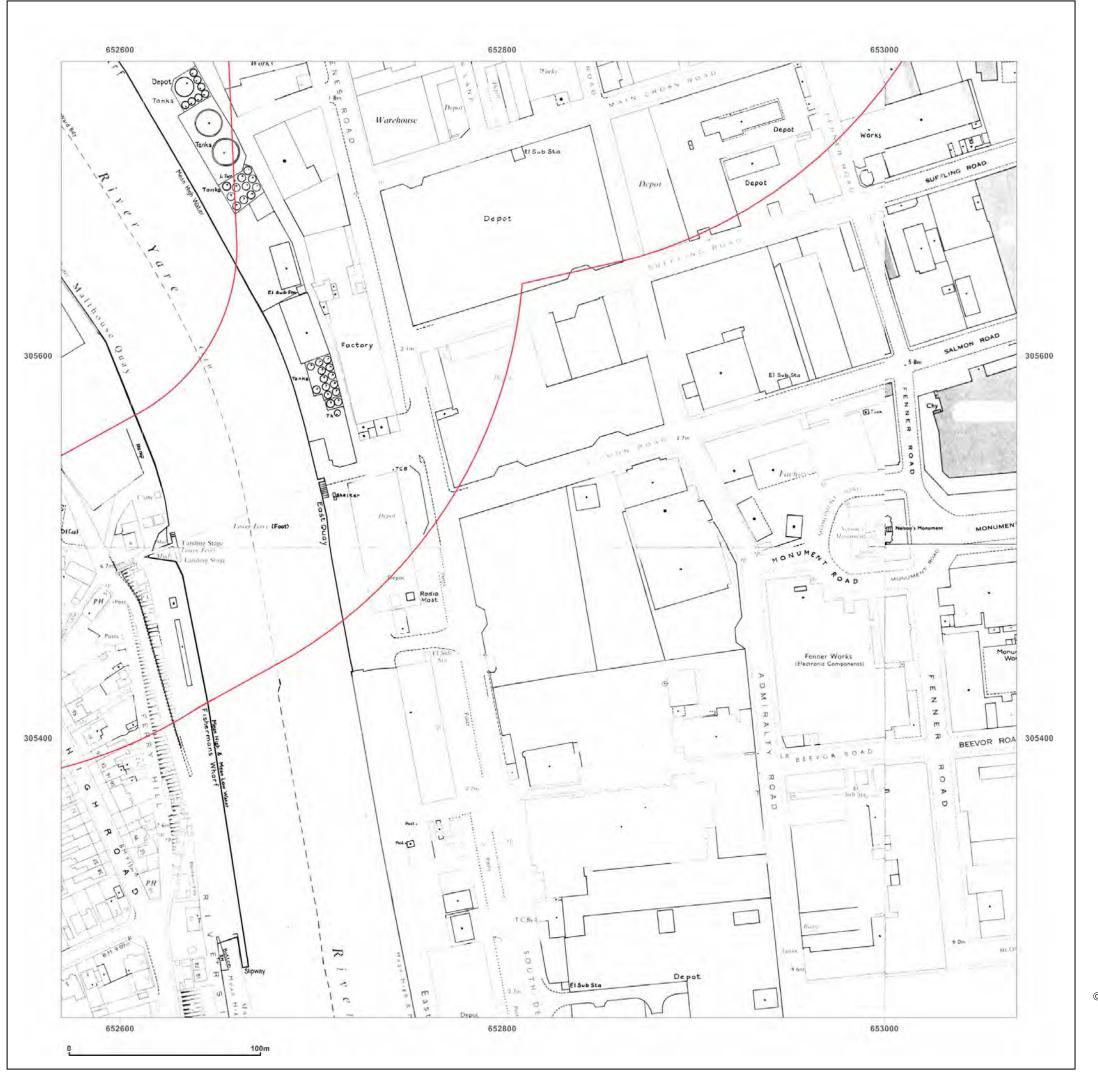
Site Details:	
Client Ref: Report Ref: Grid Ref:	
Map Name:	National Grid N
Map date:	1984
Scale:	1:1,250
Printed at:	1:2,000 ^S
	Surveyed 1958 Revised 1984 Edition N/A Copyright 1984 Levelled 1958





Supplied by: www.centremapslive.com groundsure@centremaps.com

Production date: 03 July 2017





Client Ref: 16287
Report Ref: CMAPS-CM-636391-16287-030717HIS_1250scale
Grid Ref: 652819, 305504

Map Name: National Grid
Map date: 1990
Scale: 1:1,250
Printed at: 1:2,000

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1990
Levelled 1958

Surveyed 1958
Copyright 1990
Levelled 1958



Produced by Groundsure Insights www.groundsure.com



Supplied by: www.centremapslive.com groundsure@centremaps.com

Surveyed 1958 Revised 1990

Edition N/A Copyright 1990 Levelled 1958

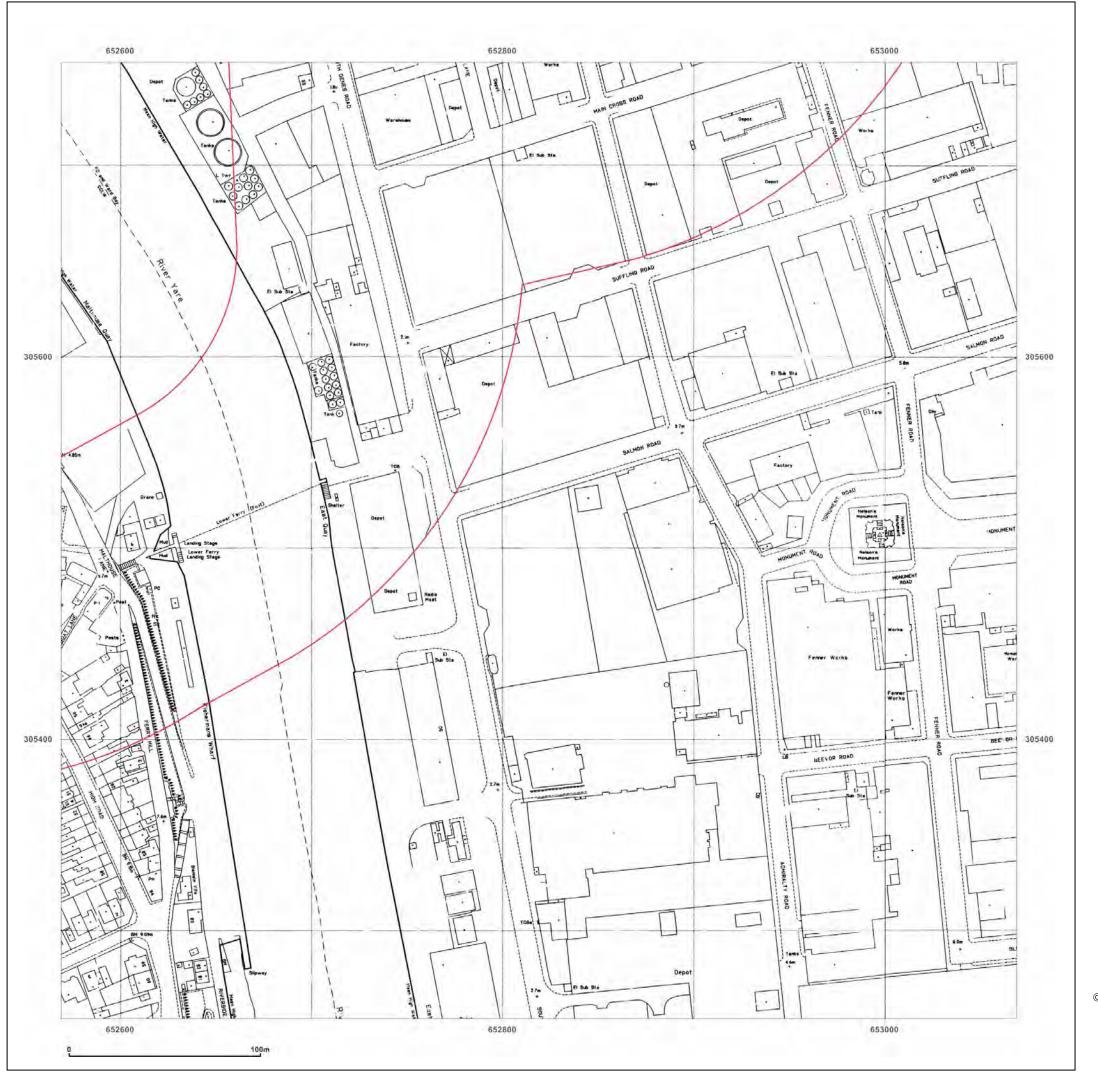
© Crown copyright and database rights 2015 Ordnance Survey 100035207

Surveyed 1958 Revised 1990

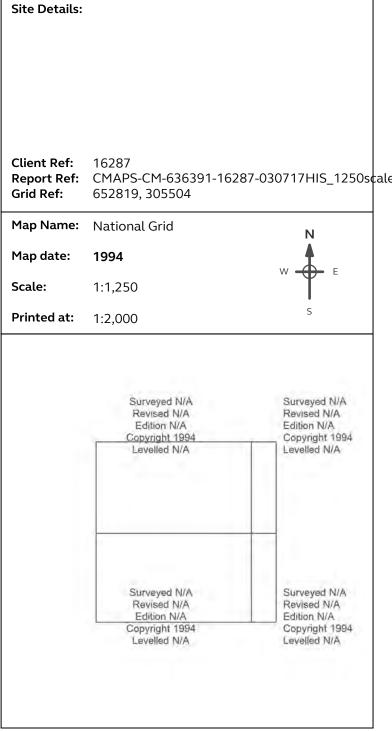
Edition N/A

Copyright 1990 Levelled 1958

Production date: 03 July 2017











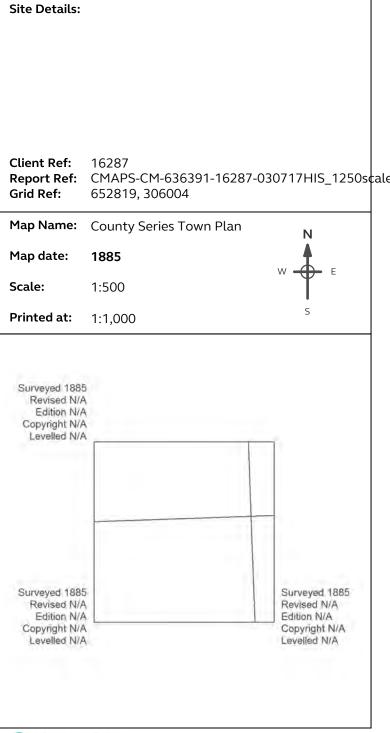
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







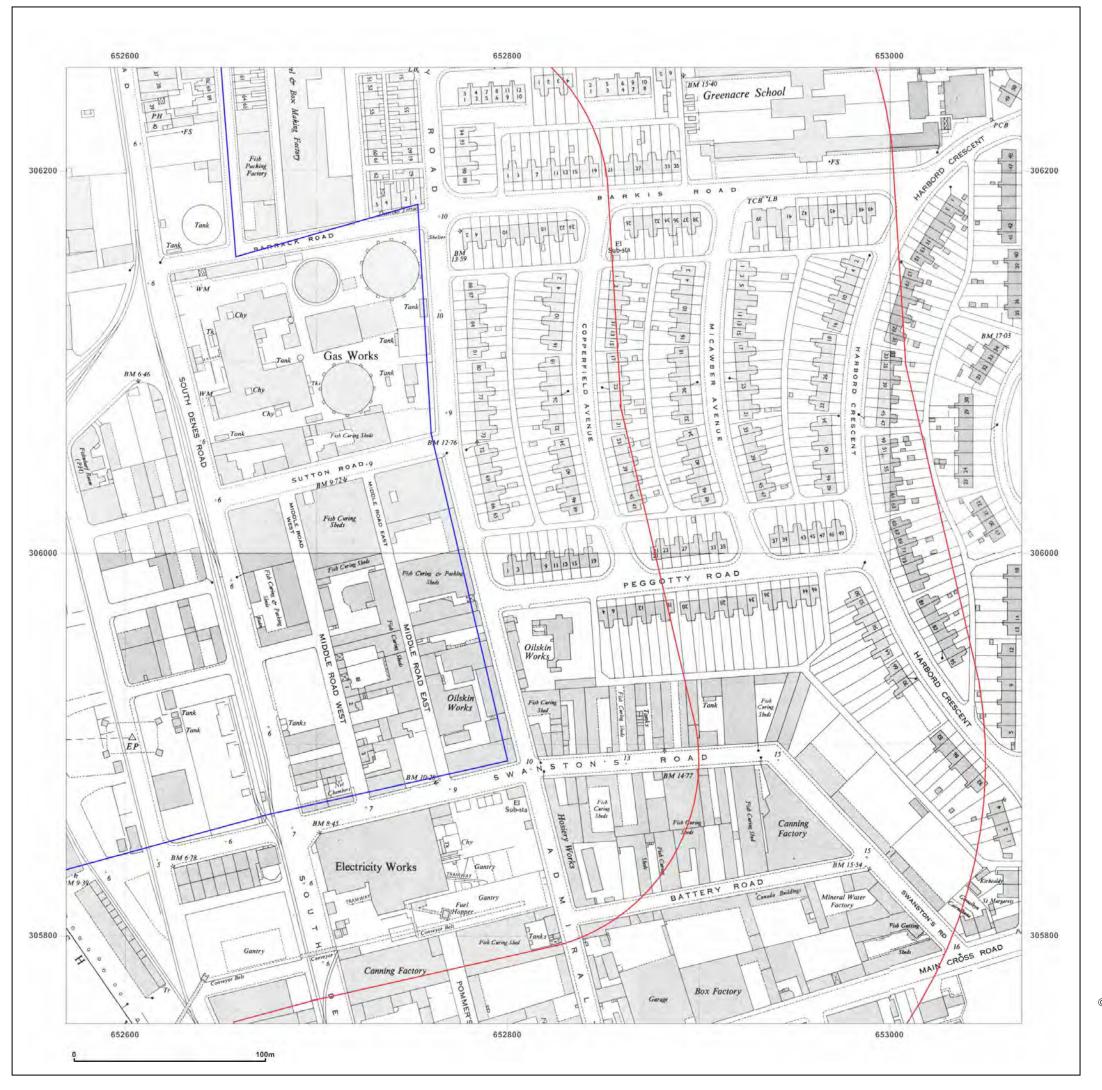




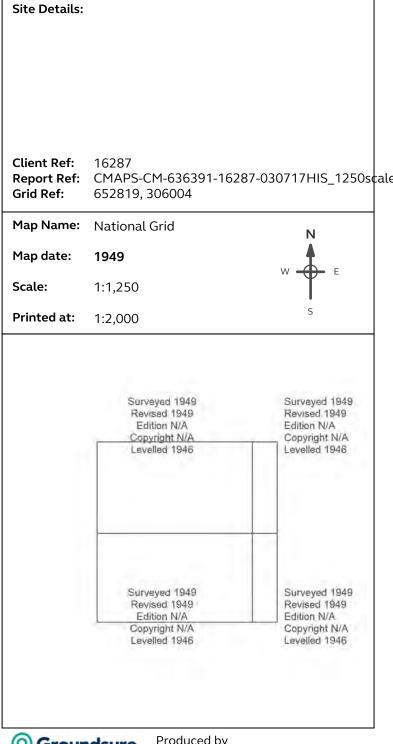
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











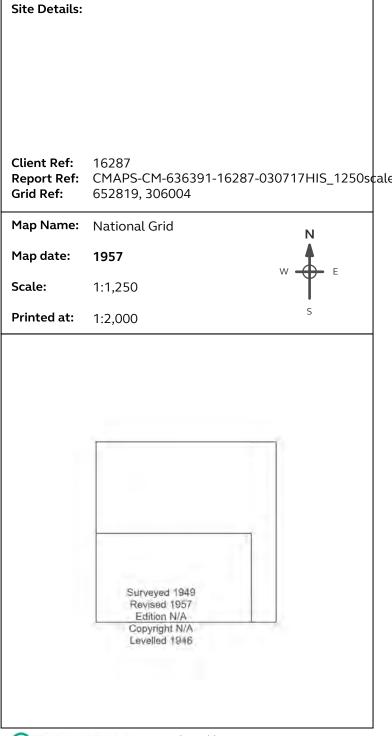
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







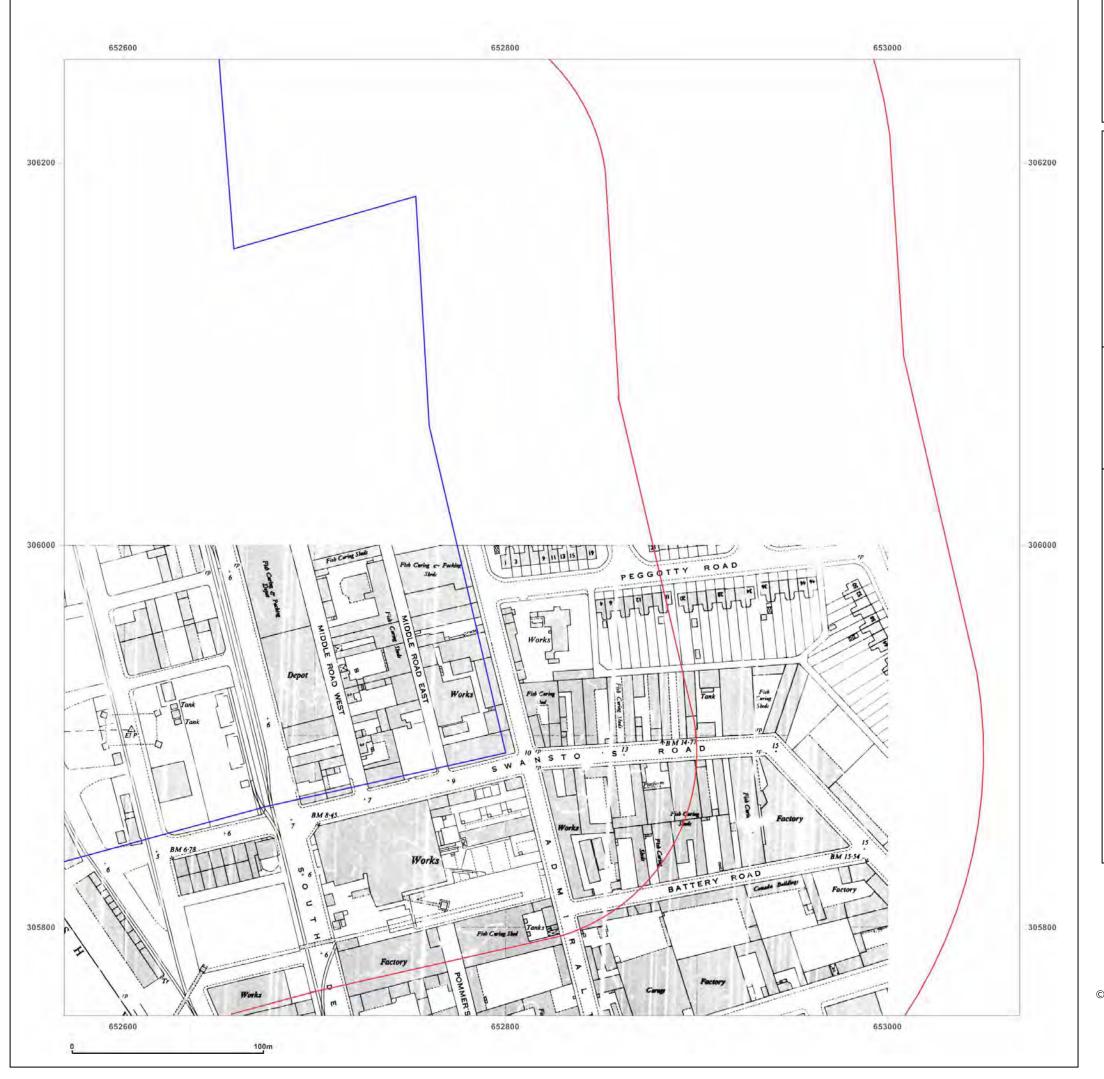




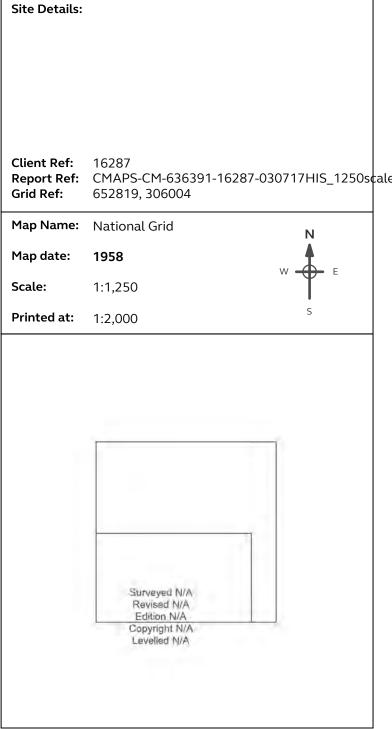
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











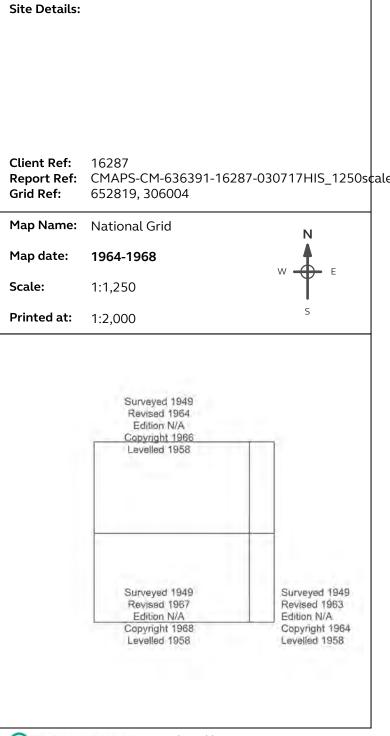
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











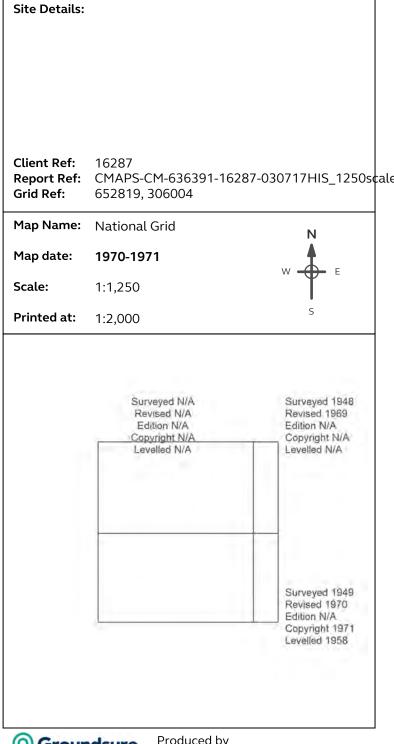
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







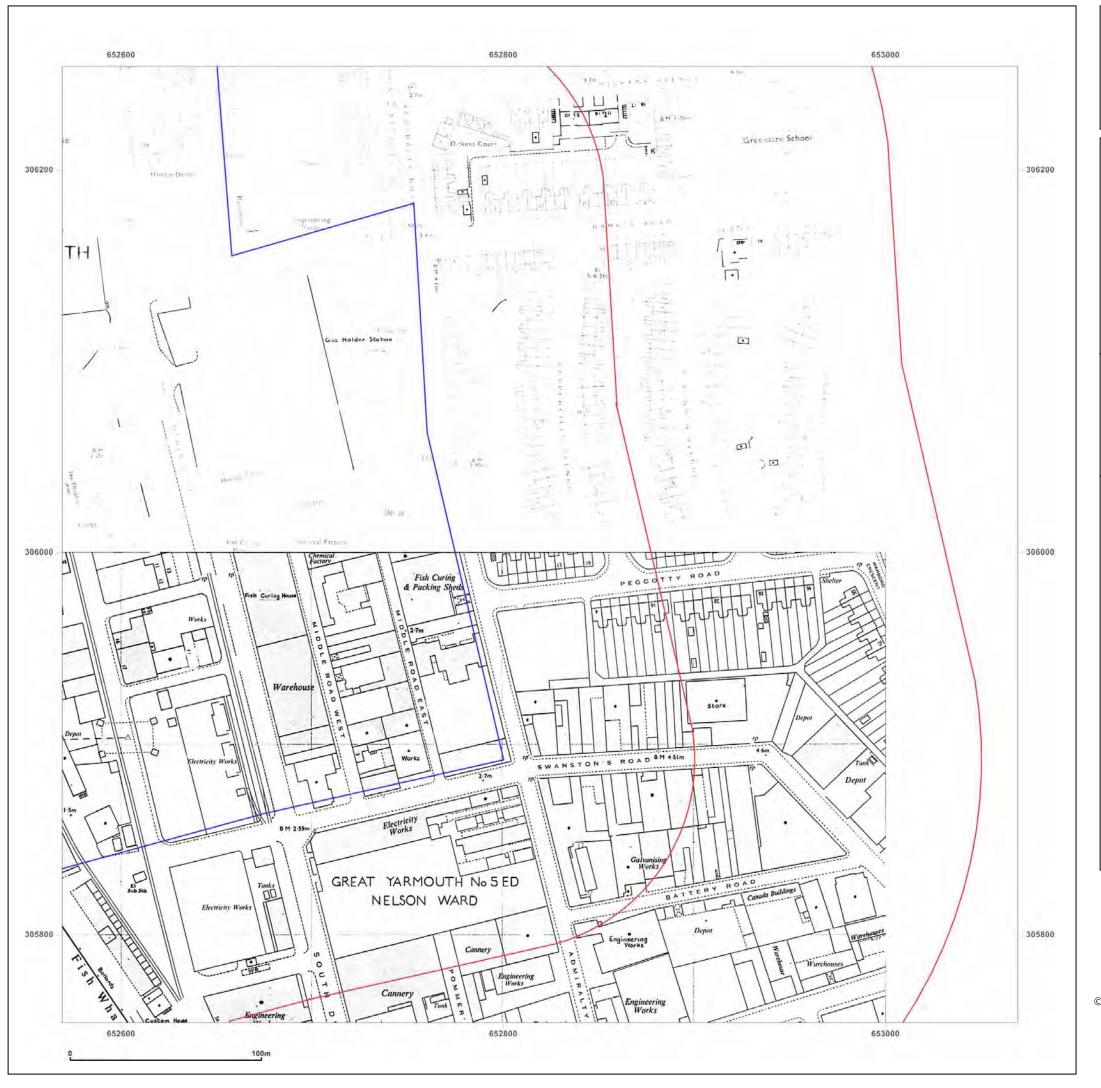




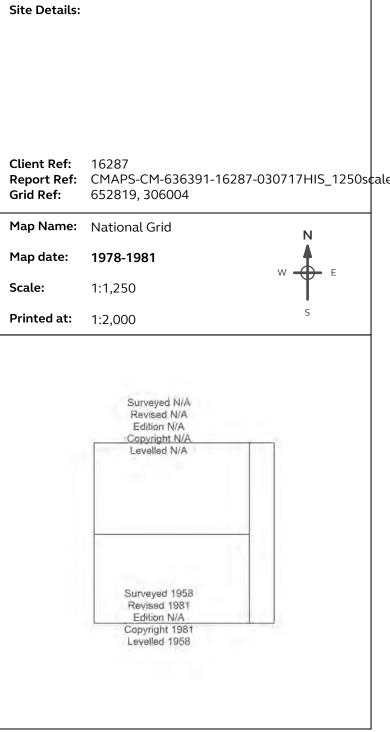
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







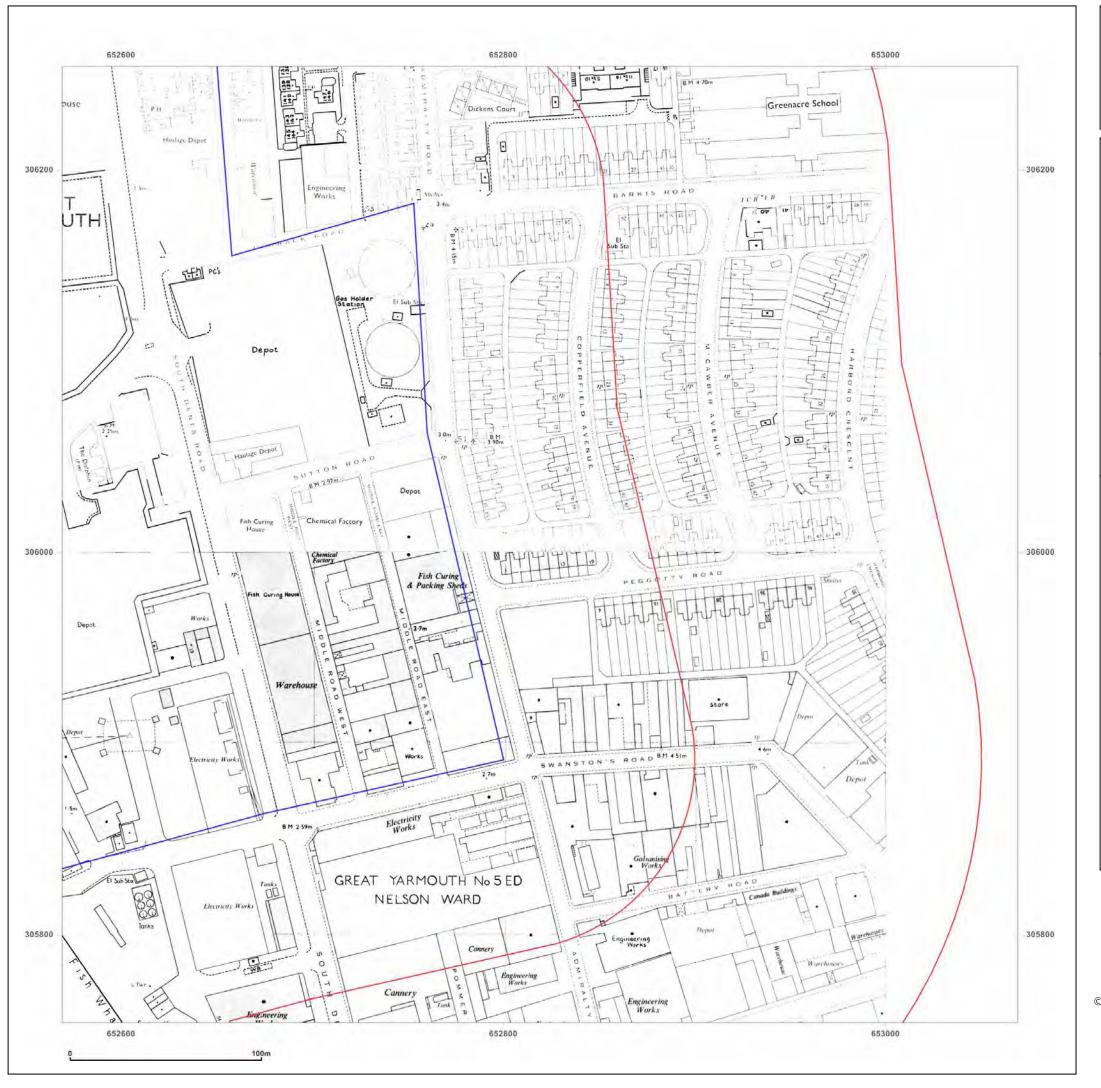




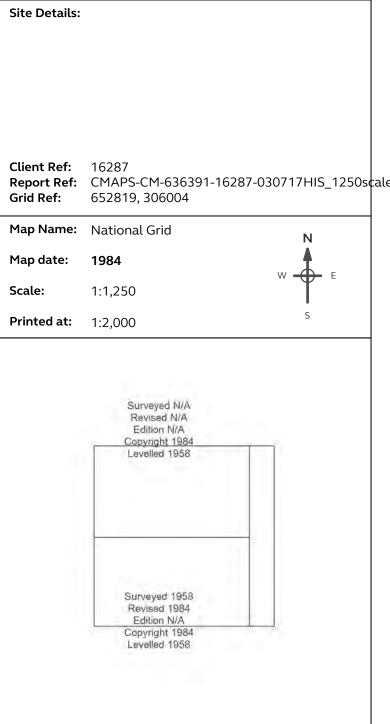
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







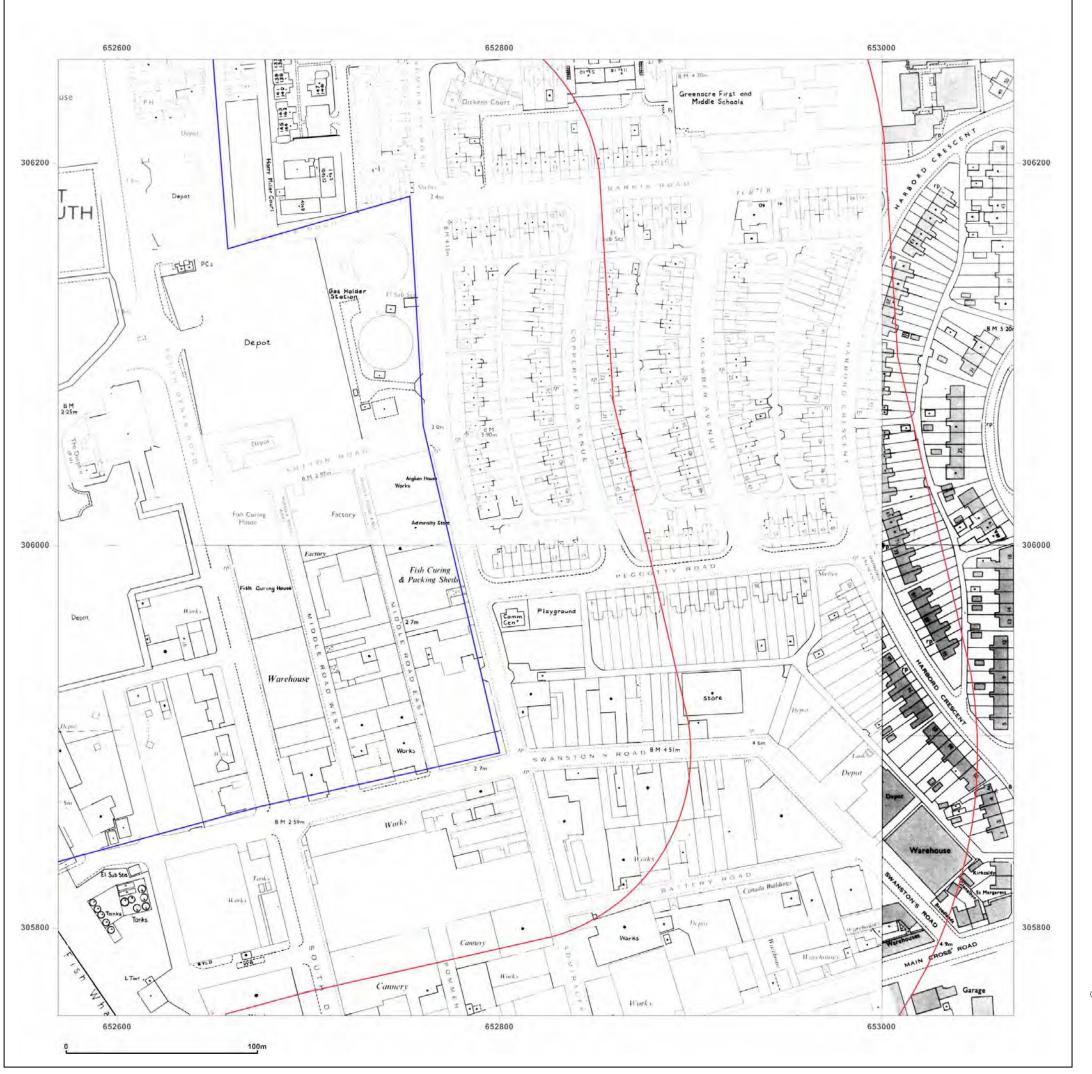




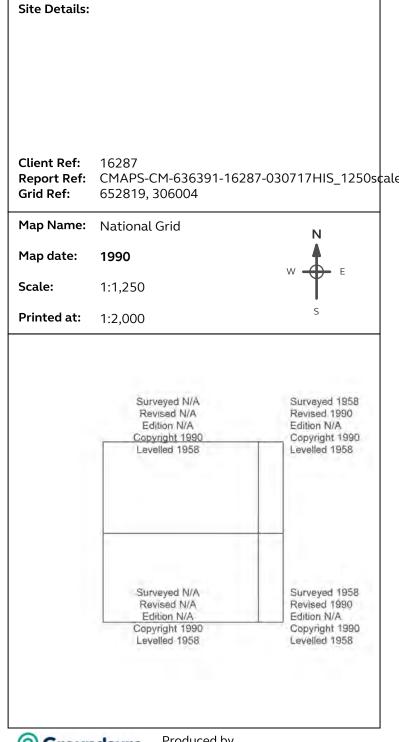
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











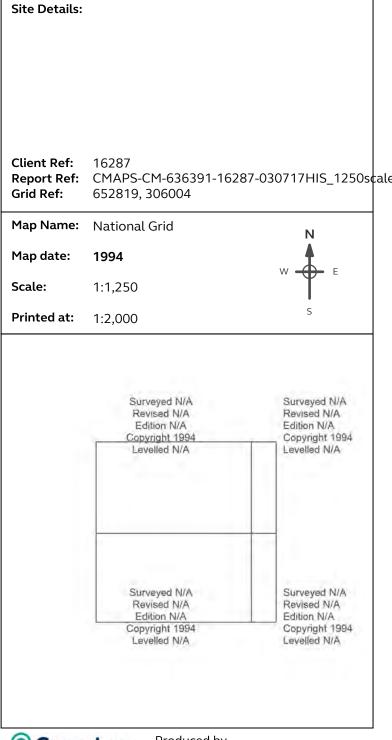
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







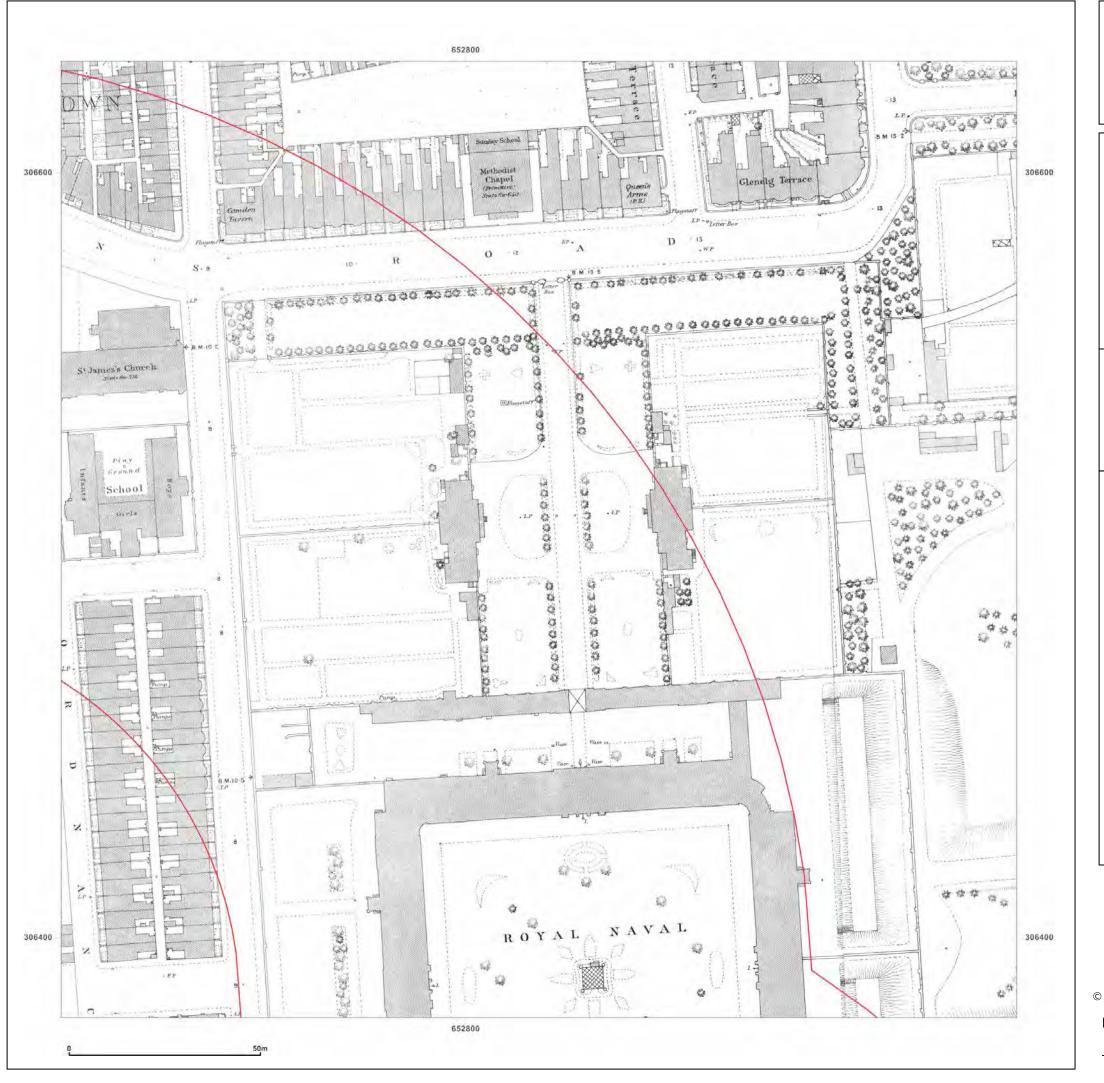




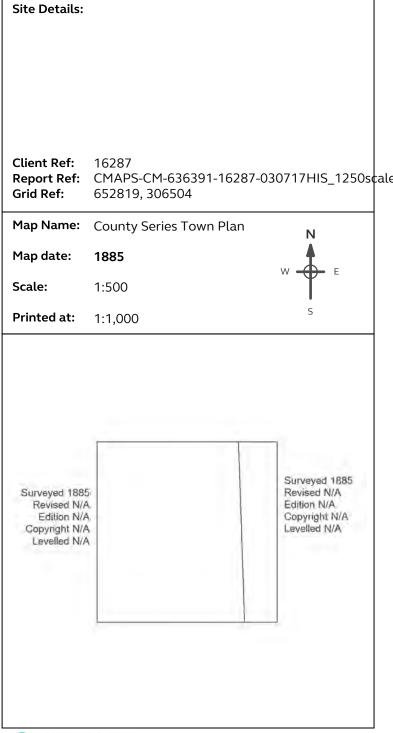
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







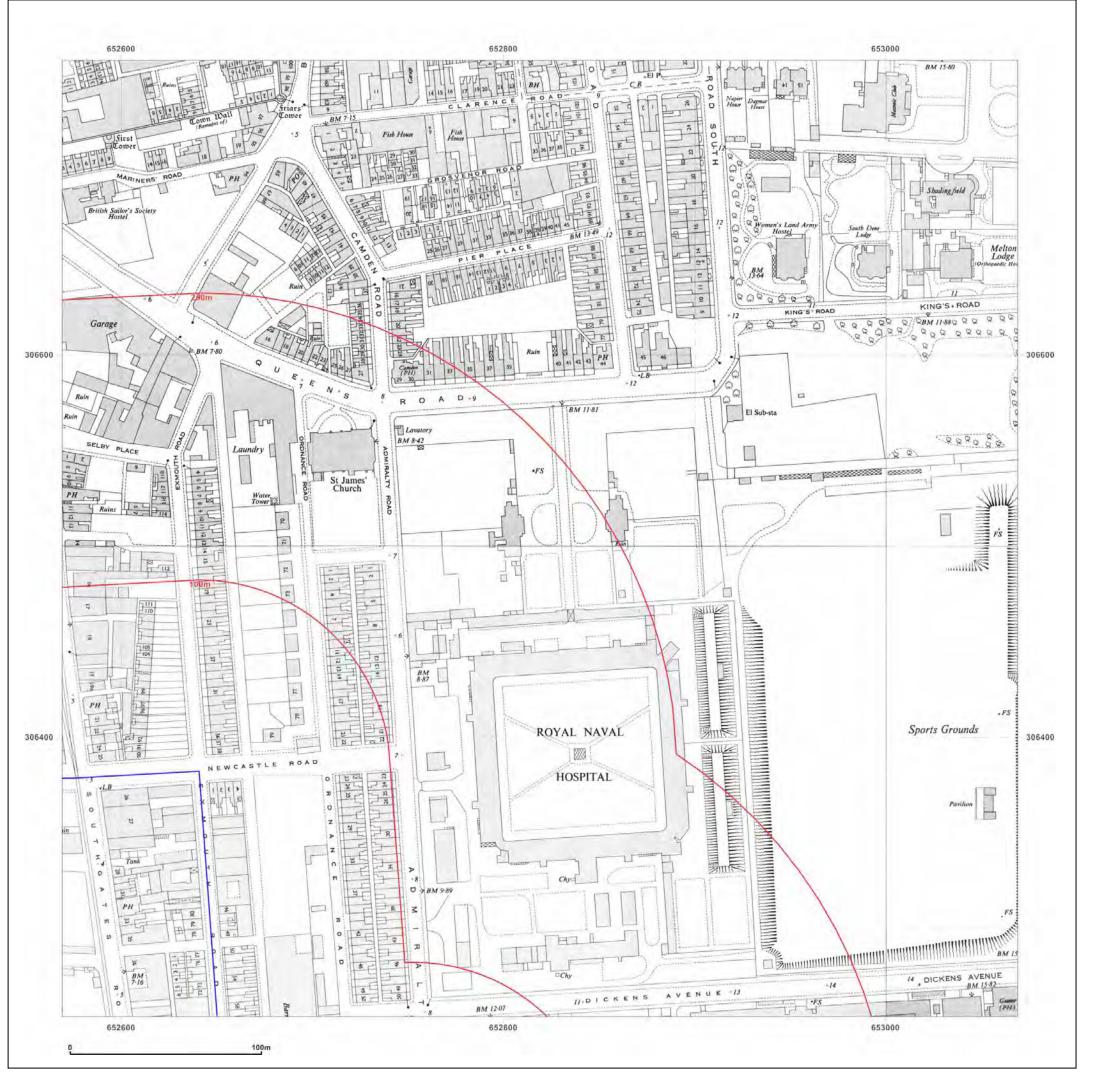




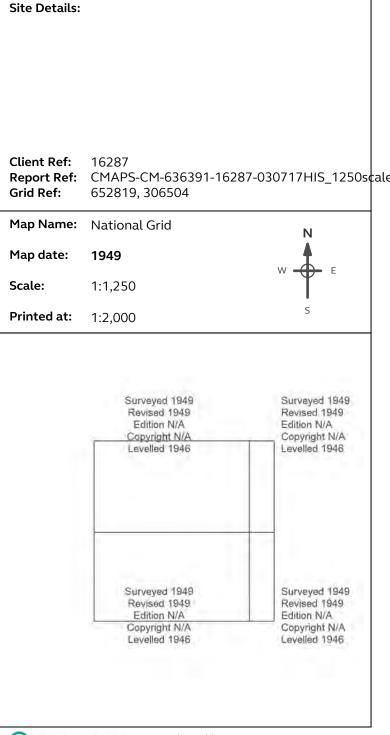
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:		
Client Ref: Report Ref: Grid Ref:	16287 CMAPS-CM-636391-16287 652819, 306504	7-030717HIS_1250sa
Map Name:	National Grid	N
Map date:	1954	W E
Scale:	1:1,250	w T
Printed at:	1:2,000	S
	Surveyer 1949 Revised 1954 Edition N/A Copyright N/A Levelled 1946	

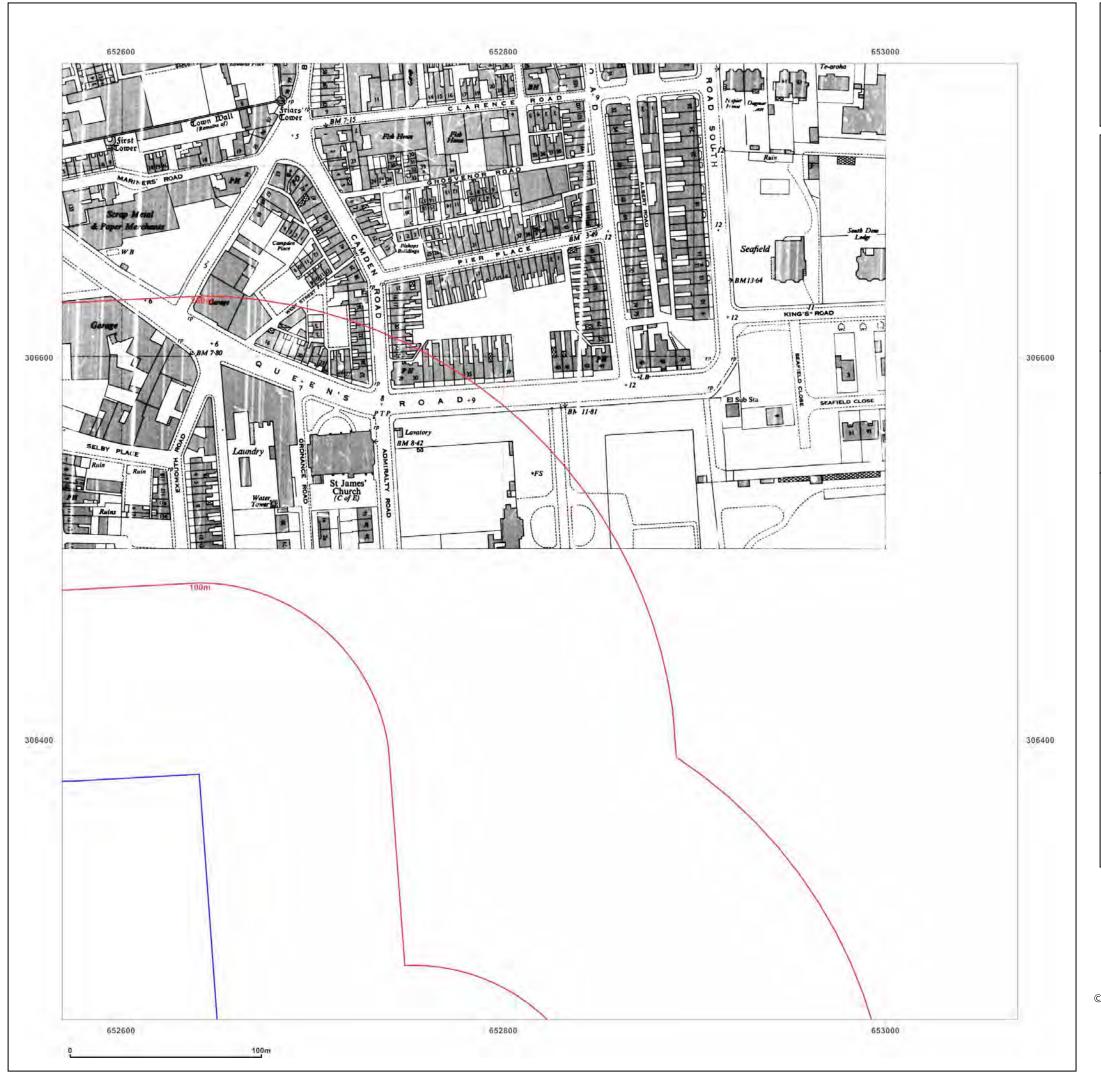




Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:	
Client Ref: Report Ref:	16287 CMAPS-CM-636391-16287-030717HIS_1250sc
Grid Ref:	652819, 306504
Map Name:	National Grid N
Map date:	1955
Scale:	1:1,250
Printed at:	1:2,000
	Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A

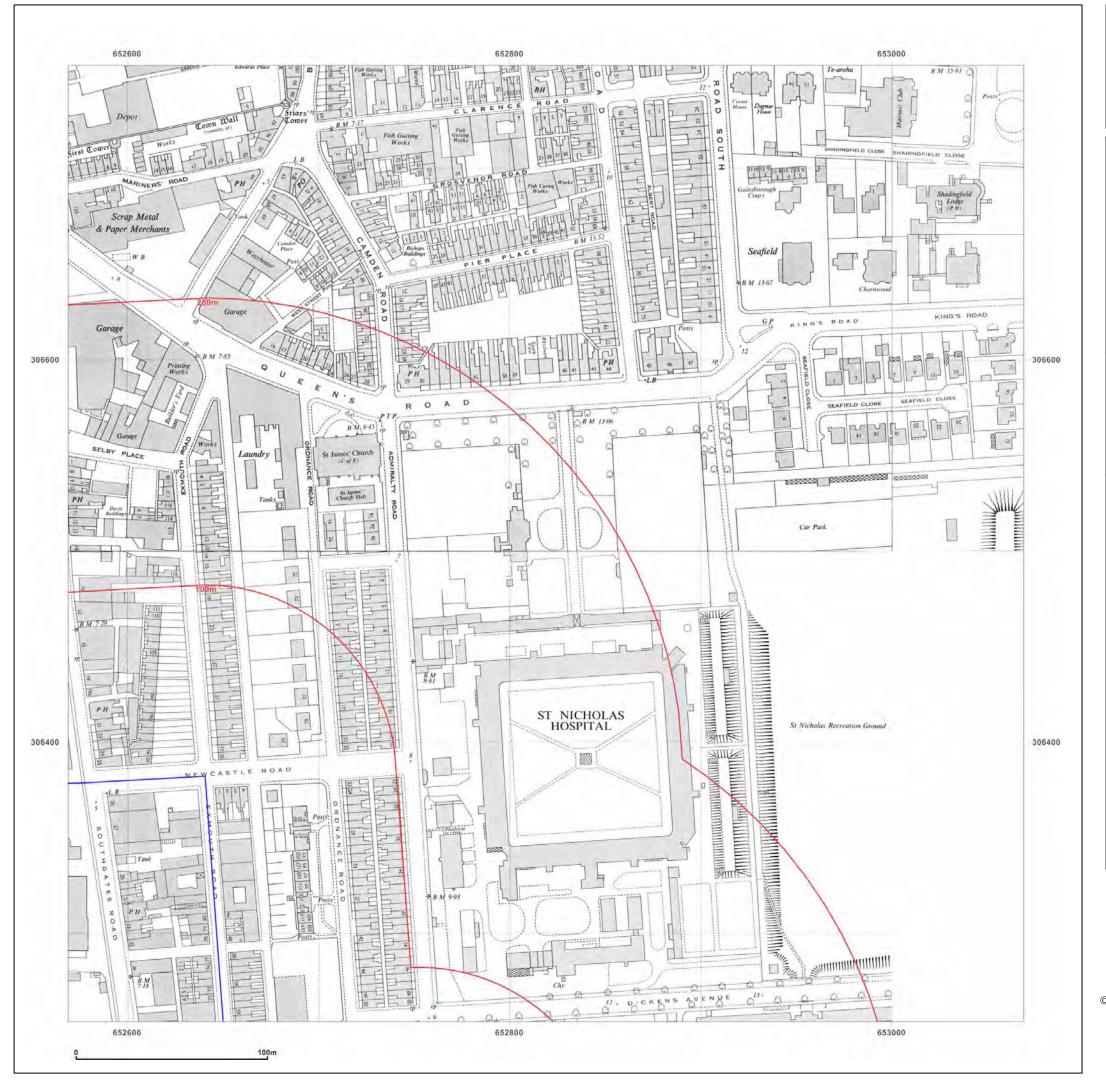




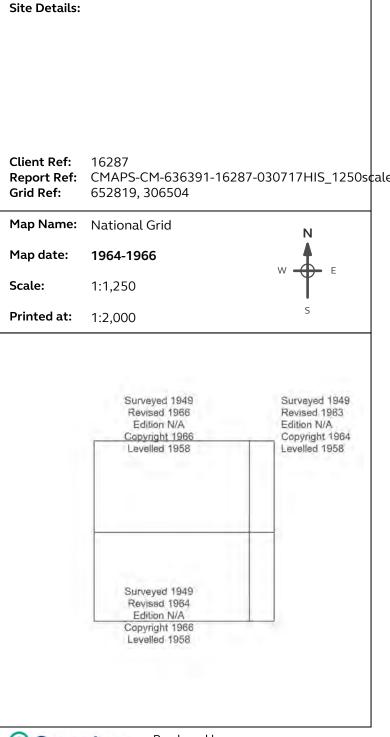
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











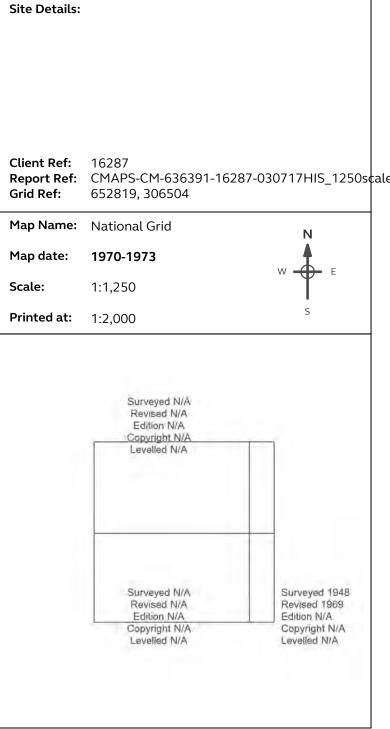
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











