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CONSULTANCY | ENVIRONMENT
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Environment Group

Vastint UK BV
Land on North side of Lamby Way
Rumney, Cardiff

Phase 1 Geo-Environmental Assessment

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Way
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Assessment

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EXECUTIVE SUMMARY

Site Address	Land on North side of Lamby Way, Rumney, Cardiff, CF3 2ET.
Proposed Development	The site is to be developed for industrial use comprising a waste transfer station.
Site Setting	The site is currently level with a capping layer of hard core, a sub-station is located on the southeastern boundary. The site is bounded to the south, east and west by industrial development, and by the Great Western Railway line to the north.
Geological Setting	The west of the site is underlain by tidal flat deposits, overlying sandstones, siltstones and mudstones of the Castell Formation. The east of the site is underlain directly by mudstones and siltstones of the Cardiff Group. The strata are classified as Secondary B Aquifers. The nearest named water course is the Rhosog Fach Reen, approximately 300m east of the site. An un-named lake is also noted 50m southwest of the site.
Site History	The site has remained undeveloped until 1994 when an electricity substation was constructed on the southeastern boundary. The Great Western Railways was present north of the site since at least the 1880s. The surrounding industrial estates and Lamby Way first appear on the 1993/1994 mapping.
Regulatory Setting	No permits consents or authorisations are listed for the site or in the vicinity that are likely to affect the site.
Geotechnical Setting	Minimal made ground is anticipated at the site. The tidal flat deposits are attributed a moderate risk with respect to running sand and compressible deposits. The site is at a high risk from UXO. Made ground and tidal flat deposits are not suitable founding strata. Foundations should be taken to the bedrock.
Environmental Appraisal	Made ground may contain elevated levels of heavy metals, polycyclic aromatic hydrocarbons (PAH), petroleum hydrocarbons and asbestos. A potential pollutant linkage is present between made ground and future site users. The substation is a source of hydrocarbons in dielectric fluid, but is not likely to contain PCBs. Organic rich silt and clay and peat within the tidal flat deposits are a source of hazardous ground gases, which could migrate into new buildings. The site is considered a moderate to low risk to human health and low risk to controlled waters in the context of the proposed industrial development.
Recommendations	A ground investigation is recommended to assess the extent of made ground, and compressible silt deposits, characterise the ground conditions and geotechnical setting at the site and confirm the contamination status and ground gas regime at the site. A detailed UXO desk study should be completed prior to intrusive investigations.
This summary should be read in conjunction with BWB's full report (ref. LWC-BWB-00-XX-EN-RP-0001_DS_P2) and reflects an assessment of the Site based on information received by BWB at the time of production.	

CONTENTS PAGE

1	INTRODUCTION	1
	Instruction	1
	Objectives	1
	Scope of Works	1
2	THE SITE	2
	Site Location	2
	Site Description	2
3	PUBLISHED GROUND CONDITIONS	4
4	SITE HISTORY	6
	Aerial Photographs	8
	Operational / Company Records	8
5	REGULATORY SETTING	9
	Planning History	9
	Permits, Consents and Authorisations	9
	Landfilling and Waste Management	9
6	GEOTECHNICAL APPRAISAL	11
7	PRELIMINARY ENVIRONMENTAL RISK ASSESSMENT	13
	Introduction	13
8	ENVIRONMENTAL LIABILITY ASSESSMENT/DEVELOPMENT CONSTRAINTS	16
	Statutory Liability	16
	Third Party Liability	16
	Development Implications	17
9	CONCLUSIONS AND RECOMMENDATIONS	18
	Conclusions	18
	Recommendations	18
10	REFERENCES	19

TABLES

Table 1	Published Ground Conditions	4
Table 2	Key Points of Site Development History	6
Table 3	Key Points of Surrounding Area Development History	6
Table 4	Waste Treatment, Transfer or Disposal Sites within 500m of the Site	10
Table 5	Ground Related Constraints & Opportunities	11
Table 6	Preliminary Conceptual Site Model	14

FIGURES

Figure 1 Site Location Plan (included in main text)

APPENDICES

- Appendix 1 Proposed Masterplan
- Appendix 2 Site Photographs
- Appendix 3 Groundsure Report
- Appendix 4 Historical Ordnance Survey Plans
- Appendix 5 CIRIA Risk Classification Scheme

1 INTRODUCTION

Instruction

- 1.1 BWB Consulting (BWB) was instructed by Vastint UK BV (the Client) to carry out a Geo-Environmental review of Land on North side of Lamby Way, Rumney, Cardiff, as per Michael Cronin of Vastint UK's email of 19th September 2016.
- 1.2 The proposed development is anticipated to be the relocation of a Biffa waste transfer centre. A proposed site plan with included as **Appendix 1**.

Objectives

- 1.3 The report has been completed to present pertinent information into the environmental risks and liabilities associated with the site. It has been completed to fulfil the requirements of a preliminary risk assessment in accordance with BS10175: 2011 Investigation of Potentially Contaminated Sites Code of Practice and CLR11 Model Procedures for the Management of Contaminated Land. The objectives of the report are:
- To assess historical activities at the site with respect to their potential impact on the site environment;
 - To characterise the environmental setting of the site, identify migration pathways and vulnerable receptors for contamination originating at the site, focusing on potential soil and groundwater liabilities;
 - To assess historical and current surrounding land use in relation to known or potential off-site contamination issues that may impact the subject property;
 - To review existing site investigation and remediation information available for the site;
 - To develop a preliminary conceptual site model (CSM); and
 - To assess potential environmental liabilities associated with the site.

Scope of Works

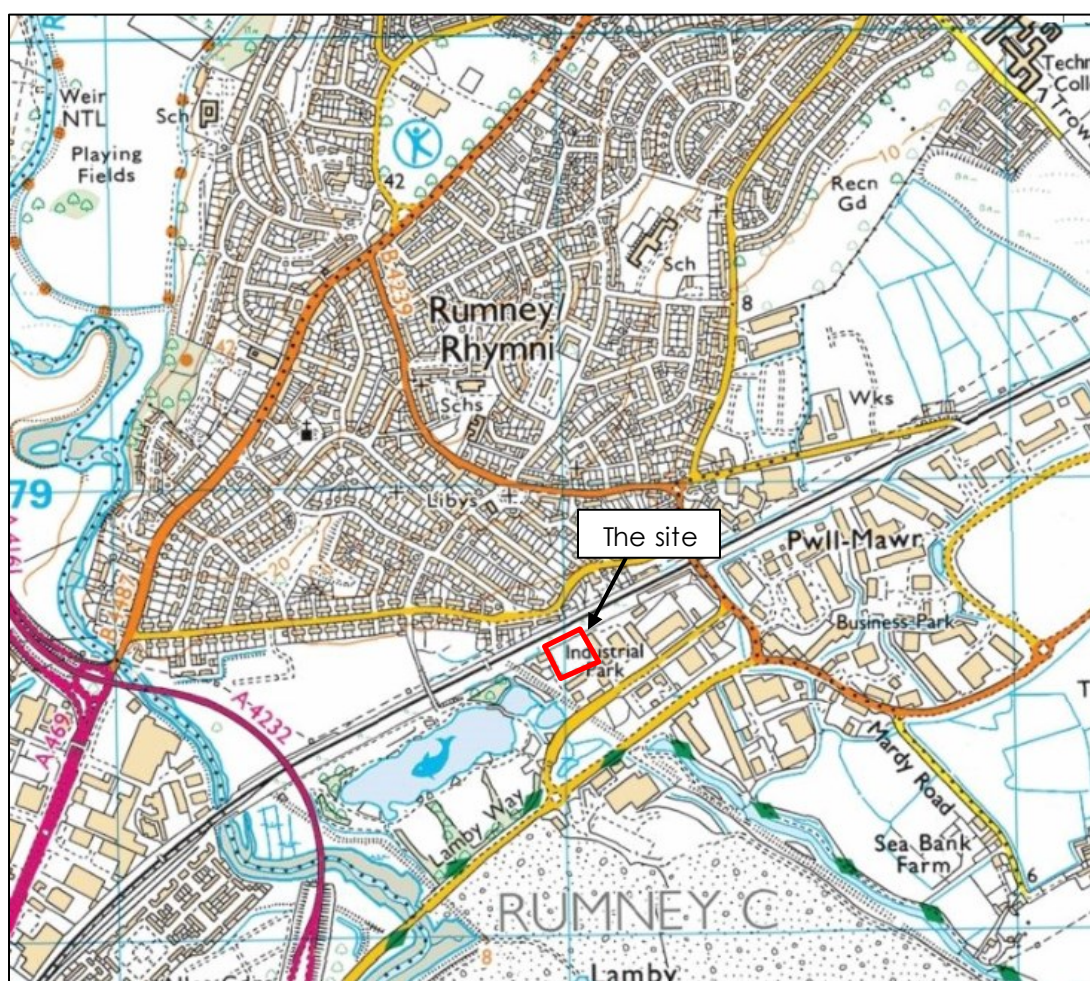
- 1.4 The scope of work included:
- Site visit to inspect the current condition of the site at ground surface (Photographs presented as **Appendix 2**);
 - Review of the following information:
 - Groundsure Report Numbers HMD-214-3302750 and HMD-214-3302751 (see **Appendix 3**);
 - Historical Ordnance Survey Mapping (**Appendix 4**);
 - British Geological Survey (BGS) Borehole Records (www.bgs.co.uk);
 - British Geological Survey (1986) 1:50 000 Scale Cardiff Sheet 263 Solid and Drift; and
 - Environment Agency (www.environment-agency.gov.uk).
 - Provide a summary of key ground risks that require further ground investigation in order to control the identified risks; and
 - Produce a geo-environmental desk study (this report) providing qualitative contamination risk assessment and ground-related constraints to the proposed development.

2 THE SITE

Site Location

- 2.1 The site is located at Land on North side of Lamby Way, Rumney, Cardiff, at approximate National Grid reference 322019, 178619. The location of the site is shown in **Figure 1**.

Figure 1 Site Location Plan



Reproduced from the Ordnance Survey 1:25000 with the permission of the controller of Her Majesty's Stationery Office Crown Copyright Reserved.

Site Description

- 2.2 A representative of BWB attended the site on 21st September 2016 to undertake site reconnaissance and identify pertinent features. Photographs from the site visit are presented in **Appendix 2**.
- 2.3 The site forms a roughly rectangular plot of land, which is approximately 0.7 hectares in area. The site is generally flat and level, with cover comprising rough scrubland, with semi-mature vegetation along the northern boundary.

-
- 2.4 The site is bound by a mix of palisade and mesh fencing on all sides, with access to the site via a gated entrance off Lamby Way. A small electricity substation is present along the southern boundary.
- 2.5 At the time of the walkover, some fly-tipped materials including wood, gravel and metal were noted to be present on site. Ground cover was noted to comprise Made Ground, raising the site level by approximately 0.2m when compared to adjacent plots. Made Ground was noted to comprise tile, brick, coal, concrete, plastic and general building rubble.
- 2.6 A drain cover was noted to be present along the northern boundary of the site, as noted on the historical mapping.
- 2.7 The site is situated within an industrial park setting, with a welding fabrication unit to the west, a suspended ceiling fabrication unit to the south and a warehouse comprising mixed uses including a food store and dance studio to the east. The northern boundary comprises the Great Western Railway.

3 PUBLISHED GROUND CONDITIONS

3.1 The anticipated ground conditions for the site and controlled waters vulnerability is discussed within **Table 1** below.

Table 1 Published Ground Conditions

<p>Geology</p>	<p>Information published by the British Geological Survey (BGS) indicates that the site is directly underlain in the west of the site by superficial deposits of Tidal Flat Deposits, overlying the bedrock geology of the Castell Formation. Superficial deposits are not noted to be present in the east of the site, with the site directly underlain by bedrock geology of the Cardiff Group. No Made Ground is indicated to be present on site, although the developed nature of the surrounding area suggests that deposits may be present.</p> <p>The BGS Lexicon database describes the Tidal Flat Deposits as a consolidated soft silty clay, with layer of sand, gravel and peat. The Castell Formation is described as sandstones, siltstones and subordinate mudstones, with the Cardiff Group described as interbedded mudstones and thin siltstones with subordinate thin sandstones and bioclastic limestones.</p>
<p>Hydrogeology</p>	<p>The Environment Agency (EA) classifies Tidal Flat Deposits as a Secondary Undifferentiated Aquifer and both bedrock geologies of the Castell Formation and Cardiff Group as Secondary B Aquifers. It is important to refer to both local hydrogeology and the regional context. Secondary Undifferentiated Aquifers are classified as such, where layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type. Secondary B Aquifers are described as lower permeability layers, which may store /yield limited amounts of groundwater due to localised features such as fissures, permeable horizons and weathering.</p> <p>No groundwater abstraction licenses are indicated to be present within 500m of the site. No discharge consents indicated to be issuing to groundwater are indicated to be present within 500m of the site.</p> <p>The site is not indicated to be within, or within close proximity to, an EA groundwater Source Protection Zone.</p>
<p>Surface Waters</p>	<p>The closest named surface water features to the site are a Primary River named Rhosog Fach Reen, approximately 300m east of the site and an unnamed tertiary river approximately 310m north-east and a secondary river, noted to be a drain approximately 315m north-east. An un-named lake is also noted 50m southwest of the site.</p> <p>It is considered that groundwater is likely to flow towards the east, in continuity with the Rhosog Fach Reen.</p> <p>Information published by the EA indicates much of the site to be within a Zone 2 Floodplain, with the annual probability of flooding noted to be between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. The north-western boundary of the site is indicated to be an area benefiting from flood defences. The site is not indicated to be within 50m of a groundwater flooding susceptibility area.</p> <p>No surface water or potable water abstraction licences are noted to be within 500m of the site. One current licenced discharge consent, noted to be site drainage for trade discharges, is recorded approximately 325m east of the site.</p>

Ground Gas & Radon	<p>The tidal flat deposits are considered as having a low to moderate potential to generate ground gases. Any previously unrecorded Made Ground has the potential to generate elevated concentrations of hazardous ground gases, particularly methane and carbon dioxide.</p> <p>Information contained within the Groundsure® report details that the site is in a radon affected area, as between 1 and 3% of properties are above the action level.</p>
Mining and Mineral Extraction	<p>Information contained within the Groundsure® report details that the site is not within 1km of any historical mining areas or any coal mining areas. A non-coal mining is indicated to be on site, recorded as a vein mineral, for which localised small scale underground mining may have occurred. The potential for difficult ground conditions is considered to be unlikely or localised as such a level where they need not be considered further.</p>

4 SITE HISTORY

4.1 Historical Ordnance Survey (OS) mapping for the site area has been reviewed. These maps and plans date from the 1881 OS County Series to the current 2014 OS Plans. The historical plans reviewed have been reproduced in **Appendix 4**. The key points of the historical development of the site and surrounding area are summarised below in **Tables 2** and **3**.

Table 2 Key Points of Site Development History

Dates	On Site	Significance
1881 - 1993	The site remains undeveloped agricultural land, indicated by a field boundary line. From 1952, the field boundary is mapped as a drain, with an additional drain crossing through the north-west of the site.	Although considered unlikely, the AGRICULTURAL PROCESSES undertaken at the site have the potential to have given rise to localised soil and/or groundwater contamination. Contaminants could typically include hydrocarbon compounds from agricultural plant and agrochemicals such as pesticides and herbicides from crop growing processes. These contaminants have the potential to impact upon future site users .
1994 - 2014	From 1994, an ELECTRICITY SUBSTATION is noted to be present along the south-eastern boundary of the site.	The minor development of the site over the mapping period, is likely to have generated small areas of MADE GROUND , which could act as a source of hazardous ground gases.

SOURCES IN BOLD AND CAPS Receptors bold and italics

Table 3 Key Points of Surrounding Area Development History

Dates	Off Site	Significance
1881 - 1882	The earliest plans indicate the surrounding area to be largely agricultural, with various RESIDENTIAL DWELLINGS present in Rumney up to approximately 750m to the north of the site. The GREAT WESTERN RAILWAY is present approximately 20m to the north-east of the site. The Ryhmney River is noted to be approximately 250m to the south-west of the site and the Rhosog Fach Reen approximately 500m to the south-east. Several BRICKWORKS are mapped over 750m to the west and south-west of the site.	Land uses in the wider area have the potential to impact upon soils and controlled waters at the site, although residential development is unlikely to be of significance. Railway infrastructure has the potential to generate hydrocarbons associated with fuels and lubricants, in addition to other contaminants. The Ryhmney River and Rhosog Fach Reen are both located fairly close to sources of contamination, which could impact upon these watercourses through surface runoff and soil leaching.
1899 - 1942	RESIDENTIAL DEVELOPMENT is ongoing to the north of the site from 100m. A SEWAGE PIPE is mapped approximately 50m south west of the site, with a SEWAGE PUMPING STATION mapped approximately 600m north-east of the site from 1916.	Developing land uses in the wider area have the potential to impact upon soils and controlled waters at the site, although residential development is unlikely to be of significance. Contaminants may include heavy metals and hydrocarbons.

Dates	Off Site	Significance
	<p>A QUARRY is mapped approximately 500m north-west of the site.</p> <p>Additionally, several CLAY PITS are mapped over 750m to the west and south-west of the site, adjacent to the BRICKWORKS, which are no longer mapped from 1916.</p>	<p>Development of land in close proximity to the site could have generated Made Ground, present either on-site or off-site, which can produce hazardous ground gases and leachates.</p>
<p>1947 - 1961</p>	<p>From 1947, an ENGINEERING WORKS is mapped approximately 800m south-west of the site, on the site of the former BRICKWORKS. ALLOTMENTS are mapped approximately 750m south-west of the site, associated with ongoing RESIDENTIAL DEVELOPMENT over 1.5km south-west of the site in Pengam.</p> <p>A small pond is indicated to be approximately 75m north-east of the site and an area of boggy ground is indicated to be present approximately 100m to the north-west from 1952, with similar ground indicated to run along the northern boundary of the site, adjacent to the RAILWAY from 1961.</p> <p>A WAREHOUSE is mapped approximately 110m east of the site from 1952.</p>	<p>Developing land uses in the wider area have the potential to impact upon soils and controlled waters at the site. The potential infilling of disused clay pits associated with the brickworks has the potential to produce hazardous ground gases and leachates, which could impact upon the site.</p> <p>Agricultural processes undertaken on the allotments have the potential to introduce pesticides into soils and controlled waters.</p>
<p>1964 - 1973</p>	<p>The land surrounding the WORKS present approximately 800m south-west of the site, has been extensively developed, including FACTORIES, WAREHOUSES, WORKSHOPS, GARAGES, DEPOTS and a DAIRY, mapped as SENLAN INDUSTRIAL ESTATE from 1987.</p> <p>From 1966, the WAREHOUSE approximately 110m to the east of the site is labelled as a VEHICLE SPARES AND REPAIR DEPOT (mapped as LAMBY INDUSTRIAL PARK from 1988), forming part of an INDUSTRIAL ESTATE, with an ELECTRICAL STORE and SCAFFOLDING DEPOT adjacent.</p> <p>The QUARRY is mapped as disused from 1973.</p>	<p>Ongoing developments in the wider area have the potential to impact upon soils and controlled waters at the site.</p> <p>Potential infilling of the disused quarry has the potential to produce hazardous ground gases and leachates, which could impact upon the site.</p>
<p>1987 - 2014</p>	<p>From 1987, several WORKS are mapped approximately 500m to the north-east and south-east of the site, extending over the mapping period.</p> <p>From 2002, the land adjacent to the site has been developed into a BUSINESS PARK, with a PUMPING STATION approximately 100m to the south of the site.</p>	<p>Ongoing developments in the wider area have the potential to impact upon soils and controlled waters at the site.</p> <p>Developments adjacent to the site could have generated Made Ground, present either on-site or off-site, which can produce hazardous ground gases and leachates.</p>

SOURCES IN BOLD AND CAPS

Receptors bold and italics

Aerial Photographs

- 4.2 Aerial photography contained within the Groundsure® report, dated 14th July 2013, and online aerial photography (Bing and Google Maps) indicate the site to comprise an area of unused scrubland with a small electricity substation along the south-eastern boundary within a business/industrial park setting.

Operational / Company Records

- 4.3 No operational or company records have been provided to BWB as part of this assessment.

5 REGULATORY SETTING

Planning History

- 5.1 A review of the online planning portal for Cardiff City Council indicates that while there have been planning applications submitted in the surrounding area, there are no current applications in place for the site.

Permits, Consents and Authorisations

- 5.2 A full listing of permits, consents and authorisations including discharge consents, pollution incidences and other environmental information included in the Groundsure® Report, is presented in **Appendix 4**.
- 5.3 The following pertinent features have been identified which have the potential to have a detrimental impact on site.
- 5.4 Six records of Part A(1) and IPPC Authorised Activities are recorded approximately 305m south of the site, three of which have been superseded, at Novera Energy Generation. Of the three effective activities, one relates to combustion waste, another to associated processes and no details are provided for the third. All permits are listed as effective from June 2013 and were still noted to be effective as of the 31st August 2016. No further details are provided. Given the distance from site, they are not considered to have any significant impact on the site.
- 5.5 Five Licenced Discharge Consents are listed within 500m of the site, of which four are listed as revoked. The effective consent is listed as trade discharges – site drainage, approximately 325m east of the site, effective from October 1987. Given the distance from site, it is not considered to have any significant impact.
- 5.6 Six records of National Incidents Recording Systems, List 2 events are recorded within 500m of the site. In June 2001, three incidents are recorded approximately 130m south-east of the site, pertaining to inorganic chemical, oils and fuel (including diesel) pollutants are recorded, with the only impact reported as Category 3 (Minor) water impact. Also in June 2001, a pollution incident of biodegradable materials and wastes with a Category 3 (Minor) land impact is recorded approximately 145m south of the site. An incident of Category 2 (Significant) water impact is recorded approximately 190m south of the site, with the pollutant described as contaminated water – urban run-off. The final incident is recorded approximately 445m south-east of the site in January 2002 as a Category 3 (Minor) water impact due to unidentified oils. Given the historic nature of these events and/or the distance from site, they are not considered to have any significant impact on the site.
- 5.7 No other permits, consents and authorisations are recorded within 500m of the site.

Landfilling and Waste Management

- 5.8 A full listing of EA, BGS and Local Authority recorded landfills are provided in the Groundsure® Report presented in **Appendix 4**.
- 5.9 The following facilities have been identified which have the potential to have a detrimental impact on site.

- 5.10 One landfill is listed approximately 260m south of the site, recorded to be a type A4 landfill, taking household, commercial and industrial waste, operated by the county council of the city and county of Cardiff. Given that groundwater is likely in continuity with the Rhymney River, to the south-west of the site, it is unlikely that any landfill leachate would pose a risk to the site. As such, the landfill is not considered to have any significant impact on the site.
- 5.11 Four historic landfills are recorded within 500m of the site, with the most recent record relating to an inert landfill, approximately 260m east of the site, last recorded in December 1989. All other landfills are last recorded earlier than 1989. Given the time since these sites were active, they are not considered to pose a significant risk to the site.
- 5.12 A number of waste treatment, transfer or disposal sites, are recorded within 500m of the site, as detailed below in **Table 4**.

Table 4 Waste Treatment, Transfer or Disposal Sites within 500m of the Site

Approximate Distance (m)	Direction	Details
270 - 300	South	A number of household, commercial and industrial waste transfer stations, composting facilities and household waste amenity site, ranging between 25,000 and 75,000 tonnes, with permits issued between July 1992 and March 2005.
350	South	A household, commercial and industrial waste landfill of greater than 75,000 tonnes. No further details were provided.
365	North-east	Two special waste transfer stations relating to Acom Environmental and Safety Keen SE Wales of less than 25,000 tonnes are recorded. The permits are listed as being issued from November 1995 and March 1995, respectively.
440	South	A permit for a landfill site taking special waste greater than 75,000 tonnes was issued in June 2000 and modified in May 2001, no further details are provided. Additionally, a household, commercial and industrial waste landfill site is listed at the same location.
445	East	Two special waste transfer stations, of less than 25,000 tonnes are recorded relating to an unknown usage and to Safety Kleen UK, effective from March 1995 and July 1992 respectively.
530	North-east	A mixed metal recycling site operated by K&L Car Dismantlers of less than 25,000 tonnes. The permit was issued in July 1991.

- 5.13 Given the distance of these facilities from the site, they are not considered to pose a significant risk.
- 5.14 Additionally, the Groundsure® report details a number planning applications submitted relating to waste sites within 500m of the site.

6 GEOTECHNICAL APPRAISAL

6.1 The Groundsure Report, site history, current site setting and geology setting have all been considered in order to provide an indication of the potential ground related constraints and opportunities in the context of the proposed development as set out in **Table 5** below.

Table 5 Ground Related Constraints & Opportunities

Potential Constraint / Opportunity	Explanation	Potential Mitigation Options
Made Ground	In view of the lack of historical development on the site, but in an area which has undergone development in the recent past, it is likely that Made Ground will be present on site, although not in significant thicknesses.	Should significant thickness of Made Ground be encountered on site, consideration should be given to the deepening of foundations and the potential requirement for a suspended floor slab.
Natural Ground Stability and Constraints	<p>Information published by the BGS lists the maximum hazard rating of running sands within the site boundary as moderate, meaning there is significant potential for running sands problems, which relatively small changes in ground conditions, with the superficial deposits on site.</p> <p>A moderate hazard rating is recorded for compressible deposits on site, indicating there is significant potential for compressibility problems within the superficial deposits on site.</p> <p>The hazard ratings for shrink-swell clays, landslides, ground dissolution of soluble rock and collapsible deposits are all listed as low to negligible.</p>	<p>Recommendations in regards to running sands include avoiding large amounts of water entering the ground, for example through soakaways. Also, to not dig deep holes into saturated ground without technical advice.</p> <p>Recommendations in regards to compressible deposits include not draining, loading or de-watering ground in this area without further technical advice.</p>
Topsoil	It is likely that a small amount of topsoil may be encountered at the site, which will likely be reused in areas of soft landscaping.	No further action is considered necessary.
UXO	Information contained within the high level Unexploded ordnance (UXO) assessment maps provided by Zetica (www.zetica.com) indicates there is a high risk of encountering UXOs at the site.	It is recommended that a UXO desk study is completed to further assess risks posed to the site. Possible mitigation measures may be required prior to commencing an intrusive investigation.
Preliminary Foundation Solution	The superficial deposits of Tidal Flat Deposits would not be considered to be suitable founding strata. The bedrock geologies of the Castell Formation and Cardiff Group are	Founding on bedrock geologies should be within competent strata, which may be beneath weathered horizons. The potentially high organic content in the tidal flat deposits may

Potential Constraint / Opportunity	Explanation	Potential Mitigation Options
	expected to provide suitable founding strata.	preclude ground improvement techniques.

7 PRELIMINARY ENVIRONMENTAL RISK ASSESSMENT

Introduction

- 7.1 The risk posed by any contaminants in soil or groundwater will depend on the nature of the hazard, the probability of exposure, the pathway by which exposure occurs, and the likely effects on the receptors. A contaminant is defined as a substance that has the potential to cause harm, while a risk is considered to exist if such a substance is present in sufficient concentration to cause harm and a pathway exists for a receptor to be exposed to the substance.
- 7.2 The following sections discuss all the identified potential on and off site sources, pathways and receptors in the context of the proposed development and plausible pollutant linkages which may represent a risk to identified receptors such as human health and/or controlled waters from the data gained from the desk study. At this stage the assessment is qualitative and aimed to determine all pollutant linkages, irrespective of significance or allowing for uncertainty.
- 7.3 Three impact potentials exist for any given site, these are:
- The site impacting upon itself;
 - The site impacting on its surroundings; and
 - The surroundings impacting on the site.
- 7.4 All three impacts need to be considered in a risk assessment.
- 7.5 A Source, Pathway, Receptor analysis has been undertaken for the site based on the information provided in the preceding sections. This is presented as **Table 6** and further information about the risk classification scheme is included within **Appendix 5**.
- 7.6 **Sources (S);** These are potential or known sources of contamination that may relate to a former land use or present site feature or process (e.g. fuel storage tanks).
- 7.7 **Pathways (P);** A pathway is defined as a mechanism or route by which a contaminant comes into contact with, or otherwise affects a receptor. Pathways by which the identified receptors may be impacted upon in the context of the proposed development.
- 7.8 **Receptors (R);** Receptors are defined as people, living organisms, ecological systems, controlled waters, atmosphere, structures and utilities that could be adversely affected by contaminant(s).

Table 6 Preliminary Conceptual Site Model

Source	Pathway	Receptor	Con	Prob	Risk	Mitigation/Investigation
S1: On site: Made Ground – Potential contaminants may include heavy metals, benzo(a)pyrene and other PAH compounds, sulphate, asbestos and hazardous ground gases (carbon dioxide/methane).	P1: Direct contact, incidental ingestion and inhalation of particulates.	R1: Construction/services personnel	Mi	Lw	L	An intrusive ground investigation should be completed to characterise the made ground, assess the presence of contamination and characterise the ground gas regime.
		R2: Future site users (commercial)	Mi	LW	L	Exposure of contamination to construction workers can be mitigated by the adoption of suitable working methods and appropriated PPE. If significant asbestos is recorded the requirements of CAR 2012 shall be complied with.
	P2: Vertical migration of contaminants in the soil leachate.	R3: Underlying Secondary B Aquifer	Mi	Lw	L	Suitable water pipe materials should be agreed with the local utility provider.
		R4: Water utility pipes	Mi	Lw	L	
	P3: Direct contact.	R5: Buried structures/foundations.	Mi	Lw	L	The ground investigation should include analysis of pH and sulphates to assess the potential for aggressive ground conditions to be present. A suitable concrete mix shall be used for all buried concrete structures.
			Mi	Lw	L	
	P4: Migration and accumulation of ground gases in enclosed spaces leading to asphyxiation (carbon dioxide) or explosion (methane).	R1: Construction/services personnel	Md	Lw	M/L	A programme of gas monitoring should be completed to assess the potential for gas generation and ingress into any new buildings. Gas protection measures may be installed in all new buildings consisting of a combination of floor slab, ventilation and gas impermeable membrane.
		R2: Future site users	Md	Lw	M/L	
S2: Carbon dioxide and methane generated from organic rich silts, clays and peat within the Tidal flat deposits.	P4: Migration and accumulation of ground gases in enclosed spaces leading to asphyxiation (carbon dioxide).	R1: Construction/services personnel	Md	Lw	M/L	A programme of gas monitoring should be completed to assess the potential for gas generation and ingress into any new buildings. Gas protection measures may be installed in all new buildings consisting of a combination of floor slab, ventilation and gas impermeable membrane.
		R2: Future site users	Md	Lw	M/L	

VH = Very High, H = High, M = Moderate, M/L = Moderate/Low, L = Low, VL = Very Low

KEY: Sv = Severe, Md = Medium, Mi = Mild, Mr = Minor Hi = High, Li = Likely, Lw = Low Likelihood, Ul = Unlikely

Pollutant Linkage Assessment Summary

When considered in the context of the conceptual site model and the historical activities that have taken place (the proposed development is considered to pose a MODERATE/LOW risk to human health. It is considered that the main driver for the risk rating for human health is ground gas generated from the natural Tidal Flat deposits and potential asbestos within any made ground at the site.

The risk posed to controlled waters is predominantly considered to be LOW due to the low sensitivity of the Secondary B aquifers and absence of significant sources of contamination.

It is recommended that a ground investigation be undertaken to quantify the identified pollutant linkages and assess likely mitigation measures.

8 ENVIRONMENTAL LIABILITY ASSESSMENT/DEVELOPMENT CONSTRAINTS

Statutory Liability

- 8.1 Under statutory guidance for definition of contaminated land site may be classified into 4 categories. Categories 1 and 2 would meet the definition of contaminated land and categories 3 and 4 would not meet the definition.
- 8.2 It is considered that the site would fall within Category 4 based on the absence of any significant historical industrial history at the site.
- 8.3 The contaminated land regime has implications for those who cause or knowingly permit land to be contaminated, or who own or occupy land that is contaminated. Contaminated land is defined in Section 78A(2) of Part IIA of the Environmental Protection Act 1990 as:
- a) *Significant harm is being caused or there is a significant possibility of such harm being caused; or*
 - b) *Pollution of controlled waters is being or is likely to be, caused."*
- 8.4 Harm is defined in Section 78(4) of the Environmental Protection Act 1990 as:
- "Harm to the health of living organisms or other interference with ecological systems of which they form part and, in the case of man, includes harm to property."*
- 8.5 Once an area of land has been identified as contaminated land, appropriate persons will be identified as being responsible for the cost of cleaning up the land by the enforcing authority. The appropriate person will be liable for all or part of the remediation of the land. Two classes of appropriate person have been identified:
- Class A appropriate persons are those who cause or knowingly permit the pollutants to be in, on or under the land.
 - Class B appropriate persons are the owners(s) or occupier(s) of the land.
- 8.6 Where no Class A appropriate persons can be identified, then Class B appropriate persons may become liable.
- 8.7 Based on the information available regarding the site, the potential for Statutory Authority action based on "*pollution of controlled water*" or "*significant harm*" as defined by Part IIA of the Environmental Protection Act 1990 is considered to be **very low**, based on the absence of contamination sources and low sensitivity of the underlying aquifer.

Third Party Liability

- 8.8 Based on the information contained in this report, it is the opinion of BWB that the potential for legal action by surrounding landowners, based on the potential for contamination to migrate off-site, is considered to be very low when considering the absence of significant contamination sources. The development will be consistent with the activities in the surrounding area.

Development Implications

- 8.9 It is assumed that significant earthworks will not be required. A ground investigation should be completed at the site to confirm the contamination status of the site and develop a ground model to enable foundation design. Should asbestos be recorded within the made ground or capping layer the risks from groundworks should be assessed and the requirements of Control of Asbestos Regulation (CAR) 2012 complied with.

9 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Environmental

- 9.1 The site is currently level and undeveloped with a surface covering of made ground comprising brick and concrete visible at the site. The site is underlain by tidal flat deposits and the Castell formation in the west and the Cardiff group in the east. The strata are classified as Secondary B aquifers.
- 9.2 The site has not been developed other than a sub-station in the southeastern boundary of the site. The surrounding area is typically commercial/industrial to the east, south and west with the Great Western railway to the north.
- 9.3 The made ground although expected to be limited in extent may be contaminated by elevated heavy metals, PAHs and hydrocarbons and be a source of ground gas.
- 9.4 The organic rich silts and clays and peat within the Tidal Flat deposits are a potential source of ground gas which could migrate into new buildings.
- 9.5 The site is considered to be a moderate/low risk to human health and low risk to controlled waters.

Geotechnical

- 9.6 The Tidal flat deposits are prone to running sand and compressibility problems. Peat may also be present within the Tidal flat deposits. Foundation loads should be taken to the underlying Castell or Cardiff Group Rocks.

Recommendations

Environmental

- 9.7 A ground investigation should be completed to assess the contamination within the made ground including presence of asbestos and the potential for gas generation from both the made ground and Tidal flat deposits.

Geotechnical

- 9.8 An intrusive Site Investigation should be completed to classify the geotechnical status of the site to assess the depth to bed rock, extent of tidal flat deposits including presence of any peat pockets beneath the site. Strength of the Castell and Cardiff group strata should be assessed to determine if there is potential for differential settlement on buildings spanning both strata.
- 9.9 A detailed UXO desk study assessment should be completed prior to undertaking intrusive ground investigation.

