Scottish & Southern Electricity Networks

APPENDIX F – GEO-ENVIRONMENTAL DESK STUDY

Project: LT000491 – Dundee Network Rail Substation

Geo-environmental Desk Study

Scottish & Southern Energy Networks

Project number: 60713884
60713884-RP-001

July 2024

PUBLIC

Delivering a better world

Quality information

Prepared by	Checked by	Verified by	Approved by
			
Rieve Wishart Environmental Scientist	Louise Coles Senior Environmental Consultant	George Baggott Principal Geo-environmental Consultant	Katie Britton Senior Planner

Revision History

Revision	Revision date	Details	Authorised	Name	Position
Issue 1	July 2024	Issue 1		George Baggott	Principal Geo-environmental Consultant

Distribution List

# Hard Copies	PDF Required	Association / Company Name

Prepared for:

Scottish & Southern Energy Networks

Prepared by:

AECOM
177 Bothwell Street
GLASGOW
G2 7ER, United Kingdom
United Kingdom

T: +44 (0)20 8639 3500
aecom.com

Limitations

AECOM Limited ("AECOM") has prepared this Report for the sole use of Scottish & Southern Electricity Networks ("Client") in accordance with the terms and conditions of the proposal dated January 2024. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by AECOM.

This Report should not be reproduced in whole or in part or disclosed to any third parties for any use whatsoever without the express written authority of AECOM. To the extent this Report is reproduced in whole or in part or disclosed to any third parties (whether by AECOM or another party) for any use whatsoever, and whether such disclosure occurs with or without the express written authority of AECOM. AECOM does not accept that the third party is entitled to rely upon this Report and does not accept any responsibility or liability to the third party. To the extent any liability does arise to a third party, such liability shall be subject to any limitations included within the Appointment, a copy of which is available on request to AECOM.

Where any conclusions and recommendations contained in this Report are based upon information provided by the Client and/or third parties, it has been assumed that all relevant information has been provided by the Client and/or third parties and that such information is accurate. Any such information obtained by AECOM has not been independently verified by AECOM, unless otherwise stated in this Report. AECOM accepts no liability for any inaccurate conclusions, assumptions or actions taken resulting from any inaccurate information supplied to AECOM from the Client and/or third parties.

The methodology adopted and the sources of information used by AECOM in providing its services are outlined in this Report. The work described in this Report was undertaken between April and July 2024 and is based on the conditions encountered and the information available during the said period of time. The scope of this Report and the services are accordingly factually limited by these circumstances. AECOM disclaim any undertaking or obligation to advise any person of change in any matter affecting the Report, which may come or be brought to AECOM's attention after the date of the Report.

Any risks identified in this Report are perceived risks, based on the information reviewed during the desk study and therefore partially based on conjecture from available information. The study is limited by the non-intrusive nature of the work and actual risks can only be assessed following a physical investigation of the site. The opinions expressed in this report and the comments and recommendations given are based on a desk-based assessment of readily available information and an initial site reconnaissance by an AECOM Engineer.

Unless otherwise stated in this Report, as a formalised development plan or finalised development option was not available at the time of writing, the assessments made cover the wider development boundary and are based on the broad development of the site for substation use only.

Reference to historical Ordnance Survey (OS) maps and/or data provides invaluable information regarding the land use history of a site. However, it should be noted that historical evidence will be incomplete for the period pre-dating the first edition and between the release of successive maps and/or data.

Table of Contents

1. Introduction

1.1 Commission

Scottish & Southern Electricity Networks (SSEN) has commissioned AECOM Limited to undertake a Geo-environmental Desk Study for the proposed development of a new feeder station and substation in Dundee, Scotland.

As part of the Network Rail (NR) initiative to decarbonise the transport sector, SSEN are proposing to develop a Network Rail Feeder Station including a new 132kV Gas Insulated Switchgear (GIS) substation at the 'Stannergate' site in Dundee to support with the electrification of the Aberdeen to Central Belt line.

The Geo-environmental Desk Study is required to characterise potential land quality constraints / opportunities, and to provide baseline information for the Environmental Appraisal (EA) (to support a planning application for the project).

The site is located at 'Stannergate' adjacent to East Dock Street, Dundee, as show in the Site Boundary Plan are included in **Appendix A**. This report presents the findings in relation to the proposed development (also referred to as "the site").

1.2 Proposed Development and Planning Status

As described in the SSEN 'LT490/491 Stannergate - Dundee Network Rail Feeder Station & New 132kV Substation' Scope Document[1], the proposed development comprises the construction of a new 132/25 kV feeder station (LT490) to establish a 132 kV firm connection (16.2 MW demand capability) to a new Grid Supply Point (GSP) – to replace Dudhope GSP. This includes a new 132kV double busbar substation (LT491) with a minimum of 11 bays (one bus section, two bus couplers and eight feeder bays), including two 120MVA 132/33kV transformers. This busbar will be fed by turning in the current Dudhope / Milton of Craigie 132kV circuits which will require extending the existing cable sections. The existing Dudhope GSP is to be decommissioned and removed. Further details on the scope of work can be found in the SSEN Scope Document[1].

As of 5th July 2024 a planning application is yet to be submitted for the proposed development.

1.3 Scope and Objective of Report

The primary objective of the Geo-environmental Desk Study is to characterise the environmental setting and sensitivity across the site, along with the potential for contamination to exist and the pathways through which contamination may come into contact with sensitive receptors given the proposed re-development options.

This report has been prepared in general accordance with the technical guidance and procedures described in the British Standard (BS) 10175:2011 (+A2:2017) '*Investigation of potentially contaminated sites*'[2] and the Environment Agency guidance '*Land Contamination: Risk Management*' (LCRM) (2020, updated 2023)[3]. This report is intended to meet the requirements of a Tier 1 Preliminary Risk Assessment as defined in LCRM and to also establish the baseline conditions at the site; it is also a necessary precursor to any ground investigation that may be required to support the preliminary design. Further details are provided in Section 5.1.

It includes the following scope of work:

- A site walkover and review of aerial imagery for site layout and terrain evaluation to provide a current description of the site's layout and setting within the local area;
- Review of historical land uses for the site and surrounds with a particular emphasis on identifying potential on-site and off-site contamination sources, and potential for Made Ground;

[1] SSEN 'LT490/491 Stannergate - Dundee Network Rail Feeder Station & New 132kV Substation' Scope Document. Section B – Particular Requirements.
[2] British Standard (BS) 10175:2011+A2:2017 'Investigation of potentially contaminated sites'
[3] Environment Agency guidance 'Land Contamination: Risk Management' (LCRM) (2020, updated 2023). https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm Accessed April 2024.

- A review of the site's geological (including available BGS borehole records), hydrological and hydrogeological setting, publicly available non-coal and coal mining records and geo-environmental information to build up an understanding of the site setting and surrounding environmental sensitivity;
- Request and review relevant records held by the Local Authority Contaminated Land Officer with public regulatory records provided within a Groundsure Report purchased for the site;
- A high-level review of geo-hazards or outline geotechnical constraints;
- Review of Unexploded Ordnance (UXO) information available in the public domain;
- Develop a preliminary Conceptual Site Model (CSM) for the site to identify the potential contamination sources, pathways, and receptors for consideration in the context of the potential development followed by a preliminary qualitative risk assessment for the site;
- Summarise identified geo-environmental and land quality risks through a preliminary risk assessment; and
- Provide recommendations for further work.

1.4 Sources of Information

This report draws on information from the following sources:

- Groundsure Report, Ref: GS-GTY-33A-RC8-EHV (April 2024) (**Appendix C**)[4];
- Dundee City Council (DCC) – Contaminated Land Officer;
- The Coal Authority (CA); Interactive Map Viewer | Coal Authority (bgs.ac.uk);
- Google Earth Pro
- Bing OS Maps; https://www.bing.com/maps
- British Geological Survey (BGS); GeoIndex – British Geological Survey (bgs.ac.uk);
- UK Topographic Mapping; United Kingdom topographic map, elevation, terrain (topographic-map.com);
- Scottish Environment Agency (SEPA); Water Environment Hub (sepa.org.uk);
- SEPA; Water Classification Hub (sepa.org.uk);
- SEPA Flood Risk (https://map.sepa.org.uk/floodmaps/FloodRisk/Search);
- NatureScot; https://sitelink.nature.scot/map;
- Historic Environment Scotland (HES);(Designations Map Search (arcgis.com);
- Zetica UXO Pre-Desk Study Assessment (PDSA) (April 2024) (**Appendix D**);
- UK Radon Map (UKradon - UK maps of radon); and
- Site walkover undertaken on 10th June 2024 (**Appendix B**).

Specific information sources are referenced throughout the document.

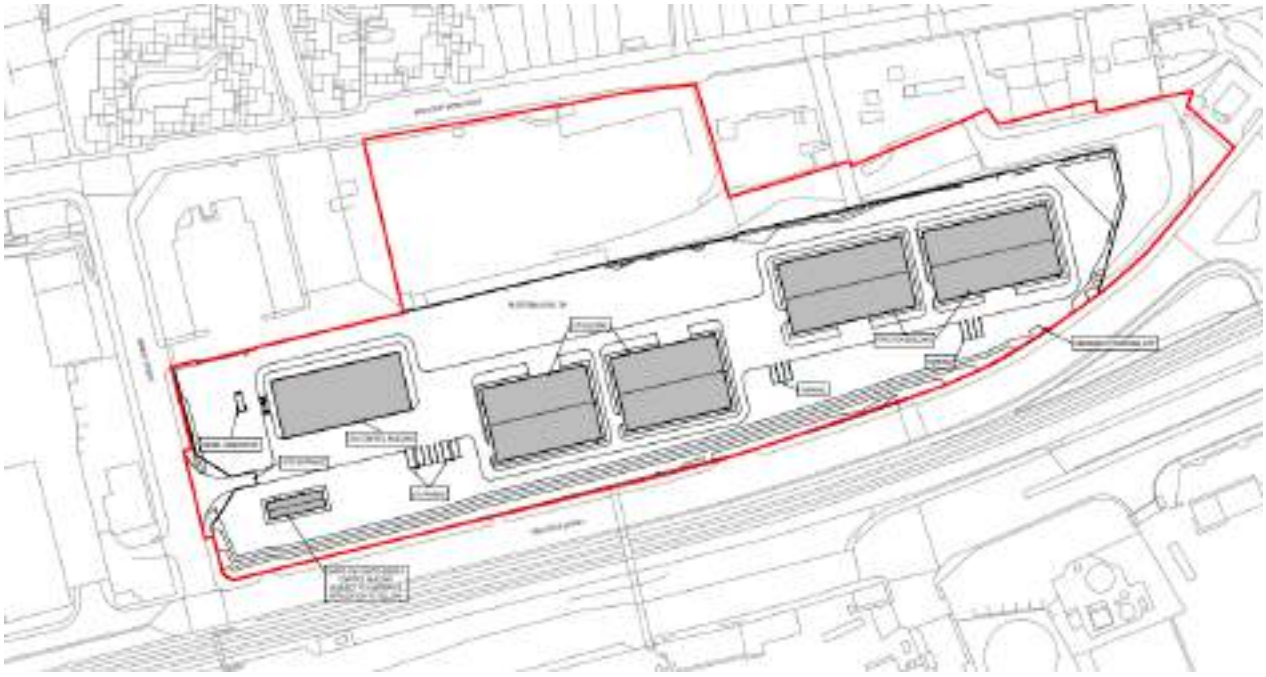
[4] Groundsure Report, Ref: GS-GTY-33A-RC8-EHV: Enviro and Geo Insight data and historical mapping (April 2024)

2. Site Description

2.1 Site Location

The site is situated in approximately 1.5km east of Dundee City Centre adjacent to East Dock Street, Dundee at approximate National Grid Reference: NO 41659 30827. A site boundary plan shown in Figure 1, below, with the larger figure included in **Appendix A**.

Figure 1. Proposed Site Layout Plan



Extract taken from SSEN Drawing No: LT491_STNG_0802_DR_0004

2.2 Site Walkover and Description

A site reconnaissance survey was undertaken by AECOM staff on 10 June 2024. During the reconnaissance observations were made on the topography, land use, drainage and potential sources of contamination identified on site.

The site is an irregular shaped parcel of land with an area of approximately 3.5 hectares (Ha). In the north the site is approximately 15 m Above Ordnance Datum (AOD) and approximately 7 m AOD in the south[5].

The site is split into three distinct sections:

- In the south, the area is currently occupied by Nynas (part of the wider oil and bitumen refinery). However, the area within the site boundary is not currently in use. This section of the site is bound to the south by East Dock Street and to the west by Market Street. This area is generally flat and level with East Dock Street. A steep slope is present to the north of the Nynas area suggesting it has been potentially levelled in the past. The area contains eight cylindrical tanks, all of which are currently out of service and empty. This area also contains two permanent buildings not currently in use and two large concrete circles where two further tanks were likely to have been present. Each individual tank has a concrete bund wall around it. The ground surface around five of the tanks is concrete hardstanding with drainage channels, however the surface surrounding the three larger tanks is cobbles/gravel. A small electrical substation is also present within this area. The two large concrete circles where tanks had previously been present each have dark staining on the concrete potentially indicative of spills/contamination, however, there were no further obvious signs of potential contamination throughout this area.

[5] UK Topographic Mapping https://en-gb.topographic-map.com/map-cgt/United-Kingdom/?center=56.46607%2C-2.9495&zoom=16&popup=56.4656%2C-2.94749. Accessed May 2024.

- The area in the southeast of the site is currently occupied by a motorcycle driving school. This area is bound to the south and east by East Dock Street and to the north by vegetated land. Similarly to the Nynas area, it is also flat and level with East Dock Street and a steep slope is present to the north of this area suggesting it has been potentially levelled in the past. It comprises concrete hardstanding and around the perimeter of the area there are strips of vegetation separating it from the Nynas area to the west and locations outwith the site to the east and north. There are no fixed structures within this area however three shipping containers are present, these containers were not accessible during the walkover. No evidence of potential contamination was observed within this area.
- In the north of the site lies the site of a former abattoir area, which was demolished previously. This area is bound to the north by Broughty Ferry Road, to the west by Dundee Transport Museum and a hotel to the east. The site comprises hardstanding concrete and slopes downward from north to south. A small glass kiosk is the only fixed structure remaining within this area, a representative from the Dundee Transport Museum noted that there had been a larger building there, but it was demolished within the last few years. Evidence of the former building is present within the site including footprints of the former building as well as demolition rubble, and a large stockpile of rubble is present in the north. An old vehicle wash station is also present, along with shipping containers and old vehicles (belonging to the adjacent Dundee Transport Museum), and an electrical substation. Access to the shipping containers was not possible on the day of the walkover. No evidence of potential contamination was observed within this area.

Photos from the survey are included as **Appendix B**.

2.4 Surrounding Land Use

The site is surrounded by the current land uses / features described in Table 2.1.

Table 2.1 Surrounding Land Uses (generally up to 250m away)

Direction	Land Use
North	• Broughty Ferry Road, residential buildings 15 m north and industrial / commercial buildings including Dundee Transport Museum (adjacent to the north-west)
East	• Hotel and vegetated land to the east, with residential properties northeast.
South	• East Dock Street, Nynas oil and bitumen refinery (60 m south), scrap metal recycling (100 m south) and The River Tay (Tay Estuary) (255 m south)
West	• Market Street and Industrial / commercial buildings

3. Site History

3.1 Introduction

The following account of the historical development of the site and its immediate surroundings are based on examination of historical Ordnance Survey (OS) and aerial photography both obtained as part of a Groundsure Report (**Appendix C**), and a review of publicly available web-based mapping services.

AECOM also notes that only indicative map scales are provided. Where dates are stated, these refer to the dates of maps on which the features are present, have changed use or are no longer annotated, and do not necessarily refer to the exact dates of existence of a particular feature. Development that may have occurred between map editions is recorded as occurring on the latter published map, hence, there are some limitations to the accuracy of the date of development unless supplementary evidence becomes available.

3.2 Historical Ordnance Survey Mapping & Aerial Photographs

A review of historical land uses within the site and surrounding areas has been undertaken using OS Bing, Google Earth Pro, and the Groundsure OS maps / report and is summarised in Table 3.1 below. It should be noted that the search has been limited to 250 m, with only notable land uses beyond this distance included.

Table 3.1 Summary of Historical Mapping and Aerial Imagery

Date/s	Features within on-site development area	Features within 250 m of development area
1860 (1:2,500) / 1865 (1:10,560)	• The site has two structures in the north-east of the site labelled 'Kilcraig'. • Two bodies of water are shown within the site one in the southeast and one in the southwest.	• 'Carolina Port' was located immediately northwest of the site. • A 'Cottage Factory' was shown approx. 25 m west of the site. • St. John's Holyrood Chapel was present approx. 20m northwest of the site. • A rail line was present to the south of the site in approximately the same orientation as the present day. • 'Dundee Gas Works' and 'New Gas Works' were present approx. 145 m southwest of the site.
1901 (1:10,560) / 1903 (1:2,500)	• A cattle market was present in the north of the site. • The body of water to the southwest was no longer present and in its place were slaughter houses associated with the cattle market. • 'Dundee Flour Mills' were present within the southeast of the site.	• An auction mart was located immediately northwest of the site. • A road was present immediately south of the site in an east to west orientation. • Engine works and associated cooling pond were present approx. 60 m west of the site. • To the south of the rail line land reclamation had been undertaken within this reclaimed area to the south of the site included 'Camperdown Shipbuilding Yard' (approx. 58 m to the southwest), 'Camperdown Saw Mills and Timber Yard' (approx. 59 m south of the site), 'Creosoting Works' (approx. 180 m south of the site), 'Caledon Shipbuilding Yard' (approx. 58 m southwest), 'Preserve and Confection Works' (approx. 85 m southeast of the site) and 'Camperdown Dock' (approx. 150 m southwest). • Unspecified ground workings were noted approx. 61m northwest of the site. • To the southeast of the site, 'Cold Storage Works' were present approx. 163m east of the site and 'Oil Works' were present approx. 243m east of the site. • The layout of the 'Dundee Gas Works' and 'New Gas Works' had altered slightly these were labelled 'Gas works' and were present approx. 250m west of the site.
1921 (1:10,560) / 1922 (1:2,500)	• A 'Copper Works' was present in the south of the site.	• No significant changes.
1938 (1:10,560)	• The body of water in the southeast of the site has been infilled and a number of small structures occupied that space.	• The road to the south of the site had been extended to the east beyond the site forming East Dock Street.

Date/s	Features within on-site development area	Features within 250 m of development area
1952 (1:2,500)	• An additional structure associated with the slaughter houses had been constructed within the site. • The flour mill is no longer shown to be present on the site, with a few small structures remaining. • Allotment gardens were present in the centre and west of the site.	• 'Camperdown Bitumen Refinery' including a number of above ground storage tanks was present approx. 60m south of the site. • Caledon Shipbuilding Yard had expanded to include a 'Copper Tube Fittings Works', a boiler shop and warehouses.
1969 (1:10,560)	• No significant change.	• No significant change.
1972-1974 (1:1,250) 1973 (1:10,000)	• A 'Building Trades Depot' was present in the south of the site where the previous flour mill was located. • 'Copper Tubes Fittings Works' was present in the east of the site.	• A row of four unspecified tanks were present approx. 90 m east of the site. • 100 m south-east of the site was a 'Clothing Works'. • 'Jute Waterproofing Works' were present approximately 200m south-east of the site.
1980-1981 (1:1,250)	• The slaughter houses in the west of the site have been replaced by a number of unspecified tanks and an electrical substation.	• Two unspecified tanks were located immediately east of the site boundary.
1986 – 1990 (1;1,250)	• Further tanks were constructed in the west of the site.	• The cottage works previously to the west of the site were replaced by a bus depot and filling station.
1994 (1:1,250)	• Two tanks have been constructed in the south / south-east of the site adjacent to the Building Trades Depot.	• The auction house previously present to the north-west of the site was replaced by 'Market Mews' in a similar layout to the present day. • The industrial developments approx. 100m south-east of the site are labelled as 'Works' or 'Warehouses'.
2001 (1:10,000)	• The copper tubes fitting factory was no longer present in the east of the site.	• No significant changes.
2010 (1:10,000)	• No significant changes	• No significant changes.
2024 (1:10,000)	• The two cylindrical tanks in the south east of the site are no longer present.	• The four tanks to the east of the site are also no longer shown to be present.

Aerial imagery from the site confirms the findings of the historical map extracts reviewed. The building in the north of the site (historically an abattoir) was demolished between images taken in 2022 and 2023.

The history of the site as detailed above indicates a history of industrial land use within and adjacent to the site. These land uses in particular the use of the land as a cattle slaughter house, copper works and then the construction of the tanks which replaced these may contribute to potential sources of contamination within the site.

4. Environmental Setting

4.1 Published Geology

The following summary of the geology beneath the site is based on a review of geological mapping for the area available from the BGS Geoindex[6] , published BGS 1:50,000 scale map Sheet 49 'Arbroath' (Drift map dated 1981 and Solid map dated 1980), and geological data included in the Groundsure Report (**Appendix C**).

4.1.1 Artificial Ground

BGS designated areas of Made Ground or Artificial Ground are shown to be present along the southern boundary of the site and immediately south of the site.

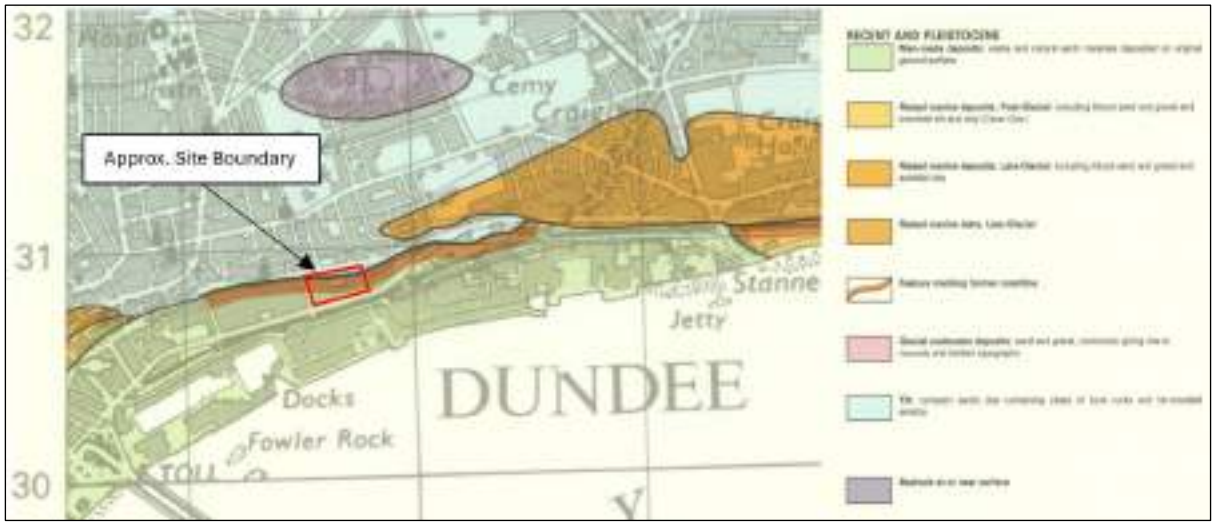
Although very limited Made Ground is mapped on-site, it is also likely to be present based on the historical and current land uses.

4.1.2 Natural Superficial Deposits

The drift geology within the majority of the site is shown to comprise superficial deposits of Raised Marine Deposits comprising clay silt, sand and gravel. Along the northern boundary of the site, Till is recorded, described by the BGS as: "*…deposits vary in lithology and are typically poorly sorted sandy, silty clay with possible laminated sand layers and coarse granular material*". Along the southern boundary of the site, Intertidal Deposits of silt and clay are recorded to be present.

A linear feature is recorded in the north of the site in an approximate east to west orientation; this is a back-feature marking the former coastline. Man-made deposits are shown to the south of the line, indicating the placement of fill materials to reclaim areas of former coastline into developable land. The composition of the infill materials utilised for this reclamation is unknown, and these may represent a potential risk of contamination and ground gas generation, dependent on the materials used. The superficial geology is shown on Figure 2 below.

Figure 2. BGS Superficial Geology



4.1.3 Solid Geology

The bedrock beneath the site is recorded as the Dundee Flagstone Formation which is part of the Arbuthnott-Garvock Group. This Early Devonian bedrock is described in the BGS Lexicon as "*medium to coarse grained, cross-bedded sandstones and substantial distinctive flaggy sandstones interbedded with minor siltstones and mudstones, interdigitated with the Ochil Volcanic Formation*".

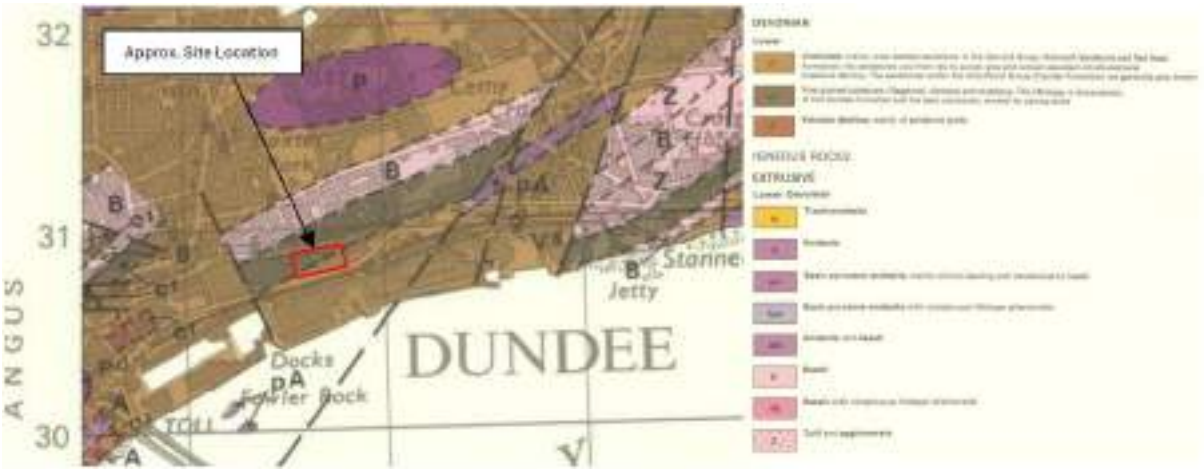
[6] BGS Geoindex Interactive Map Viewer. Available: https://mapapps2.bgs.ac.uk/geoindex/home.html, Last accessed April 2024.

An outcrop of the Ochil Volcanic Formation (Basal) is present approximately 85m north of the site.

The nearest fault lines are located approximately 250 m west (orientated north-northwest to south-southeast) and southwest (orientated northeast to southwest) of the site at their closest point.

The solid geology on published BGS map Sheet 49 'Arbroath' (1:50,000 scale, published 1980) is shown below on Figure 3.

Figure 3. BGS Solid Geology



4.2 Historical Borehole Records

Exploratory hole logs available on the BGS Geoindex have been reviewed to provide an indication of the ground conditions on site. Whilst no borehole records are available within the site boundary, a number of records within 100 m of the site were available, these records are summarised in Table 4.1, below.

Table 4.1 Summary of BGS Borehole Records

Borehole Reference	Distance From Site	Made Ground / Natural Superficial Deposits	Bedrock
NO43SW137	26m NW	From ground level to 2.44m below ground level (bgl) was not logged.	Siltstone and silty shale between 2.44 and 5.49m depth.
NO43SW136	32m NW	From ground level to 2.44m bgl was not logged.	Alternating siltstones and sandstones between 2.44 and 5.49m depth. Weathered in upper parts.
NO43SW129	68m NW	From ground level to 4.57m bgl was not logged.	Siltstone and sandstone between 4.57 and 7.62m depth.
NO43SW135	68m NW	From ground level to 3.05m bgl was not logged.	Siltstone between 3.05 and 6.10m depth.
NO43SW121	75m NW	From ground level to 2.44m bgl was not logged	Siltstone with bands of silty shale and sandstone. Between 2.44 and 5.49m depth.
NO43SW29	83m W	'Forced material' from ground level to 1.83m	Sandstone from 1.83 to 11.23m, bands of whinstone[7] and limey whinstone from 11.23 to 31.01m, faikes from 31.01 to 31.52m, whinstone from 31.52 to 35.74m, limey whinstone from 35.74 to 36.45m, sandstone from 36.45 to 38.58m, whinstone from 38.58 to 60.93m, sandstone from 60.93 to 76.58m, whinstone from 76.58 to 76.99m, red sandstone from 76.99 to 77.49m, sandstone from 77.49 to 79.20m, conglomerate from 79.20 to termination depth of 92.13m.
NO43SW128	92m NW	From ground level to 3.05m bgl was not logged.	Siltstone between 3.05 and 6.10m depth.

[7] Whinstone is a dark coloured rock, for example igneous rock / basalt / dolerite.

Borehole Reference	Distance From Site	Made Ground / Natural Superficial Deposits	Bedrock
NO43SW113	100m W	From ground level to 1.83m bgl was not logged.	Siltstones and very fine sandstones from 1.83 to 4.27m, underlain by sandstone between 4.27 and 4.57m and siltstone or silty shale between 4.57 and 4.88m depth.

Of the borehole records summarised in Table 4.1, only borehole record 'NO43SW29' is dated as drilled in 1910.

Groundwater is not mentioned in any of the borehole records.

4.3 Mining and Quarrying

A review of the Coal Authority Interactive Viewer[8] was undertaken to identify potential risks from mine workings. The site is not recorded to be underlain by coal bearing strata and is not located within a Coal Mining Reporting Area. The Coal Authority interactive map viewer shows no records of historical workings or mine entries within the site, or up to 1 km from the site.

The Groundsure Report states that with regards to non-coal mining, the site is in an area where "*underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.*"

The Groundsure Report identified surface ground works and therefore potentially infilled land within the site associated with the historical pond in the south-eastern and south-western areas of the site, and the construction of the docks (overlapping into the south-western boundary of the site). Other surface ground workings off-site (within 250 m) include a refuse heap, water bodies, unspecified heaps, docks, unspecified ground workings, pits and wharfs.

4.4 Hydrology

No surface water features were identified by the Groundsure Report to be present within the site.

Camperdown Dock is located approximately 210m southwest of the site. The nearest name surface water feature is the River Tay which is located approximately 255m south of the site.

Selected water bodies in Scotland are classified by SEPA under the Water Framework Directive (WFD) with classifications of High, Good, Moderate, Poor or Bad. A search on SEPA's online database[9] was conducted regarding the quality of the River Tay to the south of the site. This section of the River Tay is classified as part of the Lower Tay Estuary, it was given a classification in 2022 of 'Good' overall condition.

Given the presence of the River Tay in close proximity to the site which is likely to be in continuity with underlying groundwater (discussed below in Section 4.5), this is considered to be a sensitive receptor with respect to contamination.

4.5 Hydrogeology

Information from the Groundsure Report (**Appendix C**), BGS Onshore Geoindex[6] and the Scotland's Aquifers and Groundwater bodies (OR/15/028)[10] have been reviewed in relation to the aquifer classifications for superficial deposits and bedrock underlying the site. These conclude that:

- The superficial Till deposits in the north of the site are regarded to have low permeability and classified as a non-aquifer;
- The superficial Intertidal Deposits of silt and clay are also expected to have low productivity;

[8] The Coal Authority 2024. Interactive Map Viewer. Available http://mapapps2.bgs.ac.uk/coalauthority/home.html . Last accessed in April 2024
[9]SEPA (2024). Water Classification Hub. Available https://www.sepa.org.uk/data-visualisation/water-classification-hub/ Last Accessed in April 2024.
[10] B Ó Dochartaigh, D D Doce, H K Rutter and A M MacDonald (2015), User Guide: Aquifer Productivity (Scotland) GIS datasets, Version 2, Revised Report, British Geological Survey Commissioned Report OR/15/028

- Superficial Raised Marine Deposits are variable in composition and can be highly permeable where gravel beds are present, therefore these deposits are expected to have limited potential as an aquifer;
- Bedrock deposits beneath the site of the Dundee Flagstone Formation (also known as the Old Red Sandstone South (ORSS)). Groundwater flow within the bedrock is dominantly through fractures with minor intergranular flow through fissures and other discontinuities (bedding planes, joints and faults). The bedrock is considered to have a low to high permeability and is classified as an aquifer with a moderate to very high productivity.

The groundwater beneath the site falls in both the 'Carnoustie Coastal' groundwater body (SEPA ID: 150786) and the 'Dundee' groundwater body (SEPA ID:150624), within the Scotland River basin district. 'Carnoustie Coastal' groundwater is classified as having an overall status of 'Poor' and water quality 'Good' in 2022. 'Dundee' groundwater body is classified as having an overall status of 'Good' and water quality 'Good' in 2022.

Groundwater flow direction within the aquifer units will be influenced by the local topography. Groundwater direction is assumed to flow south towards the River Tay. Given the proximity of the River Tay to the site, it is likely that the groundwater in the local area is tidally influenced, which may impact the potential for contamination migration within the area.

Given the presence of infill materials used for the reclamation of former coastline to gain developable land, it is possible that contamination may have a more direct route to the nearby River Tay via migration of groundwater, dependent on the composition of the infill materials (currently unknown). In addition, it is considered highly likely that groundwater is in direct continuity with the nearby River Tay.

4.6 Flood Risks

Assessment of flood risks contained within the Groundsure Report detailed that flooding risk within the site is as follows:

- **River Flooding** – negligible within the site (<1 in 1000 years risk rate)
- **Coastal Flooding** – across the majority of the site the risk is negligible however there are some areas at risk along the southern boundary of the site. The highest risk within the site boundary is classified as 1 in 30 years of depths between 0.3 and 1.0 m.
- **Surface Water Flooding** – also across the majority of the site surface water flooding risk is negligible however there are two localised areas within the central area of the site where risk of surface water flooding has been identified. Highest risk rating within the site is classified as 1 in 30 years of depths between 0.3 and 1.0 m.

The above does not constitute a formal flood risk assessment.

4.7 Radon

The UK Health Security Agency UK Radon website[11] and information within the Groundsure Report was reviewed to determine potential radon risks for the site.

Radon within the site is classified as having a maximum radon potential of 1 to 3% (meaning areas within the site have a 1 to 3% chance of having a radon concentration at or above the action level of 200 Bq m^{-3}). This indicates that basic radon protection measures will be required, in accordance with Stage 1 Building Control Regulations should the construction of any new occupied buildings within the site be undertaken[12].

4.8 Environmental Designated Sites and Listed Buildings

The NatureScot Viewer[13] was used to identify environmental designated sites.

No designations were recorded within the site. The Firth of Tay and Eden Estuary approximately 255m south of the site is a Special Area of Conservation (SAC).

PASTMAP[14] interactive mapping service, which provides access to the databases of Historic Environment Scotland (HES) was consulted regarding sites of potential historical and/or archaeological significance and concluded that the site is not recorded as a place of potential historical and/or archaeological significance. However, within 250m

[11] UK Radon Maps. Available: https://www.ukradon.org/information/ukmaps Last Accessed in April 2024
[12] UK Radon Searches. Available: https://www.ukradon.org/information/radonsearches Last Accessed in May 2024
[13] NatureScot (2024). Sitelink. Available. https://sitelink.nature.scot/map Last accessed in April 2024
[14] Historic Environment Scotland (2024) PASTMAP interactive mapping service. Available. https://pastmap.org.uk/map Last accessed in April 2024

from the site, 'Roodyards Burial Ground With Guthrie Mausoleum' is a listed building located approximately 35 m northeast of the site. There are also some listed buildings approximately 185m northwest (82-86 (Even No's) Broughty Ferry Road) and 200m north (15 Springhill) of the site.

These designations are unlikely to be sensitive receptors given they are not within the site, and that site derived contamination migration is more likely to be to the south, towards the River Tay. In addition, for those at more significant distances, contamination capable of migration over such distances is not expected.

4.9 Unexploded Ordnance

To assess the potential risks from UXO at the site, a PDSA was obtained from Zetica on the 29 April 2024 (attached as **Appendix D**).

The PDSA has identified World War II (WWII) military activities on or affecting the site which are presented in Table 4.2, below. It is concluded that a detailed desk study, whilst always prudent, is not considered essential.

Table 4.2 Summary of WWI and WWII Military Activities On or Affecting the Site

Date	On or Affecting the Site
Pre-WWI Military Activity	None identified – prior to WWI a submarine base was based at Dundee Harbour approx. 0.2 km from the site, in 1912 the base was closed.
WWI Military Activity	None identified
WWI Bombing	None identified
Interwar Military Activity	None identified
WWII Military Activity	None identified on the site. Several anti-invasion defences, including pillboxes, were established at Dundee Harbour, within approx. 0.1 km of the site.
WWII Bombing	During WWII the site was located in the County of the City (CC) of Dundee, which officially recorded 38 No. High Explosive (HE) bombs with a bombing density of 4.2 bombs per 405 ha. No readily available records have been found to indicate that the site was bombed.
Post-WWII Military Activity	None identified

4.10 Potentially Contaminative Land Uses

This section presents a summary of current and historical land uses included within the Groundsure Report (**Appendix C**) pertaining to the proposed development area and within 250 m which could result in soil and groundwater contamination. Generally, sites with regulated processes, registered radioactive substances, licensed waste management facilities and landfills, hazardous substances, fuel station entries and selected contemporary trade directory entries could, depending upon the nature of their activities, represent potential sources of contamination.

Table 4.3 Summary of Regulatory Database and Records Review

Data Type	On-site	Within 250 m
Part A(1) installations, Integrated Pollution Prevention and Controls (IPPC), historic IPC authorisations	Matheson Jess Ltd, for 'slaughter of animals' (PPC/E20081)	J T Inglis & Sons, for 'landfill activities' (PPC/E/20033), 47 m east Nynas UK, process not stated (PPC/A/1013015), 186 m south-west
Part B authorisations	None recorded	None recorded
Control of Major Accidents Hazards Sites (COMAH)	None recorded	Angus Horticultural Services Limited, 180 m south of the site, current COMAH site (COMAH lower tier operator)
Notification of Installations Handling Hazardous Substances (NIHHS)	None recorded	Nynas UK, 57 m south-east and 106 m south-west of the site, historical NIHHS
Licensed waste management facilities	None recorded	None recorded
Historical waste sites	None recorded	'Ground workings and refuse heap' (date 1938), 5 m east 'Waste transfer station', 58 m south-west

Data Type	On-site	Within 250 m
		'Recycling centre' (date 2011), 58 m south-west
Hazardous substance storage / usage	None recorded	Scotland Gas Works PLC, 8 m west of the site, historical consent, no details of substance Nynas UK, 83 m south of the site, historical consent, storage and treatment of mineral oils Angus Horticulture Services Ltd, 129 m south-east of the site, currently approved, no details of substance Dundee Port Authority, 189 m east of the site, historical consent, no details of substance
Regulated explosive sites	None recorded	None recorded
Fuel Stations	None recorded	Obsolete fuel station located 77 m west of the site.
Sites determined as Contaminated Land (under Part 2a)	None recorded	None recorded

4.3 Regulatory Consultation

4.3.1 Dundee City Council, Freedom of Information Request

AECOM has contacted DCC to request information relating to potentially contaminated land within the site and its surrounding area. A response was provided on 21 May 2024 which indicated that DCC hold no record of any current or historical environmental problems with regards to ground contamination or soil arisings, private groundwater abstractions, and historical landfills on or within 500m of the site.