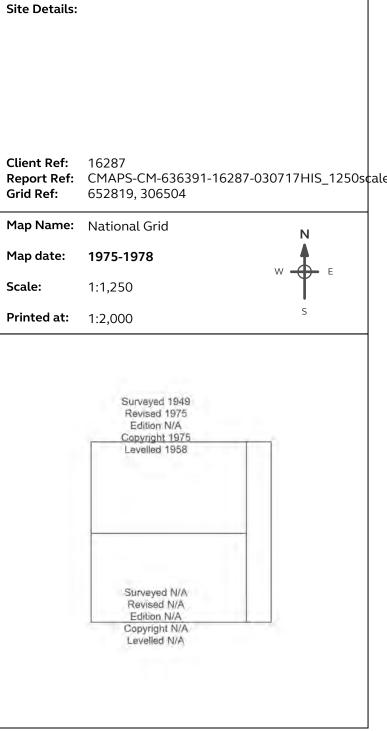
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







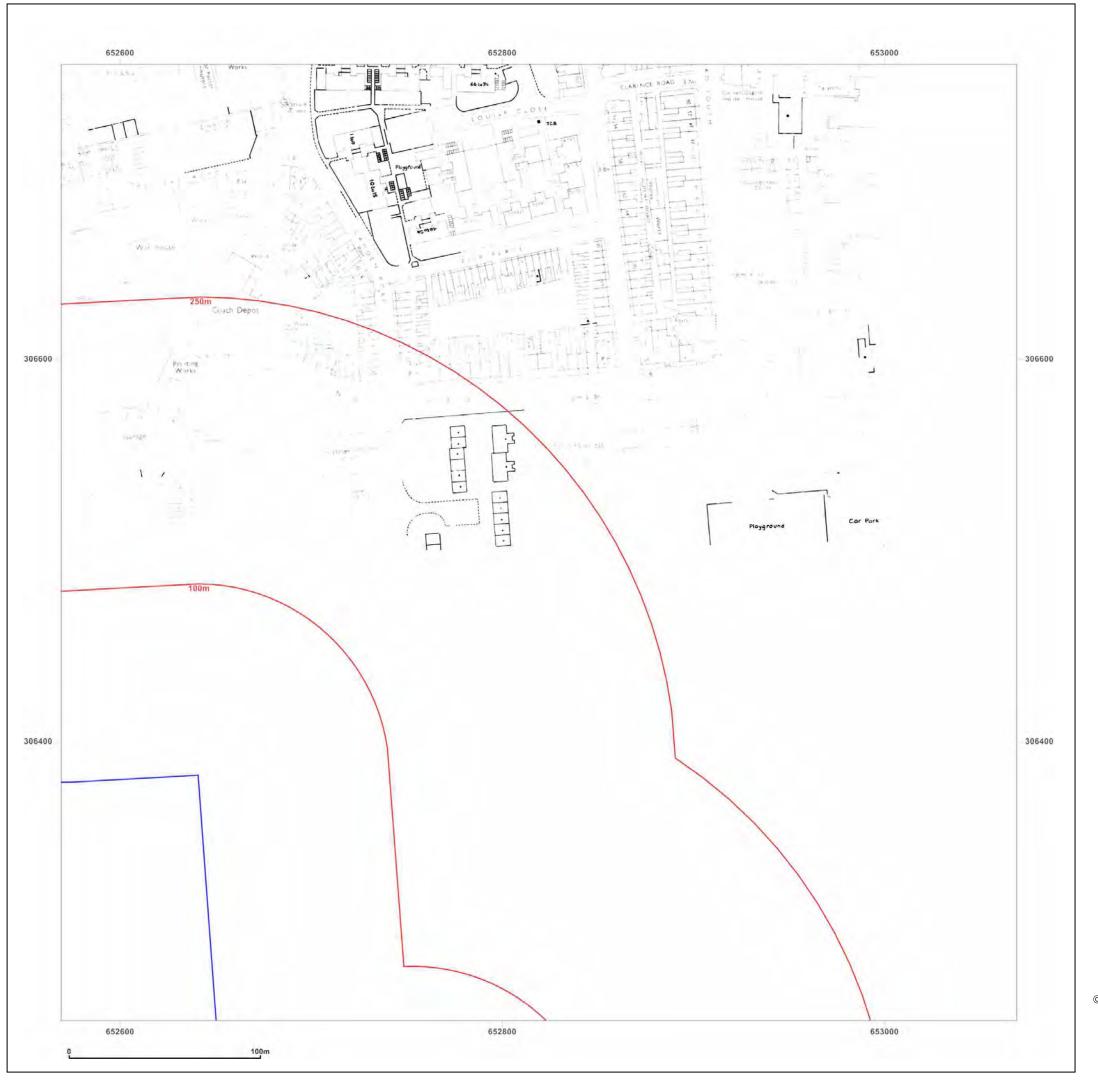




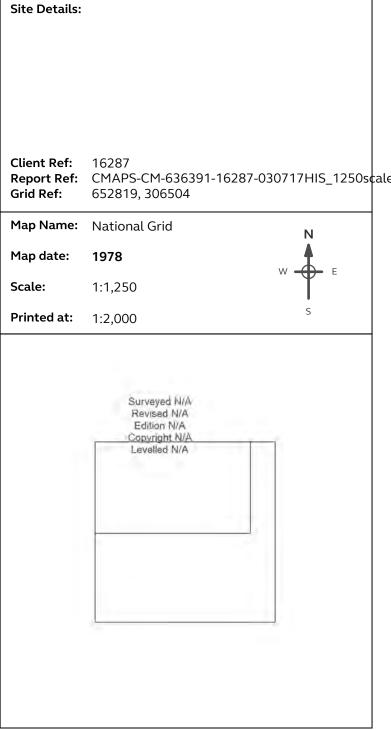
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











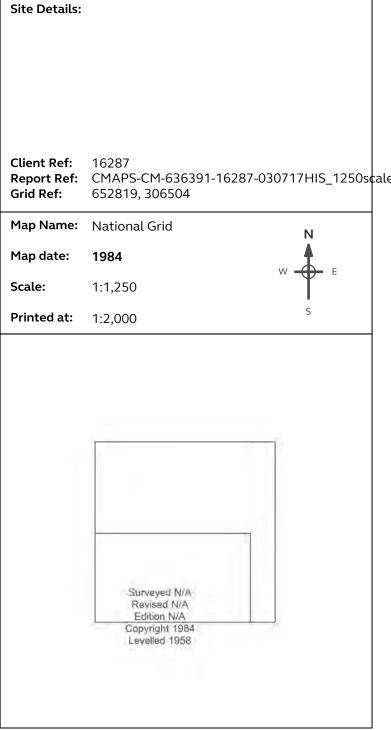
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







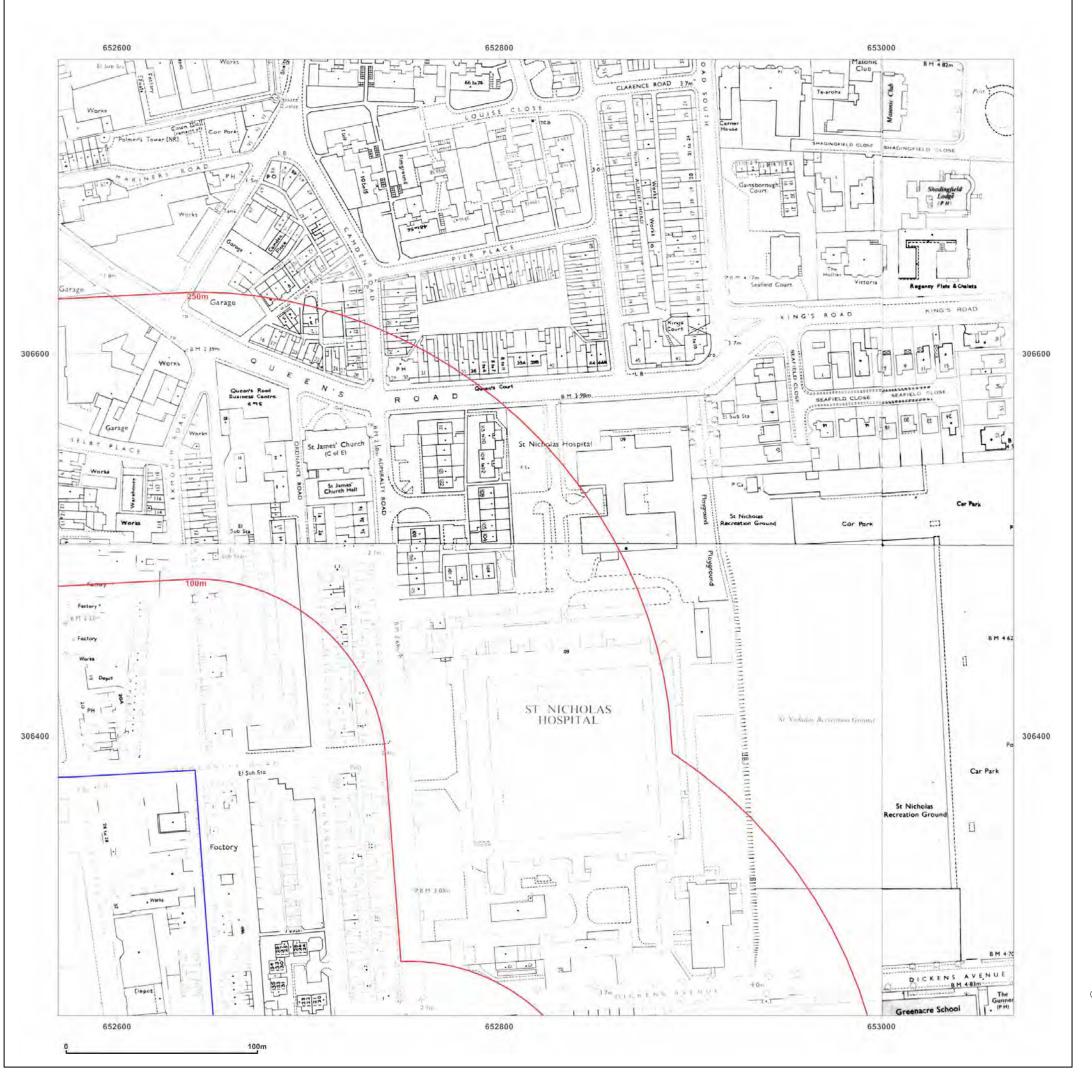




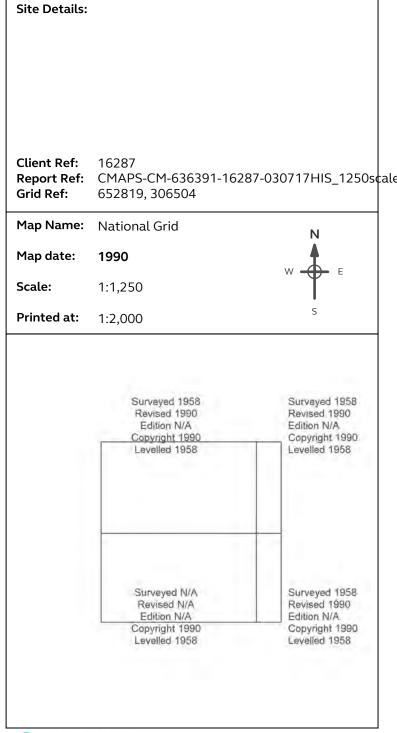
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







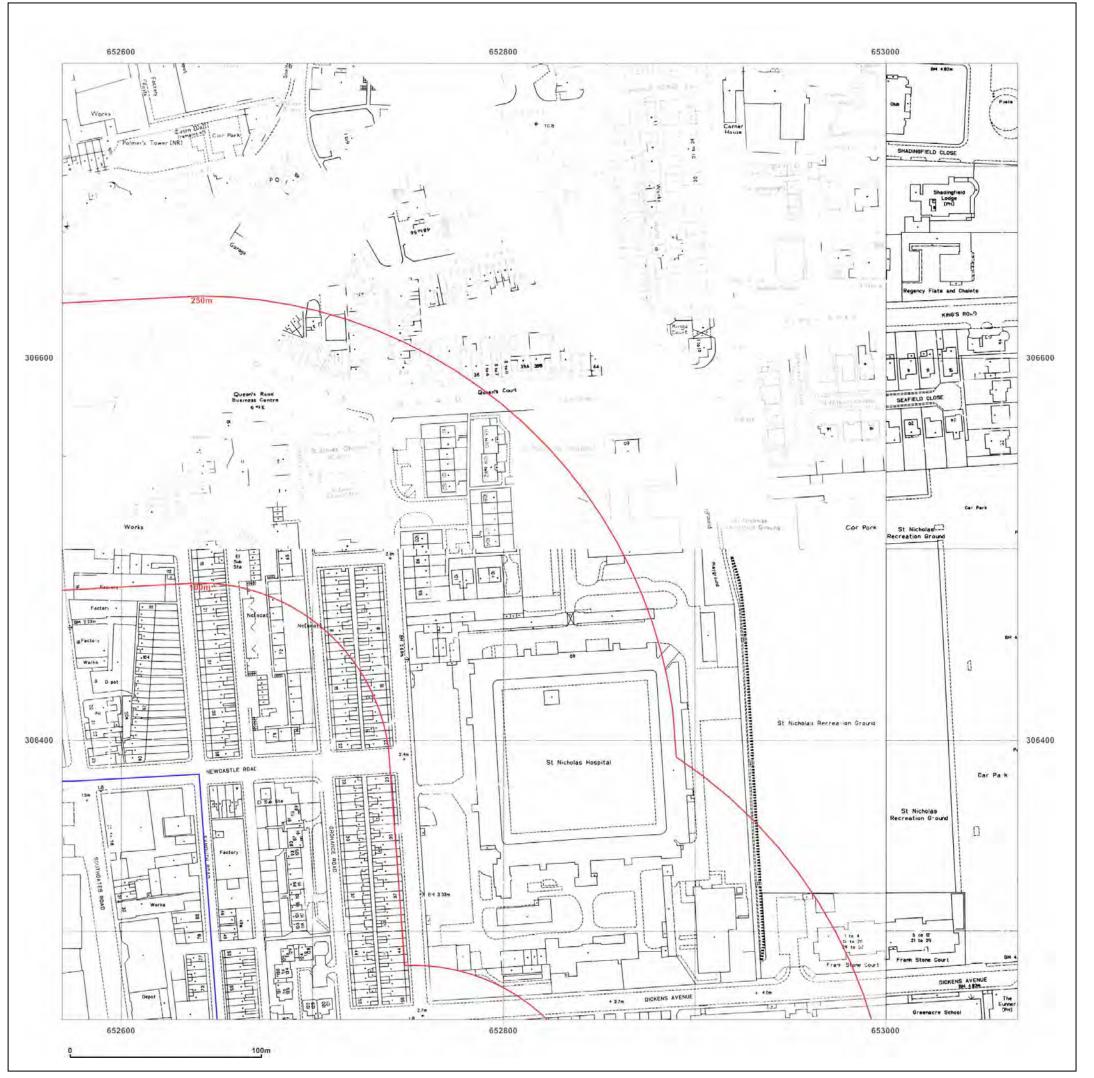




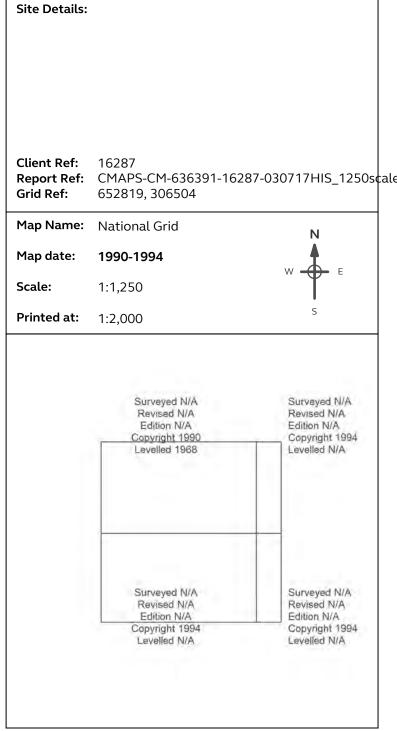
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











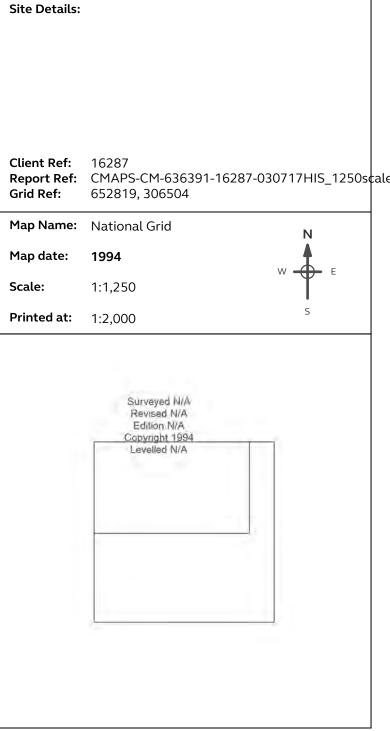
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







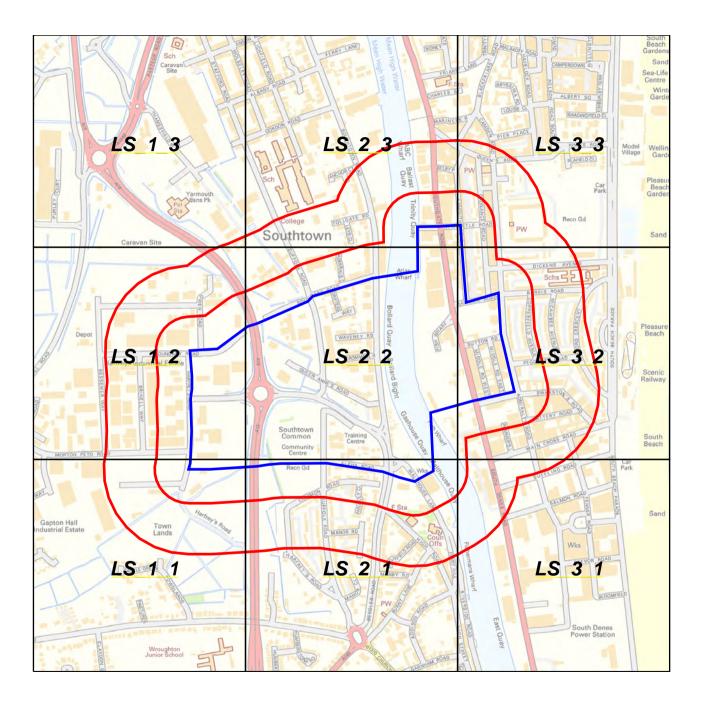




Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

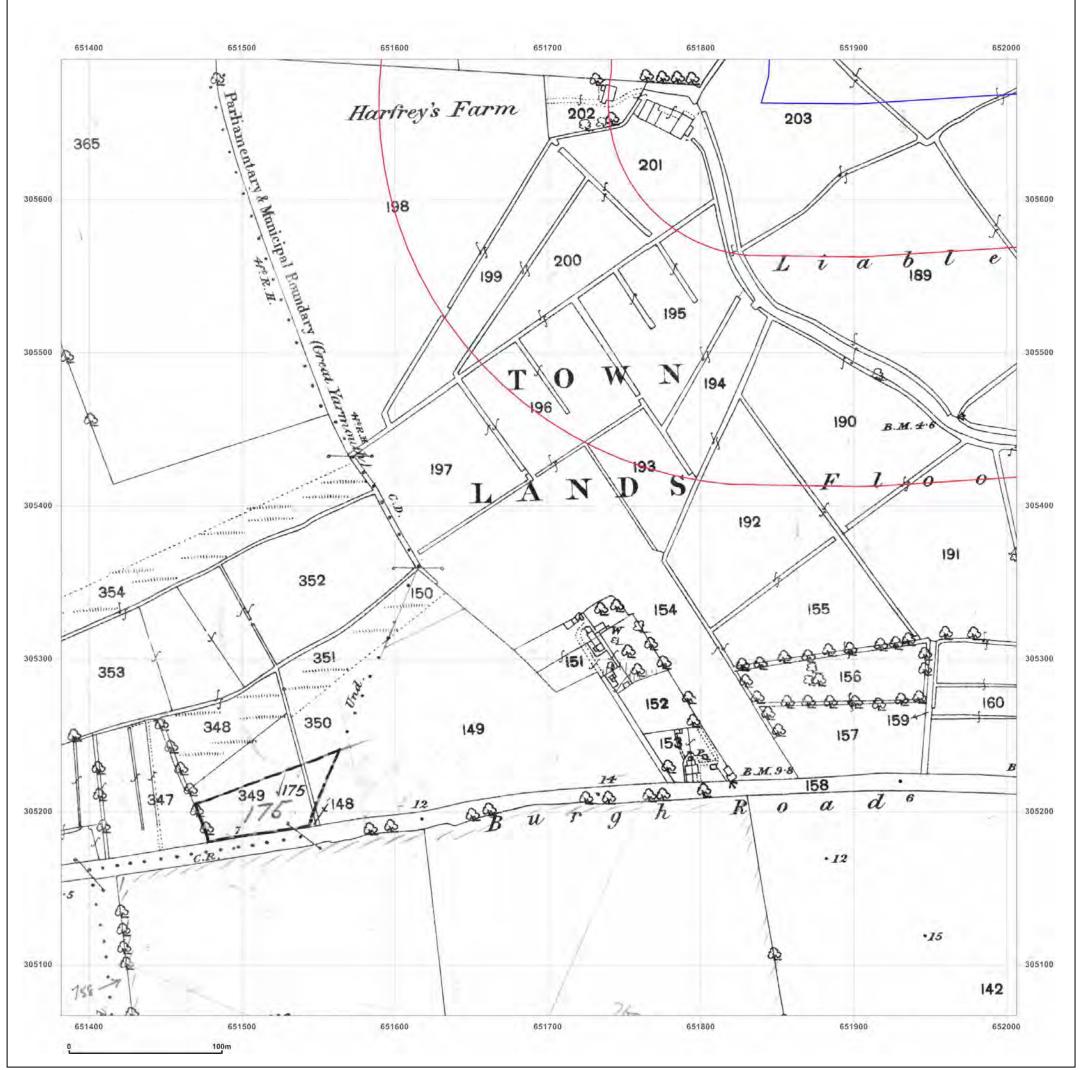
Production date: 03 July 2017



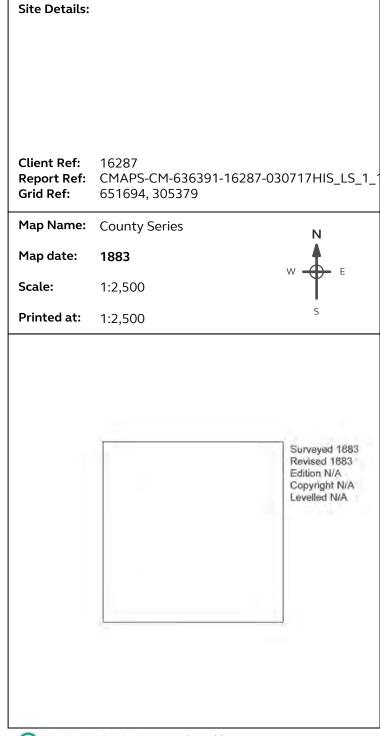




1:2500 Scale Grid Index







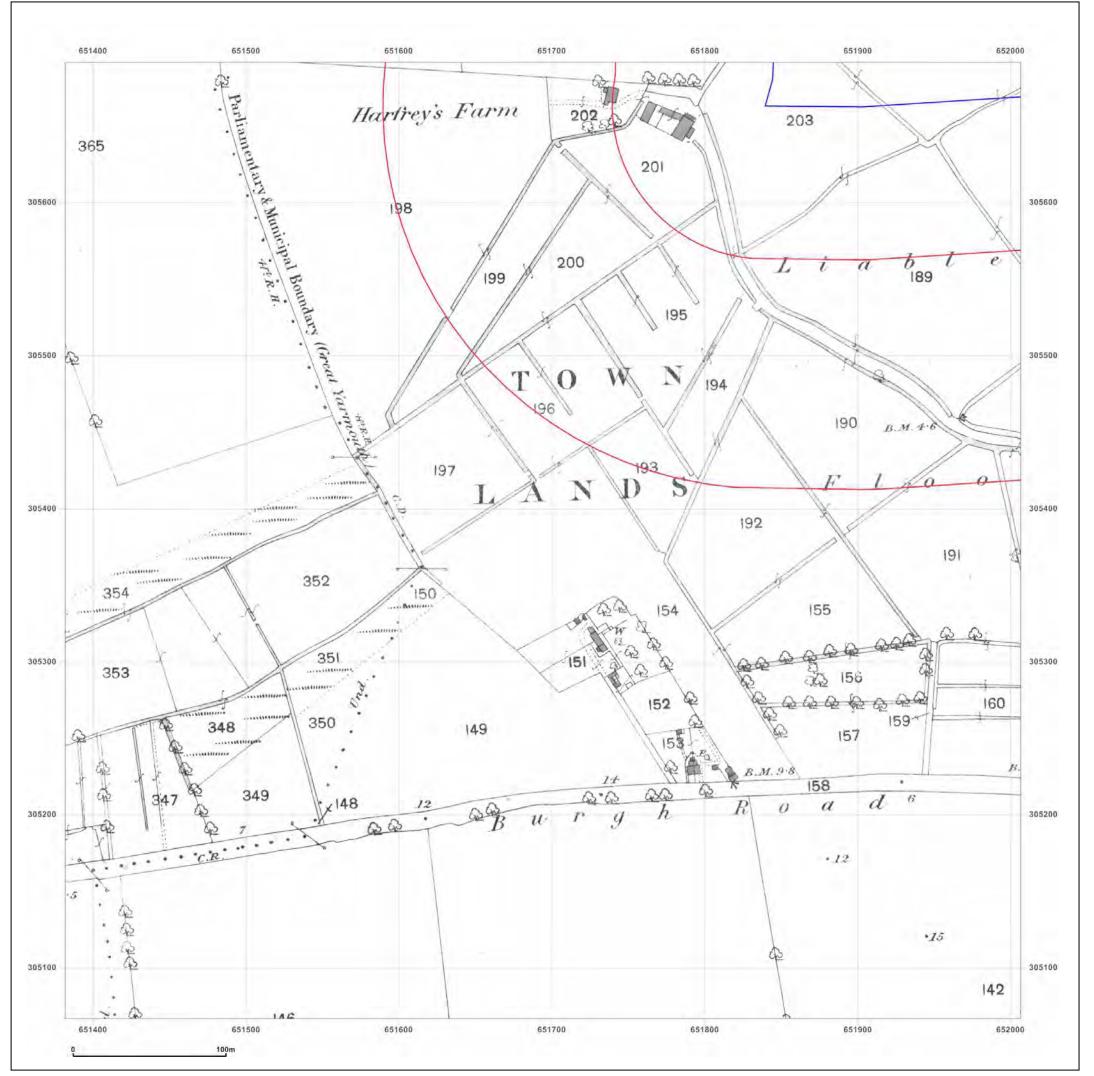




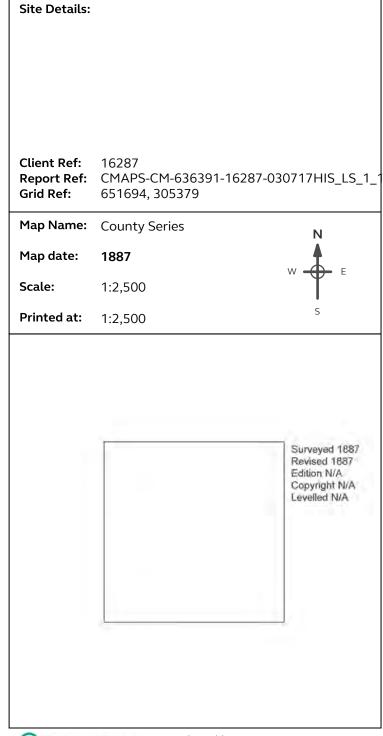
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







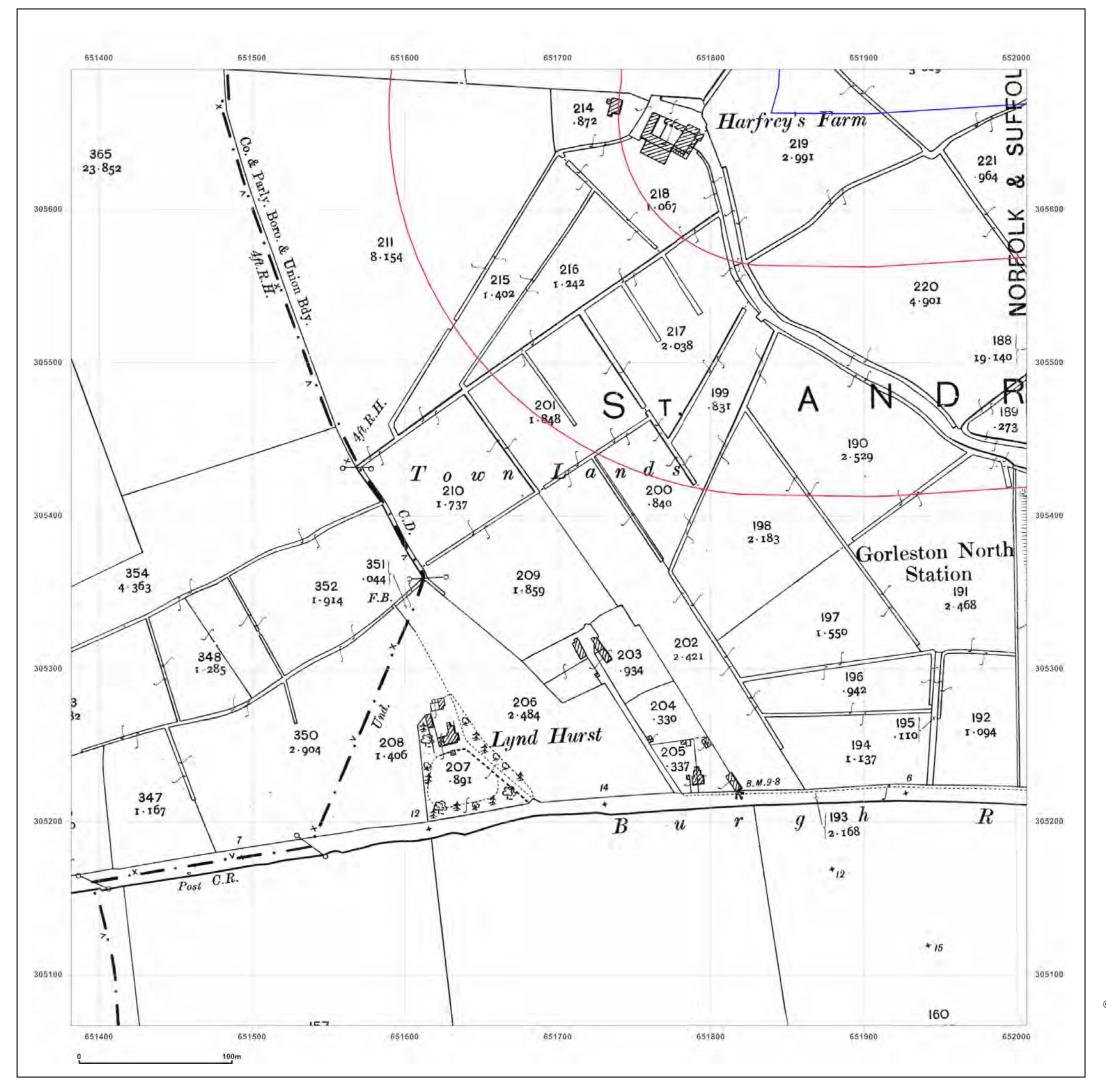




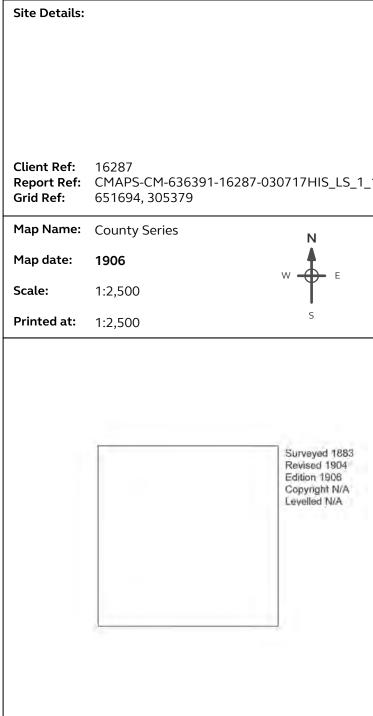
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\hbox{@}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







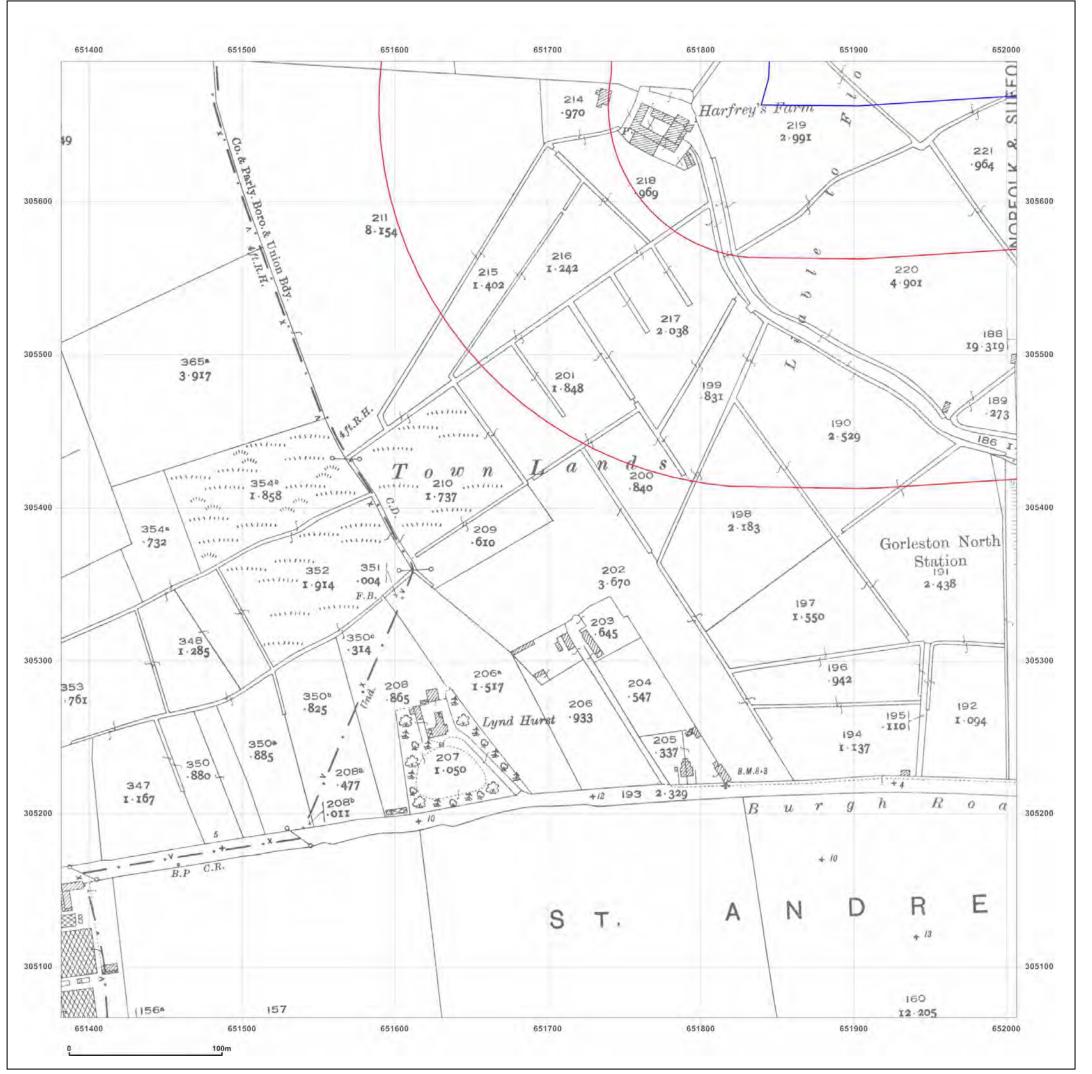




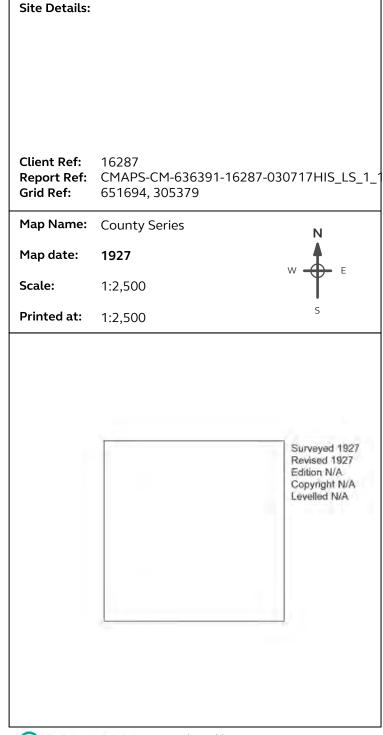
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







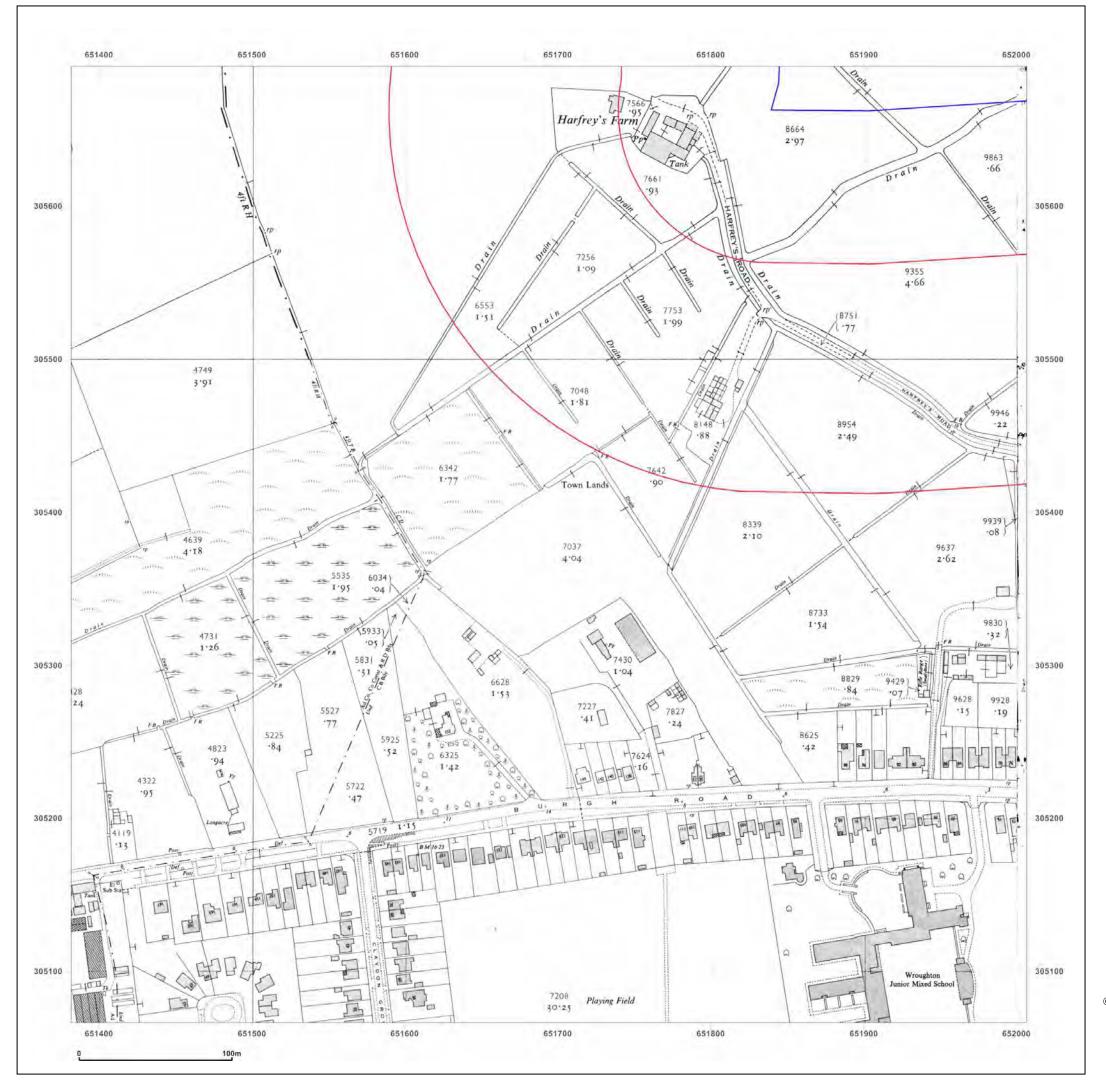




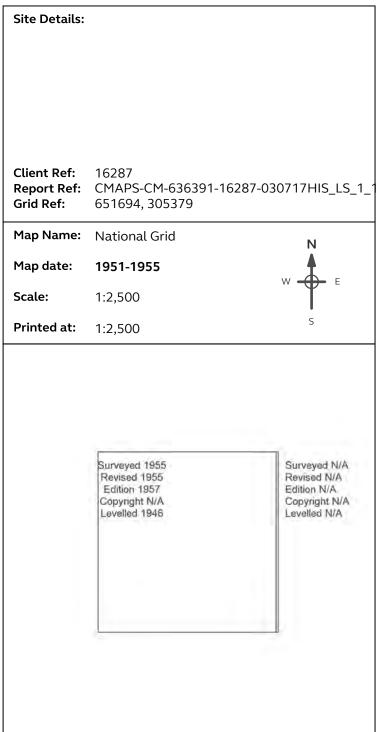
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







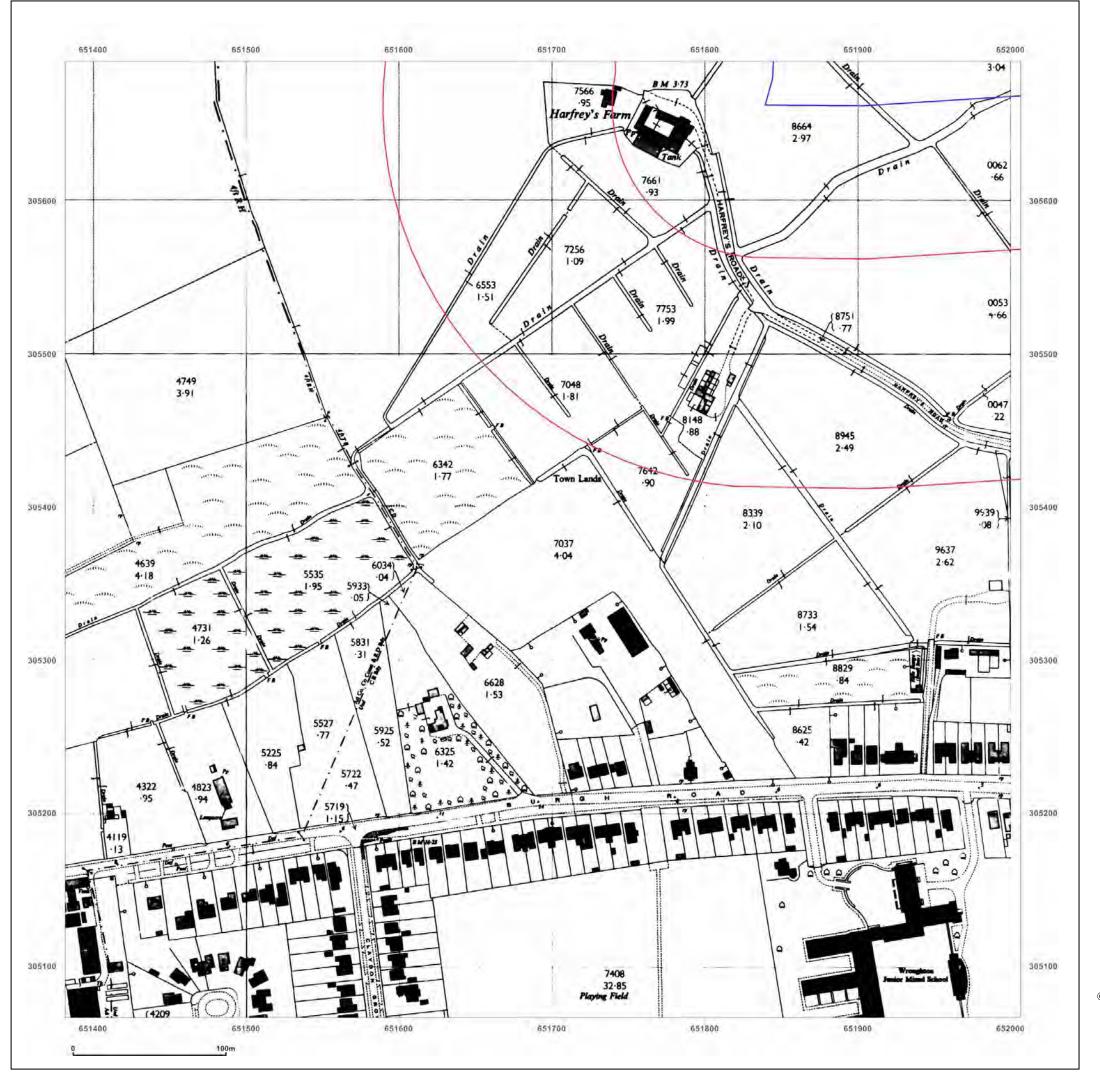




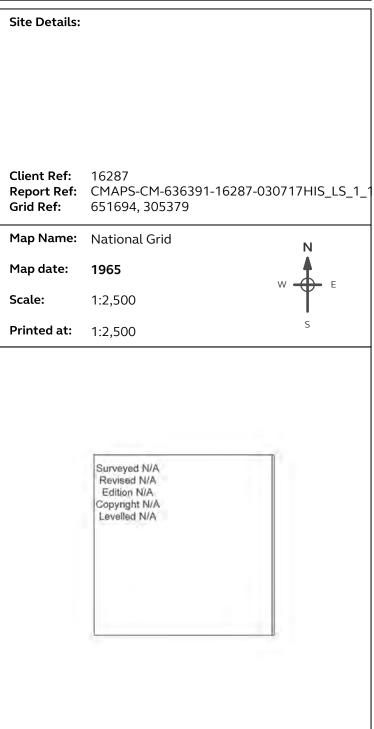
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







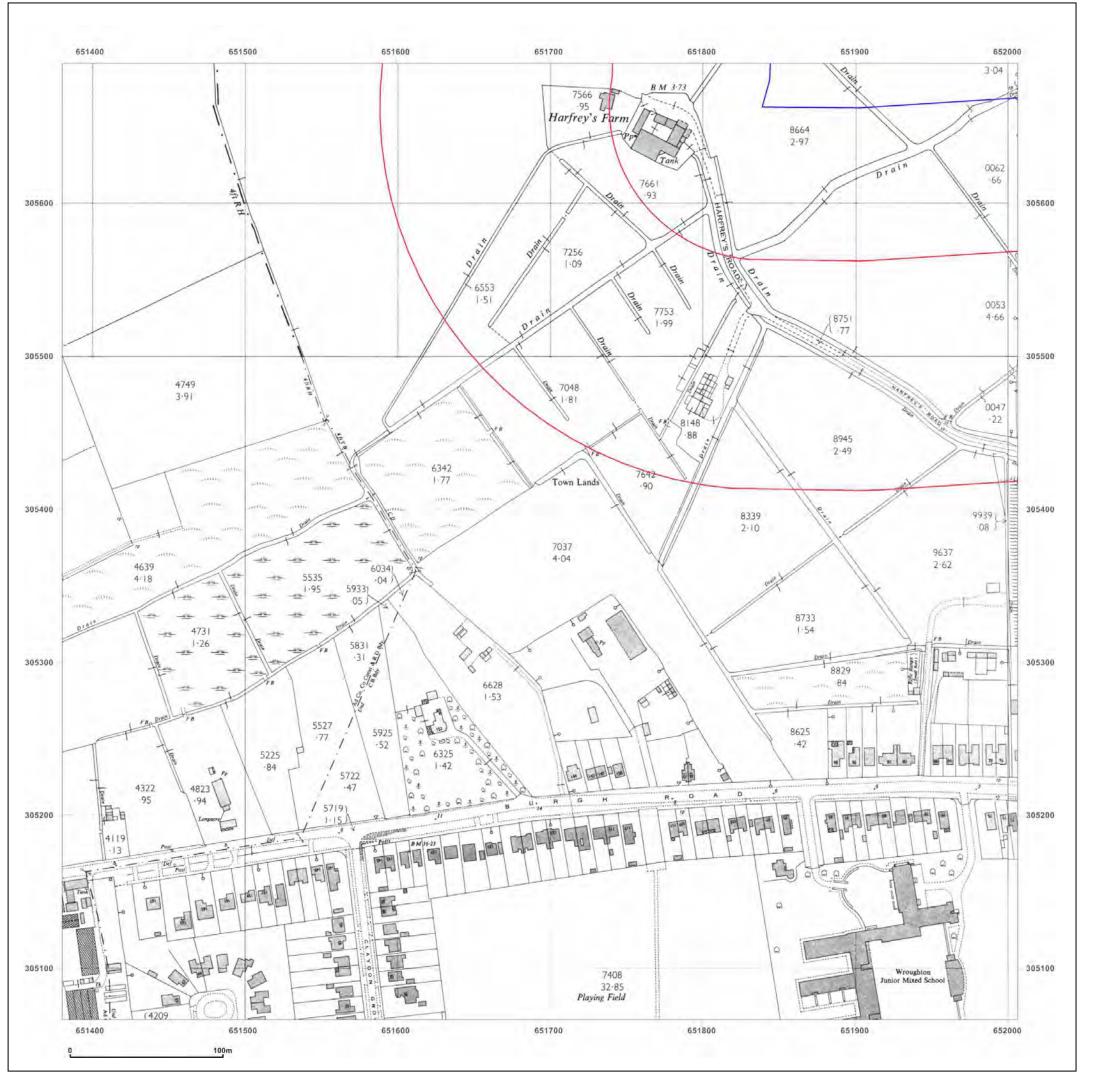




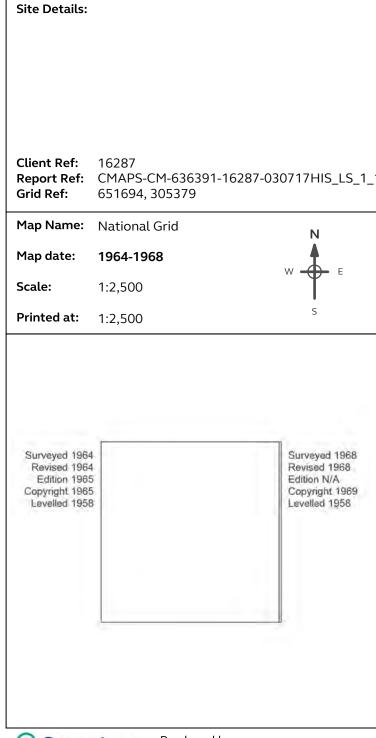
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\hbox{@}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







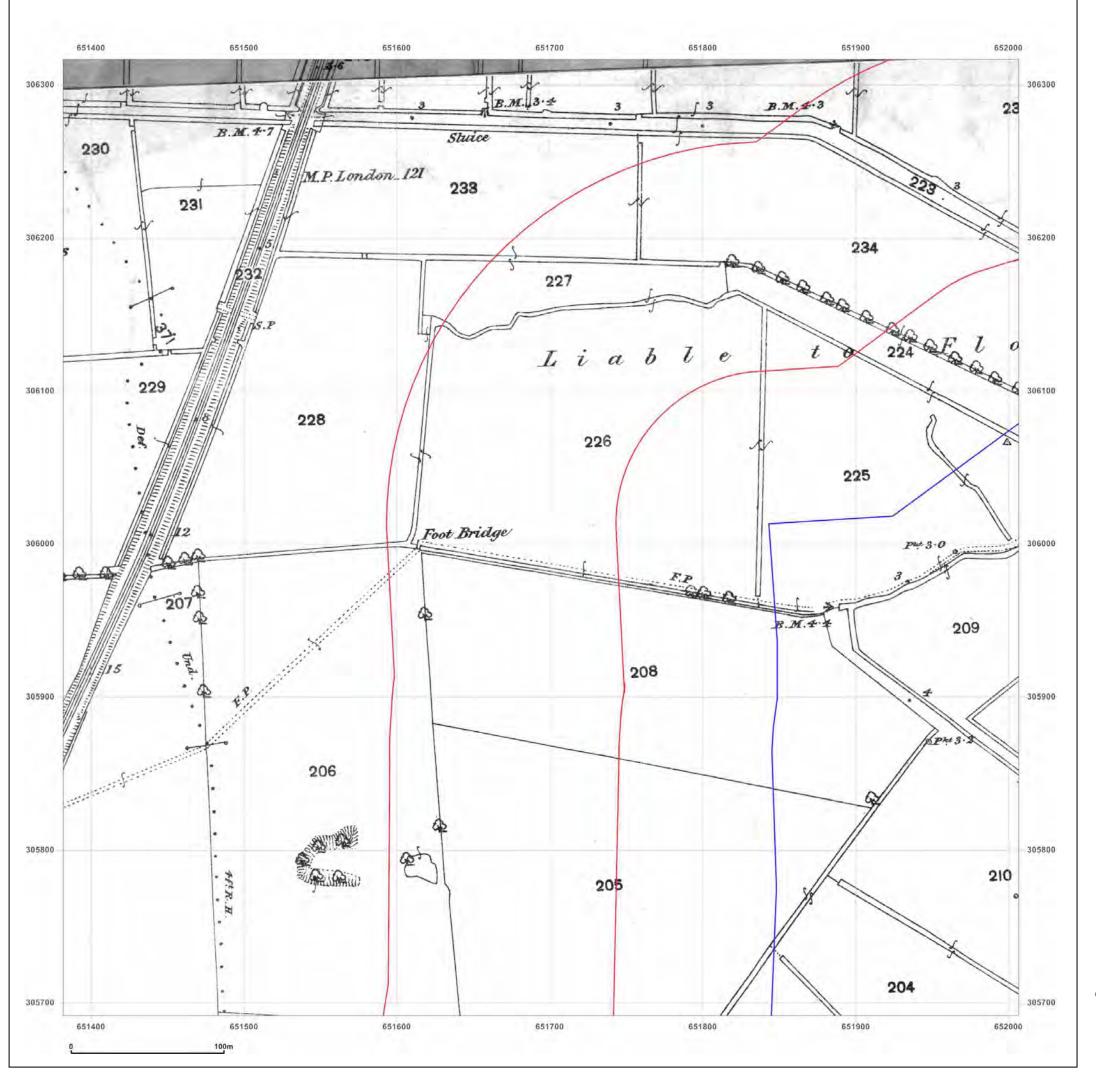




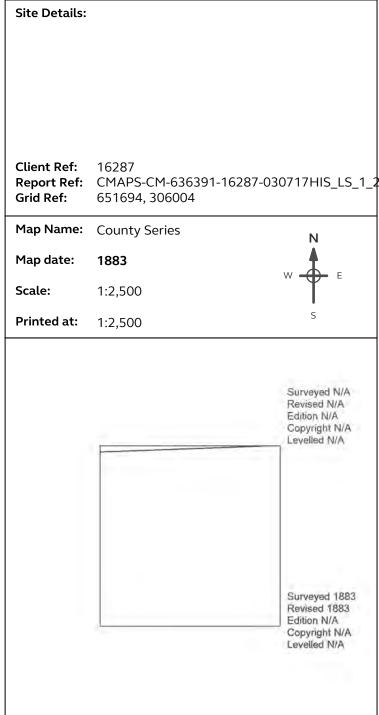
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