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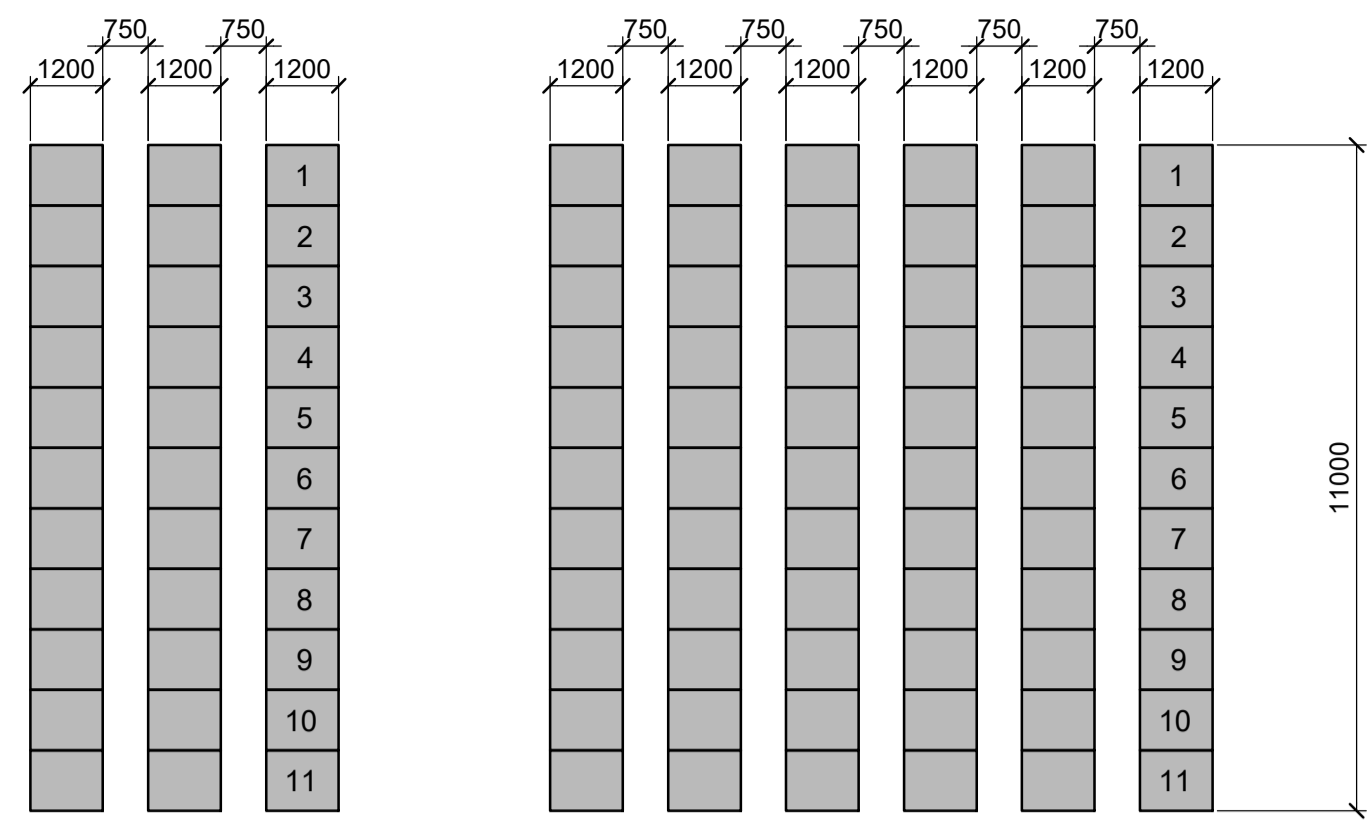
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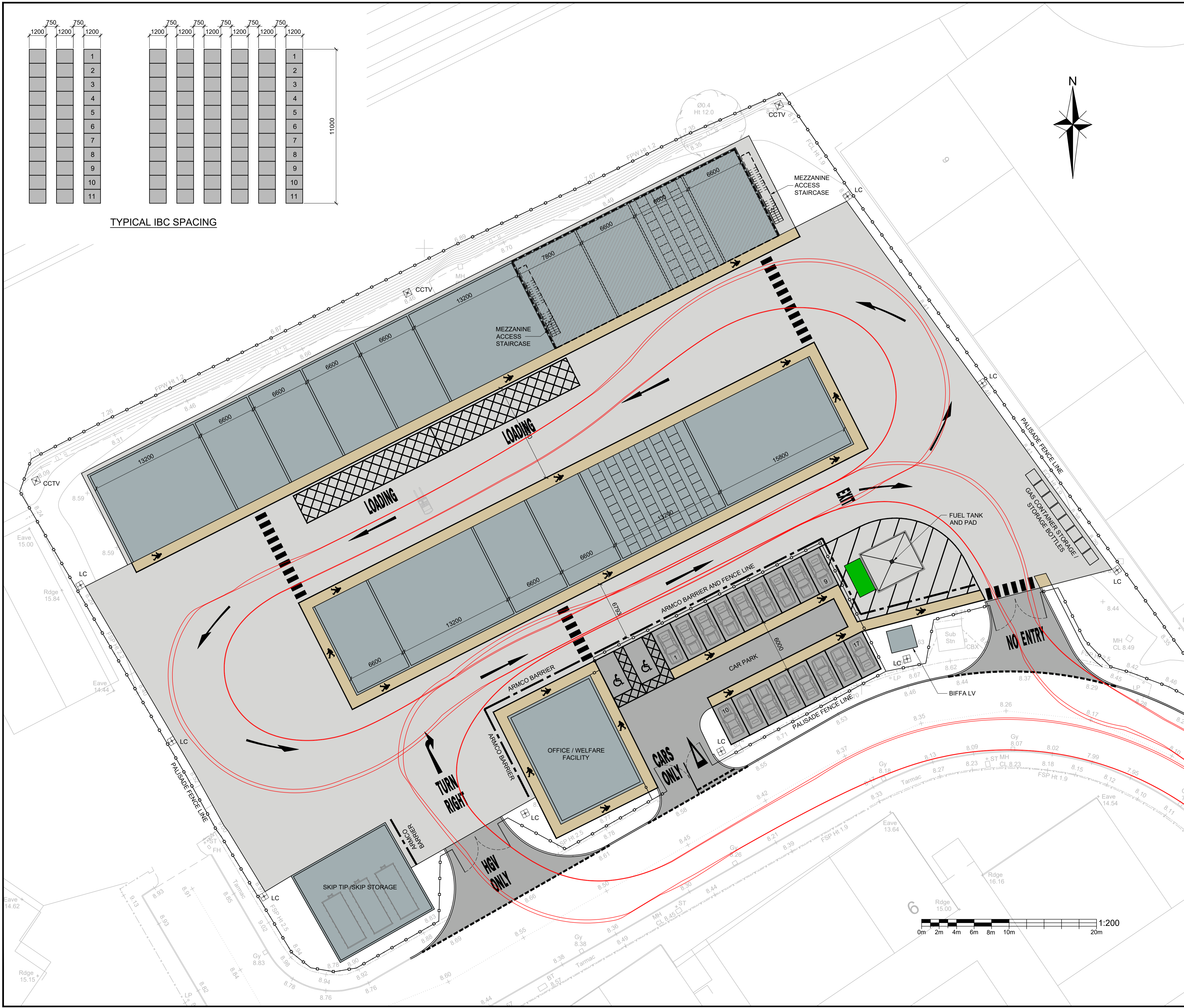
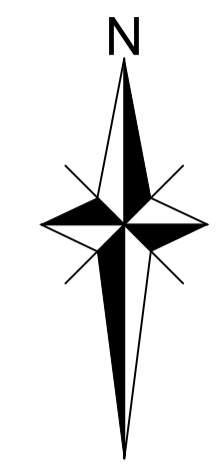
APPENDICES

APPENDIX 1
PROPOSED MASTERPLAN

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER HBL DRAWINGS ISSUED FOR THIS PROJECT



TYPICAL IBC SPACING



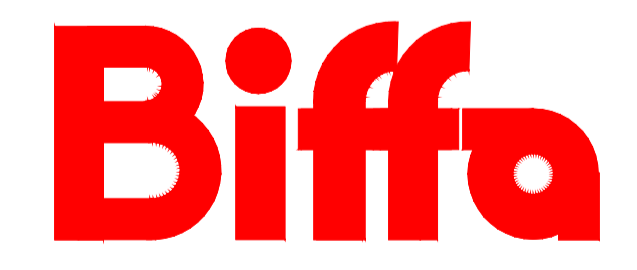
LEGEND

- CONCRETE SURFACE
- TARMAC SURFACE
- BUILDING FOOTPRINT
- PERSONNEL ACCESS / WALKWAY
- MEZZANINE LEVEL (HATCHED)
- ARMCO BARRIER
- PALISADE FENCE LINE
- LIGHTING COLUMN
- CCTV COLUMN

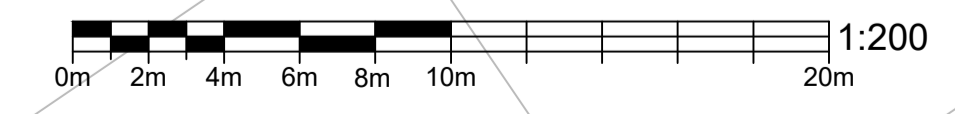
P2	JUNE'17	TAT	SITE LAYOUT REVISED	ALS	ALS
P1	JUNE'17	TAT	PRELIMINARY ISSUE VEHICLE MOVEMENTS REVISED	ALS	ALS
P0	JUNE'17	TAT	ISSUED FOR COMMENT	ALS	ALS
REV.	DATE	DRAWN	DESCRIPTION	CHKD	APPRD

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STATUS		PRELIMINARY	
CLIENT	BIFFA WASTE SERVICES LTD	DRAWN	T.A.TAYLOR
PROJECT	BIFFA RELOCATION	CHECKED	A.L.SMITH
LOCATION	LAMBY WAY, CARDIFF	APPROVED	A.L.SMITH
DRAWING TITLE	SITE PLAN	DATE	MAY 2017
		SCALE(S)	1:200
DRAWING No.	SK-001	HBL REF.	6042
		REVISION	P2



FILE REF: R/JOBS CURRENT

APPENDIX 2
SITE PHOTOGRAPHS

Project Number: NTE2313
Project Name: Lamby Way, Cardiff
Site Photographs



Photo 1— View across site from western boundary, looking east.



Photo 2— View across site from north-western corner. Electricity substation along southern boundary and access gates visible.

Project Number: NTE2313
Project Name: Lamby Way, Cardiff
Site Photographs



Photo 3— View across site from north-eastern corner, looking south-west.



Photo 4— Fly tipped materials in centre of site.

Project Number: NTE2313
Project Name: Lamby Way, Cardiff
Site Photographs



Photo 5— Electricity substation along southern boundary.

APPENDIX 3

HISTORICAL ORDNANCE SURVEY MAPPING



BWB Consulting Limited
5th Floor, Waterfront House, Station Street,
Nottingham, NG2 3DQ

Groundsure Reference: HMD-214-3302750
Your Reference: NTE2313_-_PO_TBC_JC

Report Date 16 Sep 2016

Report Delivery Method: Email - pdf

Groundsure Enviro Insight

Address: LAND ON THE NORTH SIDE OF LAMBY WAY, RUMNEY, CARDIFF,

Dear Sir/ Madam,

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

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director
Groundsure Limited

Enc.
Groundsure Enviroinsight

Groundsure Enviro Insight

Address: LAND ON THE NORTH SIDE OF LAMBY WAY, RUMNEY, CARDIFF,
Date: 16 Sep 2016
Reference: HMD-214-3302750
Client: BWB Consulting Limited



Aerial Photograph Capture date: 14-Jul-2013
Grid Reference: 322019,178619
Site Size: 0.70ha

Report Reference: HMD-214-3302750
Client Reference: NTE2313_-_PO_TBC_JC

Contents Page

Contents Page	3
Overview of Findings	6
Using this report	10
1. Historical Land Use	11
1. Historical Industrial Sites	12
1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping	12
1.2 Additional Information – Historical Tank Database	13
1.3 Additional Information – Historical Energy Features Database	13
1.4 Additional Information – Historical Petrol and Fuel Site Database	15
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	15
1.6 Potentially Infilled Land	16
2. Environmental Permits, Incidents and Registers Map	17
2. Environmental Permits, Incidents and Registers	18
2.1 Industrial Sites Holding Licences and/or Authorisations	18
2.1.1 Records of historic IPC Authorisations within 500m of the study site	18
2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site	18
2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site	19
2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site	19
2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site	19
2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site	19
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	20
2.1.8 Records of Licensed Discharge Consents within 500m of the study site	20
2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site	21
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	21
2.2 Dangerous or Hazardous Sites	21
2.3 Environment Agency Recorded Pollution Incidents	21
2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site	21
2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site	22
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	22
3. Landfill and Other Waste Sites Map	23
3. Landfill and Other Waste Sites	24
3.1 Landfill Sites	24
3.1.1 Records from Environment Agency landfill data within 1000m of the study site	24
3.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site	24
3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site	27
3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site	27
3.2 Other Waste Sites	28
3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site	28
3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site	31
4. Current Land Use Map	43
4. Current Land Uses	44
4.1 Current Industrial Data	44
4.2 Petrol and Fuel Sites	45
4.3 National Grid High Voltage Underground Electricity Transmission Cables	46
4.4 National Grid High Pressure Gas Transmission Pipelines	46
5. Geology	47
5.1 Artificial Ground and Made Ground	47

5.2 Superficial Ground and Drift Geology	47
5.3 Bedrock and Solid Geology	47
6 Hydrogeology and Hydrology	48
6a. Aquifer Within Superficial Geology	48
6b. Aquifer Within Bedrock Geology and Abstraction Licenses	49
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses	50
6d. Hydrogeology – Source Protection Zones within confined aquifer	51
6e. Hydrology – Detailed River Network and River Quality	52
6. Hydrogeology and Hydrology	53
6.1 Aquifer within Superficial Deposits.....	53
6.2 Aquifer within Bedrock Deposits.....	53
6.3 Groundwater Abstraction Licences.....	54
6.4 Surface Water Abstraction Licences.....	54
6.5 Potable Water Abstraction Licences.....	54
6.6 Source Protection Zones.....	54
6.7 Source Protection Zones within Confined Aquifer.....	55
6.8 Groundwater Vulnerability and Soil Leaching Potential.....	55
6.9 River Quality.....	55
6.9.1 Biological Quality:.....	55
6.9.2 Chemical Quality:.....	55
6.10 Detailed River Network.....	56
6.11 Surface Water Features.....	56
7a. Environment Agency Flood Map for Planning (from rivers and the sea)	57
7b. Environment Agency Risk of Flooding from Rivers and the Sea (RoFRaS) Map	58
7 Flooding	59
7.1 River and Coastal Zone 2 Flooding.....	59
7.2 River and Coastal Zone 3 Flooding.....	59
7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating.....	59
7.4 Flood Defences.....	60
7.5 Areas benefiting from Flood Defences.....	60
7.6 Areas benefiting from Flood Storage.....	60
7.7 Groundwater Flooding Susceptibility Areas.....	60
7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? No.....	60
7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?.....	60
7.8 Groundwater Flooding Confidence Areas.....	60
8. Designated Environmentally Sensitive Sites Map	61
8. Designated Environmentally Sensitive Sites	62
8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:.....	62
8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:.....	62
8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:.....	62
8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:.....	63
8.5 Records of Ramsar sites within 2000m of the study site:.....	63
8.6 Records of Ancient Woodland within 2000m of the study site:	64
8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:.....	65
8.8 Records of World Heritage Sites within 2000m of the study site:.....	65
8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:	65
8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:	65
8.11 Records of National Parks (NP) within 2000m of the study site:	65
8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:.....	65
8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:.....	66

8.14 Records of Green Belt land within 2000m of the study site:.....	66
9. Natural Hazards Findings	67
9.1 Detailed BGS GeoSure Data.....	67
9.1.1 Shrink Swell.....	67
9.1.2 Landslides.....	67
9.1.3 Soluble Rocks.....	67
9.1.4 Compressible Ground.....	68
9.1.5 Collapsible Rocks.....	68
9.1.6 Running Sand.....	68
9.2 Radon.....	68
9.2.1 Radon Affected Areas.....	68
9.2.2 Radon Protection.....	69
10. Mining	70
10.1 Coal Mining.....	70
10.2 Non-Coal Mining.....	70
10.3 Brine Affected Areas	70
Contact Details	71
Standard Terms and Conditions	73

Overview of Findings

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

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	0	3	15	23
1.2 Additional Information – Historical Tank Database	0	0	1	1
1.3 Additional Information – Historical Energy Features Database	2	0	18	40
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	17	1
1.6 Potentially Infilled Land	0	4	6	12

Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	6
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	0	0
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	1	4
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	5	1
2.3.2 National Incidents Recording System, List 1	0	0	0	1
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency Registered Landfill Sites	0	0	0	1	0	Not searched
3.1.2 Environment Agency Historic Landfill Sites	0	0	1	3	7	6
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	1
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	12	0	4
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	3	3	Not searched	Not searched
3.2.2 Environment Agency Licensed Waste Sites	0	0	0	34	6	18

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	1	4	25	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	1	0
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	Yes
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m					
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes					
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes					
	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	1
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	0	0	2	0	Not searched	Not searched
	On-site	0-50m	51-250	251-500	501-1000	1000-1500

Section 6: Hydrogeology and Hydrology 0-500m

6.9 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	No	No
6.10 Detailed River Network entries within 500m of the site	0	0	0	3	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Are there any Environment Agency Zone 2 floodplains within 250m of the study site?	Yes
7.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site	Yes
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	Low
7.4 Are there any Flood Defences within 250m of the study site?	No
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	Yes
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Not Prone
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Not Applicable

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
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8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	2	2	0
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	1	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	1	0
8.5 Records of Ramsar sites	0	0	0	0	1	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	17
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	1
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	0
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 What is the maximum risk of natural ground subsidence?

Moderate

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

Very Low

9.1.2 What is the maximum Landslides hazard rating identified on the study site?

Low

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

Negligible

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

Moderate

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

Very Low

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

Moderate

9.2 Radon

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

The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.

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

No radon protective measures are necessary.

Section 10: Mining

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

No

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

Yes

10.3 Are there any brine affected areas within 75m of the study site?

No

Using this report

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

1. Historical Industrial Sites

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

2. Environmental Permits, Incidents and Registers

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

3. Landfills and Other Waste Sites

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

4. Current Land Uses

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

5. Geology

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

6. Hydrogeology and Hydrology

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

7. Flooding

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

8. Designated Environmentally Sensitive Sites

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

9. Natural Hazards

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

10. Mining

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

11. Contacts

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

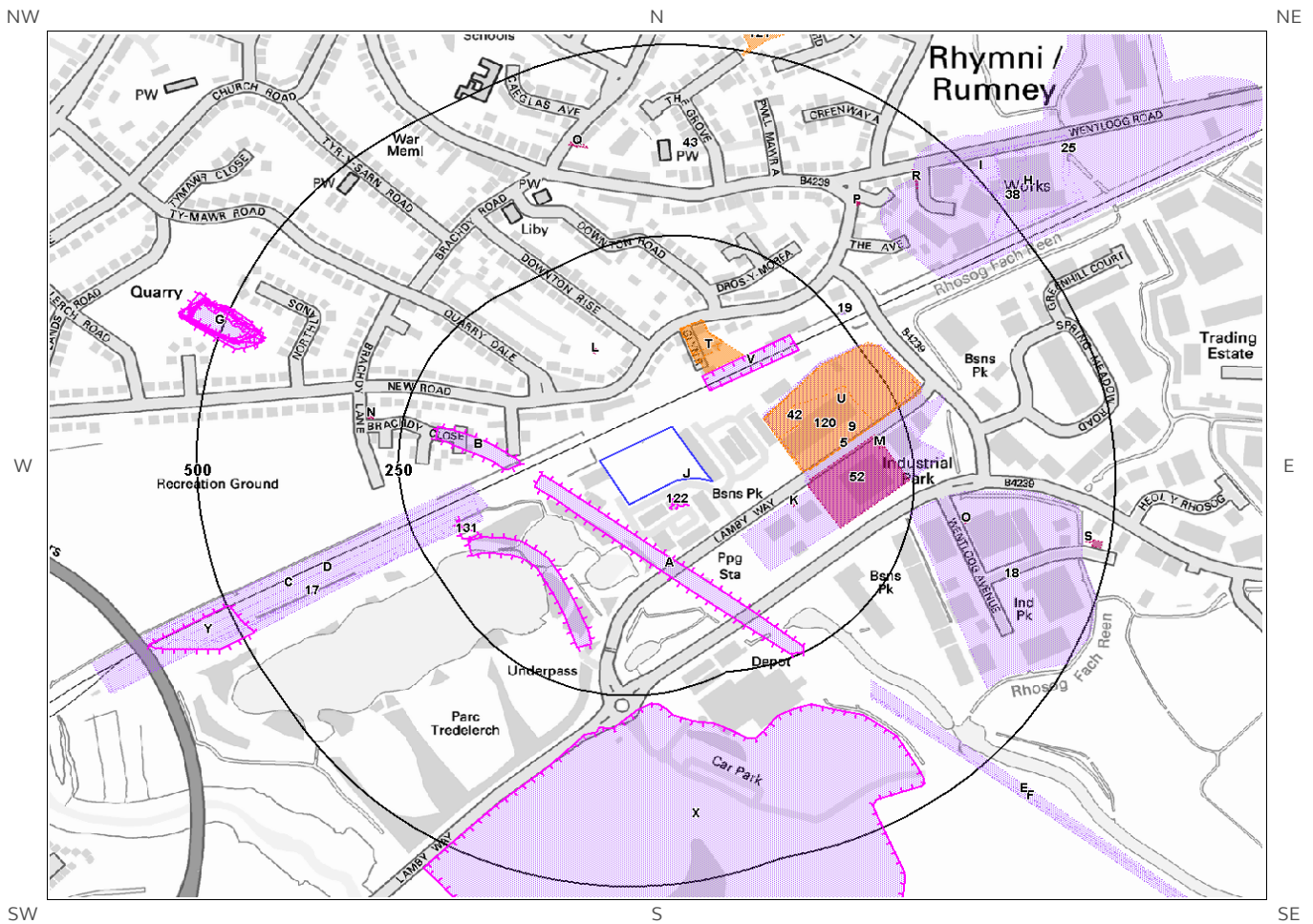
Note: Maps

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

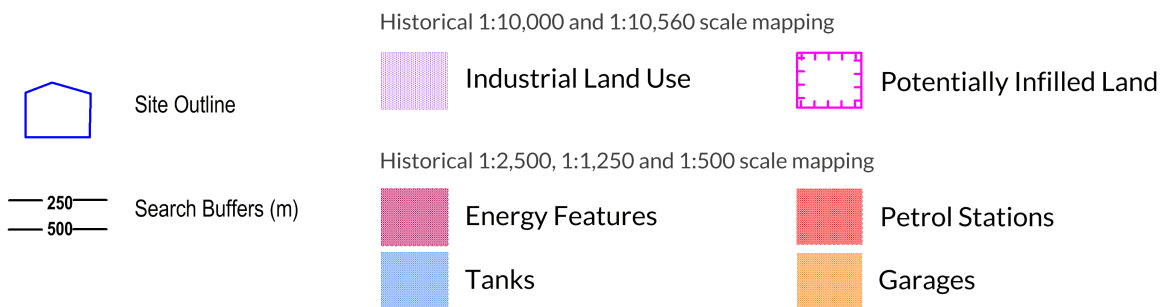
Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

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

1. Historical Land Use



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1. Historical Industrial Sites

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

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

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 41

ID	Distance [m]	Direction	Use	Date
1A	29	SW	Unspecified Heap	1938
2A	29	SW	Unspecified Heap	1899
3A	29	SW	Unspecified Heap	1916
4V	67	NE	Cuttings	1881
5	77	SE	Industrial Park	1987
6B	99	W	Unspecified Heap	1938
7B	99	W	Unspecified Heap	1916
8B	99	W	Unspecified Heap	1899
9	100	NE	Industrial Estate	1973
10U	101	NE	Unspecified Warehouse	1964
11W	123	SW	Unspecified Heap	1938
12C	151	SW	Railway Sidings	1964
13C	163	SW	Railway Sidings	1922
14D	164	SW	Railway Sidings	1938
15D	164	SW	Railway Sidings	1948
16D	164	SW	Railway Sidings	1916
17	165	SW	Railway Sidings	1916
18	248	E	Unspecified Works	1987
19	257	NE	Railway Building	1948
20X	261	S	Refuse Heap	1987
21E	326	SE	Sewage Pipe	1901
22E	326	SE	Sewage Pipe	1901
23F	341	SE	Sewer Pipe	1901
24F	341	SE	Sewer Pipe	1901
25	367	NE	Industrial Estate	1987
26G	447	W	Unspecified Quarry	1948
27G	449	W	Unspecified Quarry	1901
28G	449	W	Unspecified Quarry	1916
29G	449	W	Unspecified Disused Quarry	1973
30G	449	W	Unspecified Quarry	1964
31G	449	W	Unspecified Disused Quarry	1987
32G	453	W	Unspecified Quarry	1916
33G	456	W	Unspecified Quarry	1899

34H	461	NE	Unspecified Works	1973
35G	466	W	Unspecified Quarry	1922
36G	466	W	Cuttings	1881
37H	470	NE	Unspecified Works	1987
38	484	NE	Unspecified Works	1964
39Y	484	SW	Cuttings	1916
40I	489	NE	Pottery	1880
41I	489	NE	Unspecified Works	1964

1.2 Additional Information – Historical Tank Database

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

Records of historical tanks within 500m of the search boundary: 2

ID	Distance (m)	Direction	Use	Date
42	128	NE	Unspecified Tank	1988
43	366	N	Unspecified Tank	1953

1.3 Additional Information – Historical Energy Features Database

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

Records of historical energy features within 500m of the search boundary: 60

ID	Distance (m)	Direction	Use	Date
44J	0	On Site	Electricity Substation	1994
45J	0	On Site	Electricity Substation	1994
46K	102	E	Electricity Substation	1991
47K	103	E	Electricity Substation	1993
48K	103	E	Electricity Substation	1994
49K	103	E	Electricity Substation	1994
50K	103	E	Electricity Substation	1992
51K	103	E	Electricity Substation	1993
52	118	E	Electrical Depot	1966
53L	128	NW	Electricity Substation	1988
54L	128	NW	Electricity Substation	1989
55L	129	NW	Electricity Substation	1994
56L	129	NW	Electricity Substation	1992
57M	209	E	Electricity Substation	1988

58M	211	E	Electricity Substation	1991
59M	212	E	Electricity Substation	1994
60M	212	E	Electricity Substation	1993
61M	212	E	Electricity Substation	1994
62M	212	E	Electricity Substation	1992
63M	212	E	Electricity Substation	1993
64N	287	W	Electricity Substation	1994
65N	287	W	Electricity Substation	1992
66N	287	W	Electricity Substation	1961
67N	288	W	Electricity Substation	1988
68N	288	W	Electricity Substation	1989
69O	315	E	Electricity Substation	1994
70O	315	E	Electricity Substation	1993
71O	315	E	Electricity Substation	1994
72O	315	E	Electricity Substation	1992
73O	315	E	Electricity Substation	1993
74O	315	E	Electricity Substation	1991
75P	370	NE	Electricity Substation	1988
76P	370	NE	Electricity Substation	1994
77P	370	NE	Electricity Substation	1994
78P	370	NE	Electricity Substation	1993
79P	370	NE	Electricity Substation	1992
80P	370	NE	Electricity Substation	1993
81P	371	NE	Electricity Substation	1991
82Q	379	N	Electricity Substation	1970
83Q	384	N	Electricity Substation	1992
84Q	385	N	Electricity Substation	1987
85R	434	NE	Electricity Substation	1988
86R	445	NE	Electricity Substation	1994
87R	445	NE	Electricity Substation	1993
88R	445	NE	Electricity Substation	1994
89R	445	NE	Electricity Substation	1992
90R	445	NE	Electricity Substation	1993
91R	445	NE	Electricity Substation	1991
92R	446	NE	Electricity Substation	1988
93R	446	NE	Electricity Substation	1992
94R	447	NE	Electricity Substation	1989
95R	448	NE	Electricity Substation	1967
96R	449	NE	Electricity Substation	1966
97S	469	E	Electricity Substation	1989
98S	469	E	Electricity Substation	1986
99S	469	E	Electricity Substation	1989
100S	469	E	Electricity Substation	1961
101S	471	E	Electricity Substation	1991
102S	478	E	Electricity Substation	1995
103S	478	E	Electricity Substation	1992

1.4 Additional Information – Historical Petrol and Fuel Site Database

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

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

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

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 18

ID	Distance (m)	Direction	Use	Date
104T	81	NE	Garage	1988
105T	91	N	Garage	1991
106T	95	N	Garage	1993
107T	95	N	Garage	1992
108T	95	N	Garage	1993
109T	95	N	Garage	1994
110T	95	N	Garage	1994
111U	98	NE	Vehicle Service and Repair Depot	1989
112U	98	NE	Vehicle Service and Repair Depot	1961
113U	98	NE	Vehicle Service and Repair Depot	1989
114U	98	NE	Vehicle Service and Repair Depot	1986
115T	99	N	Garage	1967
116T	99	N	Garage	1966
117T	99	N	Garage	1986
118T	99	N	Garage	1961
119U	99	NE	Vehicle Spares and Repair Depot	1967
120	102	NE	Vehicle Spares and Repair Depot	1966
121	493	N	Garage	1989

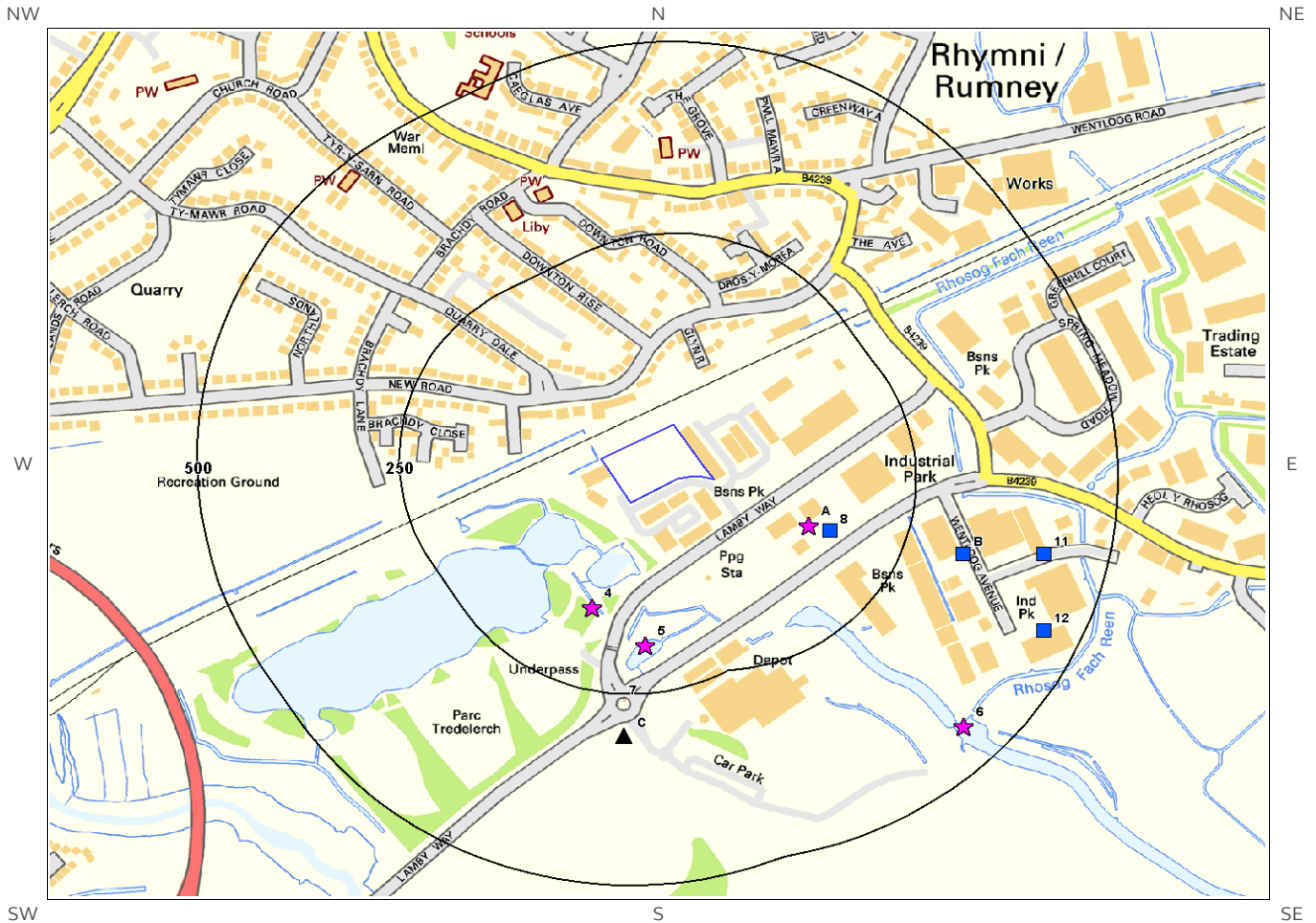
1.6 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 22















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

ID	Distance(m)	Direction	Use	Date
122	18	SE	Ponds	1938
123A	29	SW	Unspecified Heap	1899
124A	29	SW	Unspecified Heap	1916
125A	29	SW	Unspecified Heap	1938
126V	67	NE	Cuttings	1881
127B	99	W	Unspecified Heap	1938
128B	99	W	Unspecified Heap	1899
129B	99	W	Unspecified Heap	1916
130W	123	SW	Unspecified Heap	1938
131	178	SW	Pond	1938
132X	261	S	Refuse Heap	1987
133G	447	W	Unspecified Quarry	1948
134G	449	W	Unspecified Quarry	1901
135G	449	W	Unspecified Quarry	1916
136G	449	W	Unspecified Quarry	1964
137G	449	W	Unspecified Disused Quarry	1973
138G	449	W	Unspecified Disused Quarry	1987
139G	453	W	Unspecified Quarry	1916
140G	456	W	Unspecified Quarry	1899
141G	466	W	Unspecified Quarry	1922
142G	466	W	Cuttings	1881
143Y	484	SW	Cuttings	1916

2. Environmental Permits, Incidents and Registers Map



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- | | | | | | |
|---|-------------------------------|---|--|---|---|
|  | Site Outline |  | Recorded Pollution Incident |  | RAS 3 & 4 Authorisations |
|  | Dangerous Substances (List 1) |  | Part A(1) Authorised Processes and Historic IPC Authorisations |  | Part A(2) and Part B Authorised Processes |
|  | Dangerous Substances (List 2) |  | Water Industry Referrals |  | COMAH / NIHHS Sites |
|  | Licenced Discharge Consents |  | Sites Determined as Contaminated Land |  | Hazardous Substance Consents and Enforcements |
|  | Red List Discharge Consents | | | | |
|  | Search Buffers (m) | | | | |

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

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

0

Database searched and no data found.