DCC holds the following information relating to cancelled petroleum licenses:

- McAra Copper Works (on site), licence for 48gal stored above ground in 1972, 6x500gal underground tanks in 1973 and 2x triple compartment 15,000gal tanks in 1932;
- G.H. Lorimer Filling Station (approx. 25m west of the site) for 4x1,500gal underground petrol tanks and a 1,500gal diesel tank all underground in 1960; and
- Jewson Ltd (approx 60m west of the site) for 50gal above ground storage between 1990 and 1998.

No records are held relating to decommissioning or excavation of either McAra Copper Works or G.H. Lorimer Filling Station Tanks.

The DCC response is included as **Appendix F**.

5. Preliminary Conceptual Site Model

5.1 General

The approach adopted by AECOM in order to assess risks associated with land contamination is in line with the Scottish Government's approach outlined in Planning Advice Note (PAN) 33 Development of Contaminated Land. The Scottish Government considers that the most appropriate approach is a 'suitable for use' one in which risks to human health and the wider environment are assessed within the context of the current or proposed use of the land in question.

The risk assessment described below follows the methodology set out in the Environment Agency's LCRM guidance which was published in October 2020 and updated in 2023. The LCRM guidance has now replaced the earlier Model Procedures for the Management of Land Contamination (CLR11), which has been withdrawn. AECOM understands that at the time of writing, SEPA and the Scottish Government have not yet formally made its position clear on the published LCRM guidance. However, given that the methodology in the LCRM guidance is essentially the same as that in CLR11, the key difference being some of the terminology used, AECOM has adopted the more recent guidance in this assessment.

The basic approach to risk assessment, as followed in this report, involves four steps:

- **Hazard Identification** – establishing contaminant sources, pathways and receptors (the conceptual site model (CSM));
- **Hazard Assessment** – analysing the potential for unacceptable risks (what contaminant linkages could be present, what the effects could be);
- **Risk Estimation** – aiming to establish the magnitude and probability of the possible consequences (what degree of harm might result and to what receptors, and how likely is it); and
- **Risk Evaluation** – evaluating whether the predicted risk is unacceptable.

The LCRM guidance provides the following staged approach to aid the management of land contamination:

- **Stage 1:** Risk Assessment;
- **Stage 2:** Options Appraisal; and
- **Stage 3:** Remediation.

This assessment undertakes only the Stage 1 Risk Assessment, which LCRM guidance presents as three tiers:

- Preliminary Risk Assessment (Tier 1);
- Generic Quantitative Risk Assessment (GQRA) (Tier 2); and
- Detailed Quantitative Risk Assessment (DQRA) (Tier 3).

This report has been provided to meet the requirements for a Preliminary Risk Assessment (Tier 1).

The methodology adopted is described in detail in LCRM and relies on the development of a site-specific CSM consisting of contaminant linkages. A contaminant linkage requires three components:

- A source of contamination, for example due to historical site operations;
- A pathway, a route by which receptors can become exposed to contaminants. Examples include vapour inhalation, soil ingestion and groundwater migration; and
- A receptor, a target that may be exposed to contaminants via the identified pathways. Examples include human occupiers / users of the site, the water environment, property or ecosystems.

For a potential risk to either environmental and / or human receptors to exist, a plausible contaminant linkage involving each of these components must exist. If one of the components is absent then a contaminant linkage, and thereby potentially unacceptable risk, is also unlikely to exist. Where all three components are present, a potentially complete contaminant linkage can be considered to exist. This does not automatically imply the presence of unacceptable risk, but that further investigation of the potential contaminant linkages is required.

5.2 Preliminary Conceptual Site Model

The preliminary CSM has been developed to identify potentially complete contaminant linkages that may require further investigation to assess their existence and/ or potential significance. The potential sources of contamination on or in the vicinity of the proposed development area, receptors on or near the proposed development area, and pathways on or near the proposed development area are discussed within the following sub-sections.

The preliminary CSM has been developed with a view to assessing the potential risks / liabilities and constraints associated with the site in its current condition, prior to any proposed redevelopment. Risks associated with the proposed development have also been assessed based on a future substation use (considered to be a commercial / industrial development type).

5.2.1 Potential Sources of Contamination

This section uses the information described in earlier sections of this report to identify potential sources of contamination on and within 250 m of the site. The potential contaminants have been identified from The Department of the Environment industry profiles[15], these are as follows:

Table 5.1 Potential Sources of On-site Contamination within the Site

Potential On-site Source	Potential Contaminants	Area of Site Affected	Current / Historical
Made Ground deposits of unknown origin / composition in areas of current and historical development, including residual material from demolition works and infilling of land.	Metals and inorganic compounds, pH, Polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH) including benzene, toluene, ethylbenzene, xylene (BTEX) and methyl-tert-butyl-ether (MTBE), asbestos, sulphates, sulphides, cyanides, phenols, asbestos containing materials (ACMs) and ground gas.	Site wide	Current and Historical
Historical activities (slaughter house, flour mill, copper works, building trades depot).	Heavy metals, asbestos, sulphide, sulphates, phosphate, organic solvents, pathogens, PAHs, TPH, BTEX.	Site wide	Historical
Storage tanks	Mineral oils, coal tar, PAHs, TPH including BTEX and MTBE.	South and southeast of site	Historical
Electrical substation	Polychlorinated biphenyls (PCBs), TPH, chlorinated aromatic hydrocarbons.	Within the site	Current

Table 5.2 Potential Sources of Off-site Contamination (within 250m of the Site)

Potential Off-site Source	Potential Contaminants	Area of Site Affected	Current/ Historical
Made Ground associated with off-site construction, reclamation of land and infilling.	Metals and inorganic compounds, pH, PAHs, TPH BTEX and MTBE, asbestos, sulphates, sulphides and ACMs.	All directions from site	Current and historical
Industrial activities including gas works, shipbuilding works, engineering works, creosote works, cold storage works, oil works, bitumen refinery works, copper works, confectionary works, clothing works, jute waterproofing works.	Contaminants may include heavy metals, asbestos, sulphide, sulphates, cyanide organic solvents, coal tar, PAHs, TPH, BTEX and per- and polyfluoroalkyl substances (PFAS).	All directions from site	Current and historical

[15] Department for the Environment Industry Profiles, Available: https://webarchive.nationalarchives.gov.uk/ukgwa/20140328091253/http://www.environment-agency.gov.uk/research/planning/33708.aspx Last accessed April 2024.

Potential Off-site Source	Potential Contaminants	Area of Site Affected	Current/ Historical
Rail lines	Contaminants may include PAHs, TPH, heavy metals, sulphates, PCBs and asbestos	Immediately south of the site	Current

Ground Gas Source Characterisation

The potential ground gas sources (both on-site and off-site) have been characterised with reference to BS 8576:2013 guidance: '*Guidance on investigations for ground gas. Permanent gases and Volatile Organic Compounds (VOCs)*' to determine their relative ground gas generation potential using Figure 6 within the guidance.

This has been undertaken below in Table 5.3 to assess the importance of the potential ground gas sources for the completion of the Preliminary Risk Assessment presented in Section 5.2.4.

Table 5.3 Ground Gas Source Characterisation

Potential Ground Gas Source	On-Site / Off-site	Generation Potential[16]	Discussion
General Made Ground	On-site	Low	The composition and organic content of Made Ground beneath the site is currently unknown. BS 8576:2013 indicates that general Made Ground with limited organic content is considered to represent a Very Low generation potential source, where this is increased to Low generation potential where organic matter exceeds 6% Total Organic Carbon (TOC). Given the composition of Made Ground is currently not known, it has been conservatively assumed that this represents a Low ground gas generation potential.
Coastal Reclamation Infill Materials	On-site	Low	Coastal reclamation works appear to have been undertaken in two phases based on BGS mapping. The 1860 historical maps show the site location, with a railway line off-site to the south and the coastline immediately beyond. It is possible that there have been two separate phases of infilling, one undertaken in the early 1800s for the extension of the Dundee Docks, and further phase of infilling between 1860 and 1865. Both are of a significant age and it is likely that these represent a Very Low ground gas generation potential, but has been considered as Low generation potential based on the unknown material composition used for infilling purposes.
Former Backfilled Pond (southwest)	On-site	Very Low	Backfilled pond infilled prior to maps published in 1901, given the likely time the filling took place BS 8576:2013 indicates the material represents a Very Low generation potential source.
Former Backfilled Pond (Southeast)	On-site	Low	Backfilled pond infilled prior to maps published in 1938. Map extracts do not show the exact date of infilling therefore it has been assumed immediately prior to the publishing of maps. A Low generation potential source has been selected on the basis of the potential age of the infilling.

5.2.2 Potential Receptors

The following potential receptors for contamination have been identified:

Table 5.3 Potential Receptors

Receptor	Description
Human Health	• Current site users (i.e., motorcycle training facility users) and future site users (i.e., substation workers) and visitors. • Future on-site construction and maintenance workers. • Off-site third-party land users (residential, commercial and industrial land users).
The Water Environment	• Surface water courses (River Tay approx. 255 m south of the site). • Groundwater within underlying superficial deposits (Raised Marine Deposits) by leaching and migration of contaminants via shallow Made Ground. • Groundwater within the underlying bedrock (Dundee Flagstone Formation).

[16] Determined based on Figure 6 within BS 8576:2013 guidance.

Receptor	Description
The Built Environment	• Future developments, including concrete foundations of the proposed development. • Accumulation of potentially flammable toxic and/or vapours within confined spaces. • Potable water supply pipes and other services.

5.2.3 Potential Pathways

Potential pathways have been identified, which could link the potential sources with the potential receptors. These pathways are discussed by receptor type below in consideration of the proposed development of the site.

Table 5.4 Potential Pathways

Pathway	Description
Human Health	• Current and future on-site workers by direct contact and/or direct ingestion with contaminated soil and/or groundwater, inhalation of ground gas / vapours / asbestos fibres, windblown dust ingestion and radon ingress. The presence of airborne dust may be exacerbated by demolition of any existing structures and construction work. • Third-party neighbours by migration of hydrocarbon vapour and / or ground gas migration and accumulation in confined spaces (asphyxiation / explosion).
The Water Environment	• Groundwater within the superficial deposits by leaching and migration of contaminants via shallow Made Ground and natural superficial deposits. • Groundwater within the underlying bedrock by leaching and migration of contaminants via shallow Made Ground and bedrock. • Surface water via surface water run-off, and lateral migration of contaminants via shallow deposits and service runs. • Surface water by migration of contaminants via groundwater.
The Built Environment	• Concrete construction materials by direct contact with contaminated soil and groundwater (e.g., hydrocarbons) and aggressive ground conditions (pH and sulphate). • Migration and accumulation of radon and ground gas along strata and preferential pathways such as service routes or differentially permeable strata. Direct contact of services and supply pipes with contaminated soils.

5.3 Qualitative Assessment of Source-Pathway-Receptor

Based on the information provided in this report, the following preliminary risk assessment tables have been formulated, with each identifying possible contaminants and contaminant linkages in the context of the current and proposed development.

At this stage, a qualitative risk assessment has been undertaken for these potential source-pathway-receptor linkages based on current DEFRA (Guidelines for Environmental Risk Assessment and Management)[17], CIRIA C552[18], and the Guidance for the Safe Development of Housing on Land Affected by Contamination R&D66[19], see **Appendix E**.

It must be noted that the following assessment is based solely on desktop study information and will require revision following any recommended intrusive site investigation works. The following assessment is based on consideration of both:

- The **likelihood** of an event (probability – takes into account both the presence of the hazard and receptor and the integrity of the pathway); and
- The **severity** of the potential consequence (takes into account both the potential severity of the hazard and the sensitivity of the receptor).

The risks associated with potential on and off-site contaminants identified are detailed in Table 5.5 below. The risk matrix colour coding is presented in **Appendix E**.

[17] Guidelines for Environmental Risk Assessment and Management - Green Leaves III (publishing.service.gov.uk)
[18] CIRIA C552 Contaminated land risk assessment, guide to good practice, 2001 (c552 (ciria.org))
[19] R&D66 VOL 1 Guidance for the Safe Development of Housing on Land Affected by Contamination (nhbc.co.uk)

Table 5.5 Summary of Preliminary CSM and Risk Assessment

Source	Receptor		Exposure Pathway	Probability	Consequence	Risk Category	Justification
On-site contamination sources including areas of Made Ground, historical industrial activity, storage tanks and electrical substations.	**Human Health – On-site**	Current and future site workers / visitors	Dermal contact with and ingestion of contaminants in soil, soil-derived dust and water.	Low likelihood	Medium	**Moderate / Low**	The presence of Made Ground and/or potential contamination associated with industrial land use is currently unknown and considered to require investigation. The site in its current and future layout is / will be covered by hardstanding, limited dermal contact / inhalation of soil and soil derived dust to a degree. Furthermore, if future substation workers are likely to be temporary maintenance workers present on site for short periods only, this is expected to be limit potential exposure. Construction / maintenance workers may be exposed to sub-surface contaminants present within Made Ground during excavation works. The use of appropriate PPE, good hygiene practice and adherence to construction health and safety legislation / best practice should mitigate against the exposure to potential contaminants. A site construction management plan will be produced prior to development. The risk of off-site receptors coming into direct contact with the potential sources present on site is considered unlikely given they are off-site. The future presence of hardstanding across the site limits the potential for migration of soil derived dust and potential asbestos fibres. However, there is the potential during construction activities for disturbance of the ground to generate dust. This can be mitigated through appropriate health and safety measures described above. There is the potential for asbestos to be present in Made Ground and existing buildings / structures on site. Asbestos presents a risk if it is disturbed. The proposed end use comprise hardstanding coverage, acting as a potential barrier to asbestos in soil, if present. Off-site receptors coming into contact with the potential sources present on site is unlikely. However, there is the potential during construction activities for disturbance of the ground to generate dust. If asbestos is encountered during future redevelopment, it must be managed in accordance with the Control of Asbestos Regulations 2012. There is potential for ground gases to be present beneath the site and surrounding, given the likely presence of Made Ground and infilled ground as well as the storage tanks within the site. There is the potential for gases to accumulate in the future substation, and there is also the potential for ground gas (if present) to migrate off-site and affect nearby housing / other buildings. Given the former uses of the site, vapour risks are considered to be the principal concern for on-site / off-site receptors. Further site
			Inhalation of soil-derived dust. Inhalation of asbestos fibres.	Likely	Medium	**Moderate / Low**	
			Inhalation of vapours	Low likelihood	Severe	**Moderate**	
			Migration of hazardous gases via permeable strata into confined spaces (asphyxiation / explosion).	Unlikely	Severe	**Moderate / Low**	
		Construction / maintenance workers	Dermal contact with and ingestion of contaminants in soil, soil-derived dust and water. Inhalation of contaminants in soil-derived dust and asbestos fibres.	Likely	Medium	**Moderate**	
			Inhalation of hazardous gases and vapour (asphyxiation).	Unlikely	Severe	**Moderate**	
	Human Health – Off-site	Third-party neighbours	Inhalation of contaminants in soil, soil-derived dust. Inhalation of asbestos fibres.	Low likelihood	Medium	**Moderate / Low**	
			Inhalation of vapours	Low likelihood	Severe	**Moderate**	
			Migration of hazardous gases via permeable strata into confined spaces (asphyxiation / explosion).	Low likelihood	Severe	**Moderate**	

Source	Receptor		Exposure Pathway	Probability	Consequence	Risk Category	Justification
							characterisation / assessment will be required to quantify the significance of the vapour and ground gas risks identified and to assess risks to construction and maintenance workers and future users / off-site users.
	Water Environment	Superficial and bedrock aquifers	Leaching of contaminants in the unsaturated zone to groundwater in underlying superficial aquifer.	Likely	Medium	**Moderate**	The presence and extent of potential contamination and depth to groundwater is currently unknown and will require investigation. The central areas of the site are reported to be underlain by Raised Marine Deposits and artificial ground which have the potential for high permeability. In the northern areas of the site where low permeability Till and Intertidal Deposits are present, shallow groundwater, if present, is likely to be perched within any Made Ground and topsoil. Groundwater in the south of the site is likely to be within the infill materials used for coastal reclamation, and this groundwater is likely to be in hydraulic continuity with the River Tay. As such, contamination in groundwater and risks to the River Tay are the principal water environment risk. Hydraulic continuity between shallow and deep groundwater is unknown. Where superficial deposits are more permeable continuity may be present, however, where lower permeability deposits are present (in the north of the site) these deposits are likely to act to limit groundwater flow, potentially mitigating against the vertical migration of contamination to the deeper bedrock aquifer.
			Migration of contaminated water through preferential pathways such as granular material to groundwater in underlying aquifers.	Likely	Medium	**Moderate**	
			Leaching of contaminants to groundwater and vertical migration to deeper bedrock aquifers.	Low likelihood	Medium	**Moderate / Low**	
		Surface water features including Camperdown Dock and the River Tay	Lateral migration of contaminated groundwater with discharge to surface watercourses as base flow.	Likely	Medium	**Moderate**	If present, it is considered possible that contamination may enter the River Tay / Camperdown Dock, although these features are 255 m and 210 m from the site, respectively. The presence and extent of contamination is currently unknown and will require investigation to confirm the groundwater quality regime at the site, identify whether there is a hydraulic connection between and groundwater and surface water and quantify the significance of the risks identified. Overland flow is considered to be a possibility, but represents a reduced risk given the distance to specified receptors.
			Discharge of contaminants entrained in surface water run-off followed by overland flow and discharge.	Unlikely	Medium	**Low**	
	The Built Environment	Existing and future structures and water supply pipes	Direct contact of contaminants in soil and/or groundwater	Likely	Mild	**Moderate / Low**	The constituents of the Made Ground on-site and the nature of materials used for the historical / current land uses is unknown. Potential contaminants could represent sources of aggressive ground conditions (e.g. extremes of pH and sulphate, hydrocarbons), which could impact on in-ground concrete foundations, services and membranes (if used as part of the

Source	Receptor		Exposure Pathway	Probability	Consequence	Risk Category	Justification
			Migration and accumulation of radon and ground gas along strata and preferential pathways such as service routes or differentially permeable strata.	Low likelihood	Medium	**Moderate / Low**	proposed development). There is potential for ground gas (if present) to accumulate in the future substation building, and also to migrate off-site and affect nearby properties (although there is no evidence that this is currently happening). Further site characterisation and assessment is recommended to refine the risk. Whilst risks cannot be entirely discounted, potential impacts can be managed by relatively inexpensive engineered mitigation measures for a small site of this nature.
Off-site contamination sources including off-site Made Ground, industrial activity and rail lines	**Human Health – On-site**	Current and future site workers / visitors	Dermal contact with and ingestion of contaminants in soil, soil-derived dust and water.	Unlikely	Medium	**Low**	Off-site contamination from neighbouring sources is a possibility given the extent of industrial activity within the areas surrounding the site. The constituents of the Made Ground on site and the nature of materials within the surrounding industrial land is unknown. These could represent sources of contamination to future site users via dermal contact and inhalation. The presence of hardstanding across the proposed development may limit exposure to a degree. Risks to construction workers will be managed via adherence to health and safety legislation and regulations.
			Inhalation of contaminants in soil-derived dust and inhalation of asbestos fibres.	Unlikely	Medium	**Low**	
			Migration of hazardous gases via permeable strata into confined spaces (asphyxiation / explosion) and volatile vapours inhalation.	Unlikely	Severe	**Moderate / Low**	
		Construction / maintenance workers	Inhalation of contaminants in soil-derived dust and inhalation of asbestos fibres.	Unlikely	Medium	**Low**	
			Migration of hazardous gases via permeable strata into confined spaces (asphyxiation / explosion) and volatile vapours inhalation.	Unlikely	Severe	**Moderate / Low**	
	The Built Environment	Existing and future structures and water supply pipes	Direct contact of contaminants in soil and/or groundwater.	Low likelihood	Medium	**Moderate / Low**	Potential off-site sources of Made Ground have been identified surrounding the site, and hence, there is the possibility of ground gas migration. Whilst risks cannot be entirely discounted, potential impacts can be managed by relatively inexpensive engineered mitigation measures for a small site of this nature.
			Migration and accumulation of radon and ground gas along strata and preferential pathways such as service routes or differentially permeable strata.	Low likelihood	Medium	**Moderate / Low**	

6. Conclusions & Recommendations

6.1 Conclusions

Potential sources of contamination have been identified within the site boundary relating to the historical development within the site and industrial use both within and adjacent to the site.

Information gathered during this assessment has identified the following potential constraints to development that will require further investigation:

- Potential Made Ground associated with the current and historical development at the site;
- Buried structures associated with former infrastructure present within the site;
- Ground gas and potential vapour risk associated with Made Ground and infilled land; and,
- Soil and groundwater contamination, particularly associated with previous industrial land use.

The preliminary conceptual site model and risk assessment identified that a moderate risk was present to future site users and construction/maintenance works from potential on-site contaminations sources. A moderate risk was also determined to be present to both superficial and bedrock aquifers as well as the River Tay from migration of groundwater and leaching of contaminants. All other receptors were assessed to have moderate/low or low risk.

6.2 Recommendations

Based on the constraints to development identified it is considered that ground investigation works are necessary to obtain information by which to assess these potential constraints. In terms of risks from potential contamination beneath the site, it is considered that intrusive investigation works should be undertaken to further assess risks.

This investigation should include the excavation of trial pits and drilling of boreholes to establish the horizontal and vertical extent of Made Ground material on site, logging of ground conditions encountered and to facilitate the collection of soil and groundwater samples for chemical and geotechnical analysis. Boreholes should be installed with monitoring wells to allow groundwater and ground gas monitoring to be undertaken. Vapour risk should also be considered as part of the proposed ground investigation works and subsequent risk assessments.

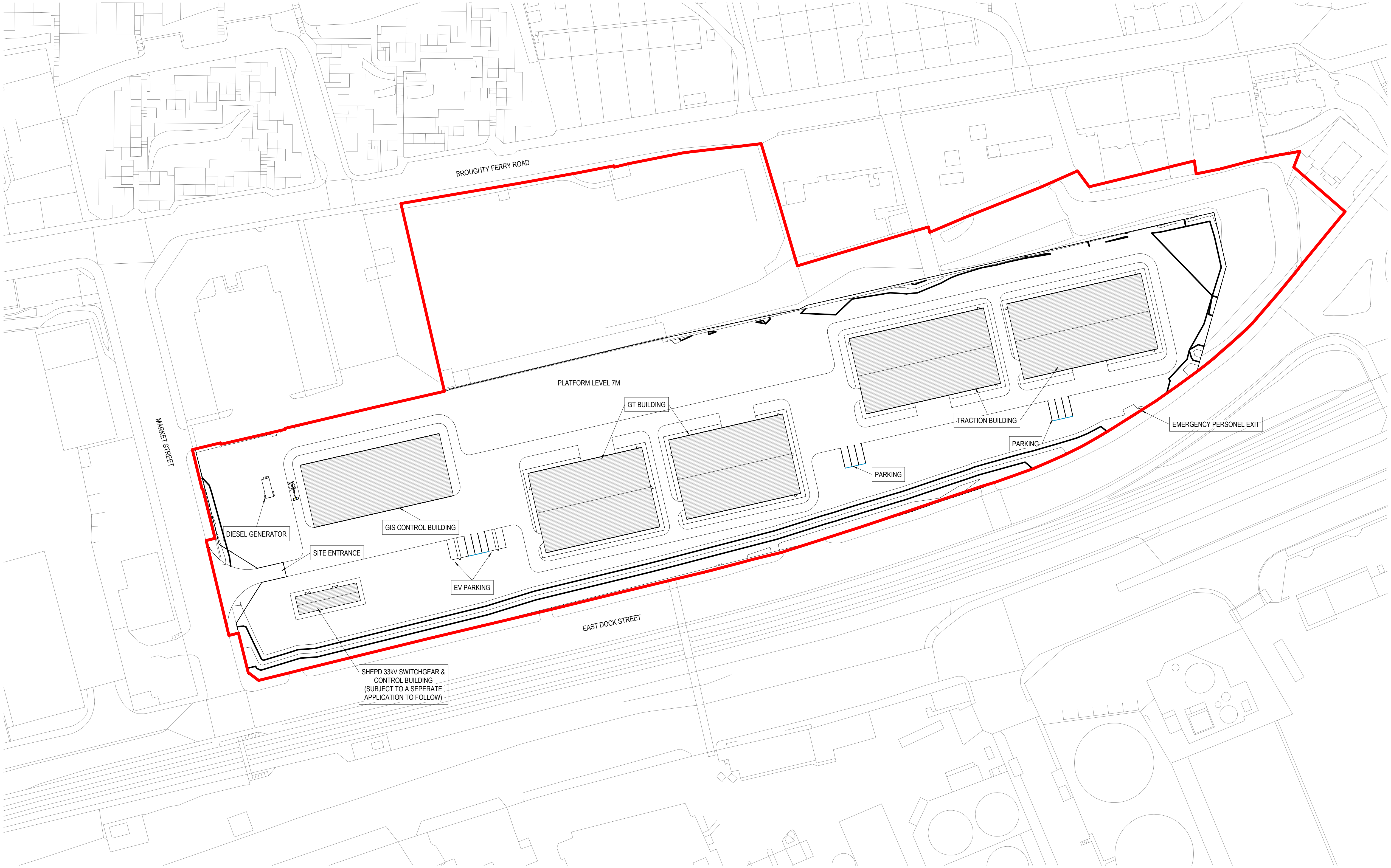
The investigation would allow a quantitative risk assessment to be performed for the site and enable the pollutant linkages identified during this Geo-environmental Desk Study to be investigated further.

It is recommended that the following further work / assessment is undertaken to constrain potential risks and liabilities:

- Completion of a ground investigation at the site to characterise the potential contaminated land risks further, and recommend remediation / mitigation measures if considered to be necessary.
- Undertake an Environmental Appraisal (EA) report including the findings of this report, to assess the potential effects that the proposed construction may have on the natural environment.
- Submission of this report to the Dundee City Council Contaminated Land Officer to obtain their approval of the report's findings, and engage in the proposed scope of ground investigation works. The scope of the Geo-environmental Desk Study has provided a preliminary characterisation of the site's risk profile, however, as with all desk based studies there is a degree of uncertainty associated with them. In addition, as with any site there may be localised differences in Made Ground thicknesses, the presence of obstructions and physical or chemical composition, and unrecorded surface or ground disruptions and site activities.

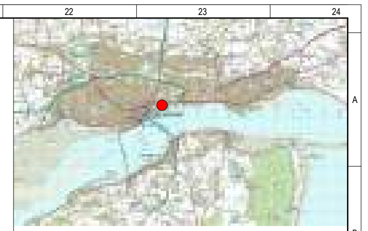
Appendix A Figures and Drawings

A0



1 PROPOSED SITE PLAN LAYOUT
1 : 500

SCALE 1:500
0 10m 20m 30m 40m 50m



SITE LOCATION PLAN
SCALE: N/A

NOTES:-

1. ALL DIMENSIONS GIVEN IN MILLIMETERS (mm) UNLESS NOTED OTHERWISE.

KEY
RED LINE BOUNDARY

FOR PLANNING

REV:	DATE:	DRWN:	CHKD:	APPD:	DESCRIPTION:
01	30.06.25	MS	CG	PF/GK	APPROVED FOR ISSUE
00	16.05.25	MS	CG	PF	APPROVED FOR FIRST ISSUE

STATUS: FOR PLANNING

CONTRACTOR:

INSERT CONTRACTOR LOGO HERE

PROJECT: NEW 132kV STANNERGATE SUBSTATION

PROJECT NUMBER: LT491 | LOCATION: DUNDEE

TITLE: STANNERGATE 132/33kV GIS SUBSTATION
PROPOSED SITE PLAN LAYOUT

DRAWN BY: MS	ENG CHECK: CG
DESIGNER: SSENT	COORDINATION:
SCALE: 1 : 500 @A0	APPROVED: PF
DATE OF FIRST ISSUE: 16.05.25	SECURITY: INTERNAL

ORIGINATOR DRAWING NUMBER: LT491-STNG-0802-DR-0004 | SHEET No: 01
CLIENT DRAWING NUMBER: | REV No: 01

Autodesk Docs://STANNERGATE/LT491-XXXX-1104-M3-0001.rvt

Appendix B Site Walkover Photolog

PHOTOGRAPHIC LOG

Client Name:		Project No.
Scottish and Southern Electricity Networks	**Dundee Network Rail Substation**	**60727222**

Photo No. 1	**Date:** 10th June 2024

Description:

Building footprints in former abattoir area

Photo No. 2	**Date:** 10th June 2024

Description:

Substation in north of site.

PHOTOGRAPHIC LOG

Client Name:		Project No.
Scottish and Southern Electricity Networks	**Dundee Network Rail Substation**	**60727222**

Photo No. 3	**Date:** 10th June 2024

Description:

Stockpiled rubble in north of site.

Photo No. 4	**Date:** 10th June 2024

Description:

Area of likely former tanks.

PHOTOGRAPHIC LOG

Client Name:		Project No.
Scottish and Southern Electricity Networks	**Dundee Network Rail Substation**	**60727222**

Photo No. 5	**Date:** 10th June 2024

Description:

Building within Nynas area.

Photo No. 6	**Date:** 10th June 2024

Description:

Tanks within Nynas area.

PHOTOGRAPHIC LOG

Client Name:		Project No.
Scottish and Southern Electricity Networks	**Dundee Network Rail Substation**	**60727222**

Photo No. 7	**Date:** 10th June 2024

Description:

Blocked drainage channels around some of tanks.

Photo No. 8	**Date:** 10th June 2024

Description:

Gravel/cobble coverage around some of the tanks.

PHOTOGRAPHIC LOG

Client Name:		Project No.
Scottish and Southern Electricity Networks	**Dundee Network Rail Substation**	**60727222**

Photo No. 9	**Date:** 10th June 2024

Description:

Motorcycle training area.

Photo No. 10	**Date:** 10th June 2024

Description:

Giant hogweed on site in motorcycle training area at site boundary between the site and the hotel to the north. Steep incline between the site and the area outwith the site to the north.

Appendix C Groundsure Report

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

LAND AT THE EAST END OF, EAST DOCK STREET, DUNDEE, DUNDEE CITY, DD4 6LG

Order Details

Date: 30/04/2024

Your ref: 1650333

Our Ref: GS-GTY-33A-RC8-EHV

Site Details

Location: 341718 730852

Area: 3.71 ha

Authority: Dundee City Council ↗

Contact us with any questions at:
info@groundsure.com ↗
01273 257 755

Certified B Corporation

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
13 >	1.1 >	Historical industrial land uses >	18	15	107	120	-
23 >	1.2 >	Historical tanks >	7	3	99	70	-
30 >	1.3 >	Historical energy features >	2	0	15	23	-
31 >	1.4 >	Historical petrol stations >	0	0	1	0	-
32 >	1.5 >	Historical garages >	0	0	3	3	-
32	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
33 >	2.1 >	Historical industrial land uses >	26	20	132	154	-
45 >	2.2 >	Historical tanks >	11	8	141	95	-
55 >	2.3 >	Historical energy features >	4	0	27	34	-
57 >	2.4 >	Historical petrol stations >	0	0	1	0	-
58 >	2.5 >	Historical garages >	0	0	4	4	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
59	3.1	Active or recent landfill	0	0	0	0	-
59	3.2	Historical landfill (BGS records)	0	0	0	0	-
60	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
60	3.4	Licensed waste sites	0	0	0	0	-
60 >	3.5 >	Historical waste sites >	0	1	2	1	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
62 >	4.1 >	Recent industrial land uses >	12	3	72	-	-
68 >	4.2 >	Current or recent petrol stations >	0	0	1	0	-
68	4.3	Electricity cables	0	0	0	0	-
68	4.4	Gas pipelines	0	0	0	0	-
68	4.5	Sites determined as Contaminated Land	0	0	0	0	-
68 >	4.6 >	Control of Major Accident Hazards (COMAH) >	0	0	3	0	-
69	4.7	Regulated explosive sites	0	0	0	0	-

69 >	4.8 >	Hazardous substance storage/usage >	0	1	4	0	-
70 >	4.9 >	Part A(1), IPPC and Historic IPC Authorisations >	1	1	1	0	-
71	4.10	Part B Authorisations	0	0	0	0	-
71 >	4.11 >	Pollution inventory substances >	0	0	0	1	-
71 >	4.12 >	Pollution inventory waste transfers >	0	0	1	1	-
72	4.13	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	**Hydrogeology** >	On site	0-50m	50-250m	250-500m	500-2000m
73 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
74 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
76	6.1	Water Network (OS MasterMap)	0	0	0	-	-
76	6.2	Surface water features	0	0	0	-	-
Page	Section	River flooding					
77	7.1	River flooding	Negligible (within 50m)				
Page	Section	**Coastal flooding** >					
78 >	8.1 >	Coastal flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	**Surface water flooding** >					
80 >	9.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	**Groundwater flooding** >					
82 >	10.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	**Environmental designations** >	On site	0-50m	50-250m	250-500m	500-2000m
83	11.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
84	11.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
84 >	11.3 >	Special Areas of Conservation (SAC) >	0	0	1	0	0
84 >	11.4 >	Special Protection Areas (SPA) >	0	0	0	0	1
85	11.5	National Nature Reserves (NNR)	0	0	0	0	0
85	11.6	Local Nature Reserves (LNR)	0	0	0	0	0
85	11.7	Designated Ancient Woodland	0	0	0	0	0
86	11.8	Biosphere Reserves	0	0	0	0	0

86	11.9	Forest Parks	0	0	0	0	0
86	11.10	Marine Conservation Zones	0	0	0	0	0
Page	Section	**Visual and cultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
87	12.1	World Heritage Sites	0	0	0	-	-
88	12.2	Area of Outstanding Natural Beauty	0	0	0	-	-
88	12.3	National Parks	0	0	0	-	-
88 >	**12.4 >**	**Listed Buildings >**	0	1	3	-	-
89 >	**12.5 >**	**Conservation Areas >**	0	0	1	-	-
89	12.6	Scheduled Ancient Monuments	0	0	0	-	-
89	12.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
90	13.1	Agricultural Land Classification	None (within 250m)				
Page	Section	**Geology 1:10,000 scale >**	On site	0-50m	50-250m	250-500m	500-2000m
91 >	**14.1 >**	**10k Availability >**	Identified (within 500m)				
92	14.2	Artificial and made ground (10k)	0	0	0	0	-
93	14.3	Superficial geology (10k)	0	0	0	0	-
93	14.4	Landslip (10k)	0	0	0	0	-
94	14.5	Bedrock geology (10k)	0	0	0	0	-
94	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	**Geology 1:50,000 scale >**	On site	0-50m	50-250m	250-500m	500-2000m
95 >	**15.1 >**	**50k Availability >**	Identified (within 500m)				
96 >	**15.2 >**	**Artificial and made ground (50k) >**	1	0	0	0	-
97 >	**15.3 >**	**Artificial ground permeability (50k) >**	1	0	-	-	-
98 >	**15.4 >**	**Superficial geology (50k) >**	3	0	1	0	-
99 >	**15.5 >**	**Superficial permeability (50k) >**	Identified (within 50m)				
99	15.6	Landslip (50k)	0	0	0	0	-
99	15.7	Landslip permeability (50k)	None (within 50m)				
100 >	**15.8 >**	**Bedrock geology (50k) >**	2	0	3	3	-
101 >	**15.9 >**	**Bedrock permeability (50k) >**	Identified (within 50m)				

101 >	15.10 >	Bedrock faults and other linear features (50k) >	1	0	1	1	-
Page	Section	**Boreholes** >	On site	0-50m	50-250m	250-500m	500-2000m
103 >	16.1 >	BGS Boreholes >	0	2	26	-	-
Page	Section	**Natural ground subsidence** >					
105 >	17.1 >	Shrink swell clays >	Low (within 50m)				
107 >	17.2 >	Running sands >	Very low (within 50m)				
108 >	17.3 >	Compressible deposits >	Moderate (within 50m)				
110 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
111 >	17.5 >	Landslides >	Moderate (within 50m)				
113 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	**Mining and ground workings** >	On site	0-50m	50-250m	250-500m	500-2000m
115 >	18.1 >	BritPits >	0	0	0	1	-
116 >	18.2 >	Surface ground workings >	6	7	28	-	-
118	18.3	Underground workings	0	0	0	0	0
118	18.4	Underground mining extents	0	0	0	0	-
118	18.5	Historical Mineral Planning Areas	0	0	0	0	-
118 >	18.6 >	Non-coal mining >	1	0	0	0	2
119	18.7	JPB mining areas	None (within 0m)				
119	18.8	The Coal Authority non-coal mining	0	0	0	0	-
119	18.9	Researched mining	0	0	0	0	-
120	18.10	Mining record office plans	0	0	0	0	-
120	18.11	BGS mine plans	0	0	0	0	-
120	18.12	Coal mining	None (within 0m)				
120	18.13	Brine areas	None (within 0m)				
120	18.14	Gypsum areas	None (within 0m)				
121	18.15	Tin mining	None (within 0m)				
121	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
122	19.1	Natural cavities	0	0	0	0	-

122	19.2	Mining cavities	0	0	0	0	0
122	19.3	Reported recent incidents	0	0	0	0	-
122	19.4	Historical incidents	0	0	0	0	-
123	19.5	National karst database	0	0	0	0	-
Page	Section	**Radon** >					
124 >	**20.1** >	**Radon** >	Between 1% and 3% (within 0m)				
Page	Section	**Soil chemistry** >	On site	0-50m	50-250m	250-500m	500-2000m
126 >	**21.1** >	**BGS Estimated Background Soil Chemistry** >	4	0	-	-	-
126	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
127	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	**Railway infrastructure and projects** >	On site	0-50m	50-250m	250-500m	500-2000m
128	22.1	Underground railways (London)	0	0	0	-	-
128	22.2	Underground railways (Non-London)	0	0	0	-	-
129	22.3	Railway tunnels	0	0	0	-	-
129 >	**22.4** >	**Historical railway and tunnel features** >	3	13	30	-	-
131	22.5	Royal Mail tunnels	0	0	0	-	-
131	22.6	Historical railways	0	0	0	-	-
131 >	**22.7** >	**Railways** >	0	4	3	-	-
132	22.8	Crossrail 1	0	0	0	0	-
132	22.9	Crossrail 2	0	0	0	0	-
132	22.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 24/04/2020