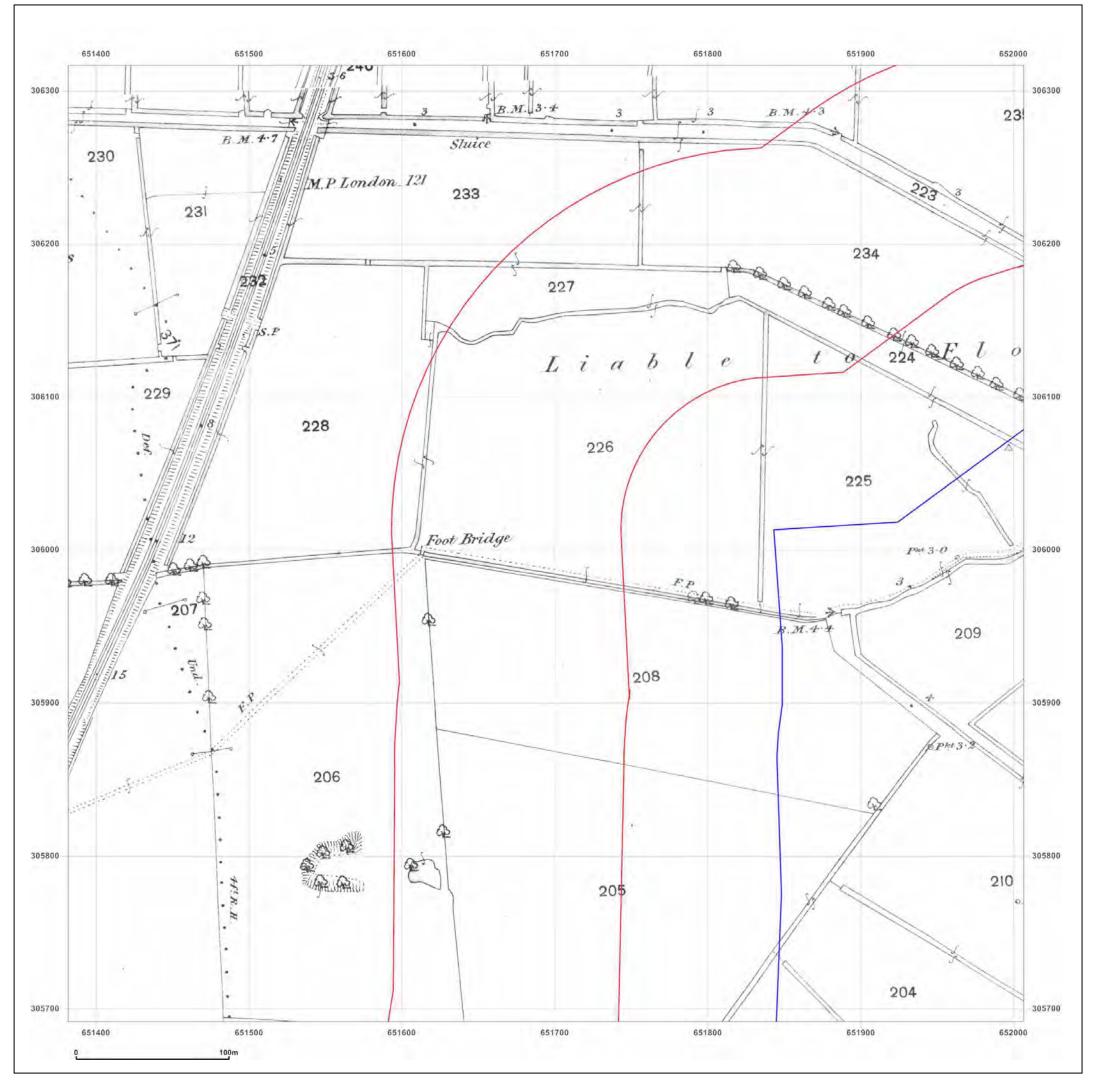




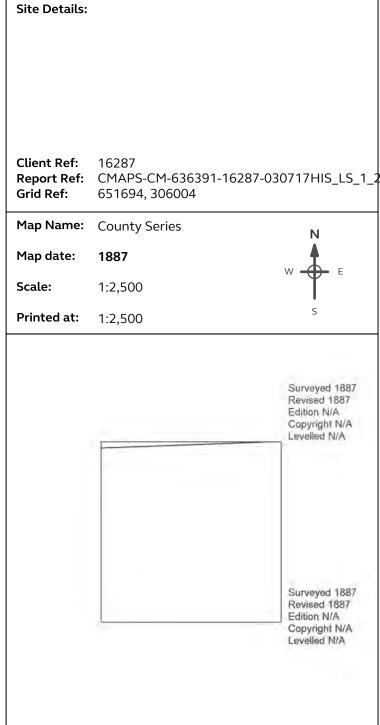
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







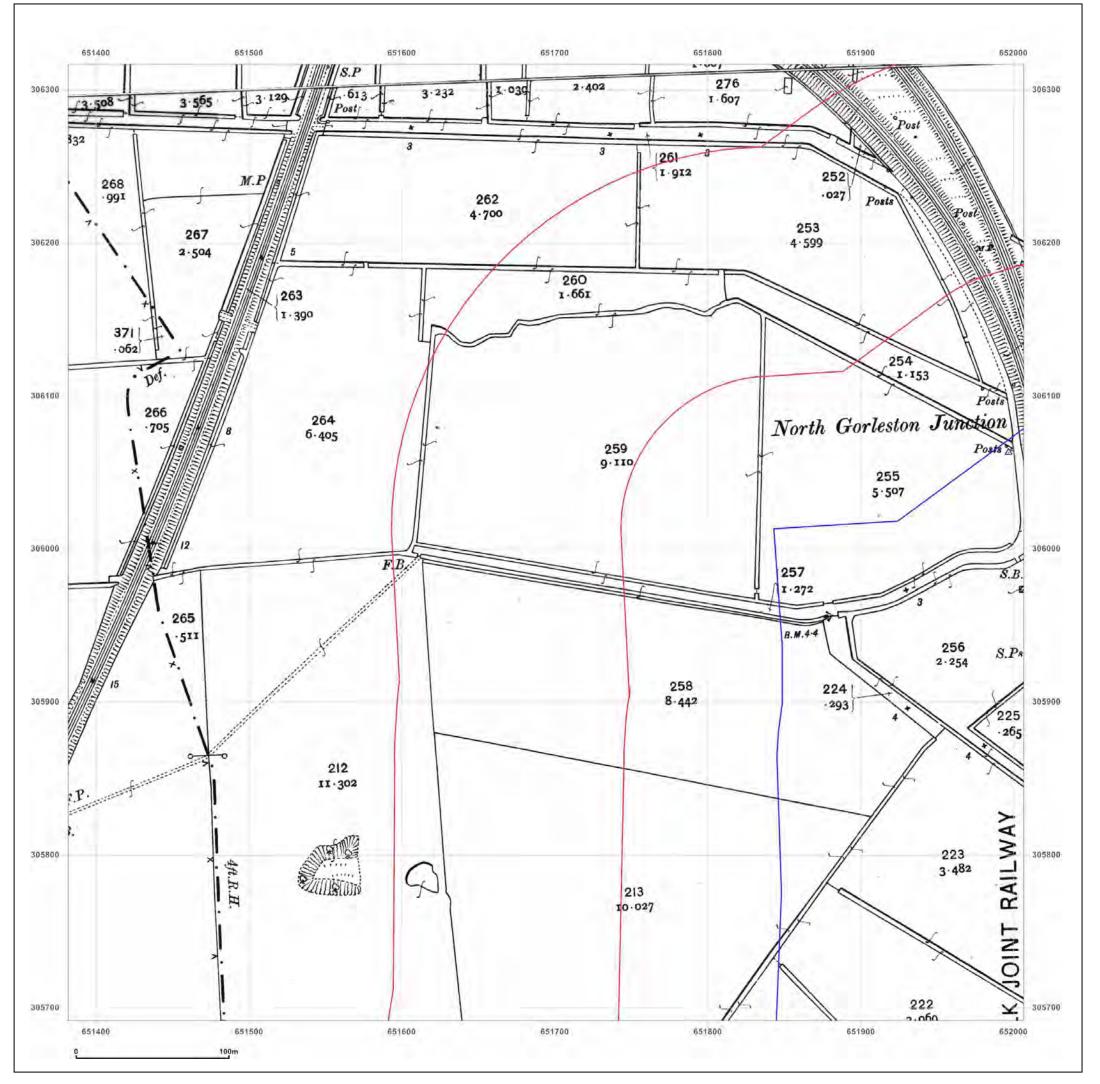




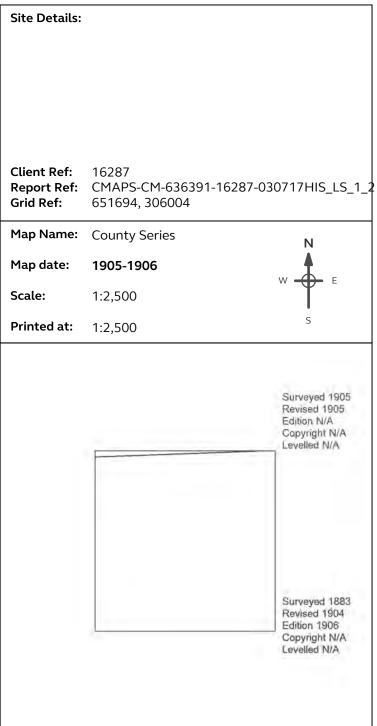
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







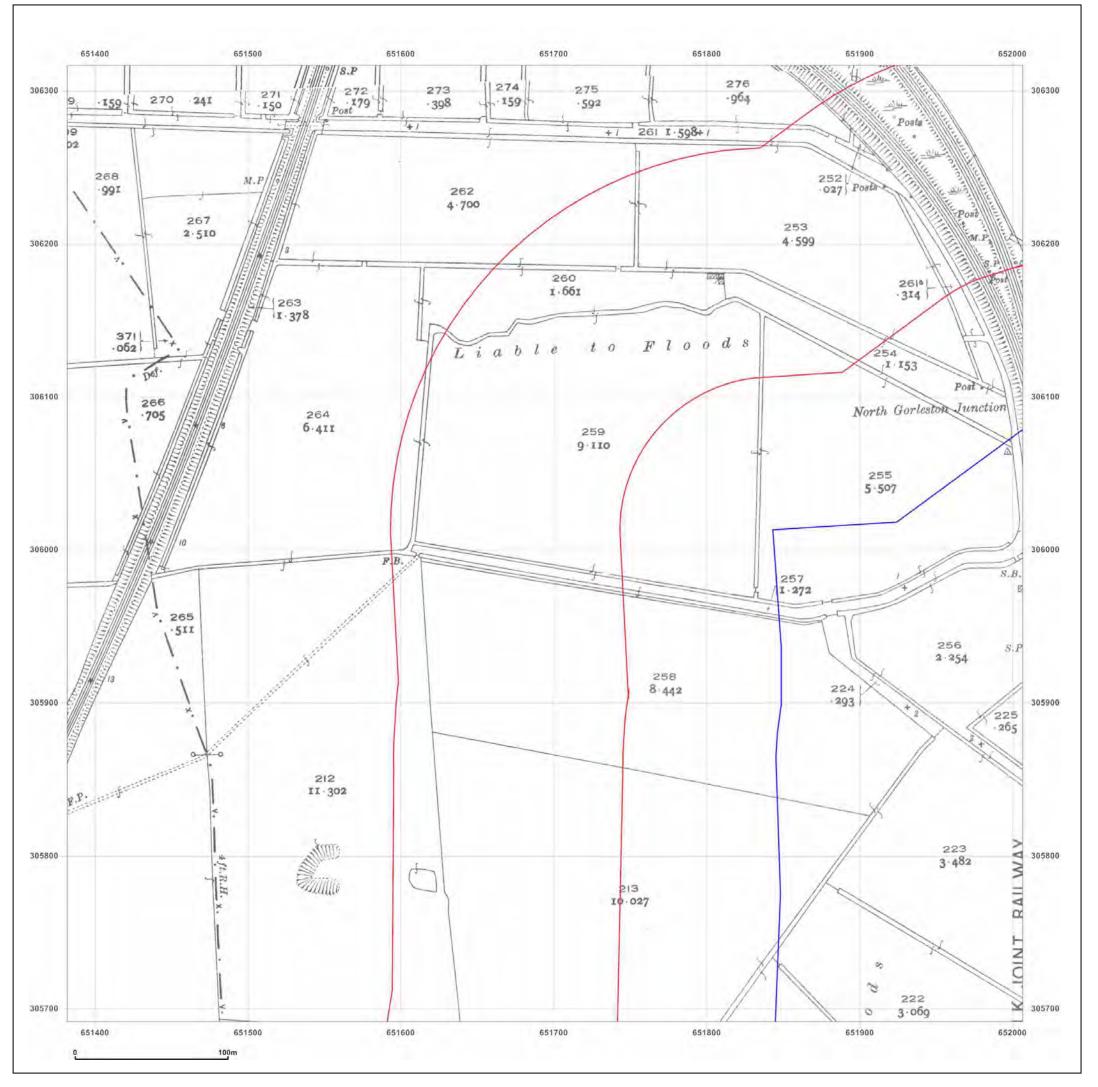




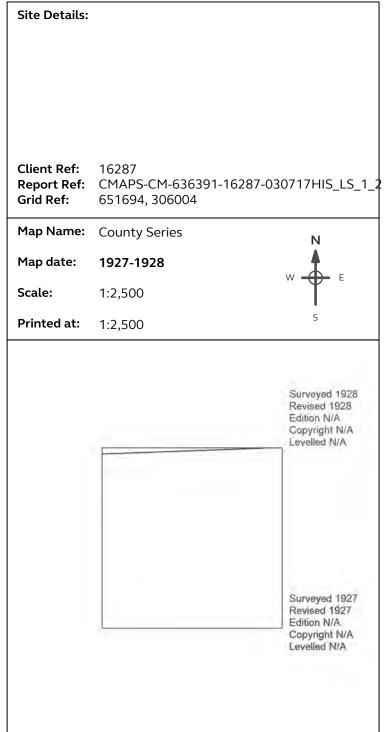
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







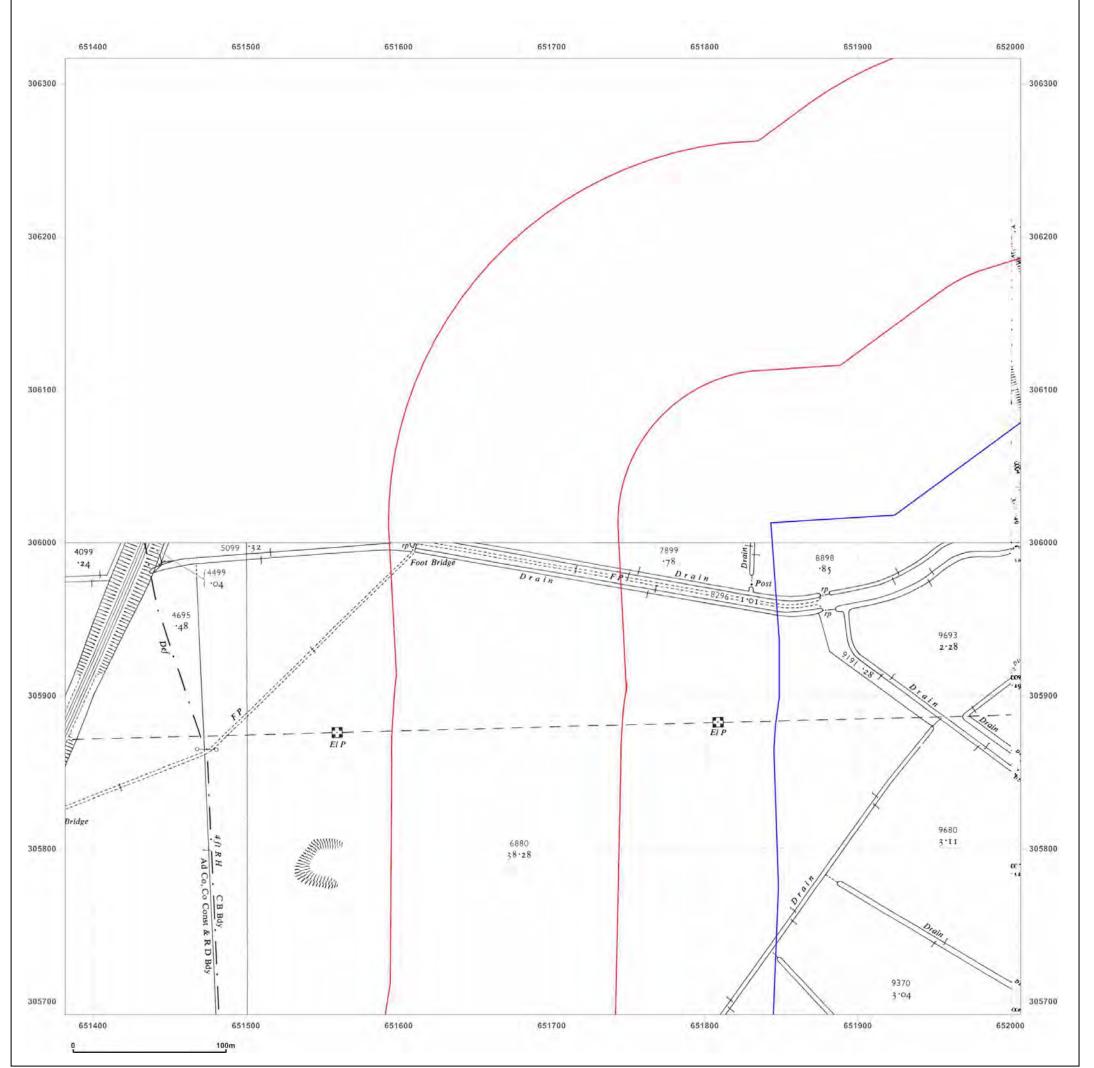




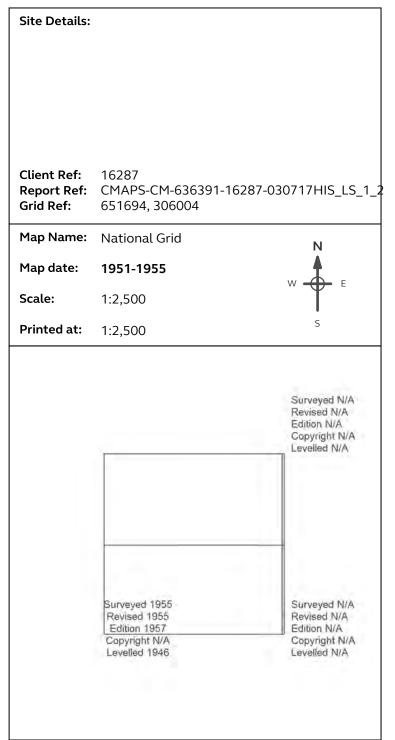
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







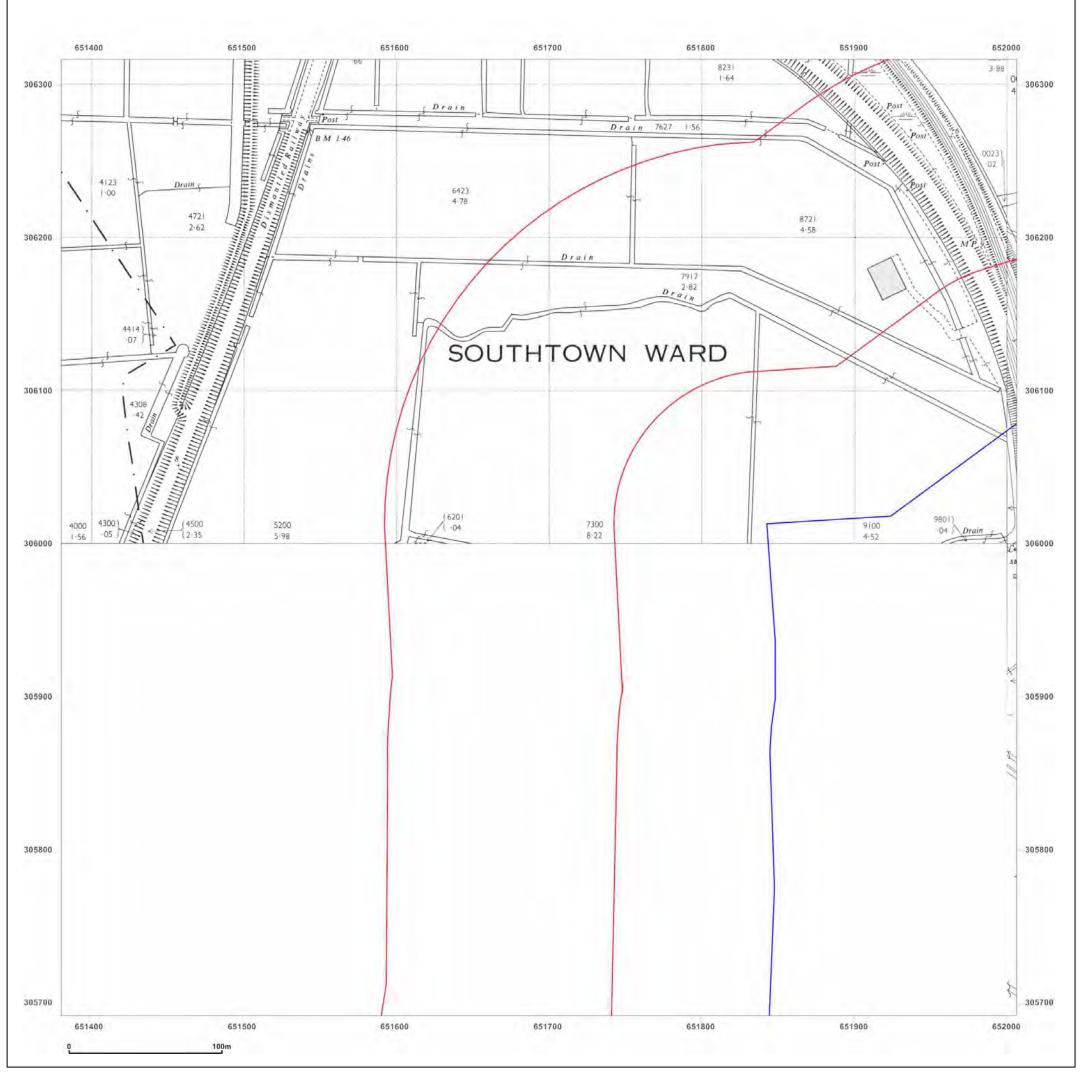




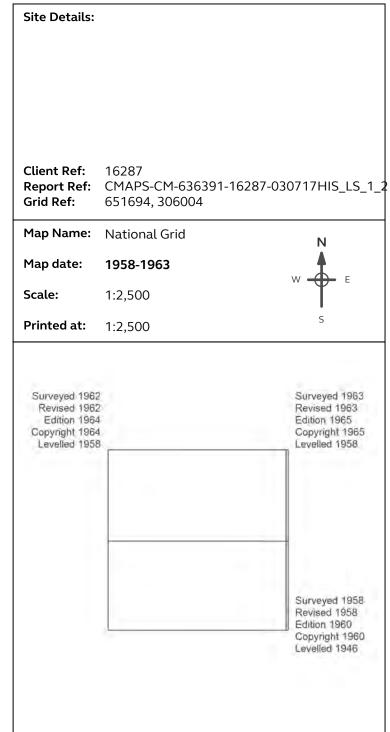
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ ^{\textcircled{\tiny 0}}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







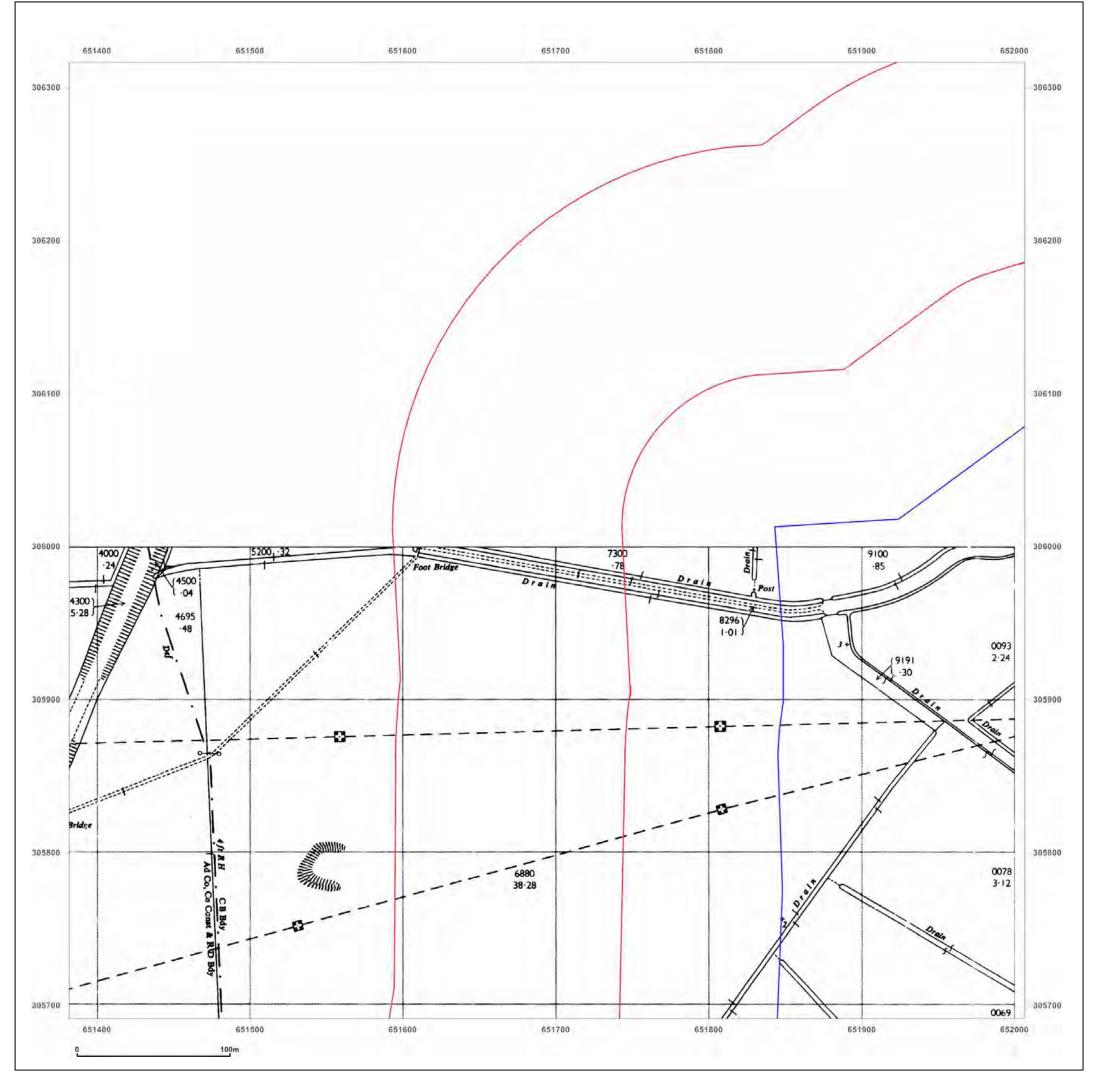




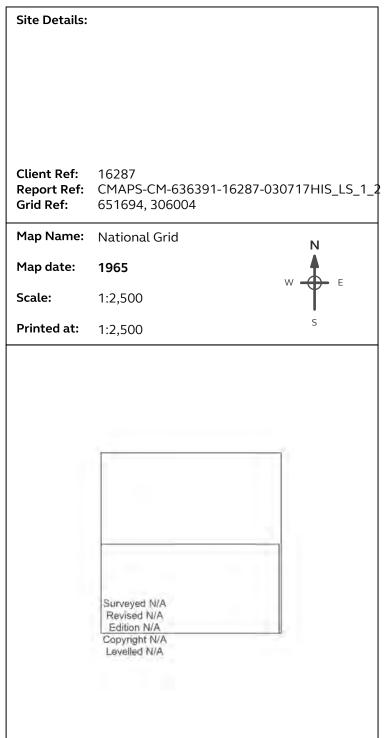
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







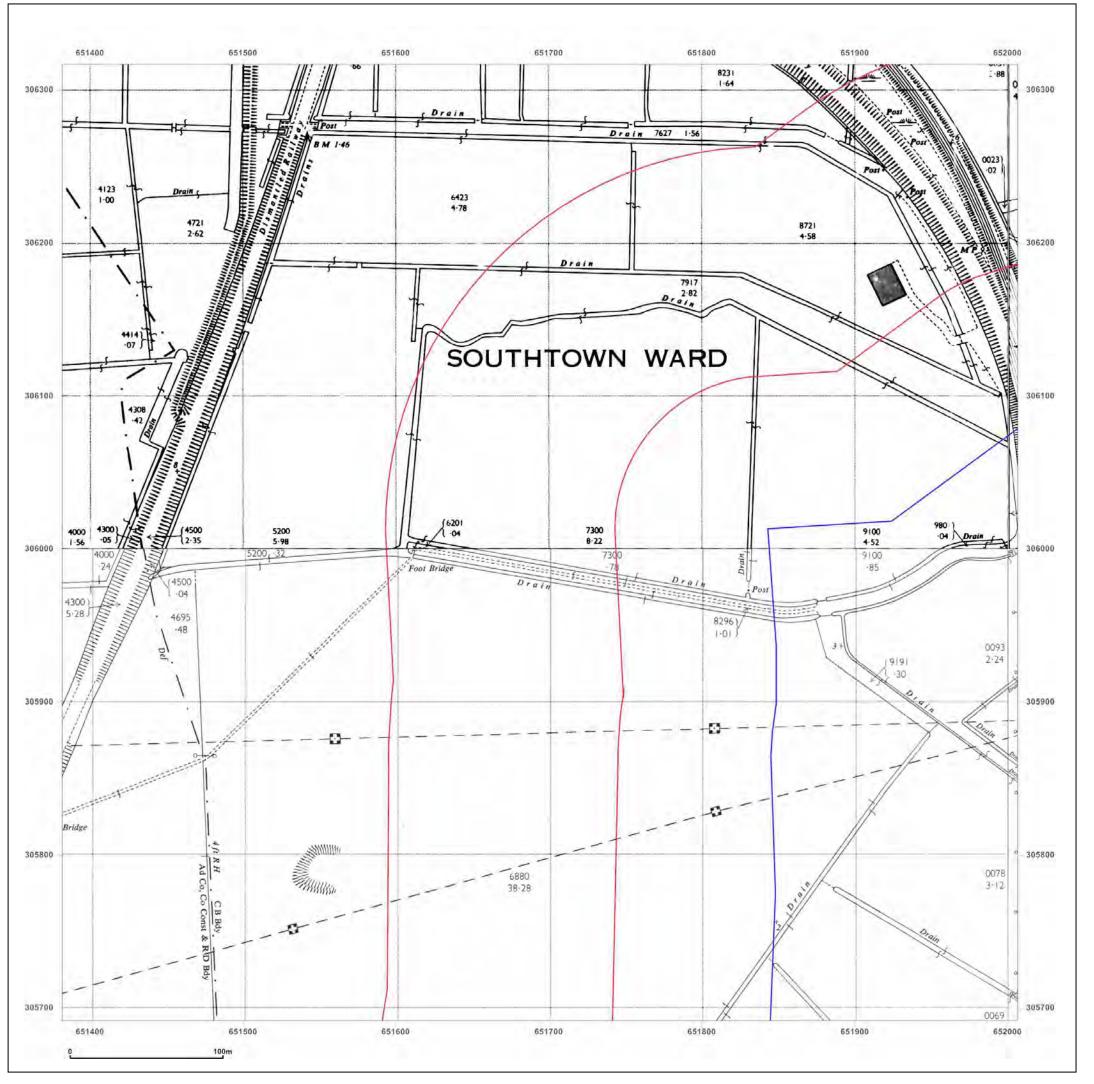




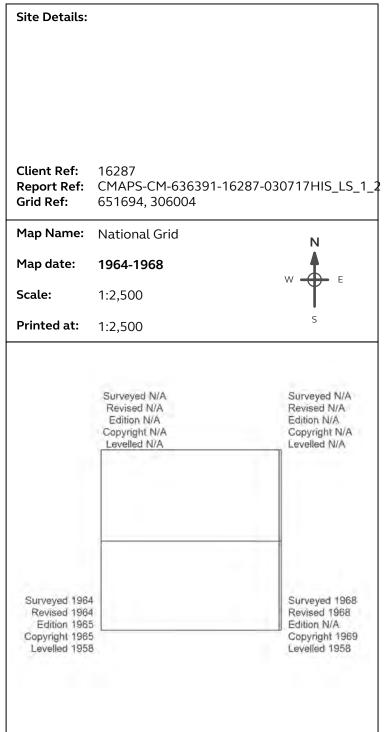
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







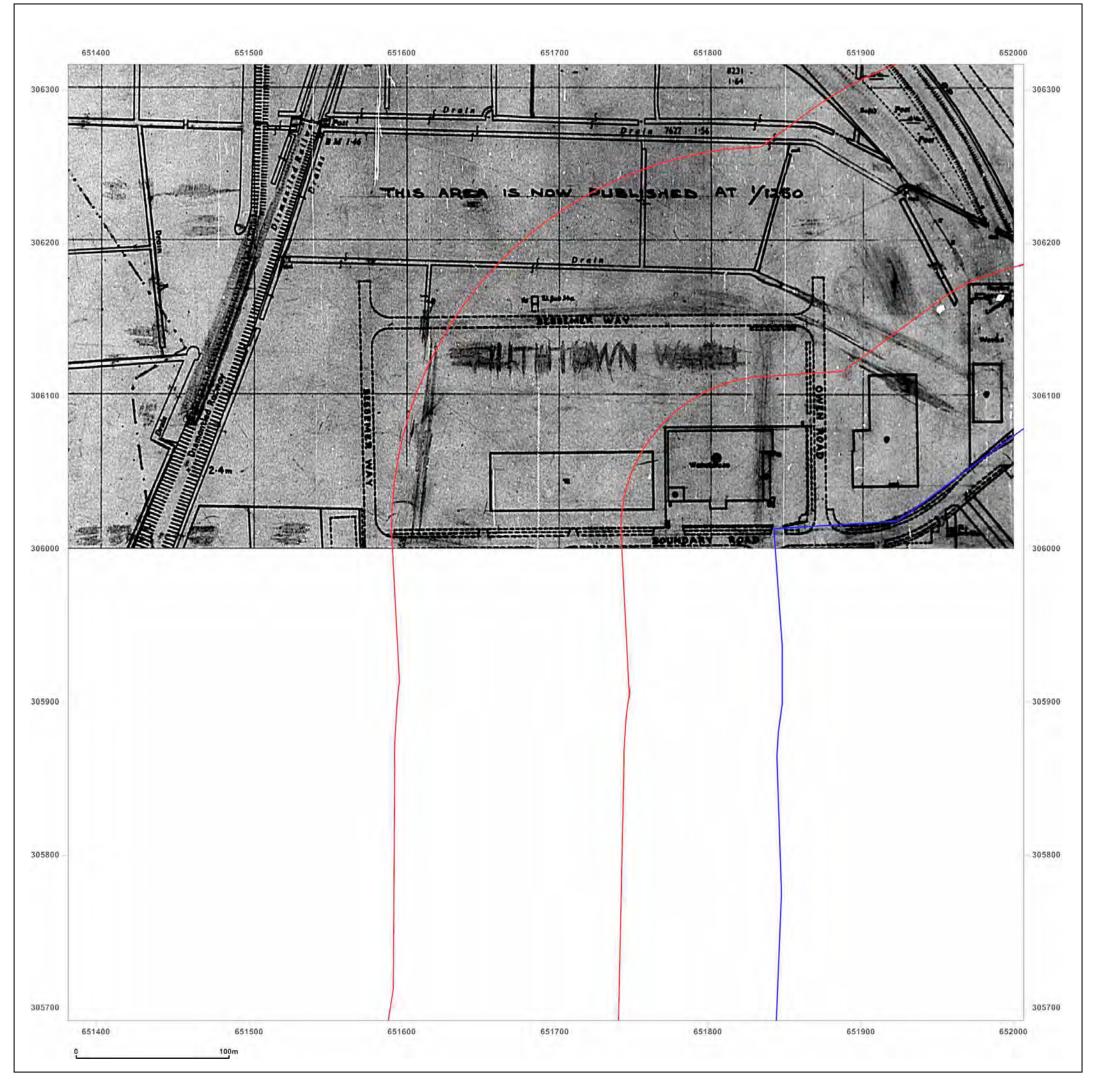




Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





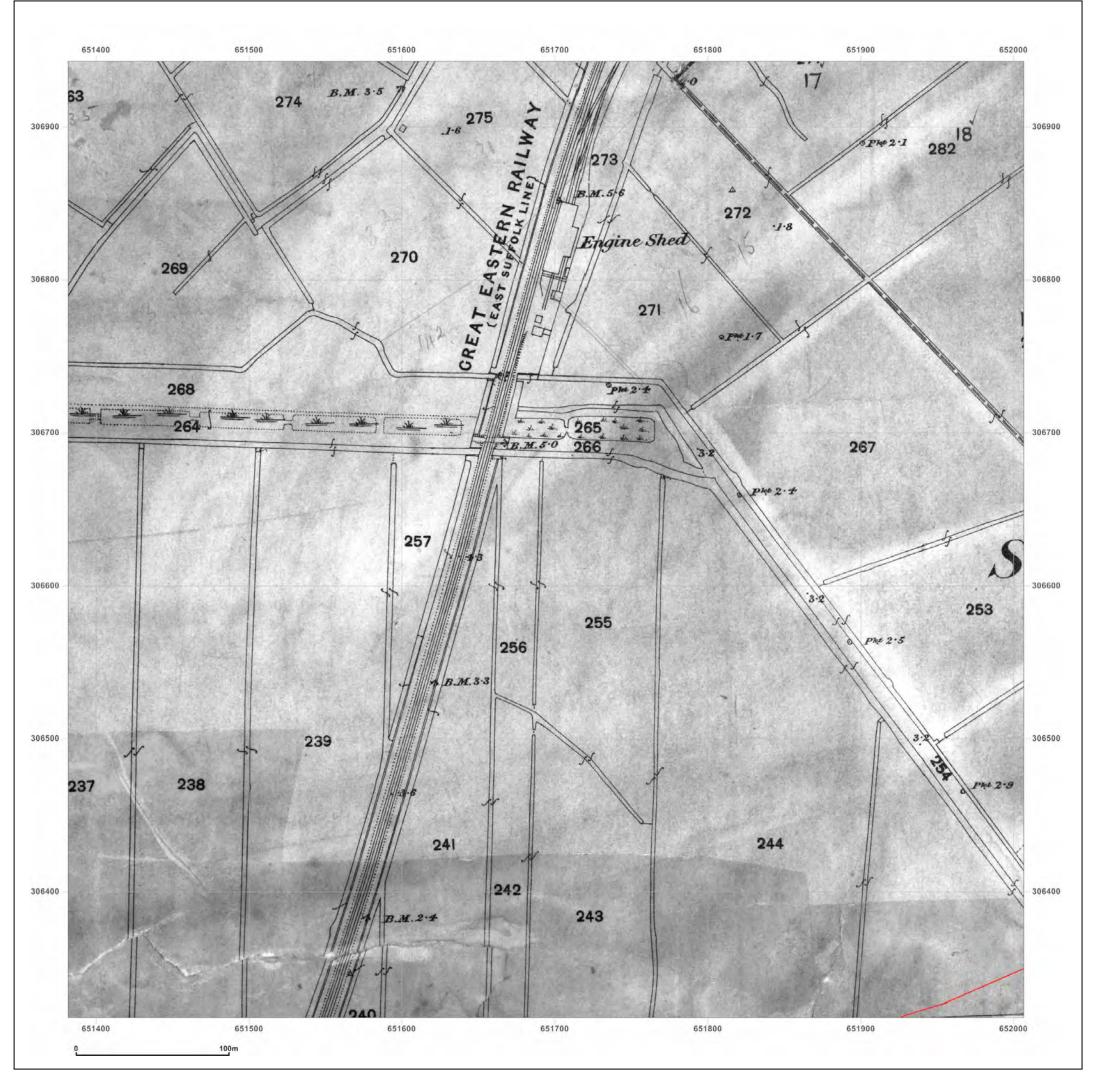
Site Details:	
Client Ref: Report Ref: Grid Ref:	16287 CMAPS-CM-636391-16287-030717HIS_LS_1_ 651694, 306004
Map Name:	National Grid N
Map date:	1978
Scale:	1:2,500
Printed at:	1:2,500 s
	Surveyed 1978 Revised 1978 Edition N/A Copyright 1978 Levelled N/A



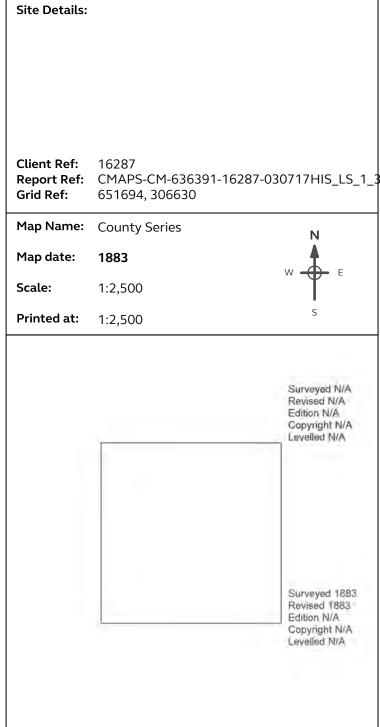


Supplied by: www.centremapslive.com groundsure@centremaps.com

Production date: 03 July 2017







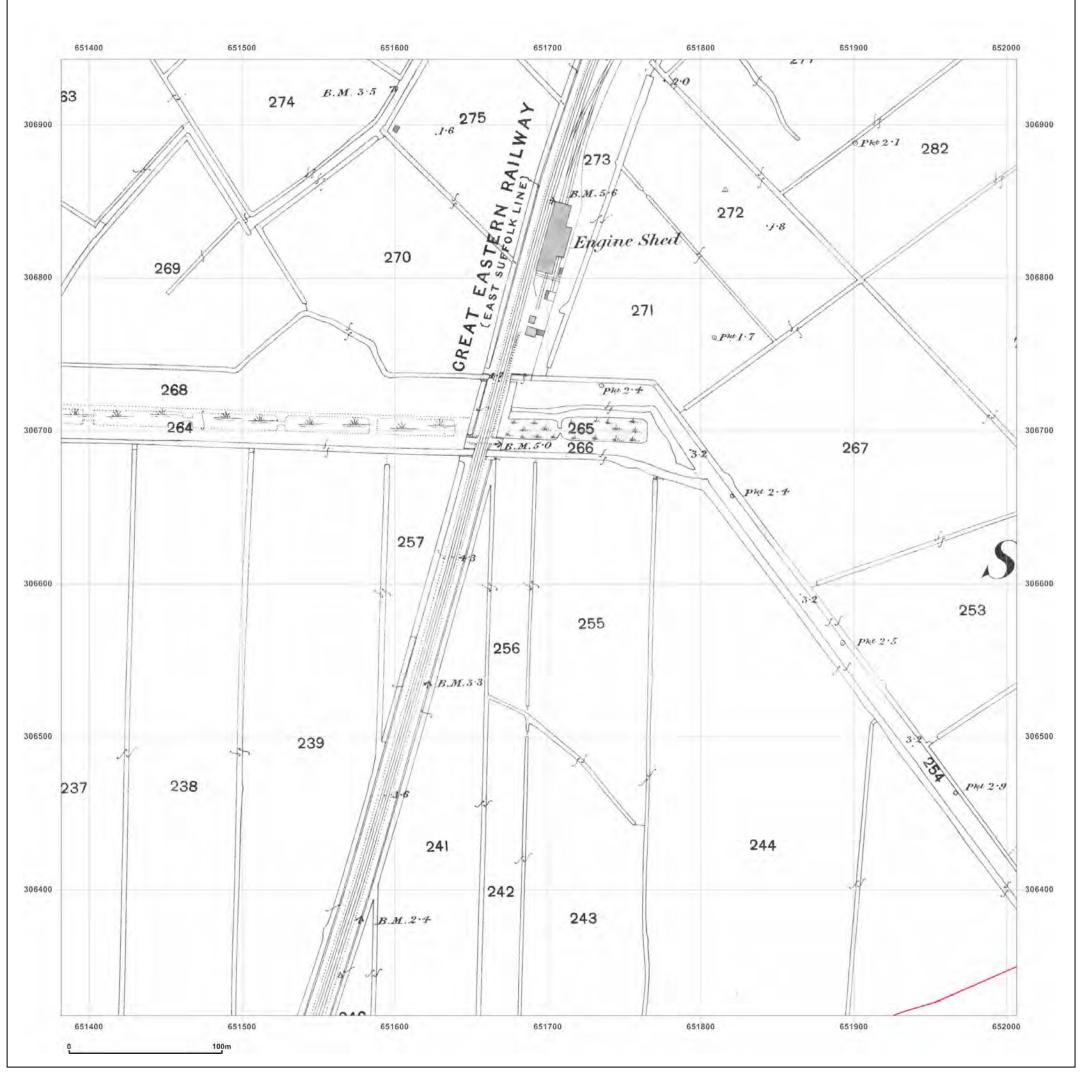




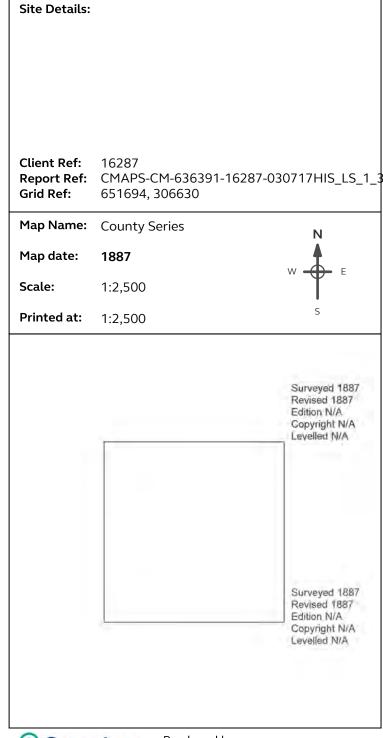
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







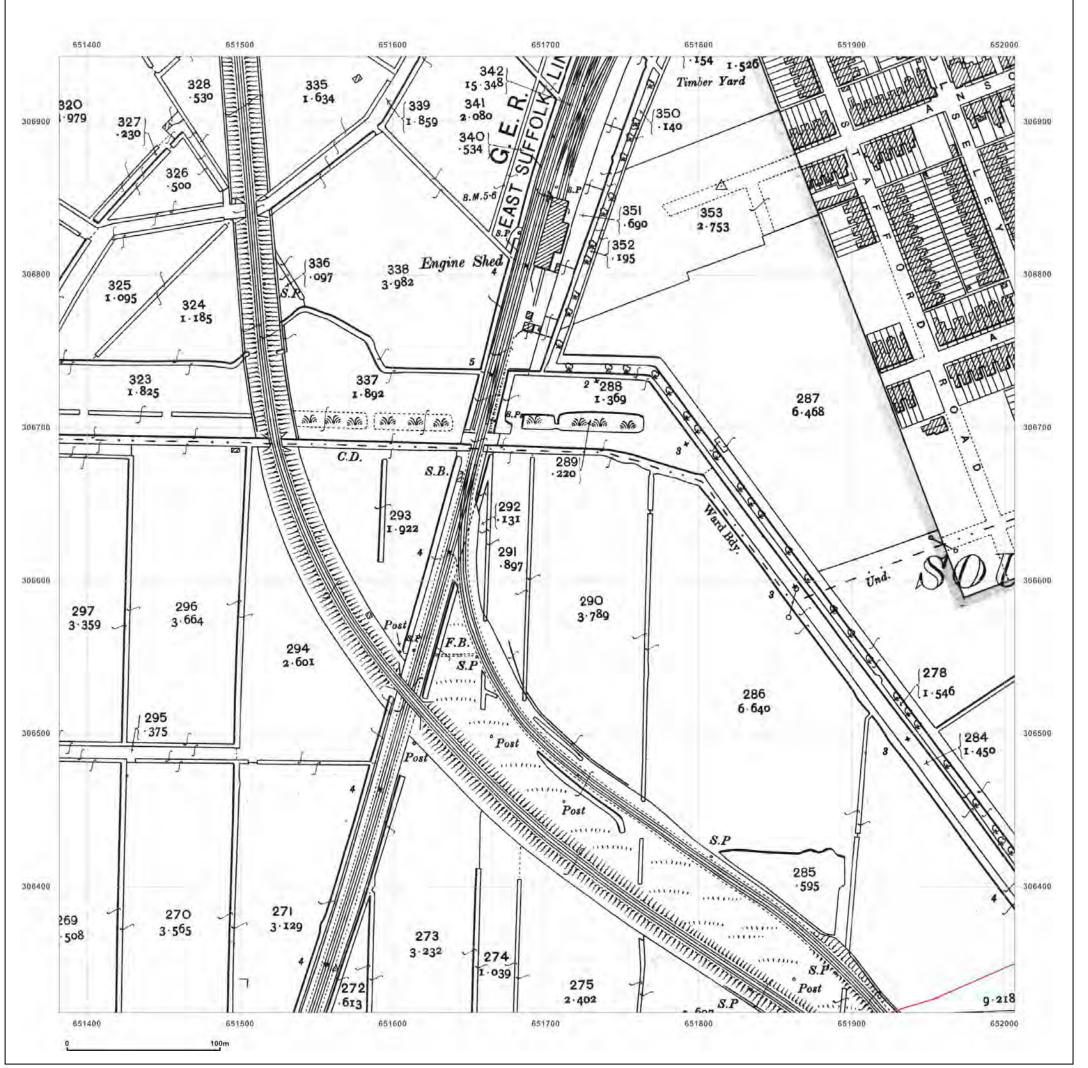




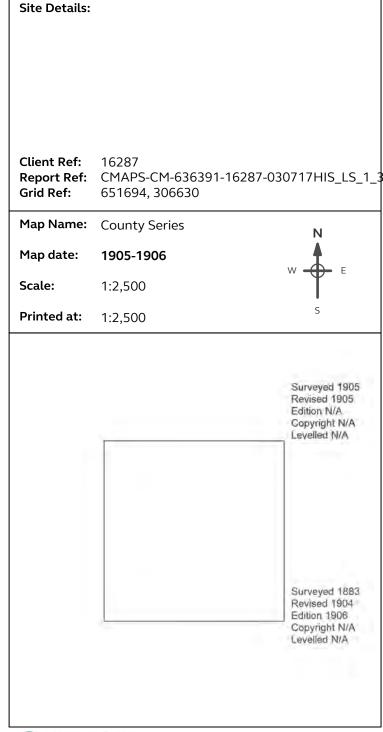
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







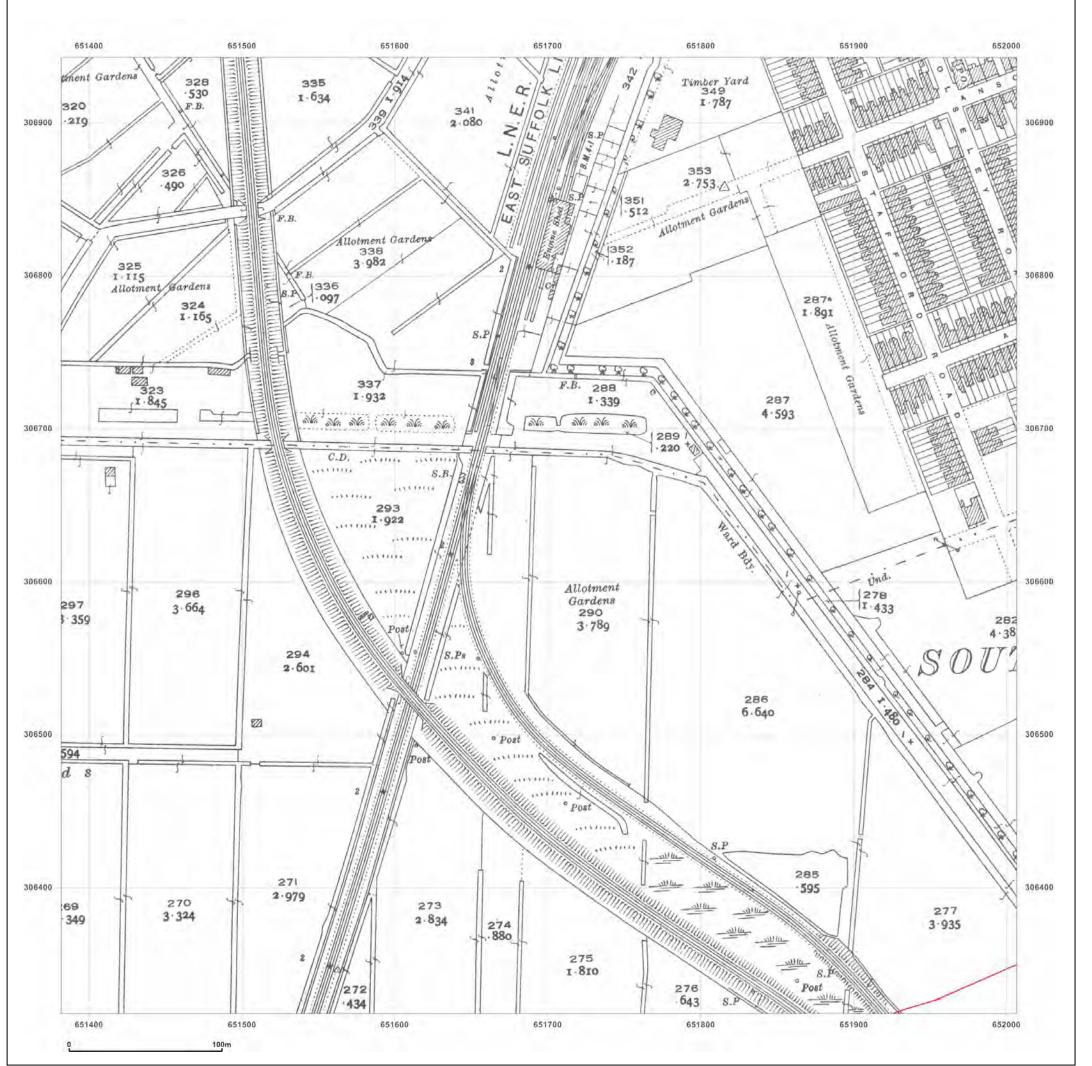




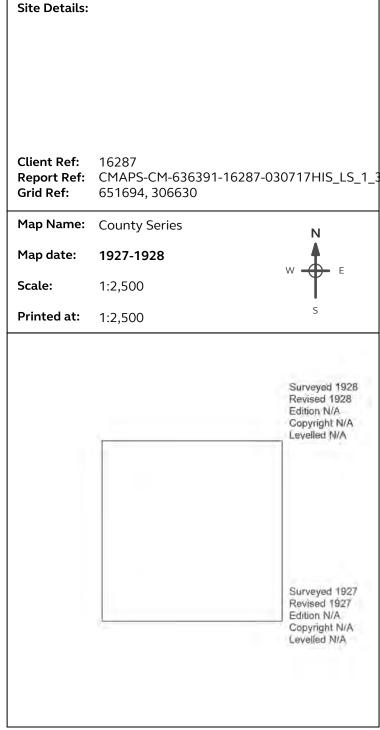
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







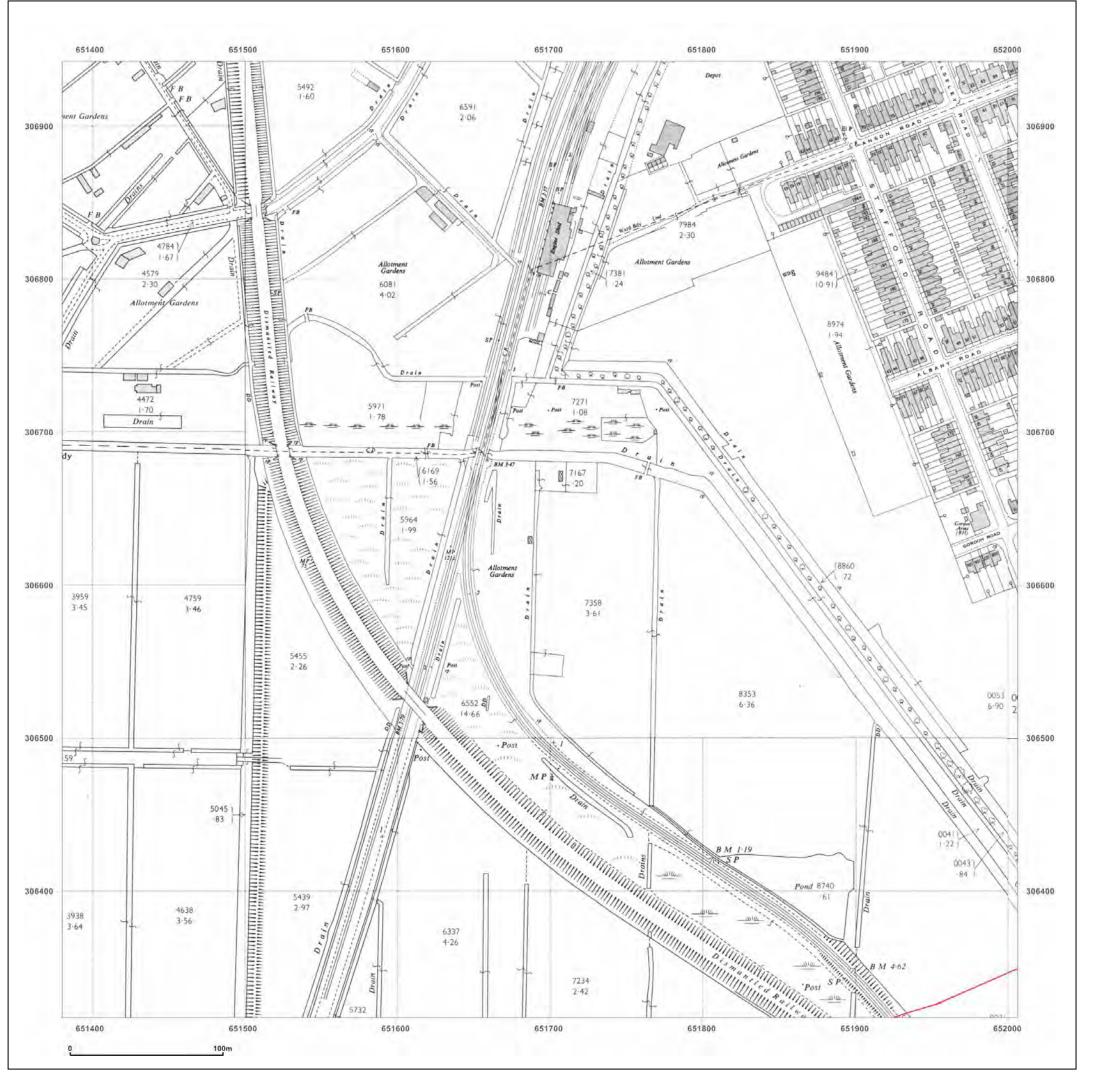




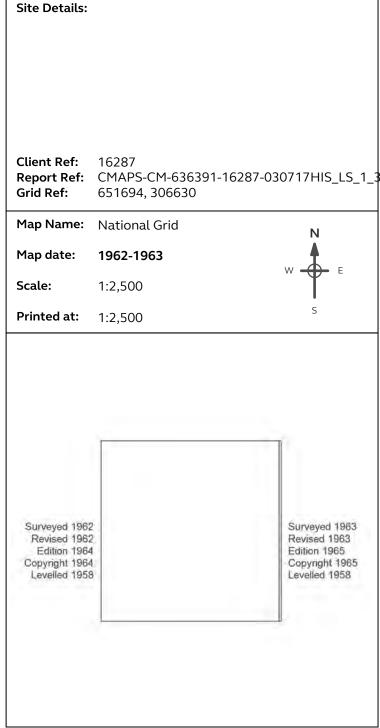
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