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

6

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

ID	Distance (m)	Direction	NGR	Details	
19C	307	S	321980 178260	Operator: Novera Energy Generation No2 Ltd Installation Name: Lamby Way Generation Plant Process: COMBUSTION; WASTE DERIVED FUEL =>3MW BUT <50MW	Permit Number: FP3238SL Original Permit Number: FP3238SL EPR Reference: - Issue Date: 9/3/2005 Effective Date: 9/3/2005 Last date noted as effective: 2016-08-31 Status: Superseded
20C	307	S	321980 178260	Operator: Novera Energy Generation No 2 Limited Installation Name: Lamby Way Generation Plant Epr/fp3238sl Process: -	Permit Number: FP3238SL Original Permit Number: - EPR Reference: - Issue Date: 12/6/2013 Effective Date: 12/6/2013 Last date noted as effective: 2016-08-31 Status: Effective
21C	307	S	321980 178260	Operator: Novera Energy Generation No 2 Limited Installation Name: Lamby Way Generation Plant Ea/epr/fp3238sl/v002 Process: COMBUSTION; WASTE DERIVED FUEL =>3MW BUT <50MW	Permit Number: ZP3732TJ Original Permit Number: FP3238SL EPR Reference: - Issue Date: 7/6/2010 Effective Date: 7/6/2010 Last date noted as effective: 2016-08-31 Status: Superseded

ID	Distance (m)	Direction	NGR	Details	
22C	307	S	321980 178260	Operator: Novera Energy Generation No2 Ltd Installation Name: Lamby Way Generation Plant Process: -	Permit Number: FP3238SL Original Permit Number: FP3238SL EPR Reference: - Issue Date: 9/3/2005 Effective Date: 9/3/2005 Last date noted as effective: 2016-08-31 Status: Superseded
23C	307	S	321980 178260	Operator: Novera Energy Generation No 2 Limited Installation Name: Lamby Way Generation Plant Epr/fp3238sl Process: ASSOCIATED PROCESS	Permit Number: AP3835ZF Original Permit Number: FP3238SL EPR Reference: - Issue Date: 12/6/2013 Effective Date: 12/6/2013 Last date noted as effective: 2016-08-31 Status: Effective
24C	307	S	321980 178260	Operator: Novera Energy Generation No 2 Limited Installation Name: Lamby Way Generation Plant Epr/fp3238sl Process: COMBUSTION; WASTE DERIVED FUEL =>3MW BUT <50MW	Permit Number: FP3238SL Original Permit Number: - EPR Reference: - Issue Date: 12/6/2013 Effective Date: 12/6/2013 Last date noted as effective: 2016-08-31 Status: Effective

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

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

5

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

ID	Distance (m)	Direction	NGR	Details
8	158	SE	322235 178530	<p>Address: CARDIFF LAMBY WAY FITTERS REPORTING, CARDIFF LAMBY WAY FITTERS REPORT, LAMBY WAY FITTERS REPORTING CENT, FITTERS REPORTING CENTRE, UNKNOWN, UNKNOWN</p> <p>Effluent Type: UNSPECIFIED Permit Number: AC0137501 Permit Version: 1</p> <p>Receiving Water: Status: CONSENT EXPIRED - TIME LIMIT Issue date: 04/01/1983 Effective Date: 04-Jan-1983 Revocation Date: 19/04/1993</p>
9B	323	E	322400 178500	<p>Address: MARDY ROAD RUMNEY CARDIFF, MARDY ROAD, RUMNEY, CARDIFF, CARDIFF CBC, CF3 8EX</p> <p>Effluent Type: UNSPECIFIED Permit Number: AN0038401 Permit Version: 1</p> <p>Receiving Water: Status: REVOKED - UNSPECIFIED Issue date: 28/08/1987 Effective Date: 28-Aug-1987 Revocation Date: 26/10/1987</p>
10B	323	E	322400 178500	<p>Address: MARDY ROAD RUMNEY CARDIFF, MARDY ROAD, RUMNEY, CARDIFF, CARDIFF CBC, CF3 8EX</p> <p>Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: AN0038401 Permit Version: 2</p> <p>Receiving Water: Status: NEW CONSENT, BY APPLICATION (WRA 91, SECTION 88) Issue date: 27/10/1987 Effective Date: 27-Oct-1987 Revocation Date: -</p>
11	419	E	322500 178500	<p>Address: CARDIFF - WHITE ARROW EXPRESS LAMBY, CARDIFF - WHITE ARROW EXPRESS LA, LAMBY PARK IND EST, UNKNOWN, UNKNOWN, UNKNOWN</p> <p>Effluent Type: UNSPECIFIED Permit Number: AN0001401 Permit Version: 1</p> <p>Receiving Water: Status: CONSENT EXPIRED - TIME LIMIT Issue date: 25/01/1985 Effective Date: 25-Jan-1985 Revocation Date: 19/04/1993</p>
12	453	SE	322500 178400	<p>Address: WENTLOOGE - LAMBY IND.PARK WHITE AR, WENTLOOGE - LAMBY IND.PARK WHITE, WHITE ARROW EXPRESS, UNKNOWN, UNKNOWN, UNKNOWN</p> <p>Effluent Type: UNSPECIFIED Permit Number: AN0035601 Permit Version: 1</p> <p>Receiving Water: Status: CONSENT EXPIRED - TIME LIMIT Issue date: 10/08/1987 Effective Date: 10-Aug-1987 Revocation Date: 17/05/1993</p>

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

0

Database searched and no data found.

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

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

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

0

Database searched and no data found.

2.3 Environment Agency Recorded Pollution Incidents

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

6

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

ID	Distance (m)	Direction	NGR	Details	
1A	131	SE	322208 178537	Incident Date: 01-Jun-2001 Incident Identification: 7204 Pollutant: Inorganic Chemicals/Products Pollutant Description: Other Inorganic Chemical or Product	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
2A	131	SE	322208 178537	Incident Date: 01-Jun-2001 Incident Identification: 7204 Pollutant: Inorganic Chemicals/Products:Oils and Fuel Pollutant Description: Other Inorganic Chemical or Product:Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3A	131	SE	322208 178537	Incident Date: 01-Jun-2001 Incident Identification: 7204 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Distance (m)	Direction	NGR	Details	
4	145	S	321940 178430	Incident Date: 27-Jun-2001 Incident Identification: 14226 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
5	188	S	322005 178380	Incident Date: 01-Jan-2008 Incident Identification: 553249 Pollutant: Contaminated Water Pollutant Description: Urban Run-Off	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
6	446	SE	322400 178274	Incident Date: 09-Jan-2002 Incident Identification: 51458 Pollutant: Oils and Fuel Pollutant Description: Unidentified Oil	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

1

The following NIRS List 1 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
7	257	S		Incident Date: 16-Jun-2000 Incident Identification: 9510.0 Catchments Name: TAFF ESTUARY Water Description: ESTUARY Water Course: TAFF ESTUARY Incident Substantiated: Yes	Priority Description: No attendance Waste Description: Not Available Water Impact: No Impact Land Impact: No Impact Air Impact: Significant Impact Action Taken: Not Available

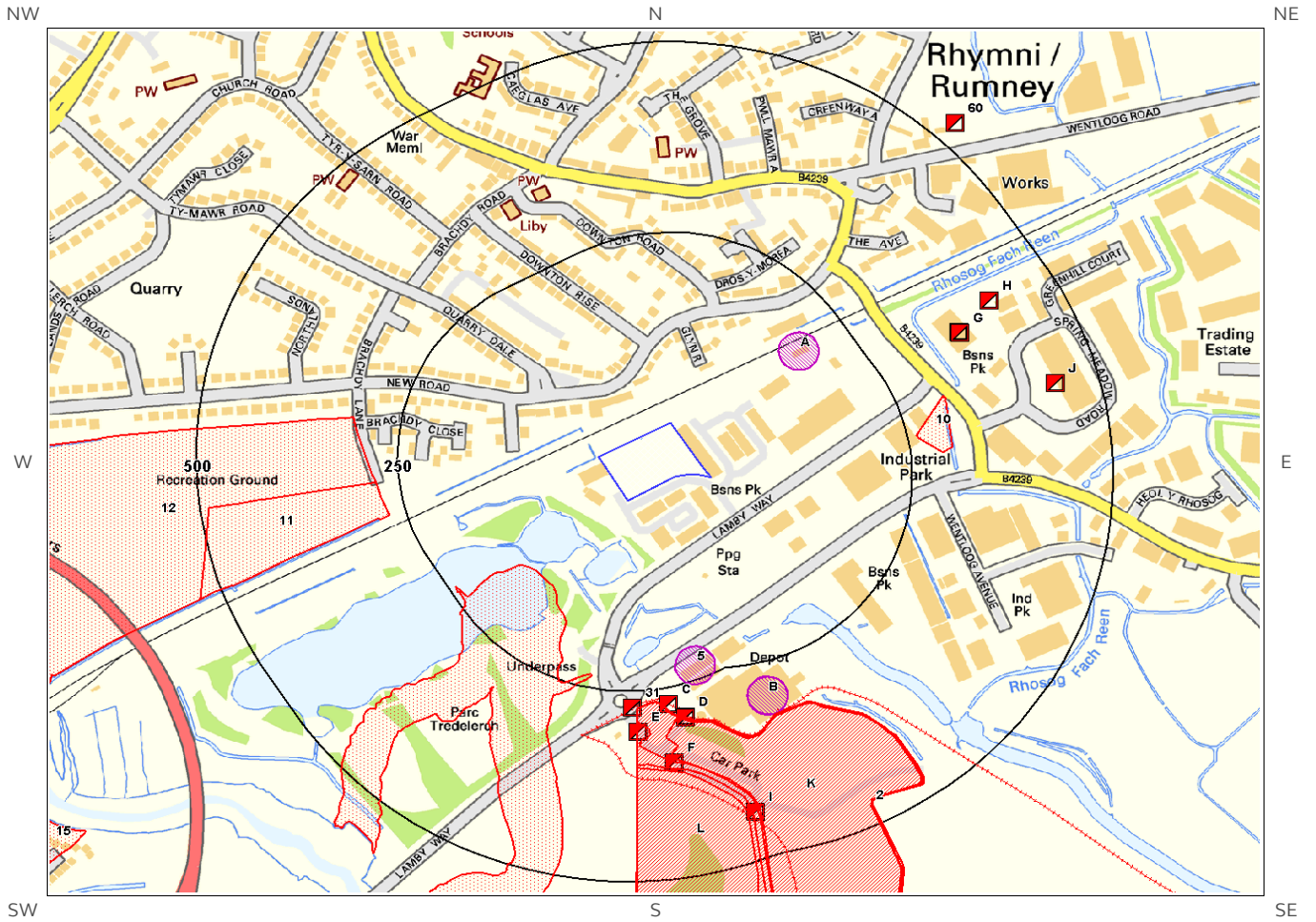
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

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










0

Database searched and no data found.

3. Landfill and Other Waste Sites Map



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- | | | | | | |
|---|------------------------|---|---------------------------|---|---|
|  | Site Outline |  | E.A. Active Landfill |  | Historic and Planned Waste Sites |
|  | E.A. Historic Landfill |  | E.A. Licensed Waste Site |  | Local Authority/Historical Mapping Landfill Records |
|  | 250 Search Buffers (m) |  | BGS / DoE Survey Landfill | | |
|  | 500 Search Buffers (m) | | | | |

3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency landfill data within 1000m of the study site:

1

The following Environment Agency landfill records are represented as polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
2	262	S	322046 178224	<p>Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, Glamorgan, CF3 2HP Landfill Reference: 30235.0 Environmental Permitting Regulations (Waste) Reference: CCC002 Landfill Type: A4 : Household, Commercial & Industrial Waste Landfill</p> <p>Operator: The County Council Of The City & County Of Cardiff Status: Modified IPPC Reference: EPR Reference:</p>

3.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:

17

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

ID	Distance (m)	Direction	NGR	Details
9	146	SW	321800 178200	<p>Site Address: Rumney River Infill, Lambyway, Cardiff Waste Licence: Yes Site Reference: - Waste Type: Inert, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -</p> <p>Licence Issue: 01-Sep-1976 Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: Cardiff City Council First Recorded: 31-Dec-1981 Last Recorded: 31-Dec-1984</p>
10	261	E	322300 178600	<p>Site Address: Mardy Limited, Lamby Way, Rumney Waste Licence: Yes Site Reference: 88/05 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -</p> <p>Licence Issue: 13-Jun-1988 Licence Surrendered: Licence Holder Address: Lamby Way, Rumney Operator: - Licence Holder: Mardy Limited First Recorded: 31-Dec-1988 Last Recorded: 31-Dec-1989</p>

ID	Distance (m)	Direction	NGR	Details	
11	271	W	321500 178500	Site Address: Brachdy Lane, Rumney, Cardiff Waste Licence: Yes Site Reference: 6/78 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 30-Oct-1978 Licence Surrendered: 31-Dec-1982 Licence Holder Address: Riverside Works, Ely Operator: - Licence Holder: W T Davies Transport Limited First Recorded: 31-Dec-1978 Last Recorded: 01-Apr-1982
12	279	W	321300 178500	Site Address: New Road, Cardiff Waste Licence: - Site Reference: - Waste Type: Inert, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: 31-Dec-1950 Last Recorded: 31-Dec-1964
Not shown	702	NE	322400 179300	Site Address: Heron Road Industrial Estate, Heron Road, Rumney Waste Licence: - Site Reference: - Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: 31-Dec-1960 Last Recorded: 31-Dec-1979
Not shown	783	W	320700 178300	Site Address: Newport Road, Cardiff Waste Licence: - Site Reference: - Waste Type: Inert, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: Corporation First Recorded: 31-Dec-1939 Last Recorded: 31-Dec-1961
15	801	SW	321100 177900	Site Address: Land Adjacent to Freightliner Depot, Cardiff Waste Licence: Yes Site Reference: 92/17 Waste Type: Inert, Industrial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 30-Sep-1992 Licence Surrendered: 16-Feb-1994 Licence Holder Address: - Operator: - Licence Holder: W T Davies Limited First Recorded: 31-Dec-1992 Last Recorded: 16-Feb-1994
Not shown	833	NE	322900 179000	Site Address: The Old Piggery, Wentloog Road, Rumney, Cardiff Waste Licence: Yes Site Reference: 88/04 Waste Type: Inert, Industrial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 13-Jun-1988 Licence Surrendered: 11-Jan-1991 Licence Holder Address: Cathedral Road, Cardiff Operator: - Licence Holder: South Glamorgan County Council First Recorded: 31-Dec-1988 Last Recorded: 31-Dec-1990
Not shown	842	SW	321000 178000	Site Address: Freightliner Terminal, Freighliner Terminal Waste Licence: - Site Reference: - Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: Great Western Railways First Recorded: 31-Dec-1900 Last Recorded: 31-Dec-1943
Not shown	890	NE	322800 179200	Site Address: Skewbridge, Wentloog Road, Cardiff Waste Licence: Yes Site Reference: 88/02, 6815/0075 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 07-Mar-1988 Licence Surrendered: 07-Mar-1989 Licence Holder Address: Middle newton Farm, Rumney, Cardiff Operator: - Licence Holder: H W Neal and Partners First Recorded: 31-Dec-1988 Last Recorded: 31-Dec-1992

ID	Distance (m)	Direction	NGR	Details	
Not shown	967	W	320700 178900	Site Address: Llanedeyrn Site, Ipswich Road, Cardiff, South Glamorgan Waste Licence: Yes Site Reference: - Waste Type: Inert, Industrial, Commercial, Household, Special Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Cardiff City Council Licence Holder: Cardiff Corporation First Recorded: 31-Dec-1966 Last Recorded: 31-Dec-1974
Not shown	1094	E	323200 178400	Site Address: Ty-To-Maen Farm, Cardiff Waste Licence: Yes Site Reference: - Waste Type: Inert, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: David Neal First Recorded: 31-Dec-1991 Last Recorded: 31-Dec-1992
Not shown	1200	W	320700 178900	Site Address: Llanedeyrn Site, Ipswich Road, Cardiff, South Glamorgan Waste Licence: Yes Site Reference: - Waste Type: Inert, Industrial, Commercial, Household, Special Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Cardiff City Council Licence Holder: Cardiff Corporation First Recorded: 31-Dec-1966 Last Recorded: 31-Dec-1974
Not shown	1248	NE	323100 179500	Site Address: Trowbridge Mawr, Cardiff Waste Licence: - Site Reference: - Waste Type: Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: Trowbridge Corporation First Recorded: 31-Dec-1959 Last Recorded: 31-Dec-1963
Not shown	1260	E	323400 178300	Site Address: Ty-To-Maen Farm, Cardiff Waste Licence: Yes Site Reference: - Waste Type: Inert, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: David Neal First Recorded: 31-Dec-1990 Last Recorded: 31-Dec-1991
Not shown	1339	E	323500 178400	Site Address: Ty-To-Maen, Cardiff Waste Licence: Yes Site Reference: - Waste Type: Inert, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: David Neal First Recorded: 31-Dec-1990 Last Recorded: 31-Dec-1991
Not shown	1449	E	323700 178600	Site Address: Middle Newton Farm, Newton Road, Rumney, Cardiff Waste Licence: Yes Site Reference: 88/02, 6815/0094 Waste Type: Inert, Commercial, Household Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 07-Mar-1988 Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: Mr H W Neal First Recorded: 21-May-1986 Last Recorded: 31-Dec-1990

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

1

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

ID	Distance (m)	Direction	NGR	Details	
Not shown	1307	W	320700.0 179000.0	Address: Llandeyrn Site, Ipswich Rd, Cardiff BGS Number: 2046.0	Risk: No risk to aquifer Waste Type: N/A

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

16

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

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
84I	267	S	322178 178151	Refuse Tip	1986 mapping	Polygon
85K	267	S	322177 178151	Refuse Tip	1989 mapping	Polygon
86K	267	S	322177 178151	Refuse Tip	1961 mapping	Polygon
87K	267	S	322177 178151	Refuse Tip	1989 mapping	Polygon
88K	288	S	322196 178151	Refuse Tip	1998 mapping	Polygon
89K	288	S	322196 178151	Refuse Tip	1994 mapping	Polygon
90L	347	S	322085 178110	Refuse Tip	1989 mapping	Polygon
91L	347	S	322085 178110	Refuse Tip	1986 mapping	Polygon
92L	347	S	322085 178110	Refuse Tip	1989 mapping	Polygon
93L	347	S	322085 178110	Refuse Tip	1961 mapping	Polygon
94L	351	S	322075 178108	Refuse Tip	1994 mapping	Polygon
95L	351	S	322075 178108	Refuse Tip	1998 mapping	Polygon
Not shown	1118	S	321781 177449	Refuse Tip	1968 mapping	Polygon
Not shown	1118	S	321781 177449	Refuse Tip	1970 mapping	Polygon
Not shown	1151	NW	320835 179236	Refuse Tip	1973 mapping	Polygon
Not shown	1467	W	320464 178457	Refuse Tip	1962 mapping	Polygon

3.2 Other Waste Sites

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

6

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

ID	Distance (m)	Direction	NGR	Details		
3A	160	NE	322201 178763	Type of Site: Organic Waste Treatment Plant Site Address: Lamby Way Waste Site, Lamby Way, Rumney, CARDIFF, South Glamorgan, CF3 2EQ	Planning Application Reference: 08/01190/E Date: -	Further Details: The procurement is for the design and construction of an organic waste treatment plant for the processing of co-mingled kitchen and garden waste in accordance with the Animal By Products regulations (ABPR). The specification will stipulate that the endproduct produced would be of marketable quality to PAS100 compost or equivalent. The contract will include the provision of a 12 month operation and hand over service. Construction - industrial doors (unspecified) doors. An application (ref: 08/01190/E) for detailed planning permission was granted by Cardiff C.C. This has been advertised in the Official Journal of European Union. Previous number published was 2009/S 95-135550, 2009/S 91-131017 and 2010/S 118-177525. We have been advised the procurement process has been abandoned and no contract award is to be made. A new contract notice will be issued for any future opportunity. Data Source: Historic Planning Application Data Type: Point

ID	Distance (m)	Direction	NGR	Details		
4A	160	NE	322201 178763	Type of Site: Industrial/Waste Transfer Unit Site Address: Lamby Way Waste Management, Lamby Way, Rumney, CARDIFF, South Glamorgan, CF3 2EQ	Planning Application Reference: 07/00765/E Date: 19/11/2007	Further Details: Scheme comprises construction of a single storey industrial building/waste transfer unit. Works will include sewer systems, infrastructure, enabling, access and landscaping. Construction - block, brick walls; linoleum/vinyl floor; double glazed windows, fire, industrial doors (unspecified) doors; black top surfacing, drain covers, fencing, kerbing, manholes, planting, road drainage, Tarmac surfacing, turfing/grass, white lining site works; access controls, bathroom, fire alarm system, fire escapes, suspended ceilings fittings. An application (ref: 07/00765/E) for detailed planning permission was granted by Cardiff C.C. Please note the addition of the mechanical and electrical sub- contractor. Data Source: Historic Planning Application Data Type: Point
5	207	S	322072 178350	Type of Site: Waste Transfer Station (Conversion) Site Address: Lamby Way Depot, 5, Lamby Way, Lamby Industrial Park, Rumney, CARDIFF, South Glamorgan, CF3 2HP	Planning Application Reference: 10/01477/DCO Date: 17/12/2011	Further Details: Scheme comprises change of use of premises to waste transfer station and skip hire business and associated works. An application (ref: 10/01477/DCO) for detailed planning permission was submitted to Cardiff C.C. A detailed planning application has been submitted. Data Source: Historic Planning Application Data Type: Point
6B	269	S	322162 178311	Type of Site: Landfill Waste Site Phase 2 Site Address: Lamby Way Waste Disposal Site, CARDIFF, South Glamorgan, CF4	Planning Application Reference: N/A Date: 01/10/1997	Further Details: Works to be carried out in phases over a period of five years include: general landscape works to Mitigation Reen: Woodland planting, hedge planting, protective and security fencing. Includes a new weighbridge. Data Source: Historic Planning Application Data Type: Point

ID	Distance (m)	Direction	NGR	Details		
7B	269	S	322162 178311	Type of Site: Waste Transfer Building (Extension) Site Address: Lamby Way Depot, Lamby Way, Wentloog, CARDIFF, South Glamorgan, CF3 2EQ	Planning Application Reference: 03/2894R Date: 25/04/2005	<p>Further Details: Scheme comprises construction of a single storey, steel framed, steel clad extension of 1,104 sqm to provide additional industrial and warehousing floor space to materials recycling building. Scheme includes 5 roller shutter doors, fire doors, external steel staircases, 305 tar macadam surfaced parking spaces, enabling works, electrical works, drainage and landscaping. Construction - block, profiled steel cladding walls; insitu concrete floor; profiled steel cladding roof; fire, roller shutter doors; pad foundations; steel frame; drain covers, manholes, Tarmac surfacing site works; fire alarm system, fire escapes fittings. An application (ref: 03/2894R) for Detailed Planning permission was granted by Cardiff C.C. on 26th January 2004. Please note the addition of Bollergraf UK Ltd.</p> <p>Data Source: Historic Planning Application Data Type: Point</p>
8B	269	S	322162 178311	Type of Site: Landfill Waste Site Phase 1 Site Address: Lamby Way Waste Disposal Site, CARDIFF, South Glamorgan, CF4	Planning Application Reference: 94/30R Date: 01/05/1997	<p>Further Details: Scheme comprises landfill waste site. Scheme comprises design, provision and construction of: synthetic membrane capping layer for landfill site approximately 9 hectares. Separation layer between existing site and proposed extension for 1.5 hectares. Foul and surface water system 9 hectares. Please note that Pat McGrath is based out on site. An application (ref: 94/30R) for Detailed Planning permission was submitted to Cardiff C.C. on 11th January 1994.</p> <p>Data Source: Historic Planning Application Data Type: Point</p>

3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

58

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

ID	Distance (m)	Direction	NGR	Details
26C	271	S	322038 178300	<p>Site Address: Lamby Way Depot, Rumney, Cardiff, CF3 2HP Type: Composting Facility Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WIL017 EPR reference: - Operator: The County Council Of The City & County Of Cardiff Waste Management licence No: 30338 Annual Tonnage: 74999.0</p> <p>Issue Date: 24/03/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Lamby Way Correspondence Address: Lamby Way Depot, Rumney, Cardiff, CF3 2PH</p>
27C	271	S	322038 178300	<p>Site Address: Lamby Way M R F & Household Waste Site, Lamby Way, Rumney, Cardiff, CF3 2HP Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CCC001 EPR reference: - Operator: Cardiff County Council Waste Management licence No: 30213 Annual Tonnage: 50075.0</p> <p>Issue Date: 07/09/2001 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Lamby Way M R F & Household Waste Site Correspondence Address: Cardiff County Council, Lamby Way Depot,, Lamby Way, Rumney, Cardiff, CF3 2HP</p>
28C	271	S	322038 178300	<p>Site Address: Lamby Way M R F & Household Waste Site, Lamby Way, Rumney, Cardiff, CF3 2HP Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CCC001 EPR reference: - Operator: The County Council Of The City And County Of Cardiff Waste Management licence No: 30213 Annual Tonnage: 50075.0</p> <p>Issue Date: 07/09/2001 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Lamby Way M R F & Household Waste Site Correspondence Address: Cardiff County Council, "Lamby Way Depot,", "Lamby Way, Rumney", Cardiff, CF3 2HP</p>
29C	271	S	322038 178300	<p>Site Address: Lamby Way Depot, Rumney, Cardiff, CF3 2HP Type: Composting Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WIL017 EPR reference: - Operator: Cardiff City & County Council Waste Management licence No: 30338 Annual Tonnage: 0.0</p> <p>Issue Date: 24/03/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Lamby Way Correspondence Address: Andrew Williamson, Lamby Way Depot (composting Facility), Rumney, Cardiff, CF3 2PH</p>

ID	Distance (m)	Direction	NGR	Details	
30C	271	S	322038 178300	<p>Site Address: Lamby Way Depot, Rumney, Cardiff, CF3 2HP Type: Composting Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WIL017 EPR reference: - Operator: Cardiff City & County Council Waste Management licence No: 30338 Annual Tonnage: 0.0</p>	<p>Issue Date: 24/03/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Lamby Way Correspondence Address: Lamby Way Depot (composting Facility), Rumney, Cardiff, CF3 2PH</p>
31	272	S	321994 178295	<p>Site Address: Lamby Way Landfill South, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP Type: Household Waste Amenity Site Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAR005 EPR reference: - Operator: The County Council Of The City And County Cardiff Waste Management licence No: 30066 Annual Tonnage: 10950.0</p>	<p>Issue Date: 30/07/1992 Effective Date: - Modified: 22/05/2001 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC Site Name: Lamby Way Landfill South Correspondence Address: Highways & Parks, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p>
32D	292	S	322060 178284	<p>Site Address: Lamby Way, Rumney, Cardiff, Glamorgan, CF3 2HP Type: Household Waste Amenity Site Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WIL017 EPR reference: EP3995FL/A001 Operator: The County Council Of The City & County Of Cardiff Waste Management licence No: 30338 Annual Tonnage: 74999.0</p>	<p>Issue Date: 24/03/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Lamby Way Depot Correspondence Address: -</p>
33D	292	S	322060 178284	<p>Site Address: Lamby Way Depot, Lamby Way Depot, Lamby Way, Rumney, Cardiff, Cardiff, CF3 2HP Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: EP3995FL EPR reference: - Operator: Cardiff Council Waste Management licence No: 0 Annual Tonnage: 74999.0</p>	<p>Issue Date: 24/03/2005 Effective Date: 24/03/2005 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -</p>
34D	292	S	322060 178284	<p>Site Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, Glamorgan, CF3 2HP Type: Household Waste Amenity Site Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WIL017 EPR reference: EP3995FL/A001 Operator: Cardiff Council Waste Management licence No: 30338 Annual Tonnage: 74999.0</p>	<p>Issue Date: 24/03/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Lamby Way Depot Correspondence Address: -</p>

ID	Distance (m)	Direction	NGR	Details	
35D	293	S	322060 178283	<p>Site Address: Lamby Way, Rumney, Cardiff, CF3 2HP</p> <p>Type: Household, Commercial & Industrial Waste T Stn</p> <p>Size: >= 25000 tonnes < 75000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: CCC001</p> <p>EPR reference: -</p> <p>Operator: The County Council Of The City & County Of Cardiff</p> <p>Waste Management licence No: 30213</p> <p>Annual Tonnage: 50075.0</p>	<p>Issue Date: 07/09/2001</p> <p>Effective Date: -</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Issued</p> <p>Site Name: Lamby Way M R F & Household Waste Site</p> <p>Correspondence Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p>
36D	293	S	322060 178283	<p>Site Address: Lamby Way M R F & Household Waste Site, Rumney, Cardiff, Cardiff, CF3 2HP</p> <p>Type: -</p> <p>Size: Unknown</p> <p>Environmental Permitting Regulations (Waste) Licence Number: MP3195FR</p> <p>EPR reference: -</p> <p>Operator: Cardiff Council</p> <p>Waste Management licence No: 0</p> <p>Annual Tonnage: 50075.0</p>	<p>Issue Date: 07/09/2001</p> <p>Effective Date: 07/09/2001</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Expired</p> <p>Site Name: -</p> <p>Correspondence Address: -</p>
37D	293	S	322060 178283	<p>Site Address: Lamby Way M R F & Household Waste Site, Lamby Way, Rumney, Cardiff, CF3 2HP</p> <p>Type: Household, Commercial & Industrial Waste T Stn</p> <p>Size: < 25000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: CCC001</p> <p>EPR reference: -</p> <p>Operator: The County Council Of The City And County Of Cardiff</p> <p>Waste Management licence No: 30213</p> <p>Annual Tonnage: 50075.0</p>	<p>Issue Date: 07/09/2001</p> <p>Effective Date: -</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Issued</p> <p>Site Name: Lamby Way M R F & Household Waste Site</p> <p>Correspondence Address: Cardiff County Council, Lamby Way Depot,, Lamby Way, Rumney, Cardiff, CF3 2HP</p>
38D	293	S	322060 178283	<p>Site Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, Glamorgan, CF3 2HP</p> <p>Type: Household, Commercial & Industrial Waste T Stn</p> <p>Size: >= 25000 tonnes < 75000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: CCC001</p> <p>EPR reference: MP3195FR/A001</p> <p>Operator: Cardiff Council</p> <p>Waste Management licence No: 30213</p> <p>Annual Tonnage: 50075.0</p>	<p>Issue Date: 07/09/2001</p> <p>Effective Date: -</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Issued</p> <p>Site Name: Lamby Way M R F & Household Waste Site</p> <p>Correspondence Address: -</p>
39E	303	S	322001 178264	<p>Site Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, South Glam, CF3 2HP</p> <p>Type: Household Waste Amenity Site</p> <p>Size: < 25000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: CAR038</p> <p>EPR reference: -</p> <p>Operator: The County Council Of The City & County Of Cardiff</p> <p>Waste Management licence No: 30397</p> <p>Annual Tonnage: 75000.0</p>	<p>Issue Date: 30/07/1992</p> <p>Effective Date: -</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: IPPC</p> <p>Site Name: Lamby Way Landfill South</p> <p>Correspondence Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p>

ID	Distance (m)	Direction	NGR	Details	
40E	303	S	322001 178264	<p>Site Address: Lamby Way Landfill South, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p> <p>Type: Household Waste Amenity Site Size: >= 75000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: CAR005 EPR reference: -</p> <p>Operator: The County Council Of The City And County Of Cardiff</p> <p>Waste Management licence No: 30066 Annual Tonnage: 10950.0</p>	<p>Issue Date: 30/07/1992 Effective Date: - Modified: 22/05/2001 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC</p> <p>Site Name: Lamby Way Landfill South Correspondence Address: Highways & Parks, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p>
41E	303	S	322001 178264	<p>Site Address: Lamby Way Landfill South (D U M M Y L I C E N C E), Rumney, Cardiff, Cardiff, CF3 2HP</p> <p>Type: - Size: Unknown</p> <p>Environmental Permitting Regulations (Waste) Licence Number: DP3695FD EPR reference: -</p> <p>Operator: The County Council Of The City & County Of Cardiff</p> <p>Waste Management licence No: 0 Annual Tonnage: 75000.0</p>	<p>Issue Date: 30/07/1992 Effective Date: 30/07/1992 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -</p>
42E	303	S	322001 178264	<p>Site Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, Glamorgan, CF3 2HP</p> <p>Type: Household Waste Amenity Site Size: >= 75000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: CAR038 EPR reference: DP3695FD/A001</p> <p>Operator: The County Council Of The City & County Of Cardiff (D U M M Y L I C E N C E)</p> <p>Waste Management licence No: 30397 Annual Tonnage: 75000.0</p>	<p>Issue Date: 30/07/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: To PPC</p> <p>Site Name: Lamby Way Landfill South (D U M M Y L I C E N C E) Correspondence Address: -</p>
43E	303	S	322001 178264	<p>Site Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, Glamorgan, CF3 2HP</p> <p>Type: Household Waste Amenity Site Size: < 25000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: CAR038 EPR reference: -</p> <p>Operator: The County Council Of The City & County Of Cardiff (dummy Licence)</p> <p>Waste Management licence No: 30397 Annual Tonnage: 75000.0</p>	<p>Issue Date: 7/30/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC</p> <p>Site Name: Lamby Way Landfill South (dummy) Correspondence Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, Glamorgan, CF3 2HP</p>
44E	303	S	322001 178264	<p>Site Address: Lamby Way Landfill South, Lamby Way Depot, Rumney, Cardiff, South Glam, CF3 2HP</p> <p>Type: Household Waste Amenity Site Size: < 25000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: CAR038 EPR reference: -</p> <p>Operator: The County Council Of The City And County Of Cardiff</p> <p>Waste Management licence No: 30397 Annual Tonnage: 75000.0</p>	<p>Issue Date: 30/07/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC</p> <p>Site Name: Lamby Way Landfill South Correspondence Address: Highways And Parks, Lamby Way Depot, Rumney, Cardiff, South Glam, CF3 2HP</p>

ID	Distance (m)	Direction	NGR	Details
45E	303	S	322001 178264	<p>Site Address: Lamby Way Landfill South, Rumney, Cardiff, Cardiff, CF3 2HP Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: EP3499FB EPR reference: - Operator: The County Council Of The City & County Of Cardiff Waste Management licence No: 0 Annual Tonnage: 10950.0</p> <p>Issue Date: 30/07/1992 Effective Date: 30/07/1992 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired Site Name: - Correspondence Address: -</p>
46E	303	S	322001 178264	<p>Site Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, Glamorgan, CF3 2HP Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAR038 EPR reference: EA/EPR/DP3695FD/A001 Operator: The County Council Of The City & County Of Cardiff (D U M M Y L I C E N C E) Waste Management licence No: 30397 Annual Tonnage: 75000.0</p> <p>Issue Date: 30/07/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: To PPC Site Name: Lamby Way Landfill South (D U M M Y L I C E N C E) Correspondence Address: -</p>
47E	303	S	322001 178264	<p>Site Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, Glamorgan, CF3 2HP Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAR005 EPR reference: EP3499FB/V002 Operator: The County Council Of The City & County Of Cardiff Waste Management licence No: 30066 Annual Tonnage: 10950.0</p> <p>Issue Date: 30/07/1992 Effective Date: - Modified: 22/05/2001 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: To PPC Site Name: Lamby Way Landfill South Correspondence Address: -</p>
48F	348	S	322046 178224	<p>Site Address: Lamby Way Landfill Eastern Extension, Lamby Way, Rumney, Cardiff, CF3 2HP Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: XP3595FN EPR reference: - Operator: The County Council Of The City & County Of Cardiff Waste Management licence No: 0 Annual Tonnage: 603650.0</p> <p>Issue Date: 09/06/2000 Effective Date: 09/06/2000 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -</p>
49F	348	S	322046 178224	<p>Site Address: Lamby Way Depot, Lamby Way, Rumney, Cardiff, Glamorgan, CF3 2HP Type: Household, Commercial & Industrial Waste Landfill Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CCC002 EPR reference: XP3595FN/V006 Operator: The County Council Of The City & County Of Cardiff Waste Management licence No: 30235 Annual Tonnage: 603650.0</p> <p>Issue Date: 09/06/2000 Effective Date: - Modified: 25/10/2004 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Lamby Way Landfill Eastern Extension Correspondence Address: -</p>