Site Area: 3.71ha

Recent site history - 2014 aerial photograph

Capture Date: 18/04/2014

Site Area: 3.71ha

Recent site history - 2011 aerial photograph

Capture Date: 12/05/2011

Site Area: 3.71ha

Recent site history - 2009 aerial photograph

Capture Date: 29/05/2009

Site Area: 3.71ha

Recent site history - 2000 aerial photograph

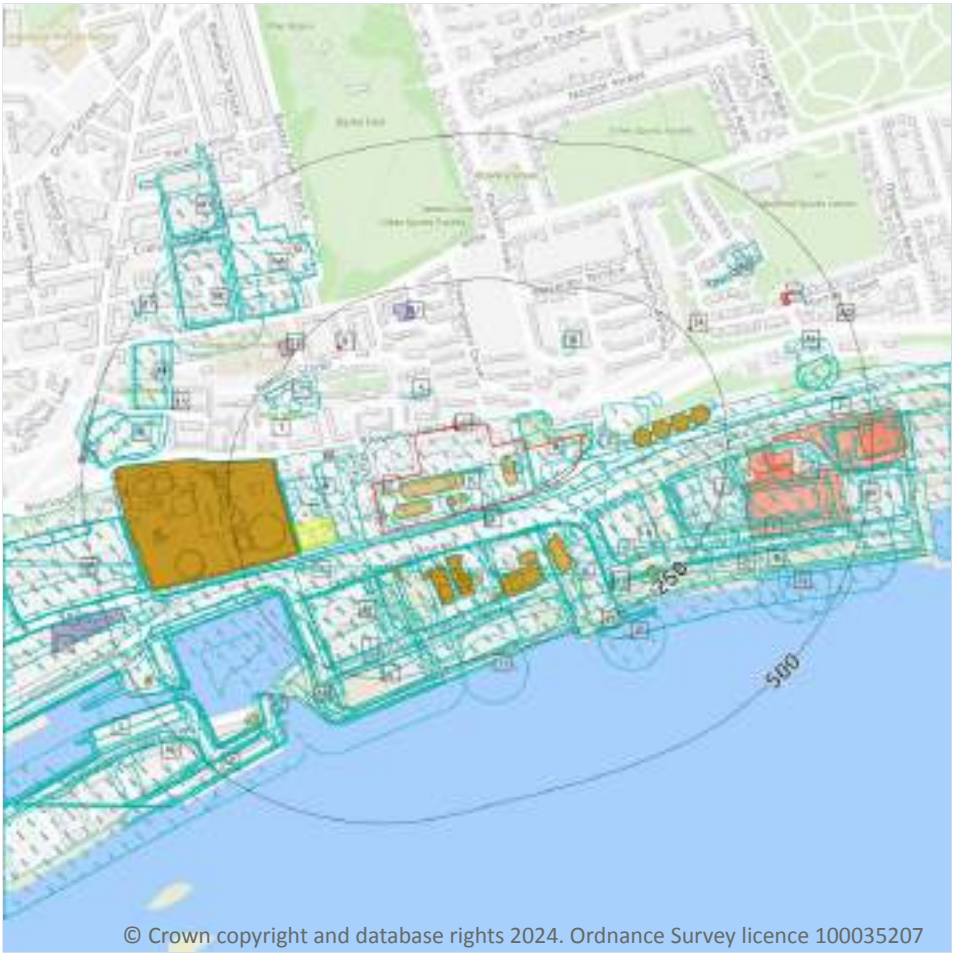
Capture Date: 13/05/2000

Site Area: 3.71ha

OS MasterMap site plan

Site Area: 3.71ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical petrol stations

Historical garages

1.1 Historical industrial land uses

Records within 500m	260

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13 >**

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Docks**	**1921**	**489795**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Unspecified Tanks**	**1994**	**466542**
A	**On site**	**Flour Mills**	**1921 - 1923**	**473719**
B	**On site**	**Unspecified Works**	**1973**	**473460**
B	**On site**	**Unspecified Yard**	**1923 - 1938**	**478269**
B	**On site**	**Unspecified Works**	**1982 - 1994**	**487294**
B	**On site**	**Unspecified Yard**	**1921**	**488443**
C	**On site**	**Unspecified Works**	**1938**	**473964**
C	**On site**	**Unspecified Tanks**	**1982 - 1994**	**476070**
C	**On site**	**Slaughter Houses**	**1923 - 1938**	**476125**
C	**On site**	**Unspecified Tanks**	**1982 - 1994**	**476213**
C	**On site**	**Unspecified Works**	**1921**	**484308**
C	**On site**	**Unspecified Commercial/Industrial**	**1982 - 1994**	**488367**
C	**On site**	**Unspecified Works**	**1923**	**489515**
C	**On site**	**Unspecified Tanks**	**1982 - 1994**	**489862**
D	**On site**	**Railway Sidings**	**1921**	**479566**
E	**On site**	**Railway Sidings**	**1923**	**480965**
F	**On site**	**Unspecified Tank**	**1982 - 1994**	**482617**
E	2m SE	Railway Sidings	1973	486454
G	2m E	Refuse Heap	1938	472813
3	4m SW	Railway Sidings	1982	490022
E	8m E	Railway Sidings	1955	473216
E	8m E	Railway Sidings	1955	484502
E	12m S	Railway Sidings	1921	477029
E	15m SW	Railway Sidings	1901	476965
E	15m SW	Railway Sidings	1938	477231
H	17m W	Unspecified Commercial/Industrial	1973 - 1982	478373
H	25m W	Unspecified Factory	1862	483914
4	28m S	Railway Building	1901	464733

ID	Location	Land use	Dates present	Group ID
H	32m SW	Unspecified Factory	1923 - 1938	472970
D	46m E	Unspecified Heap	1923	482988
I	46m SW	Dock	1923	480662
H	46m SW	Unspecified Factory	1921	481575
E	54m SE	Refinery	1973	488741
E	54m S	Refinery	1982 - 1994	489102
E	55m SE	Unspecified Works	1955	462807
E	55m S	Unspecified Depot	1955	463388
E	56m SW	Shipbuilding Yard	1921 - 1923	483260
J	57m SE	Unspecified Commercial/Industrial	1973	489939
K	58m SW	Railway Sidings	1938	481943
E	58m SW	Ship Building Yard	1938	473900
E	58m SW	Police Station	1973	470602
J	58m SE	Unspecified Depot	1982	463397
J	58m SE	Unspecified Commercial/Industrial	1994	480580
L	59m SE	Unspecified Works	1955	490468
E	59m S	Sawmills	1901	473749
E	59m S	Unspecified Commercial/Industrial	1938	484584
5	61m NW	Unspecified Ground Workings	1901	471017
E	62m SE	Ship Building Yard	1901	486848
L	62m E	Ice Factory	1921	473819
M	62m SW	Unspecified Commercial/Industrial	1982	483792
K	65m SW	Railway Sidings	1903 - 1921	489412
M	65m SW	Shipbuilding Yard	1921	488699
E	67m S	Unspecified Tanks	1955	481318
E	67m S	Unspecified Tanks	1973	489331
N	67m E	Unspecified Commercial/Industrial	1982	475218
E	68m SW	Sawmills	1921	483834

ID	Location	Land use	Dates present	Group ID
L	69m E	Unspecified Works	1973	474000
E	70m S	Unspecified Tanks	1938	478630
L	74m E	Unspecified Commercial/Industrial	1994	489843
L	75m E	Unspecified Works	1921	477563
H	76m SW	Unspecified Works	1923 - 1938	480389
M	77m SW	Ship Building Yard	1901	485139
E	80m SW	Railway Sidings	1921	474618
E	81m S	Unspecified Tanks	1982 - 1994	476963
M	83m SW	Sawmills	1921	477280
E	83m SE	Unspecified Tanks	1973	475166
E	84m S	Unspecified Tanks	1955	476049
E	84m S	Unspecified Tanks	1973	490011
L	84m E	Unspecified Commercial/Industrial	1901	479688
E	84m S	Unspecified Tanks	1938	473754
E	85m SE	Unspecified Tanks	1982 - 1994	480284
L	85m E	Preserve and Confectionery Works	1923 - 1938	475632
D	86m E	Unspecified Tanks	1982 - 1994	476962
M	86m SW	Sawmills	1938	487405
M	87m SW	Unspecified Mills	1973	466360
O	89m SW	Unspecified Commercial/Industrial	1955	477276
D	90m E	Unspecified Tanks	1973	489616
E	91m S	Railway Sidings	1921	480576
E	94m SE	Unspecified Tanks	1982 - 1994	477552
H	97m SW	Unspecified Works	1921	477303
E	97m S	Unspecified Tanks	1982 - 1994	485232
E	100m S	Ship Building Yard	1921	484479
D	103m E	Unspecified Pit	1862	471474
E	110m S	Railway Sidings	1921	482917

ID	Location	Land use	Dates present	Group ID
E	112m SE	Unspecified Tanks	1955	478351
E	112m SE	Unspecified Tanks	1973	480531
E	125m SE	Unspecified Tanks	1938	484514
L	128m SE	Unspecified Wharf	1921	474775
6	138m NE	Sand Pit	1862	468609
P	146m SW	Gas Works	1973	475210
P	146m SW	Unspecified Commercial/Industrial	1938 - 1955	476037
P	146m SW	Railway Sidings	1955	476171
M	147m SW	Sawmills	1923	482793
P	147m SW	Gas Works	1901	477663
K	147m SW	Docks	1938	481860
K	147m SW	Docks	1901	490266
Q	149m E	Unspecified Works	1921 - 1923	481547
R	150m SE	Unspecified Wharf	1938	475296
R	150m SE	Unspecified Wharf	1901	478294
P	151m SW	Gas Works	1923	485435
Q	152m E	Unspecified Works	1982	486615
S	155m E	Unspecified Works	1973	483146
P	157m SW	Gas Works	1982 - 1994	483096
T	158m W	Biscuit Factory	1921 - 1923	488441
S	159m E	Unspecified Commercial/Industrial	1994	488802
T	162m NW	Biscuit Factory	1938	486594
Q	163m E	Cold Storage Works	1901	466412
P	163m W	Gasometer	1973	475114
O	163m SE	Unspecified Wharf	1938	477770
P	165m SW	Gas Works	1921	475231
P	165m W	Gasometer	1982 - 1994	481225
Q	166m E	Ice Factory	1923	490166

ID	Location	Land use	Dates present	Group ID
Q	169m E	Ice Factory	1938	473375
O	176m S	Unspecified Commercial/Industrial	1973	490073
O	178m S	Unspecified Commercial/Industrial	1982 - 1994	485343
I	180m SW	Dock	1921	487001
O	181m SE	Unspecified Commercial/Industrial	1938	483150
L	191m SE	Unspecified Wharf	1938	483122
8	194m SE	Unspecified Wharf	1921 - 1923	484809
K	206m SW	Dock	1973 - 1994	477119
I	207m SW	Dock	1955	481488
V	208m S	Unspecified Wharf	1923	482590
L	211m SE	Unspecified Tank	1982 - 1994	481446
11	217m S	Unspecified Wharf	1973	490371
P	218m W	Gasometers	1923	485702
N	221m E	Jute Sheds	1921	479158
P	222m W	Unspecified Tank	1938	462201
P	222m W	Gasometer	1901 - 1921	476202
P	224m W	Unspecified Tanks	1955	466501
P	228m W	Unspecified Tank	1938	462200
P	228m W	Gasometer	1901 - 1921	473348
W	238m SE	Unspecified Wharf	1982	474890
P	240m W	Gas Works	1862	478475
S	243m E	Oil Works	1901 - 1921	483271
X	245m E	Jute Sheds	1923	486214
Y	246m E	Railway Sidings	1982	482272
Q	246m E	Unspecified Works	1938	485884
P	246m W	Gasometer	1973	478099
N	248m E	Jute Sheds	1938	490666
P	251m W	Unspecified Tank	1938 - 1955	484834

ID	Location	Land use	Dates present	Group ID
P	252m W	Unspecified Tank	1923	484314
P	252m W	Gasometers	1862	481907
13	252m SE	Unspecified Tank	1982	462198
P	252m W	Gasometer	1973	462899
V	253m S	Unspecified Wharf	1921	475089
S	258m E	Oil Works	1938	477693
W	258m SE	Unspecified Wharf	1973	484670
P	262m W	Gasometer	1921	485889
S	262m E	Oil Works	1923	488180
N	267m E	Jute Sheds	1901	478377
S	267m E	Unspecified Commercial/Industrial	1982	476766
Z	276m W	Unspecified Commercial/Industrial	1921	472900
S	284m E	Jute Sheds	1921	489490
X	287m E	Jute Sheds	1921	478107
AA	287m NW	Unspecified Works	1938 - 1955	479259
AA	290m NW	Unspecified Commercial/Industrial	1901	469145
AA	295m NW	Unspecified Works	1973	480683
AB	297m SW	Police Station	1982 - 1994	481582
AA	297m NW	Unspecified Works	1982 - 1994	476243
S	299m E	Jute Sheds	1923 - 1938	489578
X	300m E	Jute Sheds	1938	488356
X	300m E	Jute Sheds	1901	489906
AB	305m SW	Unspecified Tank	1923	462199
Z	311m W	Gasometer	1923	483078
Z	312m W	Unspecified Tank	1938 - 1955	472932
Z	312m W	Gasometer	1973	488987
Z	312m W	Gasometer	1901	478693
AC	314m NW	Unspecified Foundry	1862	463745

ID	Location	Land use	Dates present	Group ID
AA	315m NW	Unspecified Factory	1862	462599
P	319m W	Gasometers	1862	467512
Z	323m W	Unspecified Tank	1921	476220
Z	323m W	Gasometer	1921	488483
AD	335m NE	Unspecified Ground Workings	1955	474529
P	336m W	Gasometers	1923	467510
AA	338m NW	Unspecified Works	1921 - 1923	478453
AE	338m SW	Railway Sidings	1901 - 1938	479003
AE	338m SW	Docks	1938	488885
P	341m W	Gasometer	1901 - 1921	474107
P	341m W	Unspecified Tank	1938	475096
AE	342m SW	Docks	1901	490146
AF	342m SW	Unspecified Wharf	1938	474614
AF	342m SW	Unspecified Wharf	1901	480880
P	345m W	Unspecified Tank	1955	473699
P	345m W	Unspecified Tank	1973	482071
AD	346m NE	Unspecified Pit	1921	471477
AG	348m SW	Unspecified Wharf	1921	487338
AC	358m NW	Unspecified Works	1901	488256
AC	358m NW	Engine Works	1923 - 1938	488726
P	360m W	Unspecified Tank	1923	489729
P	362m W	Unspecified Tank	1938	475595
P	362m W	Gasometer	1901 - 1921	488637
P	363m W	Gasometer	1862	462900
P	365m W	Unspecified Tank	1955	477344
AH	365m W	Unspecified Works	1938	482442
AI	366m W	Unspecified Works	1938	477180
AI	367m W	Unspecified Works	1921 - 1923	474517

ID	Location	Land use	Dates present	Group ID
AC	367m NW	Unspecified Works	1921	488205
P	368m W	Unspecified Tank	1938	462184
AJ	368m E	Unspecified Wharf	1982	484480
AH	368m W	Unspecified Works	1923	481673
AC	370m NW	Unspecified Works	1973	474507
AC	371m NW	Unspecified Works	1982 - 1994	480004
S	373m E	Jute Sheds	1921	480010
AI	376m W	Unspecified Commercial/Industrial	1994	469147
AI	376m W	Unspecified Works	1982	474912
AH	378m W	Unspecified Works	1973	480786
AK	378m W	Mineral Depot	1921	473914
AH	378m W	Unspecified Works	1921	488073
AI	379m W	Unspecified Works	1973	481726
AI	379m W	Unspecified Ground Workings	1862	471016
AL	379m E	Unspecified Pit	1921	471478
P	380m W	Gasometer	1921	462895
AF	382m SW	Unspecified Tank	1982 - 1994	473359
AF	383m SW	Unspecified Tank	1923	462196
AL	383m E	Unspecified Heap	1982 - 1994	481260
AL	384m E	Unspecified Heap	1955	478886
AL	384m E	Unspecified Heap	1973	490236
AE	386m SW	Unspecified Depot	1955	463387
S	388m E	Jute Sheds	1938	484522
S	388m E	Jute Sheds	1901	489907
P	389m W	Gasometer	1921	484968
P	389m W	Unspecified Tank	1938	462185
P	389m W	Gasometer	1862	473546
P	389m W	Gasometer	1901	486355

ID	Location	Land use	Dates present	Group ID
Y	390m E	Power Station	1982	464023
AJ	392m E	Unspecified Wharf	1955	475059
AL	392m E	Unspecified Ground Workings	1923	476871
AG	393m SW	Unspecified Wharf	1923 - 1955	474525
AD	394m NE	Unspecified Ground Workings	1923	488666
AL	396m E	Unspecified Heap	1938	486030
AM	397m SW	Dock	1921	481980
AM	399m SW	Docks	1862	480795
AG	410m SW	Unspecified Wharf	1921	482713
Y	413m E	Electricity Works	1921 - 1923	475696
AM	414m SW	Dock	1955	481885
P	416m W	Gasometer	1862	462901
AK	417m W	Mineral Depot	1923	476263
AK	418m W	Unspecified Commercial/Industrial	1938	472893
AM	419m SW	Unspecified Works	1973	462805
AK	420m W	Unspecified Depot	1973 - 1982	476580
AK	420m W	Unspecified Depot	1955	483358
AK	426m W	Unspecified Depot	1994	481239
16	427m SW	Railway Sidings	1862 - 1994	479002
AO	427m E	Disused Cattle Depot	1921	475313
Y	458m E	Unspecified Commercial/Industrial	1938	481958
AO	468m E	Unspecified Commercial/Industrial	1938	486108
AO	468m E	Disused Cattle Depot	1901	487570
K	469m SW	Unspecified Tank	1955	474591
K	469m SW	Unspecified Tank	1973 - 1982	481572
17	481m NW	Unspecified Factory	1862	462601
AE	481m SW	Sawmills	1938	485670
AR	482m NW	Unspecified Works	1938	486750

ID	Location	Land use	Dates present	Group ID
AE	482m SW	Sawmills	1923	475642
AR	483m NW	Unspecified Works	1923	474423
AO	484m E	Disused Cattle Depot	1923	473652
AR	489m NW	Unspecified Works	1921	479133
AR	490m NW	Unspecified Works	1973	486055
AR	491m NW	Unspecified Works	1982 - 1994	484486
AE	492m SW	Sawmills	1921	473852

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**179**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13 >**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Tanks**	**1994**	**63096**
C	**On site**	**Tanks**	**1994**	**63098**
C	**On site**	**Unspecified Tank**	**1974**	**63229**
C	**On site**	**Tanks**	**1981 - 1994**	**64848**
C	**On site**	**Unspecified Tank**	**1974 - 1994**	**64366**
C	**On site**	**Unspecified Tank**	**1981 - 1994**	**65234**
F	**On site**	**Unspecified Tank**	**1994**	**62170**
G	3m E	Tanks	1974 - 1994	64422
B	5m NE	Unspecified Tank	1974 - 1994	64456
H	35m W	Unspecified Tank	1974 - 1981	65010
E	64m SW	Unspecified Tank	1981 - 1994	64973

ID	Location	Land use	Dates present	Group ID
E	69m S	Unspecified Tank	1952	62164
E	69m S	Tanks	1952	63291
E	69m S	Tanks	1938 - 1952	64687
E	71m S	Tanks	1952	64892
E	78m SE	Unspecified Tank	1952 - 1981	64769
E	79m S	Tanks	1952 - 1974	63401
E	79m SE	Unspecified Tank	1952 - 1974	64768
E	81m S	Unspecified Tank	1952	64575
E	82m S	Tanks	1981	63627
E	83m S	Unspecified Tank	1981	64961
E	84m S	Unspecified Tank	1952 - 1974	63185
E	84m SW	Tanks	1974 - 1981	63719
E	84m S	Unspecified Tank	1952	63497
E	84m S	Unspecified Tank	1994	64516
E	85m SW	Tanks	1994	64324
E	86m SE	Tanks	1981	64011
E	87m SE	Tanks	1974 - 1994	65013
E	88m S	Tanks	1952	64445
D	89m E	Unspecified Tank	1972	63239
D	90m E	Unspecified Tank	1990	64114
D	90m E	Unspecified Tank	1994	64563
E	92m S	Tanks	1981	63734
E	92m S	Tanks	1952	64038
E	94m S	Tanks	1938	64182
E	96m SE	Tanks	1981	63502
E	97m SE	Tanks	1974 - 1994	63673
E	98m S	Tanks	1974 - 1981	64307
E	100m S	Tanks	1994	64552

ID	Location	Land use	Dates present	Group ID
H	100m W	Unspecified Tank	1952	64497
H	101m W	Unspecified Tank	1952	64404
E	105m S	Tanks	1952	63372
E	109m S	Unspecified Tank	1981	62163
E	109m S	Tanks	1952 - 1974	63591
H	109m W	Tanks	1952	65126
E	110m S	Tanks	1974 - 1981	63342
E	111m S	Tanks	1994	63101
E	111m S	Unspecified Tank	1981	63647
E	111m S	Unspecified Tank	1952	63681
E	112m S	Unspecified Tank	1952 - 1974	63949
E	112m S	Unspecified Tank	1994	63850
E	113m S	Tanks	1981	64841
E	113m S	Tanks	1952 - 1974	63193
E	115m SE	Tanks	1952 - 1994	64725
E	115m SE	Tanks	1952	65143
E	121m SE	Tanks	1981	63540
D	123m E	Unspecified Tank	1990	65174
D	123m E	Unspecified Tank	1972	63314
E	123m S	Unspecified Tank	1994	62162
E	123m S	Tanks	1952 - 1981	63974
H	123m W	Unspecified Tank	1970 - 1990	64359
D	124m E	Unspecified Tank	1994	64556
E	124m S	Tanks	1981	63753
E	124m S	Tanks	1981	64513
E	125m S	Tanks	1952 - 1974	64981
E	126m SE	Tanks	1938	63543
E	130m S	Tanks	1952 - 1994	64757

ID	Location	Land use	Dates present	Group ID
E	135m S	Tanks	1994	63100
M	138m SW	Unspecified Tank	1938	62166
E	139m S	Unspecified Tank	1981 - 1994	65101
E	140m S	Unspecified Tank	1981	62165
E	140m S	Unspecified Tank	1974	65055
E	144m S	Unspecified Tank	1974 - 1981	65071
E	145m S	Tanks	1994	63102
P	148m SW	Gas Works	1903	65132
P	150m SW	Gas Works	1952	64226
P	151m SW	Gas Works	1980 - 1990	63782
P	151m SW	Gas Works	1952 - 1970	65245
E	153m S	Unspecified Tank	1981	65096
E	154m S	Unspecified Tank	1974	65024
D	156m E	Unspecified Tank	1990	63739
D	157m E	Unspecified Tank	1972	64818
D	157m E	Unspecified Tank	1994	64481
P	164m W	Gasholder	1980 - 1990	64802
P	165m W	Gasholder	1970	63745
L	186m SE	Unspecified Tank	1994	62161
P	187m W	Tanks	1970 - 1980	63387
7	188m W	Unspecified Tank	1970	62146
D	191m E	Unspecified Tank	1990	63481
D	192m E	Unspecified Tank	1994	64106
D	192m E	Unspecified Tank	1972	63346
10	202m SE	Unspecified Tank	1974 - 1994	63530
L	213m SE	Unspecified Tank	1990 - 1994	64505
P	220m W	Unspecified Tank	1903	62167
P	223m W	Gasometer	1903 - 1922	64409

ID	Location	Land use	Dates present	Group ID
P	226m W	Unspecified Tank	1952	64658
P	226m W	Unspecified Tank	1952	64433
P	226m W	Unspecified Tank	1938	65027
P	229m W	Unspecified Tank	1938	62168
P	229m W	Gasometer	1903 - 1952	64950
P	231m W	Gas Works	1860	64325
P	232m W	Unspecified Tank	1922	62169
P	233m W	Gasometer	1952	65006
P	241m W	Gasometers	1860	62660
P	241m W	Unspecified Tank	1952	63662
P	242m W	Unspecified Tank	1952	63871
P	243m W	Unspecified Tank	1938	62171
P	247m W	Unspecified Tank	1970 - 1980	63222
P	248m W	Unspecified Tank	1970 - 1980	65136
P	253m W	Unspecified Tank	1922 - 1952	64318
P	253m W	Unspecified Tank	1980	65054
P	255m W	Unspecified Tank	1970	63848
P	255m W	Unspecified Tank	1922	64808
P	259m W	Unspecified Tank	1938	64816
P	261m W	Gas Works	1860	63516
P	265m W	Tanks	1922	63097
P	266m W	Unspecified Tank	1970 - 1980	64885
P	267m W	Tanks	1938	64419
P	268m W	Tanks	1922	64476
P	268m W	Tanks	1952	63698
P	269m W	Tanks	1952	65243
P	269m W	Tanks	1952	62937
P	270m W	Tanks	1952	63820

ID	Location	Land use	Dates present	Group ID
P	271m W	Tanks	1938	63680
P	272m W	Tanks	1952	63878
P	273m W	Tanks	1952	63247
P	278m W	Tanks	1952	63243
P	278m W	Tanks	1952	64996
P	282m W	Tanks	1938	62938
Q	295m E	Unspecified Tank	1994	62160
P	304m W	Tanks	1938	62939
P	309m W	Gasometers	1860	62659
Z	313m W	Unspecified Tank	1938	62172
Z	313m W	Gasometer	1903 - 1922	64688
Z	313m W	Gasholder	1970 - 1980	64966
Z	314m W	Gasometer	1952	65068
S	314m E	Unspecified Tank	1903	62148
Z	315m W	Gasometer	1952	63857
P	320m W	Tanks	1903	62940
AD	338m NE	Unspecified Tank	1953 - 1987	64620
P	341m W	Unspecified Tank	1980	64463
P	342m W	Gasometers	1903 - 1922	63496
P	343m W	Unspecified Tank	1952 - 1970	63241
P	343m W	Tanks	1970 - 1980	64744
P	343m W	Gasholder	1970 - 1980	64593
P	345m W	Gasometer	1952	64060
P	346m W	Unspecified Tank	1938	62176
P	349m W	Unspecified Tank	1970 - 1980	64058
P	352m W	Gasometer	1860	62709
Z	358m W	Unspecified Tank	1903	62173
P	363m W	Gasometer	1903 - 1922	65155

ID	Location	Land use	Dates present	Group ID
P	363m W	Unspecified Tank	1952	63722
P	363m W	Unspecified Tank	1952	63449
P	365m W	Unspecified Tank	1952	63888
P	366m W	Tanks	1938	64199
P	368m W	Tanks	1938 - 1952	64088
P	368m W	Tanks	1952	64013
AA	372m NW	Unspecified Tank	1860 - 1903	65253
P	374m W	Tanks	1952	64179
P	376m W	Gasometer	1860	62707
P	380m W	Unspecified Tank	1952	63797
P	382m W	Tanks	1952	64232
AF	382m SW	Unspecified Tank	1974	62179
P	384m W	Unspecified Tank	1938	62175
P	386m W	Tanks	1952	64917
AF	400m SW	Unspecified Tank	1974	62180
P	405m W	Gasometer	1860	62710
P	416m W	Unspecified Tank	1860	62174
P	423m W	Tanks	1952	64555
P	425m W	Tanks	1938	63197
P	435m W	Unspecified Tank	1938	64777
P	436m W	Unspecified Tank	1952	64524
Y	470m E	Tanks	1952	63086
K	473m SW	Unspecified Tank	1938 - 1952	64819
K	473m SW	Unspecified Tank	1952 - 1970	64974
K	473m SW	Unspecified Tank	1952	64305
AQ	481m NE	Unspecified Tank	1987	64004
AQ	482m NE	Unspecified Tank	1952	63624
Y	495m E	Unspecified Tank	1952	62149

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	40

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13 >**

ID	Location	Land use	Dates present	Group ID
2	**On site**	**Electricity Substation**	**1994**	**33603**
F	**On site**	**Electricity Substation**	**1974 - 1994**	**35752**
H	82m W	Electricity Substation	1952 - 1990	35030
E	97m SE	Electricity Substation	1994	33604
P	146m SW	Corporation Gas Works	1922	33741
P	148m SW	Gas Works	1903	34307
P	150m SW	Gas Works	1952	34188
P	151m SW	Gas Works	1980 - 1990	36265
P	151m SW	Gas Works	1952 - 1970	36015
P	164m W	Gasholder	1980 - 1990	35172
P	165m W	Gasholder	1970	34450
9	195m NW	Electricity Substation	1972 - 1994	34165
P	223m W	Gasometer	1903 - 1922	34688
P	229m W	Gasometer	1903 - 1952	35430
P	231m W	Gas Works	1860	35660
P	233m W	Gasometer	1952	35689
P	241m W	Gasometers	1860	33763
14	258m NE	Electricity Substation	1987	33607
P	261m W	Gas Works	1860	34086
S	281m E	Electricity Substation	1990 - 1994	34747
S	281m E	Electricity Power Station	1952 - 1972	35821

ID	Location	Land use	Dates present	Group ID
P	309m W	Gasometers	1860	33762
Z	313m W	Gasometer	1903 - 1922	35377
S	313m E	Electricity Transformer Station	1938	33739
Z	313m W	Gasholder	1970 - 1980	34847
Z	314m W	Gasometer	1952	34096
Z	315m W	Gasometer	1952	34923
P	342m W	Gasometers	1903 - 1922	35171
P	343m W	Gasholder	1970 - 1980	34079
P	345m W	Gasometer	1952	34671
P	352m W	Gasometer	1860	34004
P	363m W	Gasometer	1903 - 1922	34642
15	366m W	Electricity Substation	1980	33606
P	376m W	Gasometer	1860	34002
P	405m W	Gasometer	1860	34005
AN	414m NE	Electricity Substation	1952 - 1987	34147
AN	416m NE	Electricity Substation	1952	35973
K	466m SW	Electricity Substation	1990	33605
Y	477m E	Corporation Electricity Works	1922	34066
K	479m W	Electricity Substation	1980 - 1990	35581

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	**1**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13 >**

ID	Location	Land use	Dates present	Group ID
H	81m SW	Filling Station	1990	1057

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	6

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13 >**

ID	Location	Land use	Dates present	Group ID
U	196m N	Garage	1972	11245
U	197m N	Garage	1988	11210
12	248m NW	Garage	1952 - 1972	11738
AP	468m SW	Garage	1980 - 1990	11511
AP	470m SW	Garage	1970	11434
18	496m W	Garage	1990	11043

This data is sourced from Ordnance Survey / Groundsure.

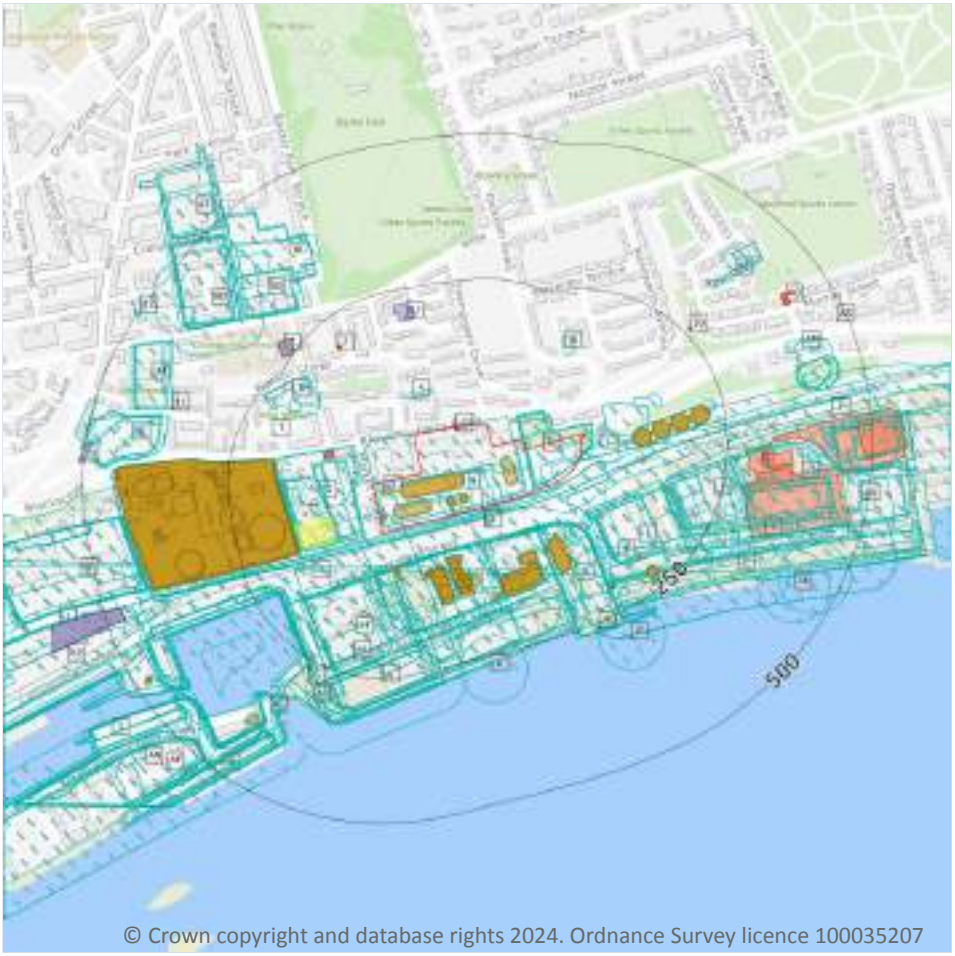
1.6 Historical military land

Records within 500m	0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical petrol stations

Historical garages

2.1 Historical industrial land uses

Records within 500m	332

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 33 >**

ID	Location	Land Use	Date	Group ID
1	**On site**	**Docks**	**1921**	**489795**
A	**On site**	**Unspecified Works**	**1938**	**473964**
A	**On site**	**Slaughter Houses**	**1938**	**476125**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Works**	**1921**	**484308**
A	**On site**	**Flour Mills**	**1921**	**473719**
A	**On site**	**Unspecified Commercial/Industrial**	**1994**	**488367**
A	**On site**	**Unspecified Tanks**	**1994**	**476213**
A	**On site**	**Unspecified Tanks**	**1994**	**489862**
A	**On site**	**Unspecified Tanks**	**1994**	**476070**
A	**On site**	**Unspecified Tanks**	**1994**	**466542**
A	**On site**	**Unspecified Commercial/Industrial**	**1982**	**488367**
A	**On site**	**Unspecified Tanks**	**1982**	**476213**
A	**On site**	**Unspecified Tanks**	**1982**	**489862**
A	**On site**	**Unspecified Tanks**	**1982**	**476070**
A	**On site**	**Slaughter Houses**	**1923**	**476125**
A	**On site**	**Flour Mills**	**1923**	**473719**
A	**On site**	**Unspecified Works**	**1923**	**489515**
B	**On site**	**Unspecified Yard**	**1938**	**478269**
B	**On site**	**Unspecified Yard**	**1921**	**488443**
B	**On site**	**Unspecified Works**	**1994**	**487294**
B	**On site**	**Unspecified Works**	**1973**	**473460**
B	**On site**	**Unspecified Works**	**1982**	**487294**
C	**On site**	**Railway Sidings**	**1921**	**479566**
D	**On site**	**Unspecified Tank**	**1994**	**482617**
D	**On site**	**Unspecified Tank**	**1982**	**482617**
E	**On site**	**Railway Sidings**	**1923**	**480965**
E	2m SE	Railway Sidings	1973	486454
F	2m E	Refuse Heap	1938	472813
3	4m SW	Railway Sidings	1982	490022
B	6m NE	Unspecified Yard	1923	478269
E	8m E	Railway Sidings	1955	473216

ID	Location	Land Use	Date	Group ID
E	8m E	Railway Sidings	1955	484502
E	12m S	Railway Sidings	1921	477029
E	15m SW	Railway Sidings	1938	477231
E	15m SW	Railway Sidings	1901	476965
G	17m W	Unspecified Commercial/Industrial	1973	478373
G	25m W	Unspecified Factory	1862	483914
G	25m W	Unspecified Commercial/Industrial	1982	478373
4	28m S	Railway Building	1901	464733
G	32m SW	Unspecified Factory	1923	472970
G	34m SW	Unspecified Factory	1938	472970
C	46m E	Unspecified Heap	1923	482988
C	46m E	Unspecified Heap	1923	482988
H	46m SW	Dock	1923	480662
H	46m SW	Dock	1923	480662
G	46m SW	Unspecified Factory	1921	481575
E	54m SE	Refinery	1973	488741
E	54m S	Refinery	1994	489102
E	54m S	Refinery	1982	489102
E	55m SE	Unspecified Works	1955	462807
E	55m S	Unspecified Depot	1955	463388
E	56m SW	Shipbuilding Yard	1921	483260
I	57m SE	Unspecified Commercial/Industrial	1973	489939
J	58m SW	Railway Sidings	1938	481943
E	58m SW	Ship Building Yard	1938	473900
E	58m SW	Police Station	1973	470602
I	58m SE	Unspecified Commercial/Industrial	1994	480580
I	58m SE	Unspecified Depot	1982	463397
E	58m S	Shipbuilding Yard	1923	483260