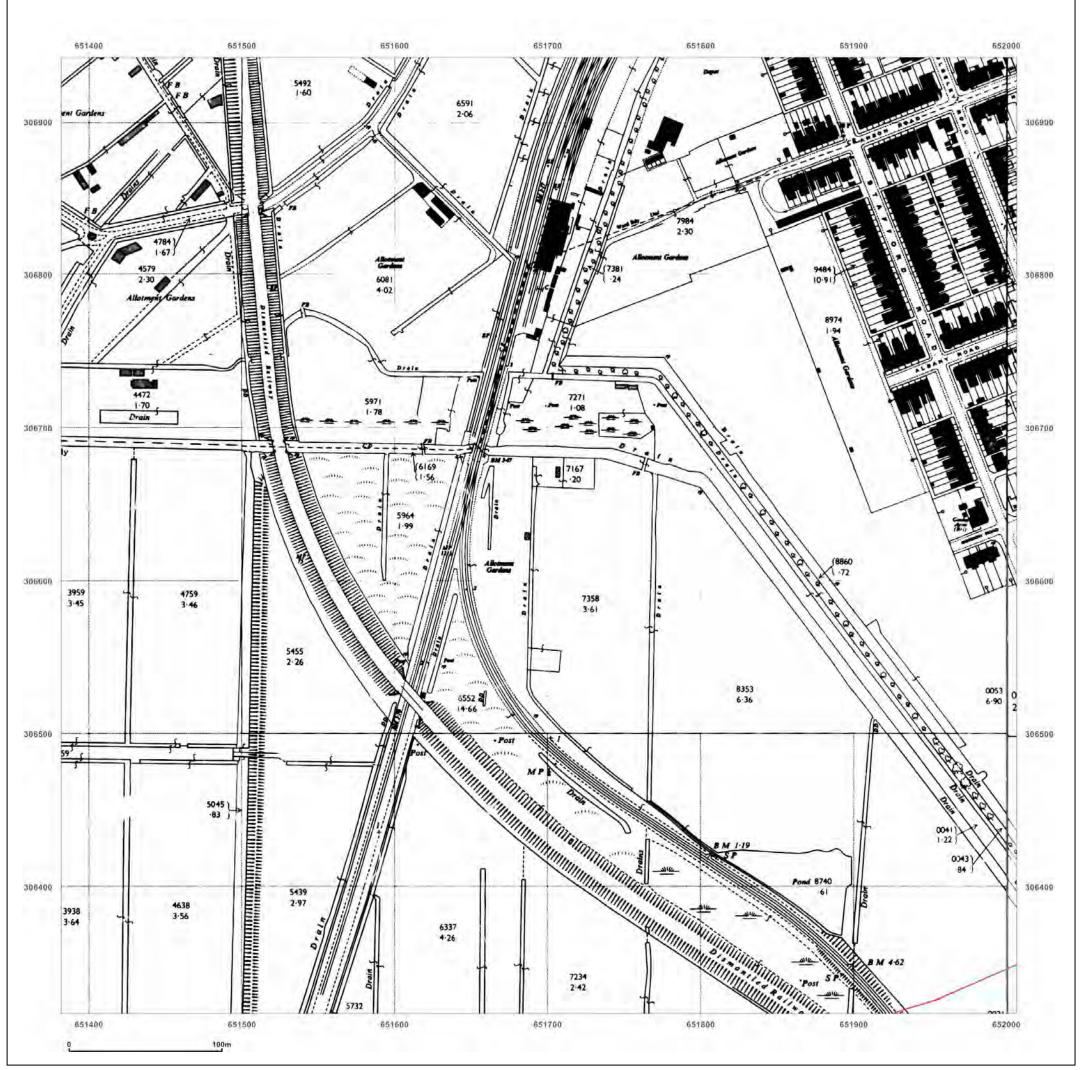




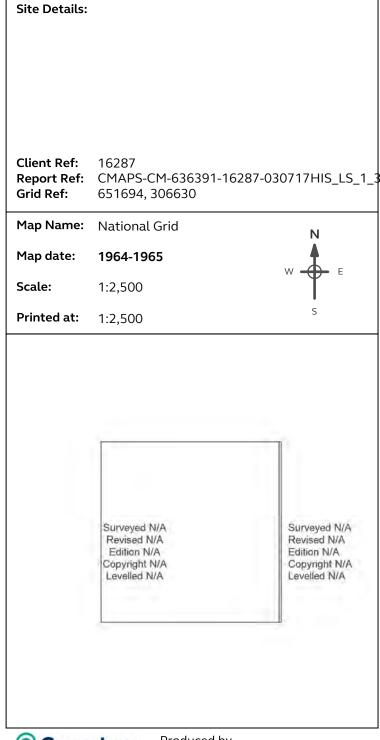
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











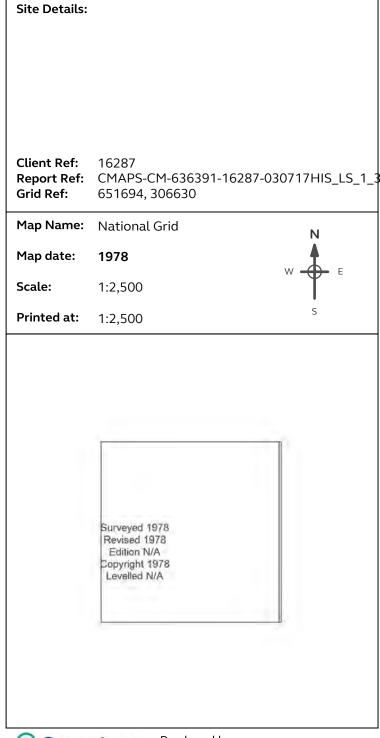
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











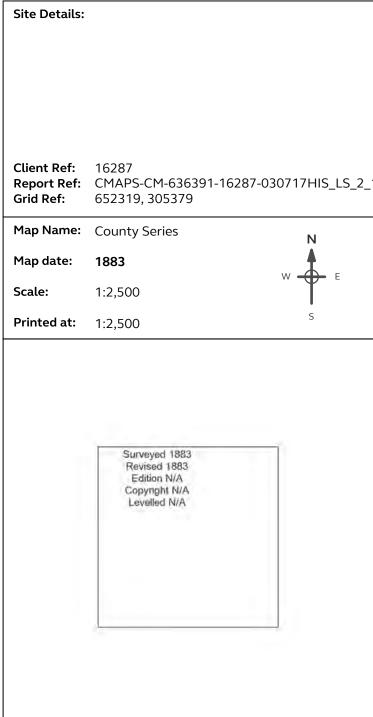
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







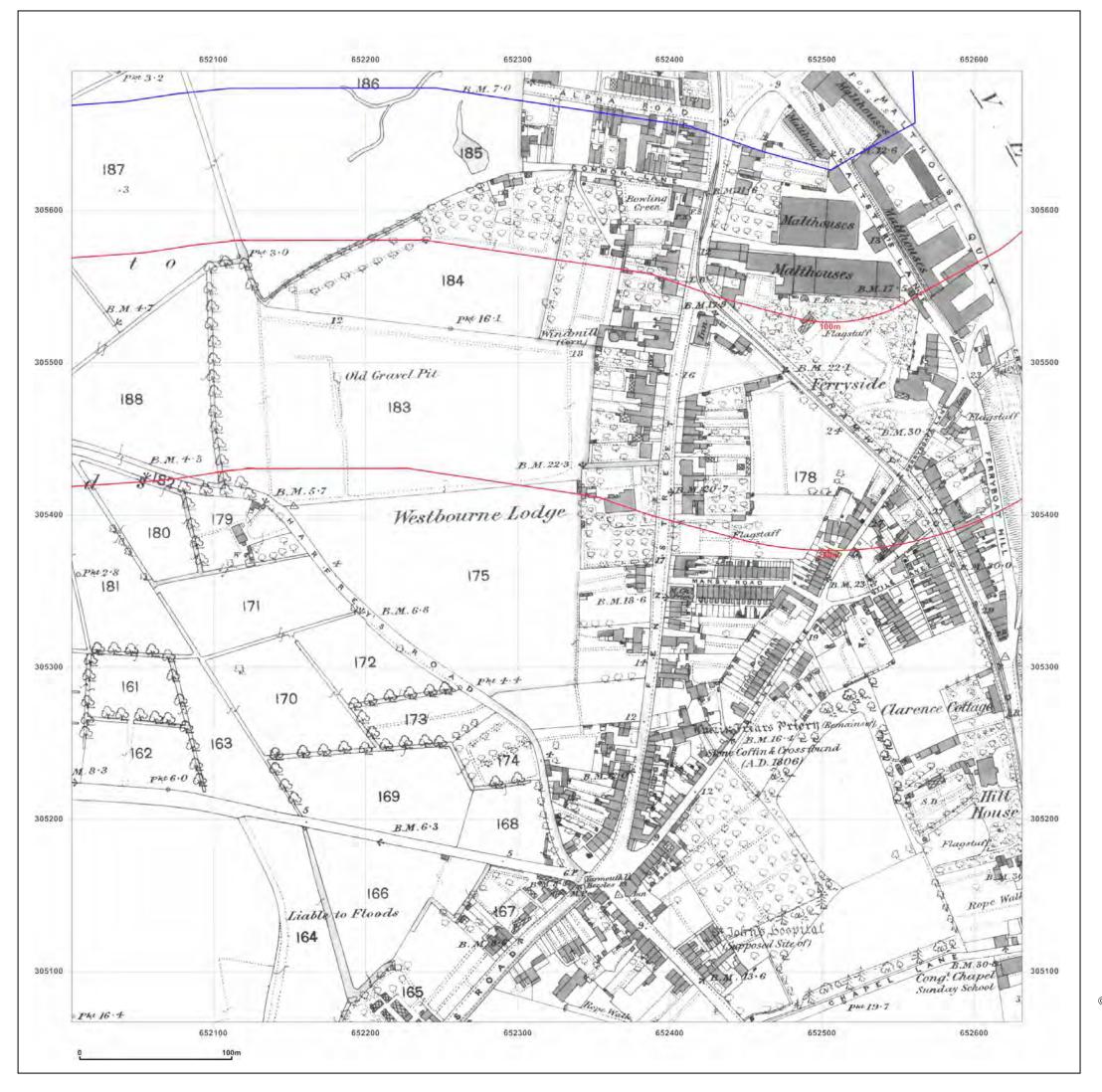




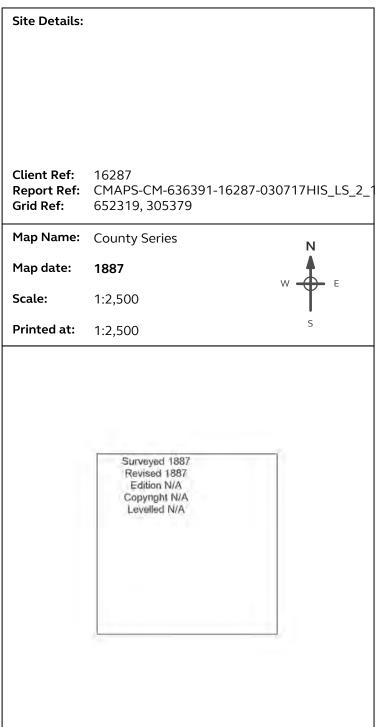
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







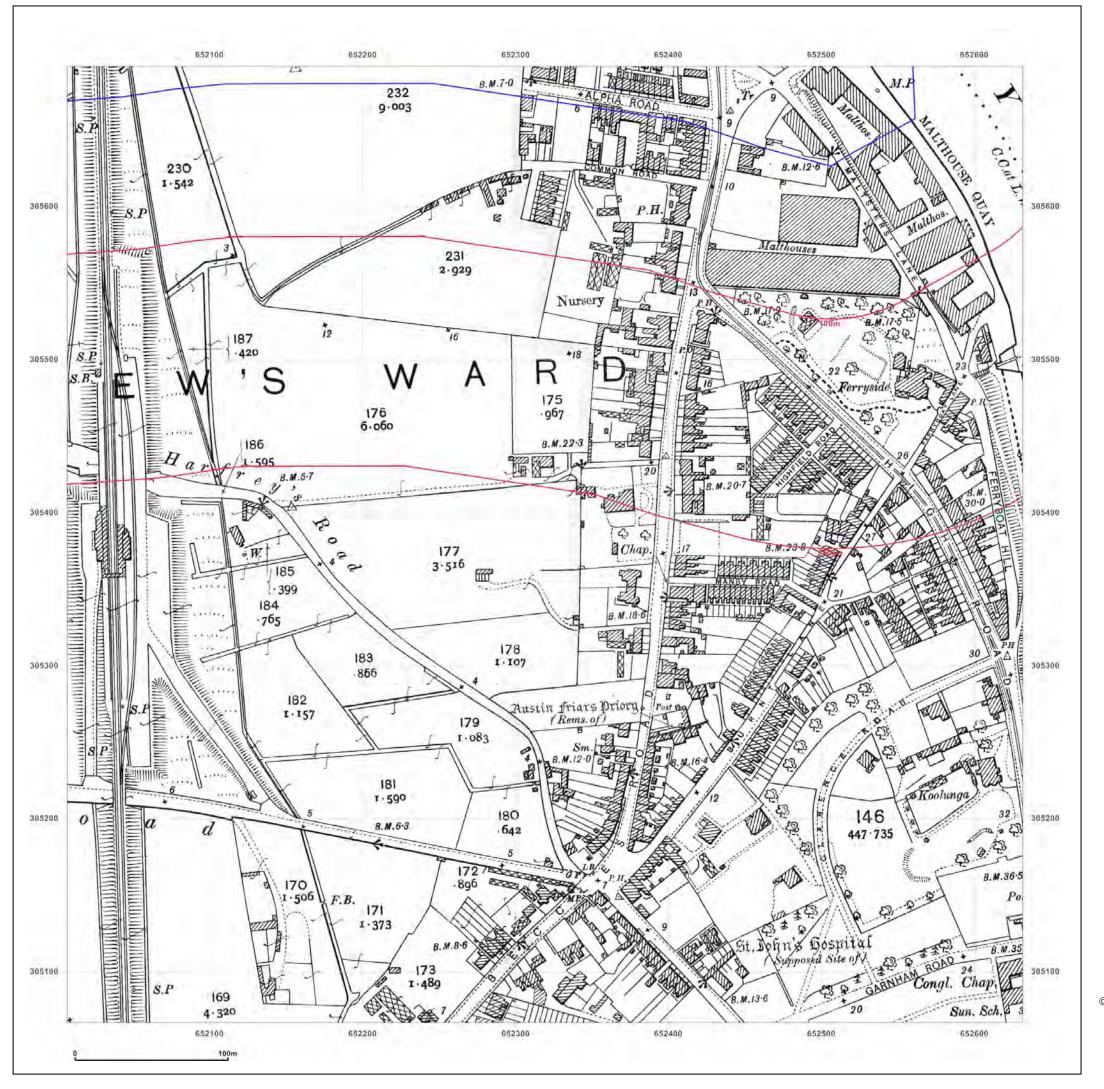




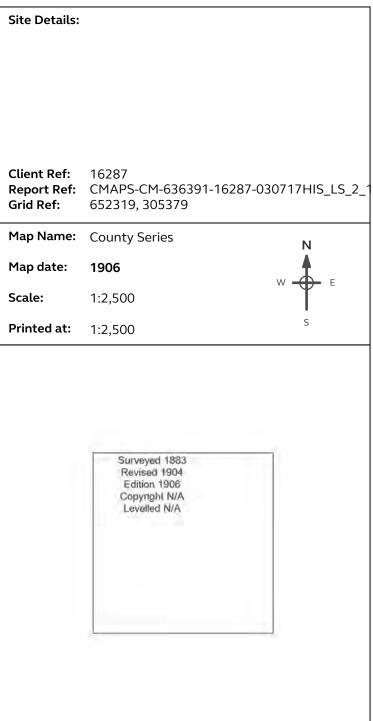
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







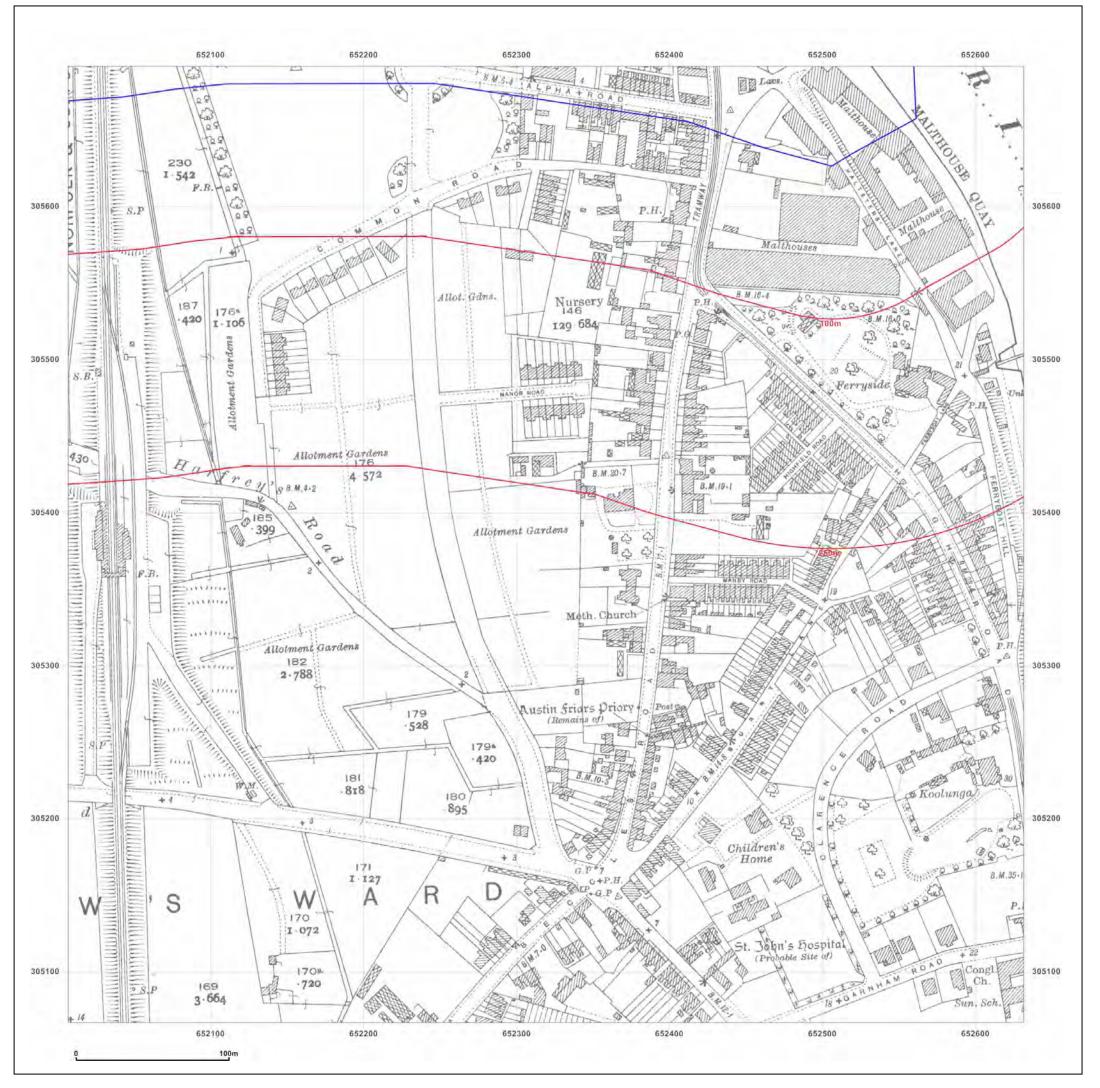




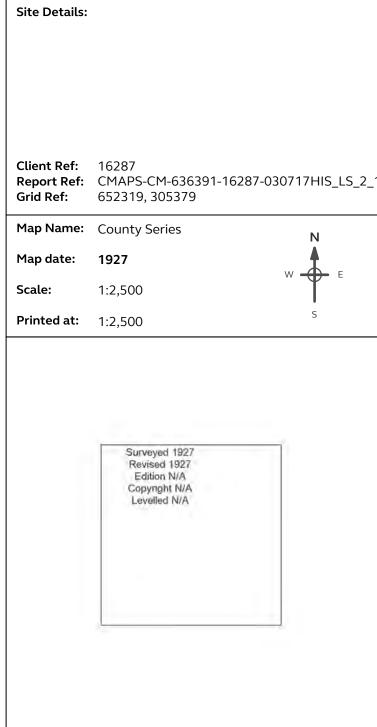
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





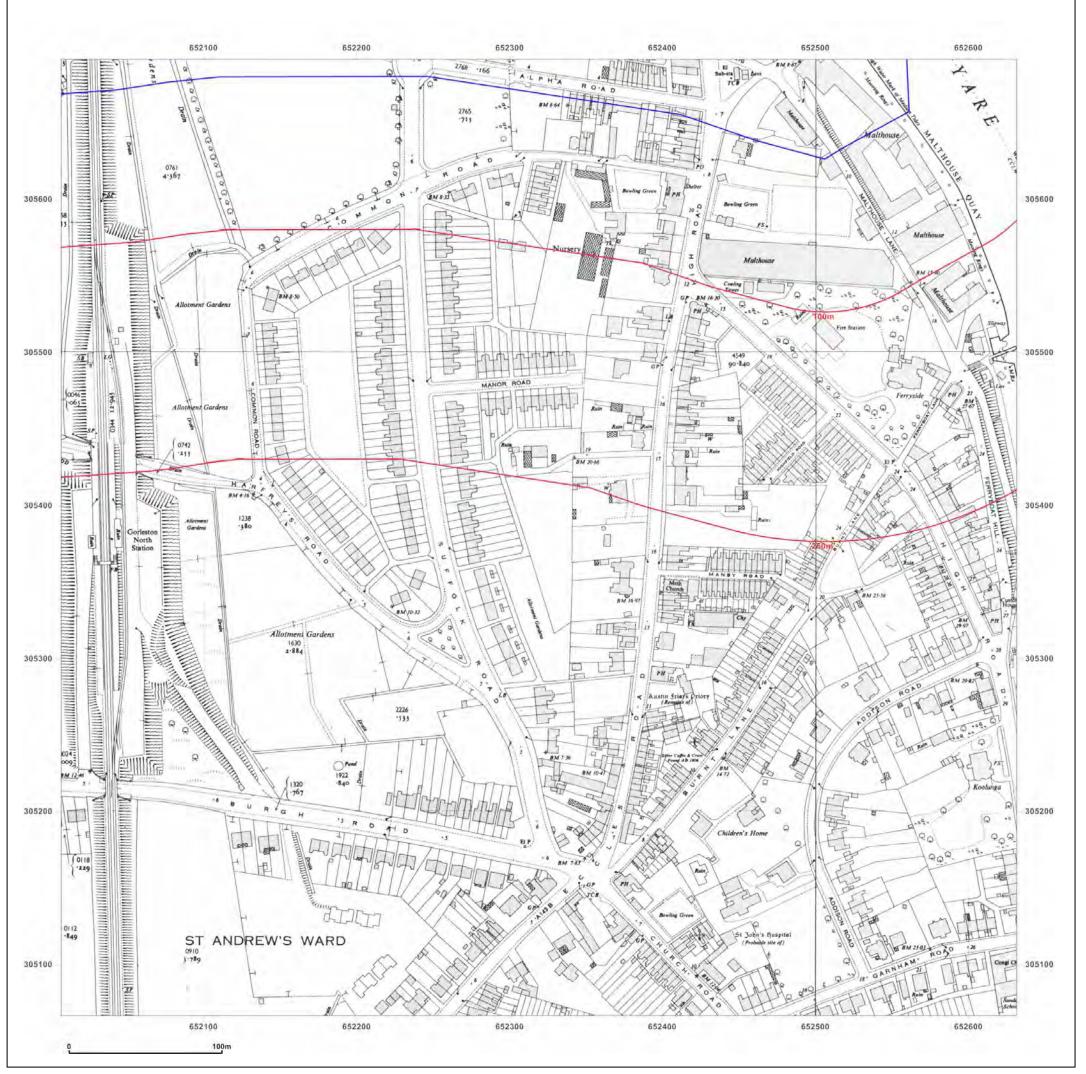




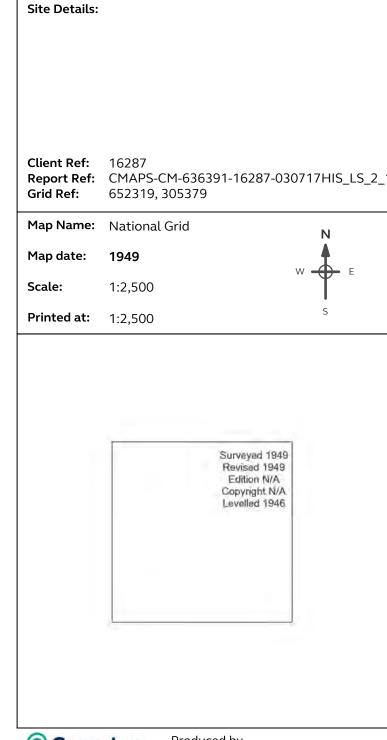


Supplied by: www.centremapslive.com groundsure@centremaps.com

Production date: 03 July 2017







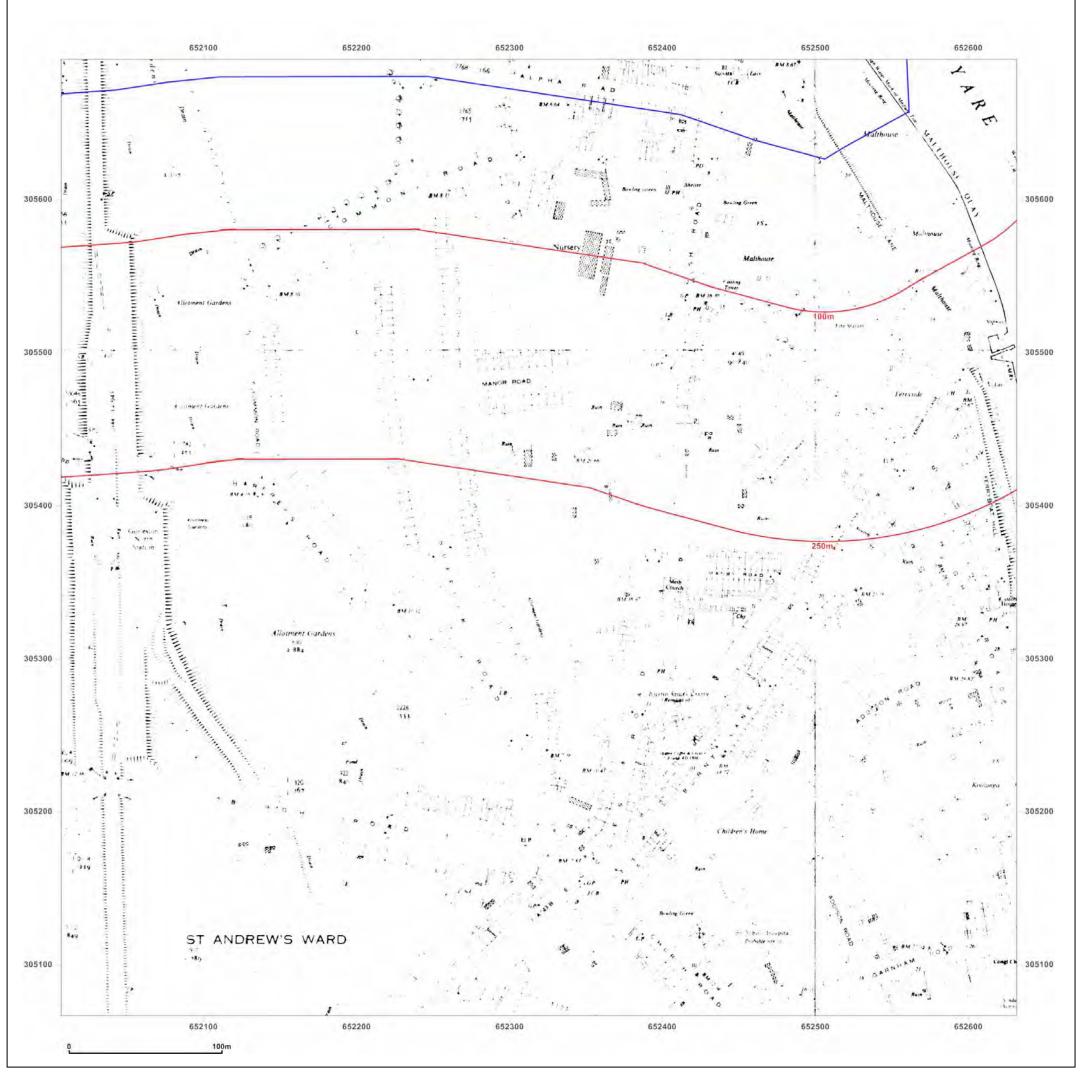




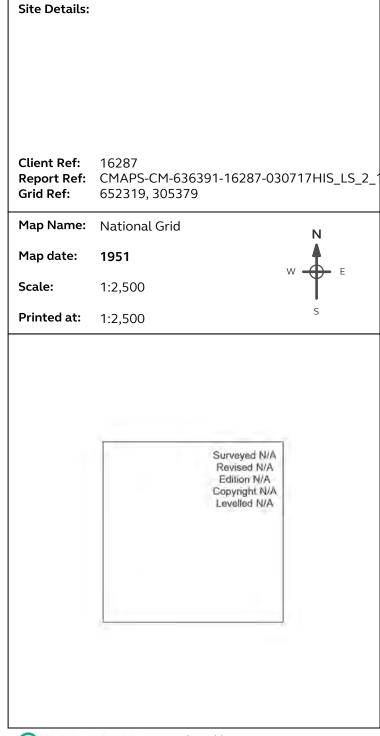
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\hbox{@}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







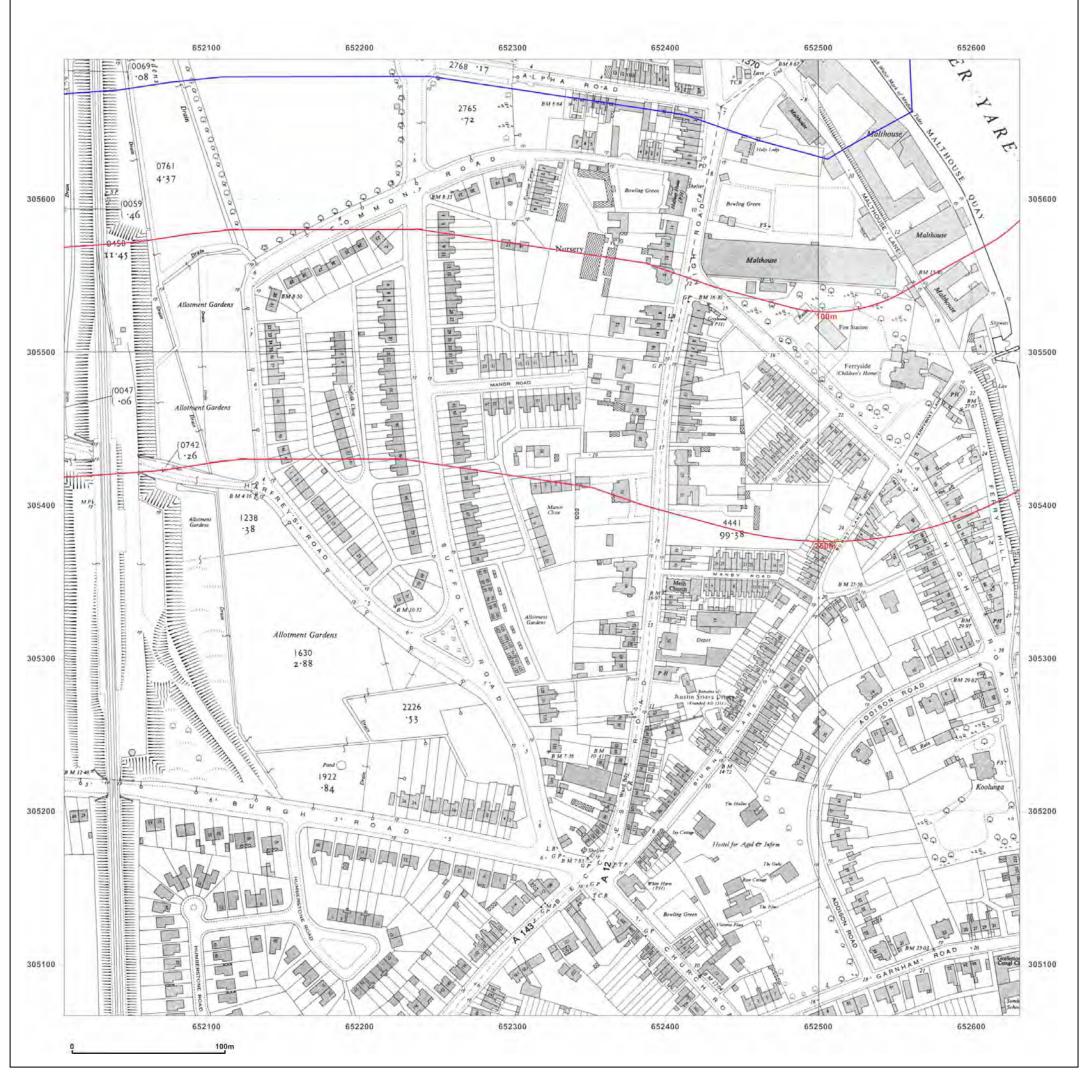




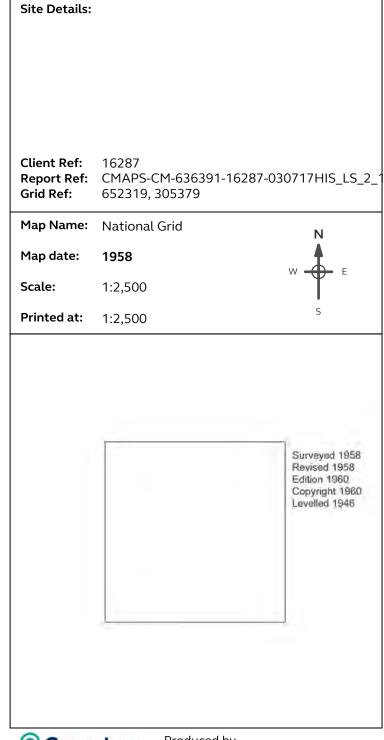
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







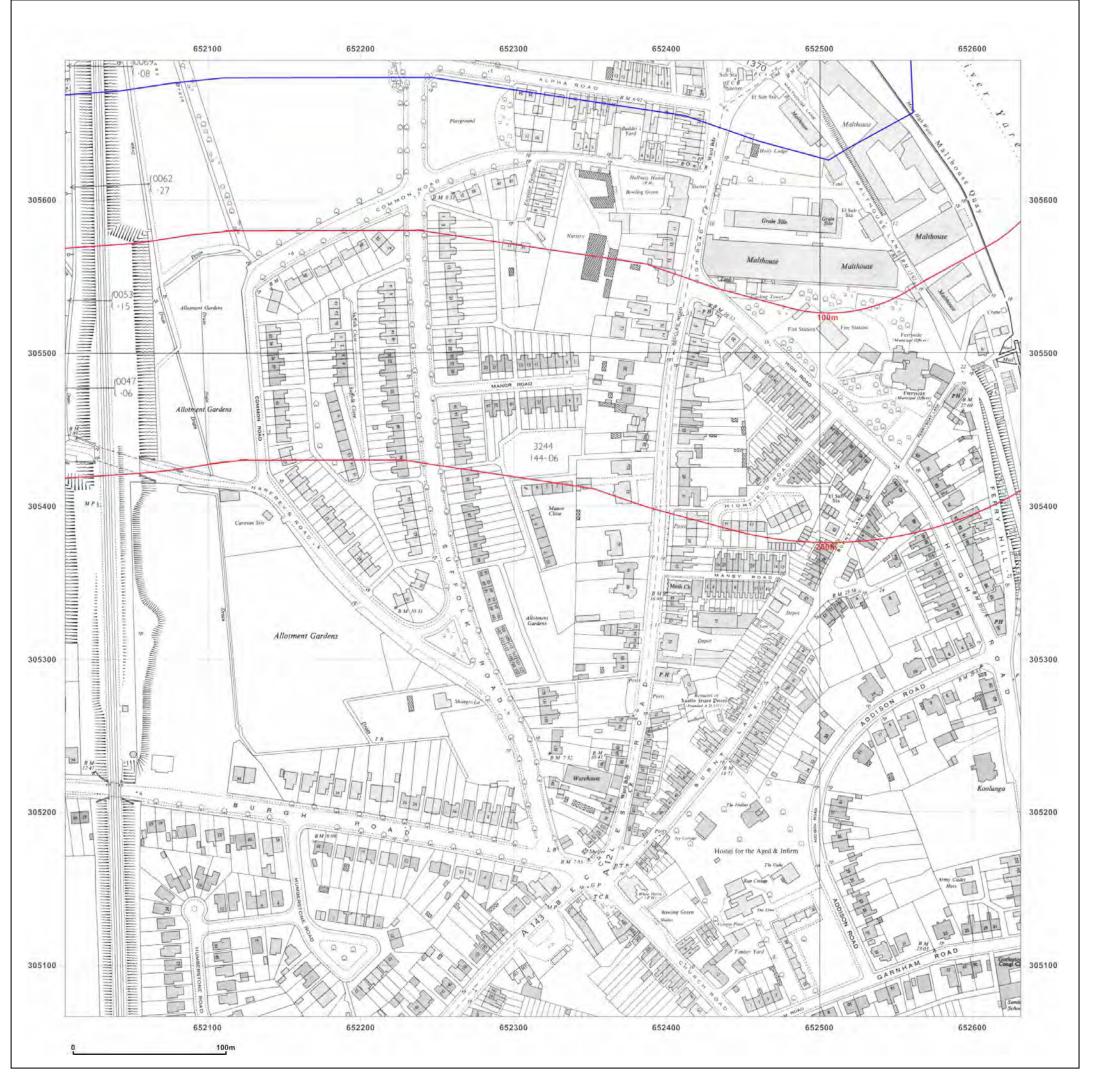




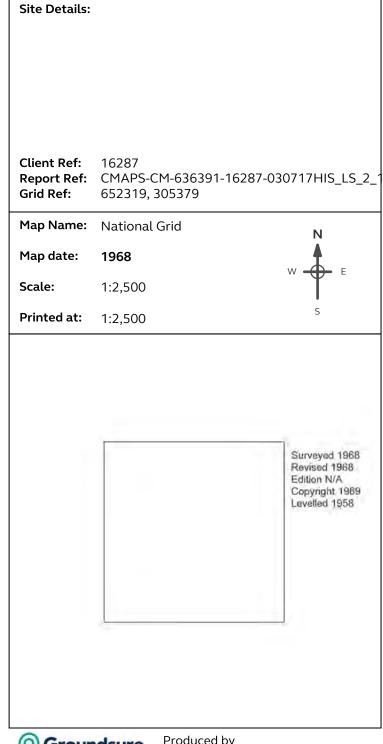
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\hbox{@}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







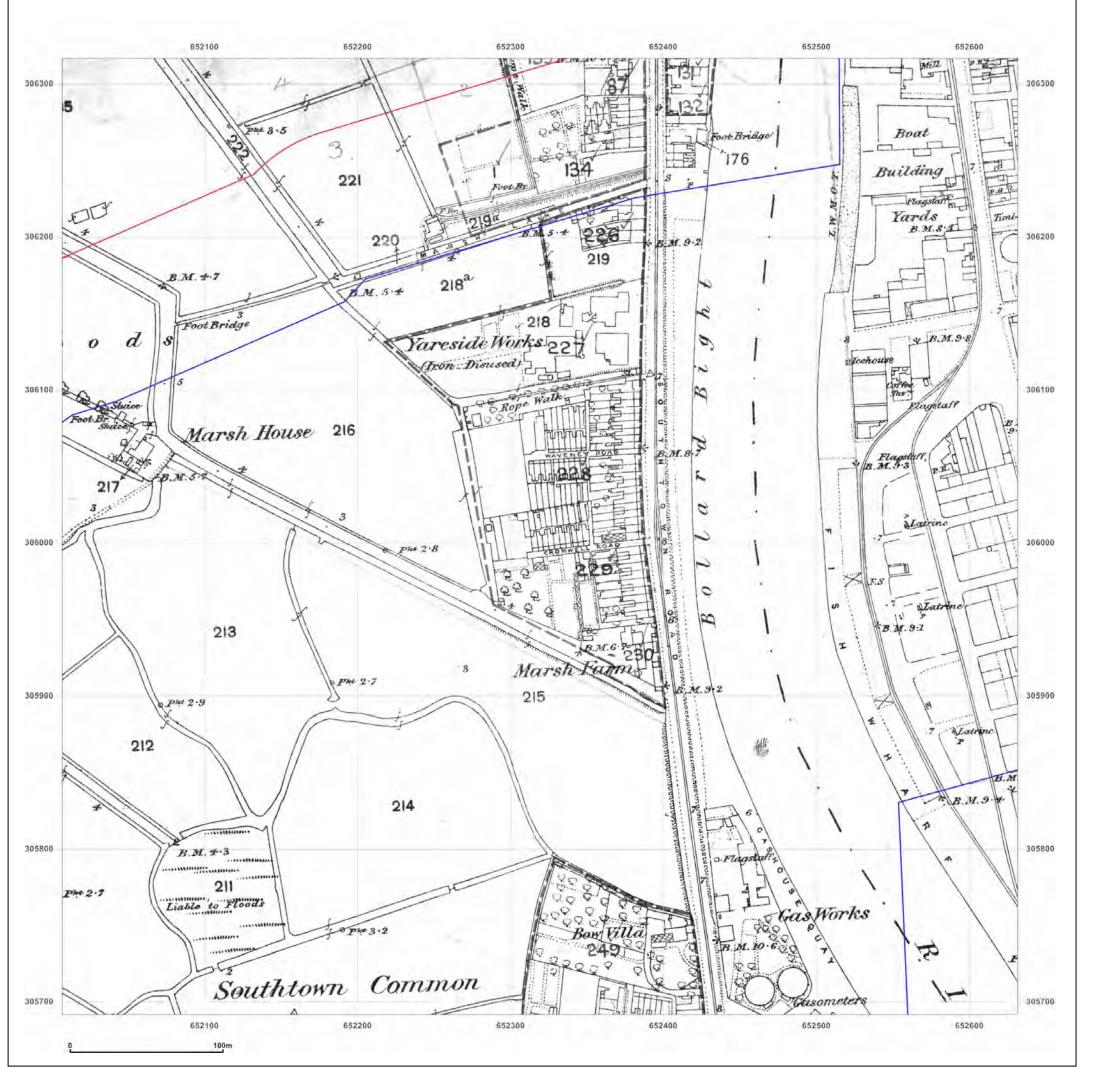




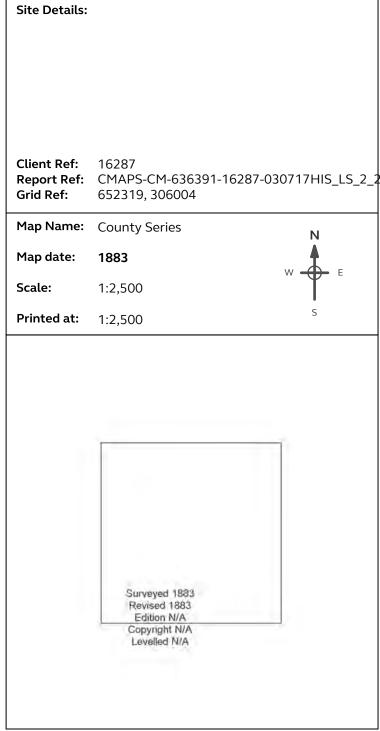
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







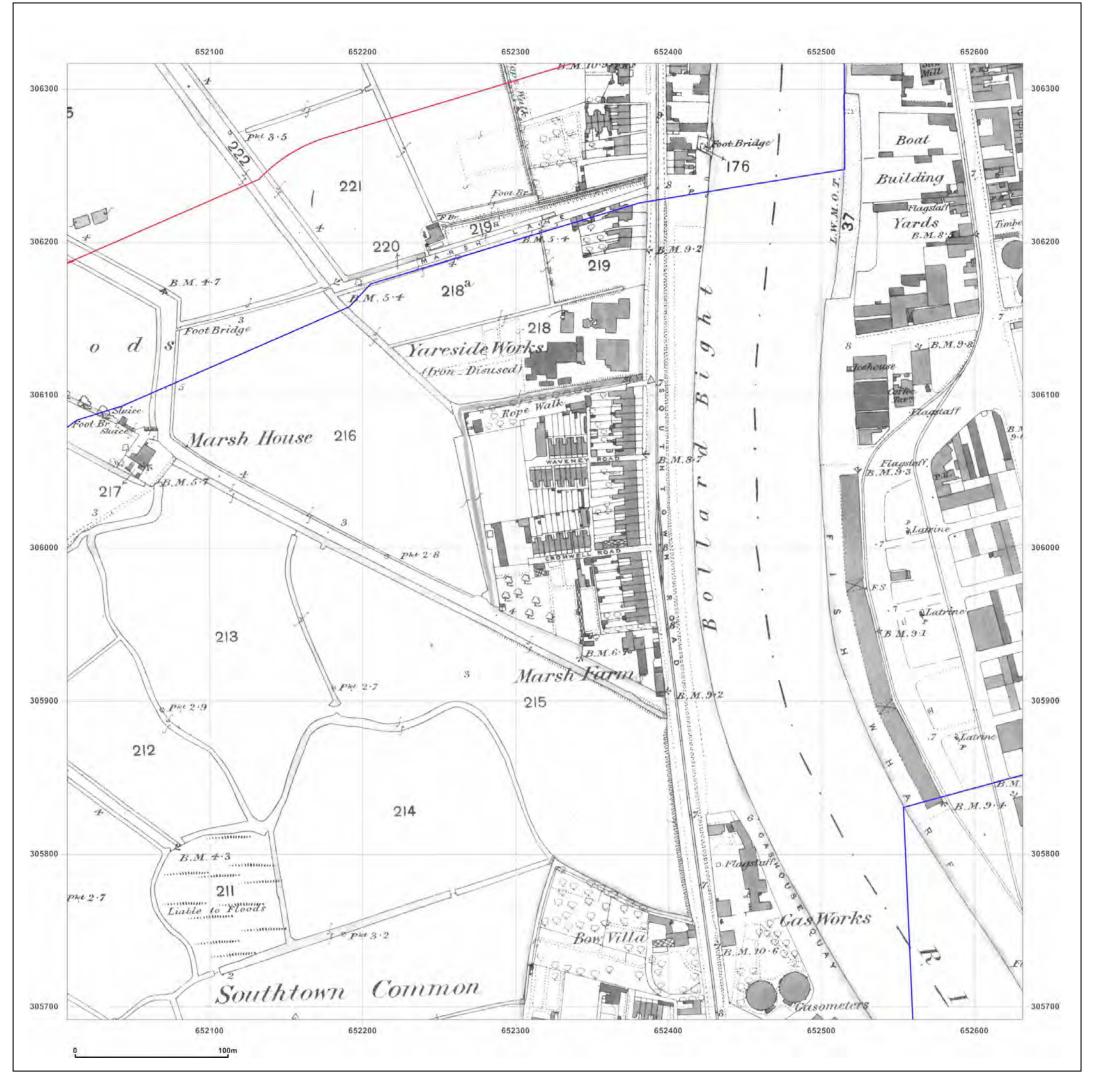




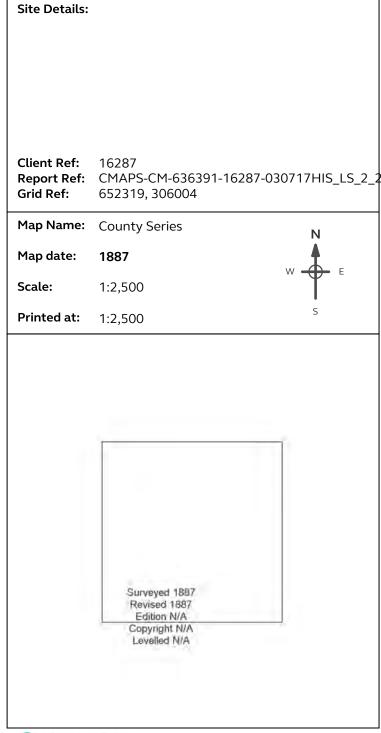
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







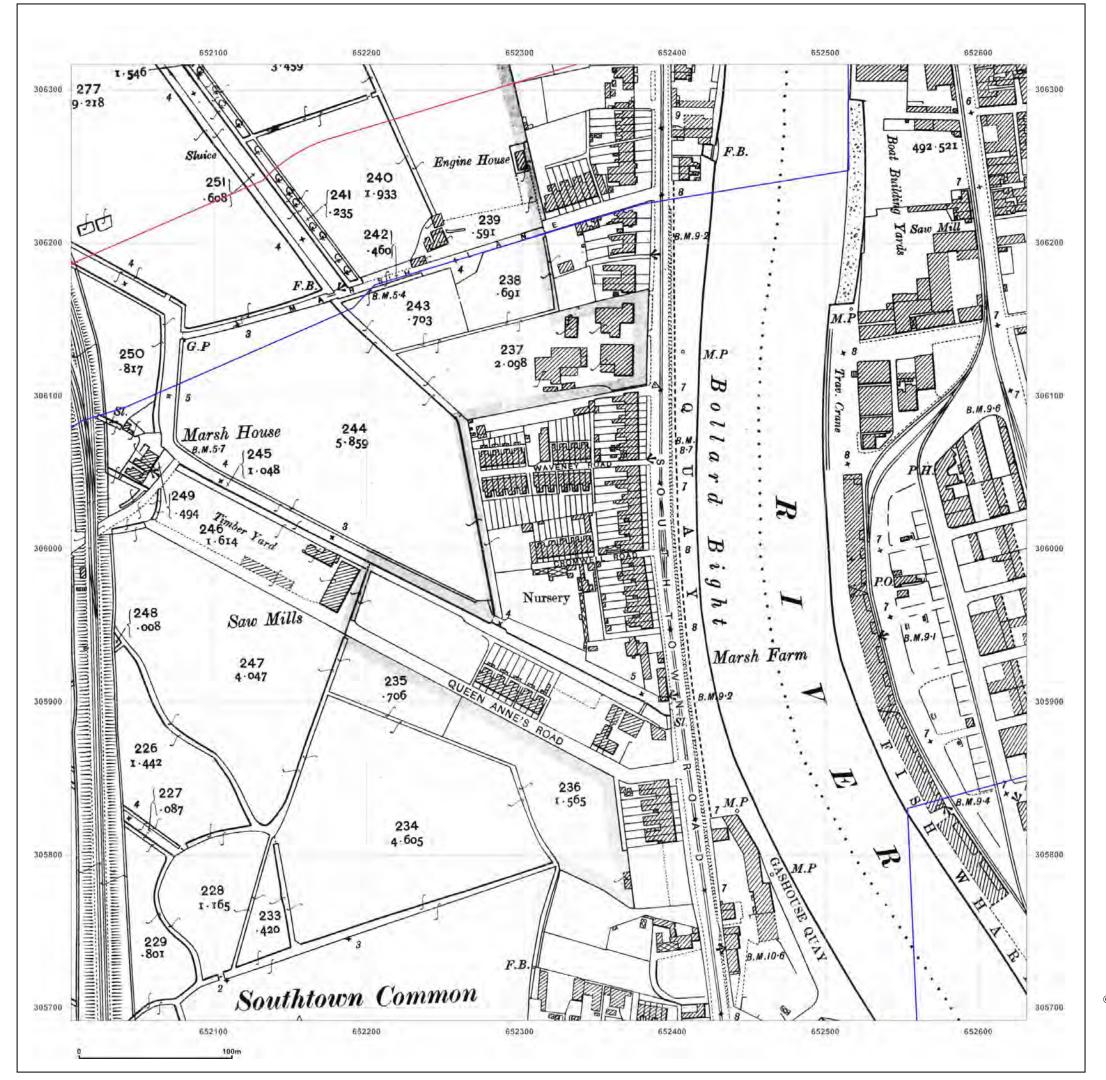




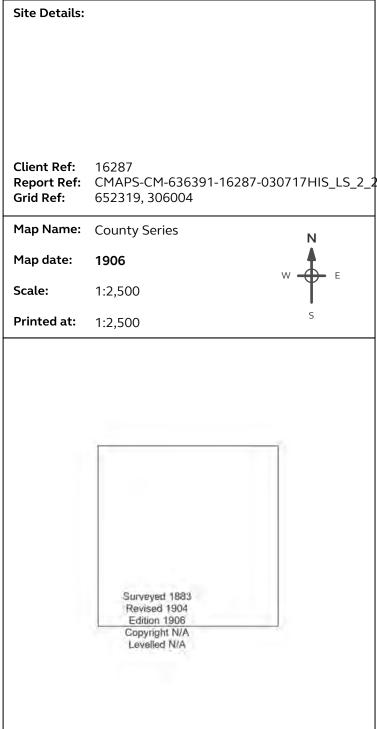
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