ID	Distance (m)	Direction	NGR	Details	
50G	363	NE	322401 178787	<p>Site Address: Acorn Environmental Transfer Stn, Spring Meadow Road, Wentloog, Cardiff, CF3 8ES</p> <p>Type: Special Waste Transfer Station</p> <p>Size: < 25000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: ACO001</p> <p>EPR reference: -</p> <p>Operator: Acorn Environmental Ltd</p> <p>Waste Management licence No: 30171</p> <p>Annual Tonnage: 4999.0</p>	<p>Issue Date: 21/11/1995</p> <p>Effective Date: -</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Issued</p> <p>Site Name: Acorn Environmental Special Waste Transfer Station</p> <p>Correspondence Address: Spring Meadow Road, Wentloog, Cardiff, CF3 8ES</p>
51G	363	NE	322400 178789	<p>Site Address: Safety Kleen S E Wales, Unit 4, Spring Meadow Industrial Estate, Trowbridge, Cardiff, CF3 2ES</p> <p>Type: Special Waste Transfer Station</p> <p>Size: < 25000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: SAF001</p> <p>EPR reference: -</p> <p>Operator: Safety Kleen U K Ltd</p> <p>Waste Management licence No: 30117</p> <p>Annual Tonnage: 5000.0</p>	<p>Issue Date: 01/03/1995</p> <p>Effective Date: -</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Issued</p> <p>Site Name: Safety Kleen S E Wales</p> <p>Correspondence Address: Unit 4, Spring Meadow Ind Est, Trowbridge, Cardiff, CF3 2ES</p>
52H	416	NE	322437 178830	<p>Site Address: Acorn Environmental Special Waste Transfer Station, Land/ Premises At, Wentloog, Cardiff, Cardiff, CF3 2ES</p> <p>Type: -</p> <p>Size: Unknown</p> <p>Environmental Permitting Regulations (Waste) Licence Number: BP3095FX</p> <p>EPR reference: -</p> <p>Operator: Acorn Environmental Ltd (in Administrative Receivership)</p> <p>Waste Management licence No: 0</p> <p>Annual Tonnage: 4999.0</p>	<p>Issue Date: 21/11/1995</p> <p>Effective Date: 21/11/1995</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Effective</p> <p>Site Name: -</p> <p>Correspondence Address: -</p>
53H	416	NE	322437 178830	<p>Site Address: Land/ Premises At, Spring Meadow Road, Wentloog, Cardiff, Glamorgan, CF3 2ES</p> <p>Type: Special Waste Transfer Station</p> <p>Size: < 25000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: ACO001</p> <p>EPR reference: BP3095FX/A001</p> <p>Operator: Acorn Environmental Ltd (in Administrative Receivership)</p> <p>Waste Management licence No: 30171</p> <p>Annual Tonnage: 4999.0</p>	<p>Issue Date: 21/11/1995</p> <p>Effective Date: -</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Issued</p> <p>Site Name: Acorn Environmental Special Waste Transfer Station</p> <p>Correspondence Address: -</p>
54I	438	S	322147 178159	<p>Site Address: Lamby Way Landfill Eastern Extension, Highways & Parks, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p> <p>Type: Other Landfill Site taking Special Waste</p> <p>Size: >= 75000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: CCC002</p> <p>EPR reference: -</p> <p>Operator: Cardiff County Council</p> <p>Waste Management licence No: 30235</p> <p>Annual Tonnage: 485000.0</p>	<p>Issue Date: 09/06/2000</p> <p>Effective Date: -</p> <p>Modified: 18/05/2001</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Modified</p> <p>Site Name: Lamby Way Landfill Eastern Extension</p> <p>Correspondence Address: Cardiff County Council, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p>

ID	Distance (m)	Direction	NGR	Details	
55I	438	S	322147 178159	<p>Site Address: Lamby Way Landfill Eastern Extension, Highways & Parks, "Lamby Way Depot", "Lamby Way, Rumney", Cardiff, CF3 2HP</p> <p>Type: Household, Commercial & Industrial Waste Landfill</p> <p>Size: >= 75000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: CCC002</p> <p>EPR reference: -</p> <p>Operator: The County Council Of The City And County Of Cardiff</p> <p>Waste Management licence No: 30235</p> <p>Annual Tonnage: 603650.0</p>	<p>Issue Date: 09/06/2000</p> <p>Effective Date: -</p> <p>Modified: 25/10/2004</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Modified</p> <p>Site Name: Lamby Way Landfill Eastern Extension</p> <p>Correspondence Address: Cardiff County Council, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p>
56J	446	E	322520 178721	<p>Site Address: Unit 4, Spring Meadow Business Park, Rumney, Cardiff, CF3 2ES</p> <p>Type: Special Waste Transfer Station</p> <p>Size: Unknown</p> <p>Environmental Permitting Regulations (Waste) Licence Number: SAF001</p> <p>EPR reference: DP3399FJ/V007</p> <p>Operator: Safety Kleen U K Ltd</p> <p>Waste Management licence No: 30117</p> <p>Annual Tonnage: 0.0</p>	<p>Issue Date: 01/03/1995</p> <p>Effective Date: -</p> <p>Modified: 28/03/2014</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Modified</p> <p>Site Name: Safetykleen Uk</p> <p>Correspondence Address: -</p>
57J	446	E	322520 178721	<p>Site Address: Safetykleen Uk, Spring Meadow Business Park, Rumney, Cardiff, CF3 2ES</p> <p>Type: -</p> <p>Size: Unknown</p> <p>Environmental Permitting Regulations (Waste) Licence Number: DP3399FJ</p> <p>EPR reference: -</p> <p>Operator: Safety Kleen U K Ltd</p> <p>Waste Management licence No: 0</p> <p>Annual Tonnage: 4999.0</p>	<p>Issue Date: 13/07/1992</p> <p>Effective Date: 13/07/1992</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Effective</p> <p>Site Name: -</p> <p>Correspondence Address: -</p>
58J	446	E	322520 178721	<p>Site Address: Unit 4, Spring Meadow Business Park, Rumney, Cardiff, CF3 2ES</p> <p>Type: Special Waste Transfer Station</p> <p>Size: < 25000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: SAF001</p> <p>EPR reference: EA/EPR/DP3399FJ/V007</p> <p>Operator: Safety Kleen U K Ltd</p> <p>Waste Management licence No: 30117</p> <p>Annual Tonnage: 4999.0</p>	<p>Issue Date: 01/03/1995</p> <p>Effective Date: -</p> <p>Modified: 28/03/2014</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Modified</p> <p>Site Name: Safetykleen Uk</p> <p>Correspondence Address: -</p>
59J	446	E	322520 178721	<p>Site Address: Safety Kleen U K Ltd, Safetykleen Uk, Spring Meadow Business Park, Rumney, Cardiff, CF3 2ES</p> <p>Type: Special Waste Transfer Station</p> <p>Size: Unknown</p> <p>Environmental Permitting Regulations (Waste) Licence Number: DP3399FJ</p> <p>EPR reference: -</p> <p>Operator: Safety Kleen U K Ltd</p> <p>Waste Management licence No: 30117</p> <p>Annual Tonnage: 4999.0</p>	<p>Issue Date: 13/07/1992</p> <p>Effective Date: -</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Effective</p> <p>Site Name: Safetykleen Uk</p> <p>Correspondence Address: -</p>

ID	Distance (m)	Direction	NGR	Details	
60	530	NE	322395 179063	<p>Site Address: K & L Car Dismantlers, Wentloog Road, Rumney, Cardiff, CF3 8EE Type: Metal Recycling Site (mixed MRS's) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: K&L001 EPR reference: - Operator: K & L Car Dismantlers Waste Management licence No: 30047 Annual Tonnage: 4999.0</p>	<p>Issue Date: 04/07/1991 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: K & L Car Dismantlers Correspondence Address: Old Rover Works, Wentloog Road, Rumney, Cardiff, CF3 8EE</p>
Not shown	723	SE	322500 178000	<p>Site Address: Cardiff Council, Lamby Way Landfill Site EPR/JP3239ST, Lamby Way Landfill Site Lamby Way, Cardiff, CF3 8EQ Type: Borehole Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: JP3239ST EPR reference: - Operator: Cardiff Council Waste Management licence No: 0 Annual Tonnage: 603650.0</p>	<p>Issue Date: 08/01/2007 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: Lamby Way Landfill Site EPR/JP3239ST Correspondence Address: -</p>
Not shown	723	SE	322500 178000	<p>Site Address: Cardiff Council, Lamby Way Landfill Site EPR/JP3239ST, Lamby Way Landfill Site Lamby Way, Cardiff, CF3 8EQ Type: Landfill taking Non-Biodegradable Wastes Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: JP3239ST EPR reference: - Operator: Cardiff Council Waste Management licence No: 0 Annual Tonnage: 603650.0</p>	<p>Issue Date: 08/01/2007 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: Lamby Way Landfill Site EPR/JP3239ST Correspondence Address: -</p>
Not shown	782	S	322101 177793	<p>Site Address: Lamby Way Landfill South, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP Type: Other Landfill Site taking Special Waste Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAR005 EPR reference: - Operator: The County Council Of The City And County Cardiff Waste Management licence No: 30066 Annual Tonnage: 37674.0</p>	<p>Issue Date: 30/07/1992 Effective Date: - Modified: 22/05/2001 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Lamby Way Landfill South Correspondence Address: Highways & Parks, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p>
Not shown	782	S	322101 177793	<p>Site Address: Lamby Way Landfill South, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAR005 EPR reference: - Operator: The County Council Of The City And County Cardiff Waste Management licence No: 30066 Annual Tonnage: 10950.0</p>	<p>Issue Date: 30/07/1992 Effective Date: - Modified: 22/05/2001 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC Site Name: Lamby Way Landfill South Correspondence Address: Highways & Parks, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p>

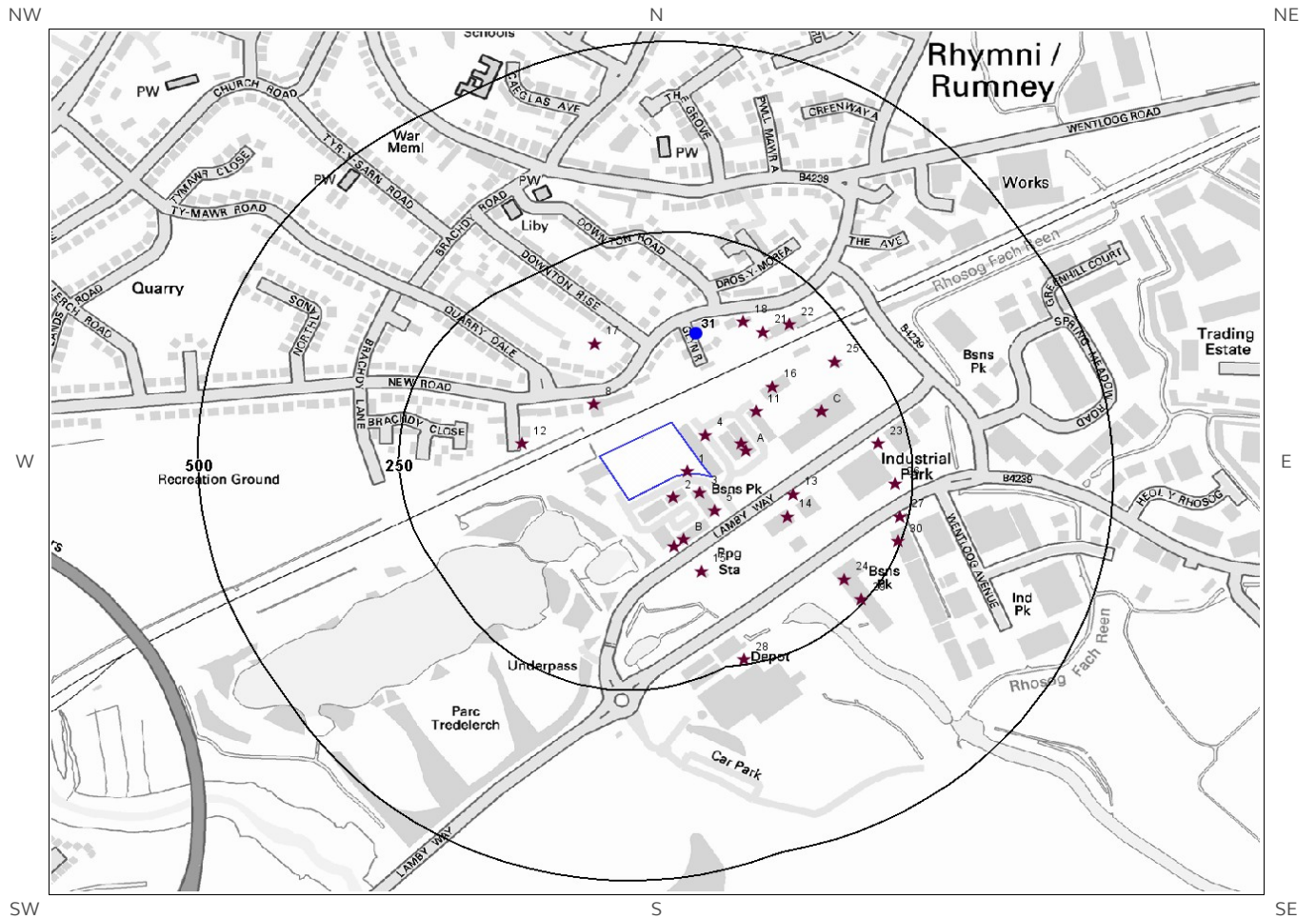
ID	Distance (m)	Direction	NGR	Details
Not shown	782	S	322101 177793	<p>Site Address: Lamby Way Landfill South, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p> <p>Type: Other Landfill Site taking Special Waste</p> <p>Size: >= 75000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: CAR005</p> <p>EPR reference: -</p> <p>Operator: Cardiff County Council</p> <p>Waste Management licence No: 30066</p> <p>Annual Tonnage: 37674.0</p>
				<p>Issue Date: 30/07/1992</p> <p>Effective Date: -</p> <p>Modified: 22/05/2001</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Issued</p> <p>Site Name: Lamby Way Landfill South</p> <p>Correspondence Address: Highways & Parks, Lamby Way Depot, Lamby Way, Rumney, Cardiff, CF3 2HP</p>
Not shown	1034	SE	322983 178073	<p>Site Address: Old Army Camp, Mardy Road, Rumney, Cardiff, Glamorgan, CF3 2EH</p> <p>Type: Metal Recycling Site (Vehicle Dismantler)</p> <p>Size: < 25000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: AZI001</p> <p>EPR reference: VB3597TS/T001</p> <p>Operator: Gmh Vehicle Recyclers Limited</p> <p>Waste Management licence No: 30148</p> <p>Annual Tonnage: 5000.0</p>
				<p>Issue Date: 13/10/1994</p> <p>Effective Date: 18/10/2013</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Transferred</p> <p>Site Name: Gmh Vehicle Dismantlers</p> <p>Correspondence Address: -</p>
Not shown	1034	SE	322983 178073	<p>Site Address: Gmh Vehicle Dismantlers, Rumney, Cardiff, Cardiff, CF3 2EH</p> <p>Type: -</p> <p>Size: Unknown</p> <p>Environmental Permitting Regulations (Waste) Licence Number: VB3597TS</p> <p>EPR reference: -</p> <p>Operator: Gmh Vehicle Recyclers Limited</p> <p>Waste Management licence No: 0</p> <p>Annual Tonnage: 5000.0</p>
				<p>Issue Date: 13/10/1994</p> <p>Effective Date: 13/10/1994</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Effective</p> <p>Site Name: -</p> <p>Correspondence Address: -</p>
Not shown	1034	SE	322983 178073	<p>Site Address: Old Army Camp, Mardy Road, Rumney, Cardiff, Glamorgan, CF3 2EH</p> <p>Type: Metal Recycling Site (Vehicle Dismantler)</p> <p>Size: < 25000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: GMH001</p> <p>EPR reference: EA/EPR/QP3099FU/A001</p> <p>Operator: Goodliffe J</p> <p>Waste Management licence No: 30148</p> <p>Annual Tonnage: 5000.0</p>
				<p>Issue Date: 13/10/1994</p> <p>Effective Date: -</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Issued</p> <p>Site Name: G M H Vehicle Dismantlers</p> <p>Correspondence Address: -</p>
Not shown	1054	SE	323019 178095	<p>Site Address: G M H Vehicle Dismantlers, Maerdy Road, Rumney, Cardiff, CF3 8EH</p> <p>Type: Metal Recycling Site (mixed MRS's)</p> <p>Size: < 25000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: GMH001</p> <p>EPR reference: -</p> <p>Operator: Goodliffe J</p> <p>Waste Management licence No: 30148</p> <p>Annual Tonnage: 5000.0</p>
				<p>Issue Date: 13/10/1994</p> <p>Effective Date: -</p> <p>Modified: -</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Issued</p> <p>Site Name: G M H Vehicle Dismantlers</p> <p>Correspondence Address: Seabank Farm, Maerdy Road, Rumney, Cardiff, CF3 8EH</p>

ID	Distance (m)	Direction	NGR	Details	
Not shown	1317	SE	323025 177667	<p>Site Address: Lamby Way Open Windrow Composting Facility, Lamby Way, Rumney, Cardiff, Cardiff, CF3 4EQ Type: - Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: AB3096CP EPR reference: - Operator: Kelda Organic Energy (Cardiff) Limited Waste Management licence No: 0 Annual Tonnage: 25000.0</p>	<p>Issue Date: 29/02/2016 Effective Date: 29/02/2016 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -</p>
Not shown	1332	SW	320737 178079	<p>Site Address: Colchester Ave C/ A Site, Colchester Avenue, Roath, Cardiff, CF4 3QW Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAR004 EPR reference: - Operator: Cardiff County Council Waste Management licence No: 30080 Annual Tonnage: 0.0</p>	<p>Issue Date: 05/02/1993 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Colchester Avenue Civic Amenity Site Correspondence Address: Highways & Parks Division, Cleansing Administration, Lamby Way, Cardiff, CF3 2HP</p>
Not shown	1332	SW	320737 178079	<p>Site Address: Colchester Ave C/ A Site, Colchester Avenue, Roath, Cardiff, CF4 3QW Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAR004 EPR reference: - Operator: The County Council Of The City And County Of Cardiff Waste Management licence No: 30080 Annual Tonnage: 0.0</p>	<p>Issue Date: 05/02/1993 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Colchester Avenue Civic Amenity Site Correspondence Address: Highways & Parks Division, Cleansing Administration, Lamby Way, Cardiff, CF3 2HP</p>
Not shown	1389	E	323480 178550	<p>Site Address: Neal Soil Suppliers Ltd, Atlantic Ecopark NRW/EPR/VP3095FS/V010, Atlantic Ecopark Newton Road, CF3 2EJ Type: Physical Treatment Facility Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: VP3095FS EPR reference: - Operator: Neal Soil Suppliers Ltd Waste Management licence No: 0 Annual Tonnage: 0.0</p>	<p>Issue Date: 06/11/2013 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: Atlantic Ecopark NRW/EPR/VP3095FS/V010 Correspondence Address: -</p>
Not shown	1428	E	323520 178628	<p>Site Address: Atlantic Eco Park, Newton Road, Rumney, Cardiff, Glamorgan, CF3 2EJ Type: Physical Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NEA007 EPR reference: VP3095FS/V010 Operator: Neal Soil Suppliers Ltd Waste Management licence No: 30348 Annual Tonnage: 1003999.0</p>	<p>Issue Date: 03/05/2006 Effective Date: - Modified: 20/05/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Neal Soil Supplies Ltd Correspondence Address: -</p>

ID	Distance (m)	Direction	NGR	Details
Not shown	1440	W	320618 178082	<p>Site Address: Colchester Ave C / A Site, Colchester Avenue, Roath, Cardiff, Glamorgan, CF23 9AN Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAR004 EPR reference: EA/EPR/VP3699FJ/S002 Operator: The County Council Of The City & County Of Cardiff Waste Management licence No: 30080 Annual Tonnage: 0.0</p> <p>Issue Date: 05/02/1993 Effective Date: - Modified: - Surrendered Date: 13/02/2007 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Colchester Avenue Civic Amenity Site Correspondence Address: -</p>
Not shown	1440	W	320618 178082	<p>Site Address: Colchester Ave C / A Site, Colchester Avenue, Roath, Cardiff, Glamorgan, CF23 9AN Type: Household Waste Amenity Site Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: CAR004 EPR reference: VP3699FJ/S002 Operator: The County Council Of The City & County Of Cardiff Waste Management licence No: 30080 Annual Tonnage: 0.0</p> <p>Issue Date: 05/02/1993 Effective Date: - Modified: - Surrendered Date: 13/02/2007 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Colchester Avenue Civic Amenity Site Correspondence Address: -</p>
Not shown	1461	E	323553 178621	<p>Site Address: Ty To Maen Farm, Newton Rd, Rhymney, Cardiff, CF3 2EJ Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NEA006 EPR reference: - Operator: Neal Soil Suppliers Ltd Waste Management licence No: 30347 Annual Tonnage: 124999.0</p> <p>Issue Date: 14/10/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Soil Recycling Transfer Station Correspondence Address: Ty To Maen Farm, Newton Road, Rumney, Cardiff, CF3 2EJ</p>
Not shown	1467	E	323559 178621	<p>Site Address: Atlantic Eco Park, Newton Road, Rumney, Cardiff, Glamorgan, CF3 2EJ Type: Special Waste Transfer Station Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NEI024 EPR reference: EA/EPR/PP3993VS/V002 Operator: Atlantic Recycling Ltd Waste Management licence No: 30347 Annual Tonnage: 280000.0</p> <p>Issue Date: 14/10/2005 Effective Date: 15/11/2010 Modified: 01/03/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Atlantic Recycling Ltd Correspondence Address: -</p>
Not shown	1467	E	323559 178621	<p>Site Address: Ty To Maen Farm, Newton Road, Rumney, Cardiff, Glamorgan, CF3 2EJ Type: Special Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NEA006 EPR reference: VP3395FK/V002 Operator: Neal Soil Suppliers Ltd Waste Management licence No: 30347 Annual Tonnage: 124999.0</p> <p>Issue Date: 14/10/2005 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Neal Soil Suppliers Ltd Correspondence Address: -</p>

ID	Distance (m)	Direction	NGR	Details
Not shown	1467	E	323559 178621	<p>Site Address: Atlantic Eco Park, Newton Road, Rumney, Cardiff, Glamorgan, CF3 2EJ</p> <p>Type: Special Waste Transfer Station Size: Unknown</p> <p>Environmental Permitting Regulations (Waste) Licence Number: NEI024 EPR reference: PP3993VS/V004 Operator: Atlantic Recycling Limited Waste Management licence No: 30347 Annual Tonnage: 0.0</p> <p>Issue Date: 14/10/2005 Effective Date: 15/11/2010 Modified: 10/04/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Atlantic Recycling Limited Correspondence Address: -</p>
Not shown	1467	E	323559 178621	<p>Site Address: Atlantic Eco Park, Newton Road, Rumney, Cardiff, Glamorgan, CF3 2EJ</p> <p>Type: Special Waste Transfer Station Size: >= 75000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: NEI024 EPR reference: EA/EPR/PP3993VS/V004 Operator: Atlantic Recycling Limited Waste Management licence No: 30347 Annual Tonnage: 280000.0</p> <p>Issue Date: 14/10/2005 Effective Date: 15/11/2010 Modified: 10/04/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Atlantic Recycling Limited Correspondence Address: -</p>
Not shown	1467	E	323559 178621	<p>Site Address: Ty - To - Maen Farm, Newton Road, Rumney, Cardiff, Glamorgan, CF3 2EJ</p> <p>Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes</p> <p>Environmental Permitting Regulations (Waste) Licence Number: NEI024 EPR reference: EA/EPR/PP3993VS/T001 Operator: Atlantic Recycling Ltd Waste Management licence No: 30347 Annual Tonnage: 124999.0</p> <p>Issue Date: 14/10/2005 Effective Date: 15/11/2010 Modified: 02/12/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Waste Transfer Station At Ty - To - Maen Farm Correspondence Address: -</p>
Not shown	1467	E	323559 178621	<p>Site Address: Atlantic Recycling Limited, Rumney, Cardiff, Cardiff, CF3 2EJ</p> <p>Type: - Size: Unknown</p> <p>Environmental Permitting Regulations (Waste) Licence Number: PP3993VS EPR reference: - Operator: Atlantic Recycling Limited Waste Management licence No: 0 Annual Tonnage: 280000.0</p> <p>Issue Date: 14/10/2005 Effective Date: 14/10/2005 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Effective Site Name: - Correspondence Address: -</p>

4. Current Land Use Map



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- | | | | | | |
|---|--------------------|---|--------------------------|--|---------------------------------|
|  | Site Outline |  | Current Industrial Sites |  | Electricity Transmission Cables |
|  | Search Buffers (m) |  | Petrol & Fuel Sites |  | Gas Transmission Pipelines |

4. Current Land Uses

4.1 Current Industrial Data

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

30

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	0	On Site	Electricity Sub Station	322061 178605	CF3	Electrical Features	Infrastructure and Facilities
2	22	SE	Richard Kemble Contracts	322042 178571	5 Waterside Business Park, Lamby Way, Cardiff, CF3 2ET	Building and Component Suppliers	Construction Services
3	24	S	A & N Prepress Ltd	322076 178576	7 Waterside Business Park, Lamby Way, Cardiff, CF3 2ET	Published Goods	Industrial Products
4	25	NE	Lamby Way Workshops	322083 178653	CF3	Unspecified Works Or Factories	Industrial Features
5	43	S	Trike Shop	322094 178554	10 Waterside Business Park, Lamby Way, Cardiff, CF3 2ET	New Vehicles	Motoring
6A	55	NE	Retail Acrylics	322134 178632	Unit 10 Lamby Workshops, Lamby Way, Rumney, Cardiff, CF3 2EQ	Office and Shop Equipment	Industrial Products
7A	56	NE	Thortech	322128 178641	Unit 11 Lamby Workshops, Lamby Way, Rumney, Cardiff, CF3 2EQ	Construction Completion Services	Construction Services
8	66	NW	Ayres Saddlery	321944 178693	190, New Road, Rumney, Cardiff, CF3 3BN	Hobby, Sports and Pastime Products	Consumer Products
9B	76	SE	Clearview Optical Ltd	322055 178516	15 Waterside Business Park, Lamby Way, Cardiff, CF3 2ET	Photographic and Optical Equipment	Consumer Products
10B	79	SE	Gas Governor Station	322044 178507	CF3	Gas Features	Infrastructure and Facilities
11	95	NE	Tileclick	322146 178684	Unit 14 Lamby Workshops, Lamby Way, Rumney, Cardiff, CF3 2EQ	Bricks, Tiles, Clay and Ceramic Products	Industrial Products
12	99	W	Pylon	321855 178642	CF3	Electrical Features	Infrastructure and Facilities
13	103	E	Electricity Sub Station	322193 178575	CF3	Electrical Features	Infrastructure and Facilities
14	107	SE	Northgate Vehicle Hire	322185 178546	Lamby Way, Rumney, Cardiff, CF3 2EQ	Vehicle Hire and Rental	Hire Services
15	124	S	Pumping Station	322079 178474	CF3	Water Pumping Stations	Industrial Features
16	131	NE	Atlantic Scaffold	322167 178716	Unit 18 Lamby Workshops, Lamby Way, Rumney, Cardiff, CF3 2EQ	Construction and Tool Hire	Hire Services

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
17	136	NW	Electricity Sub Station	321945 178773	CF3	Electrical Features	Infrastructure and Facilities
18	160	NE	Roy's Travels	322130 178801	230, New Road, Rumney, Cardiff, CF3 3BP	Vehicle Hire and Rental	Hire Services
19C	161	NE	Lamby M O T	322227 178684	Lamby Way, Rumney, Cardiff, CF3 2EQ	Vehicle Repair, Testing and Servicing	Repair and Servicing
20C	161	NE	M & B Hydraulics Ltd	322227 178684	Lamby Way, Rumney, Cardiff, CF3 2EQ	Pumps and Compressors	Industrial Products
21	165	NE	Pylon	322155 178788	CF3	Electrical Features	Infrastructure and Facilities
22	196	NE	Warehouse	322188 178798	CF3	Container and Storage	Transport, Storage and Delivery
23	211	E	Electricity Sub Station	322298 178642	CF3	Electrical Features	Infrastructure and Facilities
24	212	SE	Ultrawave Ltd	322256 178463	Unit 14-15 Eastgate Business Park, Wentloog Avenue, Cardiff, CF3 2EY	Measurement and Inspection Equipment	Industrial Products
25	213	NE	C G Transport	322244 178749	Lincris Yard, Lamby Way, Rumney, Cardiff, CF3 2EQ	Distribution and Haulage	Transport, Storage and Delivery
26	228	E	Electricity Sub Station	322320 178589	CF3	Electrical Features	Infrastructure and Facilities
27	239	E	Gas Governor Station	322326 178546	CF3	Gas Features	Infrastructure and Facilities
28	242	S	Depot	322131 178358	CF3	Container and Storage	Transport, Storage and Delivery
29	245	SE	Minerva Laboratories	322277 178436	Unit 13 Eastgate Business Park, Wentloog Avenue, Cardiff, CF3 2EY	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products
30	246	E	Ace Essential Supplies Ltd	322323 178513	Unit 1-2 Eastgate Business Park, Wentloog Avenue, Cardiff, CF3 2EY	Catering and Non Specific Food Products	Foodstuffs

4.2 Petrol and Fuel Sites

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

1

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

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
31	121	N	322072 178786	Texaco	New Road Service Station, New Road, New Road, Rumney, Cardiff, South Glamorgan, CF3 3BP	Not Applicable	Obsolete

4.3 National Grid High Voltage Underground Electricity Transmission Cables

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

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site: 0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

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

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

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

5.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type
TFD	TIDAL FLAT DEPOSITS	CLAY, SILT AND SAND [UNLITHIFIED DEPOSITS CODING SCHEME]

5.3 Bedrock and Solid Geology

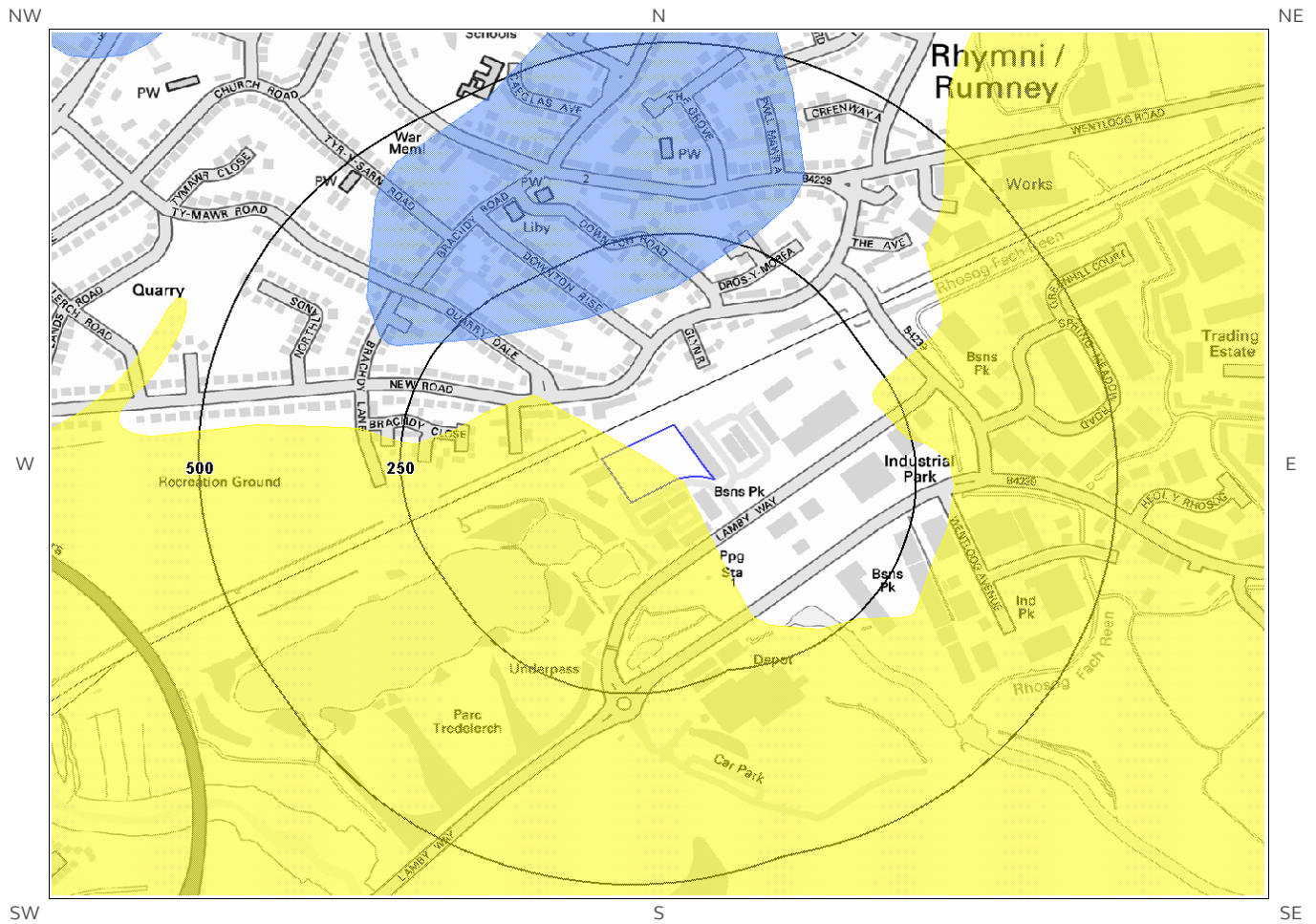
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
CAEC-SDAR	CAE CASTELL FORMATION	SANDSTONE AND [SUBEQUAL/SUBORDINATE] ARGILLACEOUS ROCKS, INTERBEDDED
CAA-MDSS	CARDIFF GROUP	MUDSTONE, SILTSTONE AND SANDSTONE
RHM-SDST	RHYMNEY GRIT MEMBER	SANDSTONE

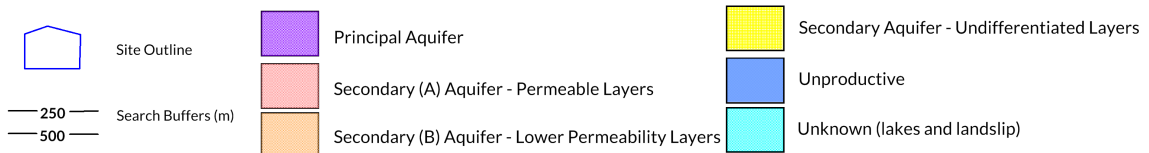
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