ID	Location	Land Use	Date	Group ID
K	59m SE	Unspecified Works	1955	490468
E	59m S	Sawmills	1901	473749
E	59m S	Unspecified Commercial/Industrial	1938	484584
5	61m NW	Unspecified Ground Workings	1901	471017
E	62m SE	Ship Building Yard	1901	486848
K	62m E	Ice Factory	1921	473819
H	62m SW	Unspecified Commercial/Industrial	1982	483792
H	65m SW	Shipbuilding Yard	1921	488699
J	65m SW	Railway Sidings	1921	489412
E	67m S	Unspecified Tanks	1973	489331
E	67m S	Unspecified Tanks	1955	481318
L	67m E	Unspecified Commercial/Industrial	1982	475218
E	68m SW	Sawmills	1921	483834
K	69m E	Unspecified Works	1973	474000
E	70m S	Unspecified Tanks	1938	478630
K	74m E	Unspecified Commercial/Industrial	1994	489843
K	75m E	Unspecified Works	1921	477563
G	76m SW	Unspecified Works	1923	480389
H	77m SW	Ship Building Yard	1901	485139
E	80m SW	Railway Sidings	1921	474618
G	80m SW	Unspecified Works	1938	480389
E	81m S	Unspecified Tanks	1994	476963
E	81m S	Unspecified Tanks	1982	476963
H	83m SW	Sawmills	1921	477280
E	83m SE	Unspecified Tanks	1973	475166
E	84m S	Unspecified Tanks	1973	490011
E	84m S	Unspecified Tanks	1955	476049
K	84m E	Unspecified Commercial/Industrial	1901	479688

ID	Location	Land Use	Date	Group ID
E	84m S	Unspecified Tanks	1938	473754
E	85m SE	Unspecified Tanks	1994	480284
E	85m SE	Unspecified Tanks	1982	480284
K	85m E	Preserve and Confectionery Works	1923	475632
C	86m E	Unspecified Tanks	1994	476962
C	86m E	Unspecified Tanks	1982	476962
H	86m SW	Sawmills	1938	487405
H	87m SW	Unspecified Mills	1973	466360
K	87m E	Preserve and Confectionery Works	1938	475632
M	89m SW	Unspecified Commercial/Industrial	1955	477276
C	90m E	Unspecified Tanks	1973	489616
E	91m S	Railway Sidings	1921	480576
E	94m SE	Unspecified Tanks	1994	477552
E	94m SE	Unspecified Tanks	1982	477552
G	97m SW	Unspecified Works	1921	477303
E	97m S	Unspecified Tanks	1994	485232
E	97m S	Unspecified Tanks	1982	485232
E	100m S	Ship Building Yard	1921	484479
C	103m E	Unspecified Pit	1862	471474
E	110m S	Railway Sidings	1921	482917
E	112m SE	Unspecified Tanks	1973	480531
E	112m SE	Unspecified Tanks	1955	478351
E	125m SE	Unspecified Tanks	1938	484514
K	128m SE	Unspecified Wharf	1921	474775
6	138m NE	Sand Pit	1862	468609
N	146m SW	Gas Works	1973	475210
N	146m SW	Unspecified Commercial/Industrial	1955	476037
N	146m SW	Railway Sidings	1955	476171

ID	Location	Land Use	Date	Group ID
H	147m SW	Sawmills	1923	482793
N	147m SW	Unspecified Commercial/Industrial	1938	476037
N	147m SW	Gas Works	1901	477663
J	147m SW	Docks	1938	481860
J	147m SW	Docks	1901	490266
O	149m E	Unspecified Works	1921	481547
P	150m SE	Unspecified Wharf	1938	475296
P	150m SE	Unspecified Wharf	1901	478294
N	151m SW	Gas Works	1923	485435
O	152m E	Unspecified Works	1982	486615
Q	155m E	Unspecified Works	1973	483146
N	157m SW	Gas Works	1994	483096
N	157m SW	Gas Works	1982	483096
R	158m W	Biscuit Factory	1923	488441
Q	159m E	Unspecified Commercial/Industrial	1994	488802
R	162m NW	Biscuit Factory	1938	486594
O	163m E	Cold Storage Works	1901	466412
N	163m W	Gasometer	1973	475114
M	163m SE	Unspecified Wharf	1938	477770
M	163m SE	Unspecified Wharf	1938	477770
N	165m SW	Gas Works	1921	475231
N	165m W	Gasometer	1994	481225
N	165m W	Gasometer	1982	481225
O	166m E	Ice Factory	1923	490166
O	169m E	Ice Factory	1938	473375
M	176m S	Unspecified Commercial/Industrial	1973	490073
M	178m S	Unspecified Commercial/Industrial	1994	485343
M	178m S	Unspecified Commercial/Industrial	1982	485343

ID	Location	Land Use	Date	Group ID
S	180m SW	Dock	1921	487001
M	181m SE	Unspecified Commercial/Industrial	1938	483150
R	186m NW	Biscuit Factory	1921	488441
O	186m E	Unspecified Works	1923	481547
K	191m SE	Unspecified Wharf	1938	483122
K	191m SE	Unspecified Wharf	1938	483122
P	194m SE	Unspecified Wharf	1921	484809
P	203m SE	Unspecified Wharf	1923	484809
P	203m SE	Unspecified Wharf	1923	484809
S	206m SW	Dock	1994	477119
S	206m SW	Dock	1982	477119
S	207m SW	Dock	1973	477119
S	207m SW	Dock	1955	481488
V	208m S	Unspecified Wharf	1923	482590
V	208m S	Unspecified Wharf	1923	482590
K	211m SE	Unspecified Tank	1994	481446
K	211m SE	Unspecified Tank	1982	481446
8	217m S	Unspecified Wharf	1973	490371
N	218m W	Gasometers	1923	485702
L	221m E	Jute Sheds	1921	479158
N	222m W	Unspecified Tank	1938	462201
N	222m W	Gasometer	1901	476202
N	224m W	Unspecified Tanks	1955	466501
N	228m W	Unspecified Tank	1938	462200
N	228m W	Gasometer	1901	473348
N	233m W	Gasometer	1921	476202
N	238m W	Gasometer	1921	473348
W	238m SE	Unspecified Wharf	1982	474890

ID	Location	Land Use	Date	Group ID
N	240m W	Gas Works	1862	478475
Q	243m E	Oil Works	1921	483271
X	245m E	Jute Sheds	1923	486214
Y	246m E	Railway Sidings	1982	482272
O	246m E	Unspecified Works	1938	485884
N	246m W	Gasometer	1973	478099
L	248m E	Jute Sheds	1938	490666
N	251m W	Unspecified Tank	1938	484834
N	252m W	Unspecified Tank	1923	484314
N	252m W	Gasometers	1862	481907
N	252m W	Unspecified Tank	1955	484834
9	252m SE	Unspecified Tank	1982	462198
N	252m W	Gasometer	1973	462899
V	253m S	Unspecified Wharf	1921	475089
Q	258m E	Oil Works	1938	477693
Q	258m E	Oil Works	1901	483271
W	258m SE	Unspecified Wharf	1973	484670
N	262m W	Gasometer	1921	485889
Q	262m E	Oil Works	1923	488180
L	267m E	Jute Sheds	1901	478377
Q	267m E	Unspecified Commercial/Industrial	1982	476766
N	275m W	Gas Works	1862	478475
AA	276m W	Unspecified Commercial/Industrial	1921	472900
Q	284m E	Jute Sheds	1921	489490
X	287m E	Jute Sheds	1921	478107
AB	287m NW	Unspecified Works	1938	479259
AB	290m NW	Unspecified Commercial/Industrial	1901	469145
AB	295m NW	Unspecified Works	1973	480683

ID	Location	Land Use	Date	Group ID
AB	295m NW	Unspecified Works	1955	479259
AC	297m SW	Police Station	1994	481582
AC	297m SW	Police Station	1982	481582
AB	297m NW	Unspecified Works	1994	476243
AB	297m NW	Unspecified Works	1982	476243
Q	299m E	Jute Sheds	1923	489578
X	300m E	Jute Sheds	1938	488356
X	300m E	Jute Sheds	1901	489906
Q	303m E	Jute Sheds	1938	489578
AC	305m SW	Unspecified Tank	1923	462199
AA	311m W	Gasometer	1923	483078
AA	312m W	Gasometer	1973	488987
AA	312m W	Unspecified Tank	1955	472932
AA	312m W	Unspecified Tank	1938	472932
AA	312m W	Gasometer	1901	478693
AD	314m NW	Unspecified Foundry	1862	463745
AB	315m NW	Unspecified Factory	1862	462599
N	319m W	Gasometers	1862	467512
AA	323m W	Unspecified Tank	1921	476220
AA	323m W	Gasometer	1921	488483
AE	335m NE	Unspecified Ground Workings	1955	474529
N	336m W	Gasometers	1923	467510
AB	338m NW	Unspecified Works	1923	478453
AF	338m SW	Docks	1938	488885
AF	338m SW	Railway Sidings	1938	479003
AF	339m SW	Dock	1923	480662
AF	339m SW	Dock	1923	480662
N	341m W	Unspecified Tank	1938	475096

ID	Location	Land Use	Date	Group ID
N	341m W	Gasometer	1901	474107
AF	342m SW	Docks	1901	490146
AF	342m SW	Railway Sidings	1901	479003
AG	342m SW	Unspecified Wharf	1938	474614
AG	342m SW	Unspecified Wharf	1901	480880
AB	343m NW	Unspecified Works	1921	478453
N	345m W	Unspecified Tank	1973	482071
N	345m W	Unspecified Tank	1955	473699
AE	346m NE	Unspecified Pit	1921	471477
AH	348m SW	Unspecified Wharf	1921	487338
N	350m W	Gasometer	1921	474107
AD	358m NW	Engine Works	1938	488726
AD	358m NW	Unspecified Works	1901	488256
AD	358m NW	Engine Works	1923	488726
N	360m W	Unspecified Tank	1923	489729
N	362m W	Unspecified Tank	1938	475595
N	362m W	Gasometer	1901	488637
N	363m W	Gasometer	1862	462900
N	365m W	Unspecified Tank	1955	477344
AI	365m W	Unspecified Works	1938	482442
AJ	366m W	Unspecified Works	1938	477180
AJ	367m W	Unspecified Works	1923	474517
AD	367m NW	Unspecified Works	1921	488205
N	368m W	Unspecified Tank	1938	462184
AK	368m E	Unspecified Wharf	1982	484480
AI	368m W	Unspecified Works	1923	481673
AD	370m NW	Unspecified Works	1973	474507
AD	371m NW	Unspecified Works	1994	480004

ID	Location	Land Use	Date	Group ID
AD	371m NW	Unspecified Works	1982	480004
N	372m W	Gasometer	1921	488637
Q	373m E	Jute Sheds	1921	480010
AJ	376m W	Unspecified Commercial/Industrial	1994	469147
AJ	376m W	Unspecified Works	1982	474912
AI	378m W	Unspecified Works	1973	480786
AL	378m W	Mineral Depot	1921	473914
AI	378m W	Unspecified Works	1921	488073
AJ	379m W	Unspecified Works	1921	474517
AJ	379m W	Unspecified Works	1973	481726
AJ	379m W	Unspecified Ground Workings	1862	471016
AM	379m E	Unspecified Pit	1921	471478
N	380m W	Gasometer	1921	462895
AG	382m SW	Unspecified Tank	1994	473359
AG	382m SW	Unspecified Tank	1982	473359
AG	383m SW	Unspecified Tank	1923	462196
AM	383m E	Unspecified Heap	1994	481260
AM	383m E	Unspecified Heap	1982	481260
AM	384m E	Unspecified Heap	1973	490236
AM	384m E	Unspecified Heap	1955	478886
AF	386m SW	Unspecified Depot	1955	463387
Q	388m E	Jute Sheds	1938	484522
Q	388m E	Jute Sheds	1901	489907
N	389m W	Gasometer	1921	484968
N	389m W	Unspecified Tank	1938	462185
N	389m W	Gasometer	1901	486355
N	389m W	Gasometer	1862	473546
Y	390m E	Power Station	1982	464023

ID	Location	Land Use	Date	Group ID
AK	392m E	Unspecified Wharf	1955	475059
AF	392m SW	Railway Sidings	1923	479003
AM	392m E	Unspecified Ground Workings	1923	476871
AM	392m E	Unspecified Ground Workings	1923	476871
AH	393m SW	Unspecified Wharf	1938	474525
AH	393m SW	Unspecified Wharf	1938	474525
AE	394m NE	Unspecified Ground Workings	1923	488666
AE	394m NE	Unspecified Ground Workings	1923	488666
AH	395m SW	Unspecified Wharf	1923	474525
AH	395m SW	Unspecified Wharf	1923	474525
AH	396m SW	Unspecified Wharf	1955	474525
AM	396m E	Unspecified Heap	1938	486030
AN	397m SW	Dock	1921	481980
AN	399m SW	Docks	1862	480795
AH	410m SW	Unspecified Wharf	1921	482713
Y	413m E	Electricity Works	1923	475696
AN	414m SW	Dock	1955	481885
N	416m W	Gasometer	1862	462901
AL	417m W	Mineral Depot	1923	476263
AL	418m W	Unspecified Commercial/Industrial	1938	472893
AN	419m SW	Unspecified Works	1973	462805
AL	420m W	Unspecified Depot	1973	476580
AL	420m W	Unspecified Depot	1955	483358
AL	426m W	Unspecified Depot	1994	481239
AL	426m W	Unspecified Depot	1982	476580
AP	427m SW	Railway Sidings	1994	479002
AQ	427m E	Disused Cattle Depot	1921	475313
AP	445m SW	Dock	1923	480662

ID	Location	Land Use	Date	Group ID
AP	445m SW	Dock	1923	480662
AN	447m SW	Dock	1994	477119
AN	447m SW	Dock	1982	477119
Y	458m E	Unspecified Commercial/Industrial	1938	481958
Y	462m E	Electricity Works	1921	475696
AQ	468m E	Unspecified Commercial/Industrial	1938	486108
AQ	468m E	Disused Cattle Depot	1901	487570
J	469m SW	Unspecified Tank	1973	481572
J	469m SW	Unspecified Tank	1955	474591
J	471m SW	Unspecified Tank	1982	481572
12	481m NW	Unspecified Factory	1862	462601
AF	481m SW	Sawmills	1938	485670
AT	482m NW	Unspecified Works	1938	486750
AF	482m SW	Sawmills	1923	475642
AT	483m NW	Unspecified Works	1923	474423
AQ	484m E	Disused Cattle Depot	1923	473652
AT	489m NW	Unspecified Works	1921	479133
AT	490m NW	Unspecified Works	1973	486055
AT	491m NW	Unspecified Works	1994	484486
AT	491m NW	Unspecified Works	1982	484486
AF	492m SW	Sawmills	1921	473852

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**255**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 33 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Tank**	**1974**	**63229**
A	**On site**	**Unspecified Tank**	**1974**	**64366**
A	**On site**	**Unspecified Tank**	**1981**	**64366**
A	**On site**	**Unspecified Tank**	**1981**	**65234**
A	**On site**	**Tanks**	**1981**	**64848**
A	**On site**	**Tanks**	**1994**	**64848**
A	**On site**	**Tanks**	**1994**	**63098**
A	**On site**	**Unspecified Tank**	**1994**	**65234**
A	**On site**	**Unspecified Tank**	**1994**	**64366**
A	**On site**	**Tanks**	**1994**	**63096**
D	**On site**	**Unspecified Tank**	**1994**	**62170**
F	3m E	Tanks	1981	64422
F	3m E	Tanks	1994	64422
F	4m E	Tanks	1974	64422
B	5m NE	Unspecified Tank	1981	64456
B	6m NE	Unspecified Tank	1994	64456
B	6m NE	Unspecified Tank	1974	64456
G	35m W	Unspecified Tank	1981	65010
G	36m W	Unspecified Tank	1974	65010
E	64m SW	Unspecified Tank	1981	64973
E	65m SW	Unspecified Tank	1994	64973
E	69m S	Unspecified Tank	1952	62164
E	69m S	Tanks	1952	63291
E	69m S	Tanks	1952	64687
E	71m S	Tanks	1952	64892
E	77m S	Tanks	1938	64687
E	78m SE	Unspecified Tank	1981	64769
E	78m SE	Unspecified Tank	1952	64769

ID	Location	Land Use	Date	Group ID
E	79m S	Tanks	1974	63401
E	79m S	Tanks	1952	63401
E	79m S	Tanks	1952	63401
E	79m SE	Unspecified Tank	1974	64768
E	79m SE	Unspecified Tank	1952	64768
E	81m S	Unspecified Tank	1952	64575
E	81m S	Unspecified Tank	1952	64575
E	82m S	Tanks	1981	63627
E	83m S	Unspecified Tank	1981	64961
E	84m S	Unspecified Tank	1974	63185
E	84m S	Unspecified Tank	1952	63185
E	84m SW	Tanks	1981	63719
E	84m S	Unspecified Tank	1952	63497
E	84m S	Unspecified Tank	1994	64516
E	85m SW	Tanks	1974	63719
E	85m SW	Tanks	1994	64324
E	86m SE	Tanks	1981	64011
E	87m SE	Tanks	1974	65013
E	87m SE	Tanks	1994	65013
E	88m S	Tanks	1952	64445
C	89m E	Unspecified Tank	1972	63239
C	90m E	Unspecified Tank	1990	64114
C	90m E	Unspecified Tank	1994	64563
E	92m S	Tanks	1981	63734
E	92m S	Tanks	1952	64038
E	94m S	Tanks	1938	64182
E	96m SE	Tanks	1981	63502
E	97m SE	Tanks	1974	63673

ID	Location	Land Use	Date	Group ID
E	97m SE	Tanks	1994	63673
E	98m S	Tanks	1981	64307
E	99m S	Tanks	1974	64307
E	100m S	Tanks	1994	64552
G	100m W	Unspecified Tank	1952	64497
G	101m W	Unspecified Tank	1952	64404
E	105m S	Tanks	1952	63372
E	109m S	Unspecified Tank	1981	62163
E	109m S	Tanks	1974	63591
E	109m S	Tanks	1952	63591
G	109m W	Tanks	1952	65126
E	110m S	Tanks	1981	63342
G	110m W	Tanks	1952	65126
E	111m S	Tanks	1974	63342
E	111m S	Tanks	1994	63101
E	111m S	Unspecified Tank	1981	63647
E	111m S	Unspecified Tank	1952	63681
E	112m S	Unspecified Tank	1974	63949
E	112m S	Unspecified Tank	1952	63949
E	112m S	Unspecified Tank	1994	63850
E	113m S	Tanks	1981	64841
E	113m S	Tanks	1974	63193
E	113m S	Tanks	1952	63193
E	115m SE	Tanks	1974	64725
E	115m SE	Tanks	1952	64725
E	115m SE	Tanks	1952	65143
E	116m SE	Tanks	1994	64725
E	121m SE	Tanks	1981	63540

ID	Location	Land Use	Date	Group ID
C	123m E	Unspecified Tank	1990	65174
C	123m E	Unspecified Tank	1972	63314
E	123m S	Unspecified Tank	1994	62162
E	123m S	Tanks	1981	63974
G	123m W	Unspecified Tank	1980	64359
G	123m W	Unspecified Tank	1990	64359
C	124m E	Unspecified Tank	1994	64556
E	124m S	Tanks	1981	63753
G	124m W	Unspecified Tank	1970	64359
E	124m S	Tanks	1981	64513
E	124m S	Tanks	1974	63974
E	124m S	Tanks	1952	63974
E	125m S	Tanks	1974	64981
E	125m S	Tanks	1952	64981
E	126m SE	Tanks	1938	63543
E	130m S	Tanks	1981	64757
E	131m S	Tanks	1952	64757
E	131m S	Tanks	1974	64757
E	131m S	Tanks	1952	64757
E	132m S	Tanks	1994	64757
E	135m S	Tanks	1994	63100
H	138m SW	Unspecified Tank	1938	62166
E	139m S	Unspecified Tank	1981	65101
E	140m S	Unspecified Tank	1981	62165
E	140m S	Unspecified Tank	1974	65055
E	141m S	Unspecified Tank	1994	65101
E	144m S	Unspecified Tank	1981	65071
E	145m S	Unspecified Tank	1974	65071

ID	Location	Land Use	Date	Group ID
E	145m S	Tanks	1994	63102
N	148m SW	Gas Works	1903	65132
N	150m SW	Gas Works	1952	64226
N	151m SW	Gas Works	1980	63782
N	151m SW	Gas Works	1990	63782
N	151m SW	Gas Works	1952	65245
N	151m SW	Gas Works	1970	65245
E	153m S	Unspecified Tank	1981	65096
E	154m S	Unspecified Tank	1974	65024
C	156m E	Unspecified Tank	1990	63739
C	157m E	Unspecified Tank	1972	64818
C	157m E	Unspecified Tank	1994	64481
N	164m W	Gasholder	1980	64802
N	164m W	Gasholder	1990	64802
N	165m W	Gasholder	1970	63745
K	186m SE	Unspecified Tank	1994	62161
N	187m W	Tanks	1980	63387
7	188m W	Unspecified Tank	1970	62146
N	188m W	Tanks	1970	63387
C	191m E	Unspecified Tank	1990	63481
C	192m E	Unspecified Tank	1994	64106
C	192m E	Unspecified Tank	1972	63346
K	202m SE	Unspecified Tank	1981	63530
K	203m SE	Unspecified Tank	1974	63530
K	203m SE	Unspecified Tank	1994	63530
K	213m SE	Unspecified Tank	1994	64505
K	214m SE	Unspecified Tank	1990	64505
N	220m W	Unspecified Tank	1903	62167

ID	Location	Land Use	Date	Group ID
N	223m W	Gasometer	1903	64409
N	223m W	Gasometer	1922	64409
N	226m W	Unspecified Tank	1952	64658
N	226m W	Unspecified Tank	1952	64433
N	226m W	Unspecified Tank	1938	65027
N	229m W	Gasometer	1903	64950
N	229m W	Gasometer	1922	64950
N	229m W	Unspecified Tank	1938	62168
N	231m W	Gas Works	1860	64325
N	232m W	Unspecified Tank	1922	62169
N	233m W	Gasometer	1952	64950
N	233m W	Gasometer	1952	65006
N	241m W	Gasometers	1860	62660
N	241m W	Unspecified Tank	1952	63662
N	242m W	Unspecified Tank	1952	63871
N	243m W	Unspecified Tank	1938	62171
N	247m W	Unspecified Tank	1980	63222
N	248m W	Unspecified Tank	1980	65136
N	248m W	Unspecified Tank	1970	63222
N	249m W	Unspecified Tank	1970	65136
N	253m W	Unspecified Tank	1922	64318
N	253m W	Unspecified Tank	1938	64318
N	253m W	Unspecified Tank	1980	65054
N	255m W	Unspecified Tank	1970	63848
N	255m W	Unspecified Tank	1922	64808
N	257m W	Unspecified Tank	1952	64318
N	257m W	Unspecified Tank	1952	64318
N	259m W	Unspecified Tank	1938	64816

ID	Location	Land Use	Date	Group ID
N	261m W	Gas Works	1860	63516
N	265m W	Tanks	1922	63097
N	266m W	Unspecified Tank	1980	64885
N	267m W	Unspecified Tank	1970	64885
N	267m W	Tanks	1938	64419
N	268m W	Tanks	1922	64476
N	268m W	Tanks	1952	63698
N	269m W	Tanks	1952	65243
N	269m W	Tanks	1952	62937
N	270m W	Tanks	1952	63820
N	271m W	Tanks	1938	63680
N	272m W	Tanks	1952	63878
N	273m W	Tanks	1952	63247
N	278m W	Tanks	1952	63243
N	278m W	Tanks	1952	64996
N	278m W	Tanks	1952	63243
N	282m W	Tanks	1938	62938
O	295m E	Unspecified Tank	1994	62160
N	304m W	Tanks	1938	62939
N	309m W	Gasometers	1860	62659
AA	313m W	Gasometer	1903	64688
AA	313m W	Gasometer	1922	64688
AA	313m W	Unspecified Tank	1938	62172
AA	313m W	Gasholder	1980	64966
AA	314m W	Gasholder	1970	64966
AA	314m W	Gasometer	1952	65068
Q	314m E	Unspecified Tank	1903	62148
AA	315m W	Gasometer	1952	63857

ID	Location	Land Use	Date	Group ID
N	320m W	Tanks	1903	62940
AE	338m NE	Unspecified Tank	1953	64620
AE	338m NE	Unspecified Tank	1987	64620
N	341m W	Unspecified Tank	1980	64463
N	342m W	Gasometers	1903	63496
N	342m W	Gasometers	1922	63496
N	343m W	Unspecified Tank	1952	63241
N	343m W	Unspecified Tank	1970	63241
N	343m W	Unspecified Tank	1952	63241
N	343m W	Tanks	1980	64744
N	343m W	Gasholder	1980	64593
N	345m W	Gasholder	1970	64593
N	345m W	Gasometer	1952	64060
N	345m W	Tanks	1970	64744
N	345m W	Gasometer	1952	64060
N	346m W	Unspecified Tank	1938	62176
N	349m W	Unspecified Tank	1980	64058
N	351m W	Unspecified Tank	1970	64058
N	352m W	Gasometer	1860	62709
AA	358m W	Unspecified Tank	1903	62173
N	363m W	Gasometer	1903	65155
N	363m W	Gasometer	1922	65155
N	363m W	Unspecified Tank	1952	63722
N	363m W	Unspecified Tank	1952	63449
N	365m W	Unspecified Tank	1952	63888
N	366m W	Unspecified Tank	1952	63888
N	366m W	Tanks	1938	64199
N	368m W	Tanks	1952	64088

ID	Location	Land Use	Date	Group ID
N	368m W	Tanks	1952	64013
N	369m W	Tanks	1938	64088
AB	372m NW	Unspecified Tank	1860	65253
AB	372m NW	Unspecified Tank	1903	65253
N	374m W	Tanks	1952	64179
N	376m W	Gasometer	1860	62707
N	380m W	Unspecified Tank	1952	63797
N	381m W	Unspecified Tank	1952	63797
N	382m W	Tanks	1952	64232
AG	382m SW	Unspecified Tank	1974	62179
N	384m W	Unspecified Tank	1938	62175
N	386m W	Tanks	1952	64917
N	386m W	Tanks	1952	64917
AG	400m SW	Unspecified Tank	1974	62180
N	405m W	Gasometer	1860	62710
N	416m W	Unspecified Tank	1860	62174
N	423m W	Tanks	1952	64555
N	423m W	Tanks	1952	64555
N	425m W	Tanks	1938	63197
N	435m W	Unspecified Tank	1938	64777
N	436m W	Unspecified Tank	1952	64524
N	437m W	Unspecified Tank	1952	64524
Y	470m E	Tanks	1952	63086
J	473m SW	Unspecified Tank	1952	64819
J	473m SW	Unspecified Tank	1952	64974
J	473m SW	Unspecified Tank	1970	64974
J	473m SW	Unspecified Tank	1952	64305
J	478m SW	Unspecified Tank	1938	64819

ID	Location	Land Use	Date	Group ID
AS	481m NE	Unspecified Tank	1987	64004
AS	482m NE	Unspecified Tank	1952	63624
Y	495m E	Unspecified Tank	1952	62149

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**65**

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 33 >**

ID	Location	Land Use	Date	Group ID
2	**On site**	**Electricity Substation**	**1994**	**33603**
D	**On site**	**Electricity Substation**	**1974**	**35752**
D	**On site**	**Electricity Substation**	**1981**	**35752**
D	**On site**	**Electricity Substation**	**1994**	**35752**
G	82m W	Electricity Substation	1952	35030
G	83m W	Electricity Substation	1970	35030
G	83m W	Electricity Substation	1952	35030
G	83m W	Electricity Substation	1980	35030
G	83m W	Electricity Substation	1990	35030
E	97m SE	Electricity Substation	1994	33604
N	146m SW	Corporation Gas Works	1922	33741
N	148m SW	Gas Works	1903	34307
N	150m SW	Gas Works	1952	34188
N	151m SW	Gas Works	1980	36265
N	151m SW	Gas Works	1990	36265
N	151m SW	Gas Works	1952	36015
N	151m SW	Gas Works	1970	36015

ID	Location	Land Use	Date	Group ID
N	164m W	Gasholder	1980	35172
N	164m W	Gasholder	1990	35172
N	165m W	Gasholder	1970	34450
T	195m NW	Electricity Substation	1994	34165
T	195m NW	Electricity Substation	1986	34165
T	195m NW	Electricity Substation	1972	34165
N	223m W	Gasometer	1903	34688
N	223m W	Gasometer	1922	34688
N	229m W	Gasometer	1903	35430
N	229m W	Gasometer	1922	35430
N	231m W	Gas Works	1860	35660
N	233m W	Gasometer	1952	35430
N	233m W	Gasometer	1952	35689
N	241m W	Gasometers	1860	33763
10	258m NE	Electricity Substation	1987	33607
N	261m W	Gas Works	1860	34086
Q	281m E	Electricity Substation	1994	34747
Q	281m E	Electricity Power Station	1972	35821
N	309m W	Gasometers	1860	33762
Q	309m E	Electricity Substation	1990	34747
AA	313m W	Gasometer	1903	35377
AA	313m W	Gasometer	1922	35377
Q	313m E	Electricity Transformer Station	1938	33739
AA	313m W	Gasholder	1980	34847
AA	314m W	Gasholder	1970	34847
AA	314m W	Gasometer	1952	34096
AA	315m W	Gasometer	1952	34923
Y	330m E	Electricity Power Station	1952	35821

ID	Location	Land Use	Date	Group ID
N	342m W	Gasometers	1903	35171
N	342m W	Gasometers	1922	35171
N	343m W	Gasholder	1980	34079
N	345m W	Gasholder	1970	34079
N	345m W	Gasometer	1952	34671
N	345m W	Gasometer	1952	34671
N	352m W	Gasometer	1860	34004
N	363m W	Gasometer	1903	34642
N	363m W	Gasometer	1922	34642
11	366m W	Electricity Substation	1980	33606
N	376m W	Gasometer	1860	34002
N	405m W	Gasometer	1860	34005
AO	414m NE	Electricity Substation	1987	34147
AO	416m NE	Electricity Substation	1952	34147
AO	416m NE	Electricity Substation	1953	34147
AO	416m NE	Electricity Substation	1952	35973
J	466m SW	Electricity Substation	1990	33605
Y	477m E	Corporation Electricity Works	1922	34066
J	479m W	Electricity Substation	1980	35581
J	479m W	Electricity Substation	1990	35581

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	**1**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 33 >**

ID	Location	Land Use	Date	Group ID
G	81m SW	Filling Station	1990	1057

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	**8**

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 33 >**

ID	Location	Land Use	Date	Group ID
U	196m N	Garage	1972	11245
U	197m N	Garage	1988	11210
Z	248m NW	Garage	1952	11738
Z	248m NW	Garage	1972	11738
AR	468m SW	Garage	1980	11511
AR	468m SW	Garage	1990	11511
AR	470m SW	Garage	1970	11434
13	496m W	Garage	1990	11043

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill

Site Outline

Search buffers in metres (m)

Historical waste sites

3.1 Active or recent landfill

Records within 500m	0

Active or recently closed landfill sites under Scottish Environment Protection (SEPA) regulation.

This data is sourced from the Scottish Environment Protection Agency.

3.2 Historical landfill (BGS records)

Records within 500m	0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Licensed waste sites

Records within 500m	0

Active or recently closed waste sites under Scottish Environment Protection Acency (SEPA) regulation.

This data is sourced from the Scottish Environment Protection Agency.

3.5 Historical waste sites

Records within 500m	4

Waste site records derived from Local Authority planning records and high detail historical mapping.

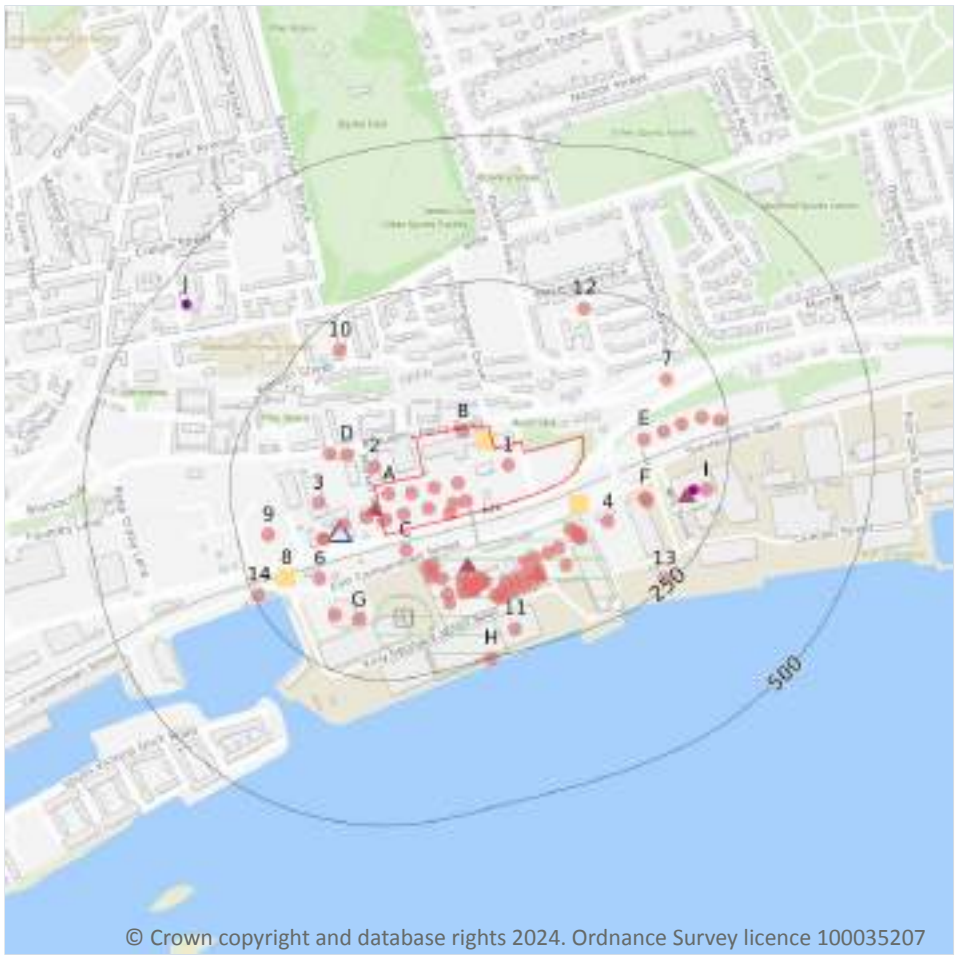
Features are displayed on the Waste and landfill map on **page 59 >**

ID	Location	Address	Further Details	Date
1	5m E	Site Address: N/A	Type of Site: Ground Workings and Refuse Heap Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1938
A	58m SW	Site Address: East Camperdown Street, Docks, DUNDEE, Tayside, DD1 3L	Type of Site: Waste Transfer Station (Conversion) Planning application reference: 06/00546/COU Description: Scheme comprises change of use from heavy industrial bitumen works to a scrapyard. An application (ref: 06/00546/COU) for detailed planning permission was granted by Dundee C.C. Planning decision obtained Data source: Historic Planning Application Data Type: Point	-
A	58m SW	Site Address: GRC Recycling Ltd, East Camperdown Street, Docks, DUNDEE, Tayside, DD1 3LG	Type of Site: Recycling Centre (Extension) Planning application reference: 10/00428/FULL Description: Scheme comprises extension to scrapyard to provide additional storage. An application (ref: 10/00428/FULL) for detailed planning permission was granted by Dundee C.C. A detailed planning application has been granted. Data source: Historic Planning Application Data Type: Point	04/02/2011

ID	Location	Address	Further Details	Date
2	383m E	Site Address: N/A	Type of Site: Ground Workings and Refuse Heap Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1938

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m	87

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 62 >**

ID	Location	Company	Address	Activity	Category
1	**On site**	**Tank**	**City of Dundee, DD4**	**Tanks (Generic)**	**Industrial Features**
A	**On site**	**Tank**	**City of Dundee, DD1**	**Tanks (Generic)**	**Industrial Features**
A	**On site**	**Tank**	**City of Dundee, DD1**	**Tanks (Generic)**	**Industrial Features**

ID	Location	Company	Address	Activity	Category
A	**On site**	**Tank**	**City of Dundee, DD1**	**Tanks (Generic)**	**Industrial Features**
A	**On site**	**Tank**	**City of Dundee, DD1**	**Tanks (Generic)**	**Industrial Features**
A	**On site**	**Tank**	**City of Dundee, DD1**	**Tanks (Generic)**	**Industrial Features**
A	**On site**	**Tank**	**City of Dundee, DD1**	**Tanks (Generic)**	**Industrial Features**
A	**On site**	**Tank**	**City of Dundee, DD4**	**Tanks (Generic)**	**Industrial Features**
A	**On site**	**Tank**	**City of Dundee, DD1**	**Tanks (Generic)**	**Industrial Features**
A	**On site**	**Electricity Sub Station**	**City of Dundee, DD1**	**Electrical Features**	**Infrastructure and Facilities**
A	**On site**	**Electricity Sub Station**	**City of Dundee, DD1**	**Electrical Features**	**Infrastructure and Facilities**
B	**On site**	**Electricity Sub Station**	**City of Dundee, DD4**	**Electrical Features**	**Infrastructure and Facilities**
A	26m W	Speedy Hire Plc	58, East Dock Street, Dundee, City of Dundee, DD1 3JX	Construction and Tool Hire	Hire Services
C	33m SW	Radio Mast	City of Dundee, DD1	Telecommunications Features	Infrastructure and Facilities
2	34m W	Chillforce	Unit 1 Market Mews, Market Street, Dundee, City of Dundee, DD1 3LA	Construction Completion Services	Construction Services
A	67m W	Minster	56, East Dock Street, Dundee, City of Dundee, DD1 3JX	General Construction Supplies	Industrial Products
C	70m SW	Nynas UK	-, East Camperdown Street, Docks, Dundee, City of Dundee, DD1 3LG	Oil and Gas Extraction, Refinery and Product Manufacture	Extractive Industries
D	73m W	Market Street Auto Shop	77-81, Broughty Ferry Road, Dundee, City of Dundee, DD4 6JP	Vehicle Repair, Testing and Servicing	Repair and Servicing
C	73m SW	Electricity Sub Station	City of Dundee, DD1	Electrical Features	Infrastructure and Facilities
C	78m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features

ID	Location	Company	Address	Activity	Category
C	80m SW	Chimney	City of Dundee, DD1	Chimneys	Industrial Features
C	86m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	90m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	95m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
D	96m W	Electricity Sub Station	City of Dundee, DD4	Electrical Features	Infrastructure and Facilities
C	96m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	97m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	101m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	101m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
3	101m W	Kangaroo Self Storage	52-54, East Dock Street, Dundee, City of Dundee, DD1 3JX	Container and Storage	Transport, Storage and Delivery
4	103m E	Recycling Business	City of Dundee, DD1	Recycling Centres	Infrastructure and Facilities
E	104m E	Tank	City of Dundee, DD4	Tanks (Generic)	Industrial Features
C	104m SE	Electricity Sub Station	City of Dundee, DD1	Electrical Features	Infrastructure and Facilities
C	104m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	104m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	106m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
A	106m W	A1 Car Wash	54b, East Dock Street, Dundee, City of Dundee, DD1 3JX	Vehicle Cleaning Services	Personal, Consumer and Other Services
A	106m W	Tyres 4 U	54b, East Dock Street, Dundee, City of Dundee, DD1 3JX	Vehicle Parts and Accessories	Motoring

ID	Location	Company	Address	Activity	Category
C	109m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	113m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	115m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	117m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	117m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	121m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	121m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	122m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	124m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	125m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	125m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	126m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	126m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
F	127m E	Electricity Sub Station	City of Dundee, DD1	Electrical Features	Infrastructure and Facilities
C	128m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	129m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	130m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	130m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features

ID	Location	Company	Address	Activity	Category
C	130m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	130m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	130m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
F	132m E	Gas Governor	City of Dundee, DD1	Gas Features	Infrastructure and Facilities
C	134m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
6	136m SW	Harbour Cafe	City of Dundee, DD1	Moorings and Unloading Facilities	Water
C	139m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
E	139m E	Tank	City of Dundee, DD4	Tanks (Generic)	Industrial Features
C	141m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	142m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	143m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	144m SE	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	145m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	147m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	149m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	149m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
C	153m S	Tank	City of Dundee, DD1	Tanks (Generic)	Industrial Features
G	153m SW	Electricity Sub Stations	City of Dundee, DD1	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
G	163m SW	Sewage Pumping Station	City of Dundee, DD1	Waste Storage, Processing and Disposal	Infrastructure and Facilities
E	172m E	Tank	City of Dundee, DD4	Tanks (Generic)	Industrial Features
7	175m NE	Mast (Telecommunication)	City of Dundee, DD4	Telecommunications Features	Infrastructure and Facilities
9	197m W	Gas Holder	City of Dundee, DD1	Gas Features	Infrastructure and Facilities
10	198m NW	Electricity Sub Station	City of Dundee, DD4	Electrical Features	Infrastructure and Facilities
E	207m E	Tank	City of Dundee, DD4	Tanks (Generic)	Industrial Features
11	211m S	Yara UK Ltd	Shed 10 King George V, Wharf Road, Dundee, City of Dundee, DD1	Fertilisers	Industrial Products
I	219m E	Robertson Metals Recycling	Unit 1, Riverside Works, Stannergate Road, Docks, Dundee, City of Dundee, DD1 3NA	Scrap Metal Merchants	Recycling Services
12	220m NE	Electricity Sub Station	City of Dundee, DD4	Electrical Features	Infrastructure and Facilities
E	236m E	Electricity Sub Station	City of Dundee, DD4	Electrical Features	Infrastructure and Facilities
13	240m SE	Pylon	City of Dundee, DD1	Electrical Features	Infrastructure and Facilities
14	241m SW	Dundee Sea Cadets	The Dundee Sea Cadet Training Centre, East Camperdown Street, Docks, Dundee, City of Dundee, DD1 3LG	Armed Services	Central and Local Government
H	250m S	Travelling Cranes	City of Dundee, DD1	Travelling Cranes and Gantries	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 62 >**

ID	Location	Company	Address	LPG	Status
A	77m W	OBSOLETE	54, Dock Street East, Dundee, Dundee City, DD1 3JX	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	3

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

Features are displayed on the Current industrial land use map on **page 62 >**

ID	Location	Company	Address	Operational status	Tier
C	57m SE	Nynas Uk Ab	Nynas Uk Ab, Diundee, Tank Farm, East Camperdown Street, Dundee, Angus, DD1 3LG	Historical NIHHS Site	-
5	106m SW	Nynas (uk) Ab	Nynas (uk) Ab, East Camperdown Street, Dundee, DD1 3LG	Historical NIHHS Site	-
H	180m S	Angus Horticulture Services Limited	Angus Horticulture Services Limited, Dundee, Shed 10 & 11, King George V Wharf Road, Dundee Port, Dundee, Angus, DD1 3LJ	Current COMAH Site	COMAH Lower Tier Operator

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	**0**

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	**5**

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

Features are displayed on the Current industrial land use map on **page 62 >**

ID	Location	Details	
A	8m W	Application reference number: No Details Application status: Historical Consent Application date: No Details Address: Scotland Gas Networks PLC, Dock Street Holder Station, East Dock Street, Dundee, Dundee City Council, Scotland, DD1 3XJ	Details: No Details Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
C	83m S	Application reference number: 03/00411/HAZ Application status: Historical Consent Application date: 28/05/2003 Address: Nynas UK, East Camperdown, Street Docks, Dundee, DD1 3LG	Details: The storage and treatment of various mineral oils Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

ID	Location	Details	
C	83m S	Application reference number: No Details Application status: Approved Application date: No Details Address: Nynas UK AB, Dundee Refinery, East Camperdown Street, Dundee, Dundee City Council, Scotland, DD1 3LG	Details: No Details Enforcement: No Details Date of enforcement: No Details Comment: No Details
C	129m SE	Application reference number: No Details Application status: Approved Application date: No Details Address: Angus Horticulture Services Ltd, Shed 11, King George V Wharf Road, Dundee Port, Dundee, Dundee City Council, Scotland, DD1 3LJ	Details: No Details Enforcement: No Details Date of enforcement: No Details Comment: No Details
I	189m E	Application reference number: No Details Application status: Historical Consent Application date: No Details Address: Dundee Port Authority, Dundee City Council, Scotland	Details: No Details Enforcement: No Details Date of enforcement: No Details Comment: No Details

This data is sourced from Local Authority records.