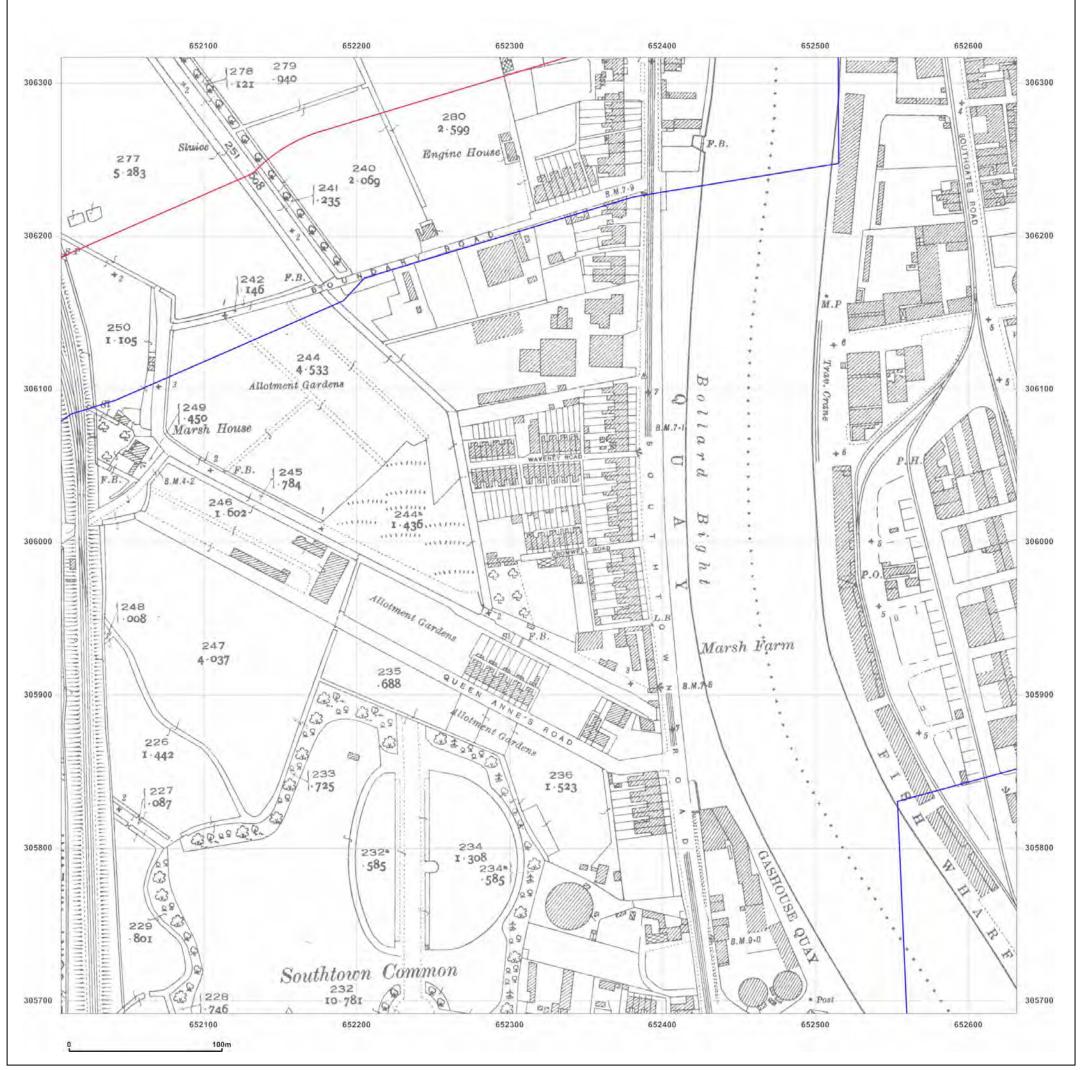




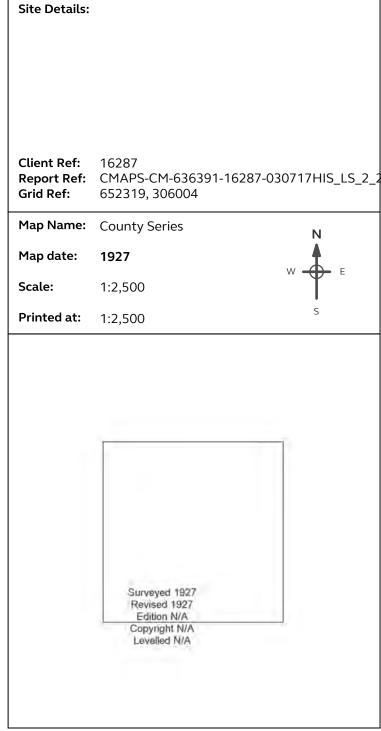
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







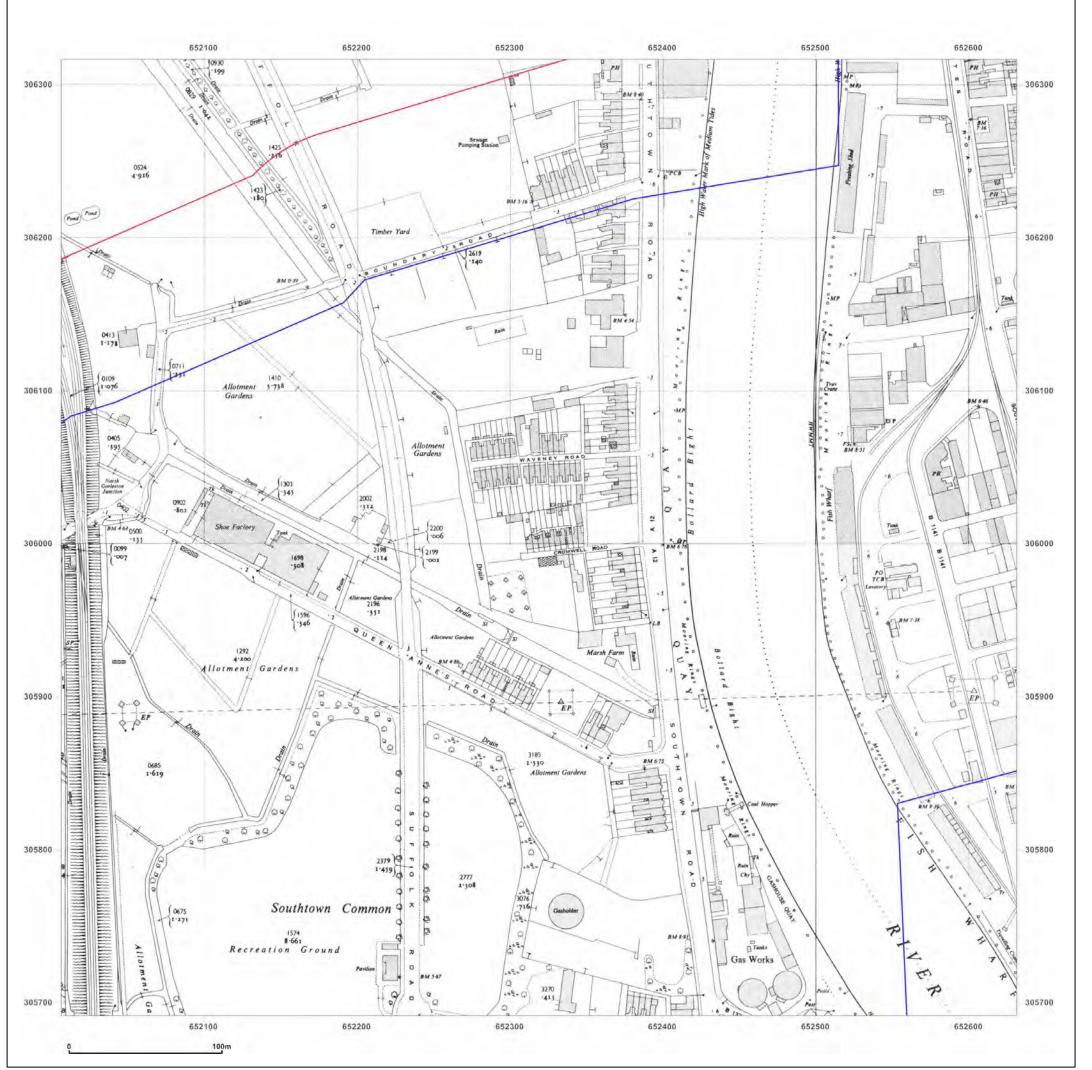




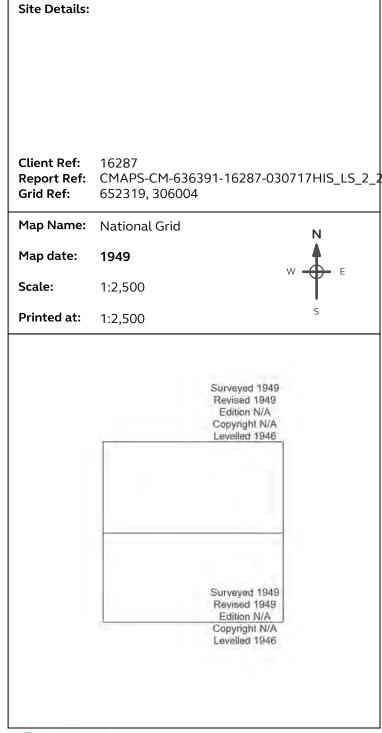
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







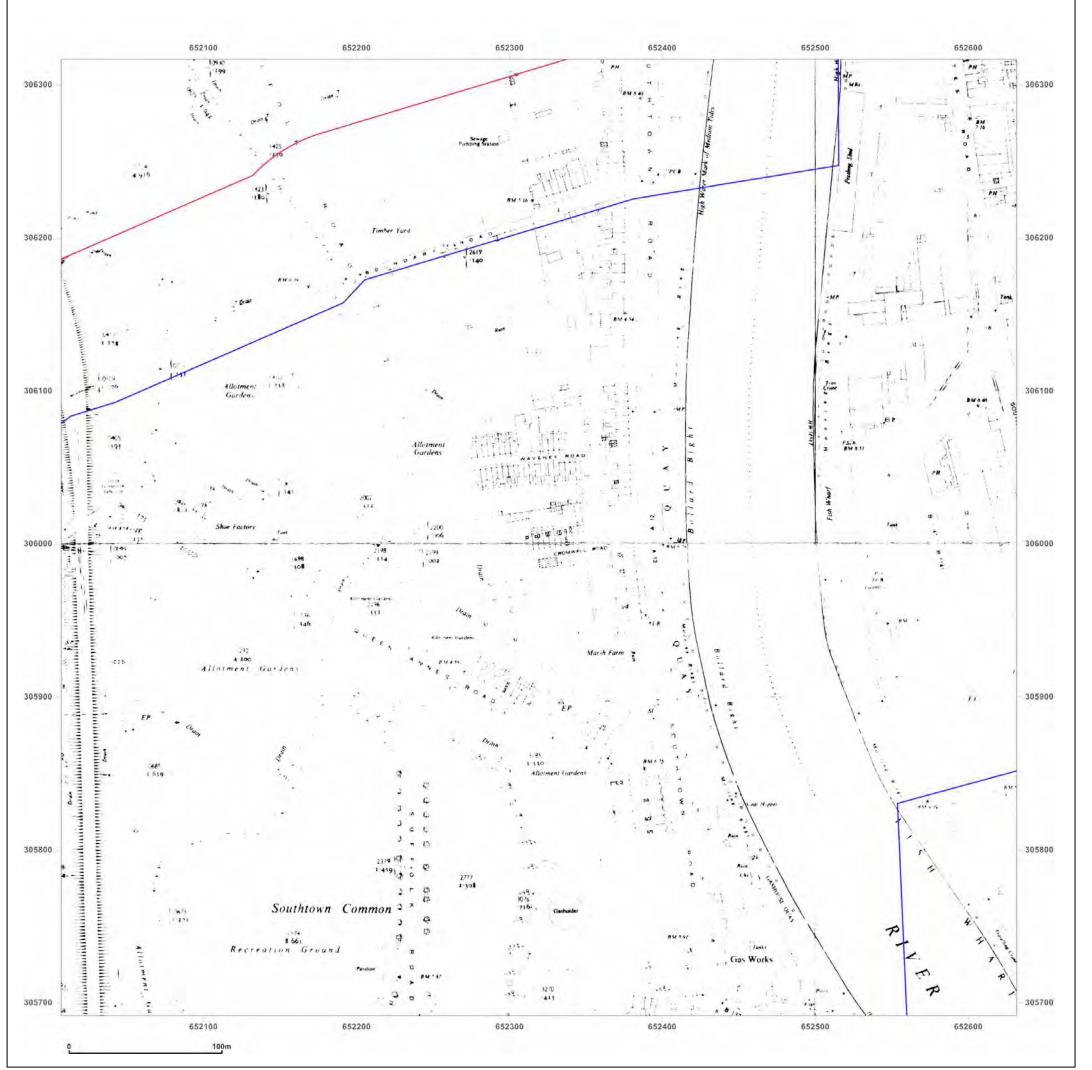




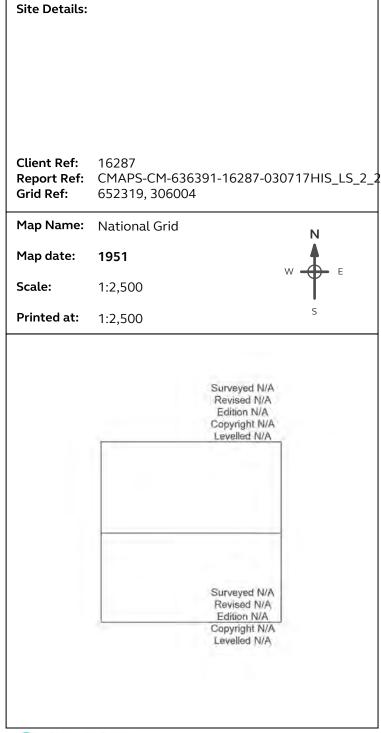
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







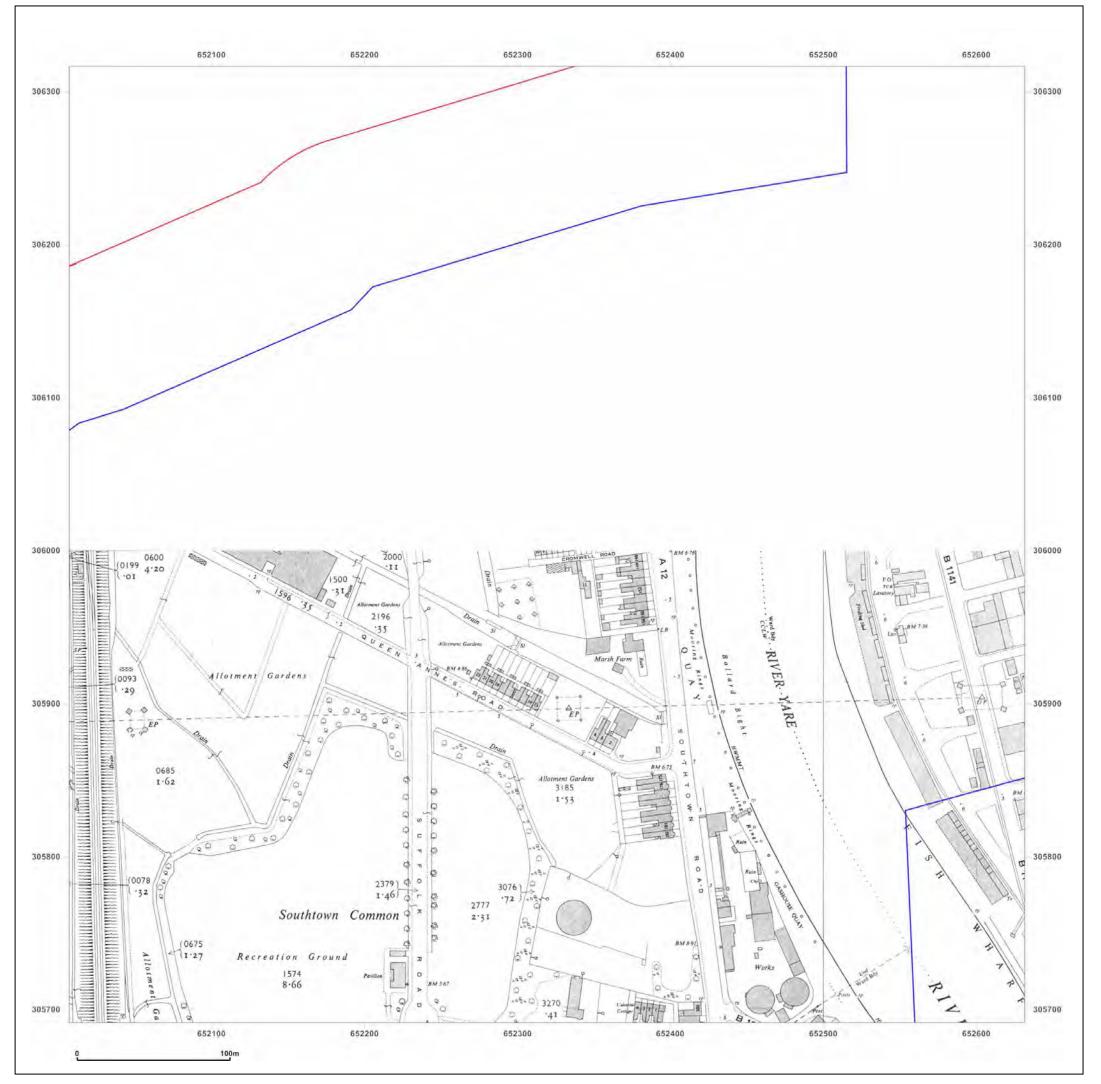




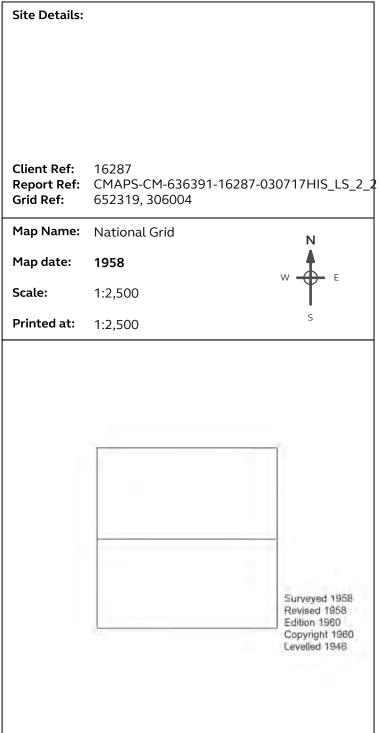
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\hbox{@}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







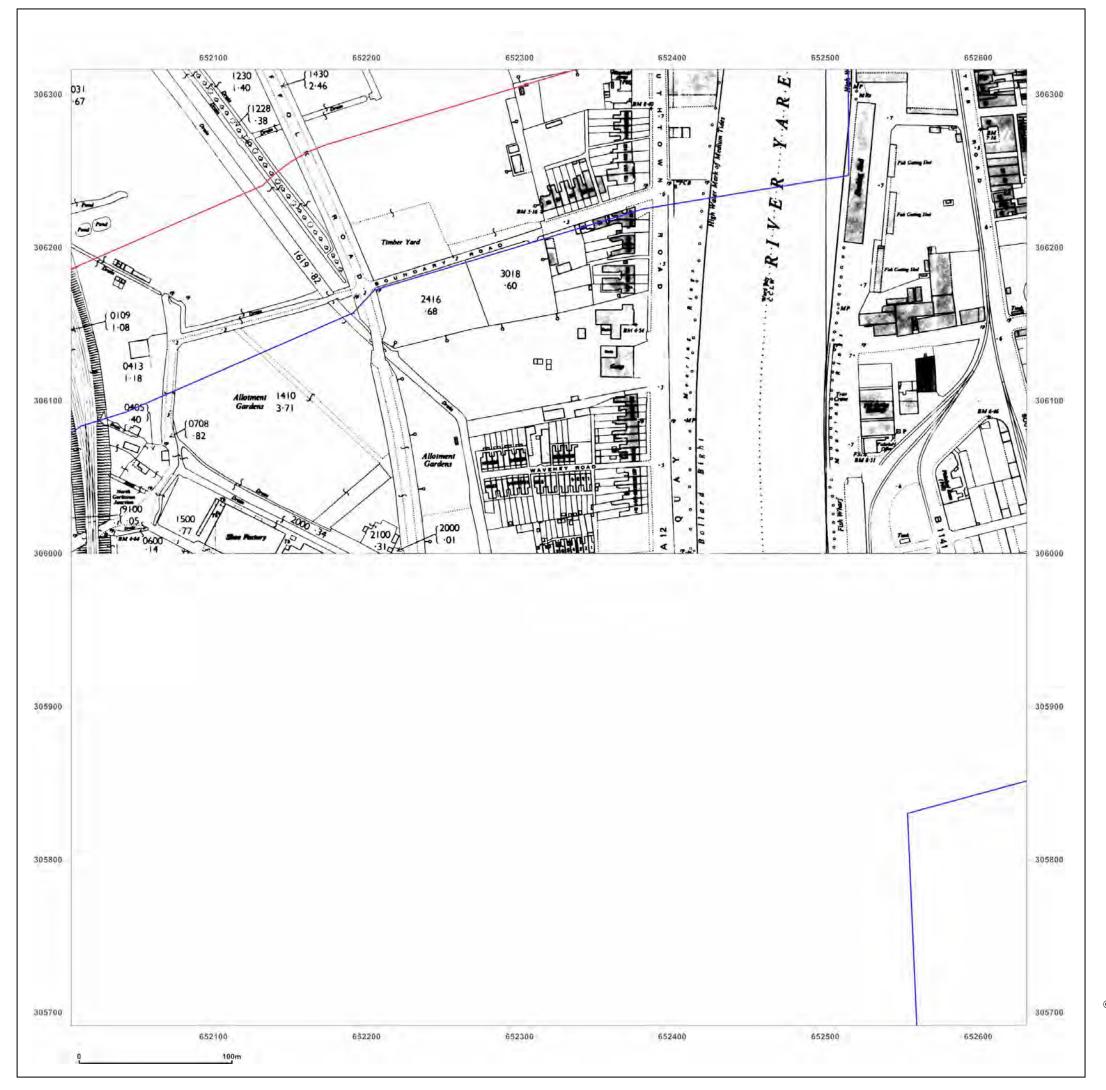




Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:			
Client Ref:		204 46207 0207471116 1	
Report Ref: Grid Ref:	652319, 306004	3391-16287-030717HIS_L 1	.5_2_4
Map Name:	National Grid		
		N A	
Map date:	1965	W F	
Scale:	1:2,500	Ţ	
Printed at:	1:2,500	S	
		Surveyed N/A Revised N/A	
		Edition N/A Copyright N/A	
		Levelled N/A	

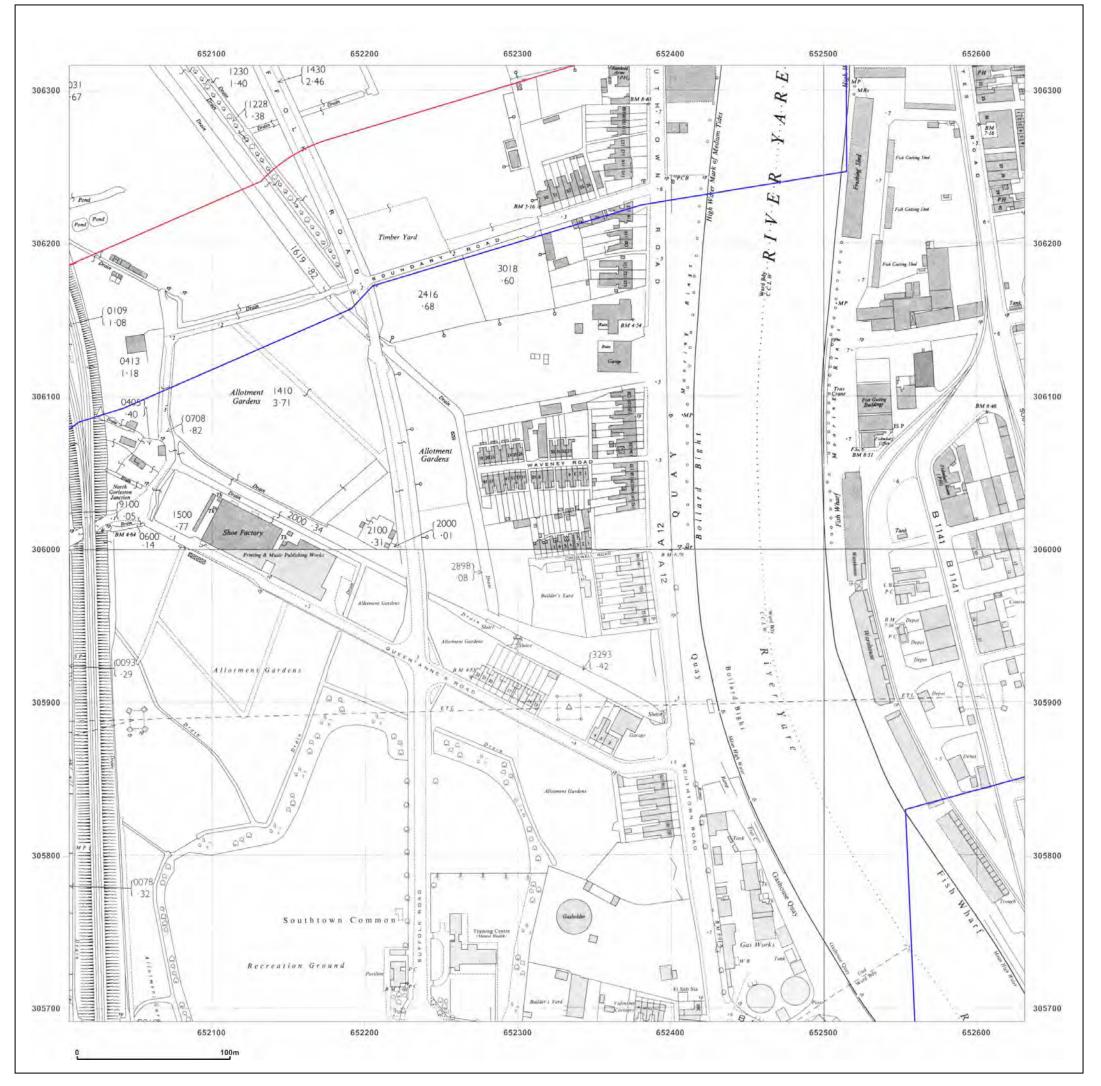




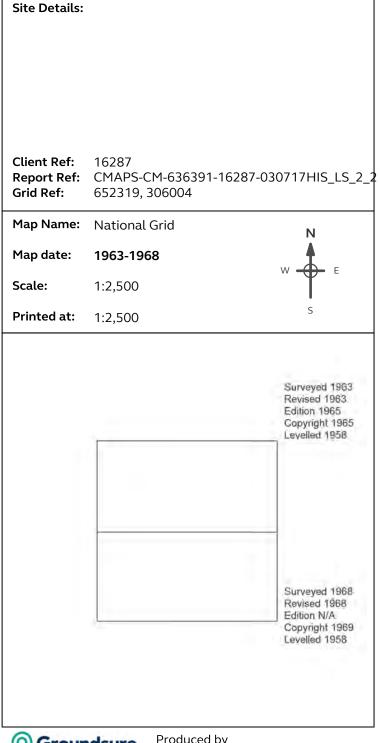
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details: Client Ref: 16287 **Report Ref:** CMAPS-CM-636391-16287-030717HIS_LS_2_3 652319, 306630 **Grid Ref:** Map Name: County Series 1883 Map date: 1:2,500 Scale: **Printed at:** 1:2,500 Surveyed N/A Revised N/A Edition N/A Copyright N/A Surveyed 1883 Revised 1883 Copyright N/A Levelled N/A



Produced by Groundsure Insights www.groundsure.com



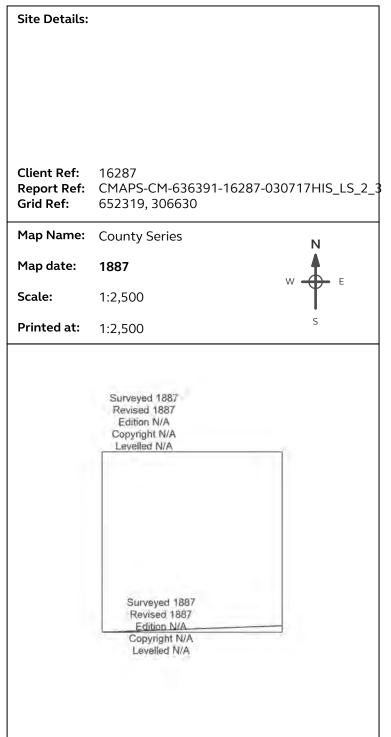
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







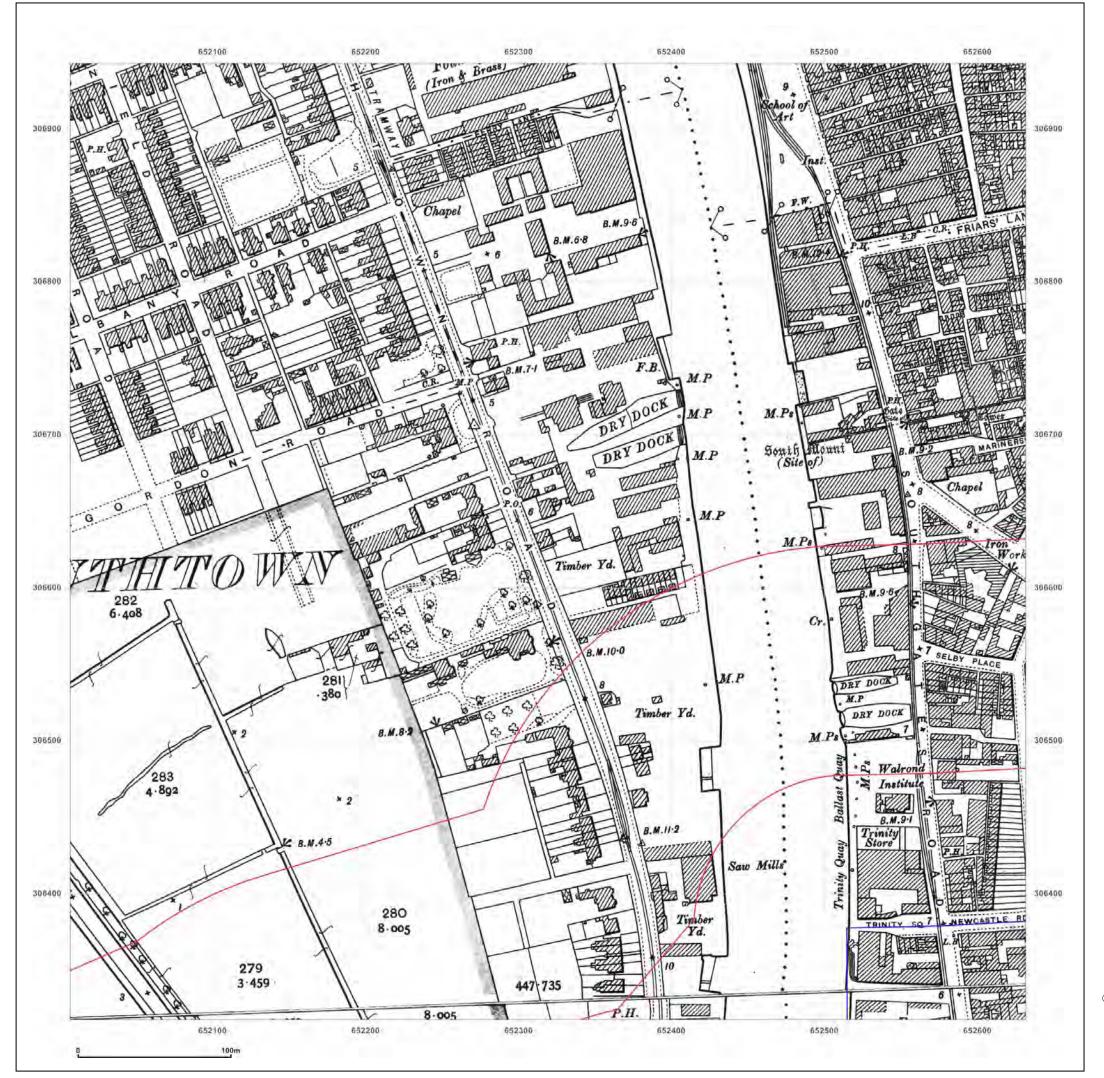




Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:	
Client Ref: Report Ref: Grid Ref:	16287 CMAPS-CM-636391-16287-030717HIS_LS_2_ 652319, 306630
Map Name:	County Series N
Map date:	1905-1906
Scale:	1:2,500
Printed at:	1:2,500
	Surveyed 1905 Revised 1905 Edition N/A Copyright N/A Leyelled N/A
	Surveyed 1883 Revised 1904 Edition 1906 Copyright N/A
	Levelled N/A





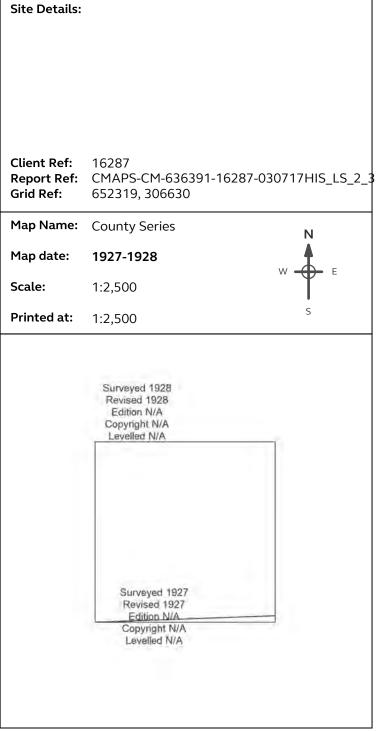
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







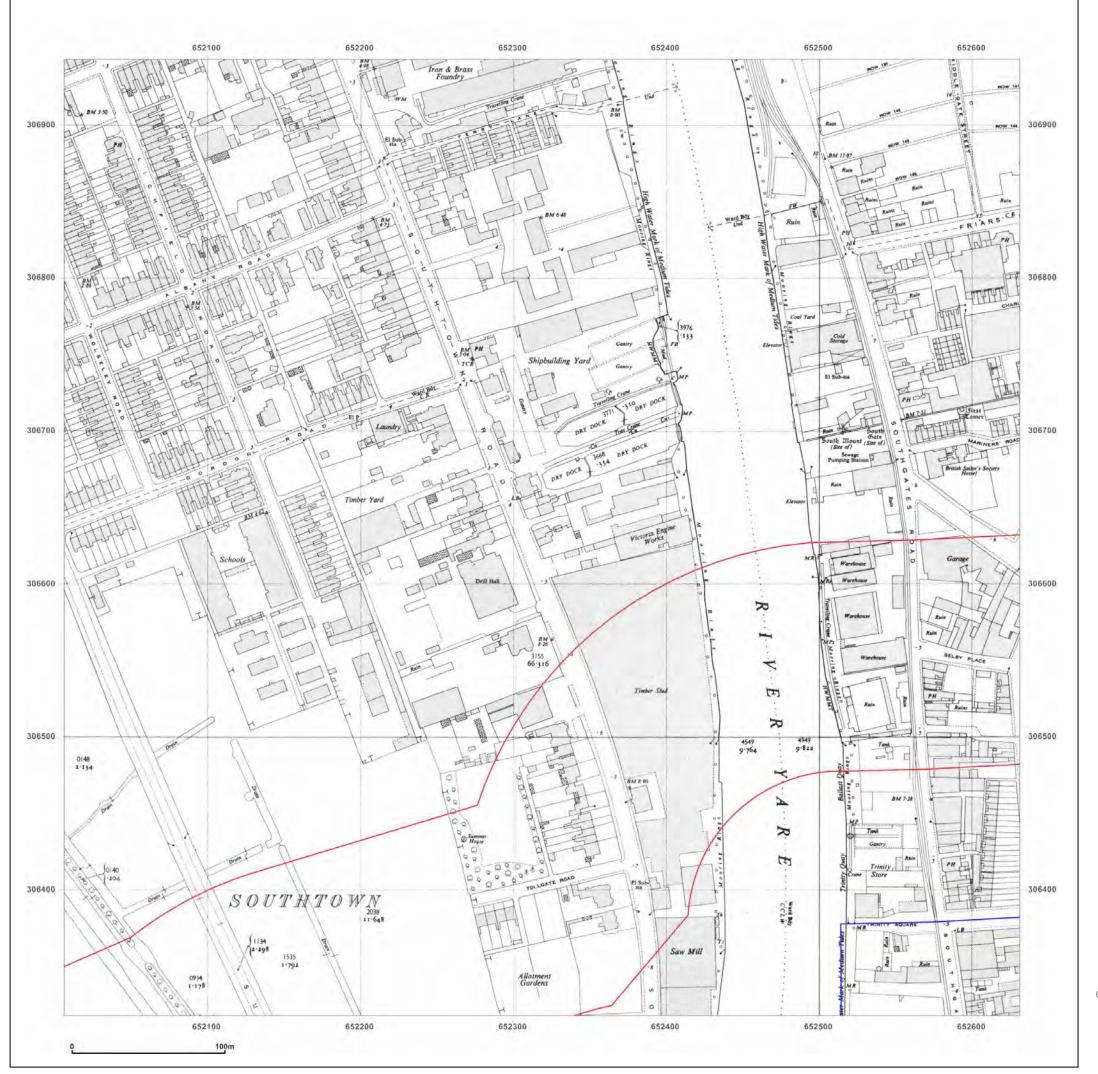




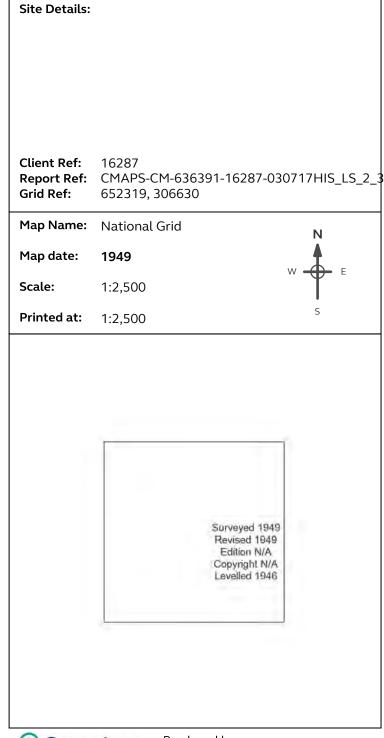
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







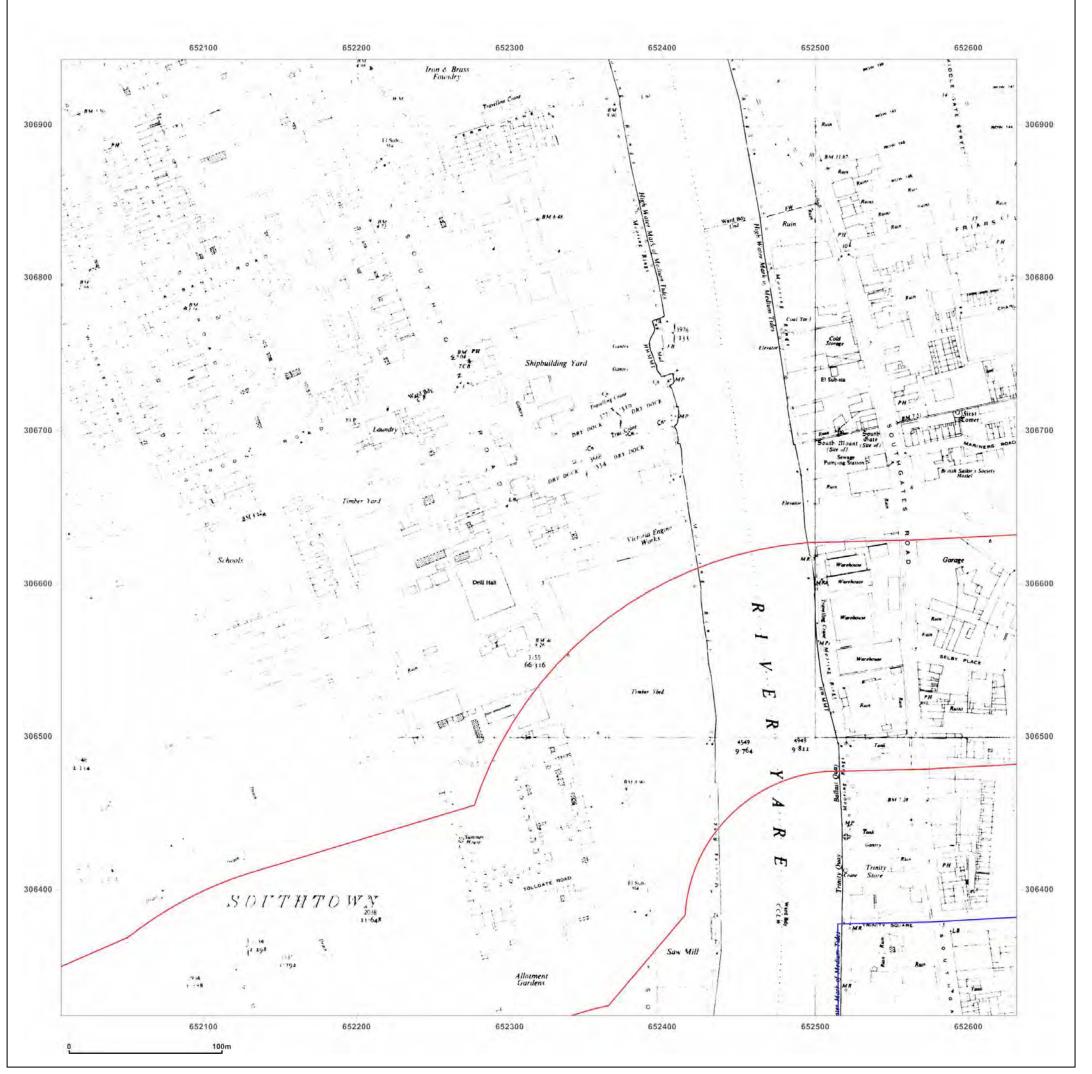




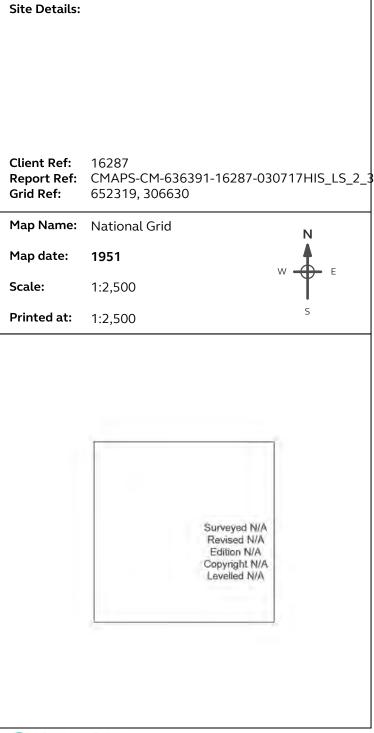
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











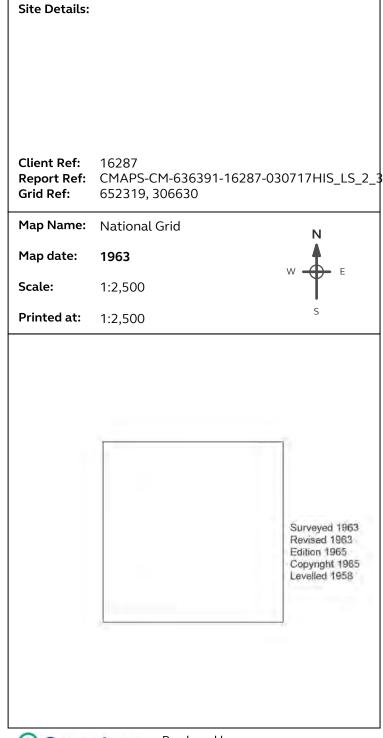
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











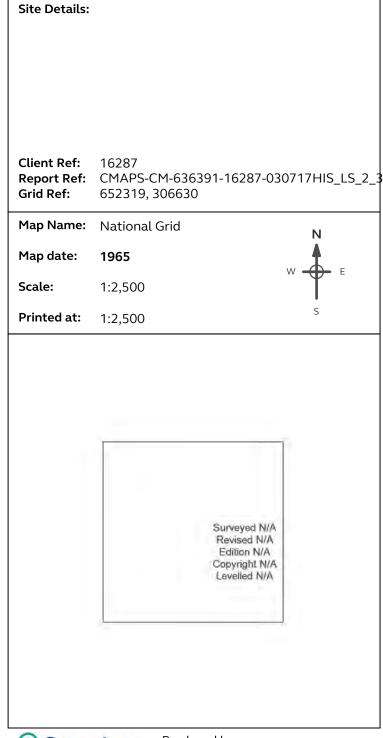
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







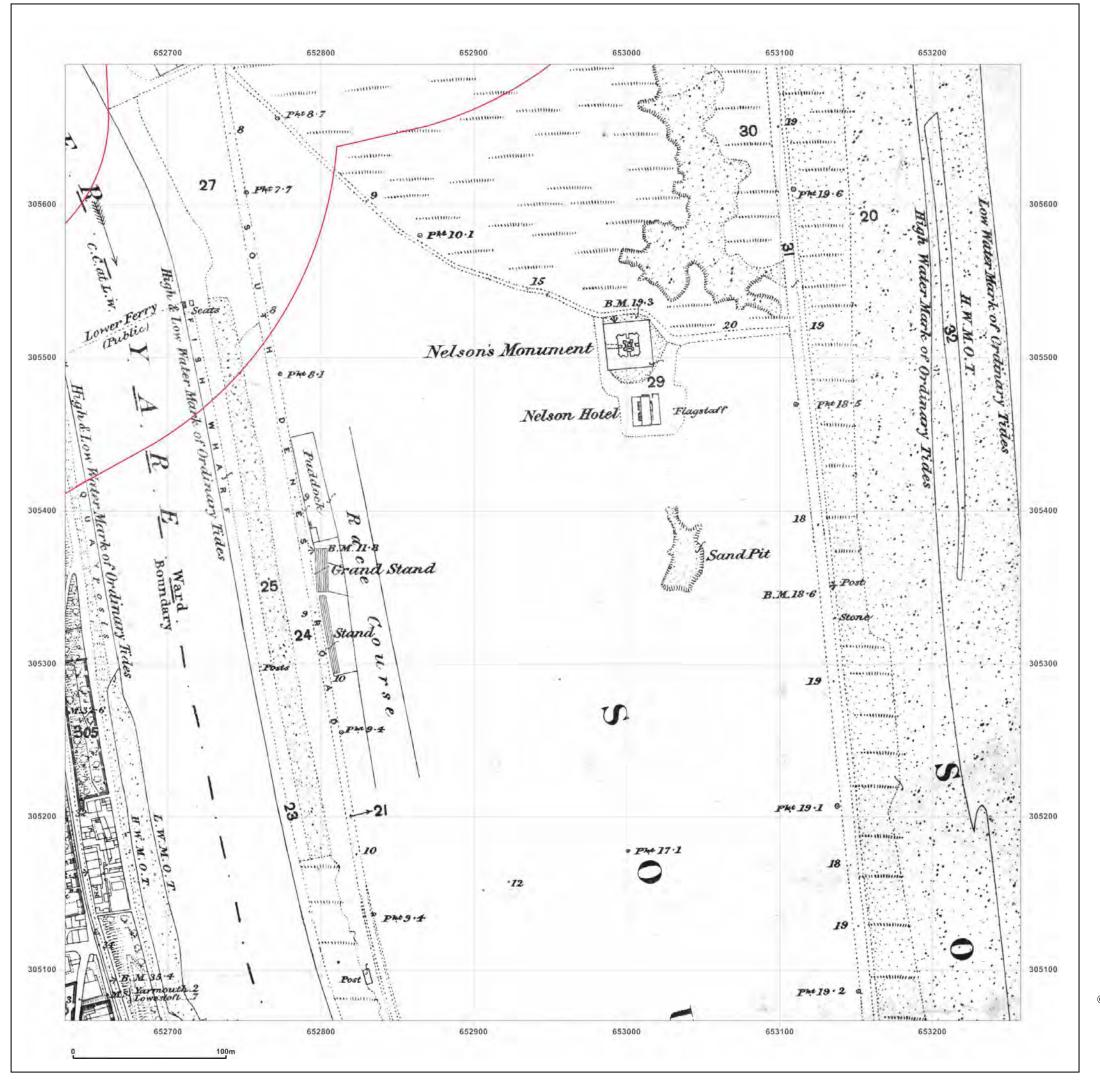




Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:			
Client Ref: Report Ref: Grid Ref:	16287 CMAPS-CM-6363 652945, 305379	91-16287-03	0717HIS_LS_3_
Map Name:	County Series		N
Map date:	1883		W E
Scale:	1:2,500		" T '
Printed at:	1:2,500		S
Surveyed 1883 Revised 1883 Edition N/A Copyright N/A Levelled N/A			

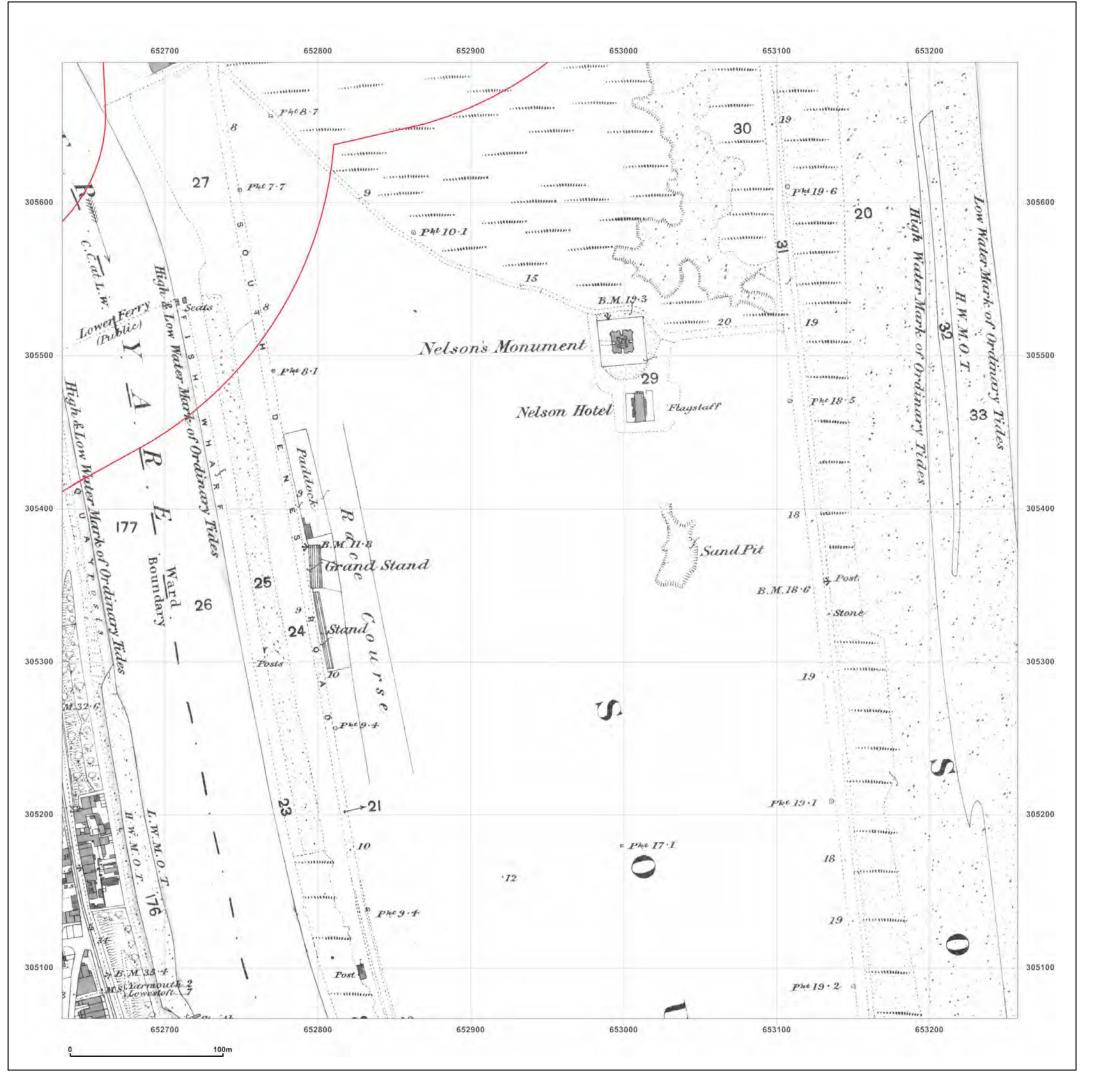




Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Client Ref: Report Ref:	16287 CMAPS-CM-636391-16	.287-030717HIS
Grid Ref:	652945, 305379	
Map Name:	County Series	N
1ap date:	1887	w •
cale:	1:2,500	" T
	•	
Printed at:	1:2,500	S
	1:2,500	S

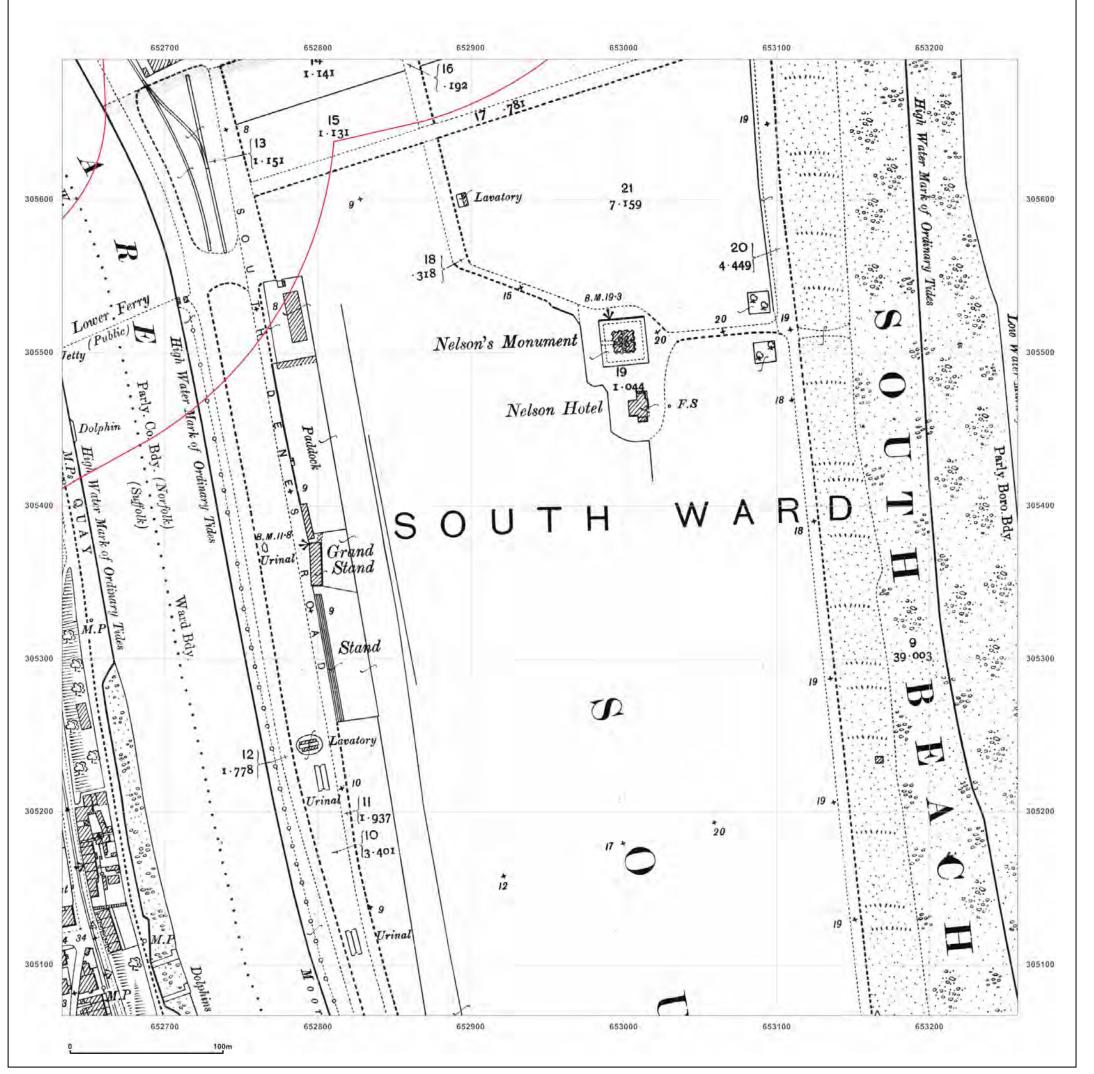




Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:			
Client Ref: Report Ref: Grid Ref:	16287 CMAPS-CM-6363 652945, 305379	91-16287-030)717HIS_LS_3_
Map Name:	County Series		N
Map date:	1906		W E
Scale:	1:2,500		Ψ -
Printed at:	1:2,500		S
Surveyed 1883 Revised 1904 Edition 1906 Copyright N/A Levelled N/A			

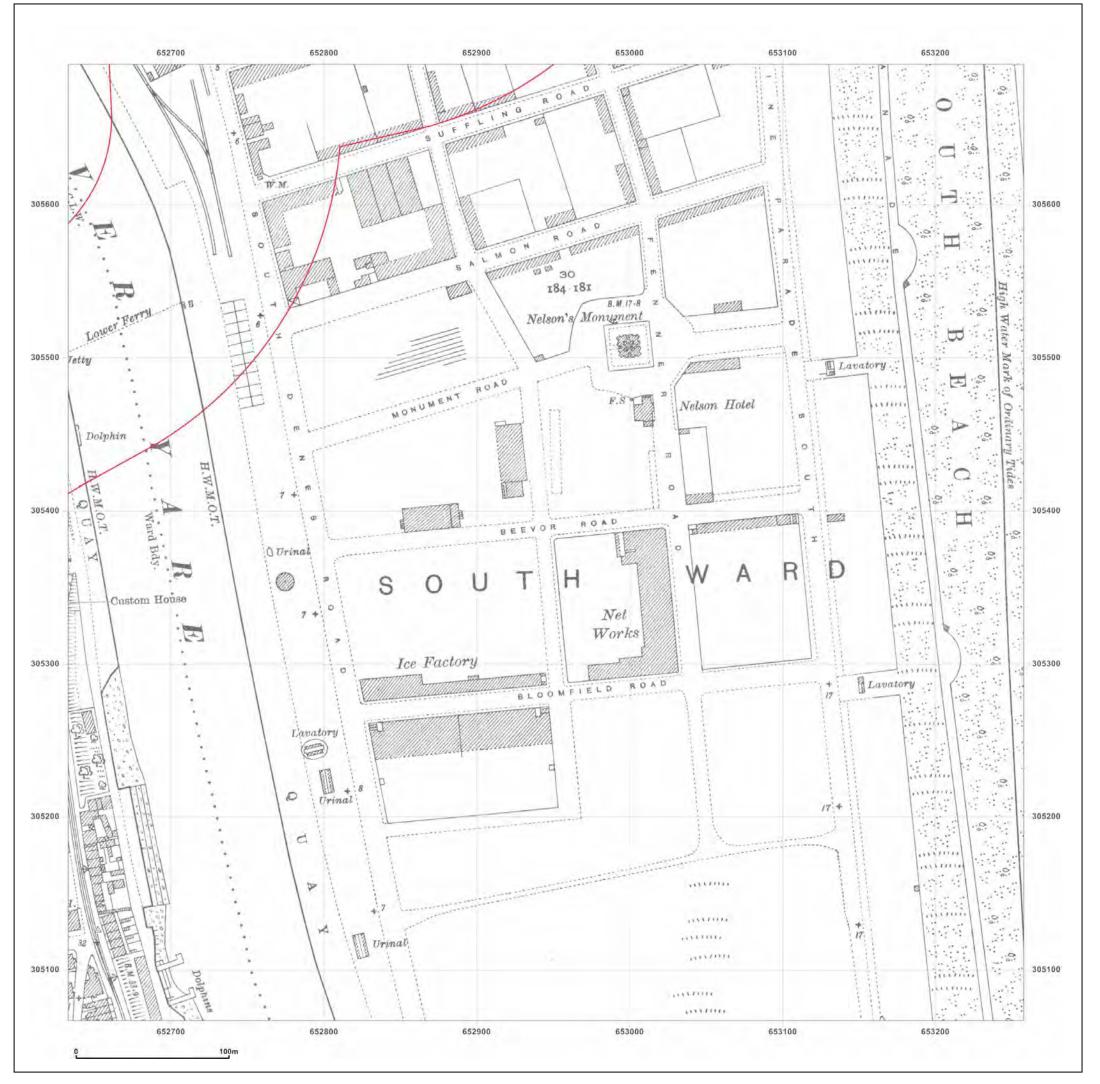




Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:		
Client Ref: Report Ref: Grid Ref:	16287 CMAPS-CM-636391-1 652945, 305379	6287-030717HIS_LS_3
Map Name:	County Series	N
Map date:	1927	W E
Scale:	1:2,500	" T
Printed at:	1:2,500	S
Surveyed 192: Revised 192: Edition N// Copyright N// Levelled N//	A.	