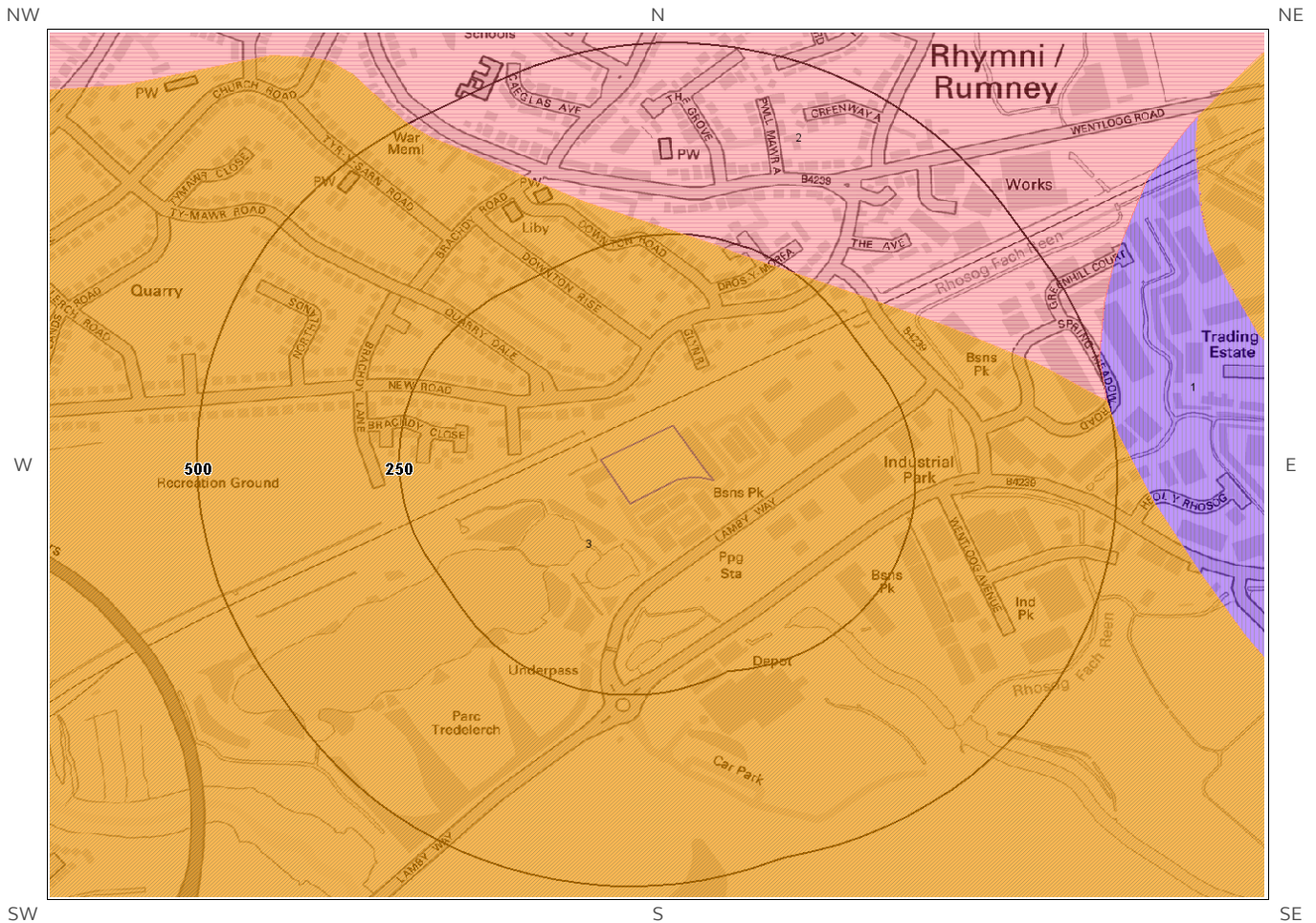
6a. Aquifer Within Superficial Geology



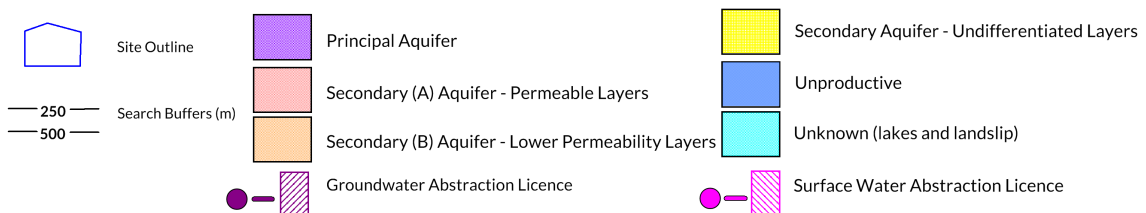
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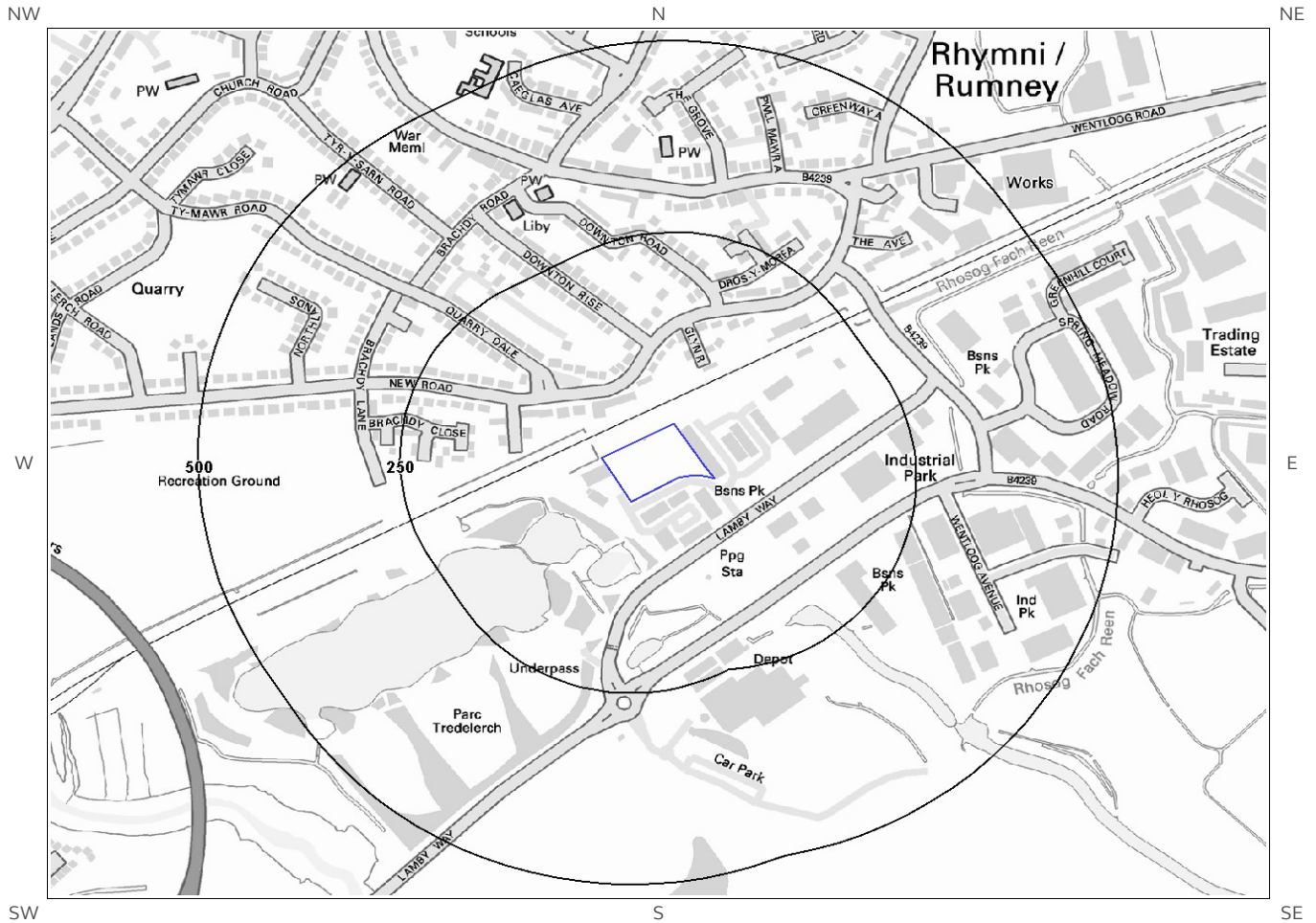
6b. Aquifer Within Bedrock Geology and Abstraction Licenses



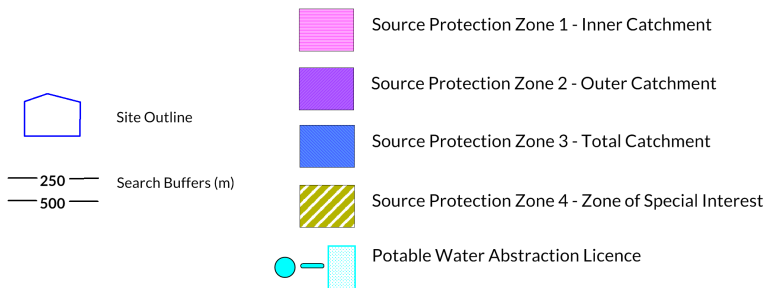
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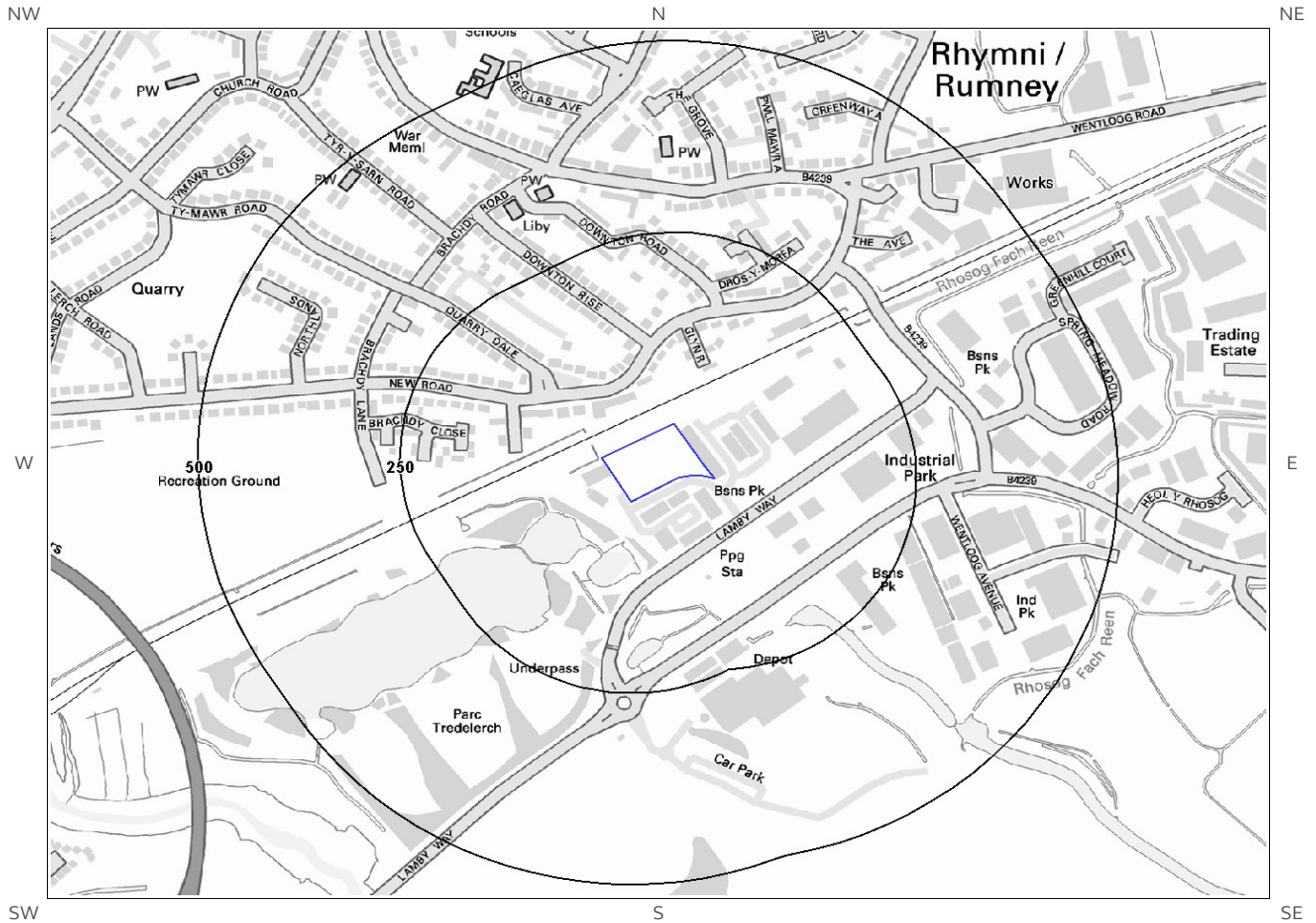
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



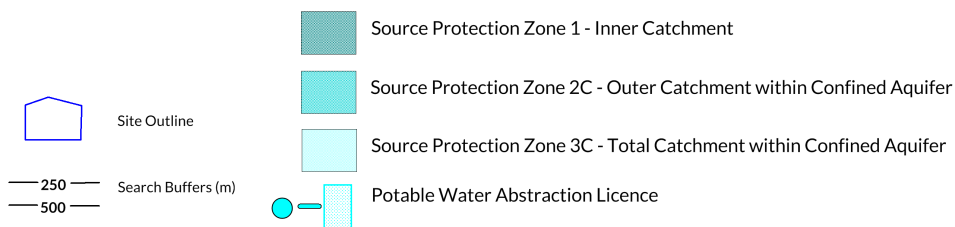
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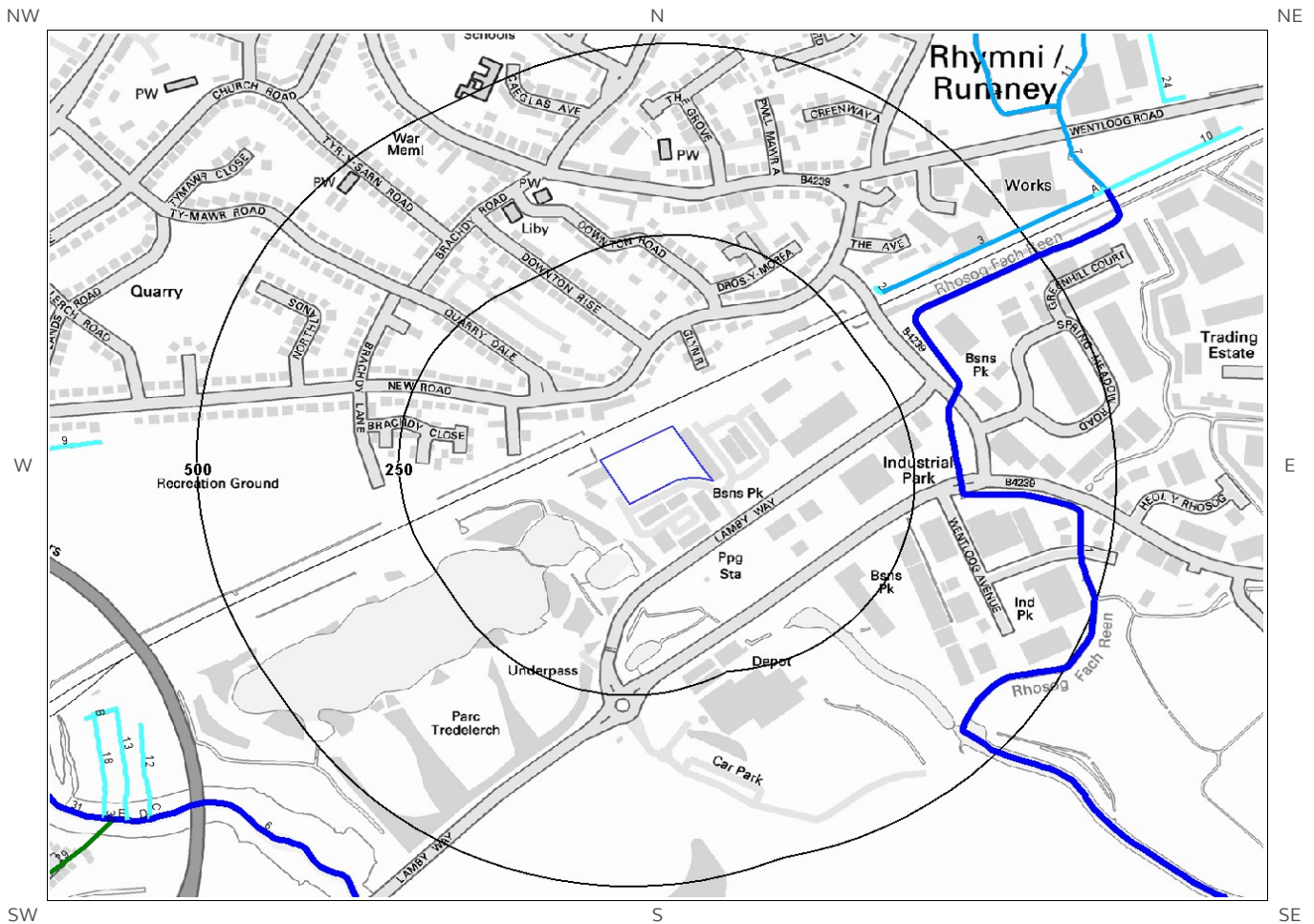
6d. Hydrogeology – Source Protection Zones within confined aquifer



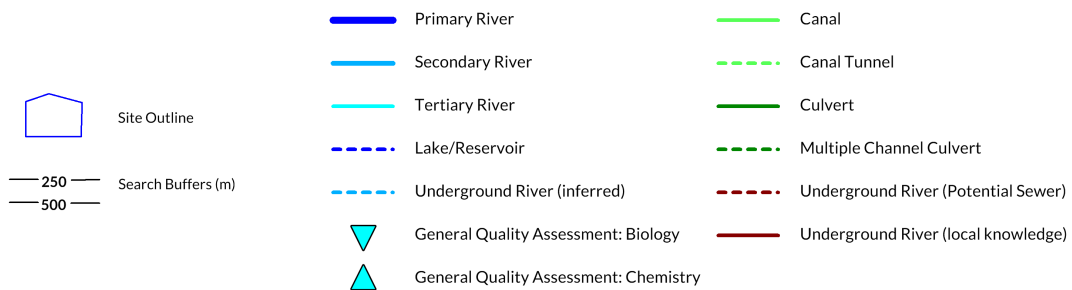
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6e. Hydrology – Detailed River Network and River Quality



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6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

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

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

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

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	168	N	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

6.2 Aquifer within Bedrock Deposits

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

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

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

ID	Distance (m)	Direction	Designation	Description
3	0	On Site	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers
2	239	N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
1	498	E	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

6.3 Groundwater Abstraction Licences

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

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

ID	Distance (m)	Direction	NGR	Details
Not shown	1310	SW	320800 178000	Status: Historical Licence No: 21/57/12/0074 Details: General Washing/Process Washing Direct Source: Eaw Groundwater Point: Borehole At Freeline Electro Plating Ltd. Data Type: Point Name: Freeline Electro Plating Ltd Annual Volume (m ³): 36368 Max Daily Volume (m ³): 100 Original Application No: - Original Start Date: 10/7/1981 Expiry Date: - Issue No: 100 Version Start Date: 10/7/1981 Version End Date:

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site? No

Database searched and no data found.

6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site? No

Database searched and no data found.

6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site? No

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site? No

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

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

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

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

6.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site? No

6.9.1 Biological Quality:

Database searched and no data found.

6.9.2 Chemical Quality:

Database searched and no data found.

6.10 Detailed River Network

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

Yes

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

ID	Distance (m)	Direction	Details
1	302	E	River Name: Rhosog Fach Reen Welsh River Name: - Alternative Name: - River Type: Primary River Main River Status: Currently Undefined
2	310	NE	River Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Main River Status: Currently Undefined
3	313	NE	River Name: Drain Welsh River Name: - Alternative Name: - River Type: Secondary River Main River Status: Currently Undefined

6.11 Surface Water Features

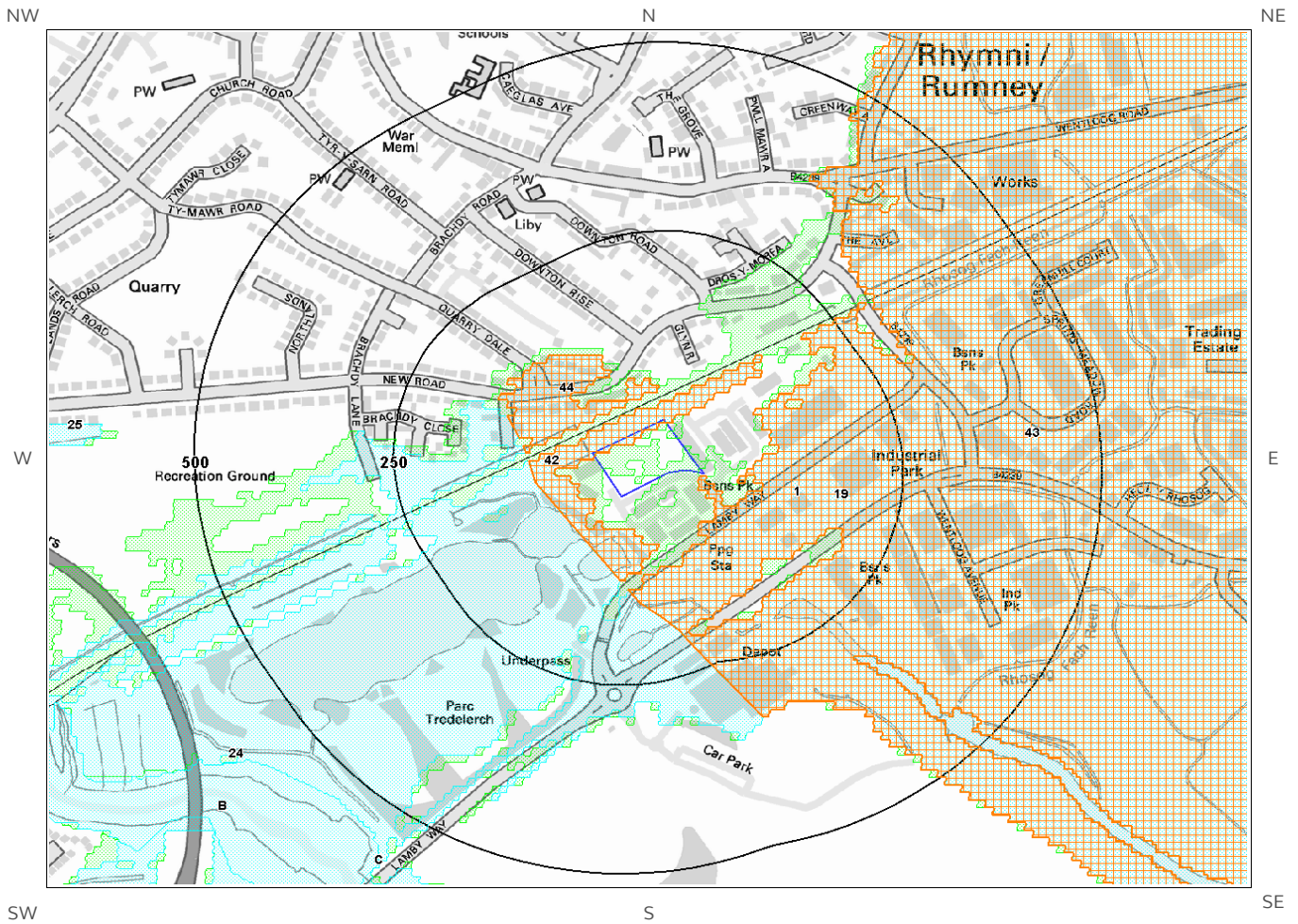
Are there any surface water features within 250m of the study site?

Yes

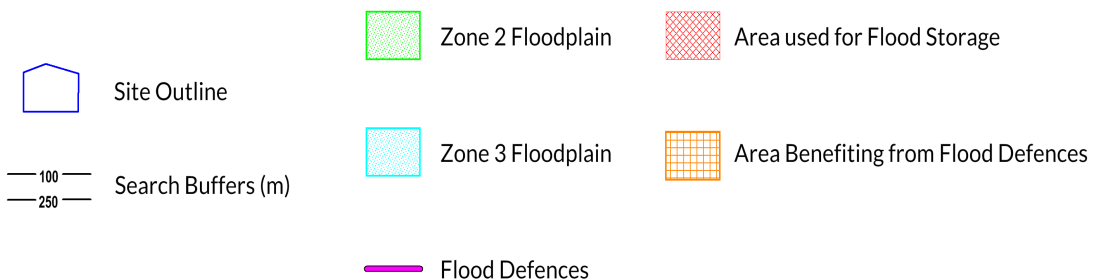
The following surface water records are not represented on mapping:

Distance (m)	Direction
51	S
92	S
113	SW
115	SW
134	S
200	SE
208	S
212	S

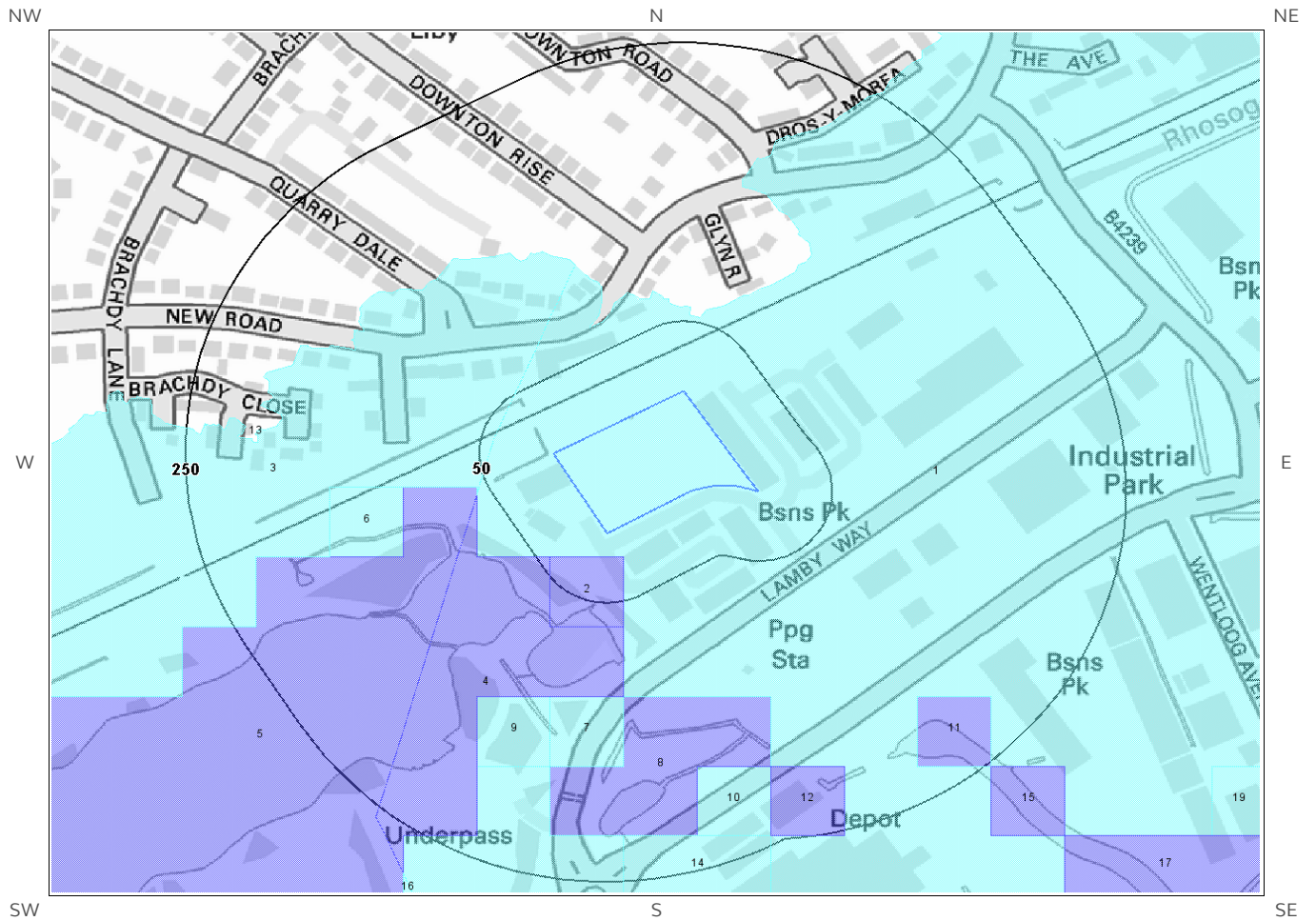
7a. Environment Agency Flood Map for Planning (from rivers and the sea)



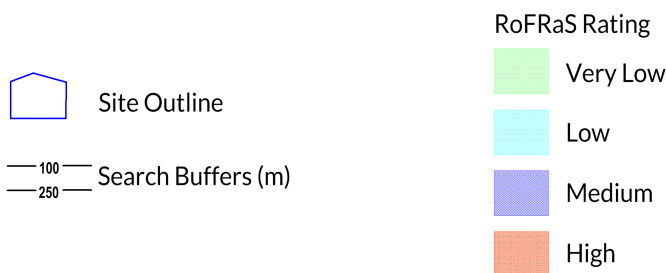
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7b. Environment Agency Risk of Flooding from Rivers and the Sea (RoFRaS) Map



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7 Flooding

7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency Zone 2 floodplain? Yes

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

ID	Distance (m)	Direction	Update	Type
1	0	On Site	09-Sep-2016	Zone 2 - (Fluvial/Tidal Models)

7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency Zone 3 floodplain? Yes

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

ID	Distance (m)	Direction	Update	Type
1	0	On Site	09-Sep-2016	Zone 3 - (Fluvial Models)

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

What is the highest risk of flooding onsite? Low

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

RoFRaS data for the study site indicates the property is in an area with a Low (greater than 1 in 1000 but less than 1 in 100) chance of flooding in any given year.

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

ID	Distance (m)	Direction	RoFRaS flood Risk
1	0.0	On Site	Low
2	17.0	S	Medium

3	41.0	NW	Low
4	42.0	SW	Medium

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No
Database searched and no data found.

7.5 Areas benefiting from Flood Defences

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

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? No

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

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

The area is not considered to be prone to groundwater flooding based on rock type. Not Prone

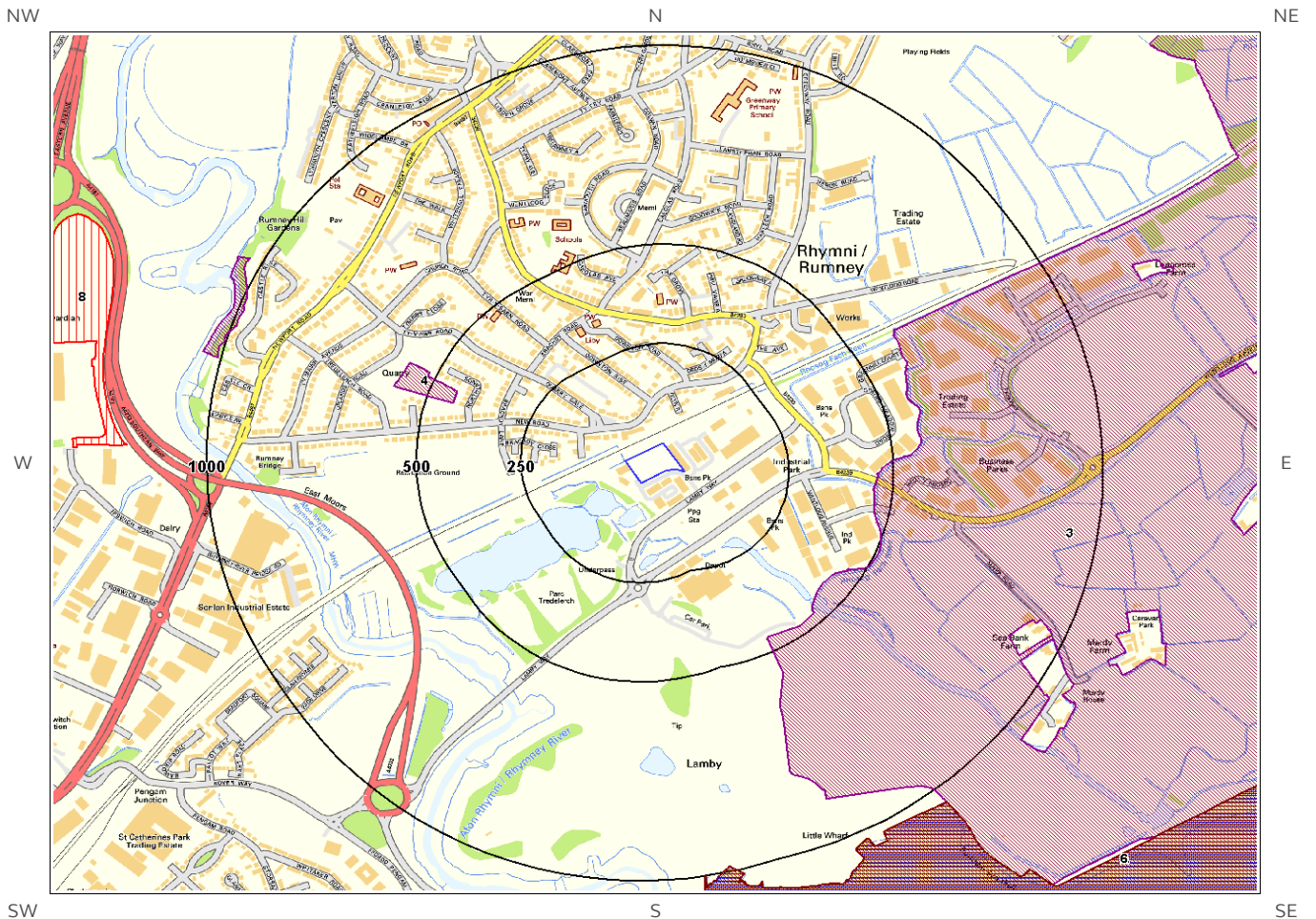
7.8 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result? Not Applicable

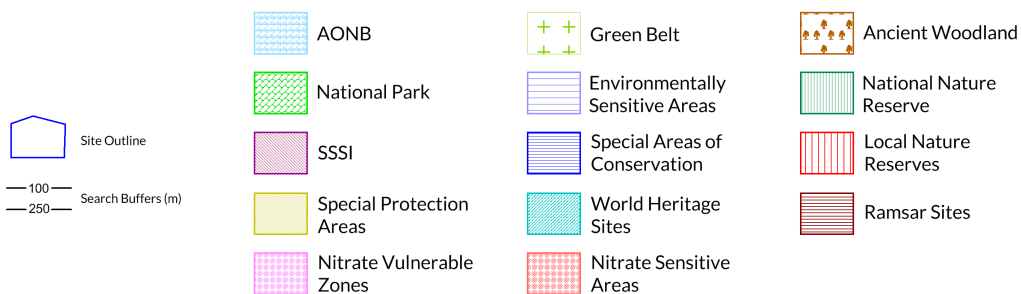
Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

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

8. Designated Environmentally Sensitive Sites Map



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8. Designated Environmentally Sensitive Sites

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

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

4

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

ID	Distance (m)	Direction	SSSI Name	Data Source
3	435	SE	GWENT LEVELS - RUMNEY AND PETERSTONE	Natural Resources Wales
4	436	W	RUMNEY QUARRY	Natural Resources Wales
5	985	NW	RHYMNEY RIVER SECTION	Natural Resources Wales
6	988	S	SEVERN ESTUARY	Natural Resources Wales

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

0

Database searched and no data found.

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

1

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

ID	Distance (m)	Direction	SAC Name	Data Source
1	988	S	Severn Estuary	Natural England

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

1

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

ID	Distance (m)	Direction	SPA Name	Data Source
2A	988	S	Severn Estuary (Wales)	Natural Resources Wales

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

1

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

ID	Distance (m)	Direction	Ramsar Site Name	Ramsar Site Status	Data Source
7A	988	S	Severn Estuary (Wales)	Current	Natural Resources Wales

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

17

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

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
Not shown	1434	NW	COED Y CWAR	Ancient and Semi-Natural Woodland
Not shown	1468	NW	Unknown	Ancient and Semi-Natural Woodland
Not shown	1476	NW	COED Y CWAR	Ancient and Semi-Natural Woodland
Not shown	1516	NW	COED Y CWAR	Ancient and Semi-Natural Woodland
Not shown	1609	NW	COED Y CWAR	Ancient and Semi-Natural Woodland
Not shown	1800	NW	Unknown	Ancient and Semi-Natural Woodland
Not shown	1854	NW	Unknown	Ancient and Semi-Natural Woodland
Not shown	1916	NW	CHAPEL WOOD	Ancient and Semi-Natural Woodland
Not shown	1928	W	Unknown	Ancient and Semi-Natural Woodland
Not shown	1932	N	FISHPOND WOOD	Ancient and Semi-Natural Woodland
Not shown	1933	W	Unknown	Ancient and Semi-Natural Woodland
Not shown	1943	N	Unknown	Ancient and Semi-Natural Woodland
Not shown	1957	N	Unknown	Ancient and Semi-Natural Woodland
Not shown	1959	W	Unknown	Ancient and Semi-Natural Woodland
Not shown	1961	NW	Unknown	Restored Ancient Woodland Site
Not shown	1979	N	FISHPOND WOOD	Ancient and Semi-Natural Woodland
Not shown	1989	N	FISHPOND WOOD	Ancient and Semi-Natural Woodland

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

1

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

ID	Distance (m)	Direction	LNR Name	Data Source
8	1190	W	HOWARDIAN	Natural Resources Wales

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

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

9.1.1 Shrink Swell

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

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

Hazard
Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

9.1.2 Landslides

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

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

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

9.1.3 Soluble Rocks

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

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

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

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

9.1.4 Compressible Ground

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

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

Hazard
Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

9.1.5 Collapsible Rocks

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

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

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

9.1.6 Running Sand

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

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

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

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level.

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

9.2.2 Radon Protection

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

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

No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

10.2 Non-Coal Mining

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

The following non-coal mining information is provided by the BGS:

Distance (m)	Direction	Name	Commodity	Assessment of likelihood
0.0	On Site	Usk	Vein Mineral	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

Past underground mine workings may occur. The rock types present in these areas are such that small mineral veins may be present on which it is possible that small scale mining has been undertaken and/or it is possible that limited underground extraction of other materials may have occurred. All such occurrences are likely to be of minor localised extent and infrequent. It should be noted, however, that there is always the possibility of the existence of other sub-surface excavations, such as wells, cess pits, follies, air raid shelters/bunkers and other military structures etc. that could affect surface ground stability but which are outside the scope of this dataset. However, if in a coalfield area you should still consider a Coal Authority mining search for the area of interest.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No

Guidance: No Guidance Required.