4.9 Part A(1), IPPC and Historic IPC Authorisations

Records within 500m **3**

Records of Part A installations regulated for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 62 >**

ID	Location	Address	Operator	Processes undertaken	License reference
B	**On site**	**99 Broughty Ferry Road, Dundee, DD4 6JE**	**Matheson Jess Ltd**	**Slaughter of Animals**	**PPC/E/20081**
C	47m E	Riverside Works, Stannergate, Dundee, DD1 3LU	J T Inglis & Sons Ltd	Landfill Activities	PPC/E/20033
8	186m SW	East Camperdown Street,Dundee, DD1 3LG	Nynas UK AB	-	PPC/A/1013015

This data is sourced from the Scottish Environment Protection Agency.

4.10 Part B Authorisations

Records within 500m	0

Records of Part B installations regulated for the release of substances to the environment.

This data is sourced from the Scottish Environment Protection Agency.

4.11 Pollution inventory substances

Records within 500m	1

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

Features are displayed on the Current industrial land use map on **page 62 >**

ID: J, Location: 452m NW, Permit: -
Operator: Discovery Flexibles Ltd
Activity: -
Address: Discovery Flexibles Ltd, Kemback St, Dundee -
Sector: Other activities, Sub-sector: -
Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Non-methane volatile organic compounds (NMVOCs) (t)	10000 kg	107.9

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.12 Pollution inventory waste transfers

Records within 500m	2

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

Features are displayed on the Current industrial land use map on **page 62 >**

ID: I, Location: 199m E, Permit: -
Operator: Augean North Sea Services Ltd
Activity: -
Address: - -
Sector: Waste and waste-water management, Sub-sector: -
Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
-	-	558	-	-	Hazardous Waste	-

ID: J, Location: 452m NW, Permit: -
Operator: Discovery Flexibles Ltd
Activity: -
Address: - -
Sector: Other activities, Sub-sector: -
Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
-	-	3	-	-	Hazardous Waste	-
-	-	38	-	-	Hazardous Waste	-

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

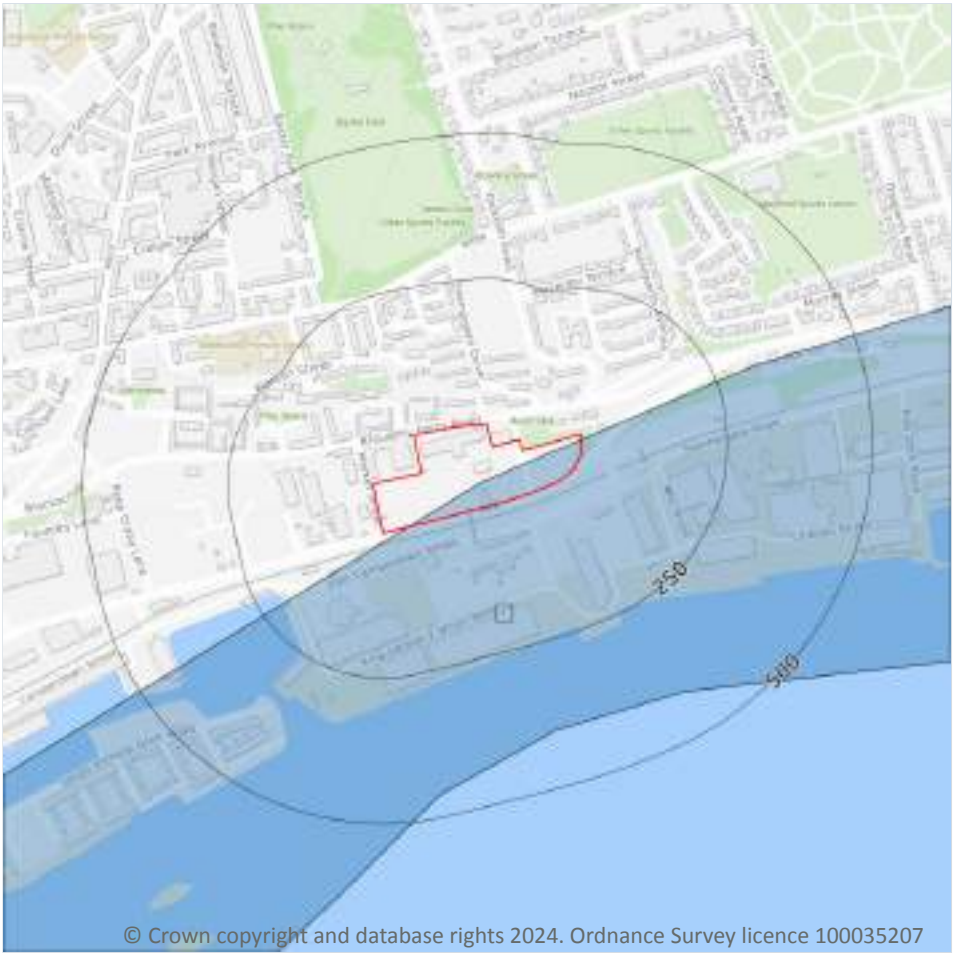
4.13 Pollution inventory radioactive waste

Records within 500m	**0**

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer



Site Outline

Search buffers in metres (m)

Limited or local potential

Locally important - intergranular

5.1 Superficial aquifer

Records within 500m	1

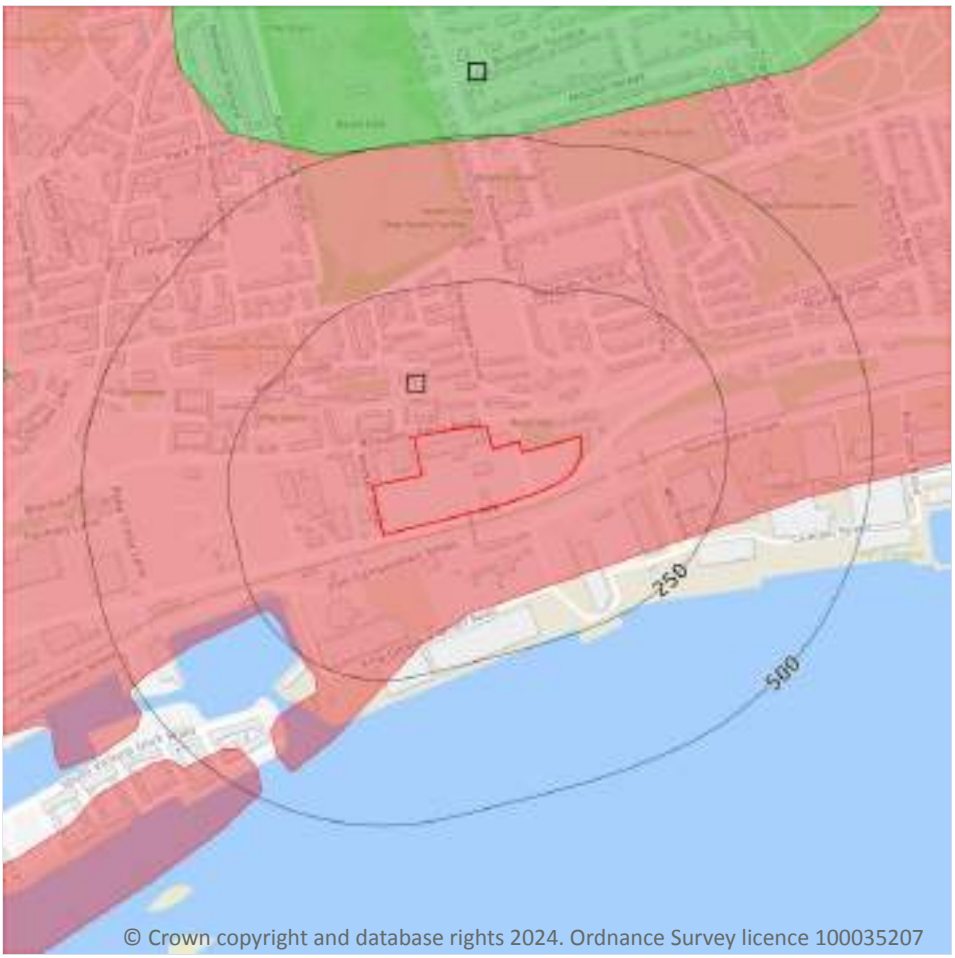
Records of groundwater classification within superficial geology.

Features are displayed on the Hydrogeology map on **page 73 >**

ID	Location	Description	Type	Rock description
1	**On site**	**Concealed aquifers, aquifers of limited potential, regions without significant groundwater**	**Concealed aquifers; aquifers with limited or local potential**	**Quaternary Coastal and Fluviatile Alluvium**

This data is sourced from the British Geological Survey.

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Highly productive - fissures/discontinuities
- Highly productive - intergranular
- Moderately productive - fissures/discontinuities
- Moderately productive - intergranular
- Low productive - fissures/discontinuities
- Low productive - intergranular
- No significant groundwater

5.2 Bedrock aquifer

Records within 500m	2

Records of groundwater classification within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 74 >**

ID	Location	Description	Flow	Summary	Rock description
1	**On site**	**Moderately productive aquifer**	**Flow is virtually all through fractures and other discontinuities**	**Sandstones, in places flaggy, with siltstones, mudstones and conglomerates and interbedded lavas, locally yield moderate amounts of groundwater.**	**ARBUTHNOTT-GARVOCK GROUP**

ID	Location	Description	Flow	Summary	Rock description
2	494m N	Low productivity aquifer	Flow is virtually all through fractures and other discontinuities	Small amounts of groundwater in near surface weathered zone and secondary fractures; rare springs.	UNNAMED IGNEOUS INTRUSION, LATE SILURIAN TO EARLY DEVONIAN

This data is sourced from the British Geological Survey.

6 Hydrology

6.1 Water Network (OS MasterMap)

Records within 250m	0

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	0

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

This data is sourced from the Ordnance Survey.

7 River flooding

7.1 River flooding

Highest risk on site	**Negligible**
Highest risk within 50m	**Negligible**

This is an assessment of flood risk for rivers in Scotland produced using modelled data, provided by Ambiental Risk Analytics. It also takes account of flood defence information provided by the Scottish Environment Protection Agency (SEPA). It shows the chance of flooding from rivers presented in the following categories:

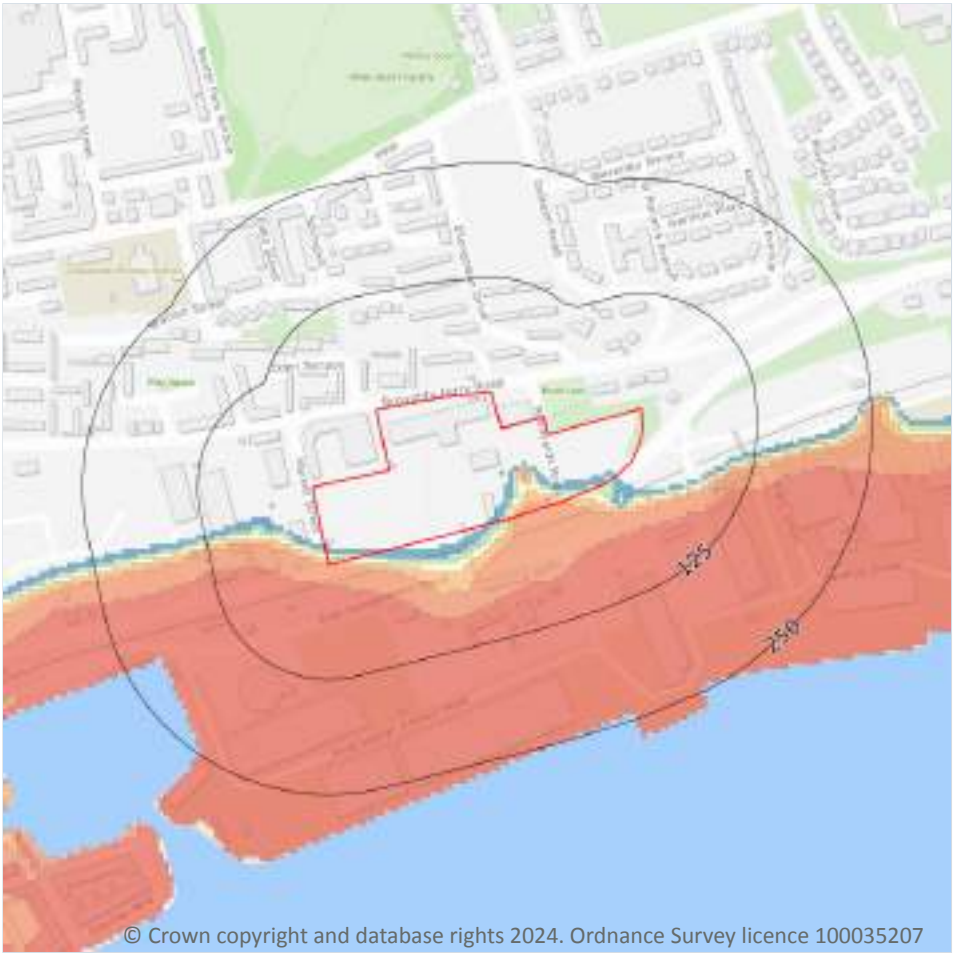
- 1 in 30 year (3.33%)
- 1 in 100 year (1%)
- 1 in 250 year (0.4%)
- and 1 in 1,000 year (0.1%)

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.

8 Coastal flooding - Coastal flooding



Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Coastal flooding

Highest risk on site	**1 in 30 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, Greater than 1.0m**

This is an assessment of coastal flood risk in Scotland produced using modelled data, provided by Ambiental Risk Analytics. It also takes account of flood defence information provided by the Scottish Environment Protection Agency (SEPA). It shows the chance of coastal flooding presented in the following categories:

- 1 in 30 year (3.33%)
- 1 in 100 year (1%)
- 1 in 250 year (0.4%)

- and 1 in 1,000 year (0.1%)

The data shown on the map shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Features are displayed on the Coastal flooding map on **page 78 >**

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiental Risk Analytics.

9 Surface water flooding

Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

9.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 80 >**

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiental Risk Analytics.

10 Groundwater flooding

Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

10.1 Groundwater flooding

Highest risk on site	**Low**
Highest risk within 50m	**Low**

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 82 >**

This data is sourced from Ambiental Risk Analytics.

11 Environmental designations

Site Outline

Search buffers in metres (m)

Special Areas of Conservation (SAC)

Special Protection Areas (SPA)

11.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 Special Areas of Conservation (SAC)

Records within 2000m	1

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

Features are displayed on the Environmental designations map on **page 83 >**

ID	Location	Name	Features of interest	Habitat description	Data source
1	242m SE	Firth of Tay and Eden Estuary	Subtidal sandbanks; Estuaries; Intertidal mudflats and sandflats; Glasswort and other annuals colonising mud and sand; Atlantic salt meadows; Lime-deficient dune heathland with crowberry; Bottlenose dolphin; Harbour porpoise; Grey seal; Common seal.	Marine areas, Sea inlets; Shingle, Sea cliffs, Islets; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Coastal sand dunes, Sand beaches, Machair; Salt marshes, Salt pastures, Salt steppes; Inland water bodies (Standing water, Running water)	Scottish Natural Heritage

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.4 Special Protection Areas (SPA)

Records within 2000m	1

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

Features are displayed on the Environmental designations map on **page 83 >**

ID	Location	Name	Species of interest	Habitat description	Data source
-	1448m E	Outer Firth of Forth and St Andrews Bay Complex	Red-throated diver; Slavonian grebe; Manx shearwater; Northern gannet; European shag; European shag; Common eider; Long-tailed duck; Black (common) scoter; Velvet scoter; Common goldeneye; Red-breasted merganser; Little gull; Black-headed gull; Mew gull; Herring gull; Herring gull; Black-legged kittiwake; Black-legged kittiwake; Common tern; Arctic tern; Common guillemot; Common guillemot; Razorbill; Atlantic puffin	Marine areas, Sea inlets	Scottish Natural Heritage

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.5 National Nature Reserves (NNR)

Records within 2000m	0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.6 Local Nature Reserves (LNR)

Records within 2000m	0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.7 Designated Ancient Woodland

Records within 2000m	0

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.8 Biosphere Reserves

Records within 2000m	0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.9 Forest Parks

Records within 2000m	0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

11.10 Marine Conservation Zones

Records within 2000m	0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

12 Visual and cultural designations

Site Outline

Search buffers in metres (m)

Listed buildings

Conservation areas

Conservation areas - no data

National Parks

Areas of Outstanding Natural Beauty

Registered parks and gardens

Scheduled Monuments

World Heritage Sites

12.1 World Heritage Sites

Records within 250m	0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12.2 Area of Outstanding Natural Beauty

Records within 250m	0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

12.3 National Parks

Records within 250m	0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

12.4 Listed Buildings

Records within 250m	4

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on **page 87 >**

ID	Location	Name	Grade	Reference Number	Listed date
1	33m NE	Guthrie Mausoleum And 'st John`S' Or 'Rood' Chapel, Roodyards Burial-Ground, Broughty Ferry Road, Dundee, Dundee	B	361179	12/03/1993
A	145m W	86 Broughty Ferry Road, Dundee, Dundee	B	361188	12/03/1993
A	155m W	82-84 Broughty Ferry Road, Dundee, Dundee	B	361187	12/03/1993
2	204m NW	15 Springhill, Dundee, Dundee	B	361718	12/03/1993

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12.5 Conservation Areas

Records within 250m	1

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

Features are displayed on the Visual and cultural designations map on **page 87 >**

ID	Location	Name	District	Date of designation
3	216m NW	BAXTER PARK	DUNDEE CITY	2010-11-26

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12.6 Scheduled Ancient Monuments

Records within 250m	0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12.7 Registered Parks and Gardens

Records within 250m	0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

13 Agricultural designations

13.1 Agricultural Land Classification

Records within 250m	0

Classification of the quality of agricultural land taking into consideration multiple factors inclusing climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

This data is sourced from the James Hutton Institute.

14 Geology 1:10,000 scale - Availability

Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 91 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**No coverage**	**No coverage**	**No coverage**	**NoCov**

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Artificial and made ground

14.2 Artificial and made ground (10k)

Records within 500m	0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m	0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m	0

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

This data is sourced from the British Geological Survey.

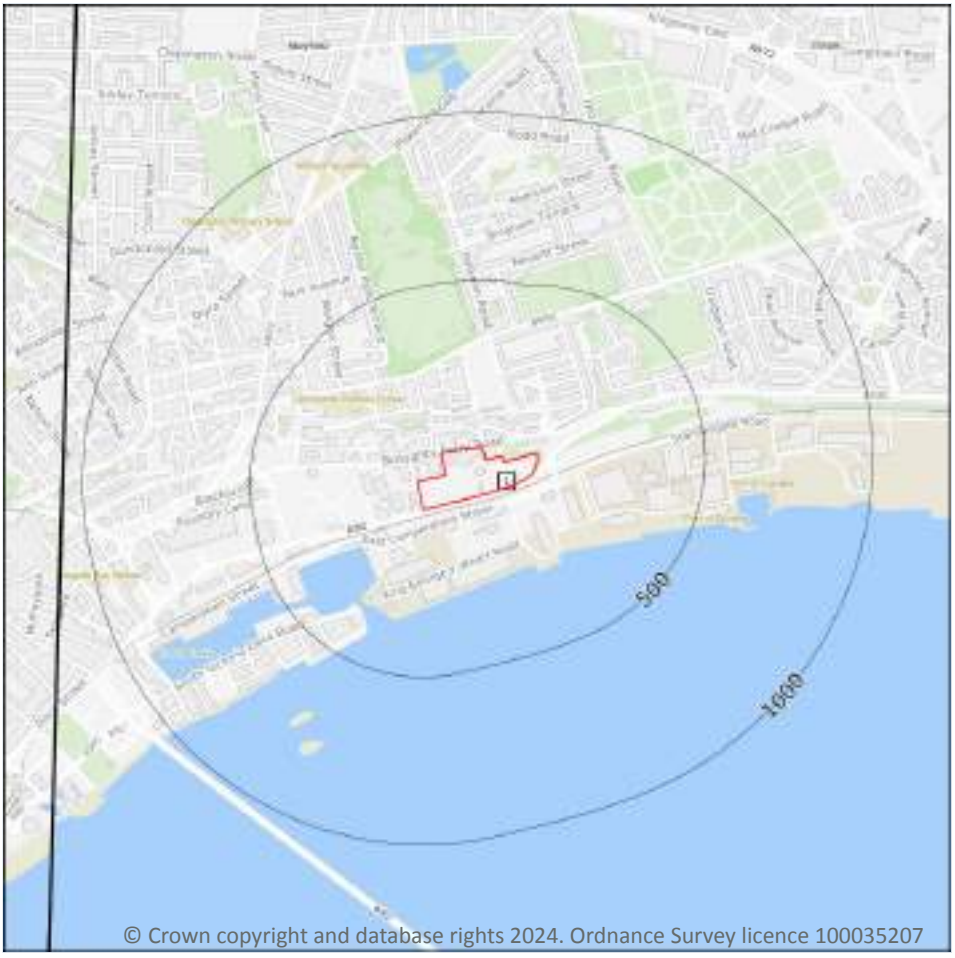
14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

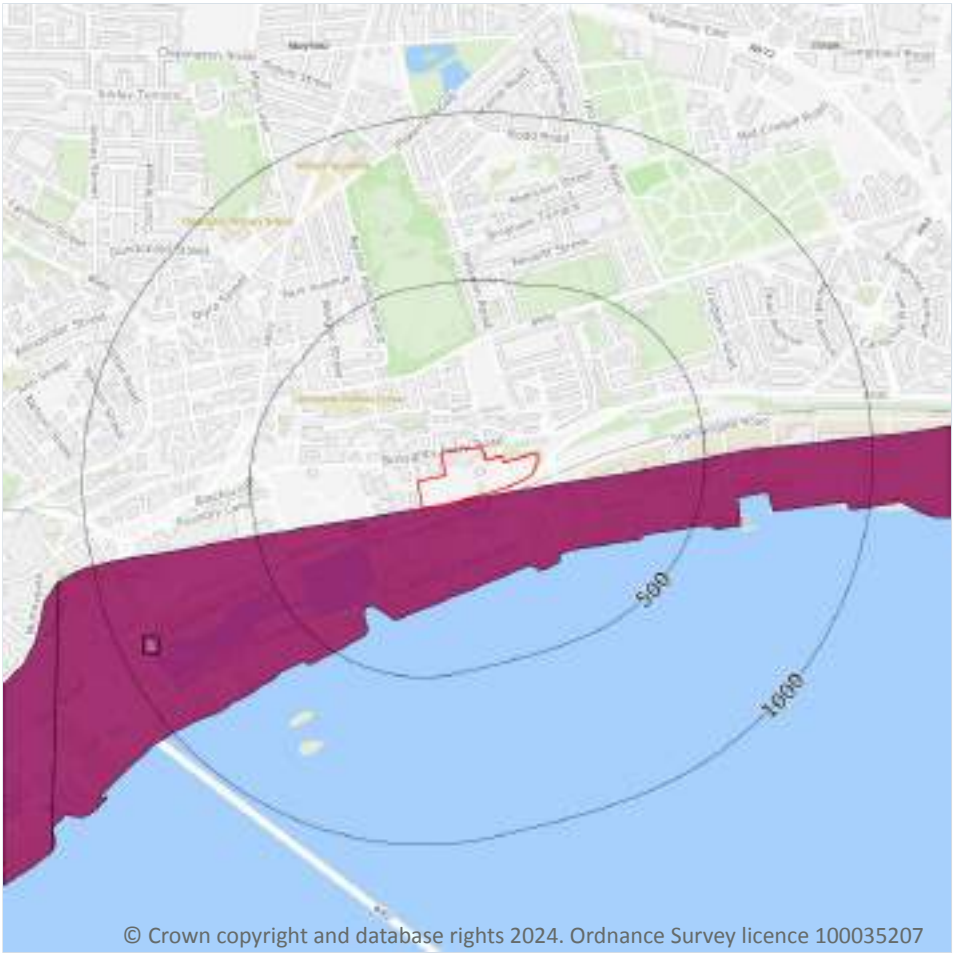
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 95 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**SC049_Arbroath_v4**

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Artificial and made ground



Site Outline

Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m	1

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 96 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**MADE GROUND (UNDIVIDED)**	**ARTIFICIAL DEPOSIT**

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

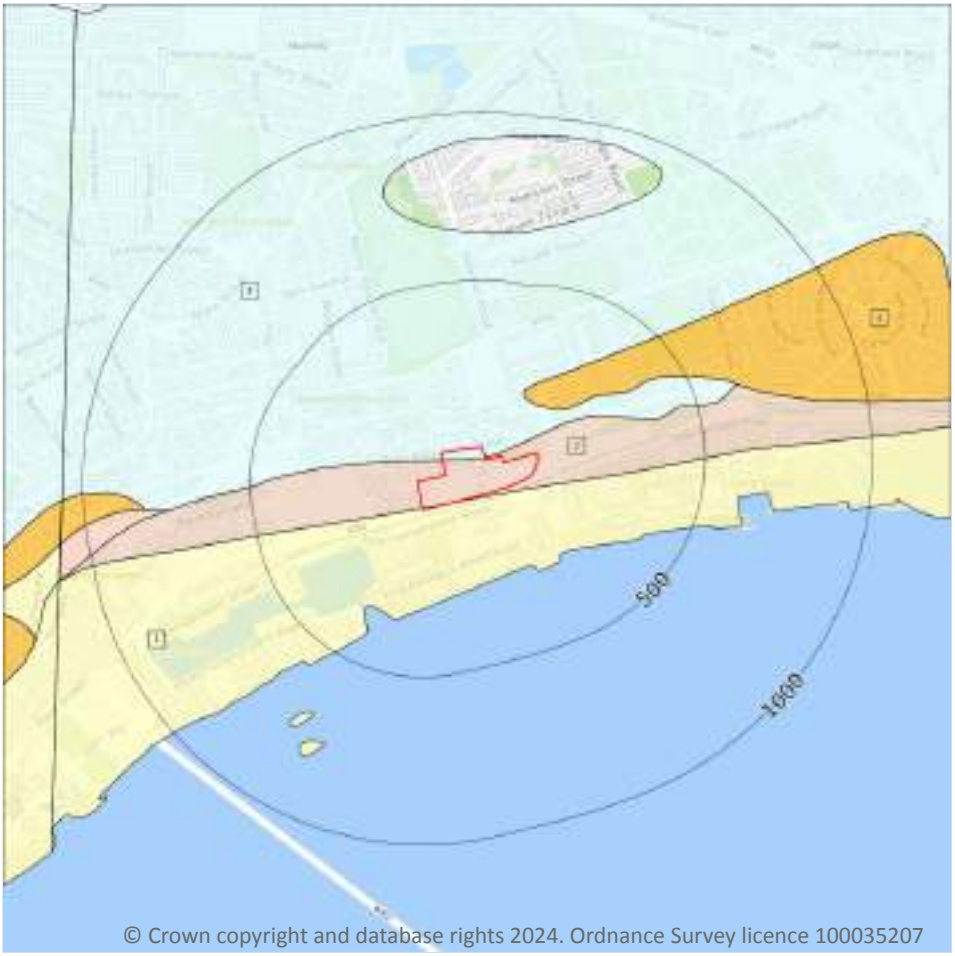
Records within 50m	1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**Very High**	**Low**

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m **4**

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 98 >**

ID	Location	LEX Code	Description	Rock description
1	On site	ITDU-XZC	INTERTIDAL DEPOSITS (UNDIFFERENTIATED)	SILT AND CLAY
2	On site	RMDF-XCZSV	RAISED MARINE DEPOSITS OF HOLOCENE AGE	CLAY, SILT, SAND AND GRAVEL
3	On site	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

ID	Location	LEX Code	Description	Rock description
4	139m NE	RMDV-XCZSV	RAISED MARINE DEPOSITS, DEVENSIAN	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	3

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**High**	**Very Low**
On site	**Intergranular**	**Moderate**	**Very Low**
On site	**Mixed**	**High**	**Low**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

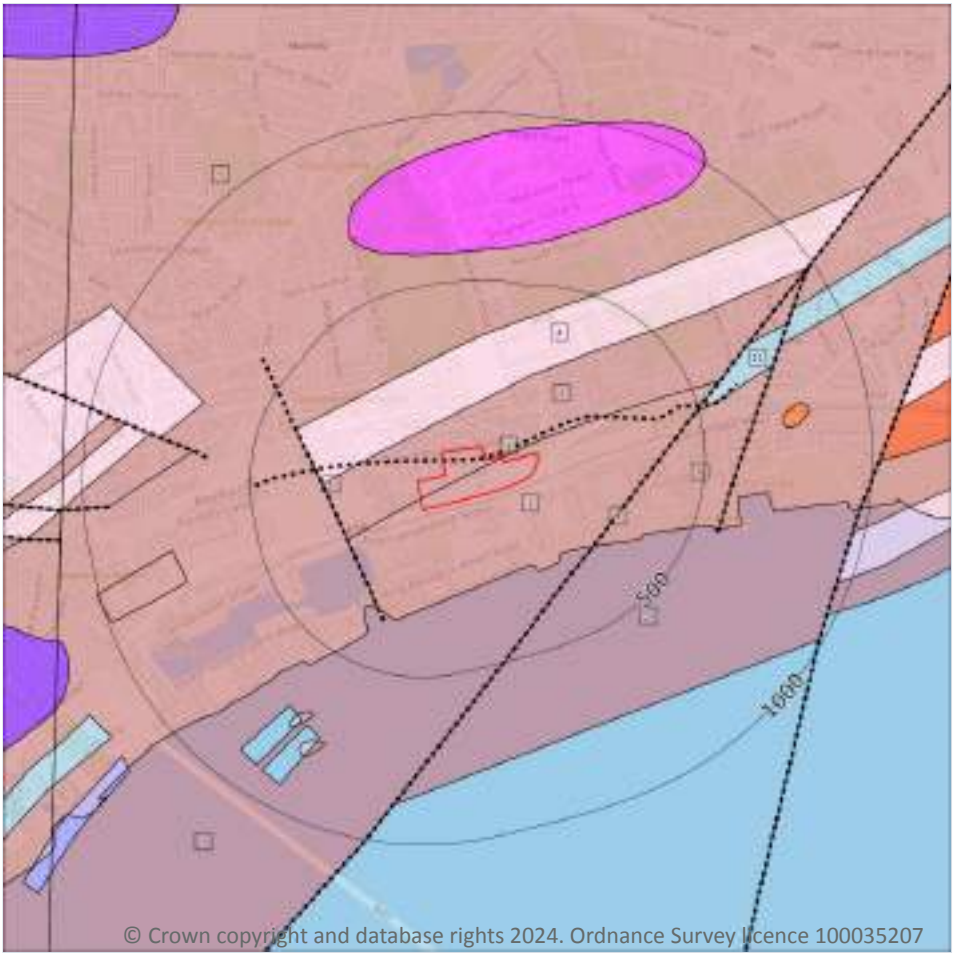
15.7 Landslip permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m **8**

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 100 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**DEF-SDSM**	**DUNDEE FLAGSTONE FORMATION - SANDSTONE, SILTSTONE AND MUDSTONE**	**-**
2	**On site**	**DEF-MDSI**	**DUNDEE FLAGSTONE FORMATION - MUDSTONE AND SILTSTONE**	**-**
4	86m NW	OVF-BA	OCHIL VOLCANIC FORMATION - BASALT	-

ID	Location	LEX Code	Description	Rock age
5	243m SW	DEF-SDSM	DUNDEE FLAGSTONE FORMATION - SANDSTONE, SILTSTONE AND MUDSTONE	-
7	244m SE	DEF-SDSM	DUNDEE FLAGSTONE FORMATION - SANDSTONE, SILTSTONE AND MUDSTONE	-
8	276m E	DEF-SDSM	DUNDEE FLAGSTONE FORMATION - SANDSTONE, SILTSTONE AND MUDSTONE	-
10	284m SE	DEF-SDSM	DUNDEE FLAGSTONE FORMATION - SANDSTONE, SILTSTONE AND MUDSTONE	-
11	484m E	OVF-ANDPX	OCHIL VOLCANIC FORMATION - ANDESITE, PYROXENE	-

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	**2**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Moderate**	**Low**
On site	**Fracture**	**High**	**Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	**3**

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 100 >**

ID	Location	Category	Description
3	**On site**	**LANDFORM**	**Back-feature marking former coastline**
6	243m SW	FAULT	Fault, inferred, displacement unknown
9	276m E	FAULT	Fault, inferred, displacement unknown

This data is sourced from the British Geological Survey.