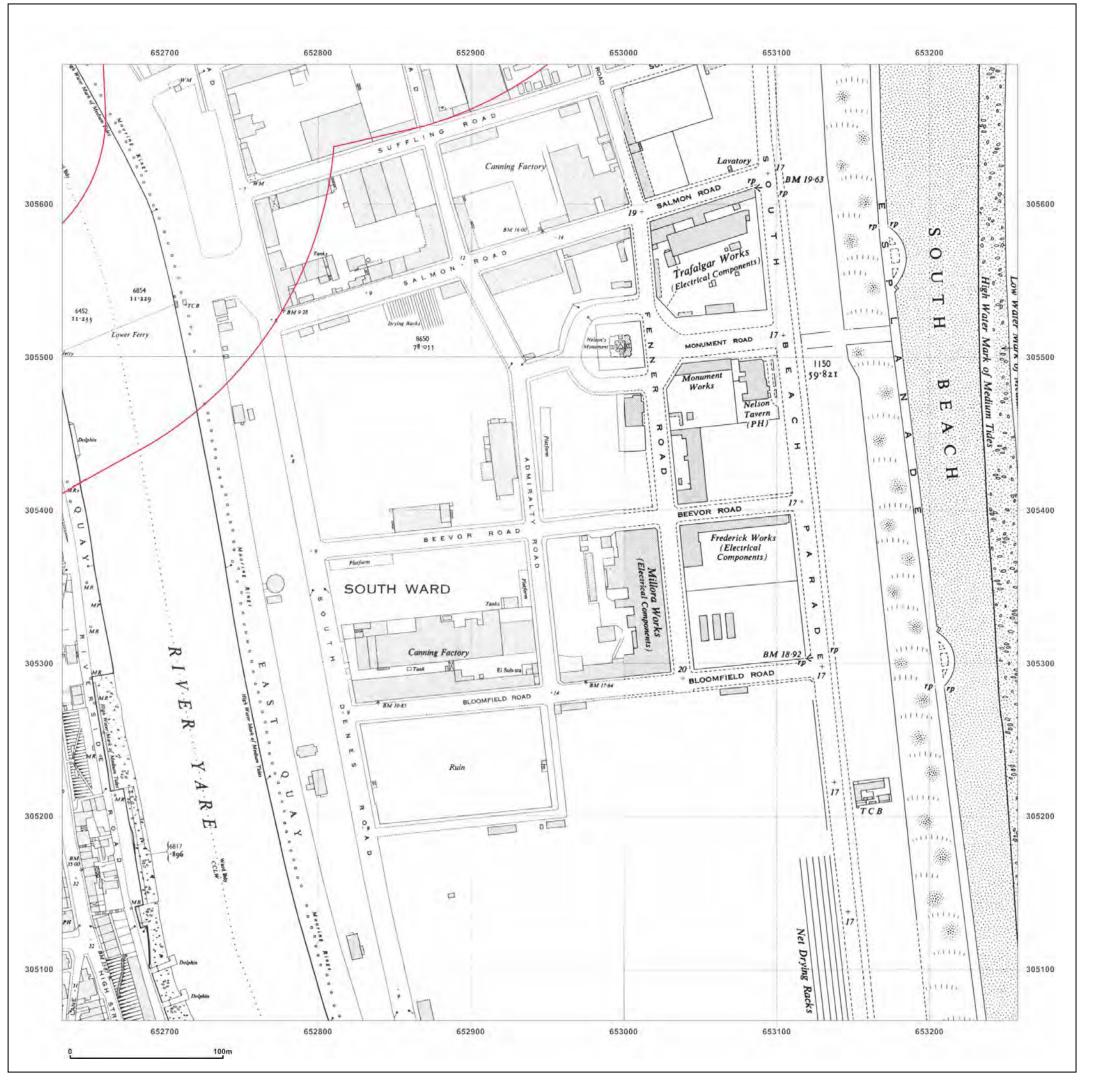




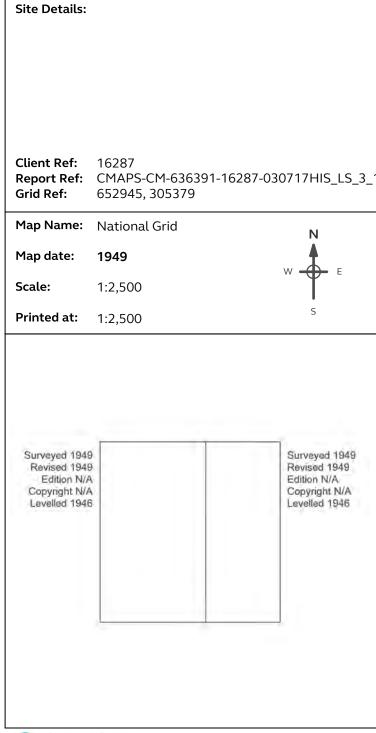
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







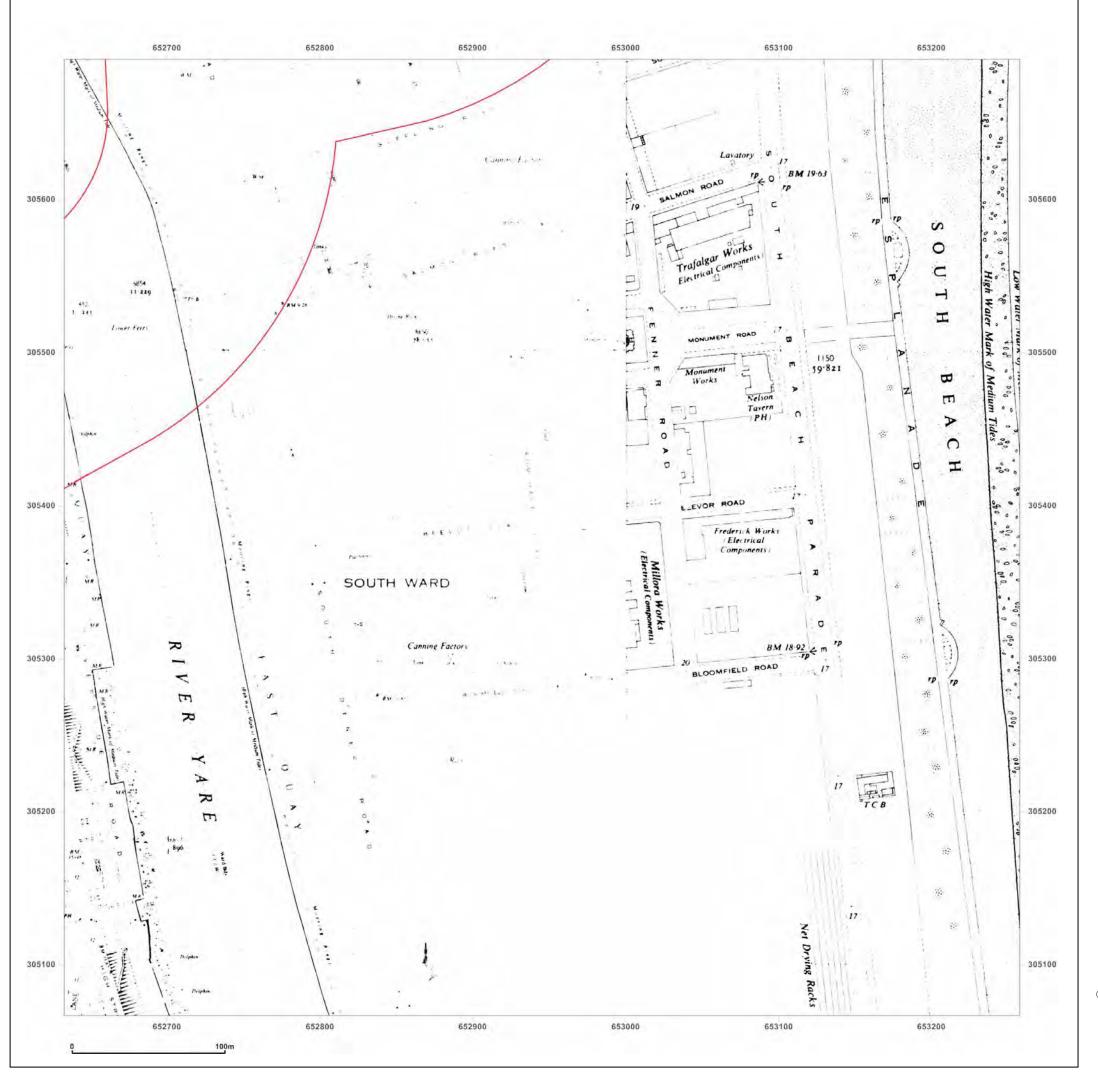




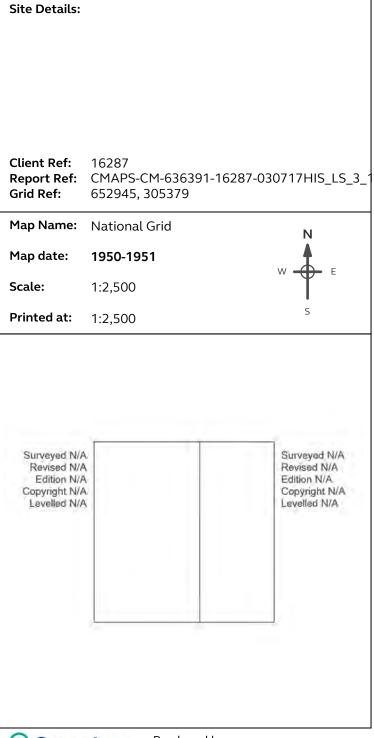
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







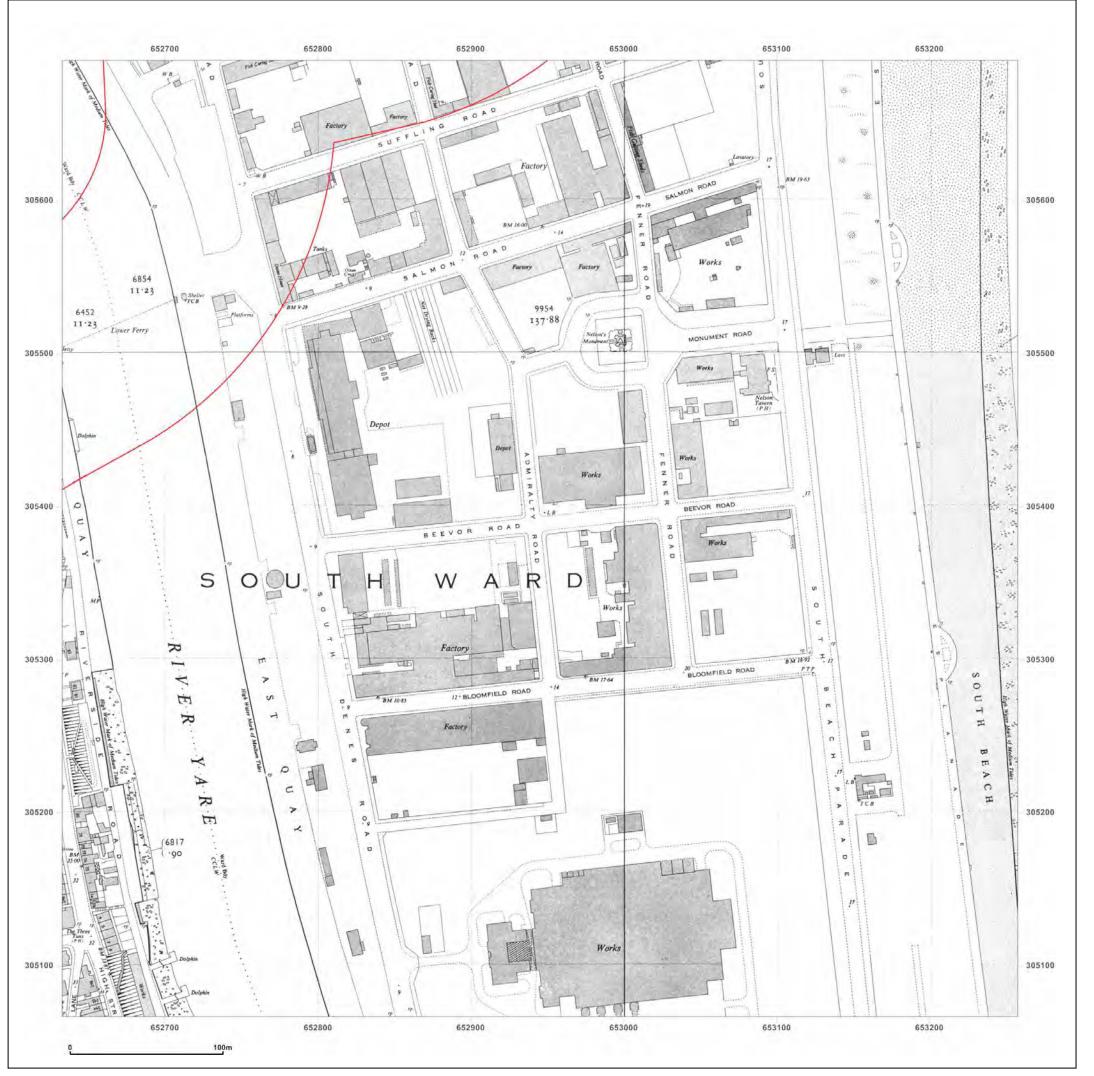




Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details: Client Ref: 16287 **Report Ref:** CMAPS-CM-636391-16287-030717HIS_LS_3_1 **Grid Ref:** 652945, 305379 Map Name: National Grid 1958 Map date: 1:2,500 Scale: **Printed at:** 1:2,500 Surveyed 1958 Revised 1958 Edition 1960 Copyright 1960 Levelled 1946



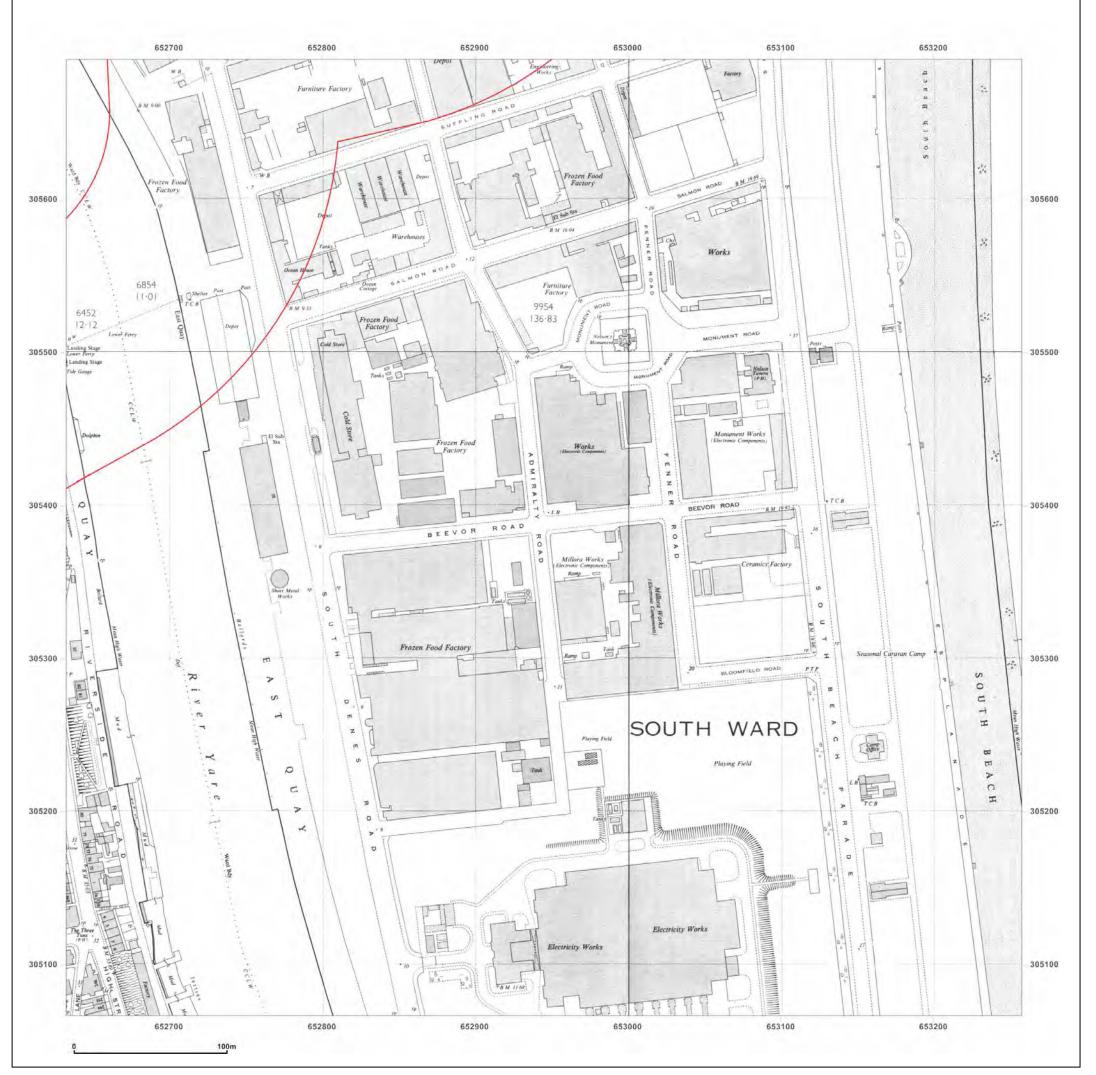
Produced by Groundsure Insights www.groundsure.com



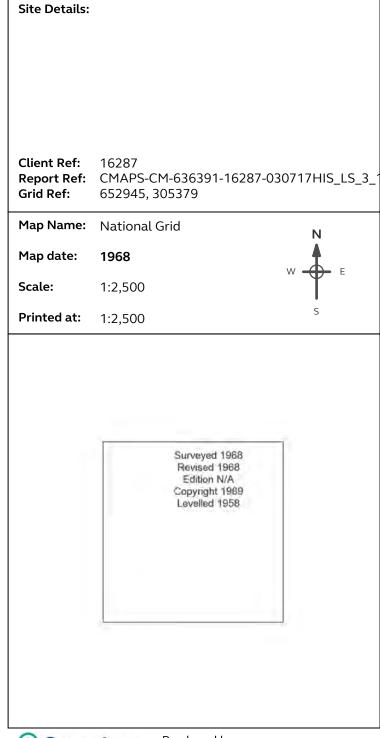
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







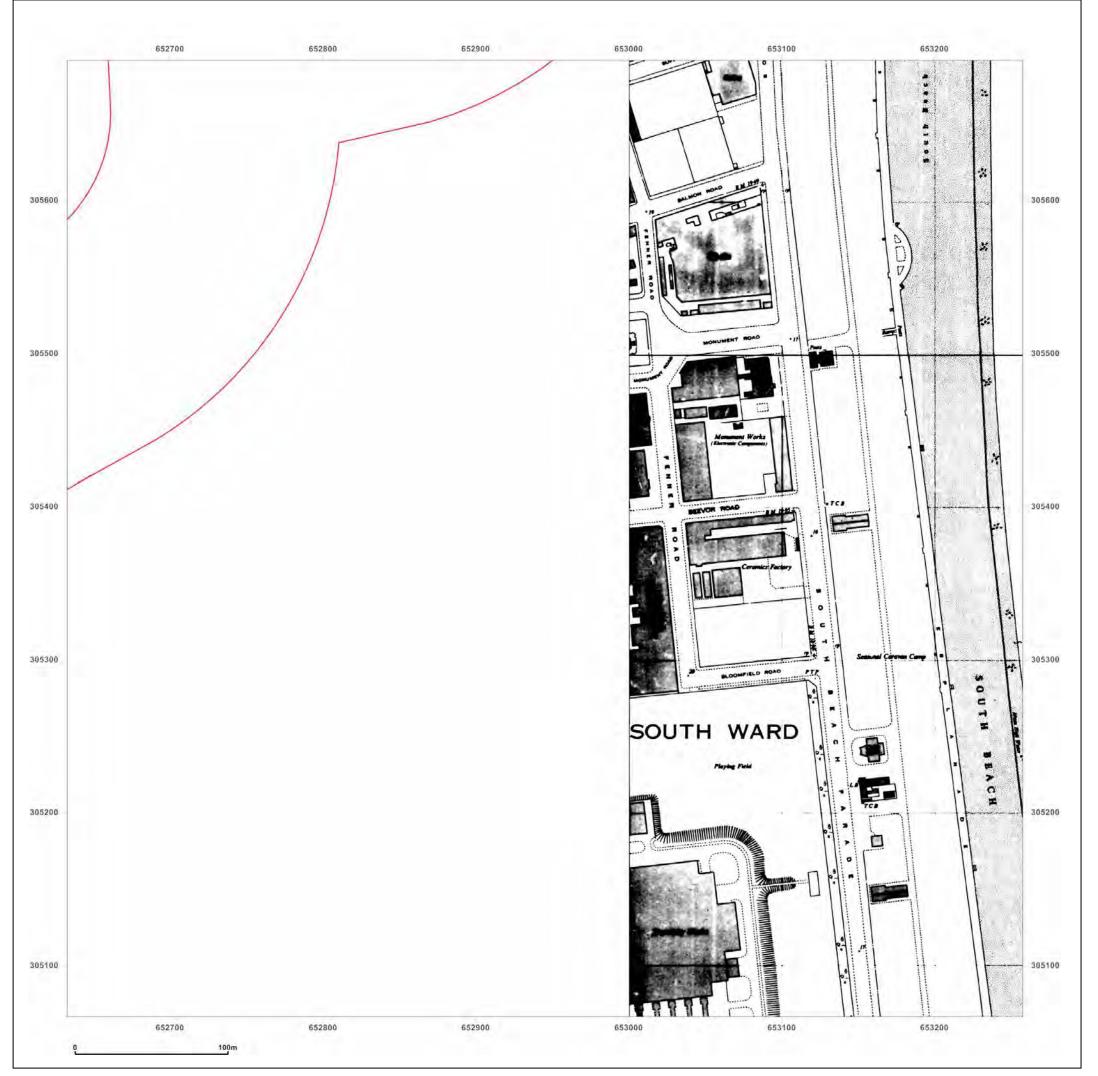




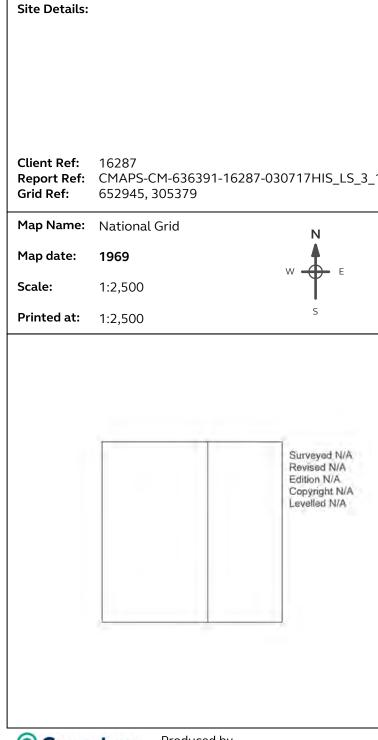
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







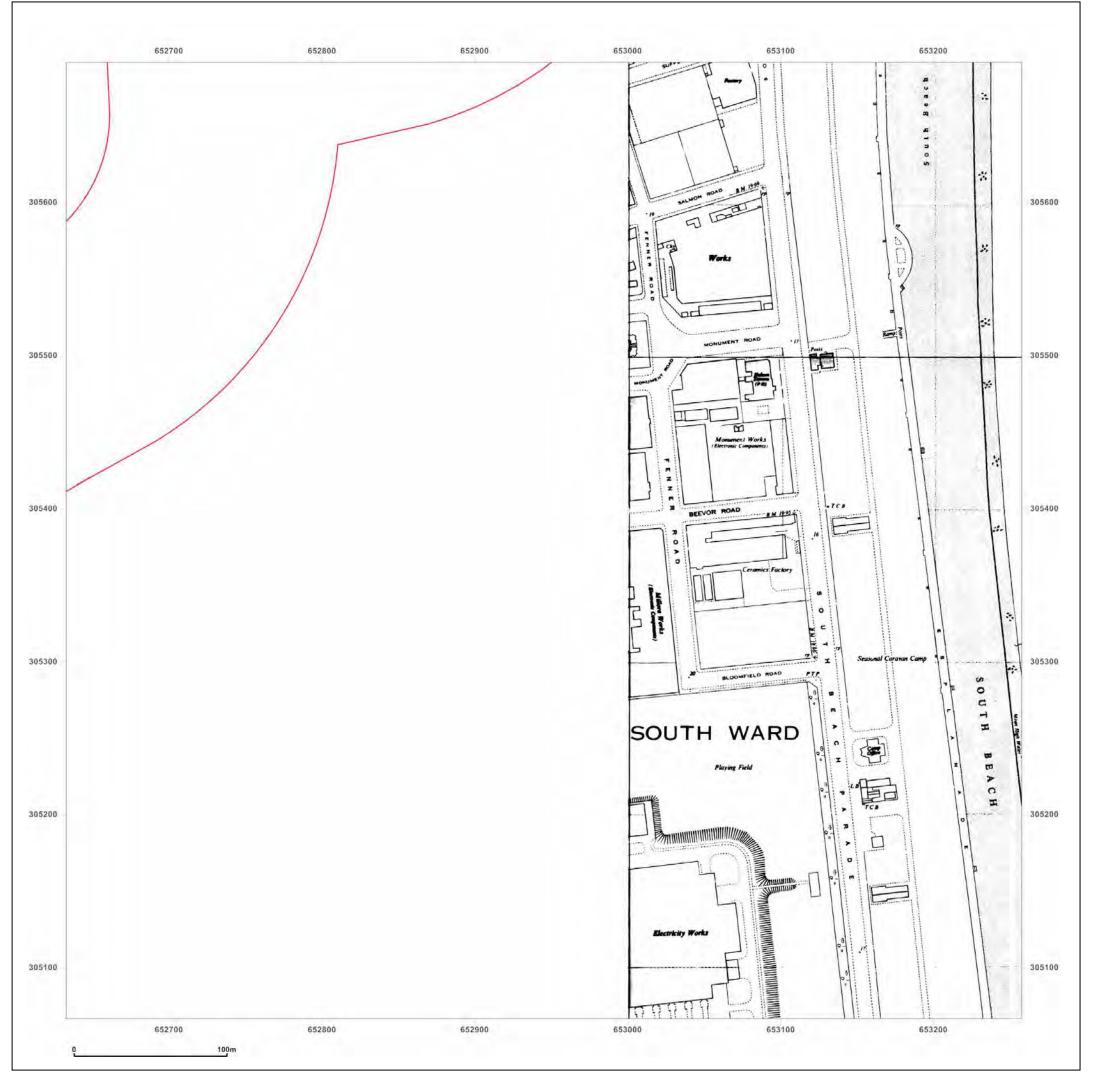




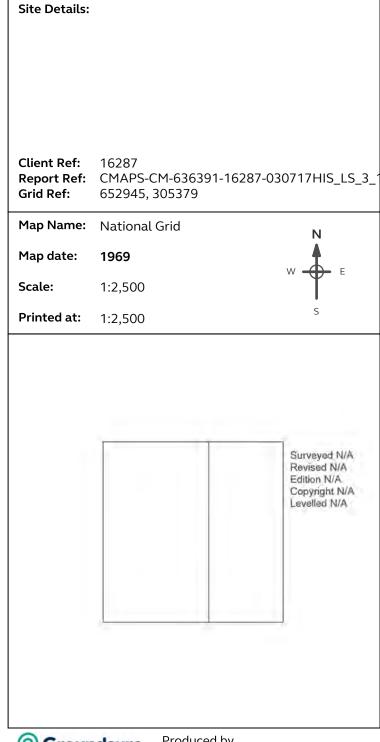
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







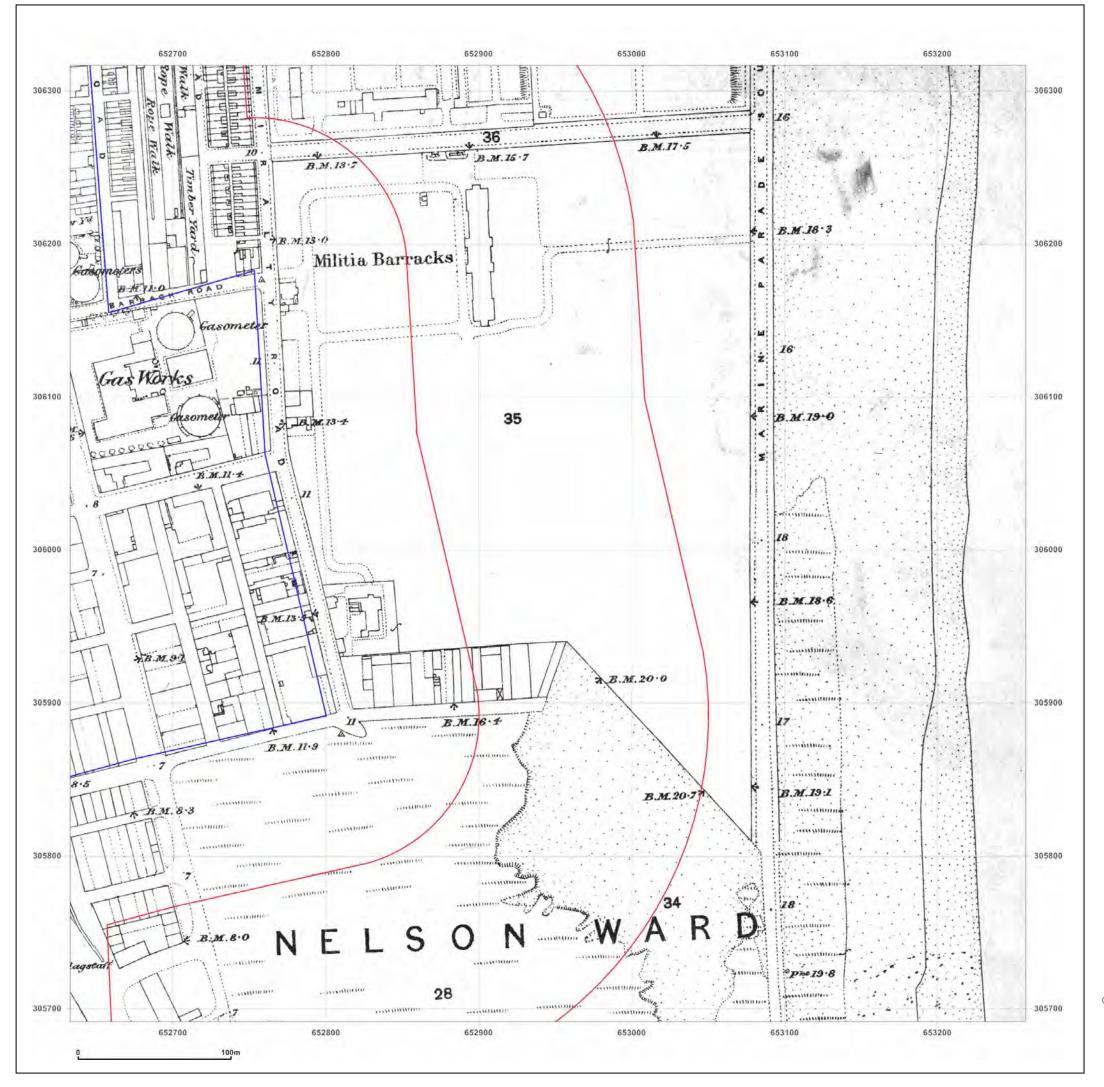




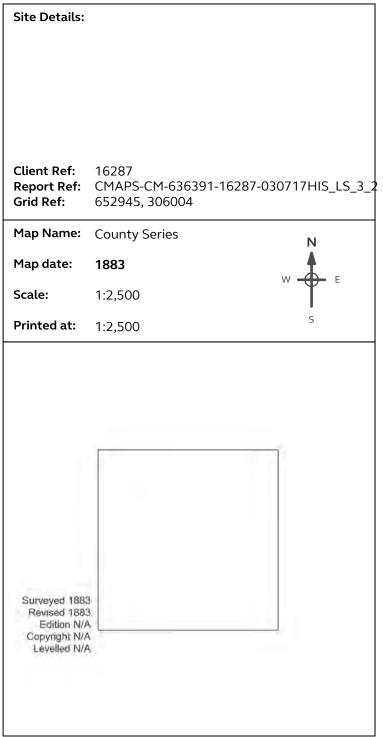
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ ^{\textcircled{\tiny 0}}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











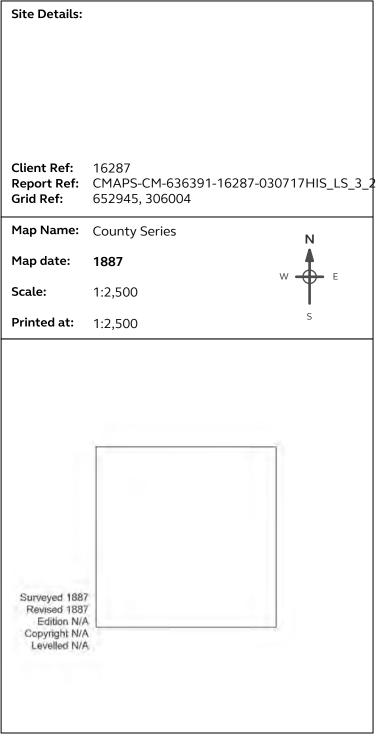
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







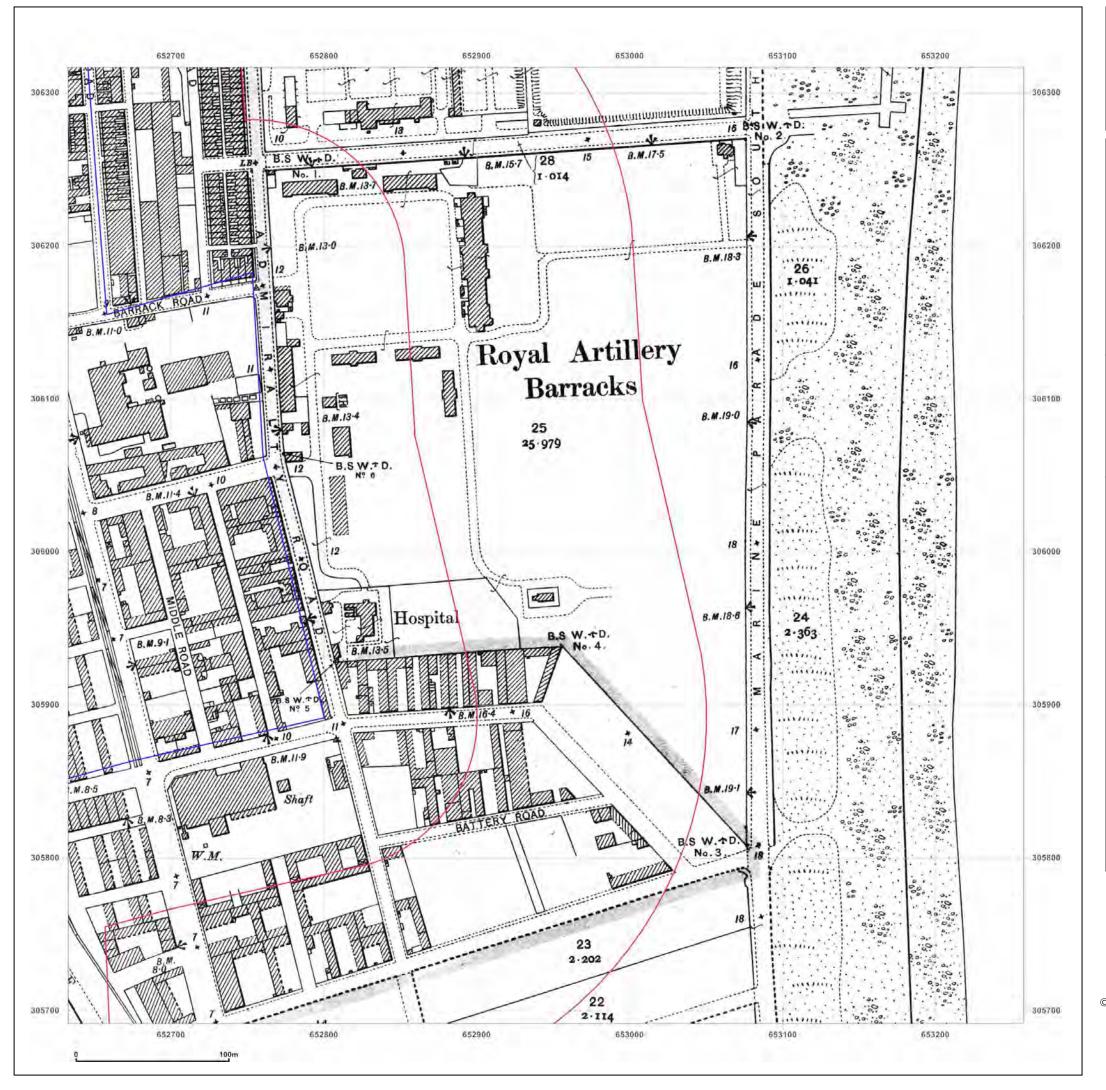




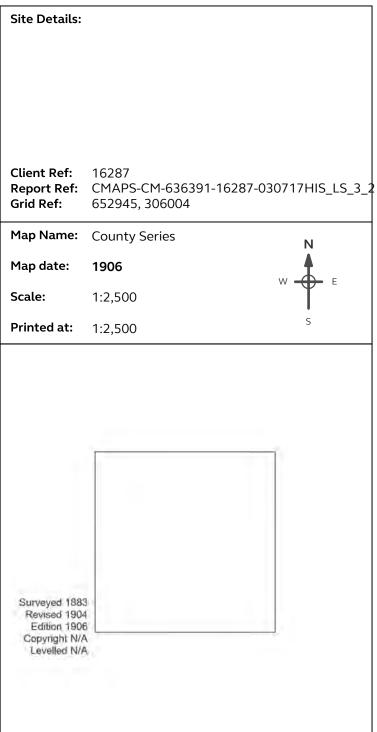
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







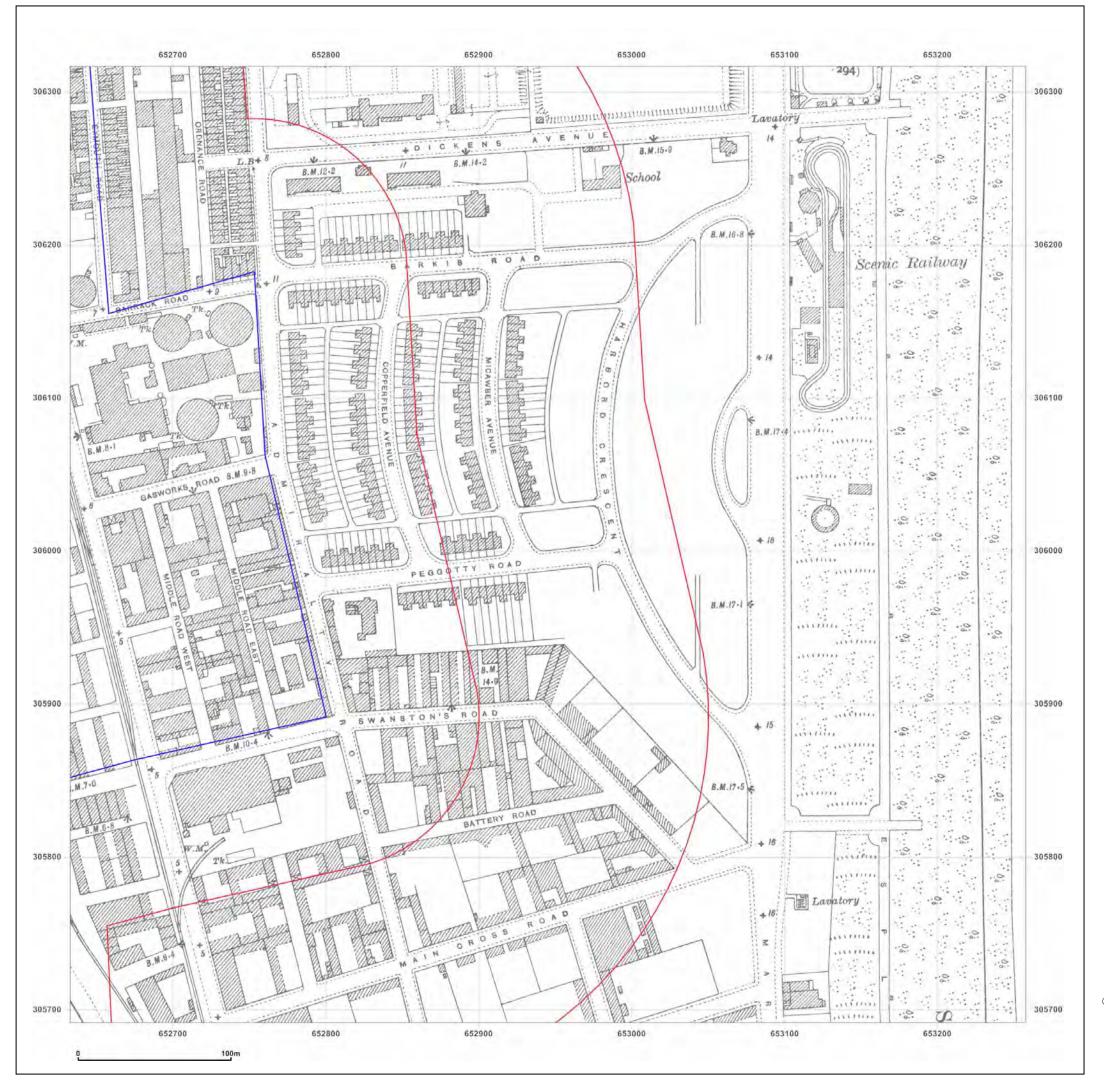




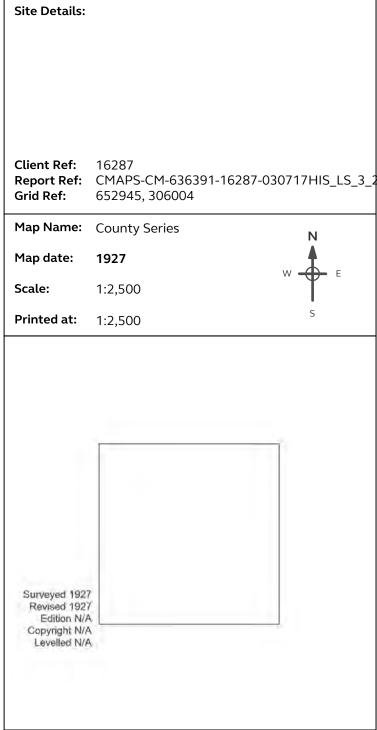
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ensuremath{\mathbb{C}}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







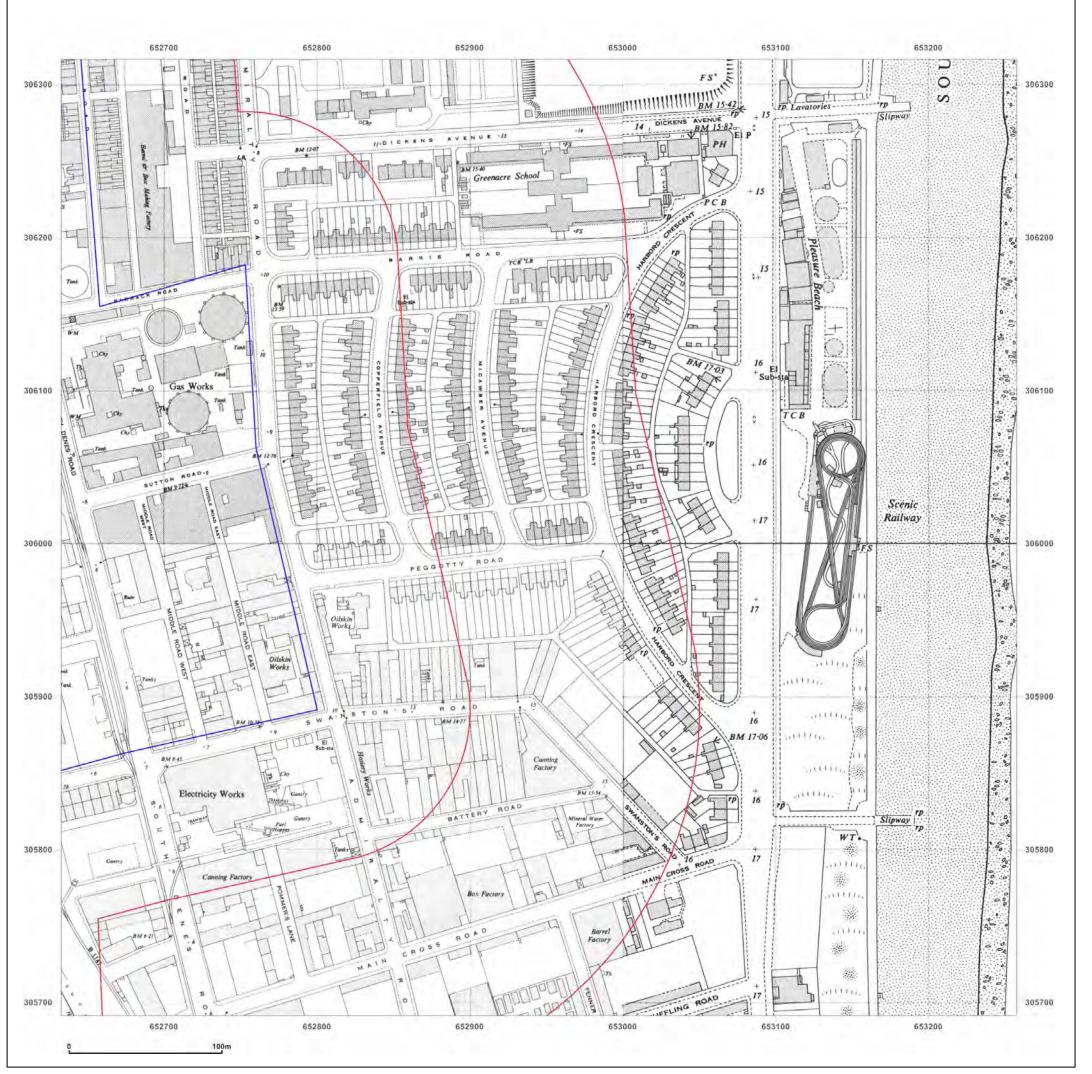




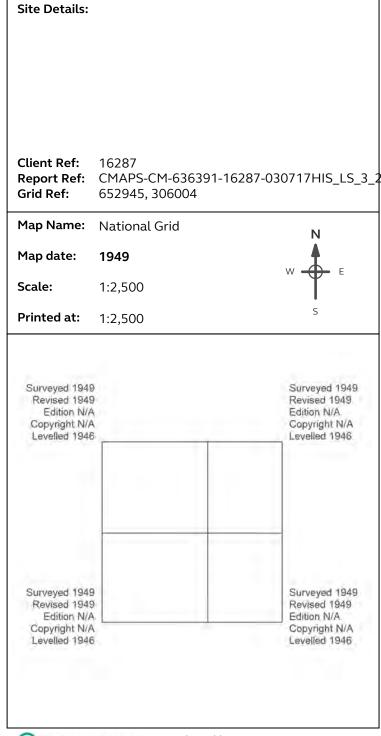
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







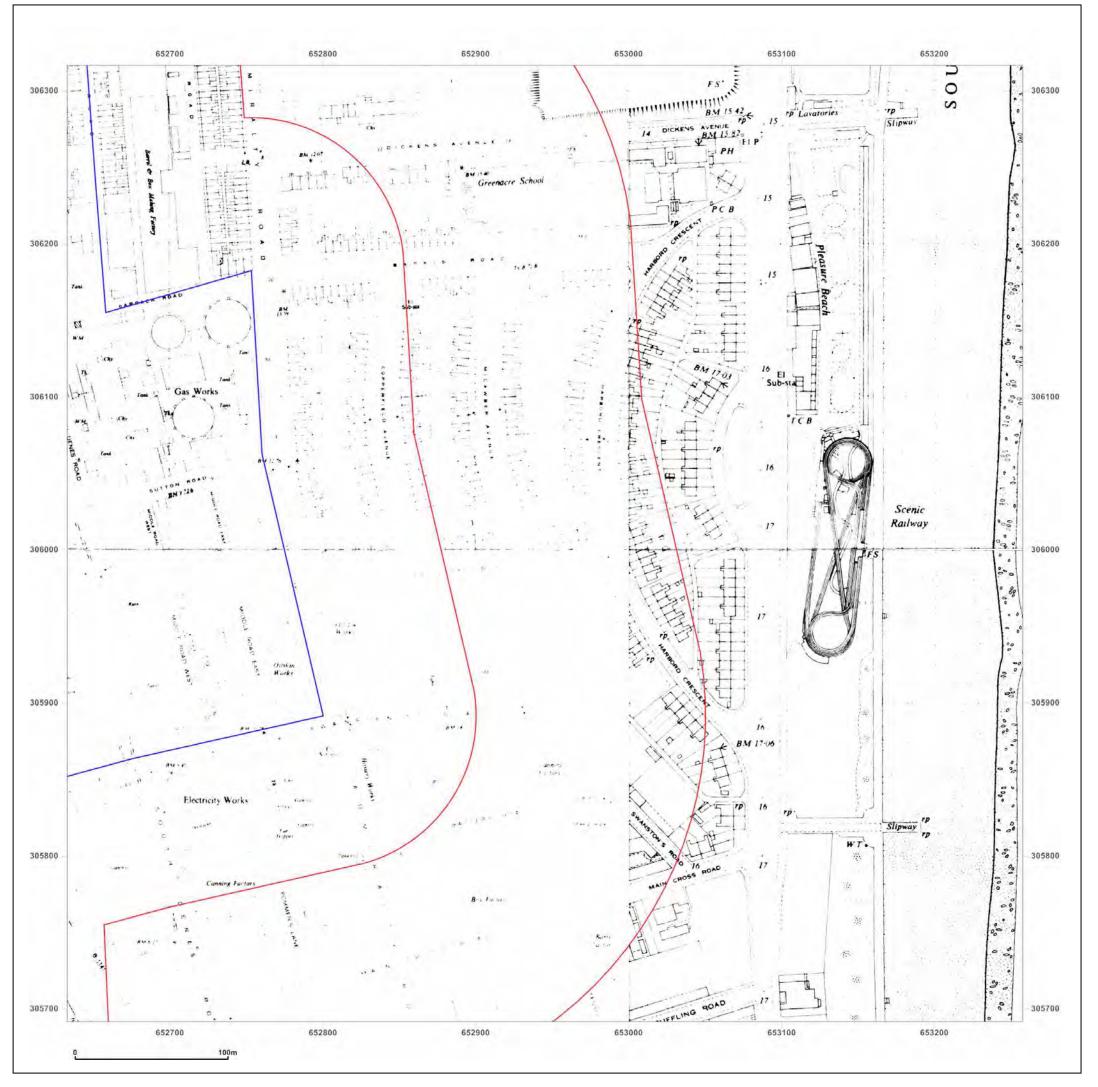




Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Client Ref: Report Ref: Grid Ref:	16287 CMAPS-CM-636391-10 652945, 306004	6287-030717HIS_LS
Map Name:	National Grid	N
Map date:	1950-1951	W E
Scale:	1:2,500	" T
Printed at:	1:2,500	S
Revised N/A Edition N/A Copyright N/A Levelled N/A		Revised N/A Edition N/A Copyright N/A Levelled N/A





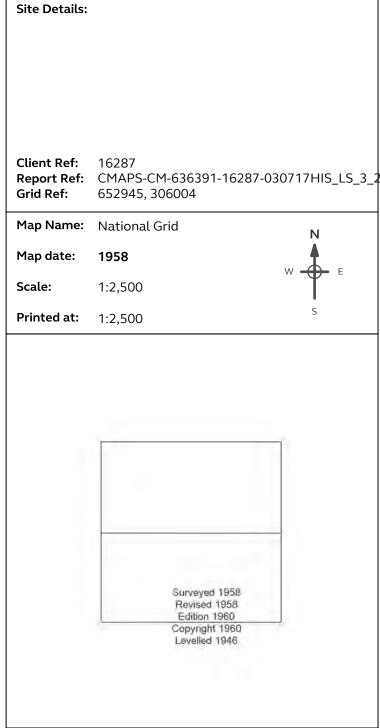
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











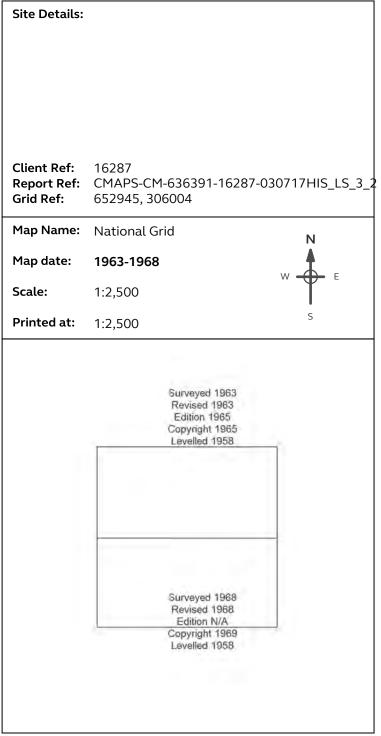
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











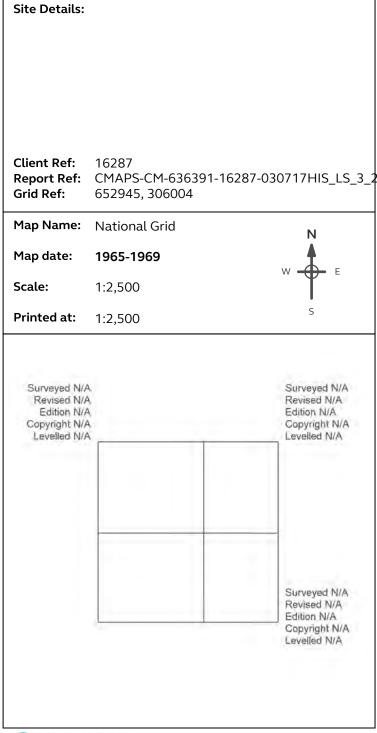
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