Contact Details

Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com

British Geological Survey Enquiries

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

Web:www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries:
enquiries@bgs.ac.uk

Environment Agency

National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 08708 506 506

Web:www.environment-agency.gov.uk

Email:enquiries@environment-agency.gov.uk

Public Health England

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

Email:enquiries@phe.gov.uk

Main switchboard: 020 7654 8000

The Coal Authority

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

Ordnance Survey

Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505

Local Authority

Authority: Caerdydd - Cardiff Council
Phone: 029 2087 2087

Web: <http://www.cardiff.gov.uk>

Address: County Hall, Atlantic Wharf, Cardiff, CF10 4UW

Gemapping PLC

Virginia Villas, High Street, Hartley Witney,
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Groundsure
LOCATION INTELLIGENCE



British Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL



Environment Agency



Public Health England



The Coal Authority



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Standard Terms and Conditions

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<https://www.groundsure.com/terms-and-conditions-sept-2016>



Groundsure

LOCATION INTELLIGENCE

BWB Consulting Limited

5th Floor, Waterfront House, Station Street,
Nottingham, NG2 3DQ

Groundsure Reference: HMD-214-3302751

Your Reference: NTE2313_-_PO_TBC_JC

Report Date 16 Sep 2016

Report Delivery Method: Email - pdf

Groundsure Geo Insight

Address: LAND ON THE NORTH SIDE OF LAMBY WAY, RUMNEY, CARDIFF,

Dear Sir/ Madam,

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

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director
Groundsure Limited

Enc.
Groundsure Geoinsight

Groundsure Geo Insight

Address: LAND ON THE NORTH SIDE OF LAMBY WAY, RUMNEY, CARDIFF,
Date: 16 Sep 2016
Reference: HMD-214-3302751
Client: BWB Consulting Limited

NW N NE



SW S SE

Aerial Photograph Capture date: 14-Jul-2013
Grid Reference: 322019,178619
Site Size: 0.70ha

Contents Page

Overview of Findings.....	5
1 Geology.....	8
1.1 Artificial Ground Map.....	8
1 Geology.....	9
1.1 Artificial Ground.....	9
1.1.1 Artificial/ Made Ground.....	9
1.1.2 Permeability of Artificial Ground.....	9
1.2 Superficial Deposits and Landslips Map.....	10
1.2 Superficial Deposits and Landslips.....	11
1.2.1 Superficial Deposits/ Drift Geology.....	11
1.2.2 Permeability of Superficial Ground.....	11
1.2.3 Landslip.....	11
1.2.4 Landslip Permeability.....	11
1.3 Bedrock and Faults Map.....	12
1.3 Bedrock, Solid Geology & Faults.....	13
1.3.1 Bedrock/ Solid Geology.....	13
1.3.2 Permeability of Bedrock Ground.....	13
1.3.3 Faults.....	14
1.4 Radon Data.....	15
1.4.1 Radon Affected Areas.....	15
1.4.2 Radon Protection.....	15
2 Ground Workings Map.....	16
2 Ground Workings.....	17
2.1 Historical Surface Ground Working Features derived from Historical Mapping.....	17
2.2 Historical Underground Working Features derived from Historical Mapping.....	17
2.3 Current Ground Workings.....	18
3 Mining, Extraction & Natural Cavities Map.....	19
3 Mining, Extraction & Natural Cavities.....	20
3.1 Historical Mining.....	20
3.2 Coal Mining.....	20
3.3 Johnson Poole and Bloomer.....	20
3.4 Non-Coal Mining.....	20
3.5 Non-Coal Mining Cavities.....	21
3.6 Natural Cavities.....	21
3.7 Brine Extraction.....	21
3.8 Gypsum Extraction.....	21
3.9 Tin Mining.....	21
3.10 Clay Mining.....	22
4 Natural Ground Subsidence.....	23
4.1 Shrink-Swell Clay Map.....	23
4.2 Landslides Map.....	24
4.3 Ground Dissolution Soluble Rocks Map.....	25
4.4 Compressible Deposits Map.....	26
4.5 Collapsible Deposits Map.....	27
4.6 Running Sand Map.....	28
4 Natural Ground Subsidence.....	29
4.1 Shrink-Swell Clays.....	29
4.2 Landslides.....	29
4.3 Ground Dissolution of Soluble Rocks.....	30

4.4 Compressible Deposits.....	30
4.5 Collapsible Deposits.....	30
4.6 Running Sands.....	31
5 Borehole Records Map.....	32
5 Borehole Records.....	33
6 Estimated Background Soil Chemistry.....	34
7 Railways and Tunnels Map.....	35
7 Railways and Tunnels.....	36
7.1 Tunnels	36
7.2 Historical Railway and Tunnel Features	36
7.3 Historical Railways.....	37
7.4 Active Railways.....	37
7.5 Railway Projects.....	38

Overview of Findings

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

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

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

Section 1:Geology

1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?	Yes
	1.2.2 Are there any records relating to permeability of superficial geology within the study site boundary?	Yes
	1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?	No
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records relating to permeability of bedrock within the study site boundary?	Yes
	1.3.3 Are there any records of faults within 500m of the study site boundary?	Yes
1.4 Radon data	1.4.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level
	1.4.2 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

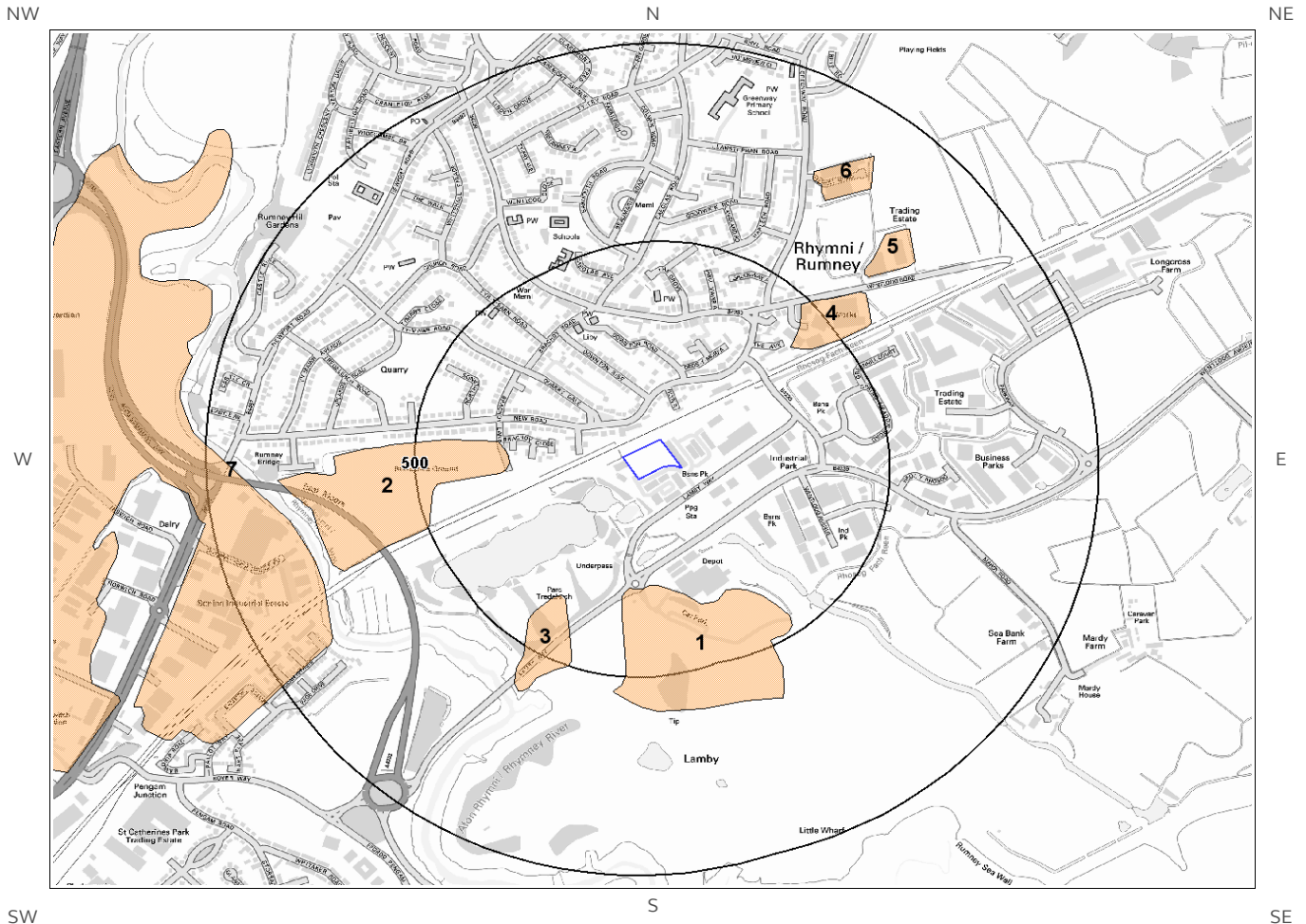
Section 2:Ground Workings	On-site	0-50m	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	0	4	7	Not Searched	Not Searched
2.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
2.3 Current Ground Workings	0	0	0	1	2

Section 3: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	0
3.2 Coal Mining	0	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	1	0	0	0	0
3.5 Non-Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0
Section 4: Natural Ground Subsidence	On-site				
4.1 Shrink Swell Clay	Very Low				
4.2 Landslides	Low				
4.3 Ground Dissolution of Soluble Rocks	Negligible				
4.4 Compressible Deposits	Moderate				
4.5 Collapsible Deposits	Very Low				
4.6 Running Sand	Moderate				
Section 5: Borehole Records	On-site	0-50m	51-250		
5 BGS Recorded Boreholes	0	0	8		
Section 6: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
6 Records of Background Soil Chemistry	4	2	20		
Section 7: Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.1 Tunnels	0	0	0	Not Searched	
7.2 Historical Railway and Tunnel Features	0	2	11	Not Searched	
7.3 Historical Railways	0	0	0	Not Searched	
7.4 Active Railways	0	5	0	Not Searched	

Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500
7.5 Railway Projects	0	0	0	0

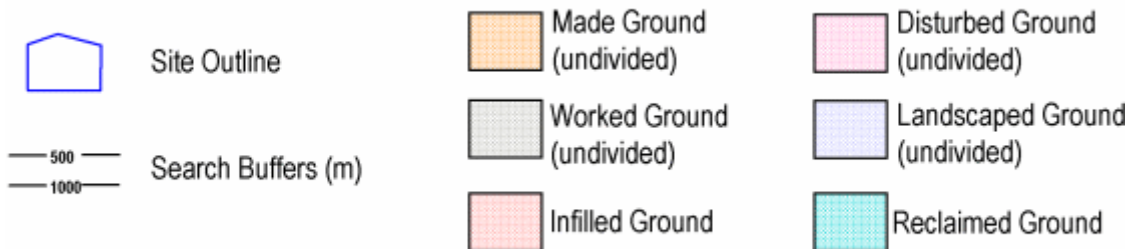
1 Geology

1.1 Artificial Ground Map



Artificial Ground Legend

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1 Geology

1.1 Artificial Ground

1.1.1 Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:263

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

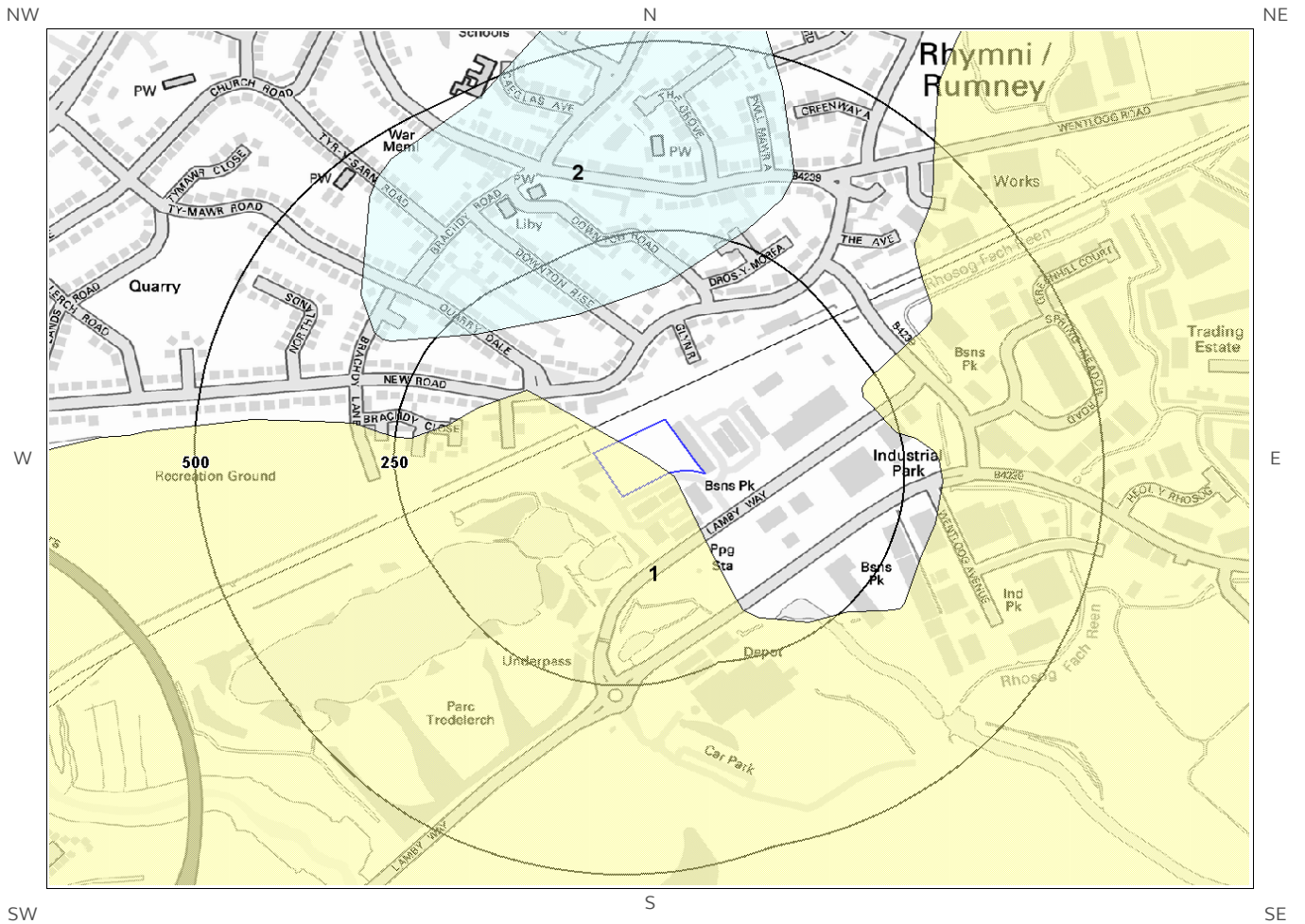
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	268.0	S	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	274.0	W	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	345.0	SW	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
4	390.0	NE	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? No

Database searched and no data found.

1.2 Superficial Deposits and Landslips Map

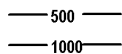


Superficial Deposits and Landslips Legend

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Site Outline



Search Buffers (m)

1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/ Drift Geology

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

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	TFD	TIDAL FLAT DEPOSITS	CLAY, SILT AND SAND [UNLITHIFIED DEPOSITS CODING SCHEME]
2	168.0	N	TILLD	TILL, DEVENSIAN	DIAMICTON

1.2.2 Permeability of Superficial Ground

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

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	Moderate	Very Low

1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

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

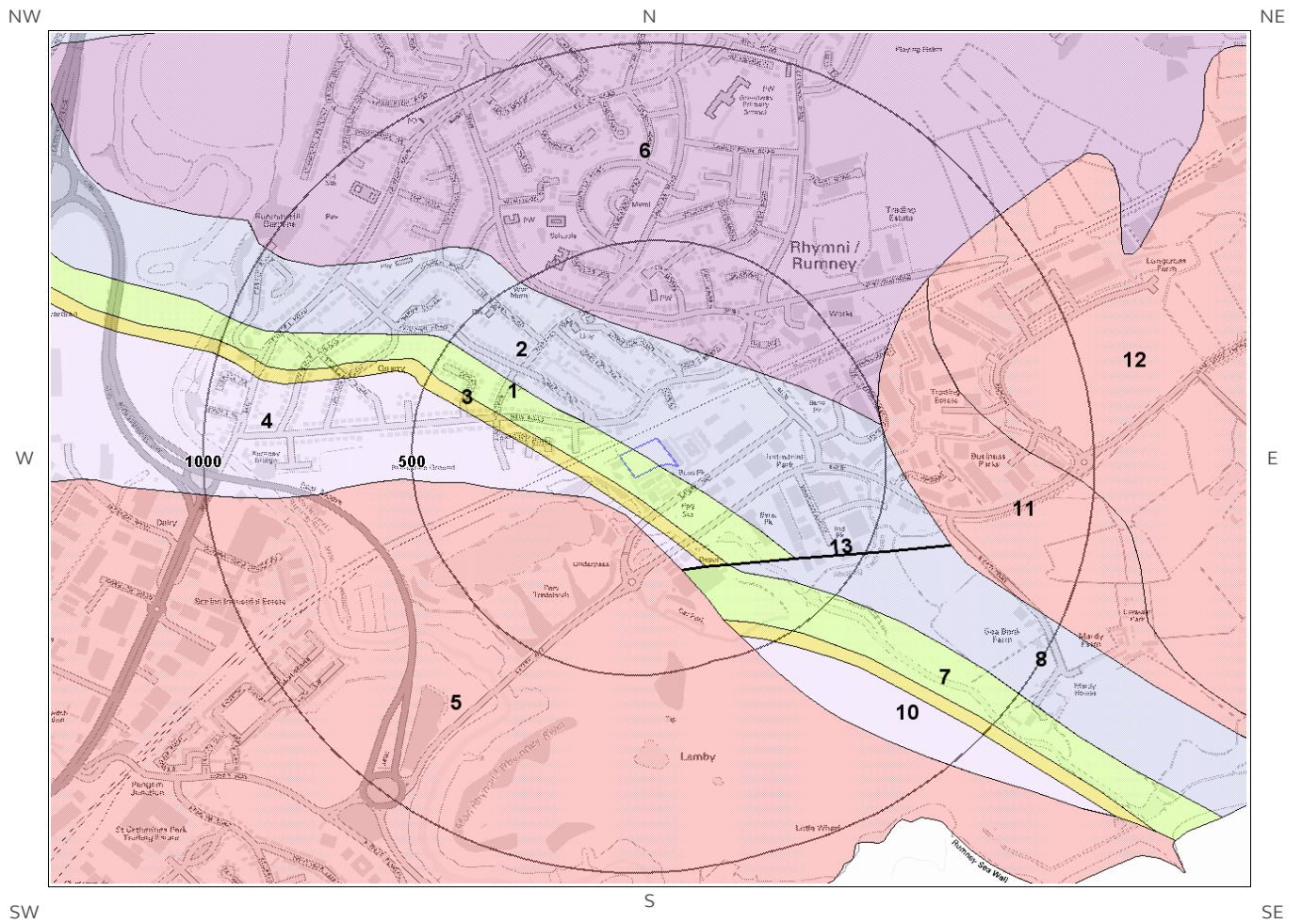
1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site** boundary? No

Database searched and no data found.




* This includes an automatically generated 50m buffer zone around the site

1.3 Bedrock and Faults Map



Bedrock and Faults Legend

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-  Site Outline
-  500
-  1000
- Search Buffers (m)

1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:263

1.3.1 Bedrock/ Solid Geology

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

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	CAEC-SDAR	Cae Castell Formation - Sandstone And [subequal/subordinate] Argillaceous Rocks, Interbedded	No Details
2	0.0	On Site	CAA-MDSS	Cardiff Group - Mudstone, Siltstone And Sandstone	Ludfordian / Gorstian
3	37.0	SW	RHM-SDST	Rhymney Grit Member - Sandstone	No Details
4	75.0	SW	PYN-MDSI	Pen-y-lan Mudstone - Mudstone And Siltstone	No Details
5	93.0	SW	MMG-MDST	Mercia Mudstone Group - Mudstone	Rhaetian /
6	239.0	N	RG-MDSS	Raglan Mudstone Formation - Mudstone, Siltstone And Sandstone	No Details
7	258.0	SE	CAEC-SDAR	Cae Castell Formation - Sandstone And [subequal/subordinate] Argillaceous Rocks, Interbedded	No Details
8	278.0	SE	CAA-MDSS	Cardiff Group - Mudstone, Siltstone And Sandstone	Ludfordian / Gorstian
9	404.0	S	RHM-SDST	Rhymney Grit Member - Sandstone	No Details
10	454.0	S	PYN-MDSI	Pen-y-lan Mudstone - Mudstone And Siltstone	No Details
11	498.0	E	MMMF-CONG	Mercia Mudstone Group (marginal Facies) - Conglomerate	No Details

1.3.2 Permeability of Bedrock Ground

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

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Moderate	Low
0.0	On Site	Fracture	Moderate	Low
37.0	SW	Fracture	Moderate	Moderate

* This includes an automatically generated 50m buffer zone around the site

1.3.3 Faults

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

ID	Distance (m)	Direction	Category Description	Feature Description
13	258.0	SE	FAULT	Fault, inferred, displacement unknown

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

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

1.4 Radon Data

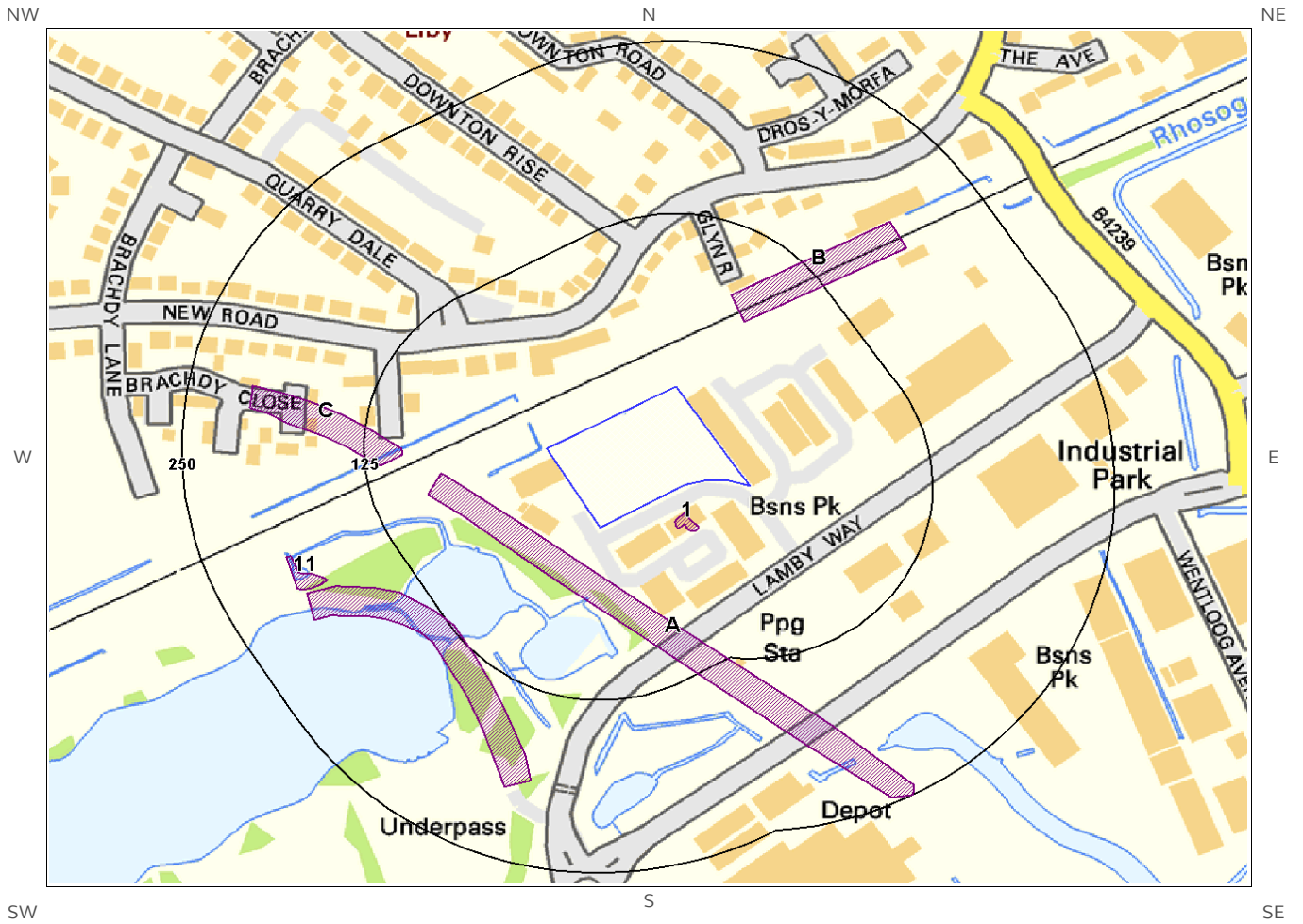
1.4.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 1 and 3% of properties are above the Action Level

1.4.2 Radon Protection


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

2 Ground Workings Map



Ground Workings Legend

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- | | | | |
|---|--------------------|---|----------------------------------|
|  | Site Outline |  | Historic Surface Ground Workings |
|  | Search Buffers (m) |  | Historic Underground Workings |
| | |  | Current Ground Workings |

2 Ground Workings

2.1 Historical Surface Ground Working Features derived from Historical Mapping

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

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

The following Historical Surface Ground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
1	18.0	SE	322049 178571	Ponds	1938
2A	29.0	SW	322037 178489	Unspecified Heap	1899
3A	29.0	SW	322037 178489	Unspecified Heap	1938
4A	29.0	SW	322037 178489	Unspecified Heap	1916
5B	67.0	NE	322139 178752	Cuttings	1881
6B	67.0	NE	322139 178752	Cuttings	1881
7C	99.0	W	321801 178641	Unspecified Heap	1938
8C	99.0	W	321801 178641	Unspecified Heap	1916
9C	99.0	W	321801 178641	Unspecified Heap	1899
10	123.0	SW	321904 178452	Unspecified Heap	1938
11	178.0	SW	321780 178534	Pond	1938

2.2 Historical Underground Working Features derived from Historical Mapping

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

Are there any Historical Underground Working Features within 1000m of the study site boundary? No

Database searched and no data found.

2.3 Current Ground Workings

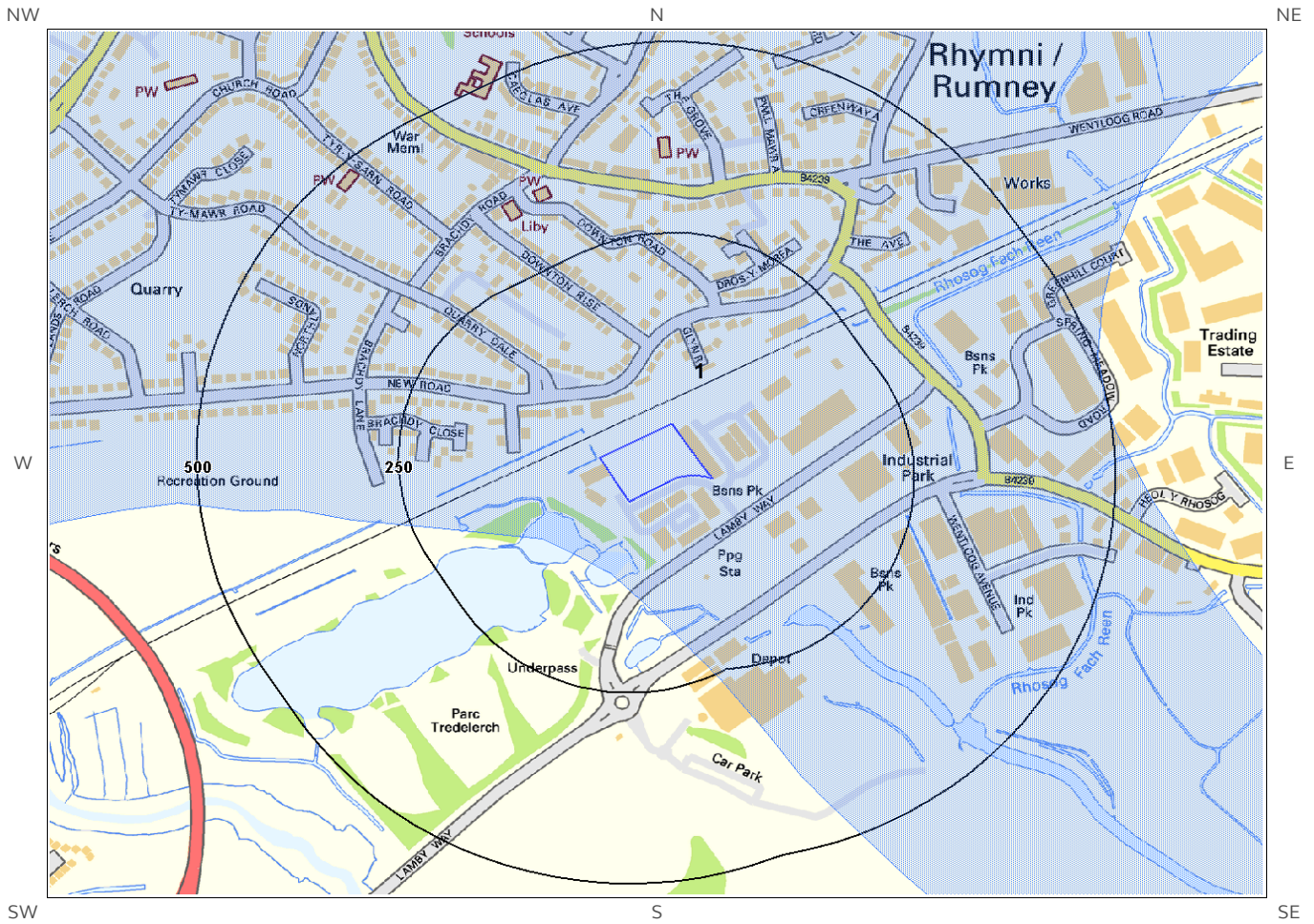
This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

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

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

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	485.0	W	321500 178800	Sandstone	Rumney	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	907.0	W	321089 178346	Clay & Shale	Bridge Brick Works	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	985.0	W	321029 178279	Clay & Shale	Pengam	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

3 Mining, Extraction & Natural Cavities Map



Mining, Extraction and Natural Cavities Legend

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3 Mining, Extraction & Natural Cavities

3.1 Historical Mining

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

Are there any Historical Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

3.2 Coal Mining

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

Are there any Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

3.3 Johnson Poole and Bloomer

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

Are there any JPB Mining areas within 1000m of the study site boundary? No

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

3.4 Non-Coal Mining

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

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

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Usk	Vein Mineral	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

3.5 Non-Coal Mining Cavities

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

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? No

Database searched and no data found.

3.6 Natural Cavities

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

Are there any Natural Cavities within 1000m of the study site boundary? No

Database searched and no data found.