16 Boreholes

Site Outline

Search buffers in metres (m)

Confidential

0 - 10m

10 - 30m

30m+

Unknown

16.1 BGS Boreholes

Records within 250m	28

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

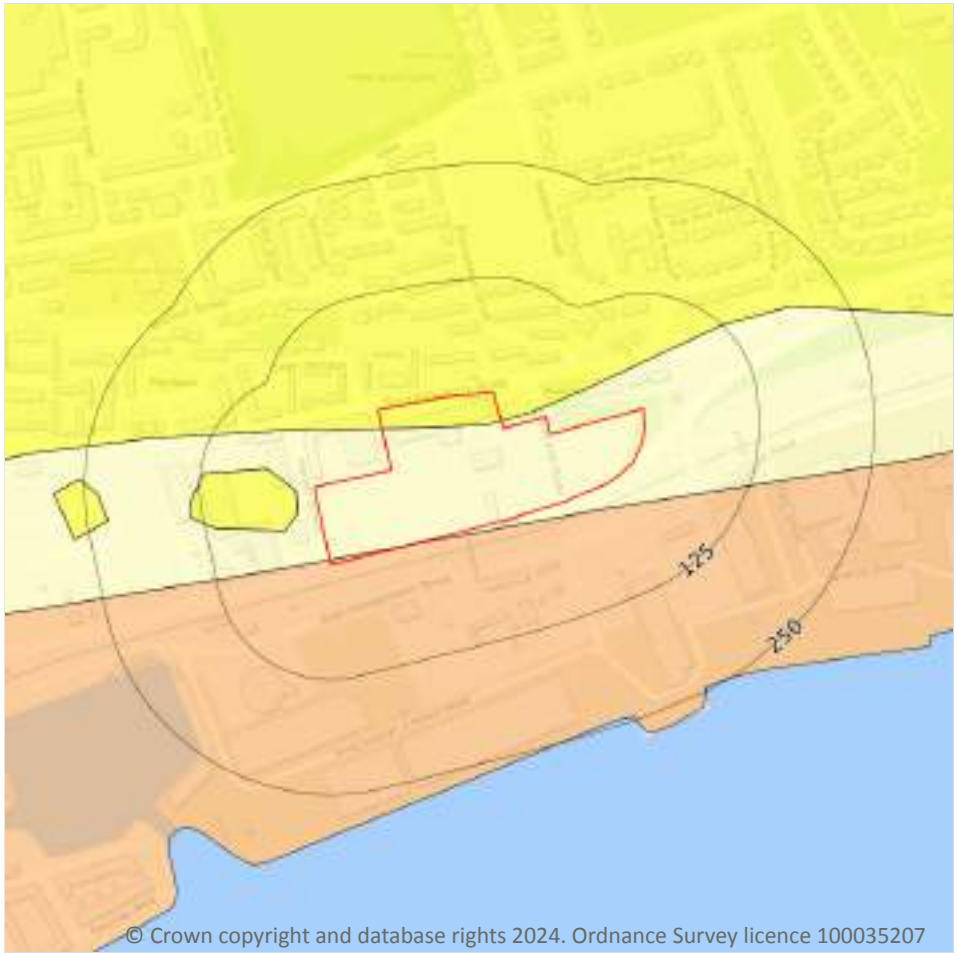
Features are displayed on the Boreholes map on **page 103 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	26m NW	341658 730955	WATSON ST CDA, DUNDEE 133	5.0	N	858035 ↗
2	32m NW	341624 730954	WATSON ST CDA, DUNDEE 132	5.0	N	858034 ↗
3	68m NW	341657 730997	WATSON ST CDA, DUNDEE 125	7.0	N	858027 ↗

ID	Location	Grid reference	Name	Length	Confidential	Web link
4	68m NW	341570 730966	WATSON ST CDA, DUNDEE 131	6.0	N	858033 ↗
A	75m NW	341590 730989	WATSON ST CDA, DUNDEE 113	5.0	N	858019 ↗
5	83m W	341478 730875	EAST DOCK ST. DUNDEE BORE	91.0	N	857927 ↗
A	92m NW	341566 730995	WATSON ST CDA, DUNDEE 123	6.0	N	858026 ↗
6	100m W	341519 730932	WATSON ST CDA, DUNDEE 104	4.0	N	858011 ↗
A	103m NW	341546 730992	WATSON ST CDA, DUNDEE 112	6.0	N	858018 ↗
B	104m NW	341589 731020	WATSON ST CDA, DUNDEE 106	5.0	N	858013 ↗
7	108m NW	341525 730970	WATSON ST CDA, DUNDEE 130	5.0	N	858032 ↗
8	126m NW	341553 731027	WATSON ST CDA, DUNDEE 105	7.0	N	858012 ↗
B	128m NW	341578 731042	WATSON ST CDA, DUNDEE 103	6.0	N	858010 ↗
C	162m NW	341472 730984	WATSON ST CDA, DUNDEE 120	4.0	N	858025 ↗
9	168m NW	341502 731040	WATSON ST CDA, DUNDEE 102	3.0	N	858009 ↗
D	170m SW	341415 730681	EAST DOCK ST, DUNDEE 5	8.3	N	858173 ↗
D	175m SW	341418 730665	EAST DOCK ST, DUNDEE 6	10.0	N	858174 ↗
C	184m NW	341456 731003	WATSON ST CDA, DUNDEE 110	4.0	N	858017 ↗
D	185m SW	341395 730692	EAST DOCK ST, DUNDEE 2	7.5	N	858170 ↗
D	185m SW	341393 730698	EAST DOCK ST, DUNDEE 1	8.95	N	858169 ↗
D	185m SW	341396 730689	EAST DOCK ST, DUNDEE 3	8.3	N	858171 ↗
D	185m SW	341397 730685	EAST DOCK ST, DUNDEE 4	8.3	N	858172 ↗
10	196m NW	341458 731030	WATSON ST CDA, DUNDEE 101	6.0	N	858008 ↗
E	211m NW	341408 730991	WATSON ST CDA, DUNDEE 119	4.0	N	858024 ↗
11	211m W	341353 730909	WATSON ST CDA, DUNDEE 140	4.0	N	858041 ↗
E	234m NW	341397 731013	WATSON ST CDA, DUNDEE 136	4.0	N	858038 ↗
F	239m W	341356 730975	WATSON ST CDA, DUNDEE 118	6.0	N	858023 ↗
F	241m W	341343 730957	WATSON ST CDA, DUNDEE 129	5.0	N	858031 ↗

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.1 Shrink swell clays

Records within 50m	4

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

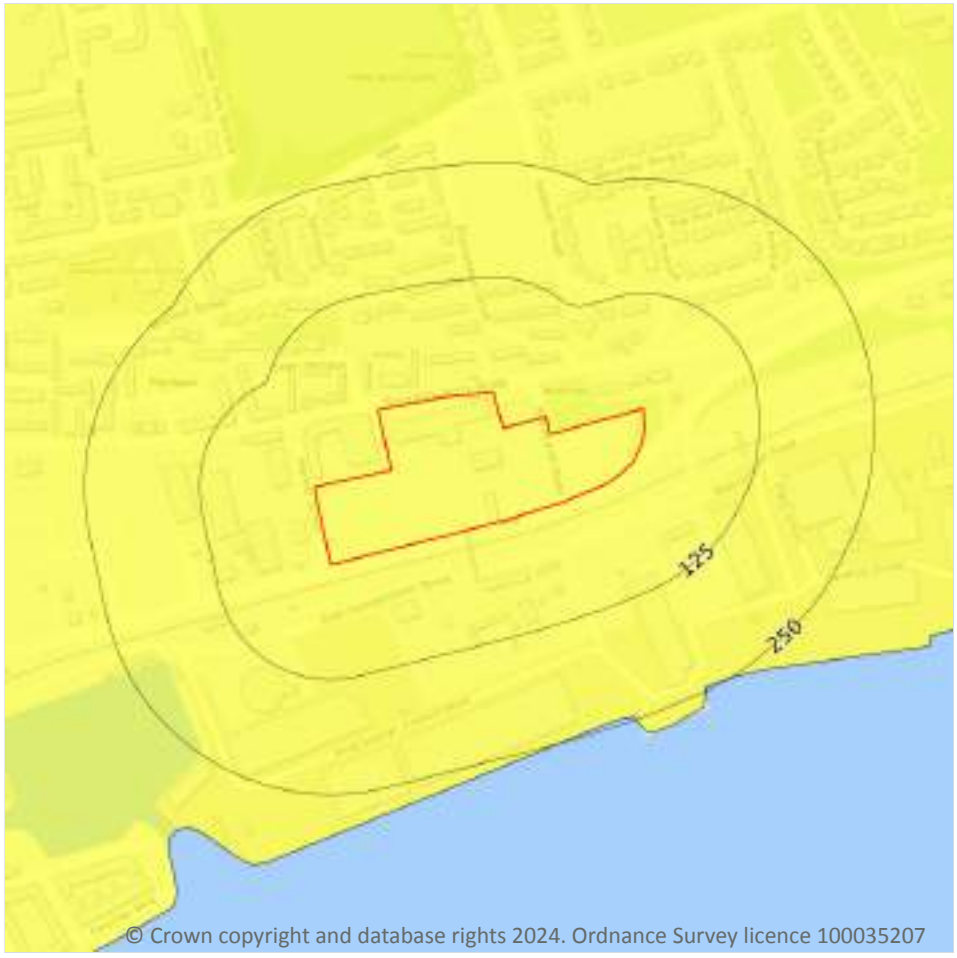
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 105 >**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**
On site	**Very low**	**Ground conditions predominantly low plasticity.**
On site	**Low**	**Ground conditions predominantly medium plasticity.**

Location	Hazard rating	Details
20m W	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m	1

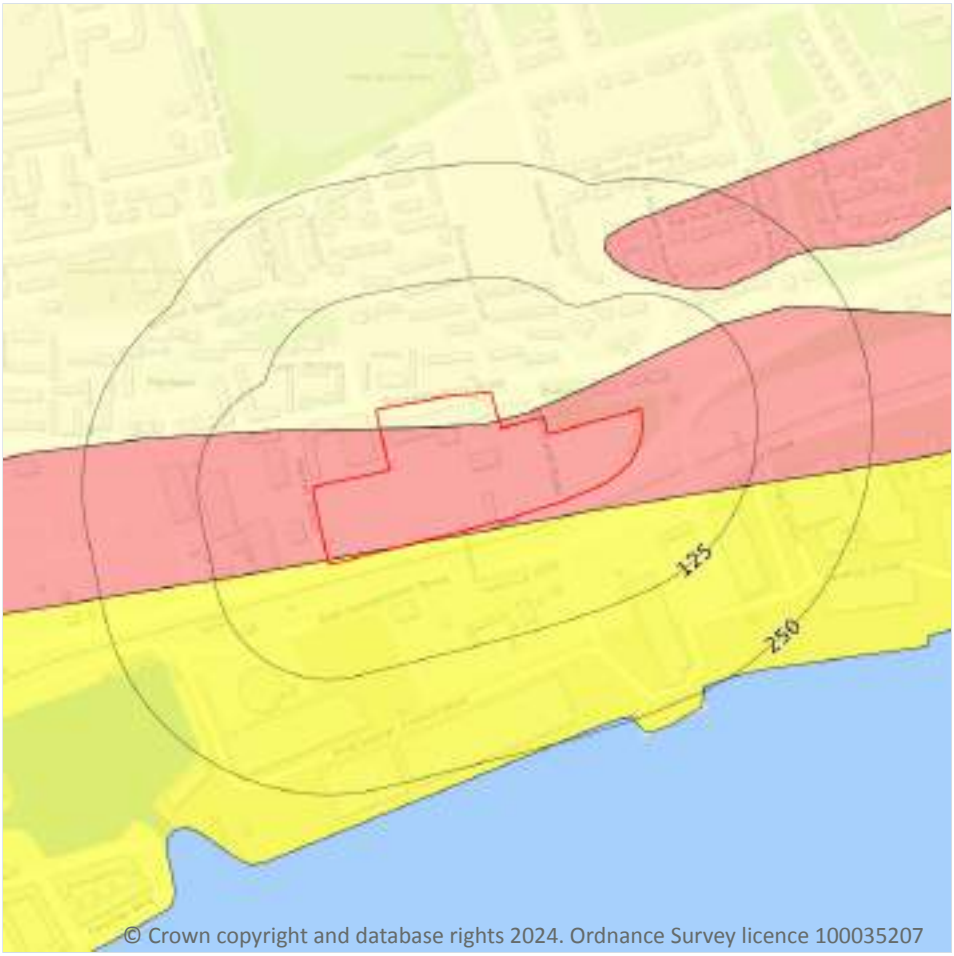
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 107 >**

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.3 Compressible deposits

Records within 50m	3

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

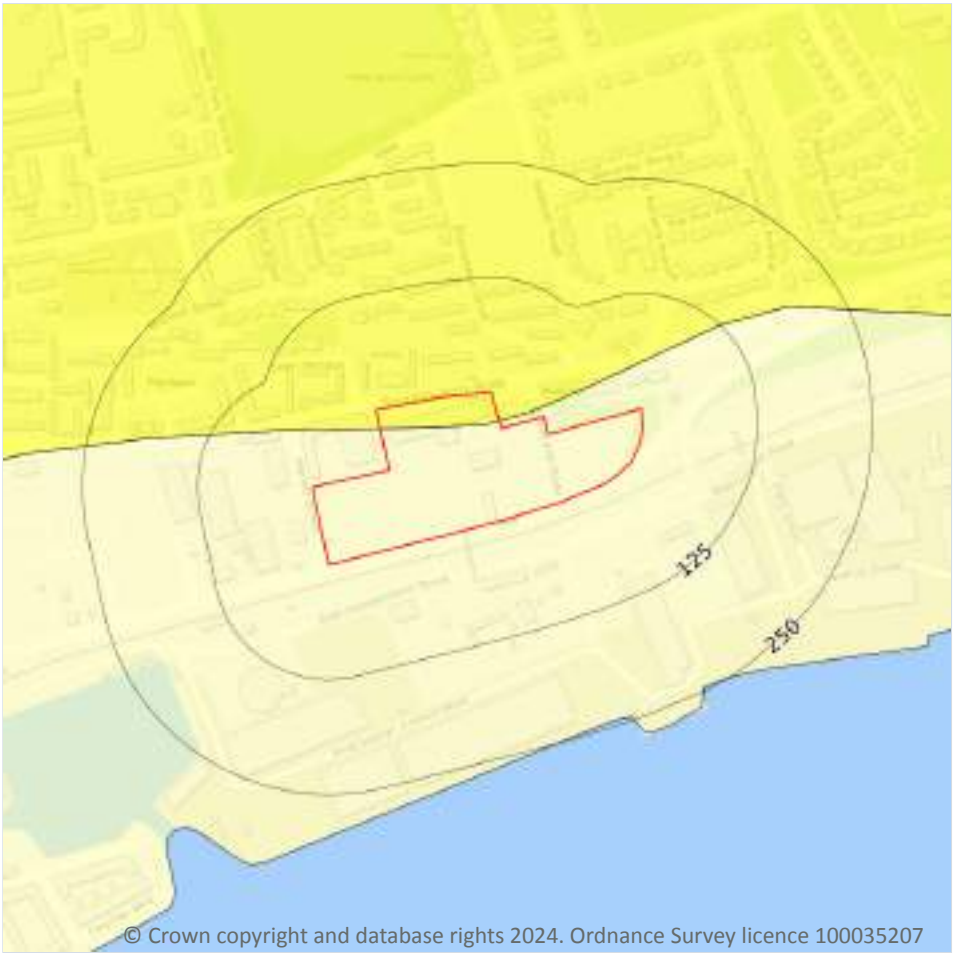
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 108 >**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
On site	**Very low**	**Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.**

Location	Hazard rating	Details
On site	**Moderate**	**Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.4 Collapsible deposits

Records within 50m	2

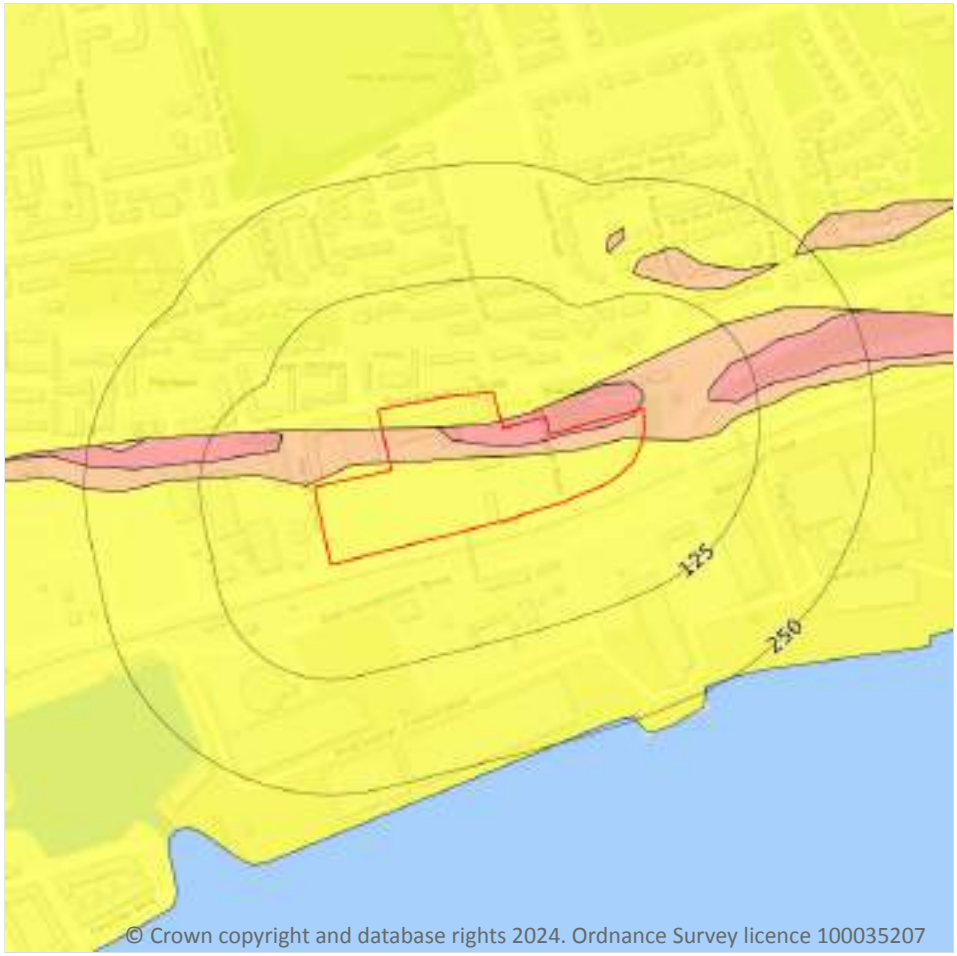
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 110 >**

Location	Hazard rating	Details
On site	**Negligible**	**Deposits with potential to collapse when loaded and saturated are believed not to be present.**
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m	3

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 111 >**

Location	Hazard rating	Details
On site	**Very low**	**Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.**

Location	Hazard rating	Details
On site	**Low**	**Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.**
On site	**Moderate**	**Slope instability problems are probably present or have occurred in the past. Land use should consider specifically the stability of the site.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks

Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.6 Ground dissolution of soluble rocks

Records within 50m	1

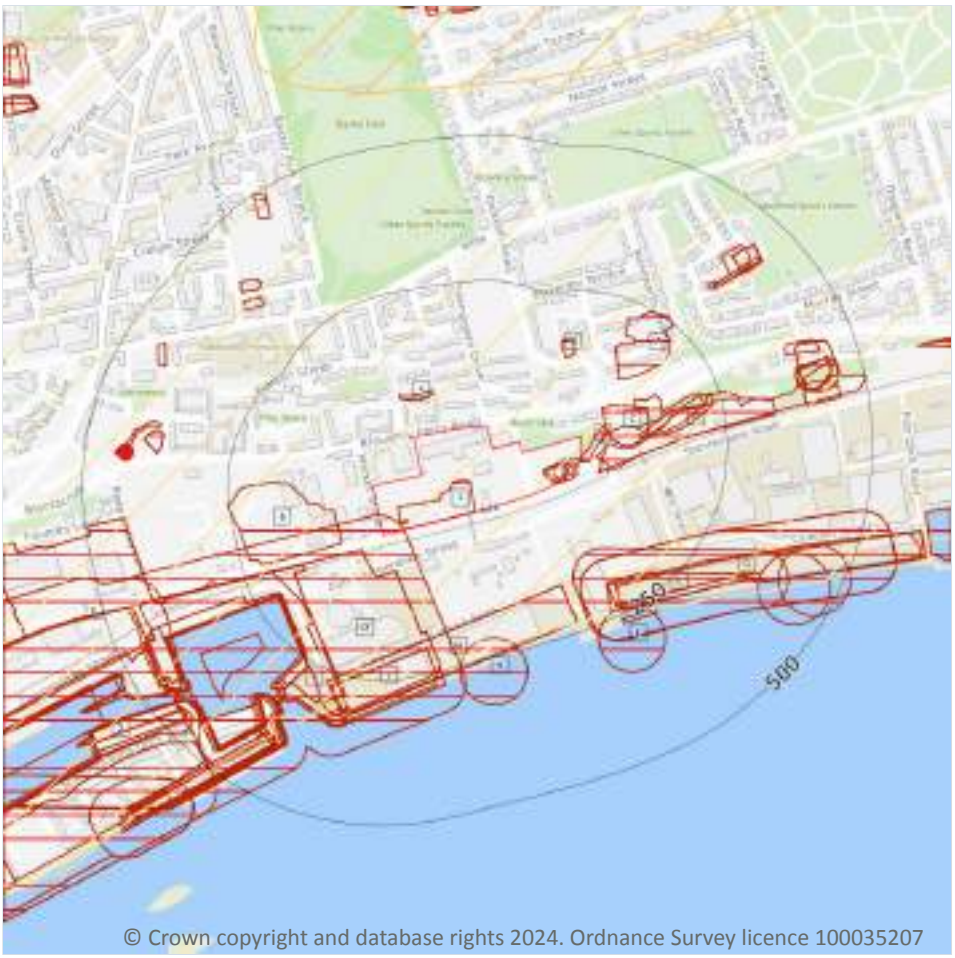
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 113 >**

Location	Hazard rating	Details
On site	**Negligible**	**Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.**

This data is sourced from the British Geological Survey.

18 Mining and ground workings



Site Outline

Search buffers in metres (m)

BritPits

Surface ground workings

Underground workings

Underground mining extents

Historical mineral planning areas

TCA non-coal mining

Non Coal Mining

Sporadic underground mining of restricted extent possible

Localised small scale underground mining possible

Small scale mining possible

Underground mining known or likely within or in close proximity

Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m	1

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on **page 115 >**

ID	Location	Details	Description
R	429m W	Name: Craigie Quarry Address: Craigie, DUNDEE, Angus Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m **41**

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on **page 115 >**

ID	Location	Land Use	Year of mapping	Mapping scale
1	**On site**	**Pond**	**1862**	**1:10560**
2	**On site**	**Docks**	**1921**	**1:10560**
A	**On site**	**Pond**	**1923**	**1:10560**
A	**On site**	**Pond**	**1901**	**1:10560**
A	**On site**	**Pond**	**1862**	**1:10560**
A	**On site**	**Pond**	**1921**	**1:10560**
4	2m E	Refuse Heap	1938	1:10560
B	26m E	Water Body	1901	1:10560
B	35m E	Water Body	1862	1:10560
C	46m E	Unspecified Heap	1923	1:10560
C	46m E	Unspecified Heap	1923	1:10560
D	46m SW	Dock	1923	1:10560
D	46m SW	Dock	1923	1:10560
5	61m NW	Unspecified Ground Workings	1901	1:10560
6	73m SW	Water Body	1862	1:10560
B	97m E	Pond	1921	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
C	103m E	Unspecified Pit	1862	1:10560
B	111m E	Pond	1923	1:10560
7	118m NE	Pond	1901	1:10560
E	128m SE	Unspecified Wharf	1921	1:10560
8	138m NE	Sand Pit	1862	1:10560
F	147m SW	Docks	1938	1:10560
F	147m SW	Docks	1901	1:10560
G	150m SE	Unspecified Wharf	1938	1:10560
G	150m SE	Unspecified Wharf	1901	1:10560
H	163m SE	Unspecified Wharf	1938	1:10560
H	163m SE	Unspecified Wharf	1938	1:10560
I	180m SW	Dock	1921	1:10560
E	191m SE	Unspecified Wharf	1938	1:10560
E	191m SE	Unspecified Wharf	1938	1:10560
G	194m SE	Unspecified Wharf	1921	1:10560
G	203m SE	Unspecified Wharf	1923	1:10560
G	203m SE	Unspecified Wharf	1923	1:10560
I	206m SW	Dock	1994	1:10000
I	206m SW	Dock	1982	1:10000
I	207m SW	Dock	1973	1:10000
I	207m SW	Dock	1955	1:10560
J	208m S	Unspecified Wharf	1923	1:10560
J	208m S	Unspecified Wharf	1923	1:10560
9	217m S	Unspecified Wharf	1973	1:10000
K	238m SE	Unspecified Wharf	1982	1:10000

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m	0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	3

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining and ground workings map on **page 115 >**

ID	Location	Name	Commodity	Class	Likelihood
3	**On site**	**Not available**	**Vein Mineral**	**A**	**Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.**

ID	Location	Name	Commodity	Class	Likelihood
12	587m N	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	739m E	Not available	Vein Mineral	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site	0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m	0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m	0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m	0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m	0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site	0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site	0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m	0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m	0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m	0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m	0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.

This data is sourced from Groundsure.

19.5 National karst database

Records within 500m	0

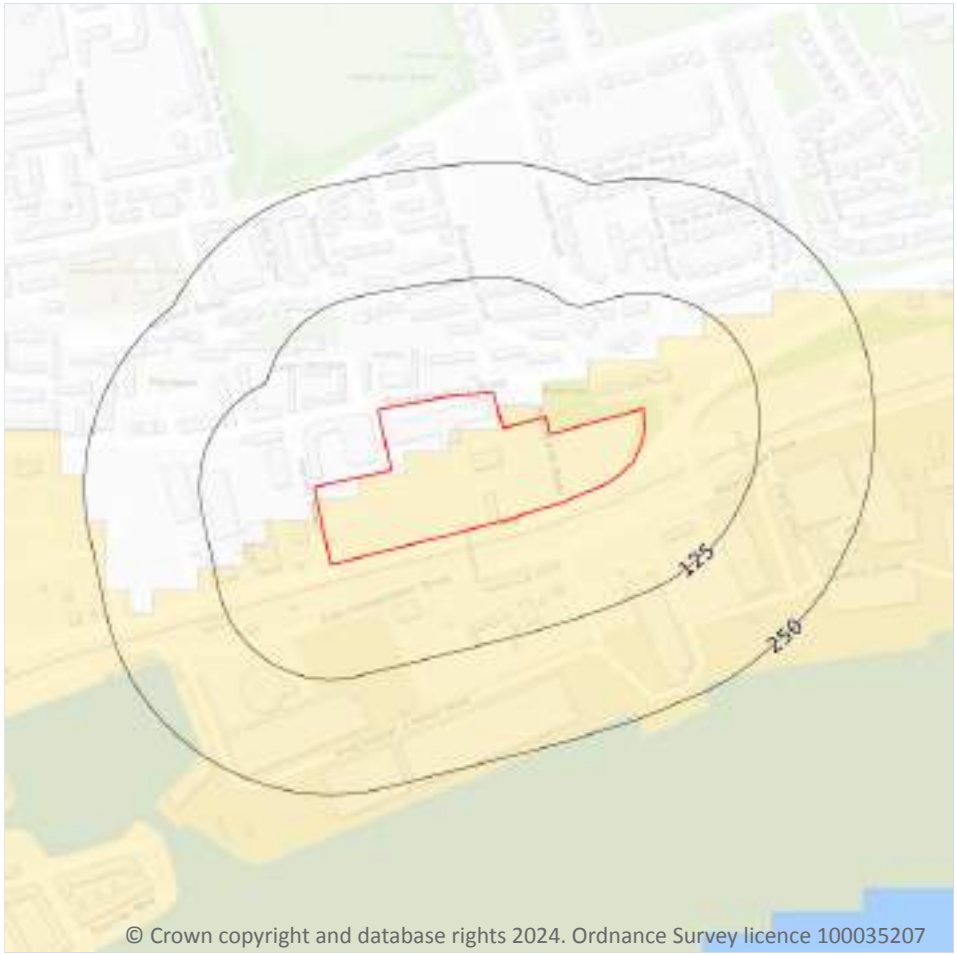
This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.

20 Radon



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

20.1 Radon

Records on site	2

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on **page 124 >**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Between 1% and 3%**	**Basic**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Less than 1%**	**None**

This data is sourced from the British Geological Survey and UK Health Security Agency.

21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m	4

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km^2. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km^2; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	-	**100 mg/kg**	**60 mg/kg**	**No data**	**120 - 180 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	-	**100 mg/kg**	**60 mg/kg**	**No data**	**120 - 180 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	-	**100 mg/kg**	**60 mg/kg**	**No data**	**120 - 180 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	-	**100 mg/kg**	**60 mg/kg**	**No data**	**90 - 120 mg/kg**	**15 - 30 mg/kg**

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

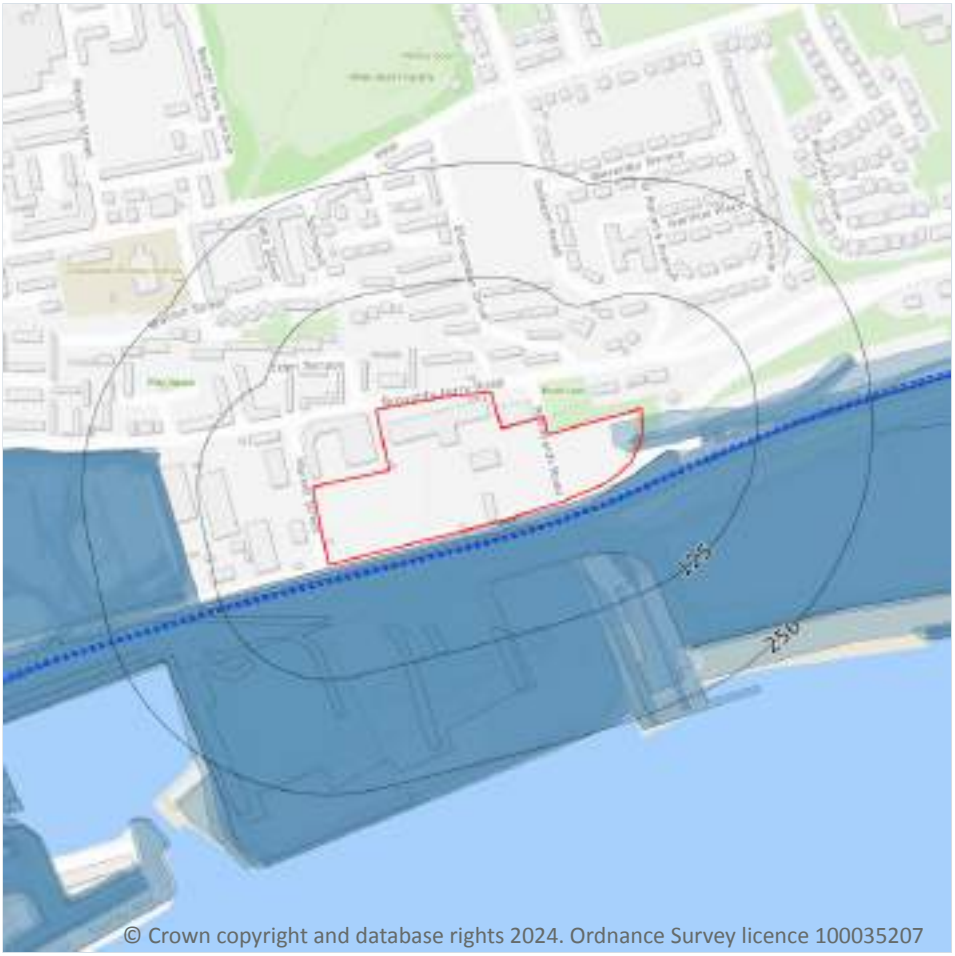
21.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

22 Railway infrastructure and projects



Site Outline
Search buffers in metres (m)
Crossrail 1 Stations
Crossrail 1 Route
Crossrail 2 Stations
Crossrail 2 Route
Crossrail 2 Worksites
Crossrail 2 Safeguarding
Crossrail 2 Headhouses
Railway stations
Active railways
Active tunnels
Abandoned railways
Historic railways
Historic tunnels
Underground stations
Underground Lines
Royal Mail tunnels
HS2 optimised route
HS2 Stations
HS2 Depots
HS2 Surface Safeguarding
HS2 Subsurface Safeguarding

22.1 Underground railways (London)

Records within 250m	0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m	0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m	46

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on **page 128 >**

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1922**	**2500**
On site	**Railway Sidings**	**1921**	**10560**
On site	**Railway Sidings**	**1923**	**10560**
2m SE	Railway Sidings	1973	10000
4m SW	Railway Sidings	1982	10000
8m E	Railway Sidings	1955	10560
12m S	Railway Sidings	1921	10560
14m SW	Railway Sidings	1952	2500
15m SW	Railway Sidings	1938	10560
15m SW	Railway Sidings	1901	10560
22m SW	Railway Sidings	1903	2500
22m SW	Railway Sidings	1922	2500
29m SW	Railway Sidings	1981	1250
30m SW	Railway Sidings	1974	1250
30m SW	Railway Sidings	1952	1250
33m SE	Railway Sidings	1938	2500
58m SW	Railway Sidings	1938	10560

Location	Land Use	Year of mapping	Mapping scale
65m SW	Railway Sidings	1921	10560
67m E	Railway Sidings	1952	1250
68m E	Railway Sidings	1952	2500
74m E	Railway Sidings	1903	2500
77m SW	Railway Sidings	1980	1250
77m SW	Railway Sidings	1990	1250
80m SW	Railway Sidings	1921	10560
80m E	Railway Sidings	1938	2500
89m SW	Railway Sidings	1952	1250
89m SW	Railway Sidings	1970	1250
91m S	Railway Sidings	1921	10560
92m E	Railway Sidings	1972	1250
92m E	Railway Sidings	1952	1250
93m E	Railway Sidings	1952	2500
109m E	Railway Sidings	1952	1250
109m E	Railway Sidings	1952	2500
110m S	Railway Sidings	1921	10560
140m SW	Railway Sidings	1860	2500
146m SW	Railway Sidings	1955	10560
151m W	Railway Sidings	1922	2500
154m E	Railway Sidings	1972	1250
155m W	Railway Sidings	1938	2500
162m SW	Railway Sidings	1903	2500
178m SW	Railway Sidings	1860	2500
191m SE	Railway Sidings	1952	2500
191m SE	Railway Sidings	1952	1250
197m SE	Railway Sidings	1972	1250
246m E	Railway Sidings	1982	10000

Location	Land Use	Year of mapping	Mapping scale
249m W	Railway Sidings	1922	2500

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m	0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m	0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m	7

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

Features are displayed on the Railway infrastructure and projects map on **page 128 >**

Location	Name	Type
16m SW	Edinburgh to Aberdeen Line	rail
19m SE	Not given	Multi Track
20m SW	Edinburgh to Aberdeen Line	rail
21m E	Not given	Multi Track
66m E	Not given	Multi Track
164m E	Edinburgh to Aberdeen Line	rail
166m E	Edinburgh to Aberdeen Line	rail

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m	0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m	0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m	0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 ltd.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see https://www.groundsure.com/sources-reference ↗.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗.

Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR_2500
Grid Ref: 341730, 730846

Map Name: County Series

Map date: **1860**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Groundsure INSIGHTS

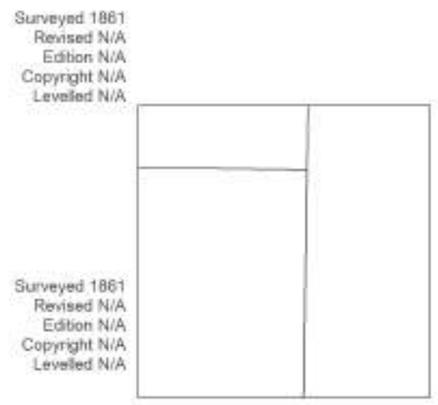
Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR_2500
Grid Ref: 341730, 730846

Map Name: County Series Town Plan
Map date: **1861**
Scale: 1:500
Printed at: 1:1,000

N
W E
S



Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR_2500
Grid Ref: 341730, 730846

Map Name: County Series Town Plan
Map date: **1873**
Scale: 1:500
Printed at: 1:1,000

N
W E
S

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR_2500
Grid Ref: 341730, 730846

Map Name: County Series

Map date: **1903**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1903
Revised 1903
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR_2500
Grid Ref: 341730, 730846

Map Name: County Series

Map date: **1922**

Scale: 1:2,500

Printed at: 1:2,500

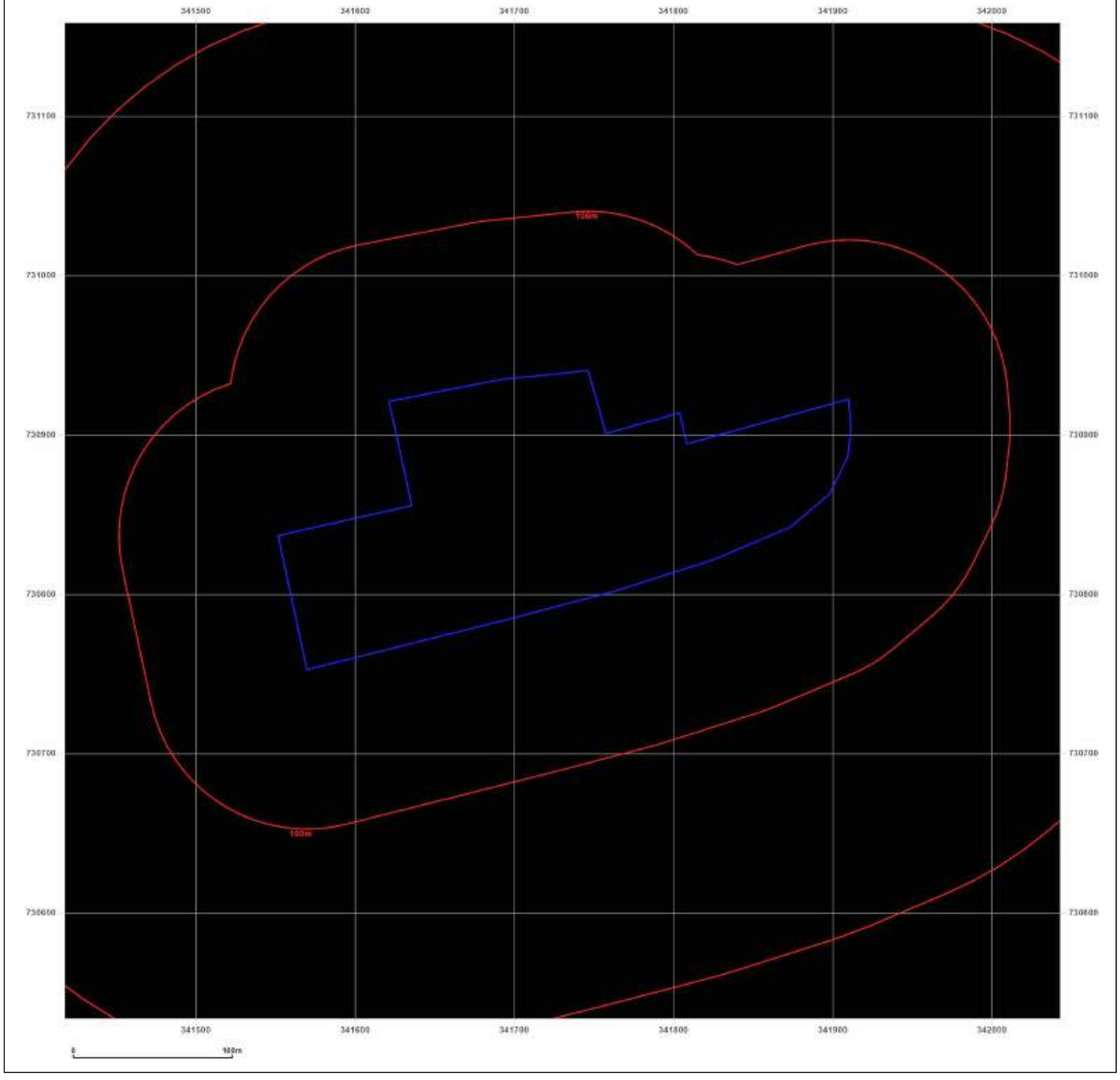
N
W E
S

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR_2500
Grid Ref: 341730, 730846

Map Name: County Series
Map date: **1938**
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S

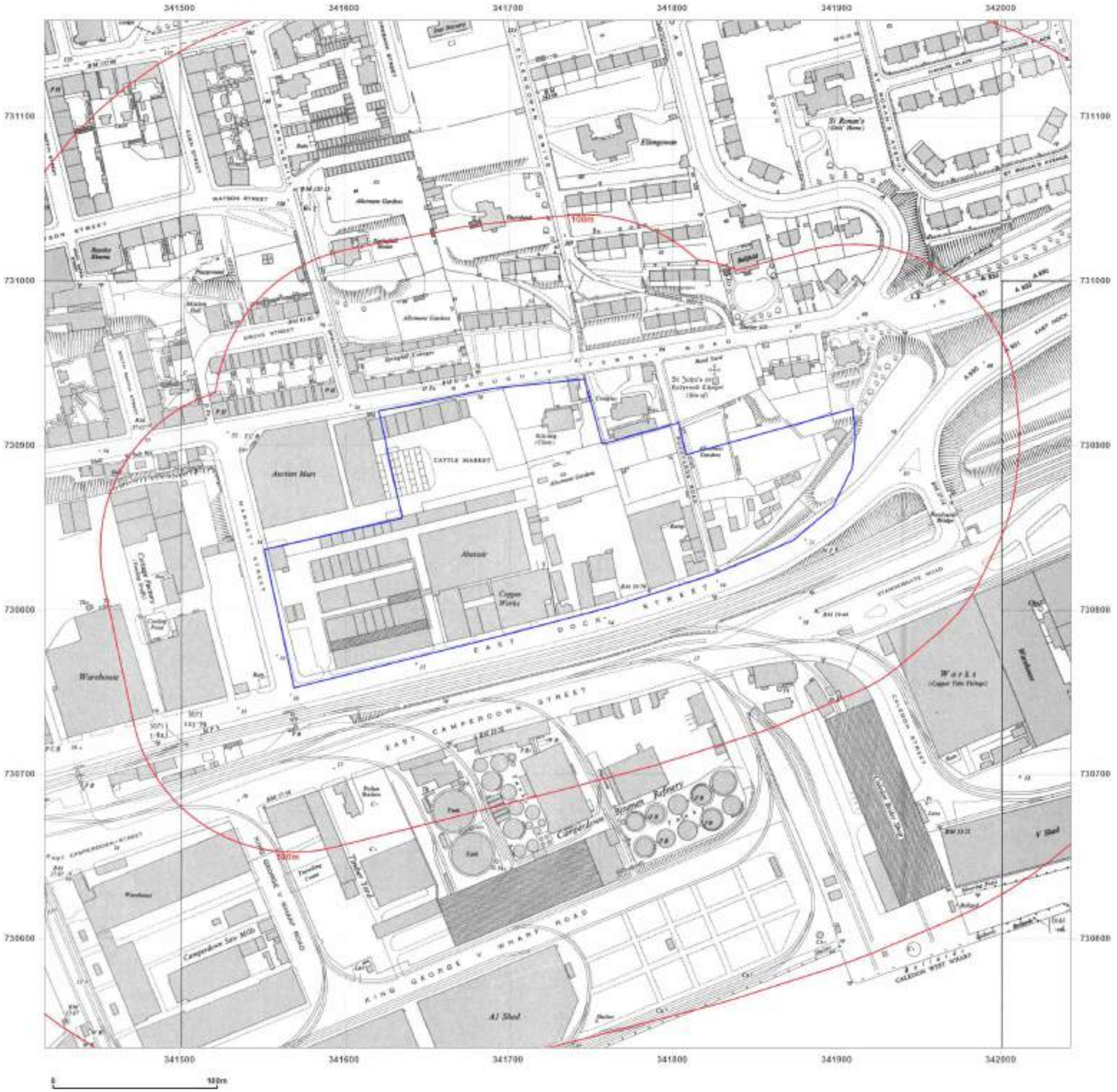
Surveyed 1938
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR_2500
Grid Ref: 341730, 730846

Map Name: National Grid

Map date: **1952**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR_2500
Grid Ref: 341730, 730846

Map Name: National Grid

Map date: **1954**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed N/A
Revised 1952
Edition 1953
Copyright N/A
Levelled 1948

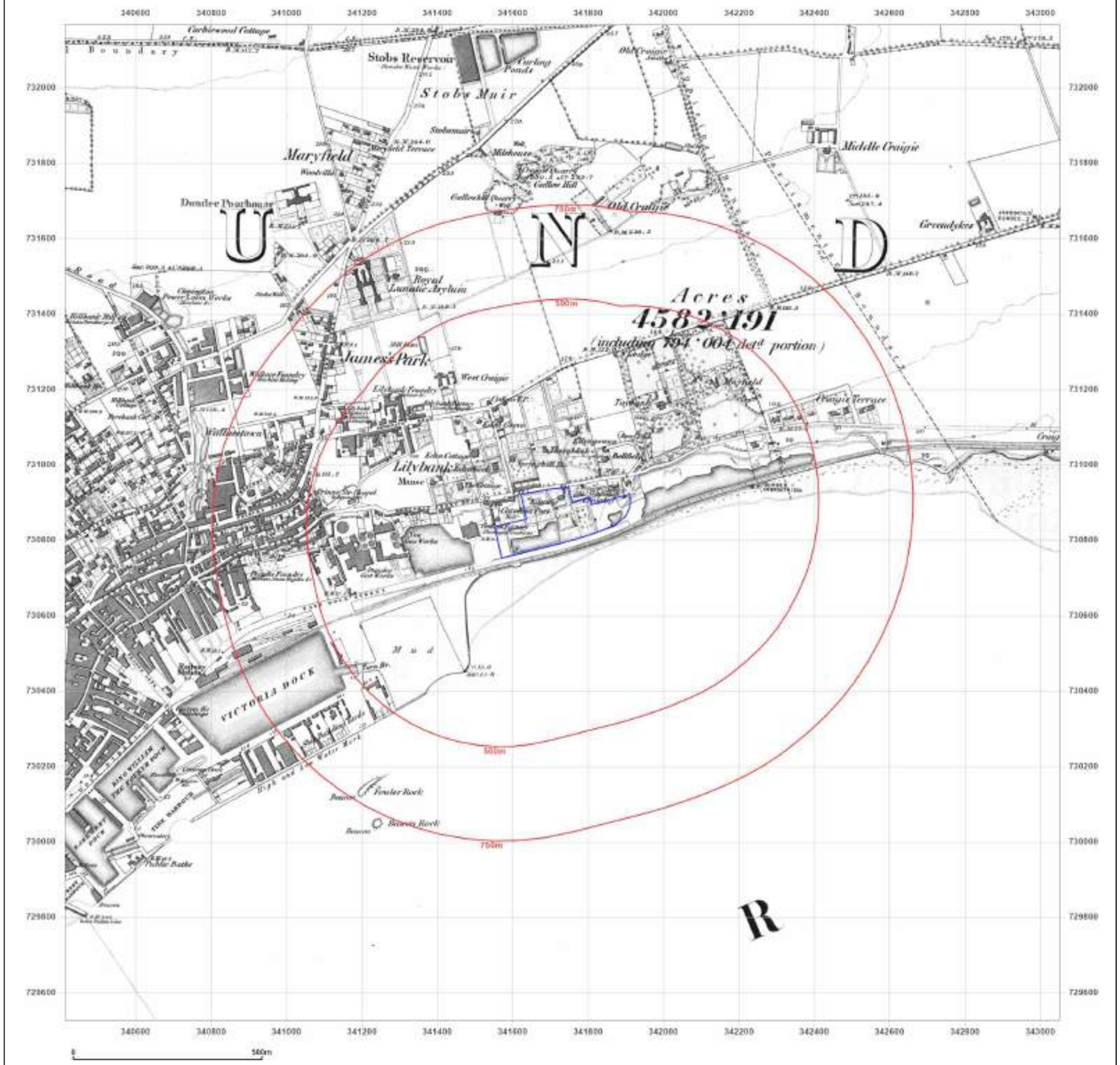
Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: County Series

Map date: **1865**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

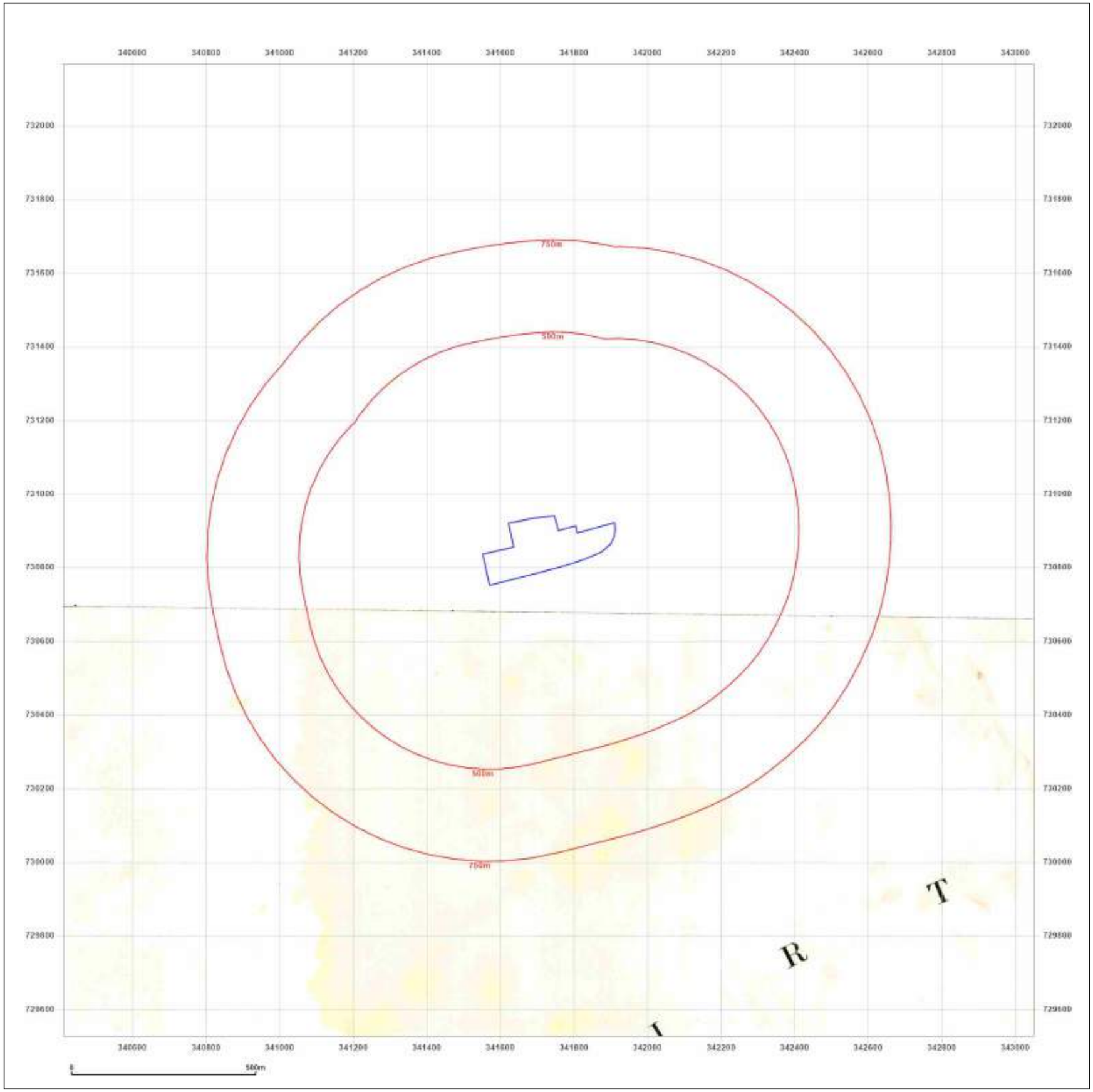
Surveyed 1862
Revised N/A
Edition 1865
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: County Series

Map date: **1893**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

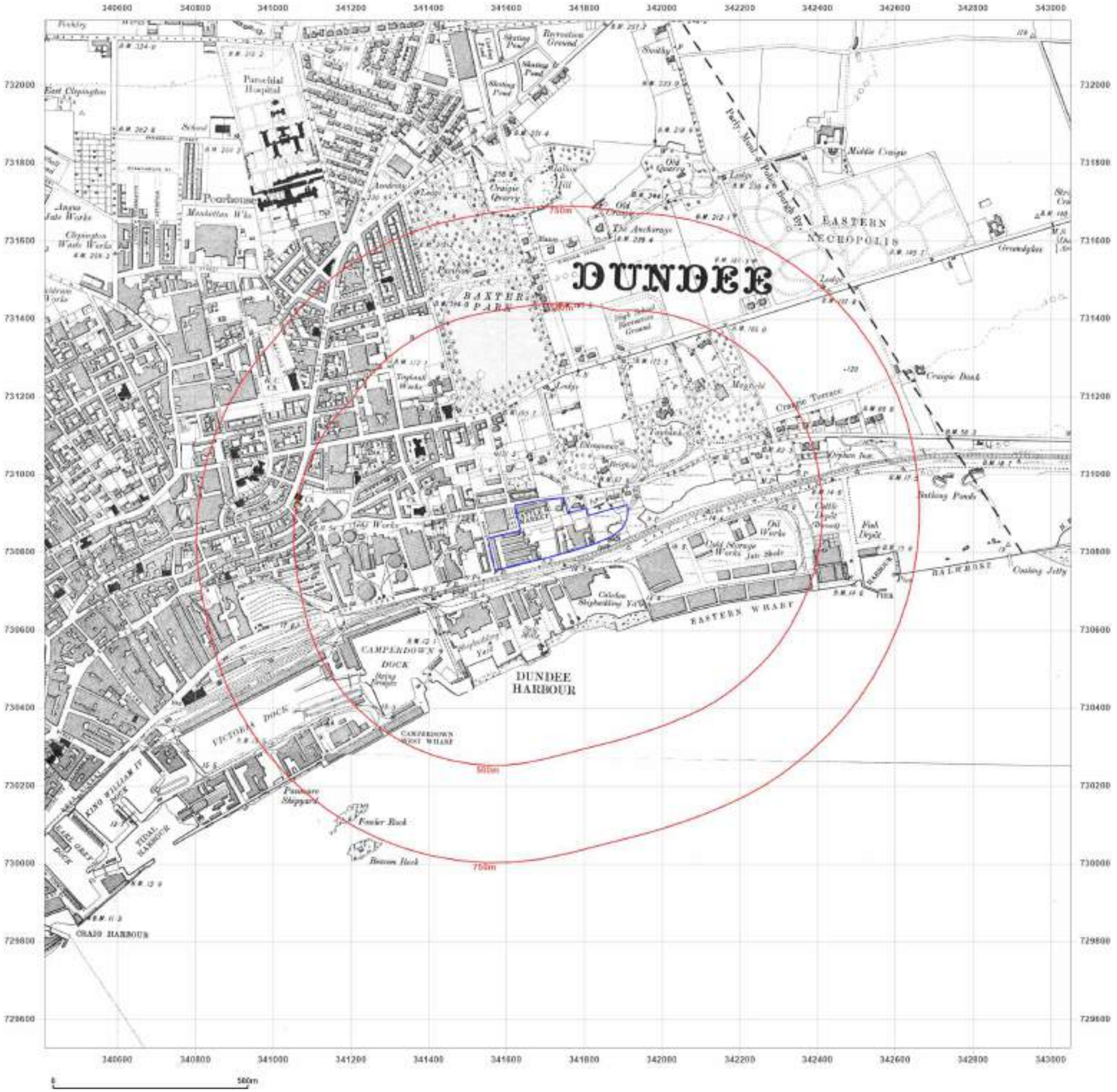
Surveyed 1893
Revised 1893
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: County Series

Map date: **1901-1903**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1876
Revised 1901
Edition N/A
Copyright N/A
Levelled N/A

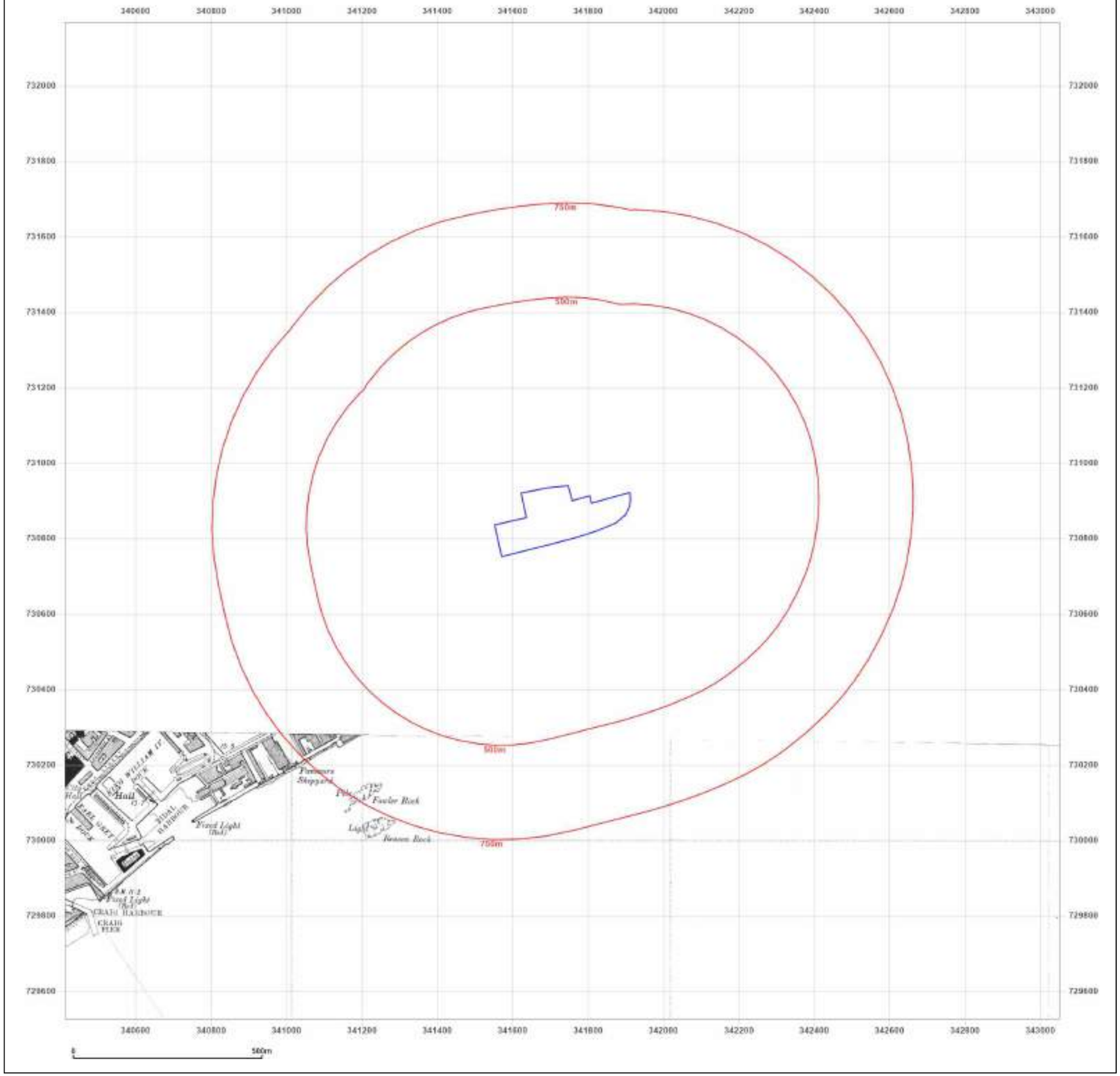
Surveyed 1871
Revised 1903
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: County Series

Map date: **1921**

Scale: 1:10,560

Printed at: 1:10,560

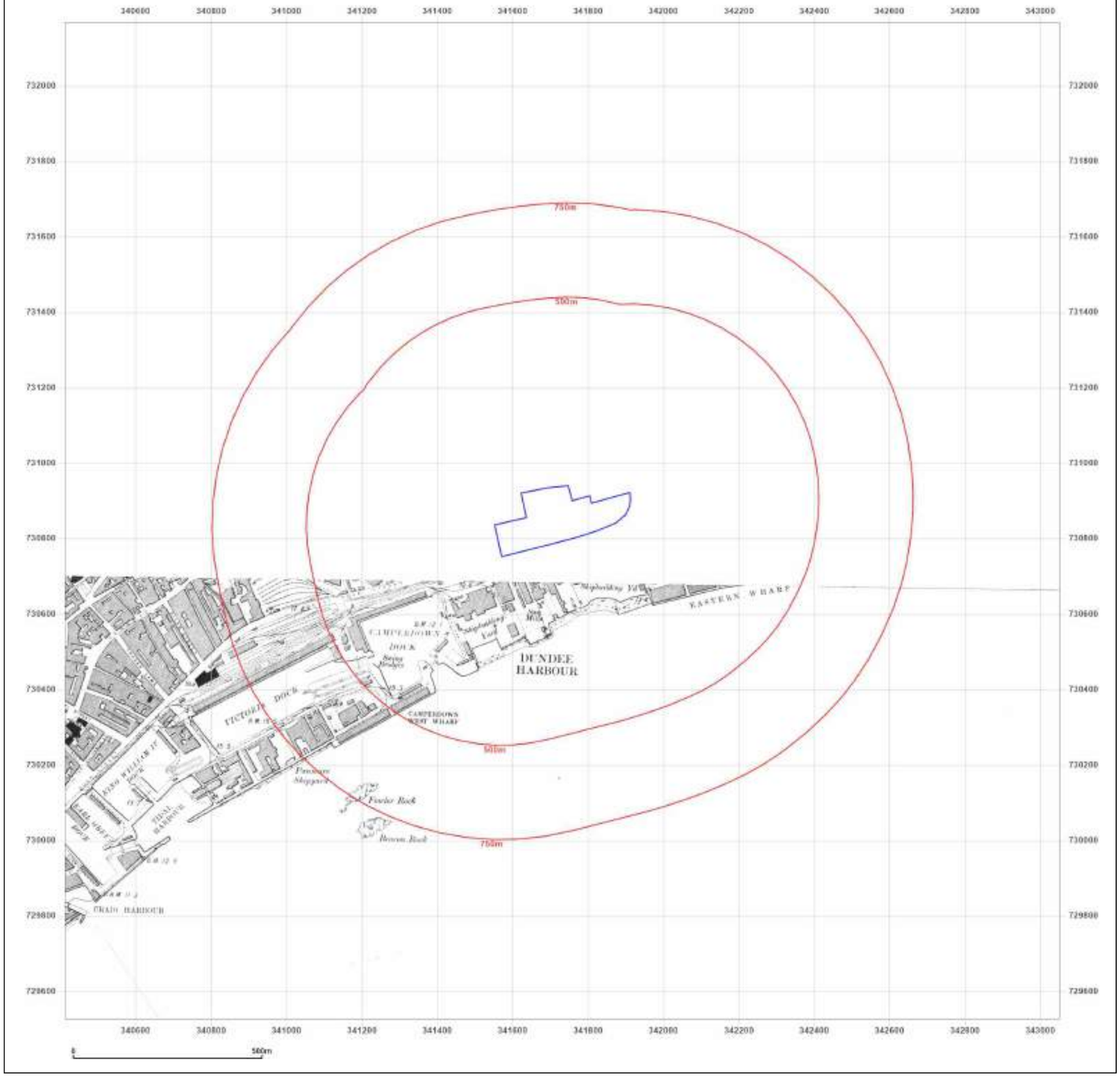
N
W E
S

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: County Series

Map date: **1921**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

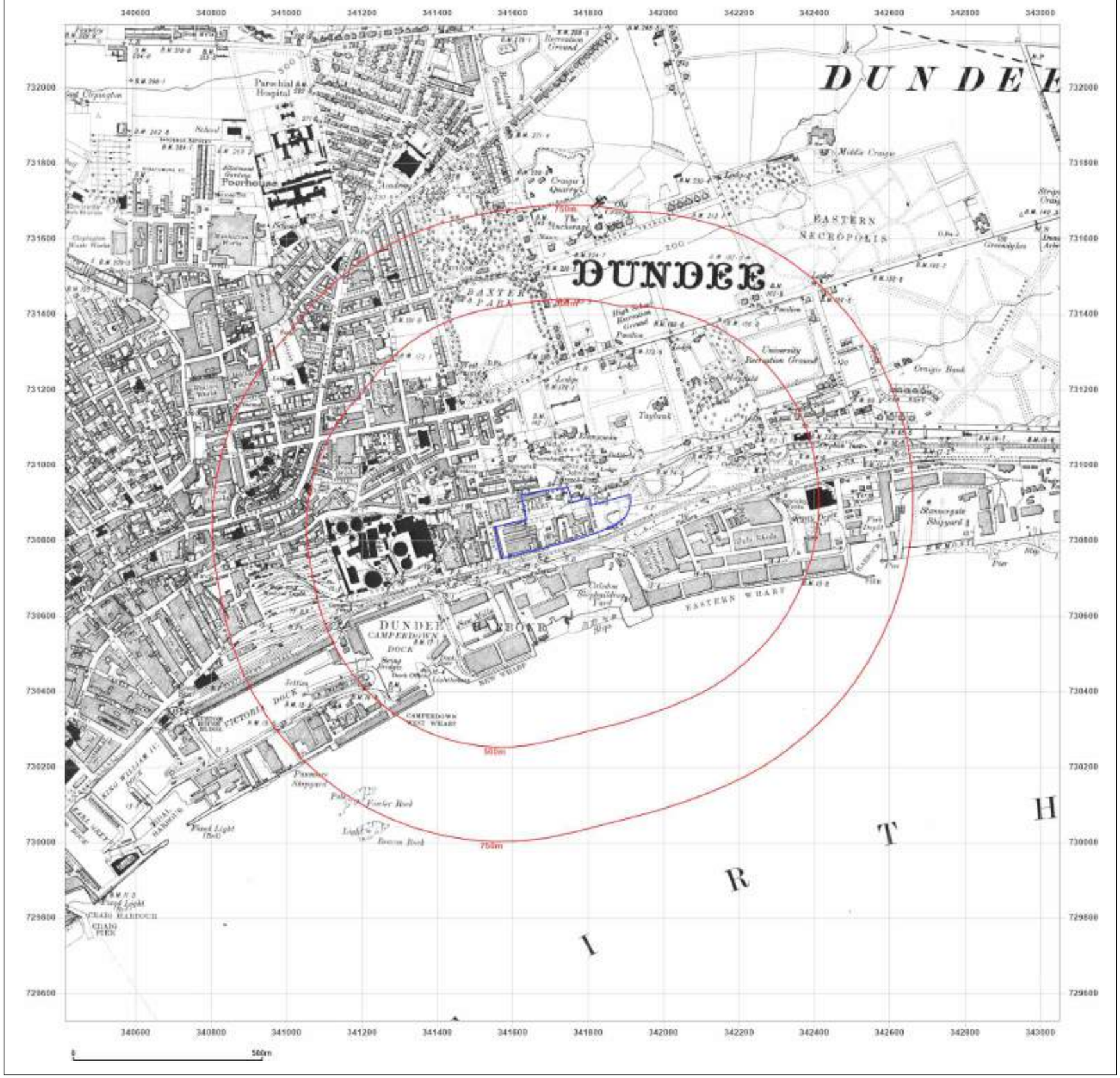
Surveyed 1854
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: County Series

Map date: **1921**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

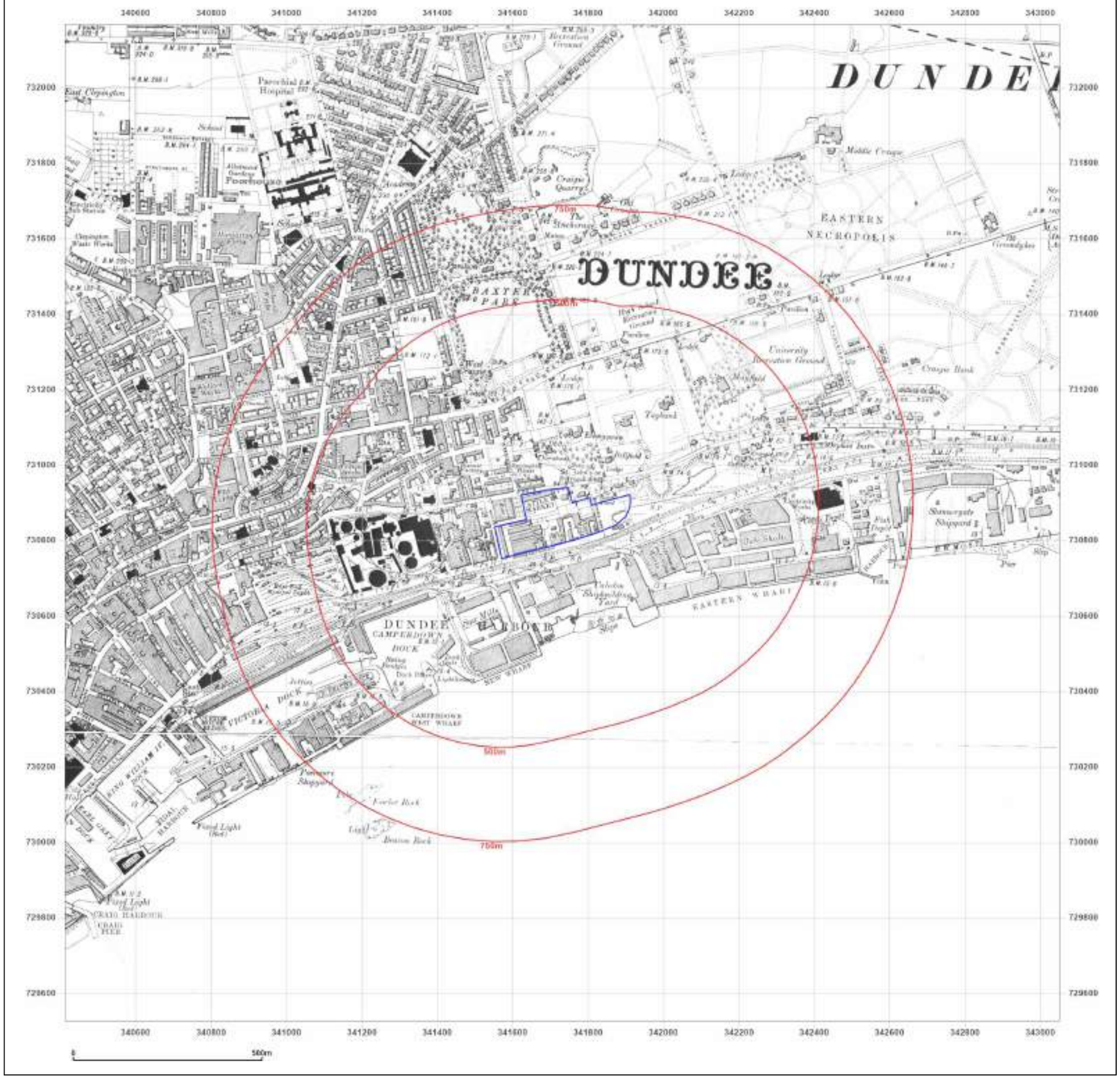
Surveyed 1858
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: County Series

Map date: **1921-1923**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1858
Revised 1923
Edition 1923
Copyright N/A
Levelled N/A

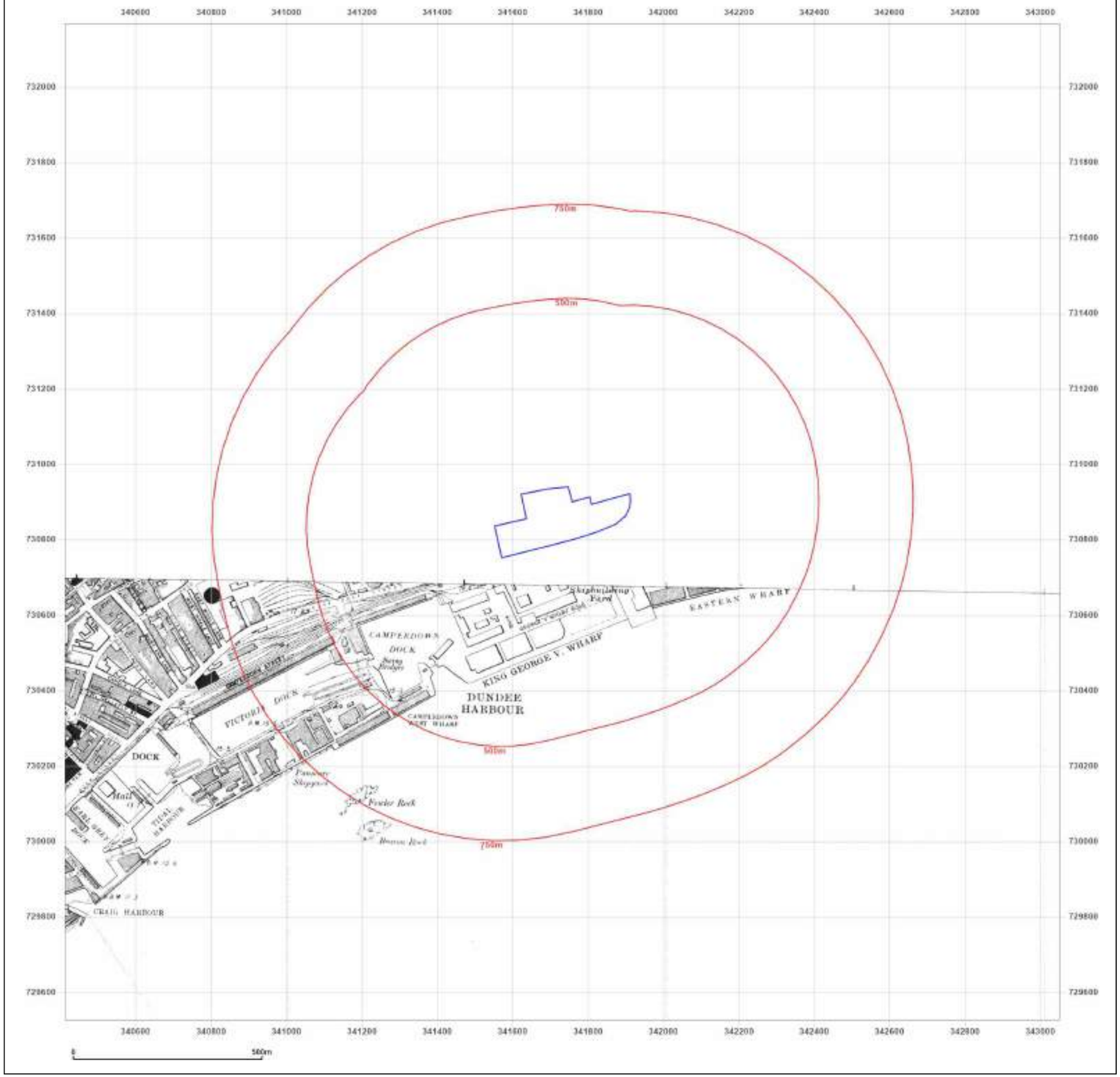
Surveyed 1858
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