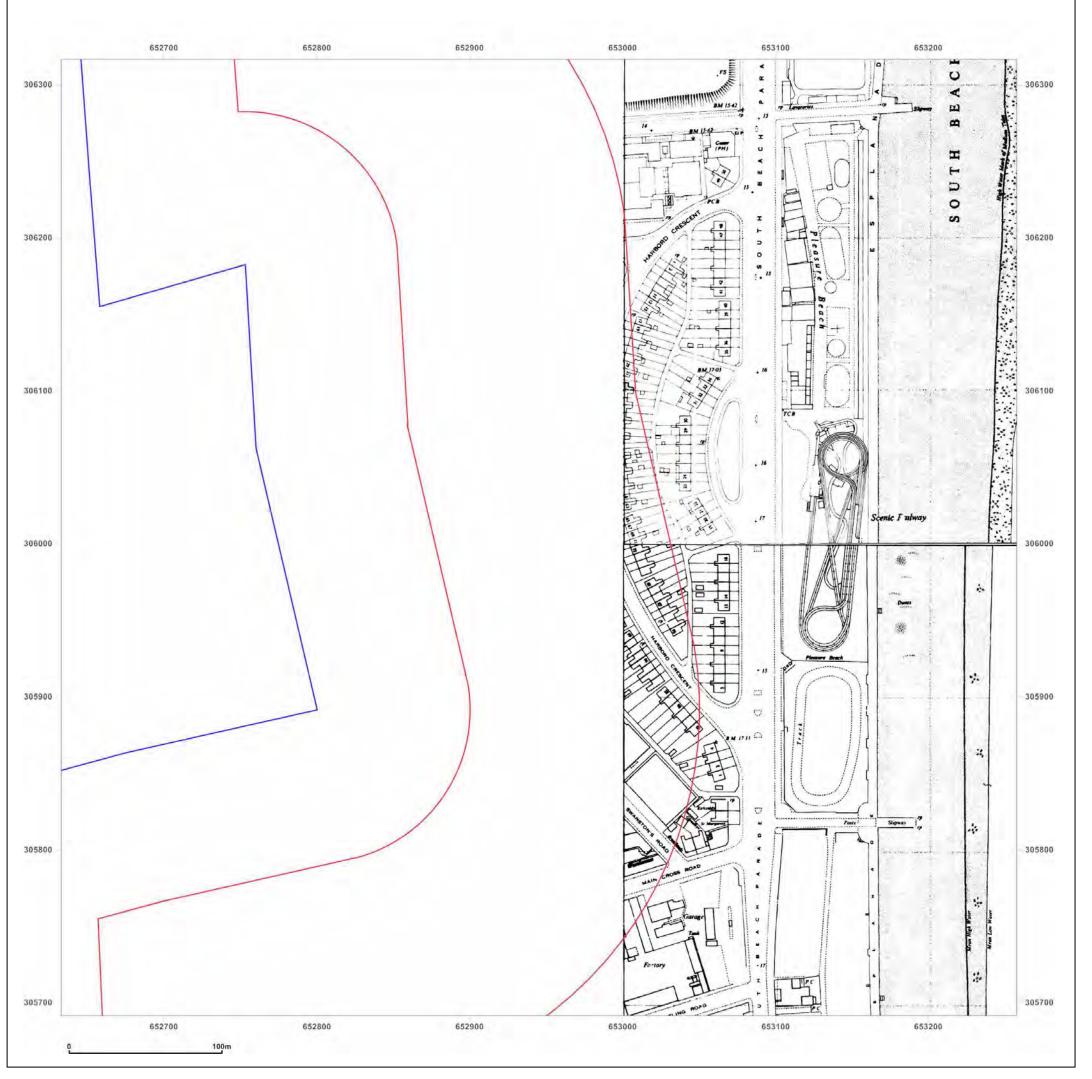




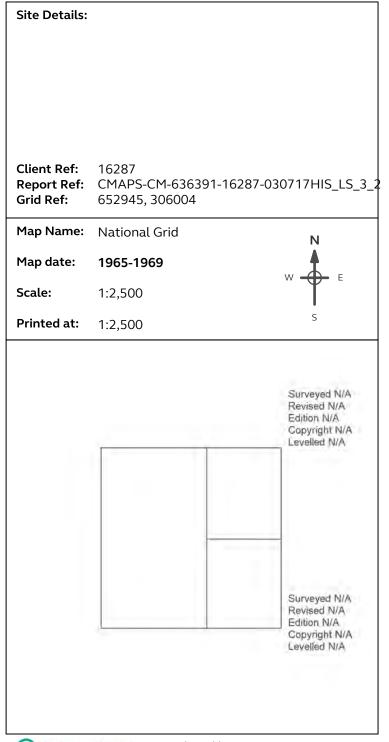
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











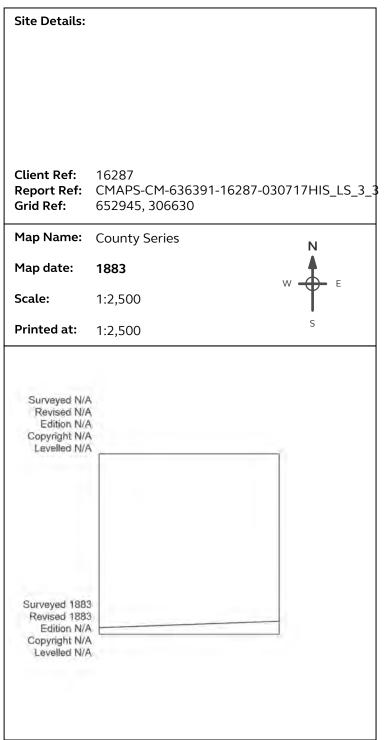
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







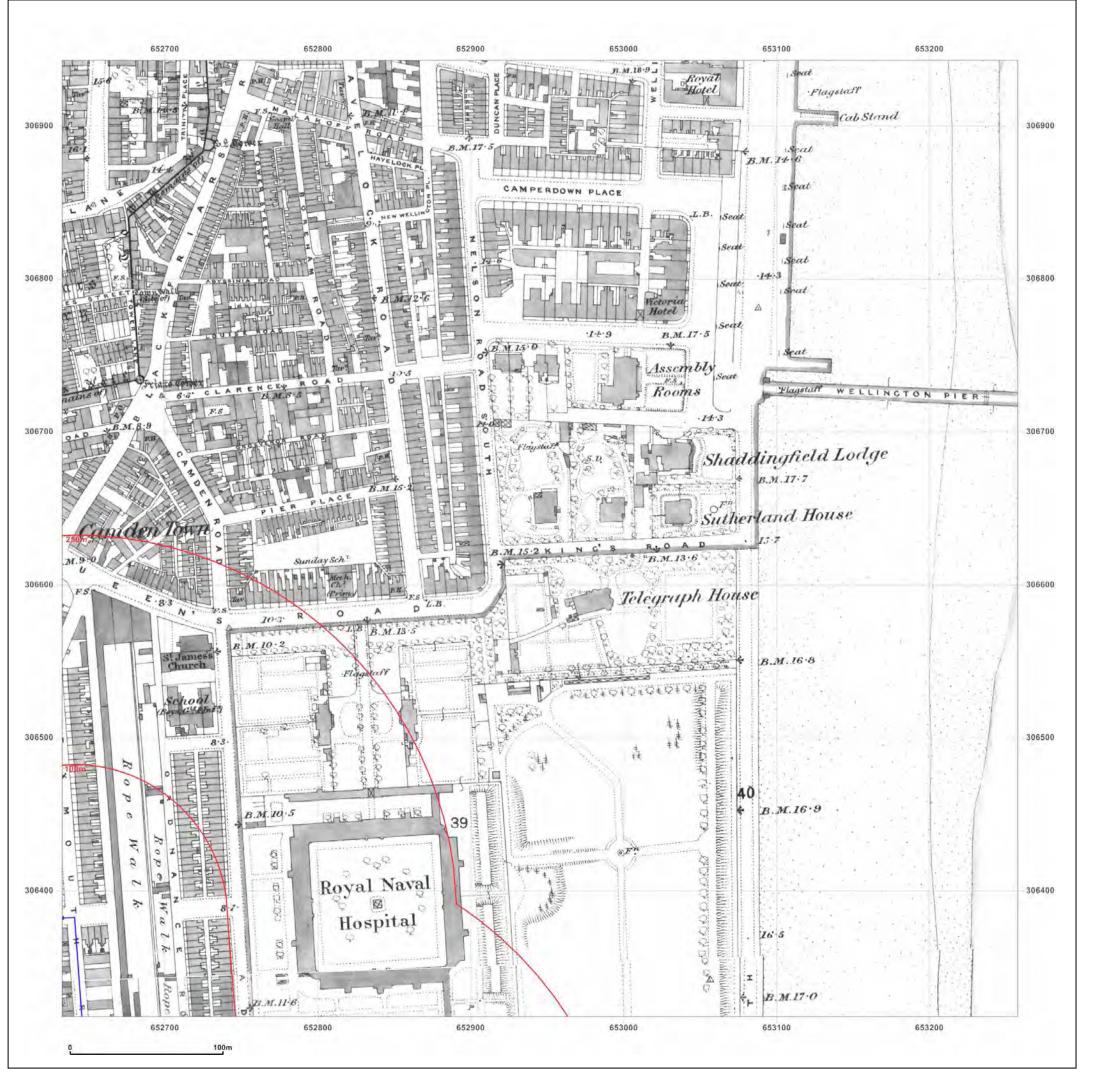




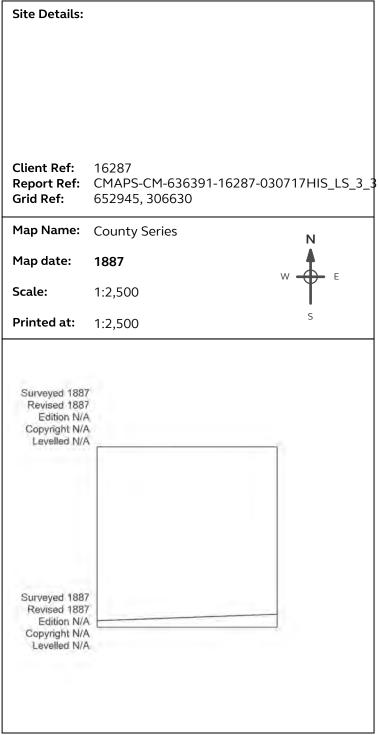
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







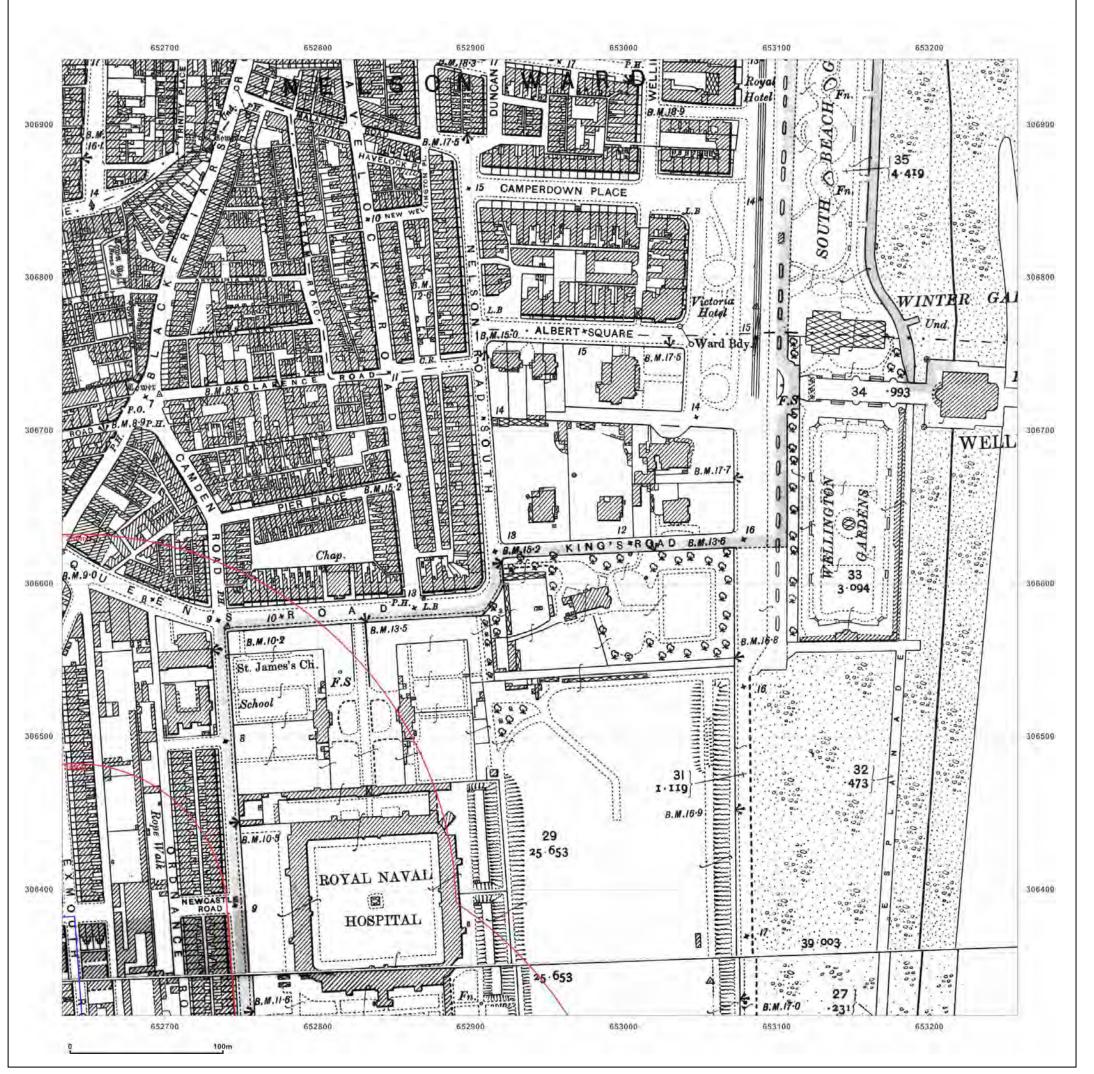




Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\hbox{@}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details:			
Client Ref: Report Ref: Grid Ref:	16287 CMAPS-CM-6363 652945, 306630	391-16287-03	0717HIS_LS_3_:
Map Name:	County Series		N
Map date:	1905-1906		W F
Scale:	1:2,500		T
Printed at:	1:2,500		S
Surveyed 1905 Revised 1905 Edition N/A Copyright N/A Levelled N/A			
Surveyed 1883 Revised 1904 Edition 1906 Copyright N/A Levelled N/A			

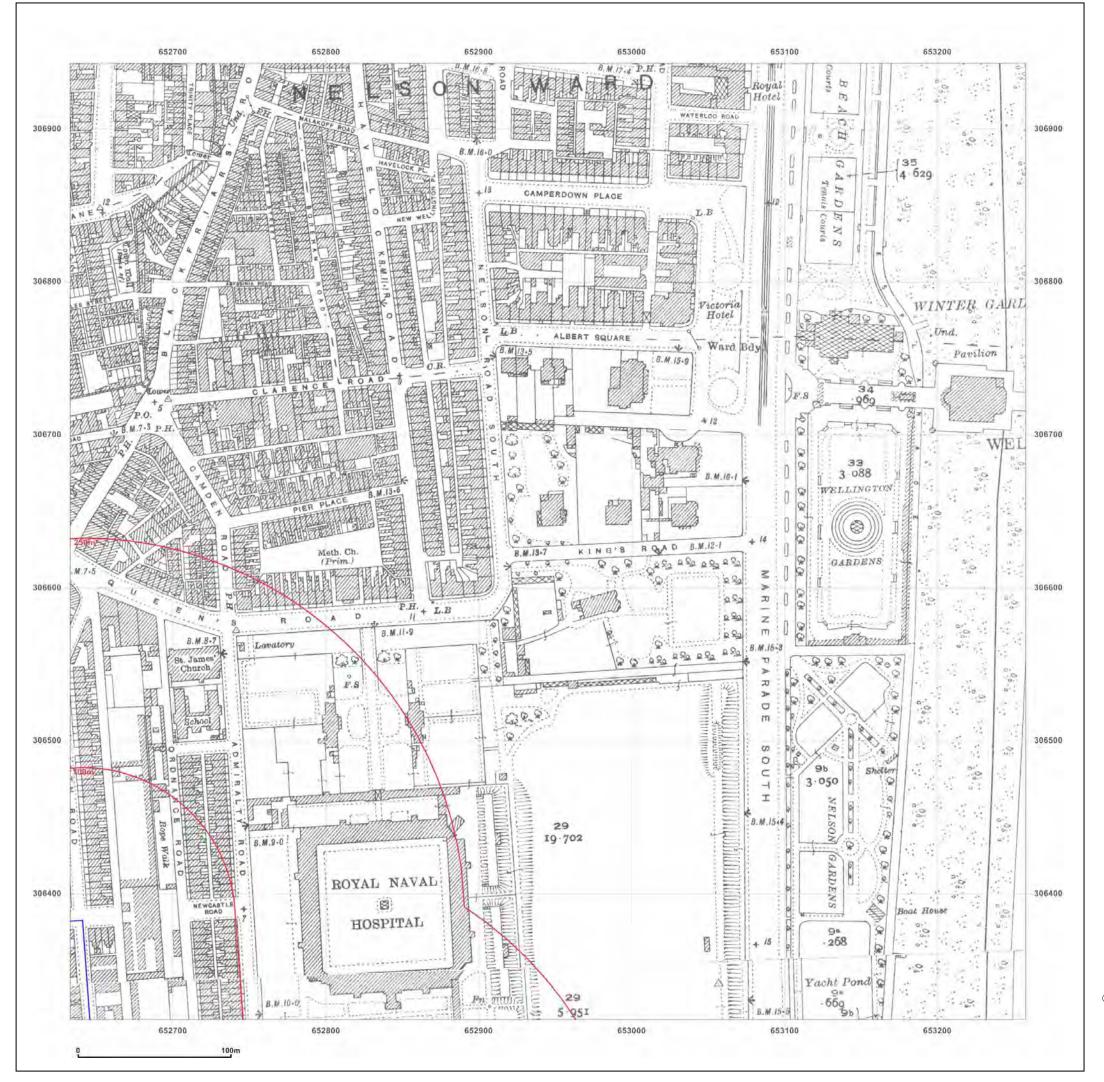




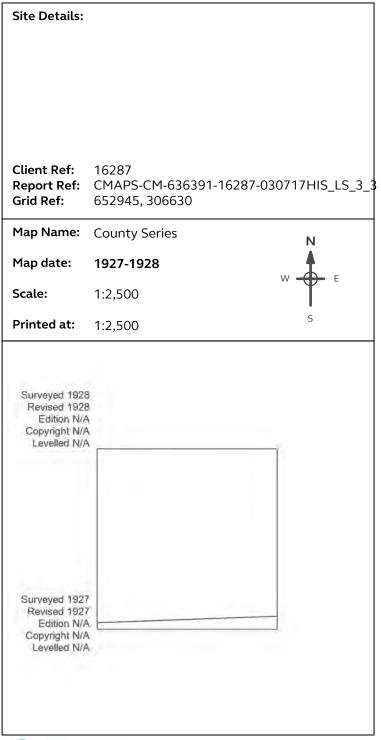
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ensuremath{\mathbb{C}}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







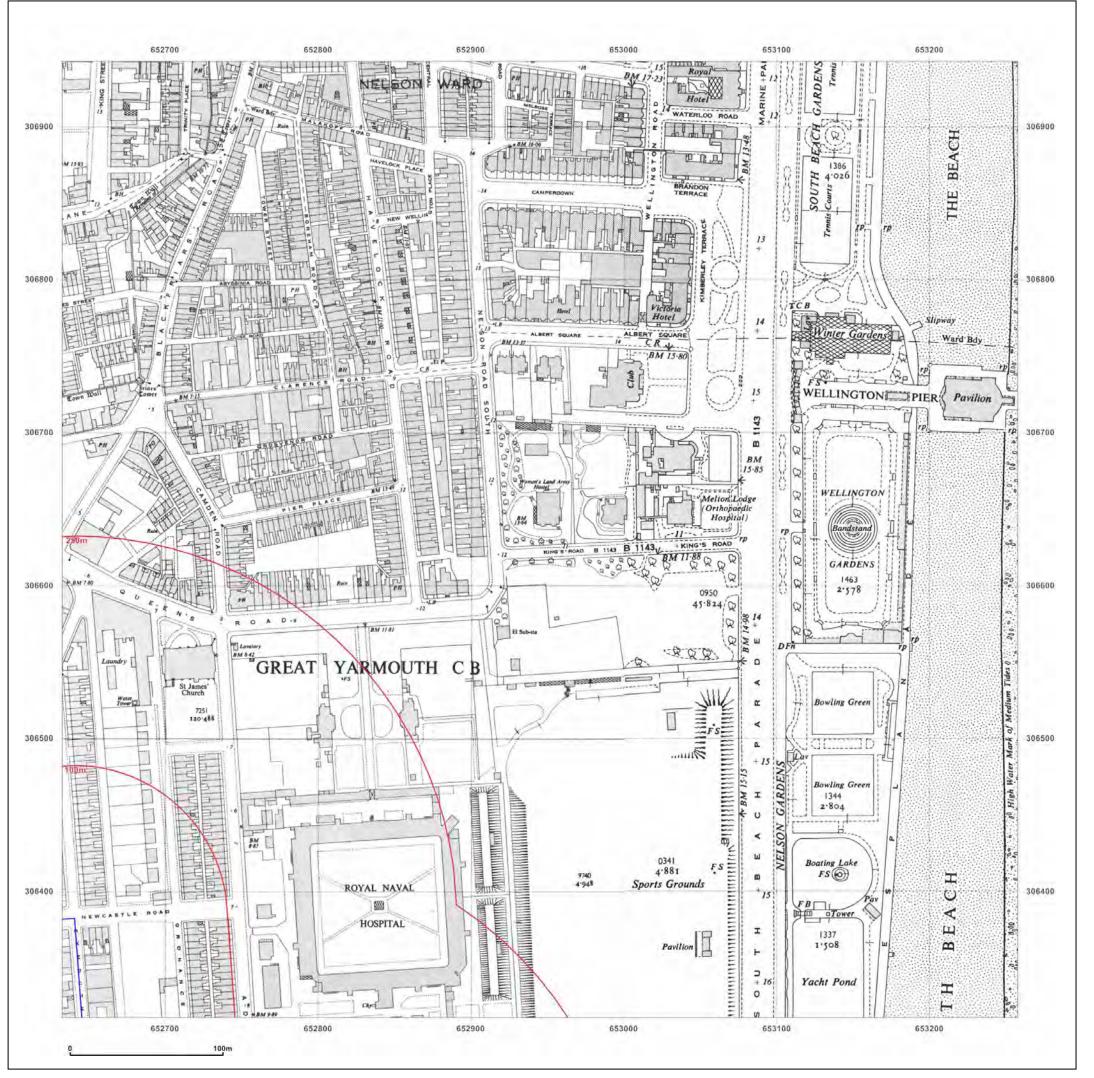




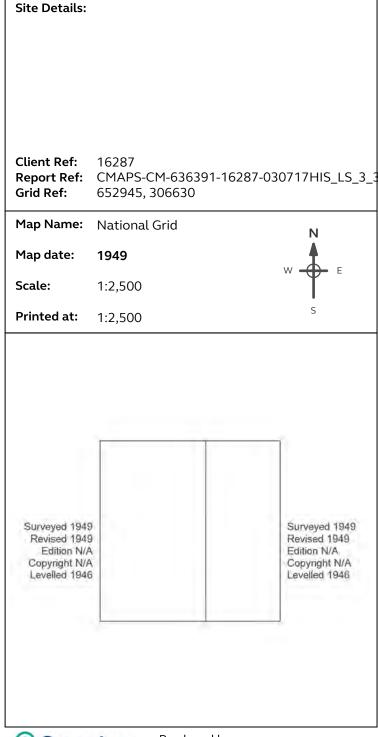
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ensuremath{\mathbb{C}}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







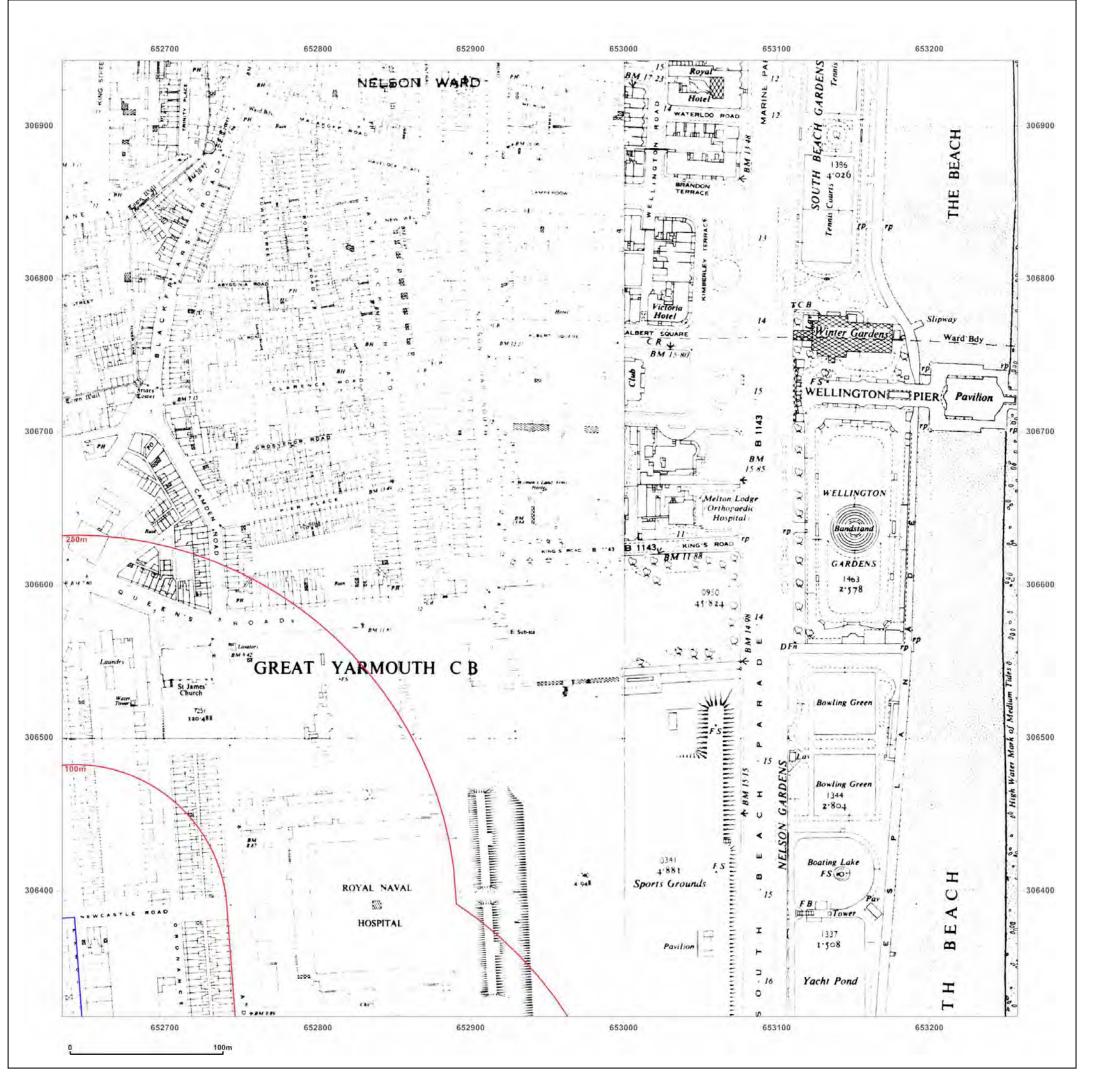




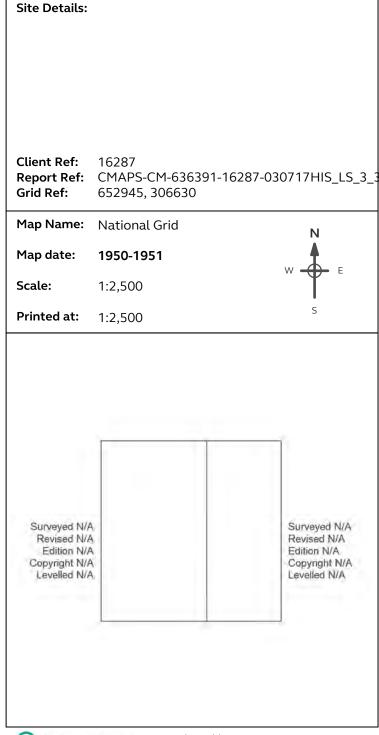
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







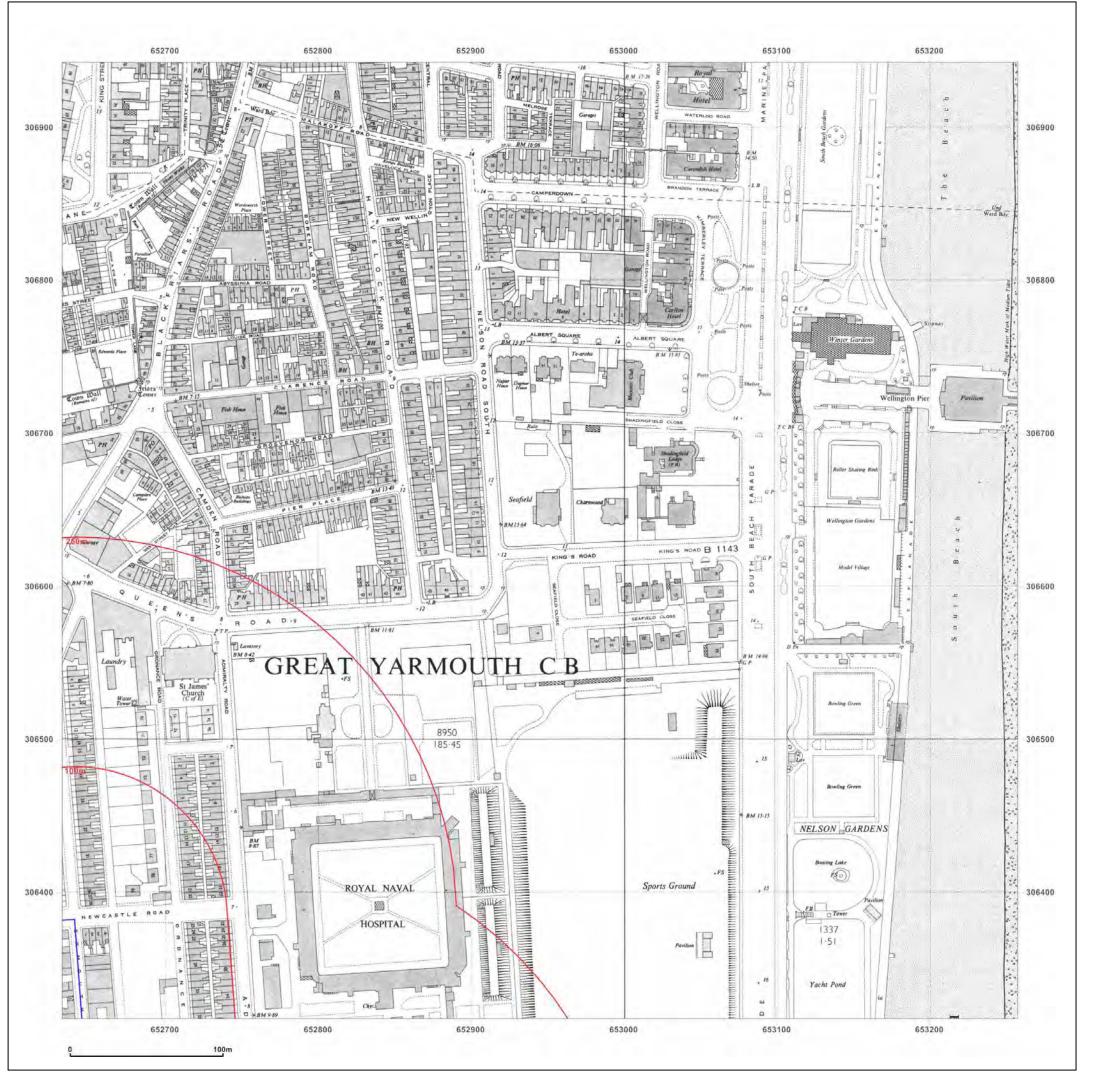




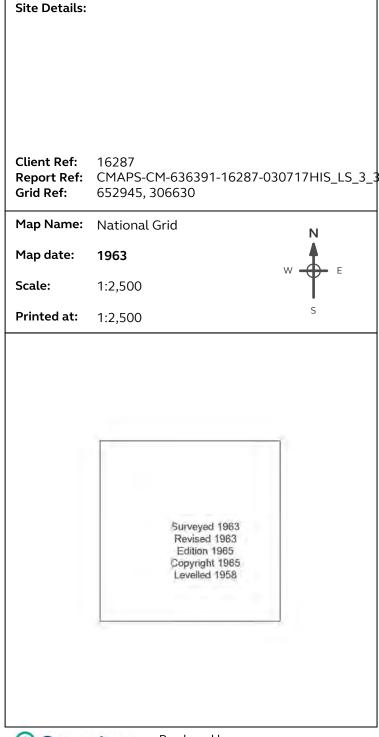
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







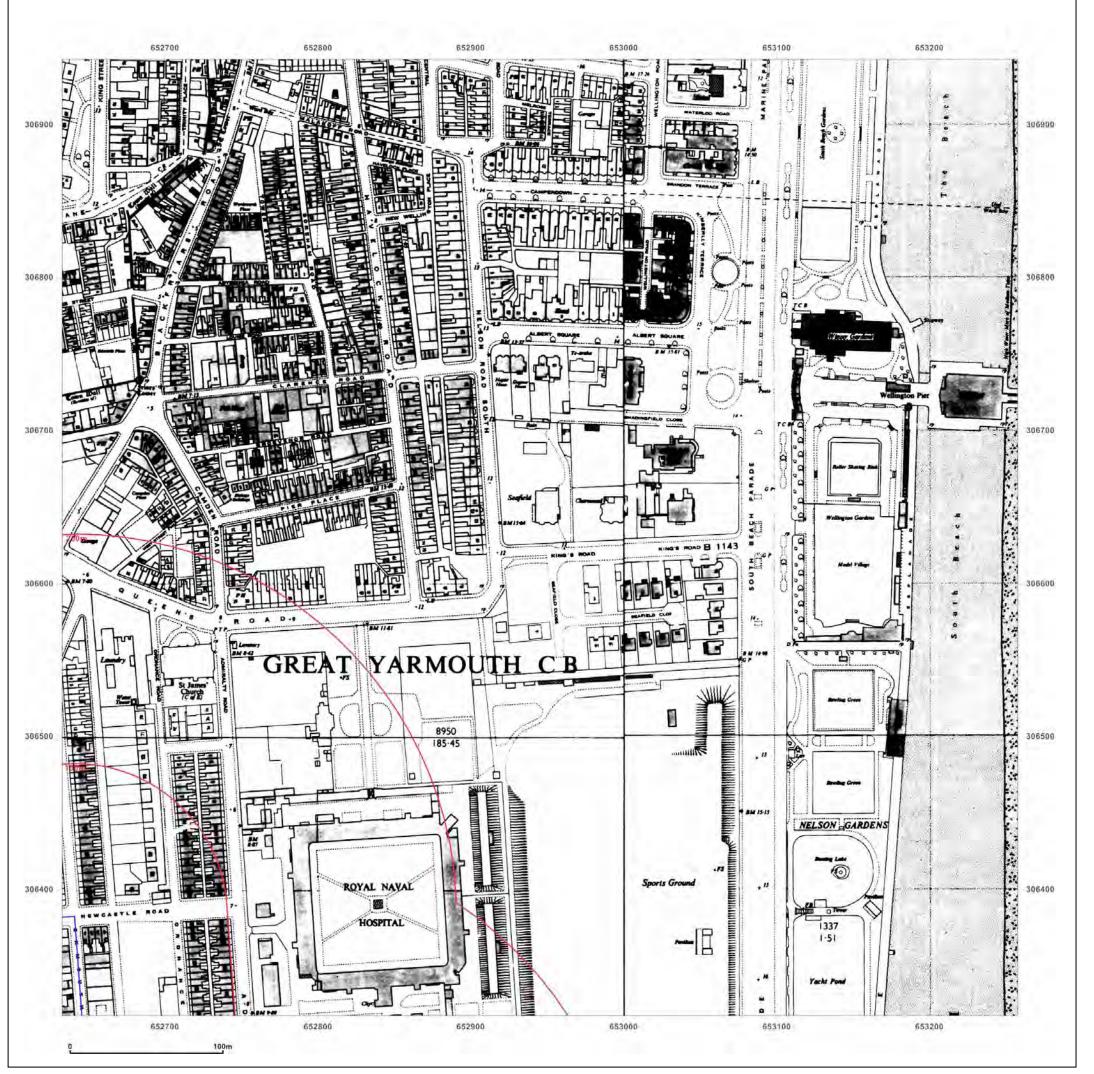




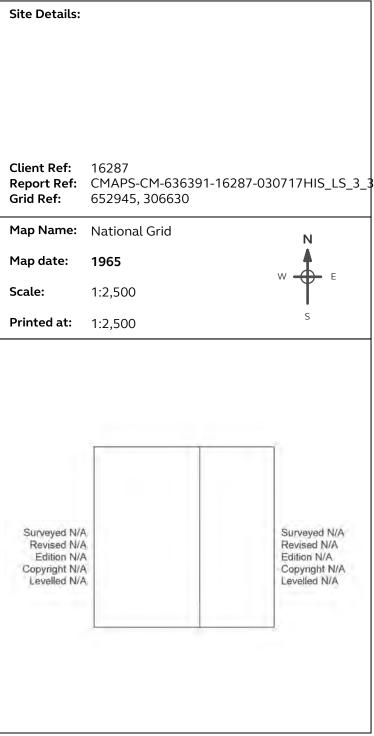
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







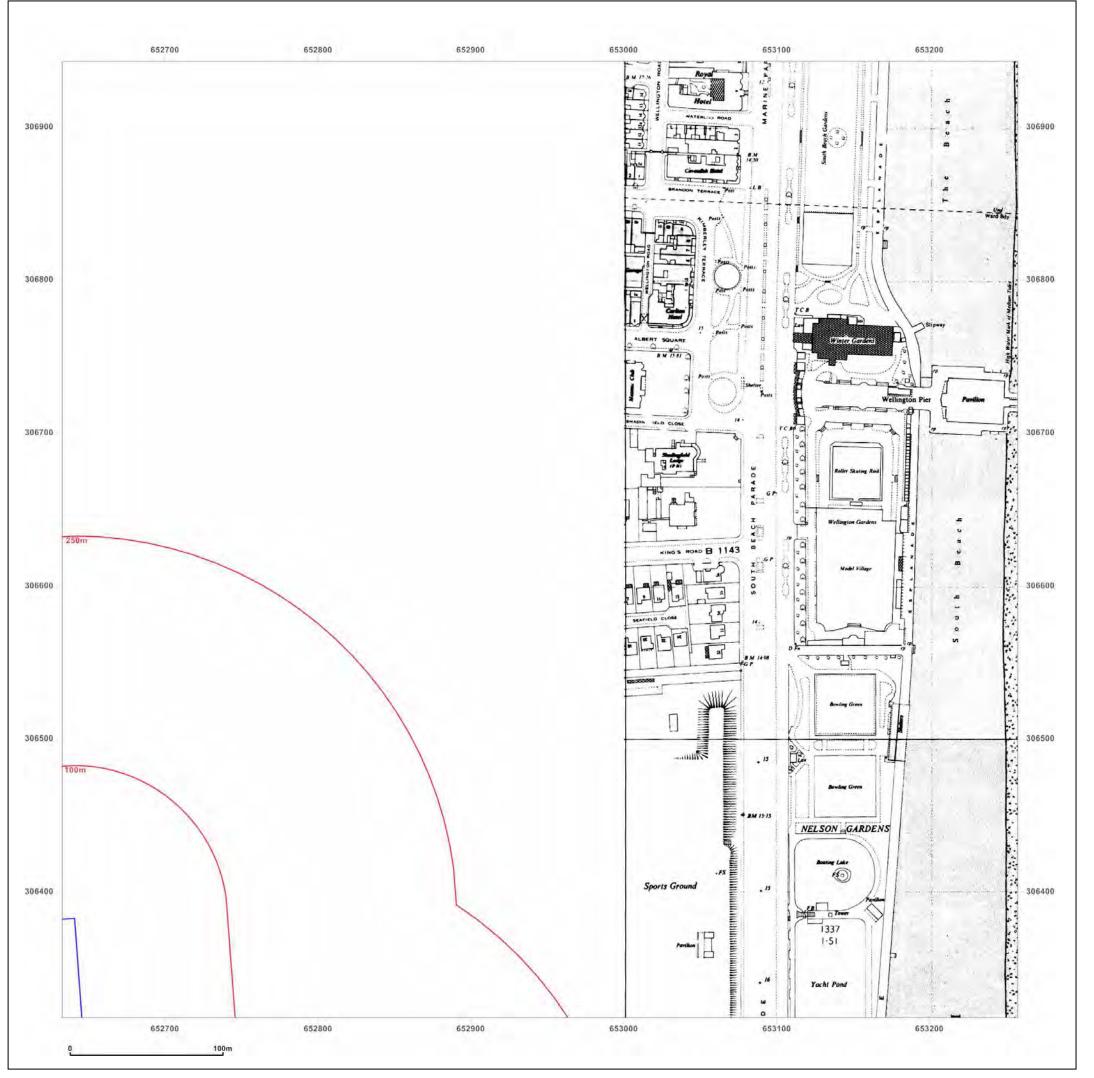




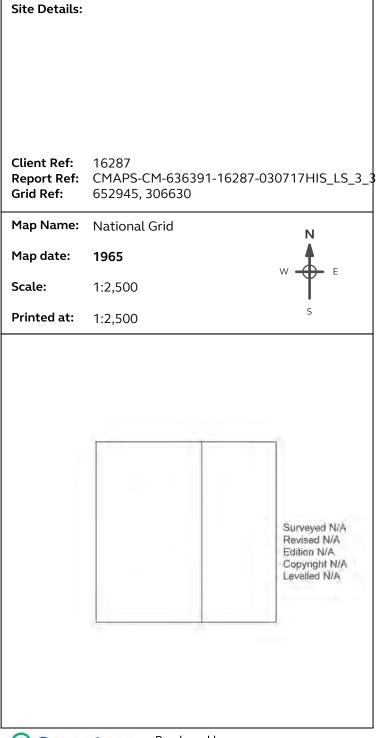
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







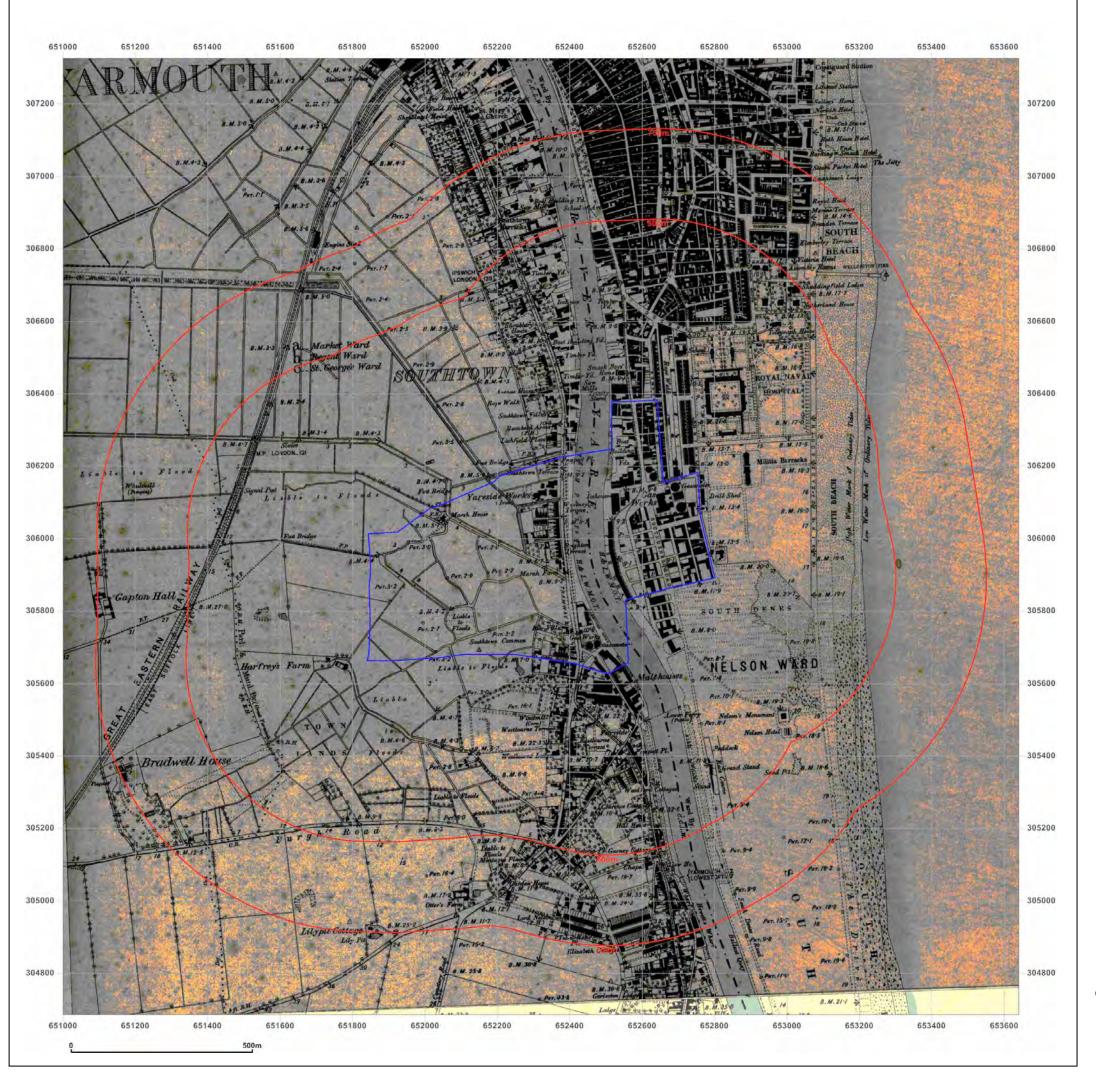




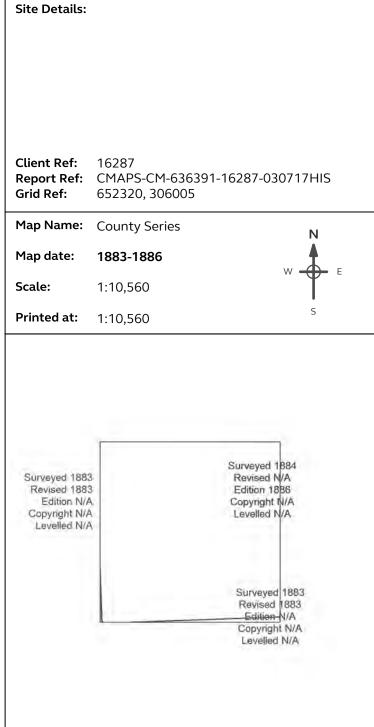
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\ @$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







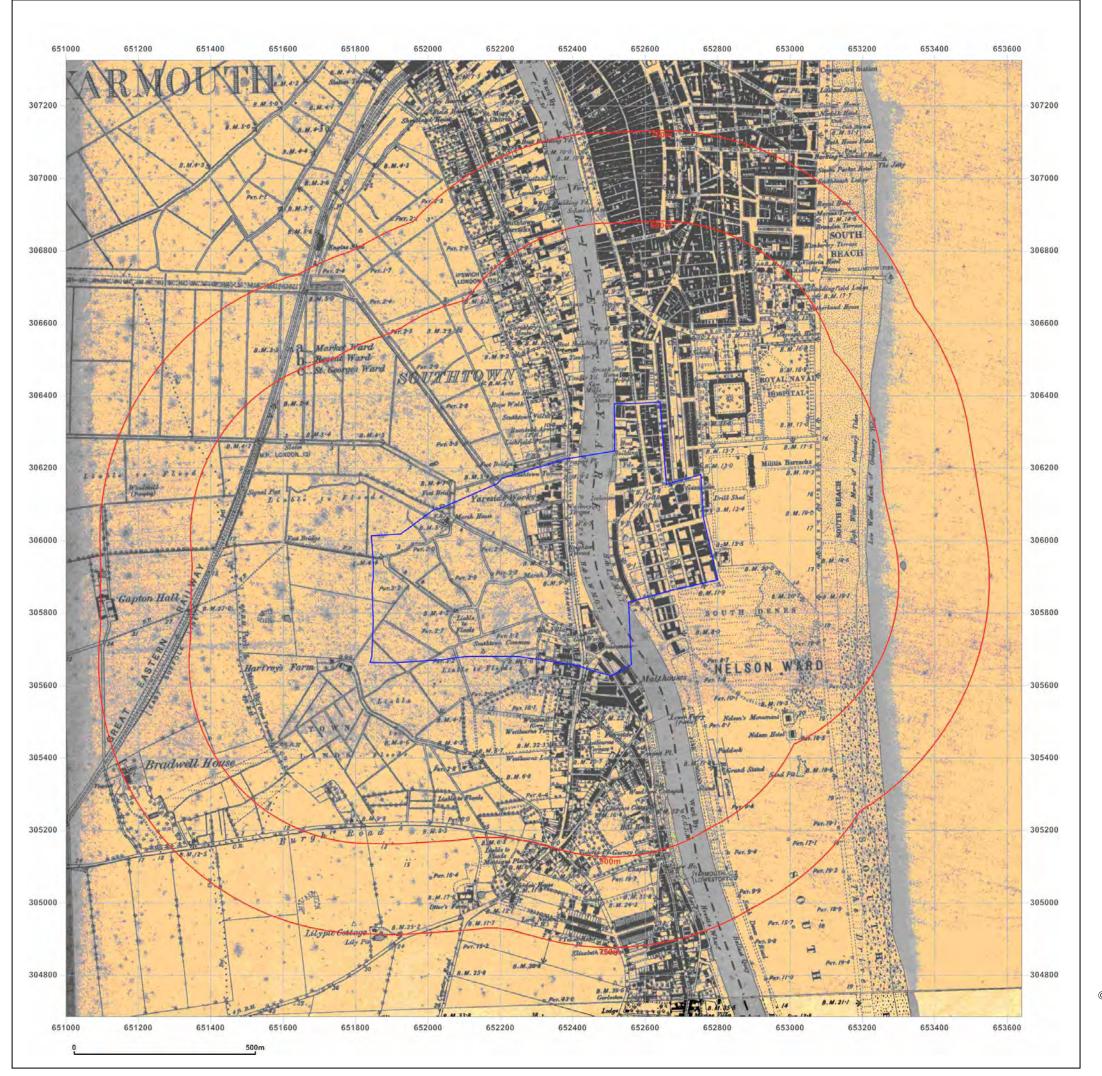




Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\hbox{@}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017





Site Details: Client Ref: 16287 **Report Ref:** CMAPS-CM-636391-16287-030717HIS 652320, 306005 **Grid Ref:** Map Name: County Series 1884-1888 Map date: 1:10,560 Scale: **Printed at:** 1:10,560 Surveyed 1884 Surveyed N/A Revised 1884 Revised N/A Edition N/A Copyright N/A Levelled N/A Edition N/A Copyright N/A Levelled N/A Surveyed 1883 Revised N/A Copyright N/A Levelled N/A



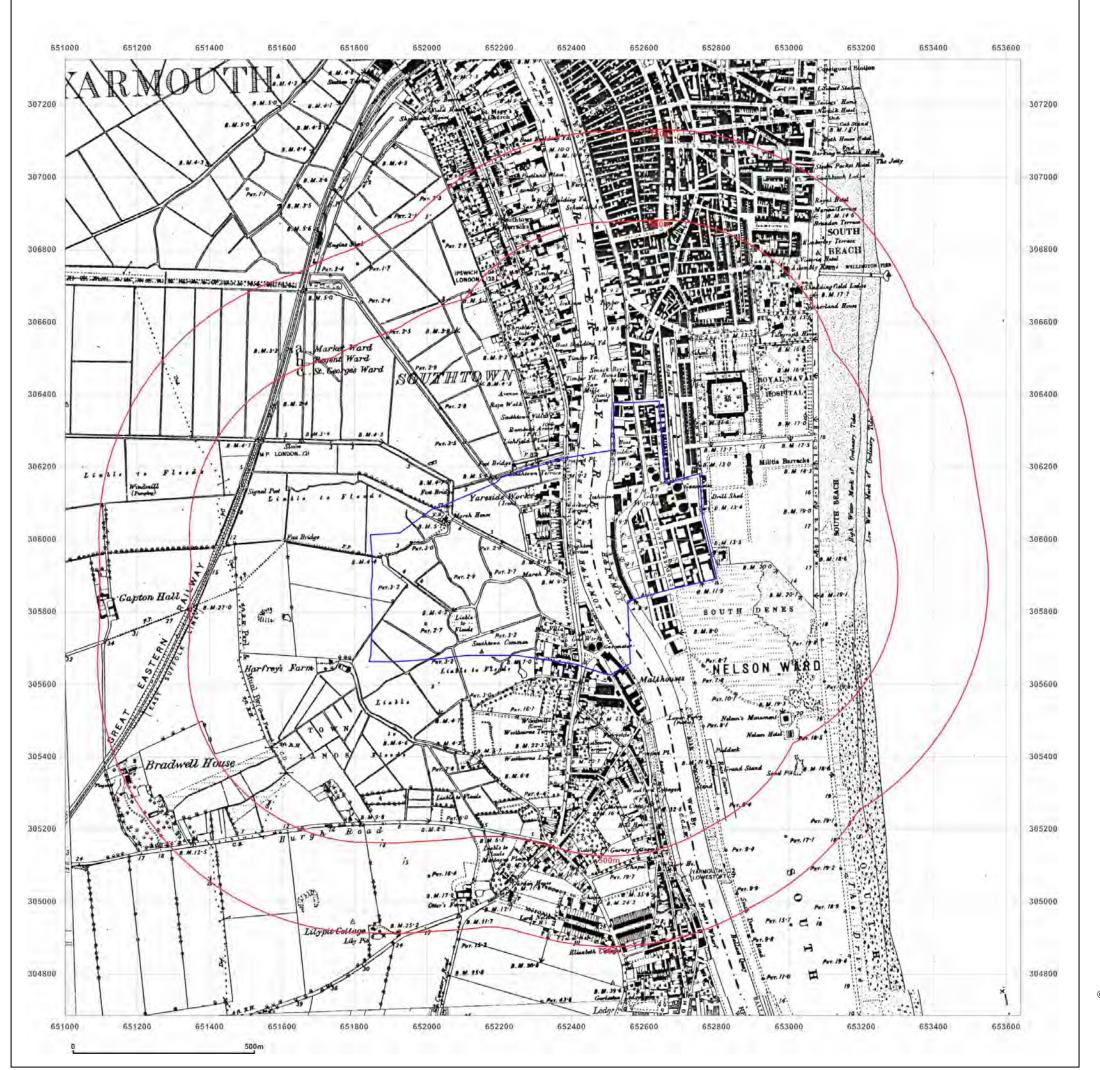
Produced by Groundsure Insights www.groundsure.com



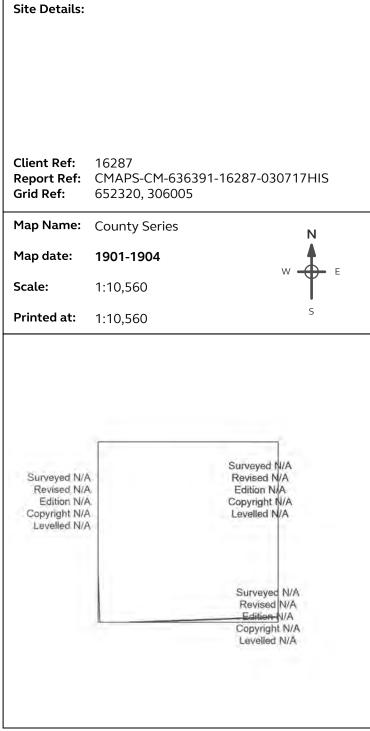
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











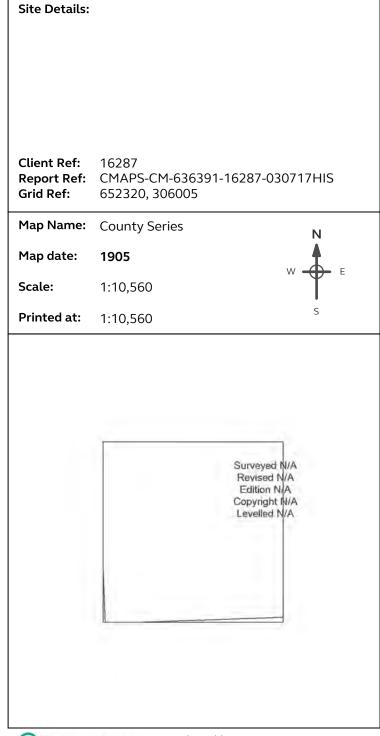
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