3.7 Brine Extraction

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

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

3.8 Gypsum Extraction

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

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

3.9 Tin Mining

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

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

3.10 Clay Mining

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

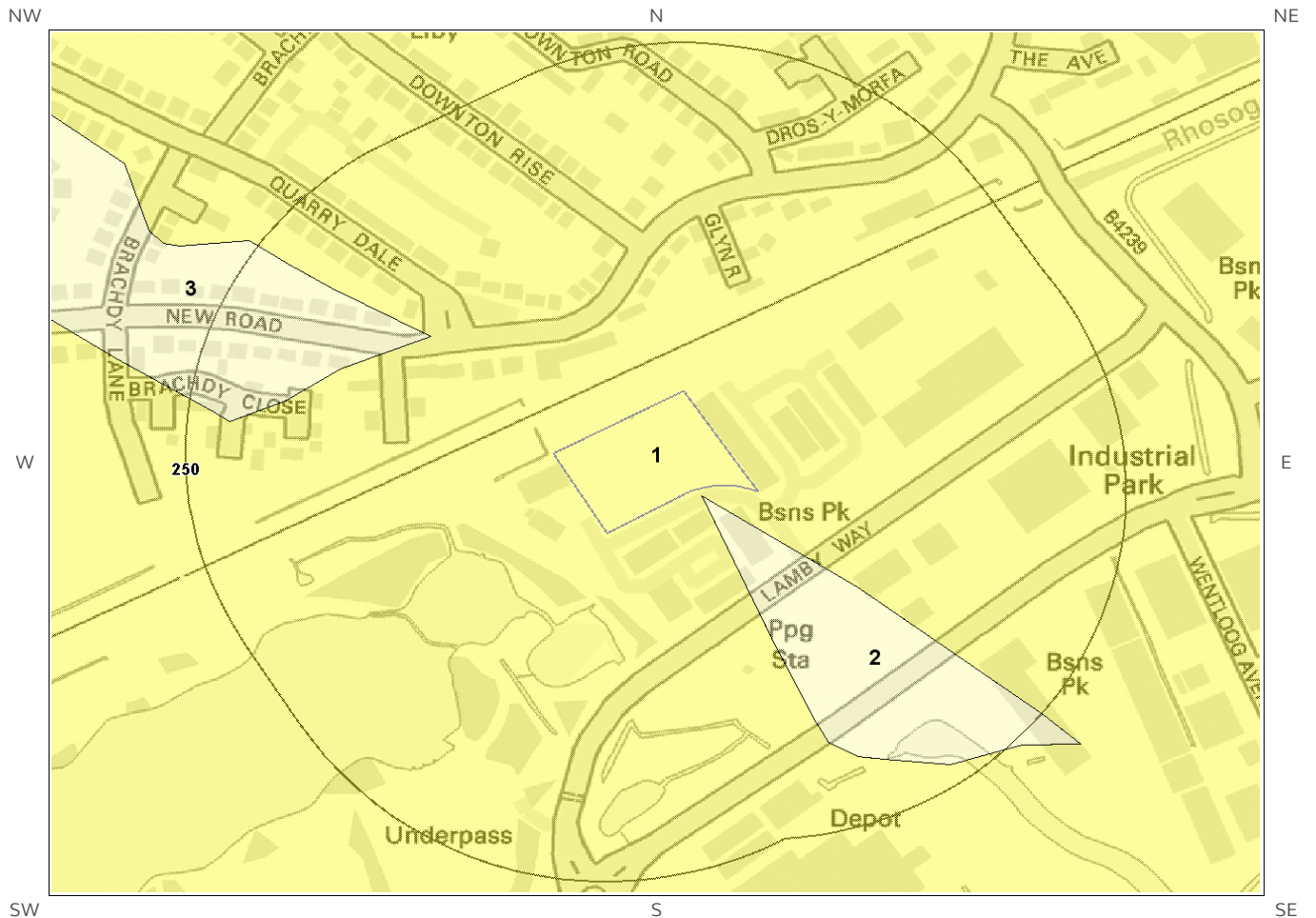
Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

4 Natural Ground Subsidence

4.1 Shrink-Swell Clay Map

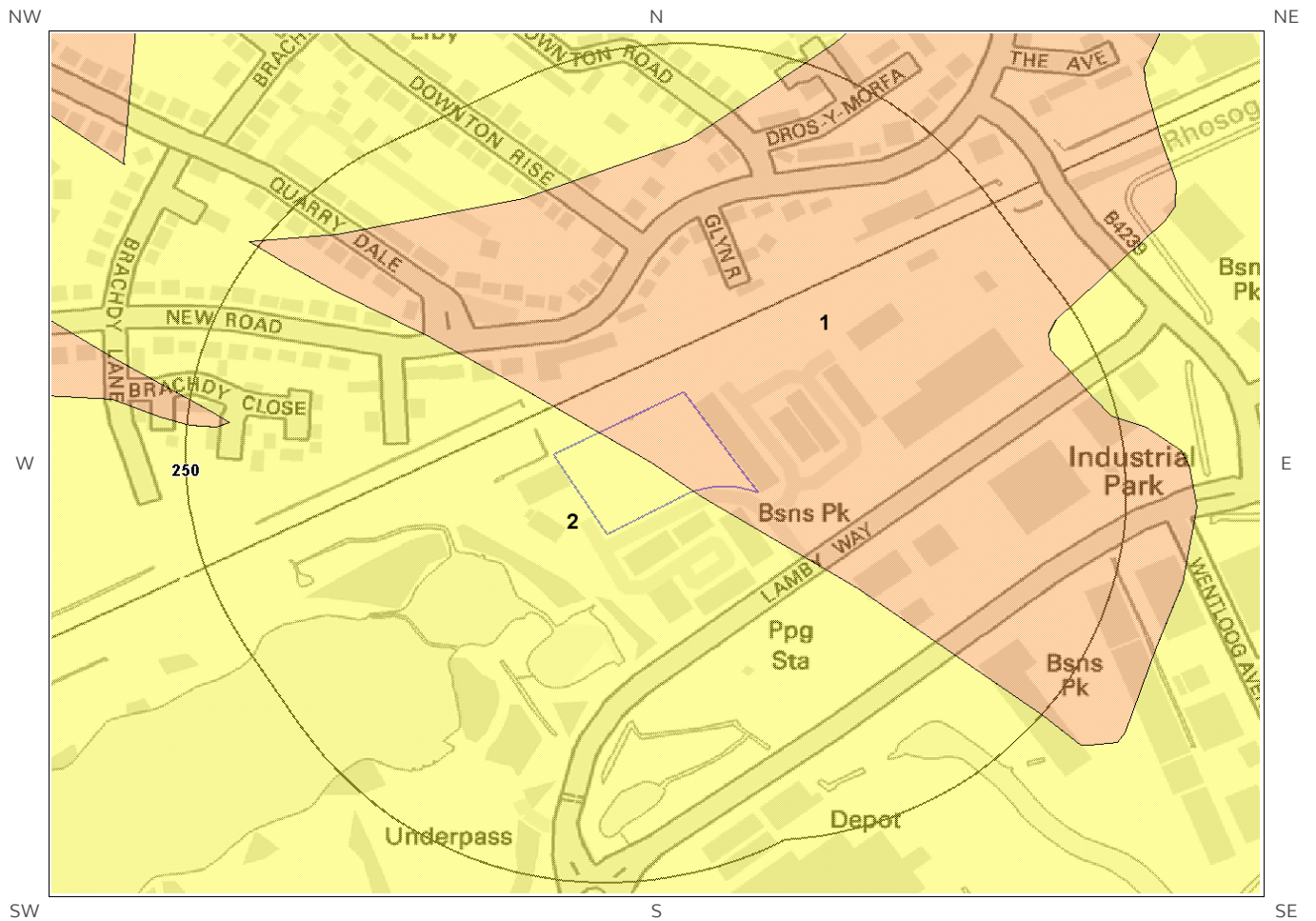


Shrink Swell Clay Legend

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4.2 Landslides Map

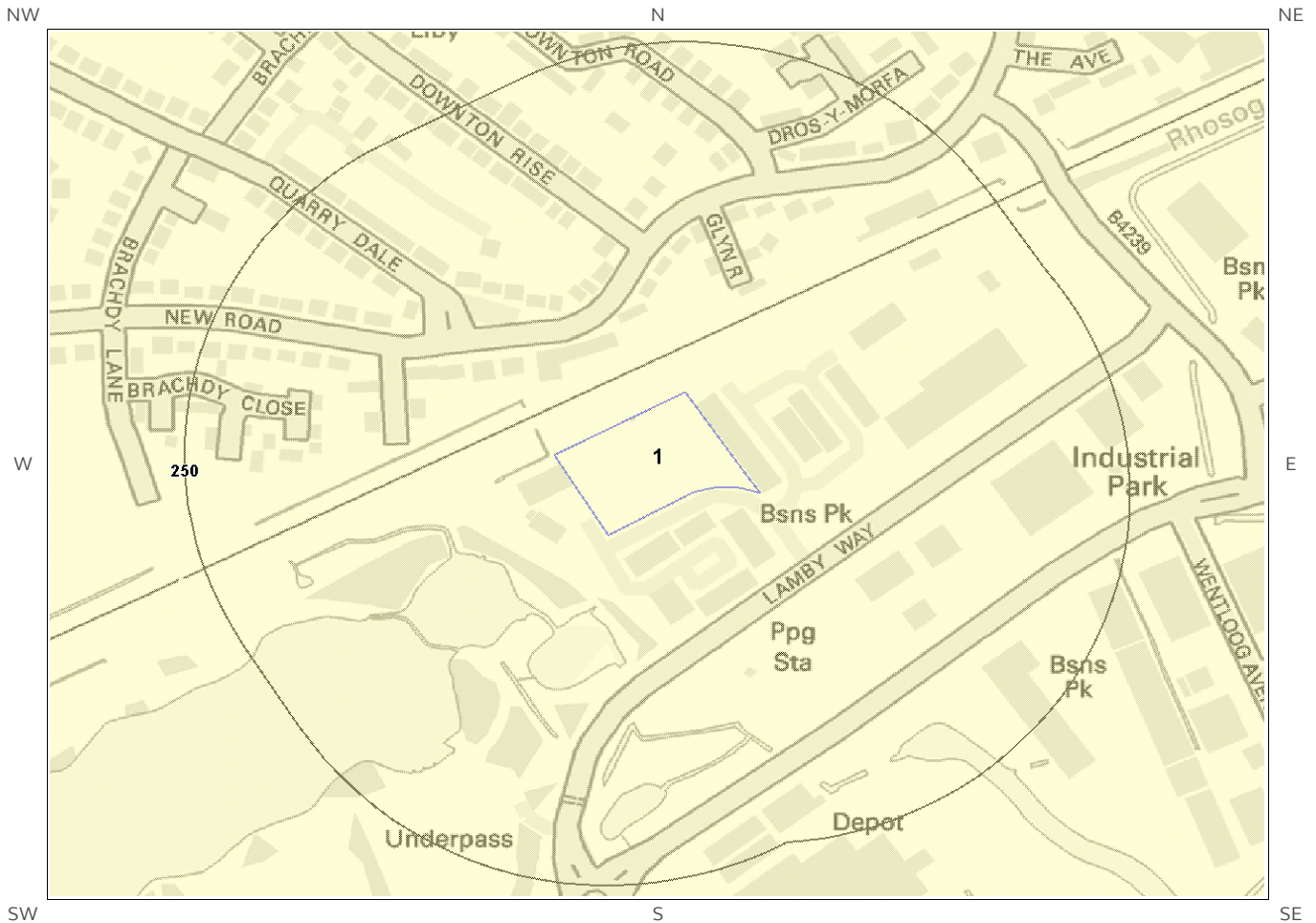


Landslides Legend

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4.3 Ground Dissolution Soluble Rocks Map

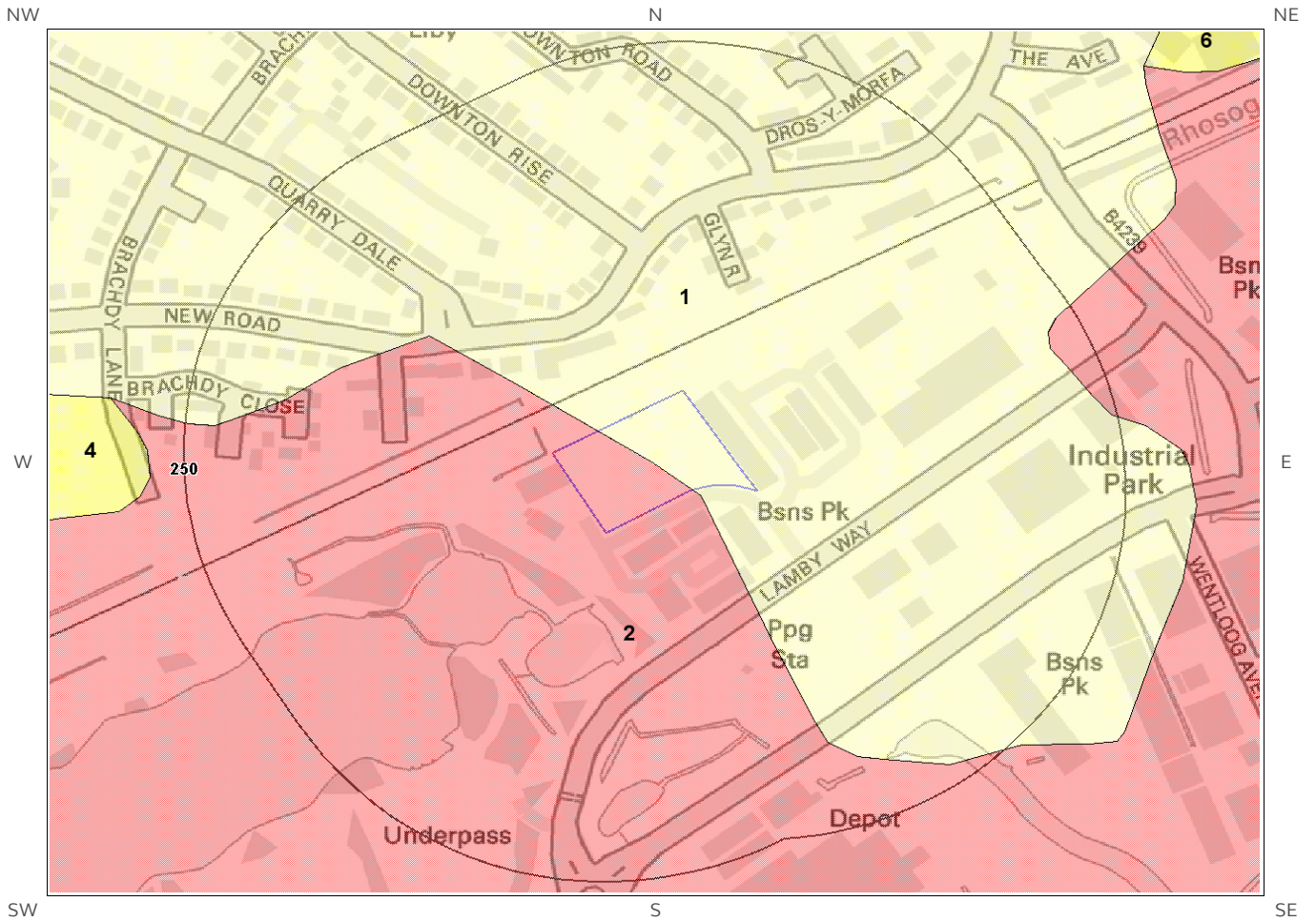


Ground Dissolution Soluble Rocks Legend

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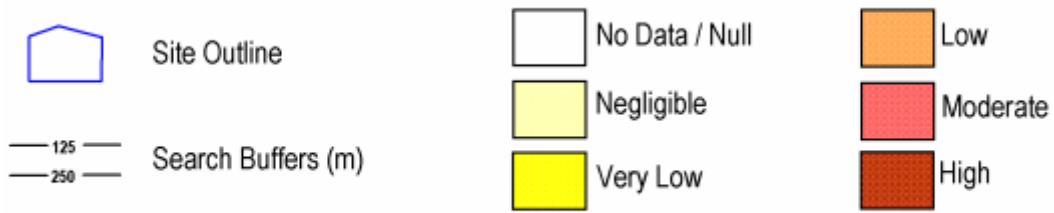


4.4 Compressible Deposits Map

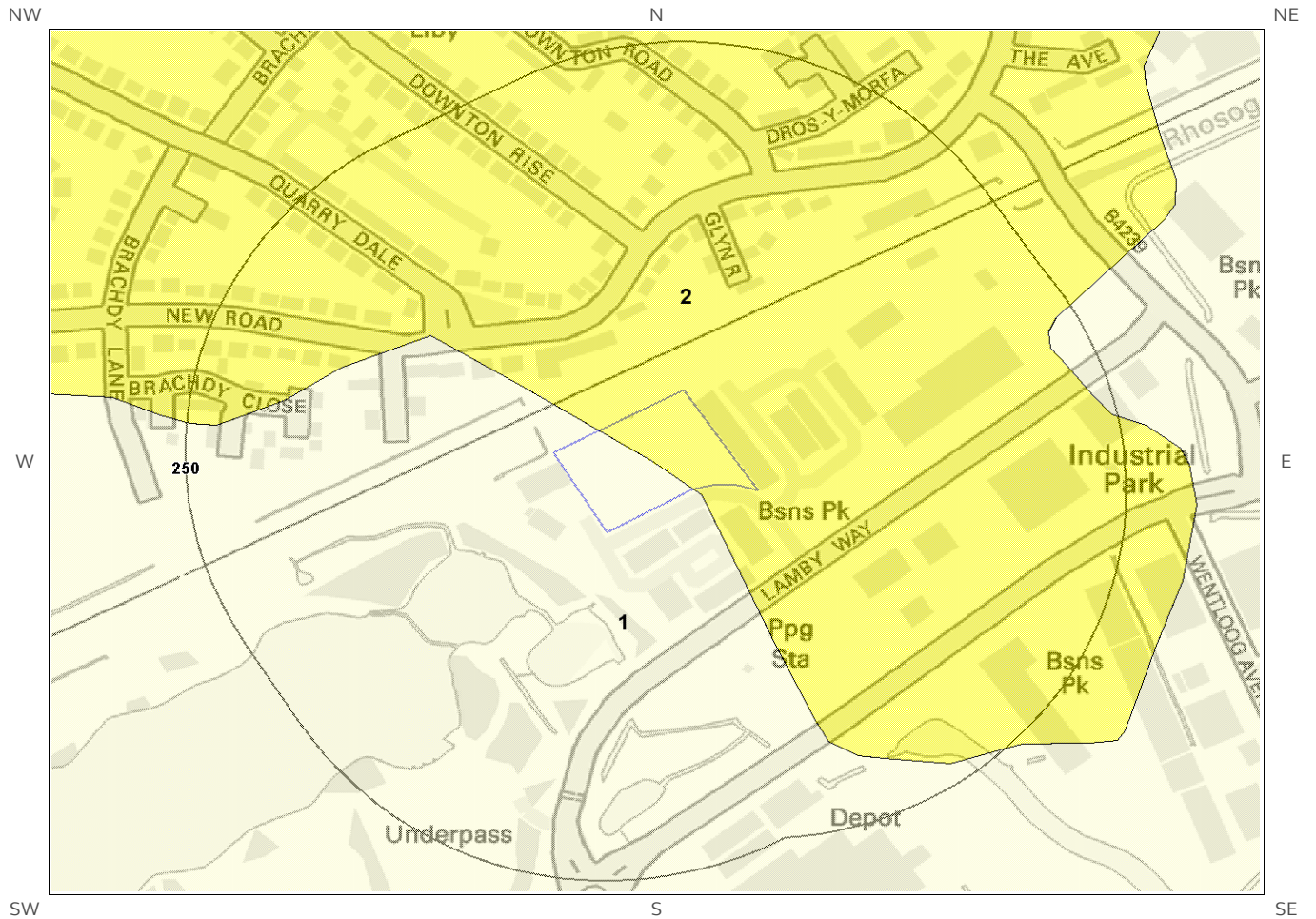


Compressible Deposits Legend

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4.5 Collapsible Deposits Map

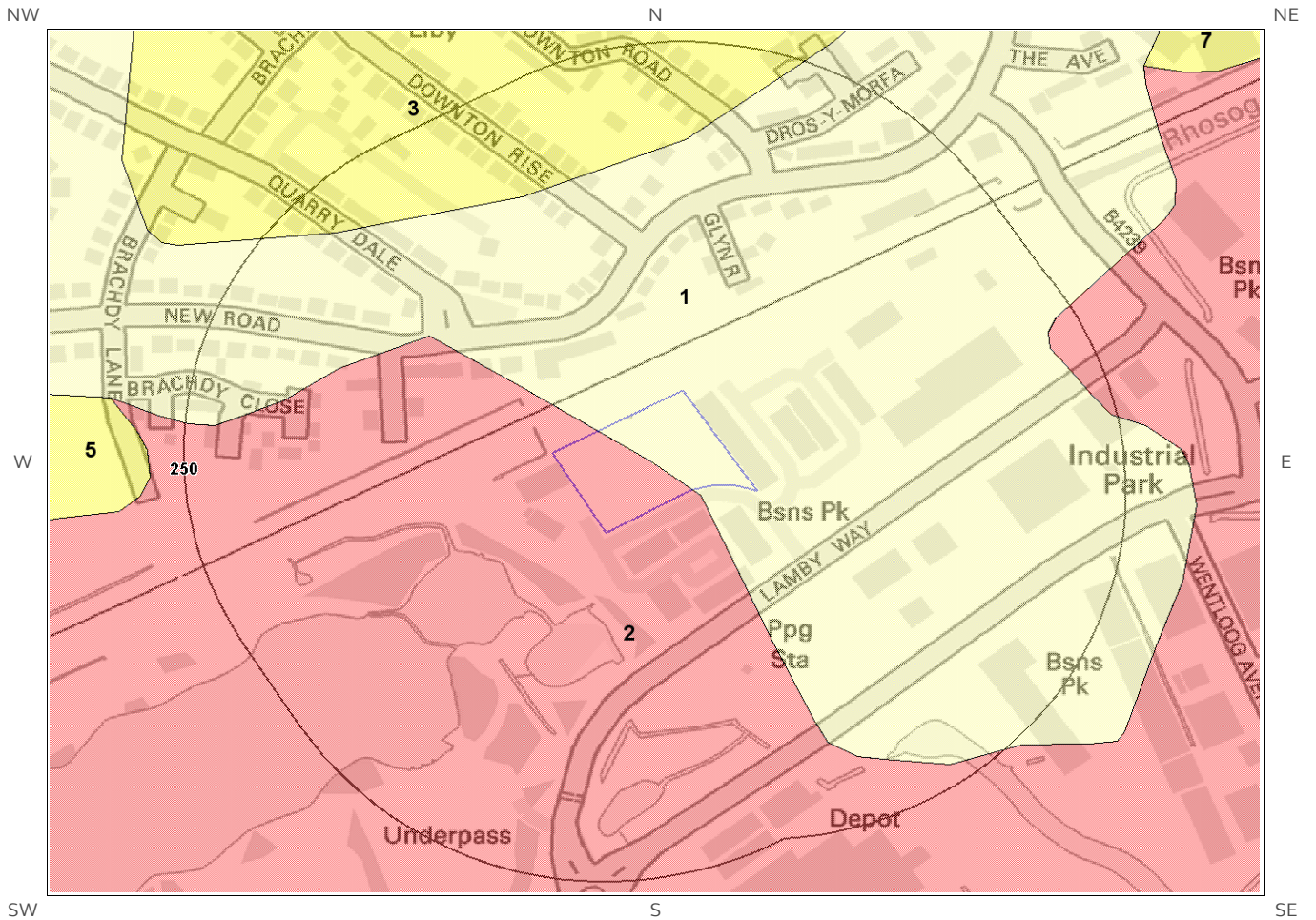


Collapsible Deposits Legend

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4.6 Running Sand Map



Running Sand Legend

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4 Natural Ground Subsidence

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

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

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

4.1 Shrink-Swell Clays

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

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
2	5.0	S	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

4.2 Landslides

The following Landslides information provided by the British Geological Survey:

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

* This includes an automatically generated 50m buffer zone around the site

4.3 Ground Dissolution of Soluble Rocks

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

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

4.4 Compressible Deposits

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

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

4.5 Collapsible Deposits

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

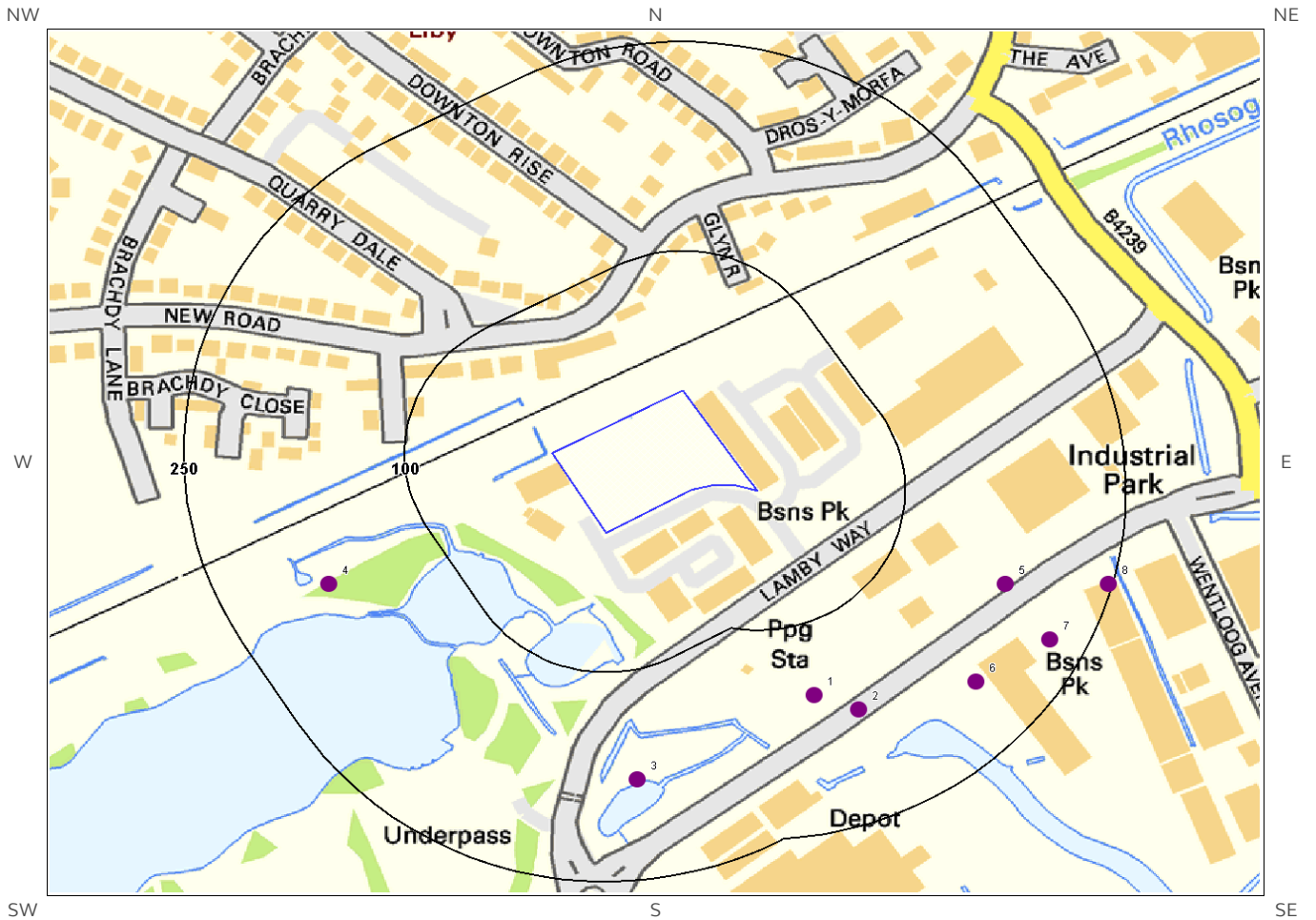
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential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

4.6 Running Sands

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

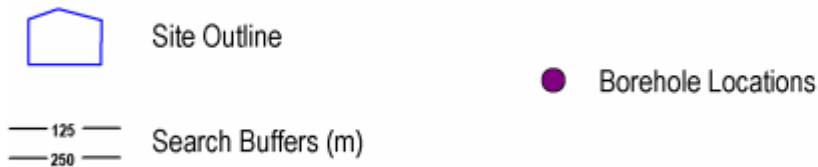
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	0.0	On Site	Moderate	Significant potential for running sand problems with relatively small changes in ground conditions. Avoid large amounts of water entering the ground (for example through pipe leakage or soak-aways). Do not dig (deep) holes into saturated ground near the property without technical advice. For new build, consider the consequences of soil and groundwater conditions during and after construction. For existing property, possible increase in insurance risk from running sand, for example, due to water leakage, high rainfall events or flooding.

5 Borehole Records Map



Borehole Records Legend

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5 Borehole Records

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

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

8

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	152.0	S	322130 178450	ST27NW356	4.7	WENTLOOG SCHEME. 42
2	171.0	SE	322160 178440	ST27NW331	3.5	WENTLOOG SCHEME. 2
3	178.0	S	322010 178390	ST27NW70	12.5	WENTLOOG STUDY. 6
4	179.0	SW	321800 178530	ST27NW31	9.75	RUMNEY NO.1, CARDIFF DEPT NO.1
5	181.0	E	322260 178530	ST27NW332	6.85	WENTLOOG SCHEME. 3
6	202.0	SE	322240 178460	ST27NW535	3.0	LAMBY INDUSTRIAL PARK BH80
7	225.0	SE	322290 178490	ST27NW536	3.0	LAMBY INDUSTRIAL PARK BH81
8	247.0	E	322330 178530	ST27NW537	3.0	LAMBY INDUSTRIAL PARK BH82

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

- #1: scans.bgs.ac.uk/sobi_scans/boreholes/382482
- #2: scans.bgs.ac.uk/sobi_scans/boreholes/382457
- #3: scans.bgs.ac.uk/sobi_scans/boreholes/382196
- #4: scans.bgs.ac.uk/sobi_scans/boreholes/382157
- #5: scans.bgs.ac.uk/sobi_scans/boreholes/382458
- #6: scans.bgs.ac.uk/sobi_scans/boreholes/382662
- #7: scans.bgs.ac.uk/sobi_scans/boreholes/382663
- #8: scans.bgs.ac.uk/sobi_scans/boreholes/382664

6 Estimated Background Soil Chemistry

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

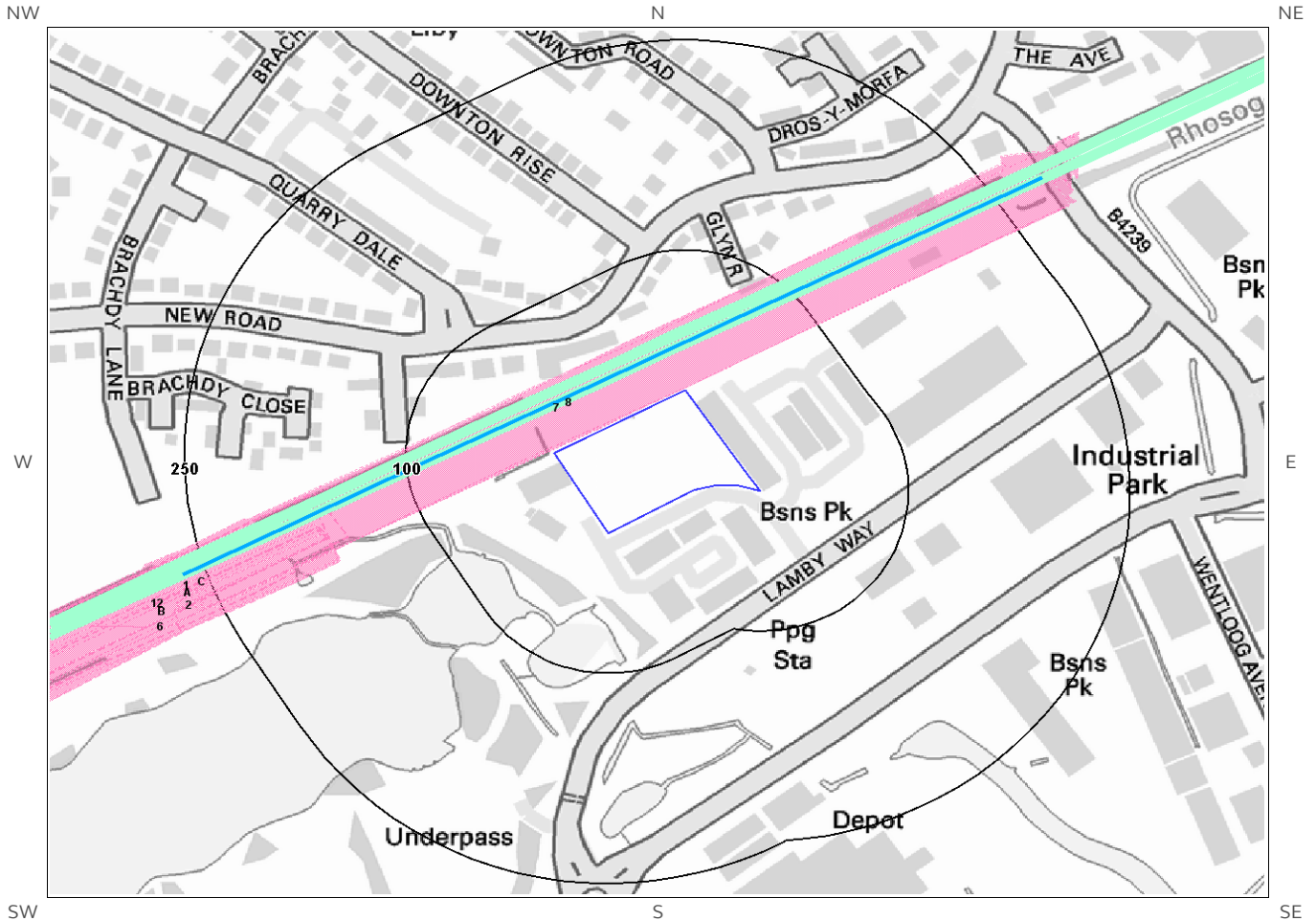
26

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

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
5.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
37.0	SW	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
55.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
67.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
68.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
73.0	SE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
75.0	SW	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
75.0	SW	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
93.0	SW	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
97.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
98.0	SW	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
100.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
118.0	NW	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
127.0	S	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
144.0	SE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
168.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
169.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
186.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
222.0	W	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
223.0	NE	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
239.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
239.0	N	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg












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

7 Railways and Tunnels Map



Railways and Tunnels Legend

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	Underground or Partially Underground Railway / Subway System		Railway Track (OpenStreetMap)
	Site Outline		Railway Tunnel (OS Mapping)
	250 Search Buffers (m)		High Speed 2
	500 Search Buffers (m)		Crossrail 1
	Abandoned or Dismantled Railway (OpenStreetMap)		Railway and/or Tunnel Feature from Historical Mapping
	Railway Track (OS Mapping)		

7 Railways and Tunnels

7.1 Tunnels

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

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

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

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

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

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

7.2 Historical Railway and Tunnel Features

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

Have any historical railway or tunnel features been identified within the study site boundary? No

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

ID	Distance (m)	Direction	NGR	Details	Date
7	2	NW	n/a	Railway	1941
8	2	NW	n/a	Railway	1919
1	151	SW	321567 178458	Railway Sidings	1964
2	163	SW	321525 178423	Railway Sidings	1922
3A	164	SW	321598 178488	Railway Sidings	1938
4A	164	SW	321598 178488	Railway Sidings	1916
5A	164	SW	321598 178488	Railway Sidings	1948

ID	Distance (m)	Direction	NGR	Details	Date
6	165	SW	321619 178470	Railway Sidings	1916
9B	165	W	321616 178480	Railway Sidings	1919
10B	166	W	321613 178481	Railway Sidings	1941
11C	168	W	321717 178537	Railway Sidings	1952
12	168	W	321257 178286	Railway Sidings	1952
13C	169	W	321718 178537	Railway Sidings	1961

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

7.3 Historical Railways

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

Have any historical railway lines been identified within the study site boundary? No

Have any historical railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

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

7.4 Active Railways

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

Have any active railway lines been identified within the study site boundary? No

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

Distance (m)	Direction	Name	Type
29	NW	Not given	Rail
31	NW	Not given	Multi Track
32	NW	South Wales Main Line	Rail
37	NW	South Wales Main Line	Rail
40	NW	Not given	Rail

Note: multiple sections of the same track may be listed in the detail above

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

7.5 Railway Projects

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

Is the study site within 5km of the route of the High Speed 2 rail project? No

Is the study site within 500m of the route of the Crossrail 1 rail project? No

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

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

Contact Details

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info@groundsure.com



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Fax: 0115 936 3276.
Email: enquiries@bgs.ac.uk
Web: www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries



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www.coal.gov.uk



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<https://www.gov.uk/government/organisations/public-health-england>
Email: enquiries@phe.gov.uk
Main switchboard: 020 7654 8000



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<https://www.groundsure.com/terms-and-conditions-sept-2016/>

APPENDIX 4
GROUNDSURE REPORT

Site Details:

LAND ON THE NORTH SIDE OF
LAMBLY WAY, RUMNEY,
CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: County Series

Map date: 1900-1901

Scale: 1:2,500

Printed at: 1:2,500



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

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

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

Surveyed N/A
Revised 1898
Edition 1990
Copyright N/A
Levelled N/A

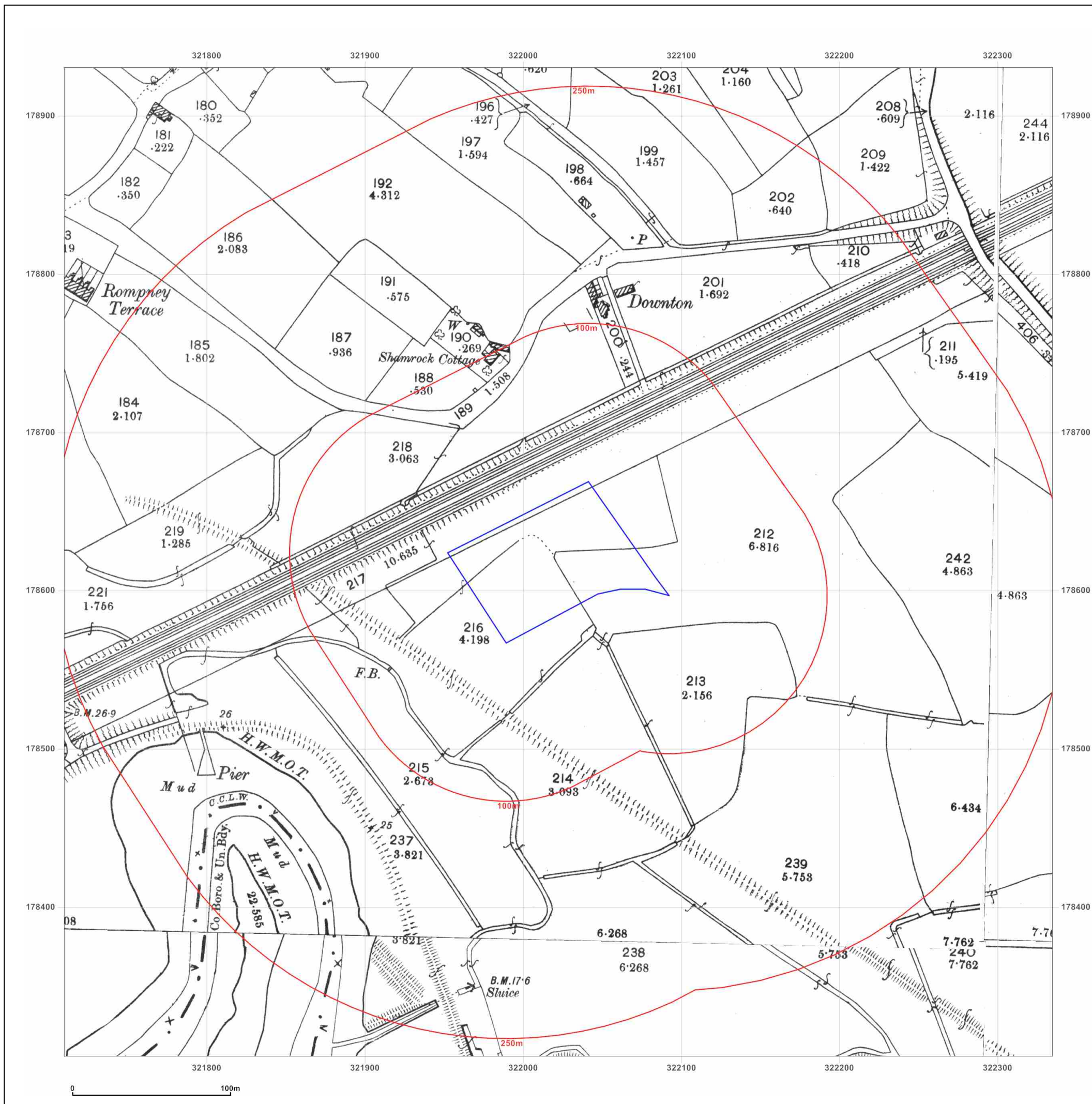


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Production date: 19 September 2016