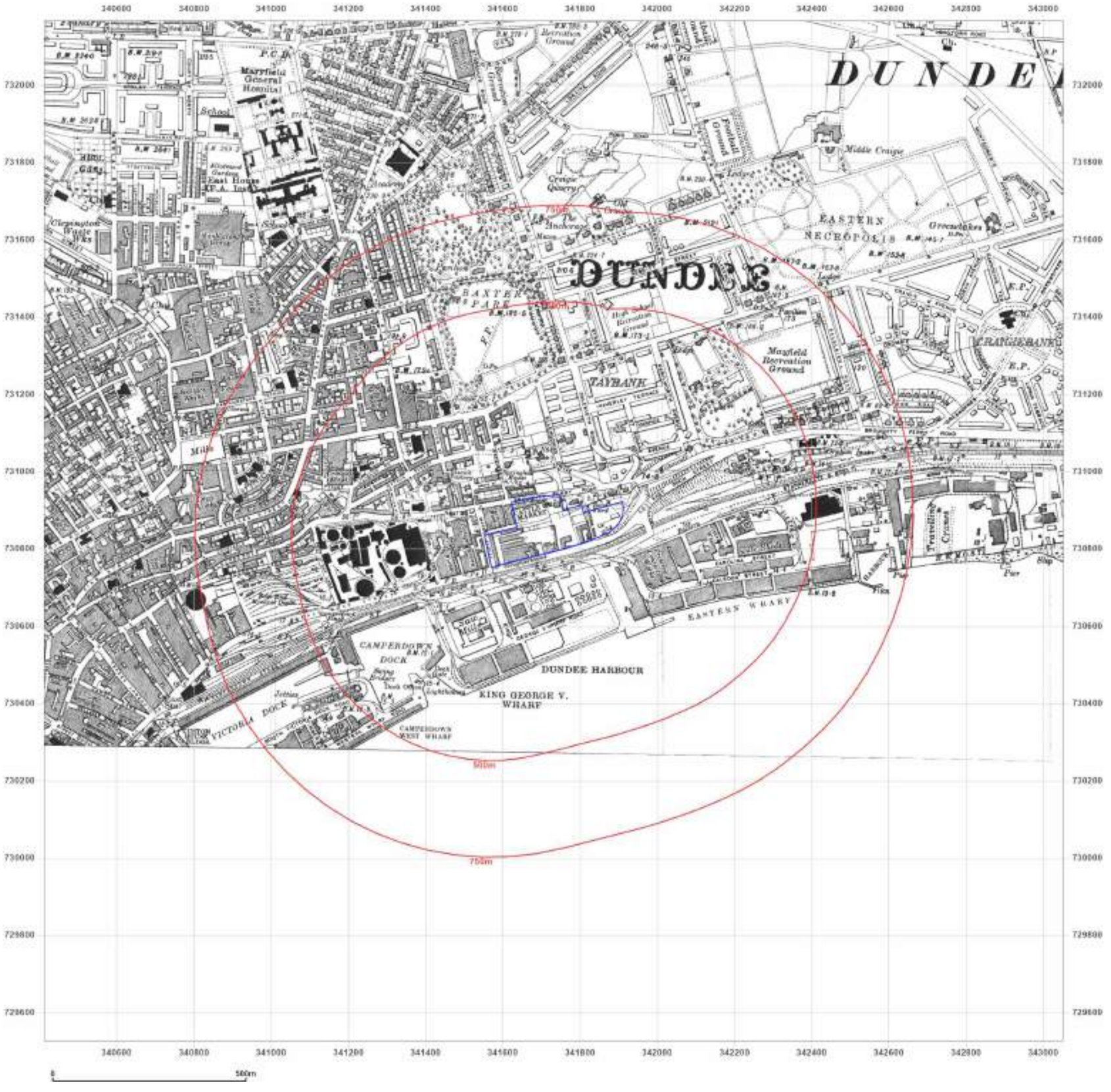
N
W E
S

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

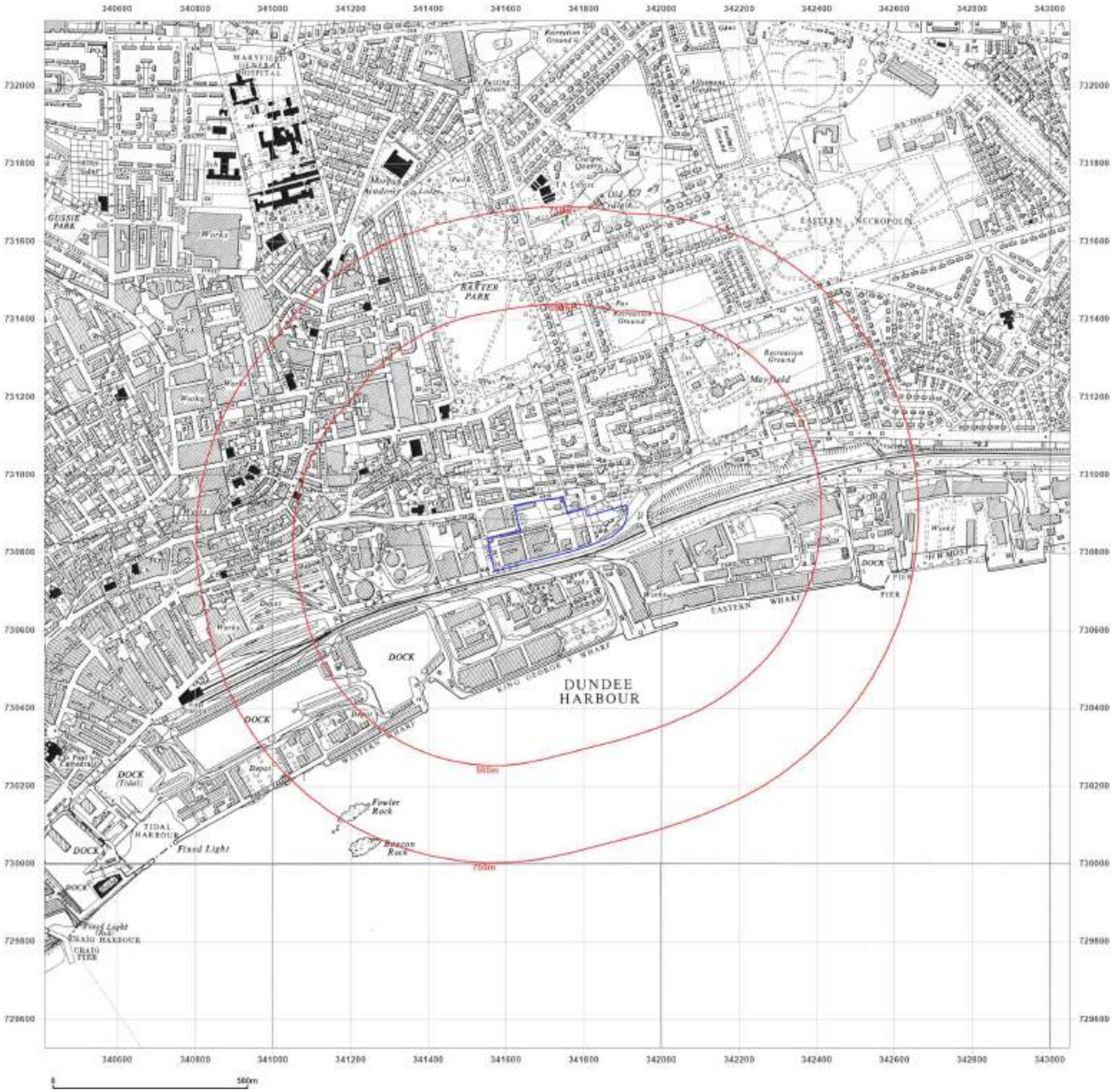
N
W E
S

Surveyed 1858
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: Provisional
Map date: **1954-1955**
Scale: 1:10,560
Printed at: 1:10,560

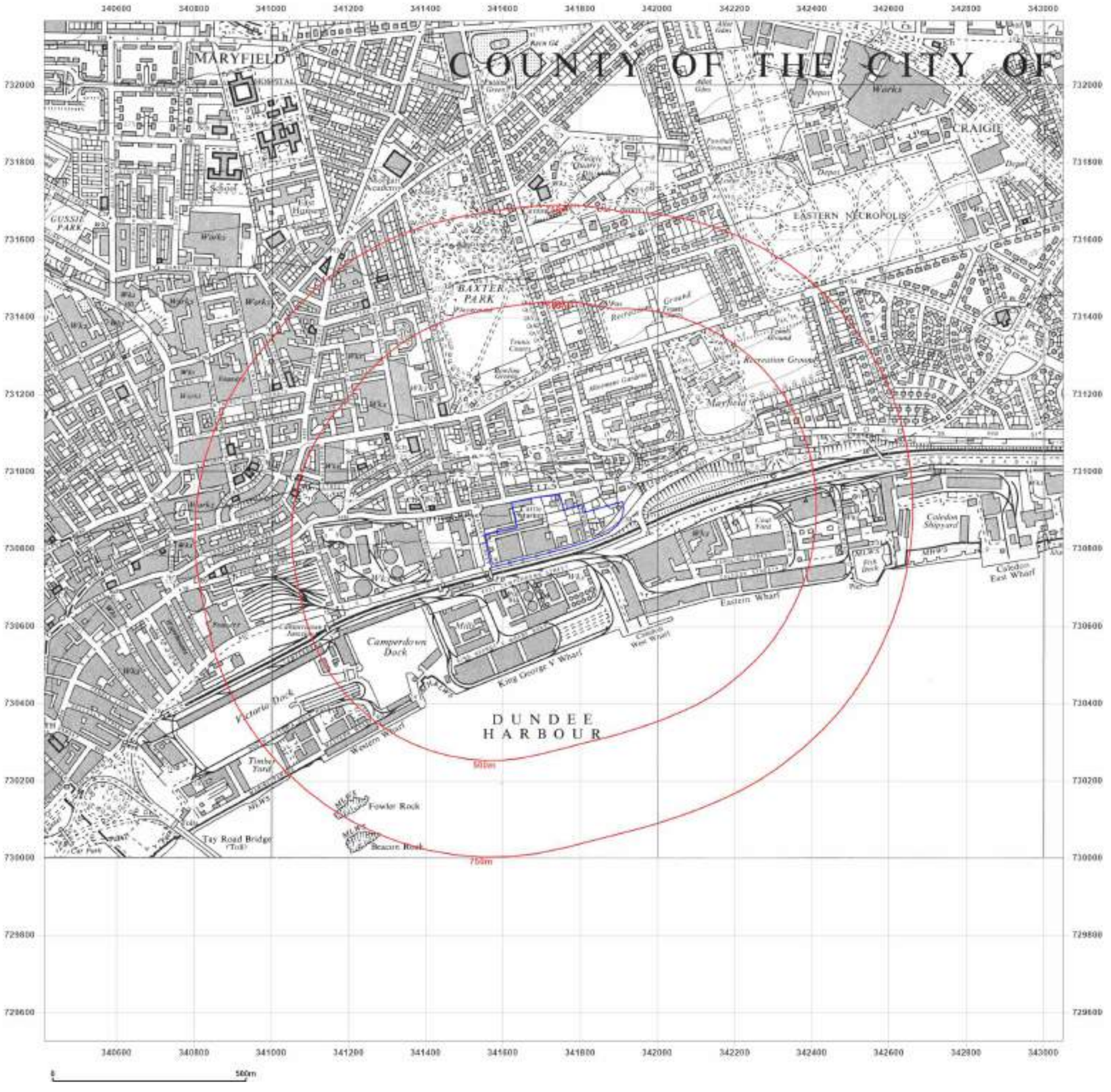
N
W E
S

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: Provisional

Map date: **1969**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

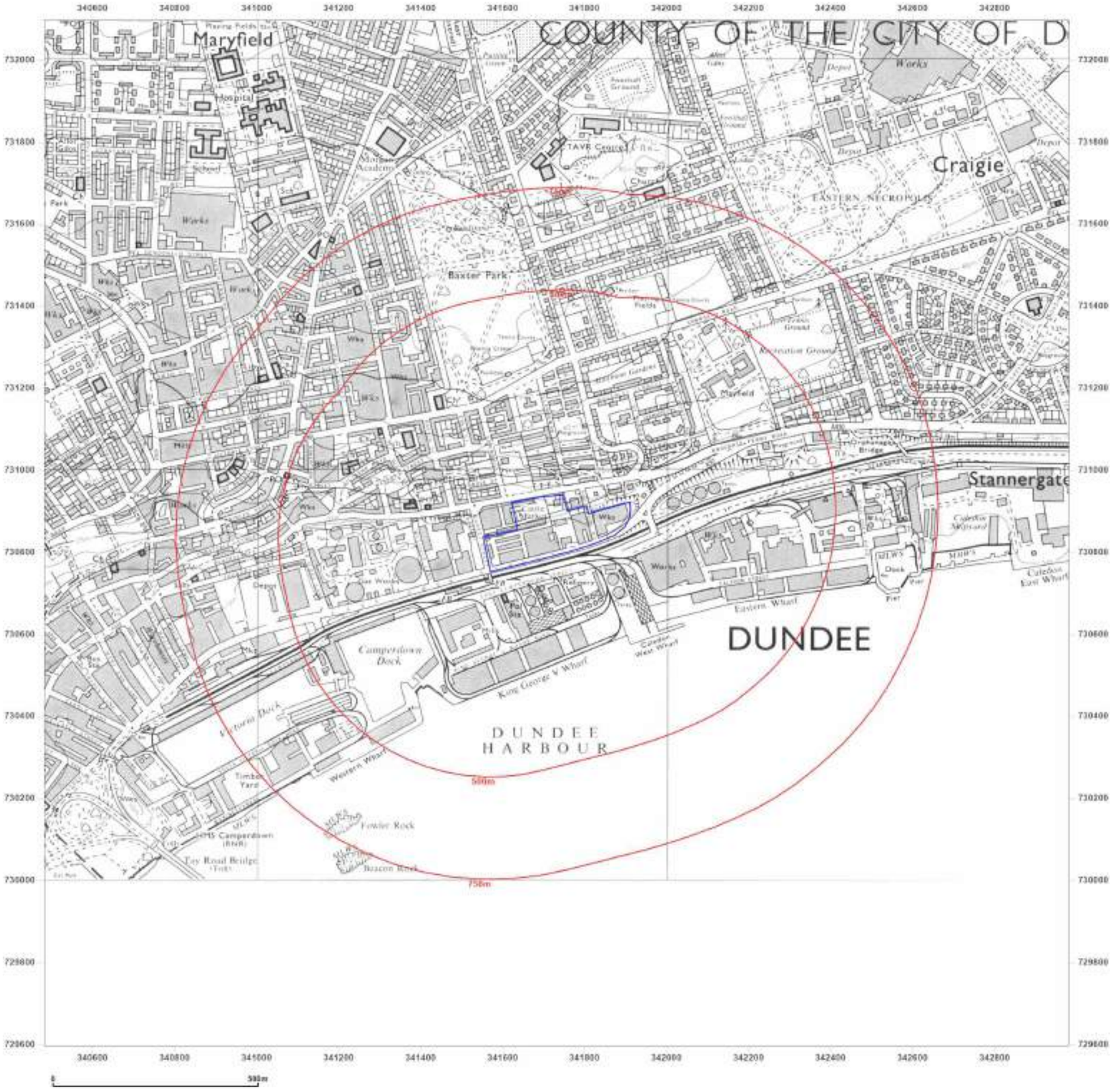
Surveyed 1967
Revised 1967
Edition N/A
Copyright 1969
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: National Grid

Map date: **1973**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

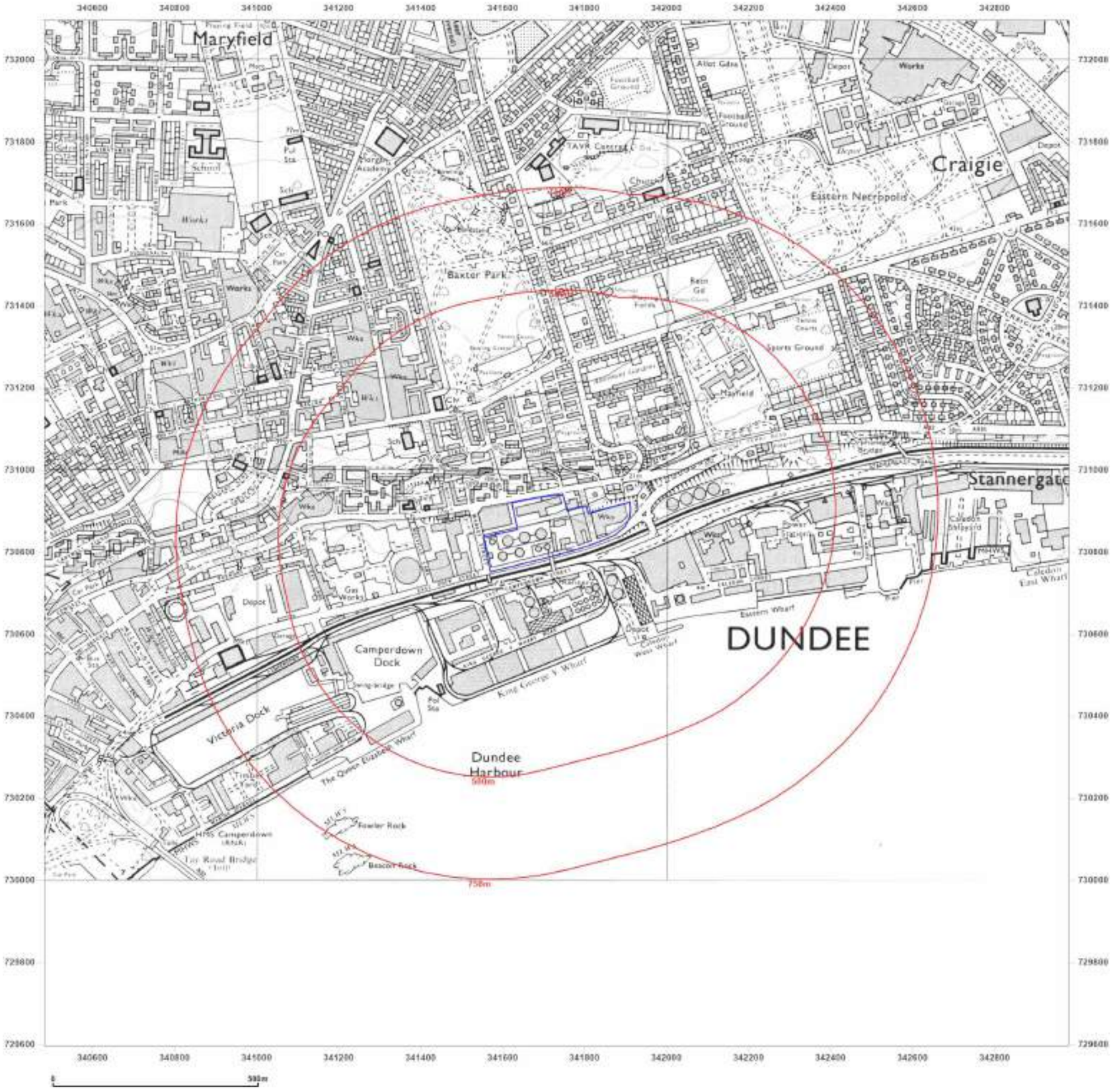
Surveyed 1973
Revised 1973
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: National Grid

Map date: **1982**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

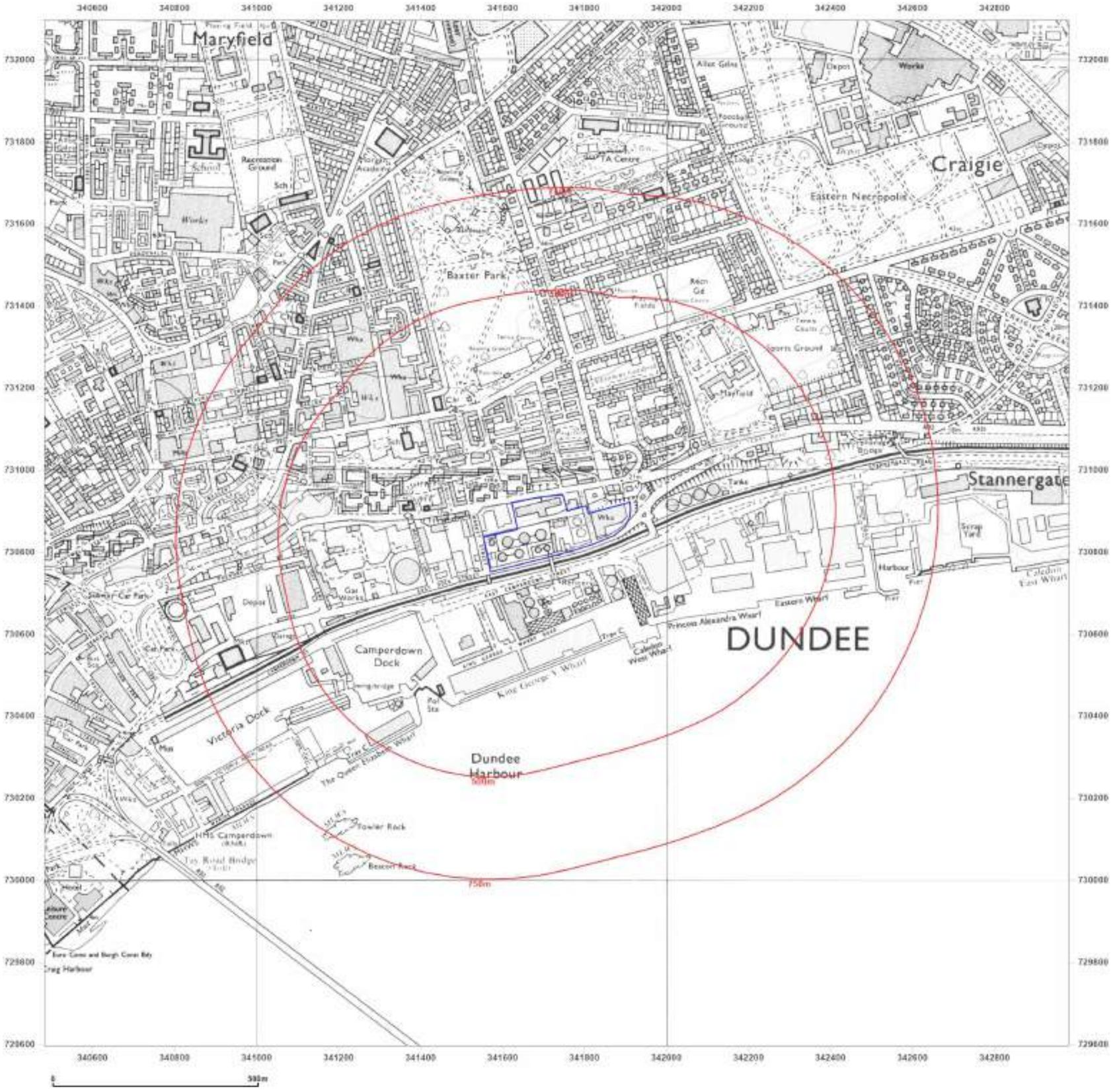
Surveyed 1982
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: National Grid

Map date: **1989-1994**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1982
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

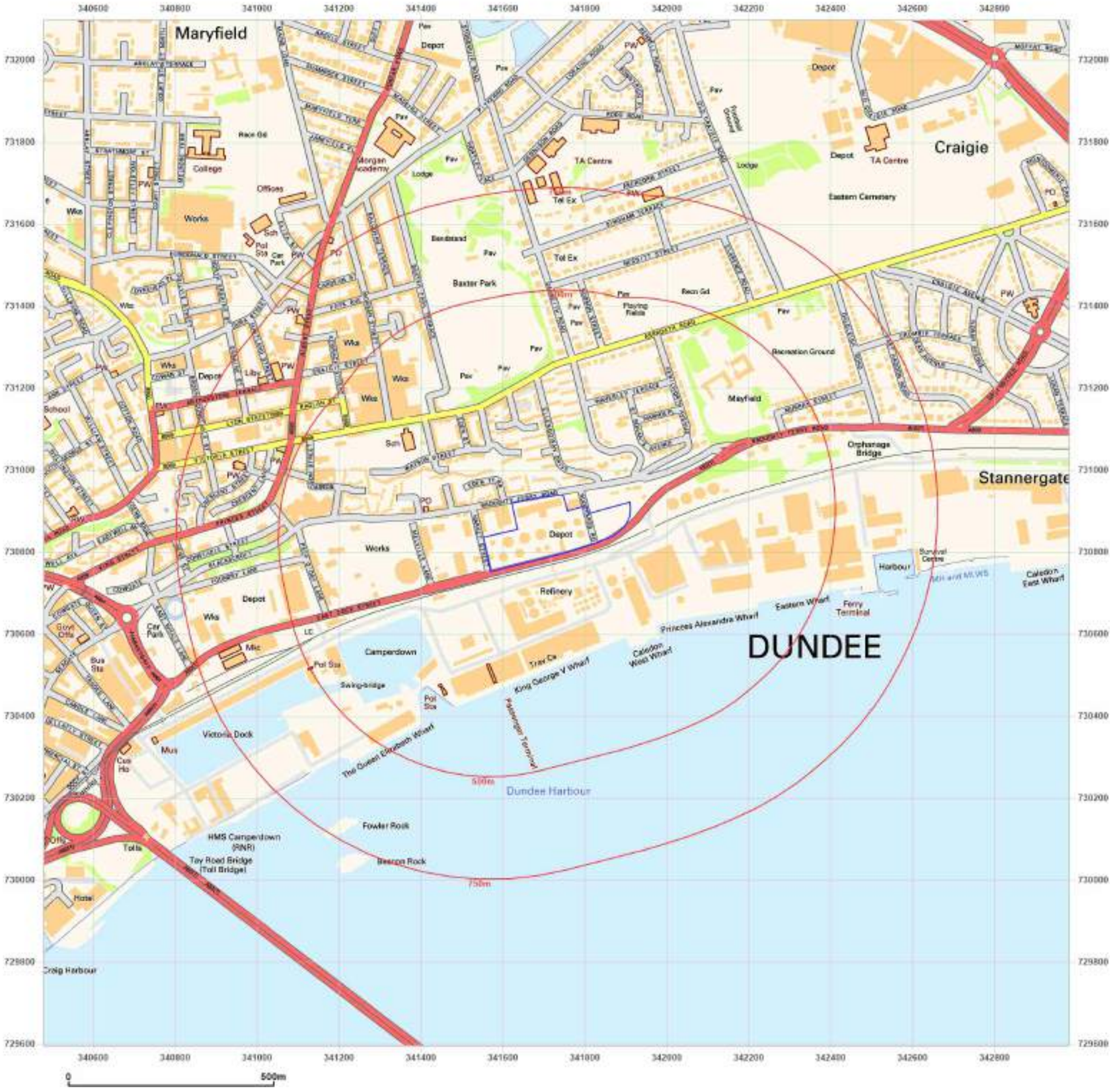
~~Surveyed 1982~~
Revised 1989
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

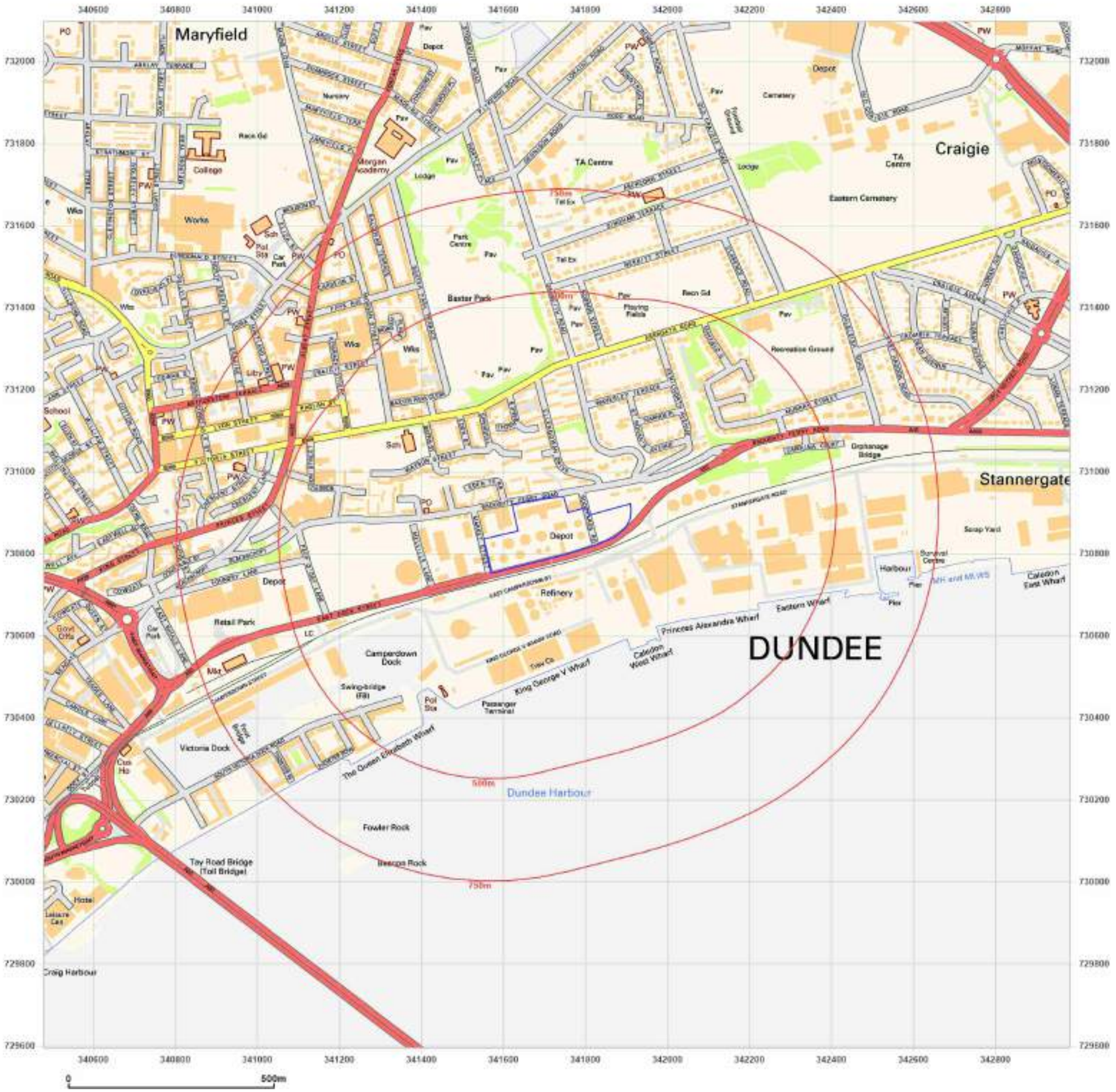
2001

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: National Grid
Map date: **2010**
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S

2010

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Groundsure INSIGHTS

Site Details:

LAND AT THE EAST END OF,
EAST DOCK STREET, DUNDEE,
DUNDEE CITY, DD4 6LG

Client Ref: 1650333
Report Ref: GS-N85-85O-44R-UOR
Grid Ref: 341731, 730846

Map Name: National Grid
Map date: **2024**
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S

2024

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 30 April 2024

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Appendix D UXO Pre-Desk Study Assessment

Pre-Desk Study Assessment

Site:	SSEN - Dundee Network Rail Substation, Scotland
Client:	AECOM
Contact:	Rieve Wishart
Date:	29th April 2024
Pre-WWI Military Activity on or Affecting the Site	None identified on the Site. Prior to WWI, 1No. submarine base was established in Dundee Harbour, approximately 0.2km southwest of the Site. In 1912, all submarines were moved to a new base at Rosyth and the base closed.
WWI Military Activity on or Affecting the Site	None identified.
WWI Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Port of Dundee. ■ Transport infrastructure and public utilities. ■ Industries important to the war effort, including munitions factories and chemical, engineering, and metal works. ■ Military barracks, camps, and training areas.
WWI Bombing	None identified on the Site.
Interwar Military Activity on or Affecting the Site	None identified.
WWII Military Activity on or Affecting the Site	None identified on the Site. Several anti-invasion defences, including pillboxes, were established at Dundee Harbour, within approximately 0.1km of the Site.
WWII Strategic Targets (within 5km of Site)	The following strategic targets were located in the vicinity of the Site: ■ Port of Dundee. ■ Transport infrastructure and public utilities. ■ Industries important to the war effort, including chemical, engineering, and metal works. ■ His Majesty's Ship (HMS) Ambrose, HMS Camperdown, and HMS Condor II. ■ Military camps, depots, and training areas. ■ Anti-Aircraft (AA) and anti-invasion defences.
WWII Bombing Decoys (within 5km of Site)	None.
WWII Bombing	During WWII the Site was located in the County of the City (CC) of Dundee, which officially recorded 38No. High Explosive (HE) bombs with a bombing density of 4.2 bombs per 405 hectares (ha). No readily available records have been found to indicate that the Site was bombed.
Post-WWII Military Activity on or Affecting the Site	None identified.

Appendix E Approach to Risk Assessment

Risk Assessment Principles

Current best practice recommends that the determination of hazards due to contaminated land is based on the principle of risk assessment, as outlined in the Environment Agency guidance on LCRM.

For a risk to be present, there must be a viable contaminant linkage; i.e. a mechanism whereby a source impacts on a sensitive receptor via a pathway.

Assessments of risks associated with each of these contaminant linkages are discussed in the following sections.

Using criteria broadly based on those presented in the National House Building Council / Environment Agency / Chartered Institute of Environmental Health publication R&D 66 (NHBC/EA/CIEH, 2008), the magnitude of the risk associated with potential contamination at the Site has been assessed. To do this an estimate is made of:

- The magnitude of the potential consequence (i.e. severity);
- The magnitude of probability (i.e. likelihood).

The severity of the risk is classified according to the criteria in the table below.

Description of Severity of Risk

Term	Description
Severe	– Highly elevated concentrations likely to result in significant harm to human health. – Catastrophic damage to crops, buildings or property (e.g. by explosion). – Equivalent to EA Category 1 pollution incident including persistent and/or extensive effects of water quality. – Major damage to aquatic or other ecosystems.
Medium	– Elevated concentrations which could result in significant harm to human health. – Significant damage to crops, buildings or property (e.g. damage to building rendering it unsafe). – Equivalent to EA Category 2 pollution incident including significant effect on water quality. – Significant damage to aquatic or other ecosystems.
Mild	– Exposure to human health unlikely to lead to significant harm. – Minor damage to crops, buildings or property (e.g. surface spalling to concrete). – Equivalent to EA Category 3 pollution incident including minimal or short-lived effect on water quality. – Minor or short-lived damage to aquatic or other ecosystems.
Minor	– No measurable effect on humans. – Repairable effects of damage to buildings, structures and services. – Equivalent to insubstantial pollution incident with no observed effect on water quality of ecosystems.

The probability of the risk occurring is classified according to the criteria in the table below.

Likelihood of Risk Occurrence

Likelihood	Explanation
High	Contaminant linkage may be present that appears very likely in the short-term and risk is almost certain to occur in the long term, or there is evidence of harm to the receptor.
Likely	Contaminant linkage may be present, and it is probable that the risk will occur over the long term.
Low	Contaminant linkage may be present and there is a possibility of the risk occurring, although there is no certainty that it will do so.
Unlikely	Contaminant linkage may be present but the circumstances under which harm would occur even in the long-term are improbable.

An overall evaluation of the level of risk is gained from a comparison of the severity and probability, as shown below.

Risk based on Comparison of Likelihood and Severity

Likelihood	Severity			
	SEVERE	**MEDIUM**	**MILD**	**MINOR**
HIGH	Very High	High	Moderate	Low
LIKELY	High	Moderate	Moderate/Low	Low
LOW	Moderate	Moderate/Low	Low	Very Low
UNLIKELY	Moderate/Low	Low	Very Low	Very Low

Appendix F Local Authority Response

Name: Rieve Wishart

1

Address: Tanfield
Edinburgh
Scotland
EH3 5DA

E-mail: rieve.wishart@aecom.com

If calling please ask for:

Maureen Moran
01382 434108

Dear Sir/Madam

Freedom of Information Request Reference No. 20240429003

I refer to your request of 26/04/2024

In regards to questions 1-4, Regulation 10(4)(a) of the Environmental Information (Scotland) Regulations 2004 provides a Scottish public authority to advise when information is not held and to advise where the information is held, if known.
The information you have requested is not held, I therefore refuse these parts of your request.

The information which I can provide is contained in the document attached and as follows:

Subject: Request for Desk Study Information

I am currently undertaking a Desk Study report, as part of a proposed options appraisal redevelopment of an area adjacent top East Dock Street in Dundee. I have attached a map with the extent of the area of interest outlined in blue.

We would be grateful if you would examine your records and inform us of any information relating to potentially contaminated land within these areas that you have available. Our typical requests include the following:

1. any recorded, current or historical environmental problems at the site(s) with regards to ground contamination or solid waste arisings;
2. any private or public groundwater abstractions on or within 500m of the site(s) boundary;
3. the presence and location of any historical landfills within 500m of the site(s) boundary;
4. any particular areas of sensitivity in the vicinity of the site(s) or nearby areas for which the council may have particular concern;
5. any other relevant environmental information you may hold about the site(s).

1. No information held

2. No information held

3. No information held

4. No information held

5. The attached figure shows the recorded locations of cancelled petroleum licences, and tanks where known. (Petroleum License Fig.)

CPL117 – McAra Copper works. 64 East Dock Street, Dundee.

Historic petroleum licence held for 48gal stored above ground in metal bins at 62 East Dock Street Dundee (1972).

Gas free certificates from November 1973 indicate 6 x 500gal underground tanks at McAra Copper Works, Dock Street Dundee.

These tanks are thought to be 2 x triple compartment 1500gal tanks installed in 1932.

We hold no records relating to the decommissioning or excavation of these tanks, or drawings indicating their position within the site.

CPL118 – G.H. Lorimer – Filling Station. 68 East Dock Street, Dundee.

Records show 4 x 1500gal underground petrol tanks (2 x 3000gal twin compartment) and one 1500gal underground diesel tank all installed in 1960.

We hold no records relating to the decommissioning or excavation of these tanks. Drawing indicating their position within the site drawing attached (thumbnail image)

CPL125 – Jewson Ltd. 56 East Dock Street, Dundee.

Historic petroleum licence held for 50gal stored above ground in metal cabinet (1990-1998).

How We Handled Your Request

We believe you have asked for environmental information as defined in the Environmental Information (Scotland) Regulations 2004 ('the EIRs'), so we are dealing with your request under those regulations. To be able to use the EIRs, we must apply an exemption under section 39(2) of the Freedom of Information (Scotland) Act 2002 ('FOISA'). The Scottish Information Commissioner's guidance recommends that public authorities apply this exemption to environmental information and handle requests under the EIRs.

If you would like to find out more about the access to information legislation there is a guidance booklet available on the Scottish Information Commissioner's website:

http://www.itspublicknowledge.info/nmsruntime/saveasdialog.aspx?lID=5487&sID=5024.

Your Right to Appeal

If you are unhappy with this reply you may require the Council to review its actions and decisions in relation to your request.

The requirement for review must:-

- be in writing or other permanent form (please address it to me);
- state your name and give an address for correspondence;
- specify the original request for information and the matter which gives rise to your dissatisfaction; and
- be made within 40 working days of the date of this response, although the Council may, if it considers it appropriate to do so, consider requirements for review after that time has passed.

Your requirement for review will be dealt with by a Senior Officer who will reply to you in writing promptly and in any event within 20 working days. He/she may:-

- confirm my decision with or without modification;
- substitute a different decision for my decision;

and will give you their reasons for so doing. If you are unhappy with the Senior Officers decision you may then appeal to the Scottish Information Commissioner. You must submit your appeal to the Scottish Information Commissioner within six months of receiving the Senior Officers decision. Further details on the Scottish Information Commissioner's appeal procedure can be found using the direct link www.itspublicknowledge.info/Appeal or email enquiries@itspublicknowledge.info or telephone (01334) 464610 or write to Scottish Information Commissioner, Kinburn Castle, Doubledykes Road, St Andrews, Fife, KY16 9DS.

Yours faithfully

Maureen Moran

Legal Manager