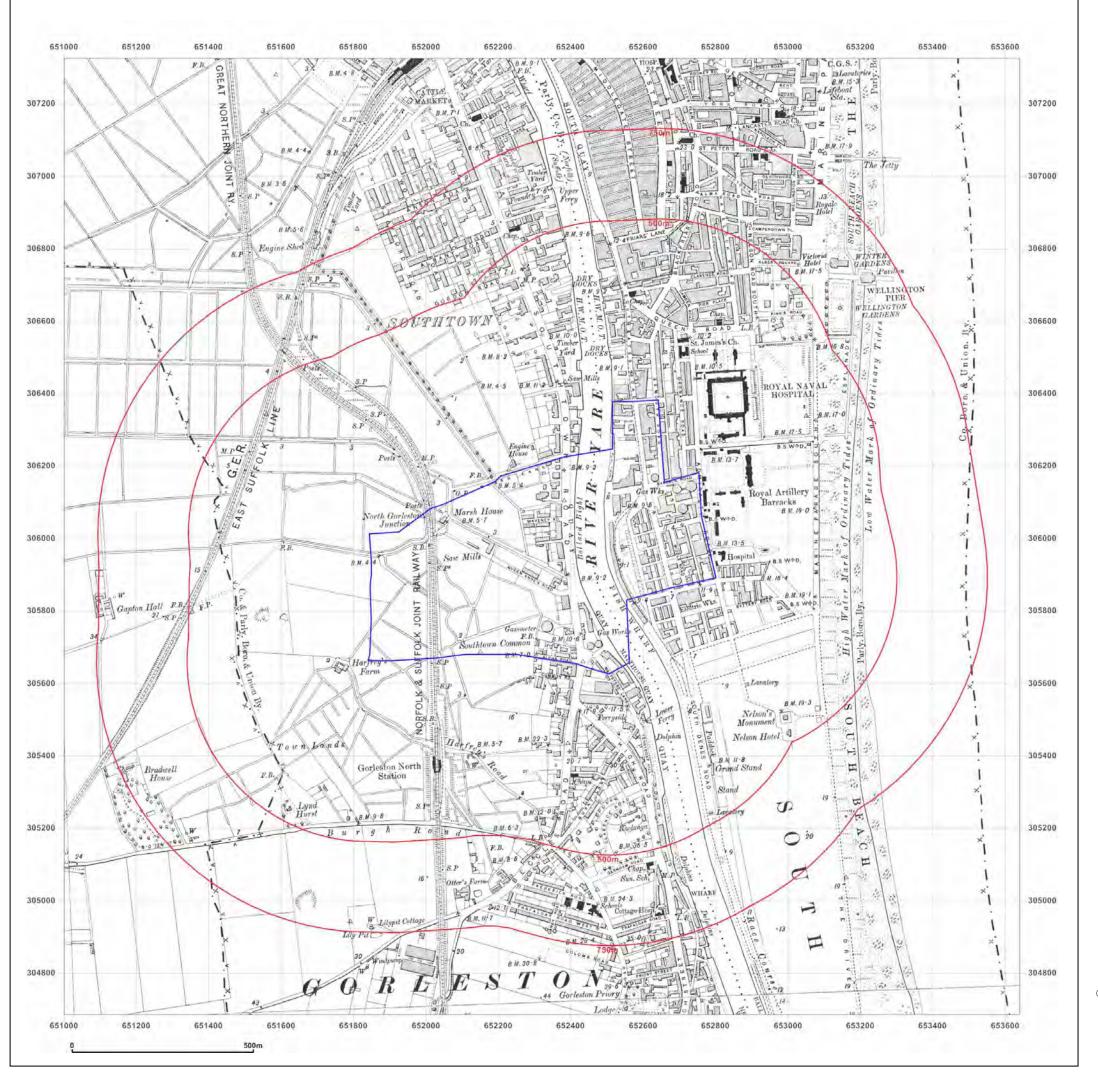




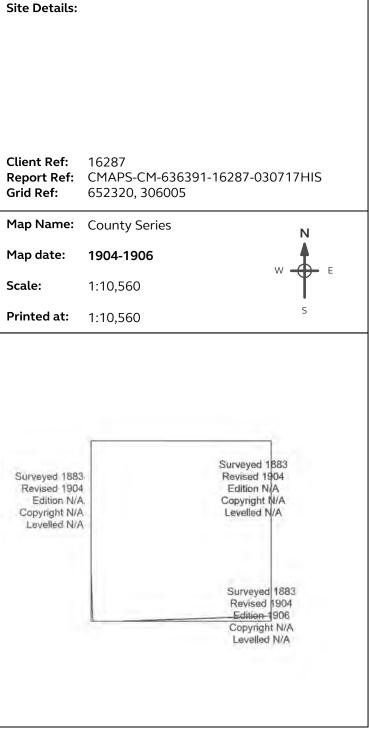
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







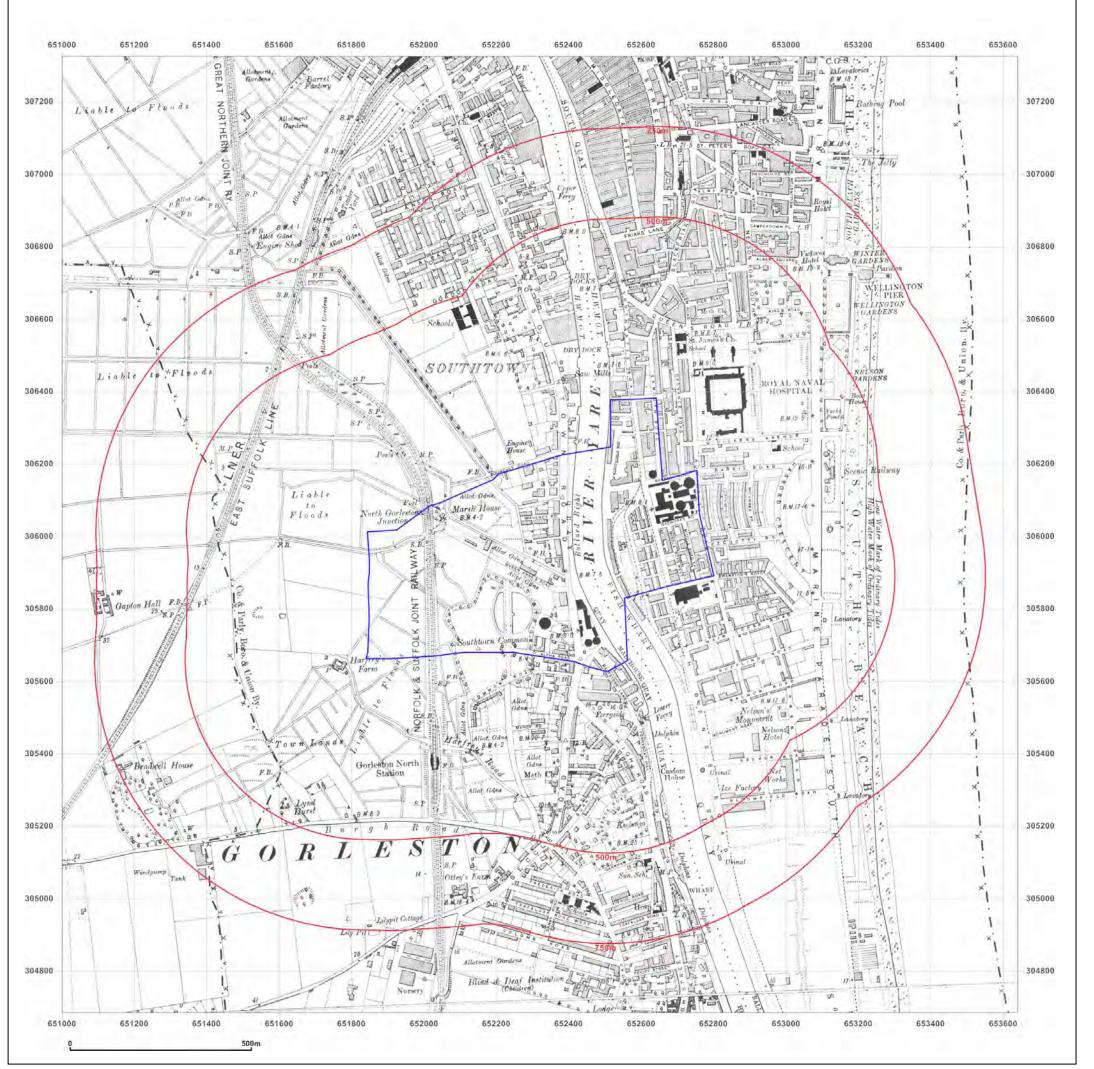




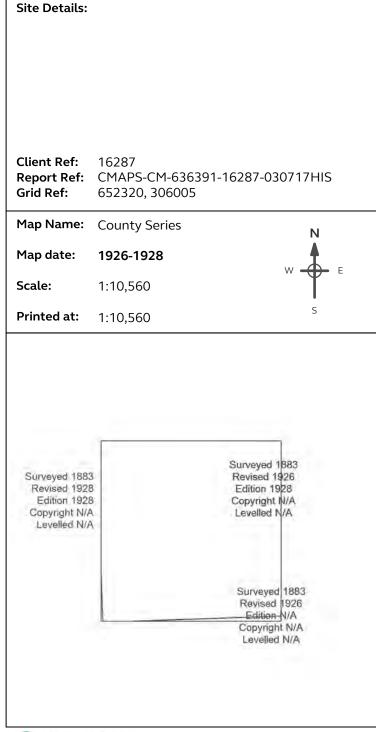
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







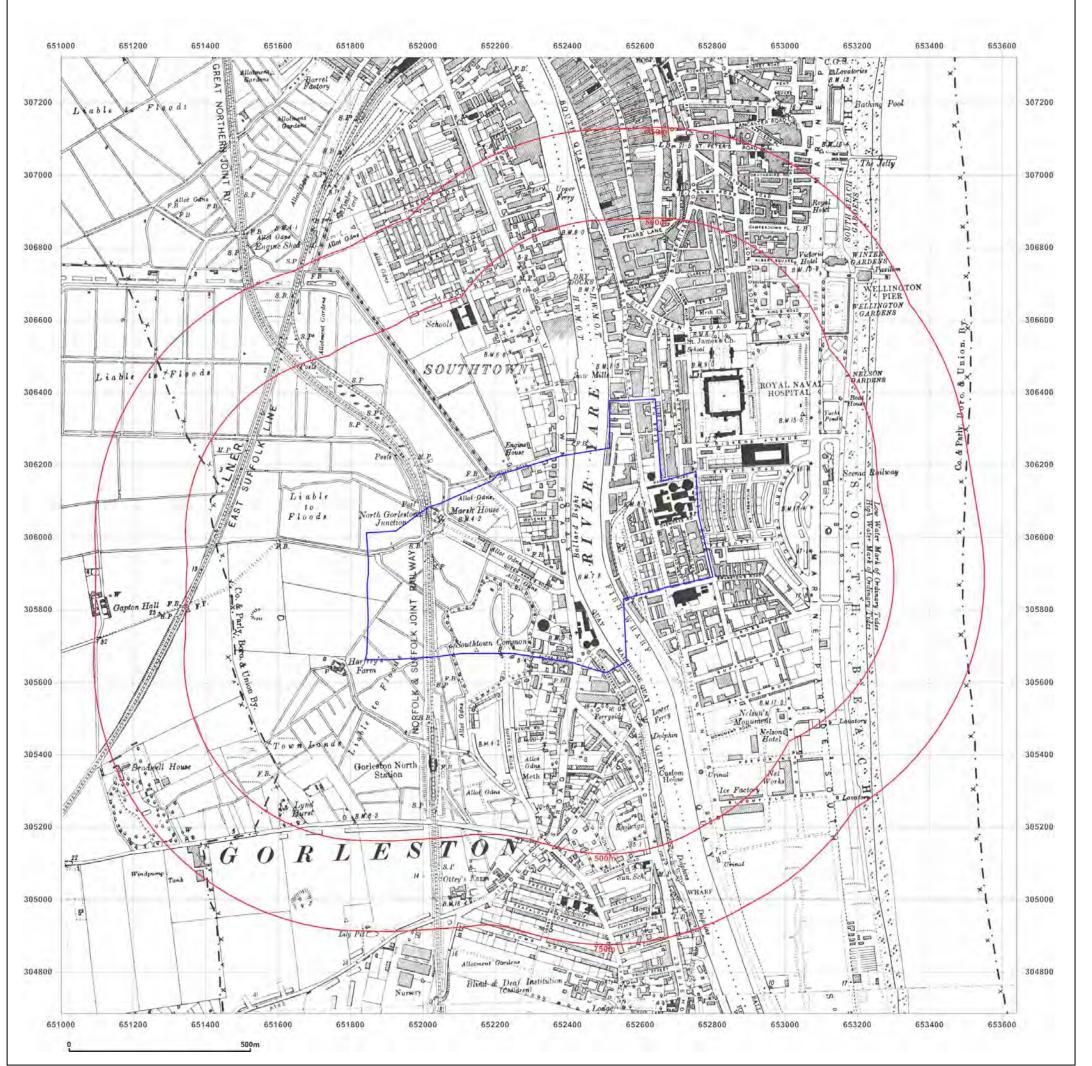




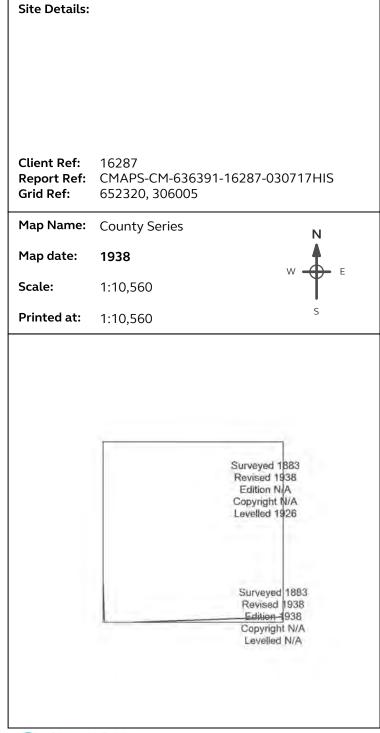
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











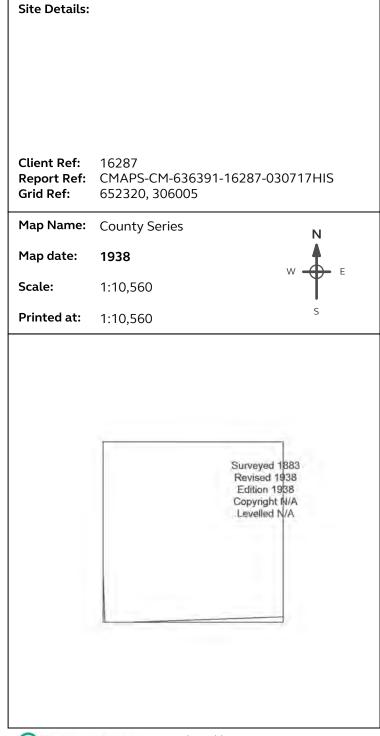
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







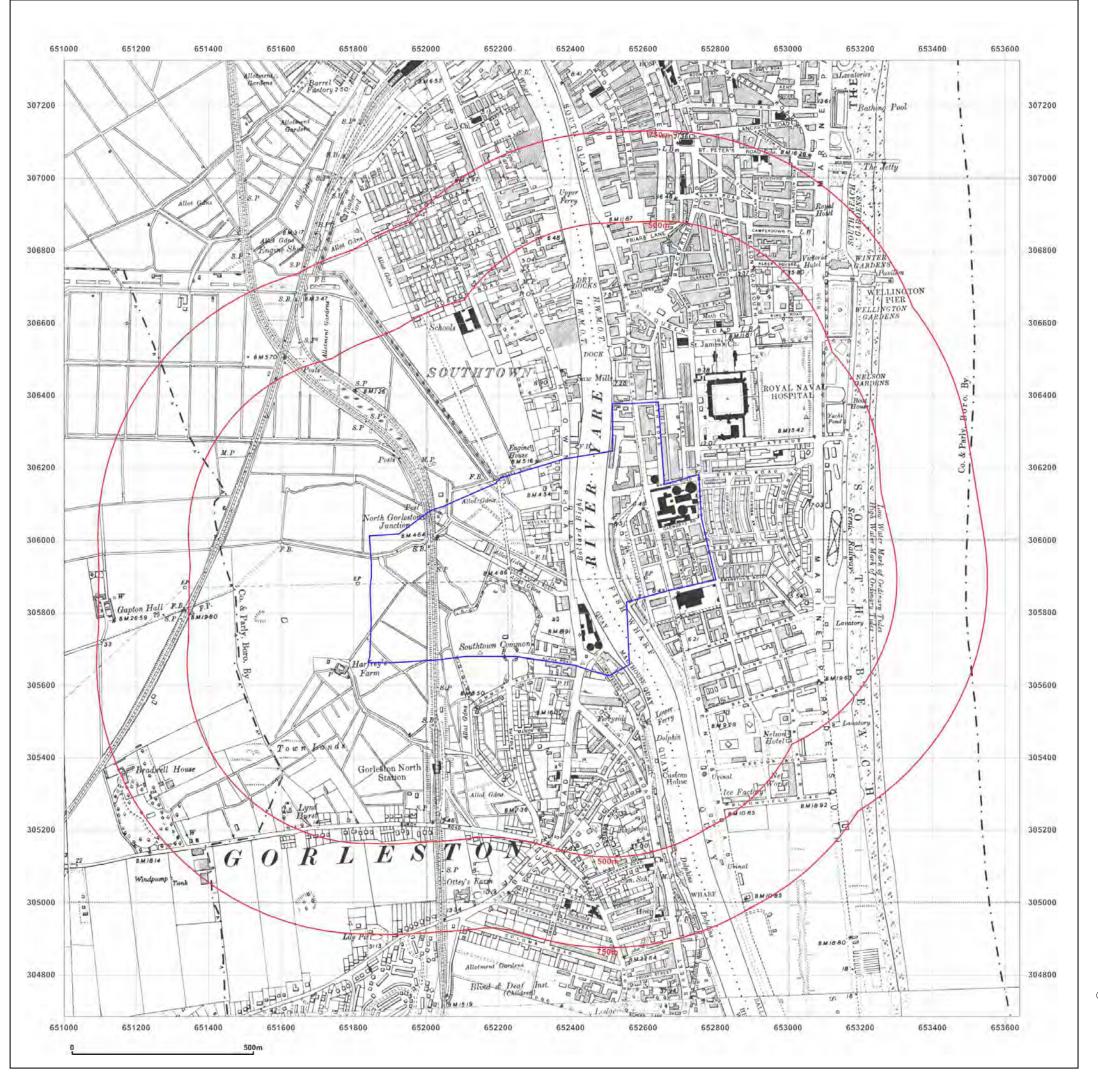




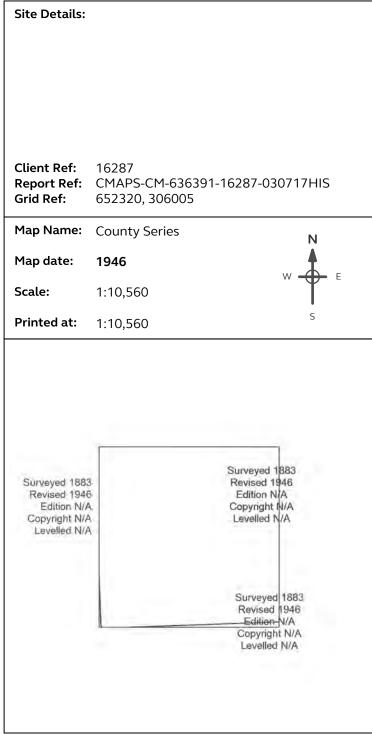
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











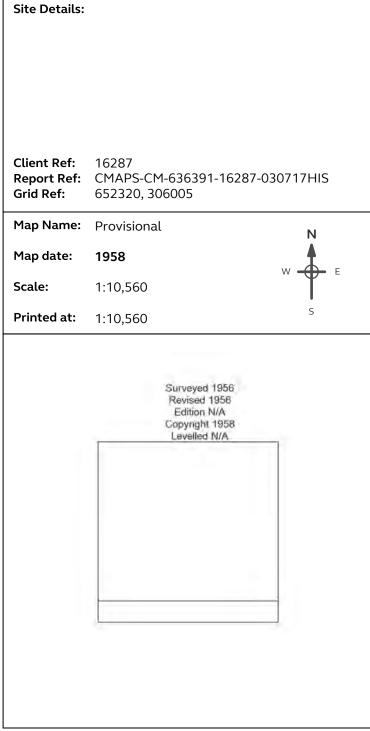
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







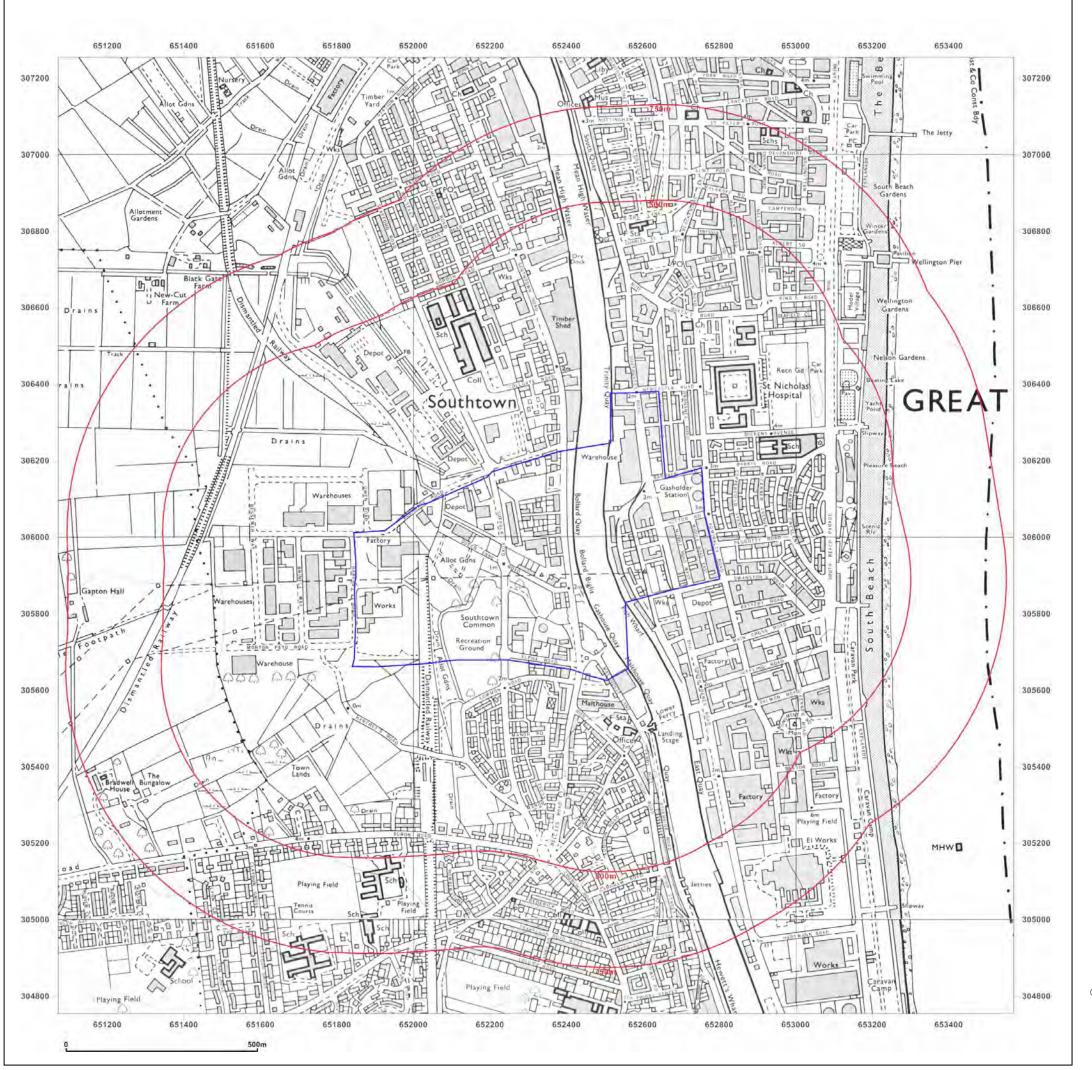




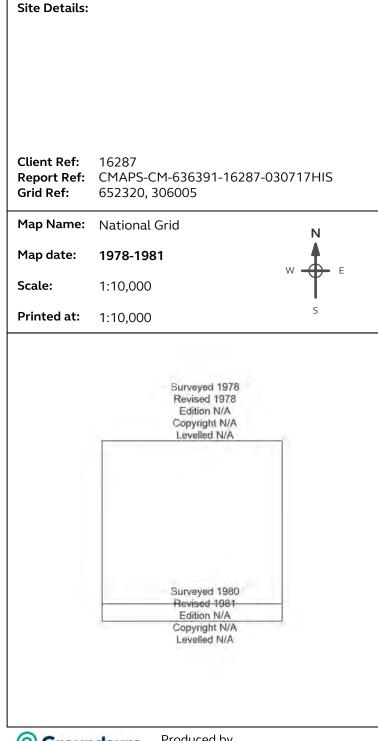
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











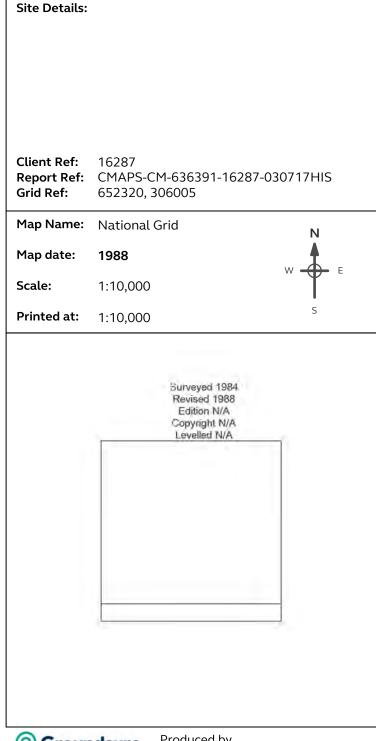
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











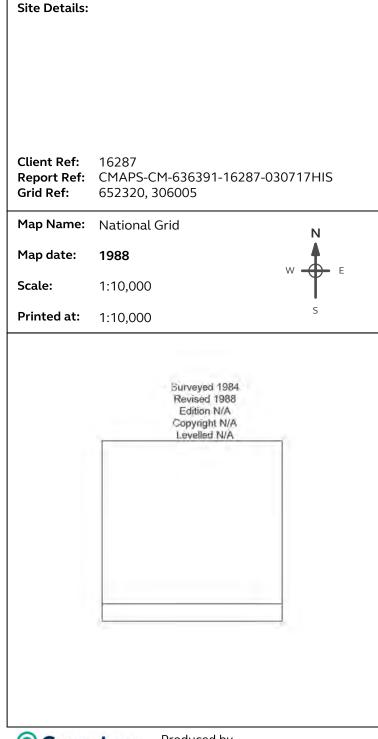
Supplied by: www.centremapslive.com groundsure@centremaps.com

 $\hbox{@}$ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







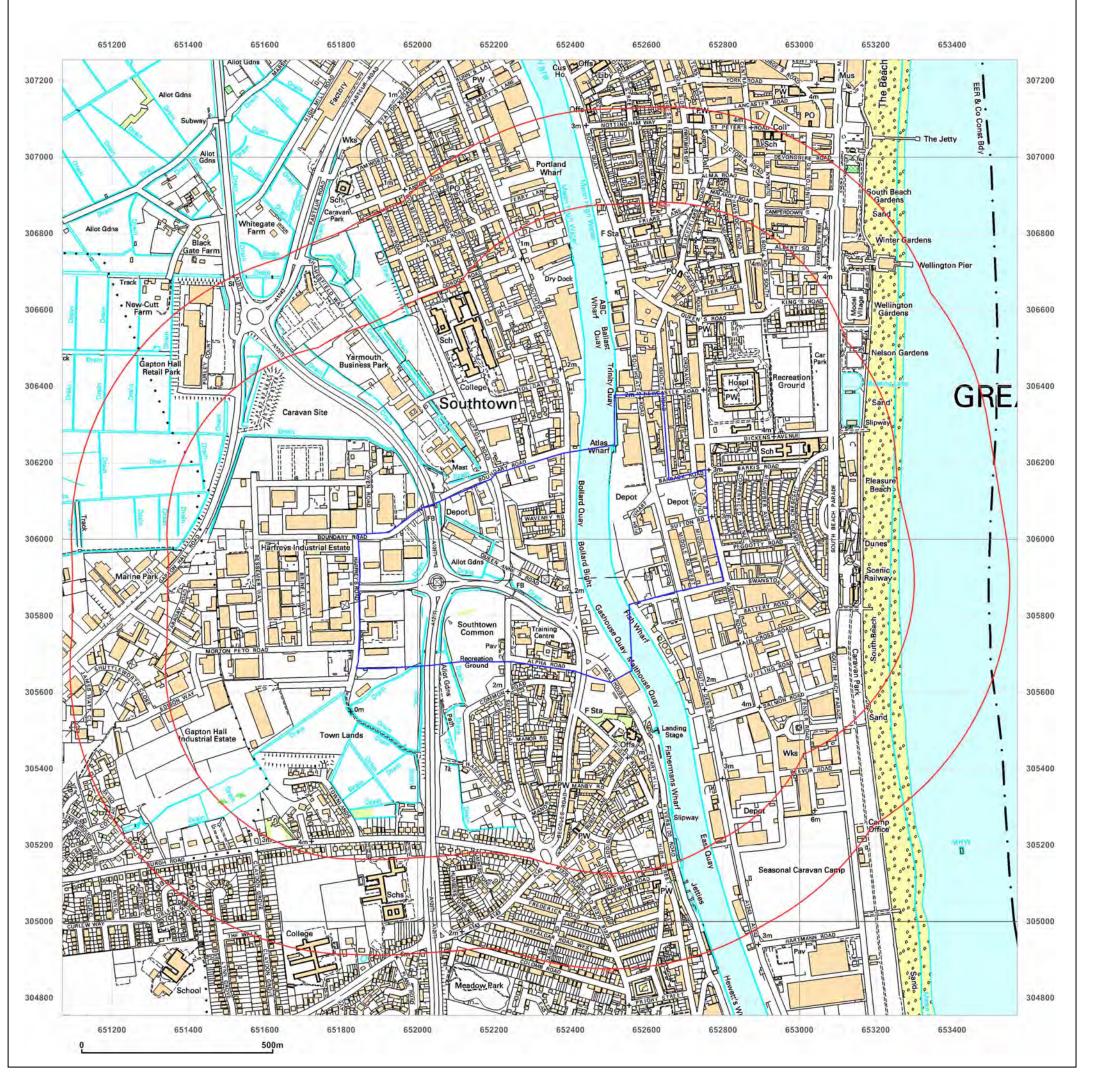




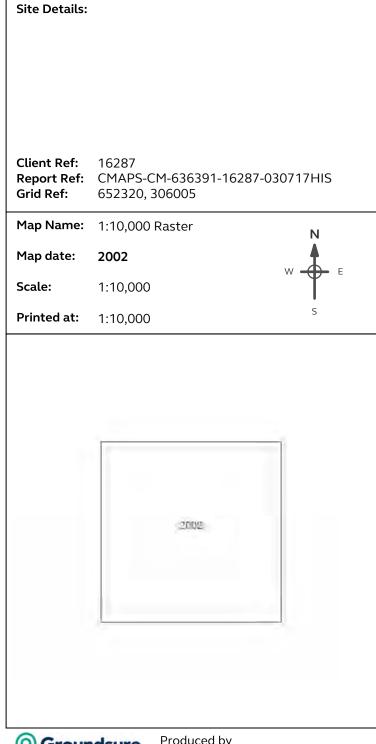
Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







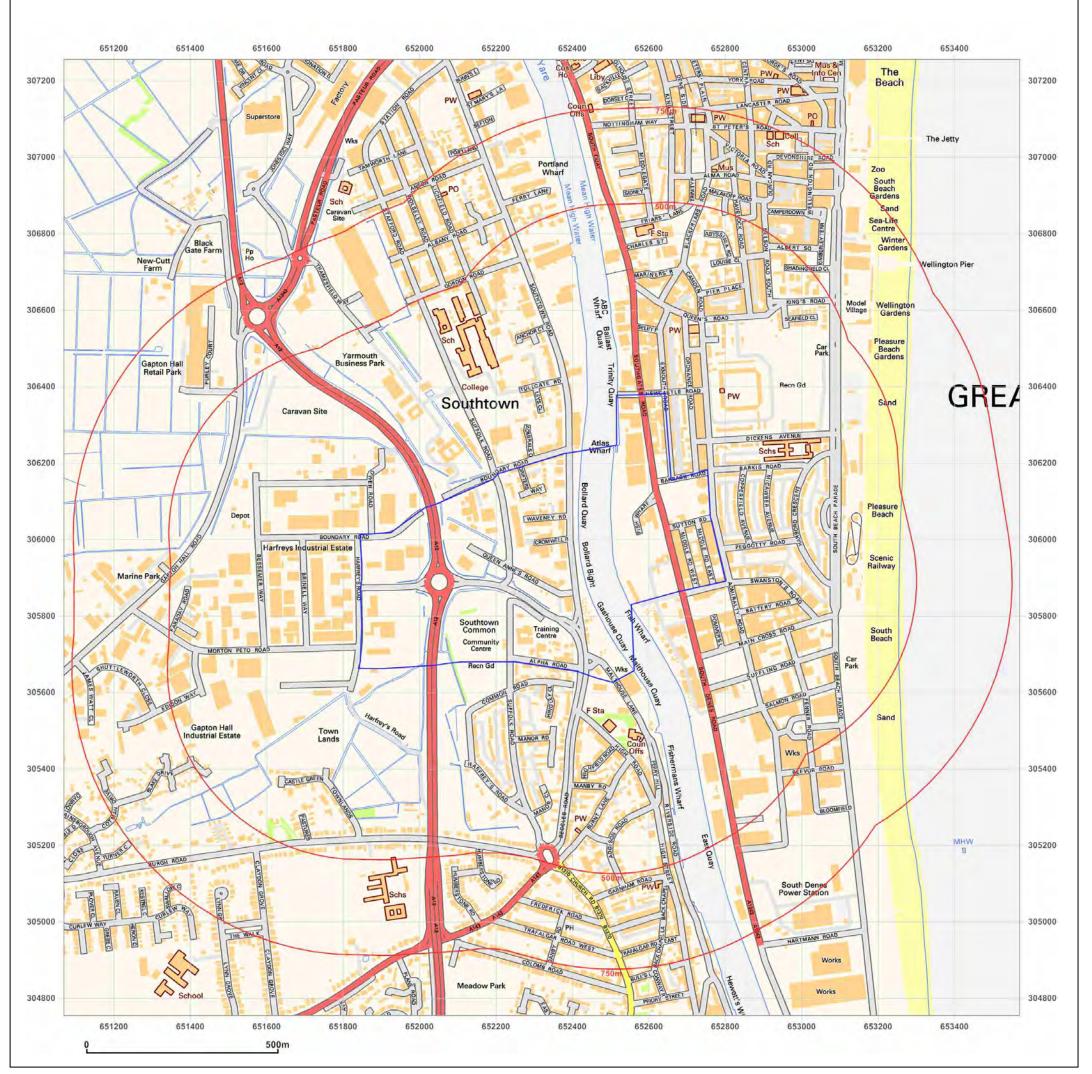




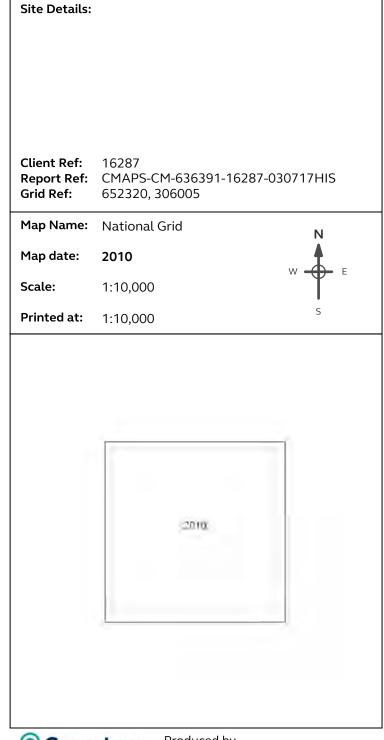
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017







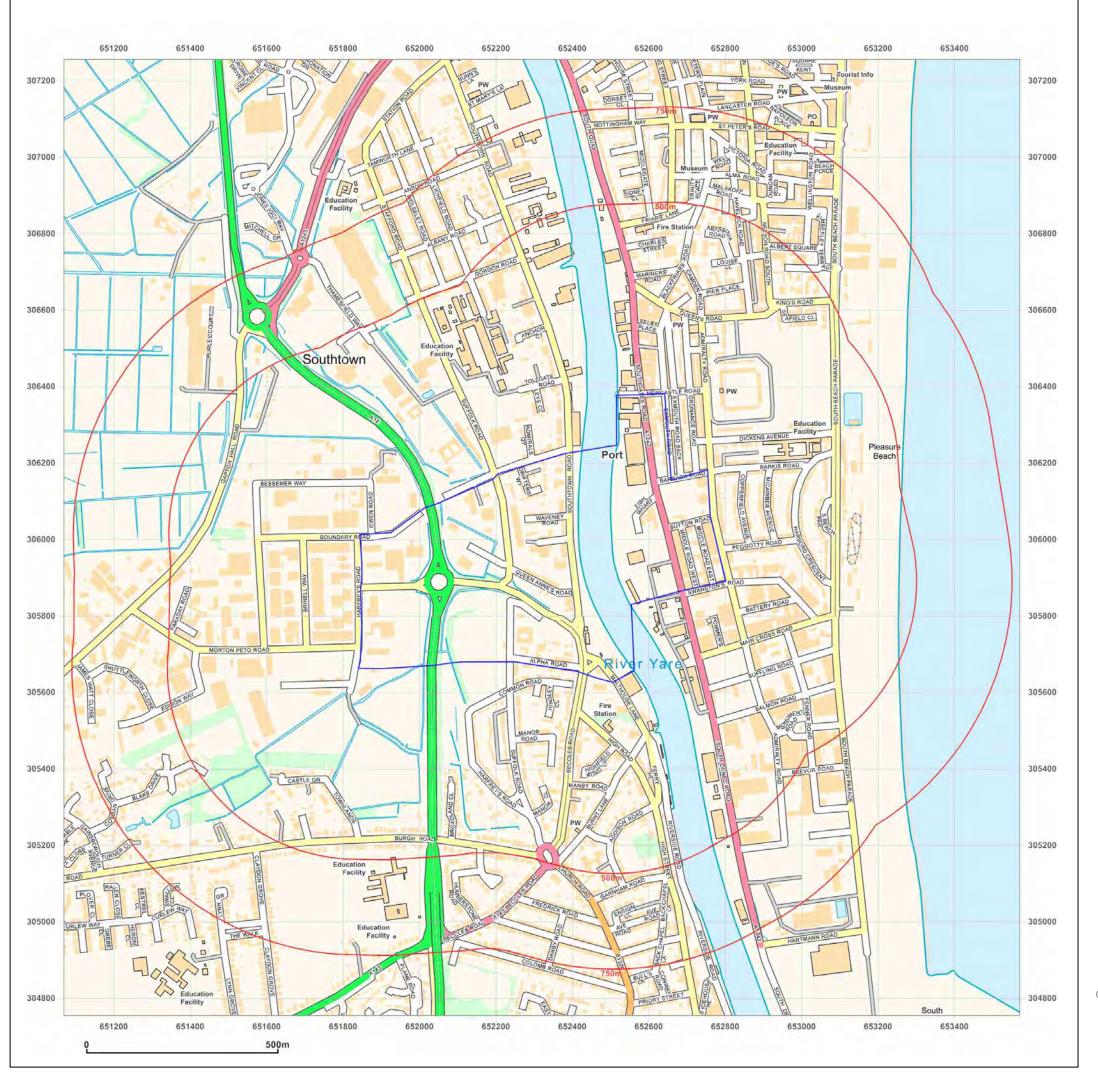




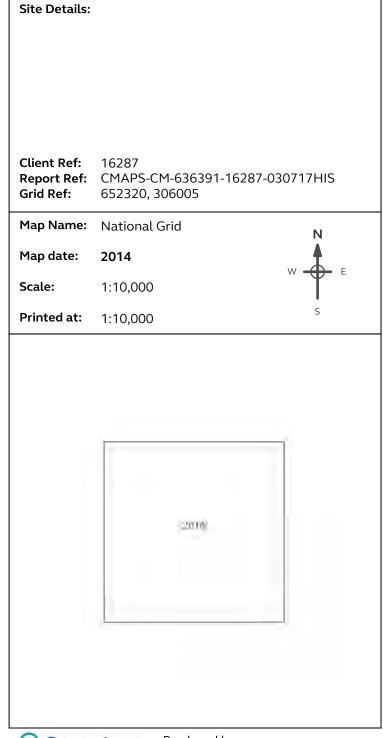
Supplied by: www.centremapslive.com groundsure@centremaps.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017











Supplied by: www.centremapslive.com groundsure@centremaps.com

@ Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 03 July 2017

APPENDIX C - SITE HISTORY

GYTRC Site History

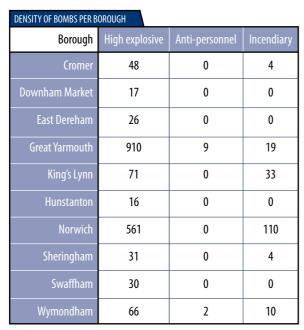
Мар	Scale.	On Site	Off Site
1883	1:10,560	The eastern area is fully developed. Labelled buildings includes gasworks, gasometer, boat	The surrounding land immediately adjacent to the River Yare is developed with the
		building yard and icehouse.	land closest to the river occupied by industry including saw mills, timber yard,
		In the western area, only the land closest to	boat building, icehouse and a malthouse.
		the waterfront is developed. Elsewhere to the	In the eastern area, away from the river
		west is agricultural land. Site uses in the	towards the sea is the Royal Naval
		developed area are labelled as iron works, residential properties, farm, gas works and	Hospital, militia barracks, a rope walk, residential properties to the north east and
		gasometer.	open land to the south east.
			On the western side of the river , the
			development is less with residential properties and open land beyond.
1883	1:2,500	Rail lines are marked on the eastern area	Land uses to the south include malthouses,
		quayside.	residential properties, a windmill and an
		A number of malthouses are marked on the	old gravel pit.
		southern boundary of the western site areas	
		waterfront. A rope walk is marked adjacent to the iron works.	
1884	1:10,560	No significant changes.	No significant changes.
1887	1:2,500	No significant changes.	No significant changes.
1901	1:10,560	No significant changes.	No significant changes.
1904- 1906	1:10,560	No significant changes.	No significant changes.
1905	1:10,560	Railway line marked at the western end of the	The militia barracks is now labelled as the
		site running north south. Saw mill labelled towards the site centre. New gasometer	Royal Artillery Barracks. Some additional development towards the west. The
		marked on the southern boundary. Boat yard,	railway line that crosses site continues to
		ice house and iron works no longer labelled.	the north and south off site.
1906	1:2,500	A travelling crane is labelled on the eastern area waterfront.	
1926	1:10,560	None of the previous industry is labelled but	The Barracks are no longer marked and
		the gasometers are still identified from their outline. Formal gardens are marked on the	appear to have been replaced by residential properties. Further residential
		western central part of the site.	development in all directions except to the
		Western central part of the site.	west. Allotments are marked to the south.
1927	1:2,500	Allotment gardens are marked within the western area.	No significant changes.
1938	1:10,560	No significant changes.	No significant changes.
1946	1:10,560	No significant changes.	No significant changes.
1949	1:1,250 /	An oilskin works is labelled in the eastern area	An electricity works is labelled adjacent to
	1:2,000	together with fish canning factories and various tanks on unlabelled sites.	the southern boundary of the eastern area. An oilskin works is labelled adjacent to the
		In the western area, the gasworks close to the	east boundary and a barrel and box making
		southern boundary includes two gas holders	factory is labelled adjacent to the northern
		and tanks. The saw mill is now labelled as a	boundary.
1951	1:2,500	shoe factory. No significant changes.	No significant changes.
		0	0

Мар	Scale.	On Site	Off Site
1958	1:10,560	No significant changes.	No significant changes.
1958	1:2,500	No significant changes.	No significant changes.
1965	1:2,500	Partial coverage. Fish canning factories	No significant changes.
		labelled in the eastern area waterfront.	
1963-	1:2,500	In the eastern area, a haulage depot is marked	No significant changes.
1968		adjacent to the gas works and one of the fish curing factories is now labelled as a chemical	
		factory.	
		In the western area, the shoe factory is partly	
		labelled as a printing and music publishing	
		works.	
1966-	1:1,250 /	Along the northern boundary, three garages	No significant changes.
1968	1:2,000	are marked.	
1970-	1:1,250 /	A builders merchants is marked towards the	An oil pipeline construction depot is
1975	1:2,000	north west corner.	marked close to the north west corner.
1975-	1:1,250 /	The two gas holders on the southern	No significant changes.
1977	1:2,000	boundary gasworks are no longer marked and	
1976-	1:1,250 /	the site is labelled as a depot. No significant changes.	No significant changes.
1970-	1:2,000	No significant changes.	NO Significant changes.
1978	1:10,000	Former boat building yard in the east area is	The hospital has been renamed St Nicholas
2070		now developed as a warehouse. The	Hospital. Significant development in most
		gasworks in the west area adjacent to the	directions; – to the south east
		River Yare is no longer marked but one gas	development appears to be commercial
		holder is marked nearby. Factory and works	industrial; to the north a school and depots
		have been developed on the western	are now marked and the saw mill is now
		boundary. The railway line towards the	labelled as a timber shed; to the west a
		western boundary is marked as dismantled.	large number of commercial / industrial buildings and now marked with three
			labelled as warehouses.
			The railway to the north and south is
			labelled as dismantled.
1975-	1:1,250 /	Precast concrete works labelled in the north	At this scale, the commercial / industrial
1978	1:1,2000	west corner of the site.	buildings are labelled as factory,
			warehouse, works, store, workshop and
			depot. No further indication of use is
			provided. A works adjacent to the north
			west corner of the site includes a number of tanks.
1984-	1:1,250 /	No significant changes.	Two large tanks are marked close to the
1986	1:1,2000	No significant changes.	southern boundary of the eastern area.
1988	1:10,000	Some layout changes have occurred in the	The commercial / industrial buildings to the
	,	eastern area and three depots are labelled.	west are labelled as Harfreys Industrial
		Two gas holders are still marked.	Estate and the depots to the north are now
		In the western area, the route of the railway is	marked as Yarmouth Business Park. A dual
		being developed as a dual carriageway and	carriageway follows the route of the
		the large roundabout currently in the centre	former railway offsite to the north west.
		of the site is marked including the spur roads	
		off to the east and west. Formal gardens are now marked as a recreation ground but do	
		also include an adult training centre.	
		also molade all addit trailling tentre.	

Map	Scale.	On Site	Off Site
1990	1:1,250 /	The gas holder towards the southern	The two large tanks close to the southern
	1:1,2000	boundary is no longer marked and the site is	boundary of the eastern areas are now
		labelled as a gas distribution station.	surrounded my multiple smaller tanks.
1990-	1:1,250 /	No significant changes.	No significant changes.
1994	1:1,2000		
1994	1:1,250 /	No significant changes.	No significant changes.
	1:1,2000		
2002	1:10,000	The dual carriageway on the former railway	The dual carriageway on the former
		line is now complete. Some changes to	railway now continues offsite to the south.
		buildings.	
2010	1:10,000	No significant changes.	No significant changes.
2014	1:10,000	No significant changes.	No significant changes.

RISK RISK REGIONAL UNEXPLODED BOMB RISK

NORFOLK



On average, 10% of high explosive and 50% of incendiary bombs failed to explode.









The information in this regional UXB risk map is derived from a number of sources and should be read in conjunction with the "Users' Guide" (printed overleaf). Zetica cannot guarantee the accuracy or completeness of the information or data.

This map covers regions of coast with beaches, estuaries and alike. Further consideration of the bomb risk is required in these areas. The often inaccessible nature and changing ground conditions (e.g. movement of silt that may contain ordnance) means that historical bombing records for these areas are often poor or inaccurate and further assessment of the bomb risk may be required as part of a site specific study.

A FOUR-STEP PROCESS



Risk assessment and method statement from a qualified explosive ordnance clearance (EOC) operative.



Surface geophysical survey to allow shallow groundwork.



MAGCONE detects UXBs and obstructions on piling layout to the no-risk depth.



Detected UXBs can be dealt with by our EOC engineers and a Clearance Certificate issued for the site.



BOMB MAP USERS' GUIDE

Sources of information and explanation of bomb risk

Why?

Unexploded bombs (UXB) still present a risk to construction projects long after the end of the Second World War (WWII). UXBs often entered the ground unnoticed at high velocity and penetrated to a depth of several metres. Here they remain – vulnerable to disturbances from construction work. Beyond the depth of shallow excavation work, the greatest risk is to piling, drilling and probing crews. A piling rig could repeatedly hit a UXBs with considerable force before the crew realises an obstruction has been impacted. It could then be up to 72 hours before the detonator activates.

Who?

The responsibility for avoiding UXB risk usually lies with construction companies or house builders particularly those who are redeveloping urban sites. In addition, project engineering or environmental consultants are expected to advise their clients of a site's history. Other interested parties include those organisations whose employees are physically at most risk from intrusive works, normally piling companies, drillers or probing operators.

How?

UXB risk should be assessed for every site, but especially those in known heavily bombed areas or those situated near war-time strategic installations that were priority targets for enemy aircraft, for example, airfields. Zetica's regional bomb risk map is therefore a first point of reference from which the relative, potential abundance of UXBs can be judged. Consultants then advise their clients that an ordnance-risk desk study is required, which they may obtain from external sources. Construction companies or house builders who assess their own risk could choose to come direct to Zetica.

When?

Do not wait for the piling or drilling company to be on site before thinking about UXB risk – it will inevitably cause delays and higher costs. Request the regional bomb risk map from Zetica as soon as a site is being considered, and then use it to help you or your clients to decide if an ordnance-risk desk study is required.

Where?

Maps can be obtained for any county in England, Scotland, Wales or Northern Ireland – or for any London borough. They can help determine the areas that were most heavily bombed – but no part of the country should be considered 100% safe from UXB risk. Even remote rural areas can have a high risk if, for example, they were locations for decoy airfields or beacons that were lit to fool enemy pilots into thinking they had located a burning city that had been successfully hit by others in the raid.

How to use this regional map

This map is designed to give you an indication of the potential risk from UXBs in your area. If you are conducting work that involves excavation, piling or other disturbance of the ground, then you should use the map to identify the category of risk for your site. The risk boundaries are a guide, compiled from data based on the political areas for which records are held; being just outside a high-risk area does not mean there is no UXB risk. You should use the map to assist in

your decision of whether to investigate the

UXB risk further.

Information on the regional risk remaining from UXBs in the UK

Zetica has built the largest UXB database of its kind in the UK. It includes a unique digital library of bomb census data, and maps showing key strategic points and bombing densities from the First and Second World Wars. The main sources of information include records from central government (Public Records Office), the Ministry of Defence, and the German Luftwaffe.

Using information from this database, Zetica has published maps of UXB risk on a regional, county and borough scale. The maps indicate relative degrees of UXB risk based on available records for bombing densities and known targeted areas for regions within the UK. The risk is broken down into individual boroughs, towns or cities. The data are based on the historical boroughs and are then overlaid onto the modern map. It is important to note that more-detailed research may be required for individual sites, particularly where proximity to a potential WWII target means the local risk may be higher.

High risk

Areas designated as high risk are those that show a high density of bombing hits (50+ bombs per 1000 acres) and abundant potential WWII targets. In high-risk regions, further action to mitigate UXB risk is considered essential.

Moderate risk

Moderate-risk regions are those that show a bomb density of between 11 and 50 bombs per 1000 acres and that may contain potential WWII targets. Action to mitigate the risk is considered essential, albeit more likely that a reduced scope of work is required compared with that needed for high-risk regions.

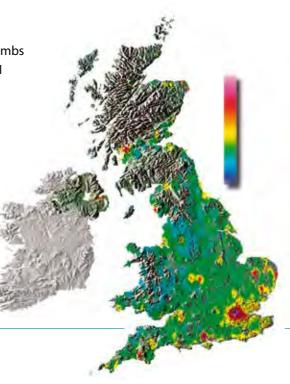
Low risk

Low-risk regions are those with a bombing density of up to 10 bombs per 1000 acres. These areas are considered to have a significant but low UXB risk. In general, further action to mitigate the risk is considered prudent, although not essential. Care is required when assessing the risk for specific sites where the risk may be higher because of local wartime activity.

Other WWII targets

Other regions with the risk of UXBs are key strategic points as defined by the government during WWII as representing potential enemy targets. Where these exist outside areas mapped as high, moderate or low risk, a site-specific assessment of the UXB risk may be required.

Relative UXB risk across UK



What to do if...

...you have a site that has a potential UXB risk

In the absence of current legislation requiring you to address the risk from UXBs, your responsibilities under health and safety legislation and regulations such as construction design and management require that you address all identified risks. The first stage is to request further advice from a professional adviser such as Zetica, or to gain more site-specific information by commissioning an ordnance-risk desk study. Then a strategy to deal with the risk can be established that is tailored to your proposed work.

...you find a suspect item or require advice

If during site works you find a suspect (ordnance-related) item, it is very important that you do not touch or move it (even if it has already been moved by an excavator). If it is clearly ordnance related, then dial 999 and ask for the police. Ensure that the area around the item is kept as clear as possible without placing yourself at risk. If you are unsure and do not wish to cause undue alarm, or you just require some advice, then you can call Zetica. We have experienced qualified UXB specialists on hand who can offer support and advice during any site works.

More-detailed procedures should be established in advance if you are in an area where the risk of finding a UXB is shown to be significant (moderate to high).

Site-specific desktop studies

Zetica is able to provide high-quality, site-specific UXB risk information for any residential, industrial or commercial property in the UK. These desktop studies provide details of the bombing density within an area and for the site itself, in order to indicate the risks of UXBs still being present. A risk assessment is provided to facilitate informed decision making on whether any further risk mitigation measures are required.

APPENDIX E - RISK CLASSIFICATION MATRICES

Consequence of Risk Being Realised (based on C552 CIRIA, 2001)

	Consequence of risk being realised Consequence of risk being realised				
Classification Category Defin		Definition	Examples		
	Humans	Short-term (acute) risk to human health likely to result in "significant harm" as defined by the Environment Protection Act 1990, Part 2A.	High concentrations of cyanide on the surface of an informal recreation area.		
Severe short-term	Controlled Waters	Short-term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource.	Major spillage of contaminants from site into controlled water.		
(acute) risks only	Property	Catastrophic damage to buildings/property.	Explosion causing building collapse (can also equate to a short-term human health risk if buildings are occupied.		
	Ecological System	A short-term risk to a particular ecosystem, or organism forming part of such ecosystem.			
Medium	Humans	Chronic damage to Human Health ("significant harm" as defined in Defra 2006).	Concentrations of a contaminant from site exceed the generic, or site-specific assessment criteria		
chronic (long- term) risks; "significant	Controlled Waters	Pollution of sensitive water resources (note: Water Resources Act contains no scope for considering significance of pollution).	Leaching of contaminants from a site into a major or minor aquifer.		
harm"	Ecological System	A significant change in a particular ecosystem	Death of a species within a designated nature reserve.		
Controlled Waters		Pollution of non-sensitive water resources.	Pollution of non-classified groundwater.		
Mild chronic (long- term) risks; less sensitive receptors	Property	Significant damage to buildings, structures and services ("significant harm" as defined in Circular on Contaminated Land, Defra, 2006). Damage to sensitive buildings/structures/services	Damage to building rendering it unsafe to occupy (e.g., foundation damage resulting in instability)		
·	Ecological System	Significant damage to crops. Damage to the environment.			
Minor	Financial / project	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve.			
chronic (long- term) risks; mild	Humans	Non-permanent health effects to human health (easily prevented by means such as personal protective clothing, etc).	The presence of contaminants at such concentrations that protective equipment is required during site works.		
mila	Property	Easily repairable effects of damage to buildings, structures and services	The loss of plants in a landscaping scheme. Discolouration of concrete.		

Probability of Risk Being Realised (C552 CIRIA, 2001)

	Probability of risk being realised		
Classification	Definition		
High Likelihood	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution.		
Likely	There is a pollution linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the sort term and likely over the long term.		
Low Likelihood	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term.		
Unlikely	There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.		

Risk Classification Matrix (C552 CIRIA, 2001)

	Risk classification matrix				
(CIRIA C552, 2001, page 82)		Consequence			
		Severe	Medium	Mild	Minor
	High Likelihood	Very High	High	Moderate	Moderate/ Low
Probability	Likely	High	Moderate	Moderate/ Low	Low
Prob	Low Likelihood	Moderate	Moderate/ Low	Low	Very Low
	Unlikely	Moderate/ Low	Low	Very Low	Very Low

Risk Classification Definitions (C552 CIRIA, 2001)

	Risk classification definitions
Very High	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Moderate / Low	
Low	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.



The Forum Barnfield Road Exeter, Devon EX1 1QR

wsp.com