To view map legend click here [Legend](#)



Site Details:

LAND ON THE NORTH SIDE OF
LAMBLY WAY, RUMNEY,
CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: County Series

Map date: 1919-1920

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1919
Revised 1919
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1920
Revised 1920
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1919
Revised 1919
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition 1919
Copyright N/A
Levelled N/A

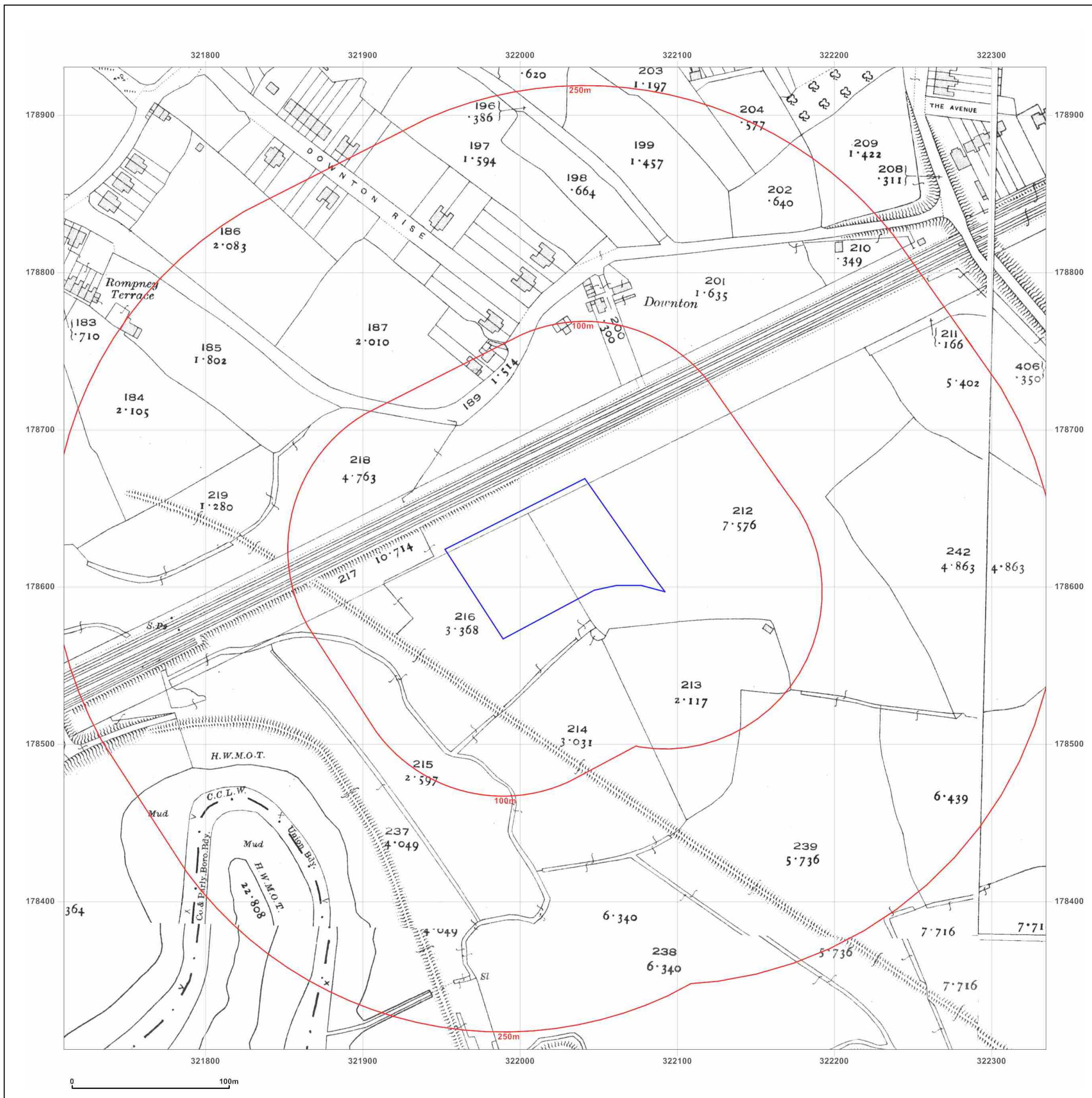


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Site Details:

LAND ON THE NORTH SIDE OF
LAMBY WAY, RUMNEY,
CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: County Series

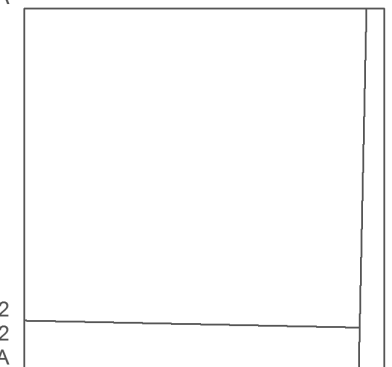
Map date: 1941-1942

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1941
Revised 1941
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1942
Revised 1942
Edition N/A
Copyright N/A
Levelled N/A

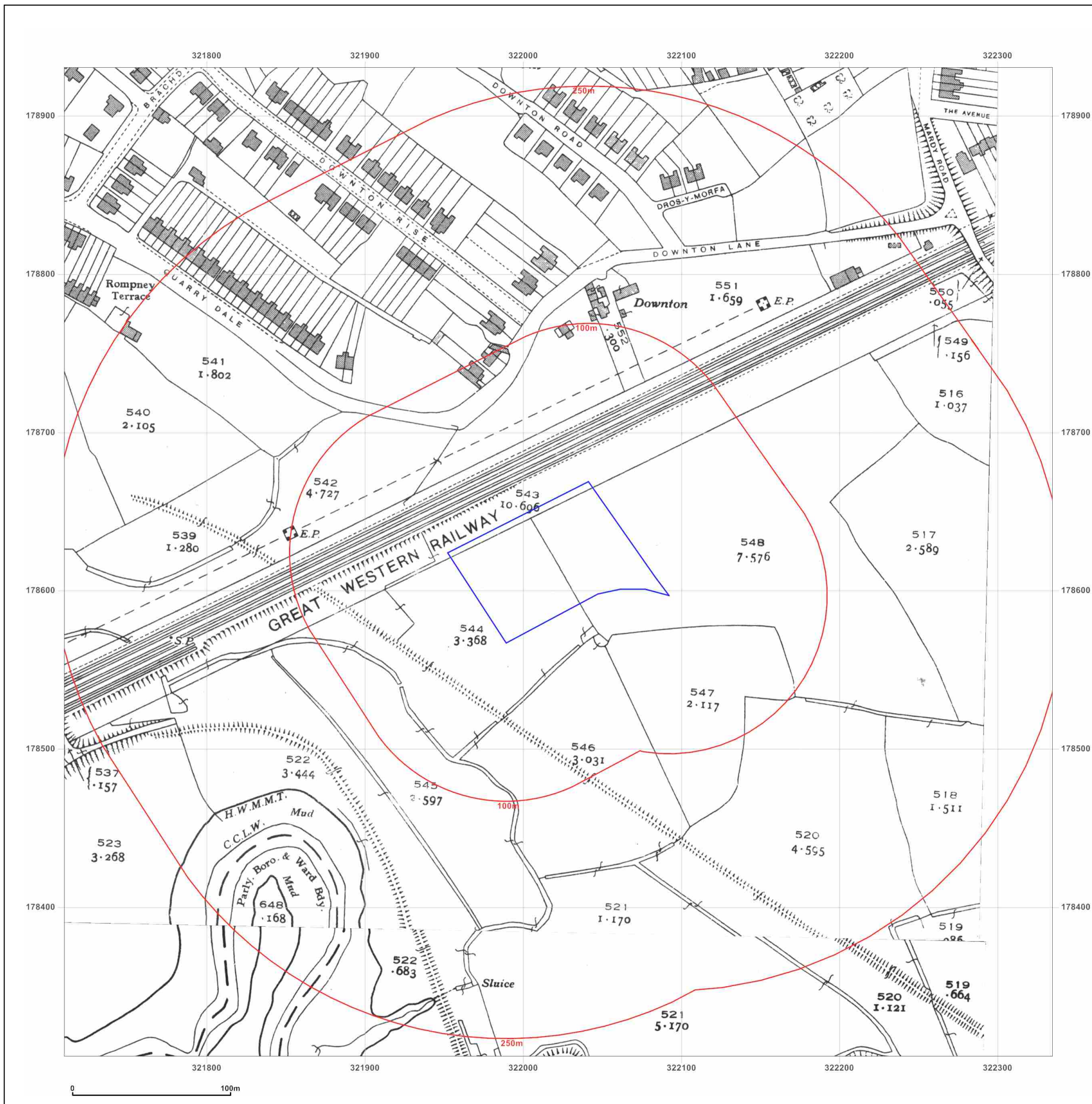


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Production date: 19 September 2016

To view map legend click here [Legend](#)



Site Details:

LAND ON THE NORTH SIDE OF
LAMBY WAY, RUMNEY,
CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

Map date: 1952-1953

Scale: 1:2,500

Printed at: 1:2,500



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Revised 1952
Edition 1954
Copyright N/A
Levelled 1949

Surveyed 1953
Revised 1953
Edition 1949
Copyright N/A
Levelled 1949

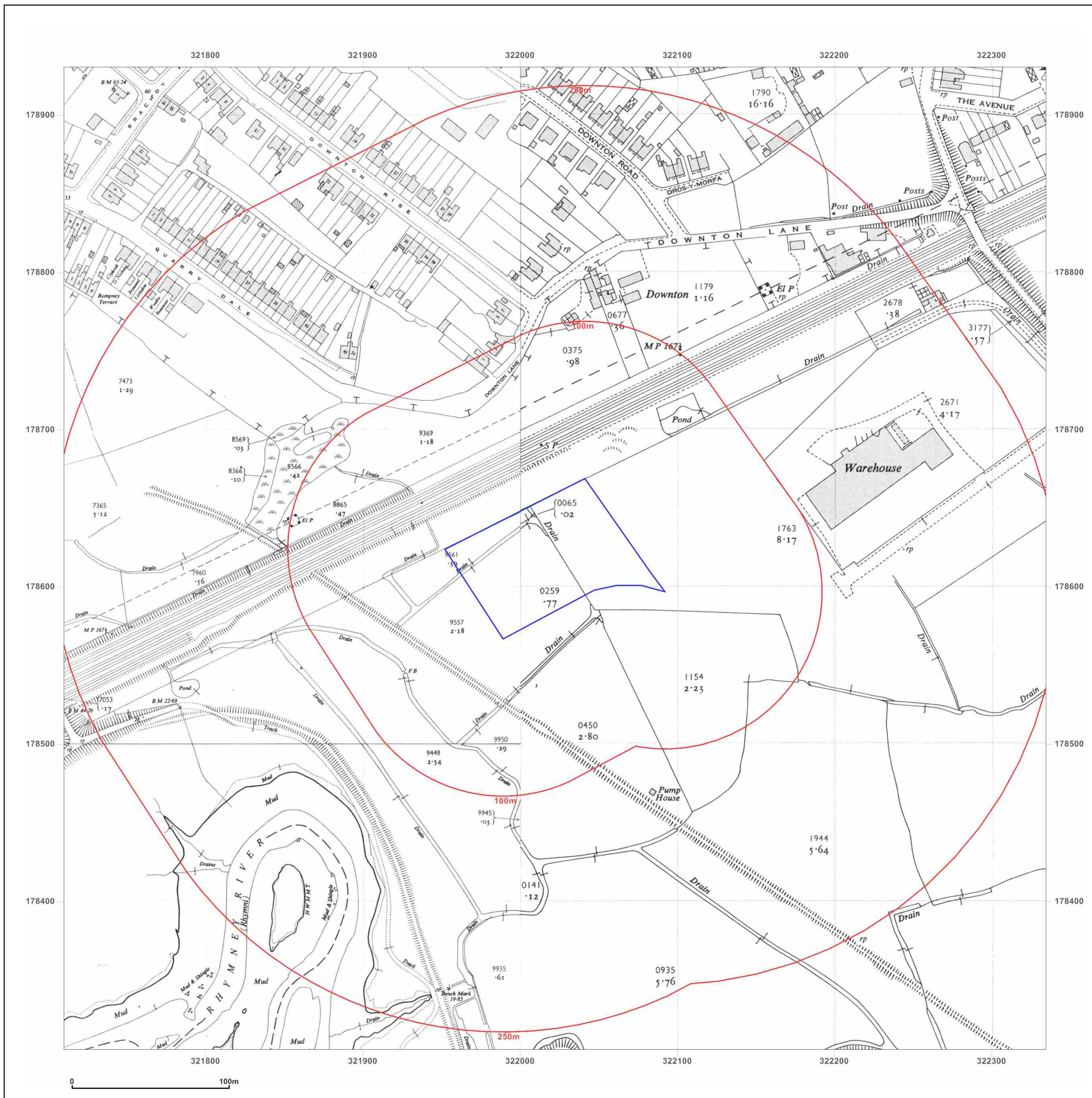


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Site Details:

LAND ON THE NORTH SIDE OF
LAMBY WAY, RUMNEY,
CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

Map date: 1952-1955

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1952 Revised 1952 Edition N/A Copyright N/A Levelled 1949	Surveyed 1955 Revised 1955 Edition N/A Copyright N/A Levelled 1949
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Surveyed 1952 Revised 1952 Edition N/A Copyright N/A Levelled 1949	
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CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

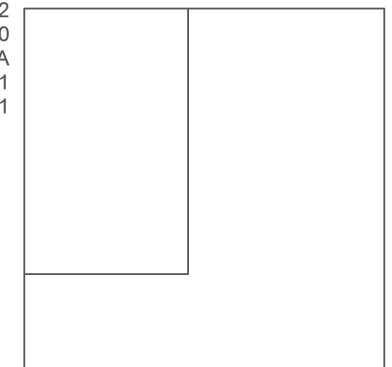
Map date: 1961

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1952
Revised 1960
Edition N/A
Copyright 1961
Levelled 1961

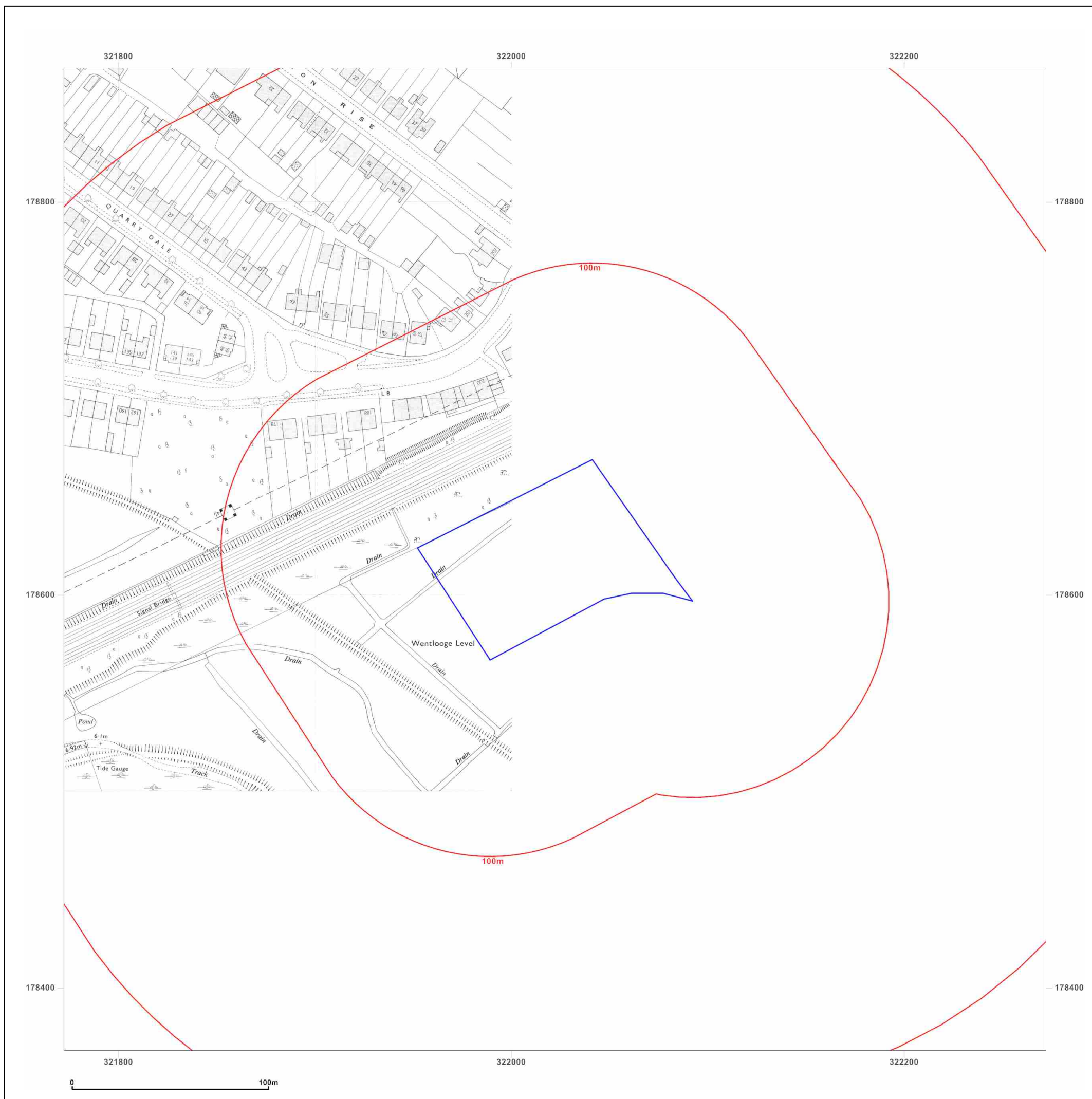


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CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

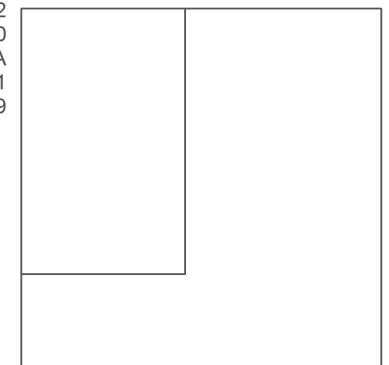
Map date: 1961

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1952
Revised 1960
Edition N/A
Copyright 1961
Levelled 1949

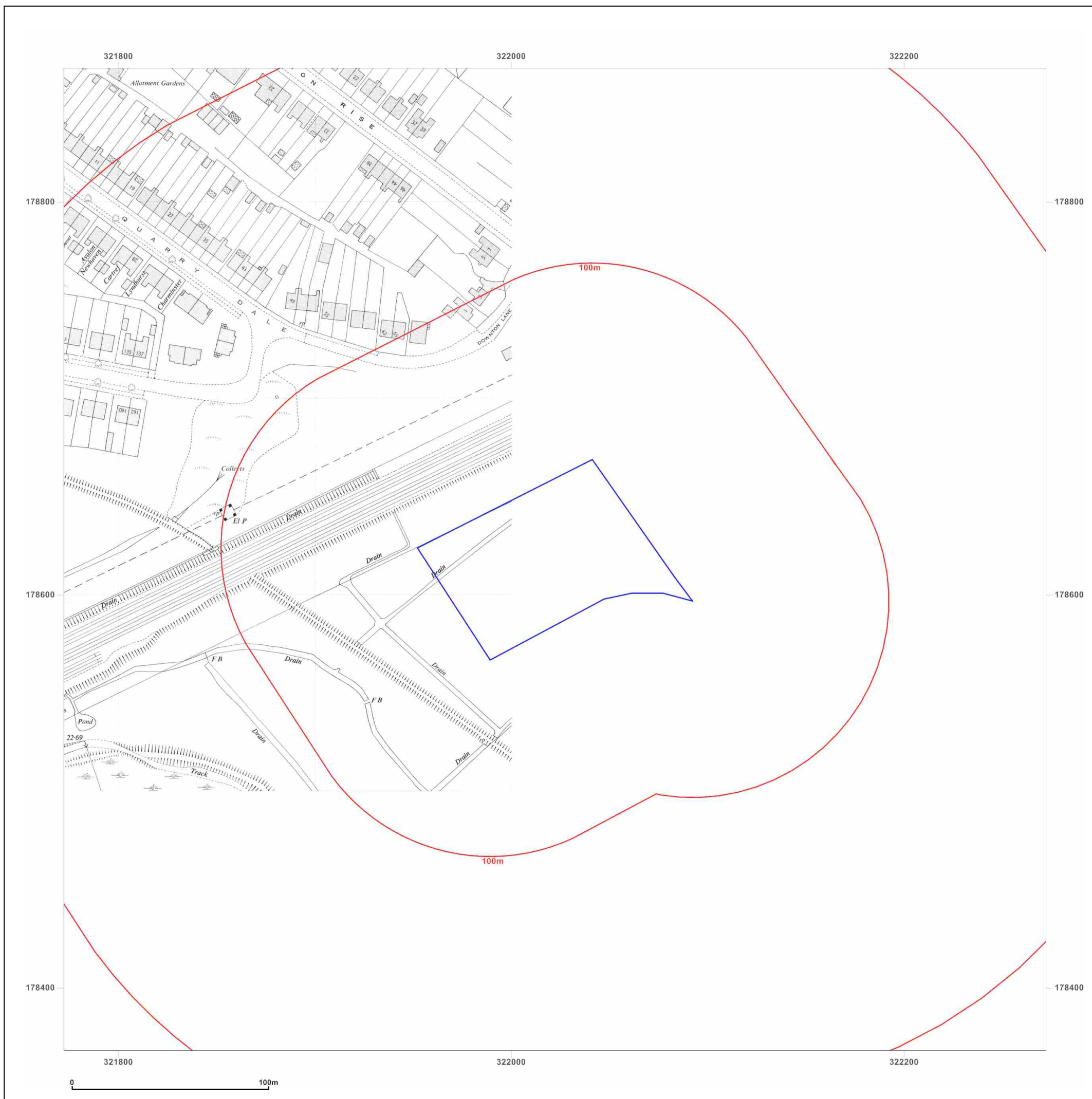


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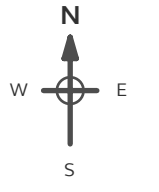
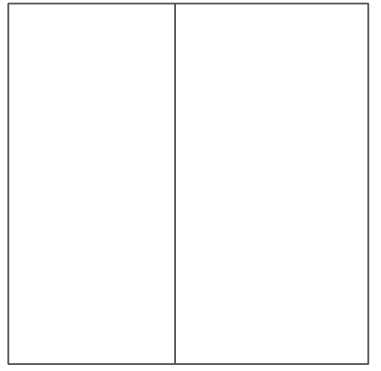


Site Details:

LAND ON THE NORTH SIDE OF
LAMBY WAY, RUMNEY,
CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid
Map date: 1966
Scale: 1:2,500
Printed at: 1:2,500

Surveyed 1966
Revised 1966
Edition N/A
Copyright 1968
Levelled 1961

Powered by

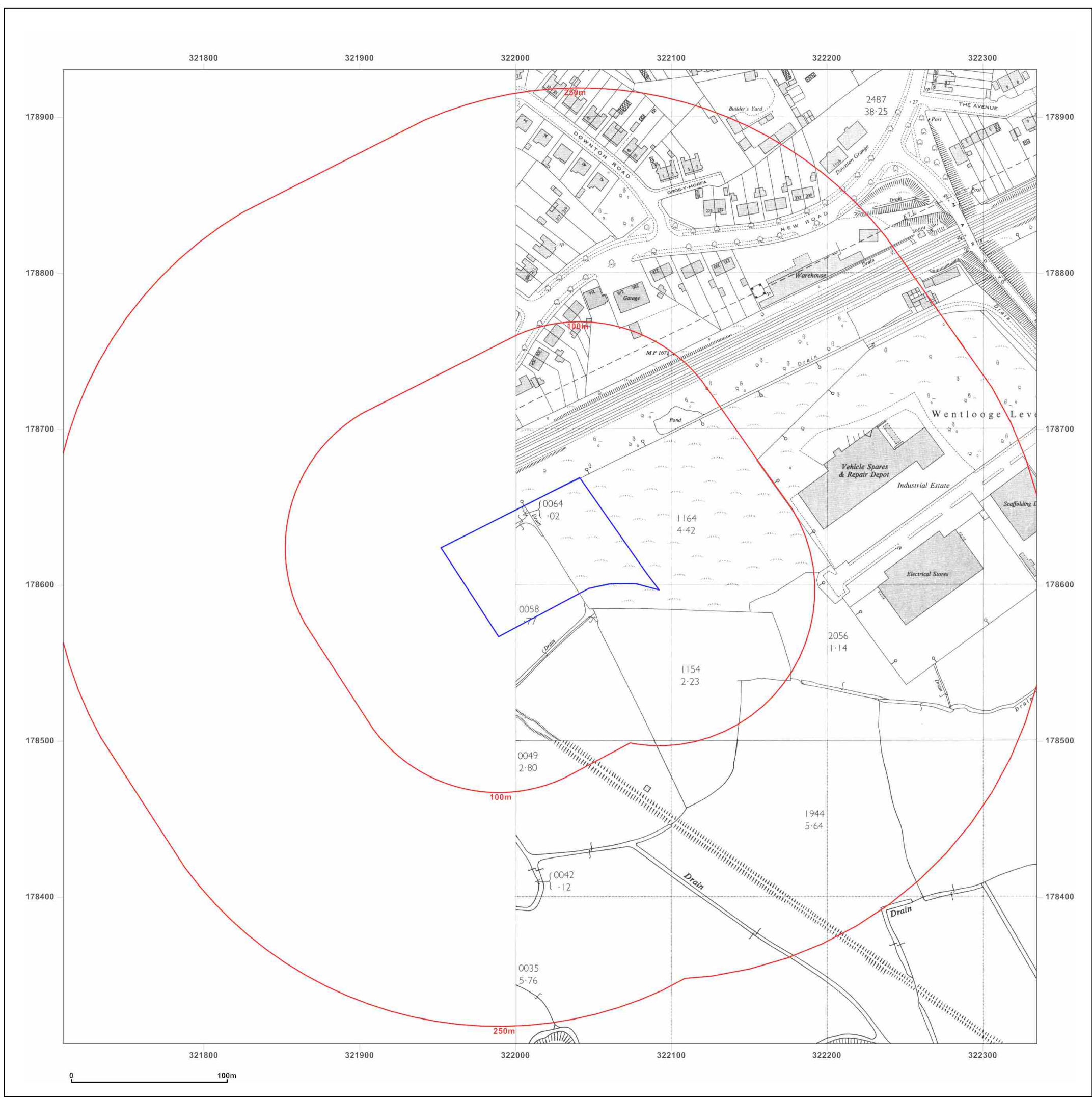


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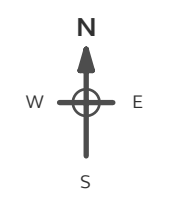
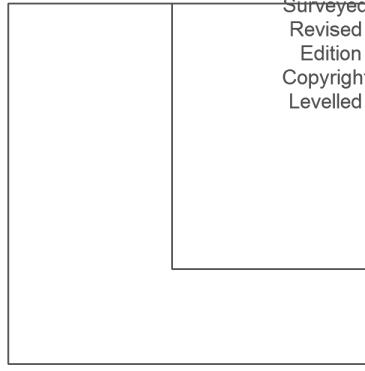
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Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

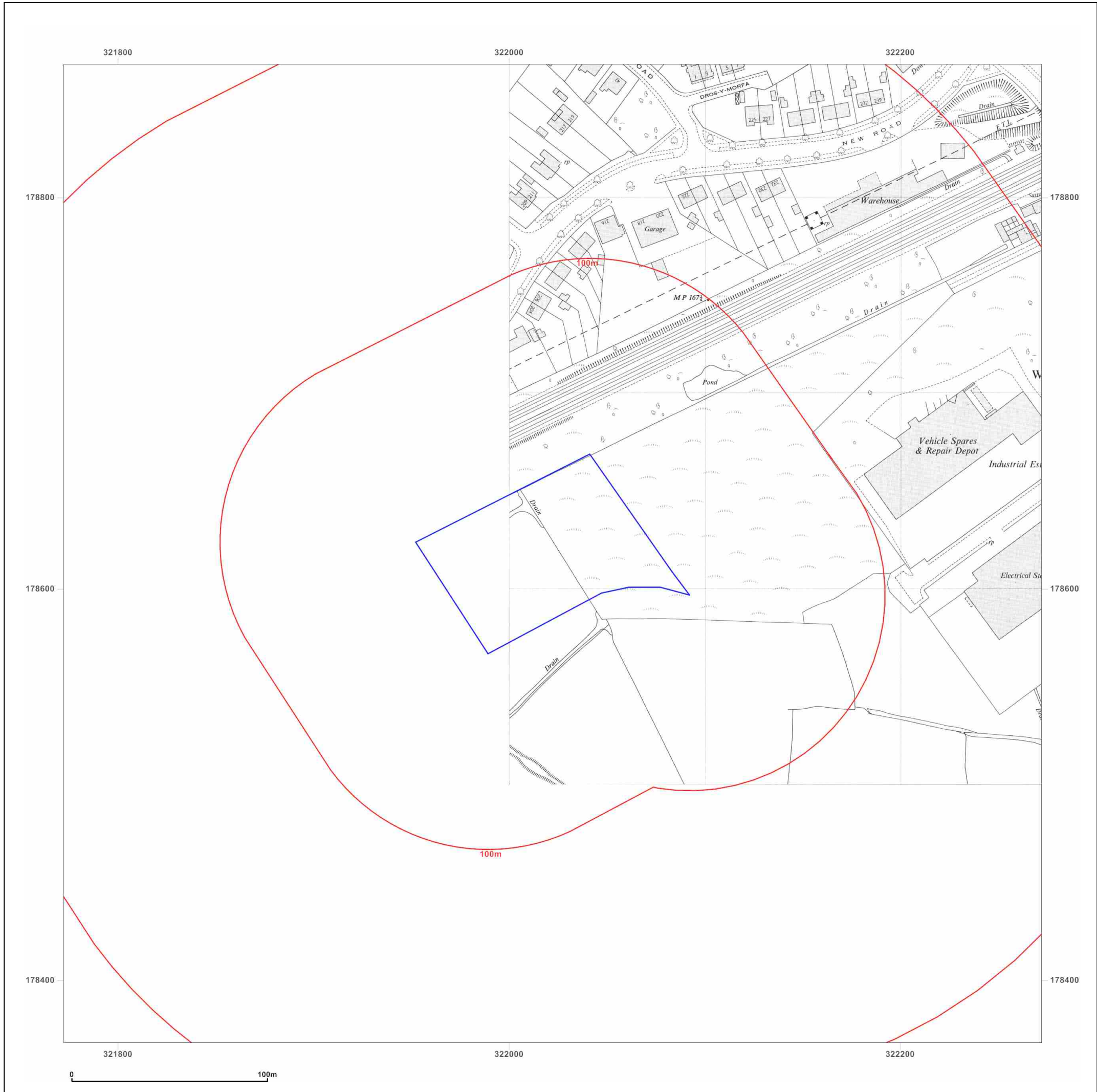
Map date: 1967

Scale: 1:1,250

Printed at: 1:2,000

Surveyed 1955
Revised 1966
Edition N/A
Copyright 1967
Levelled 1961



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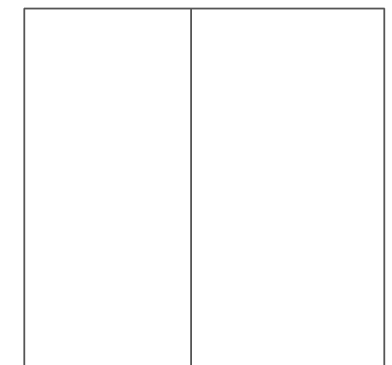
Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

Map date: 1986

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1986
Levelled 1961

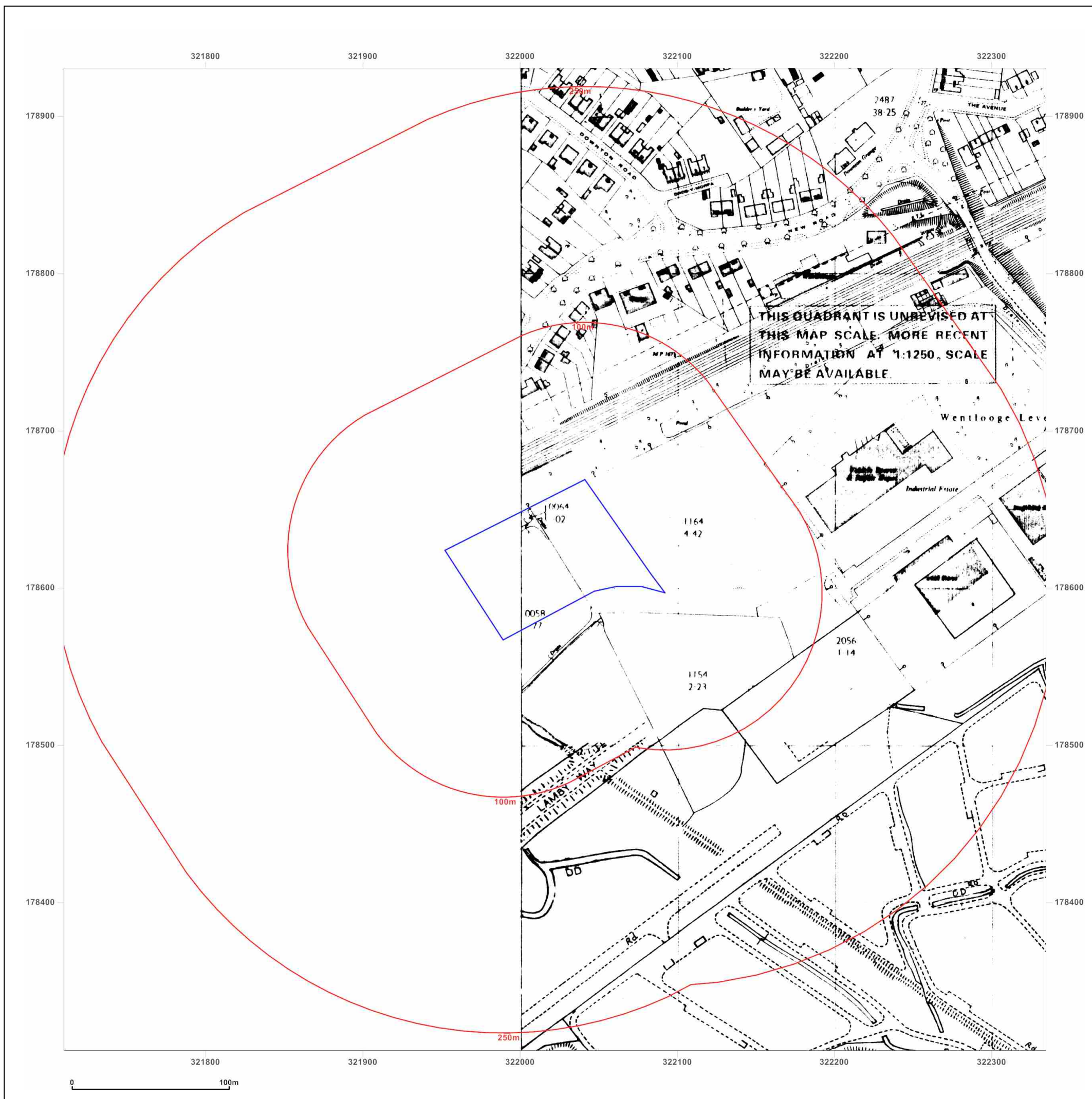


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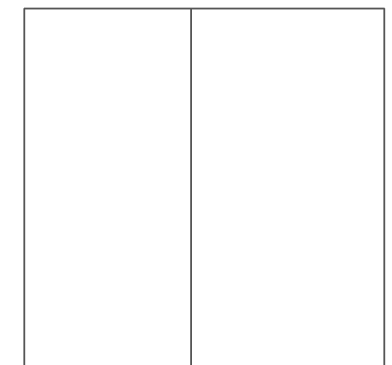
Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

Map date: 1989

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1961
Revised 1988
Edition N/A
Copyright 1989
Levelled 1961

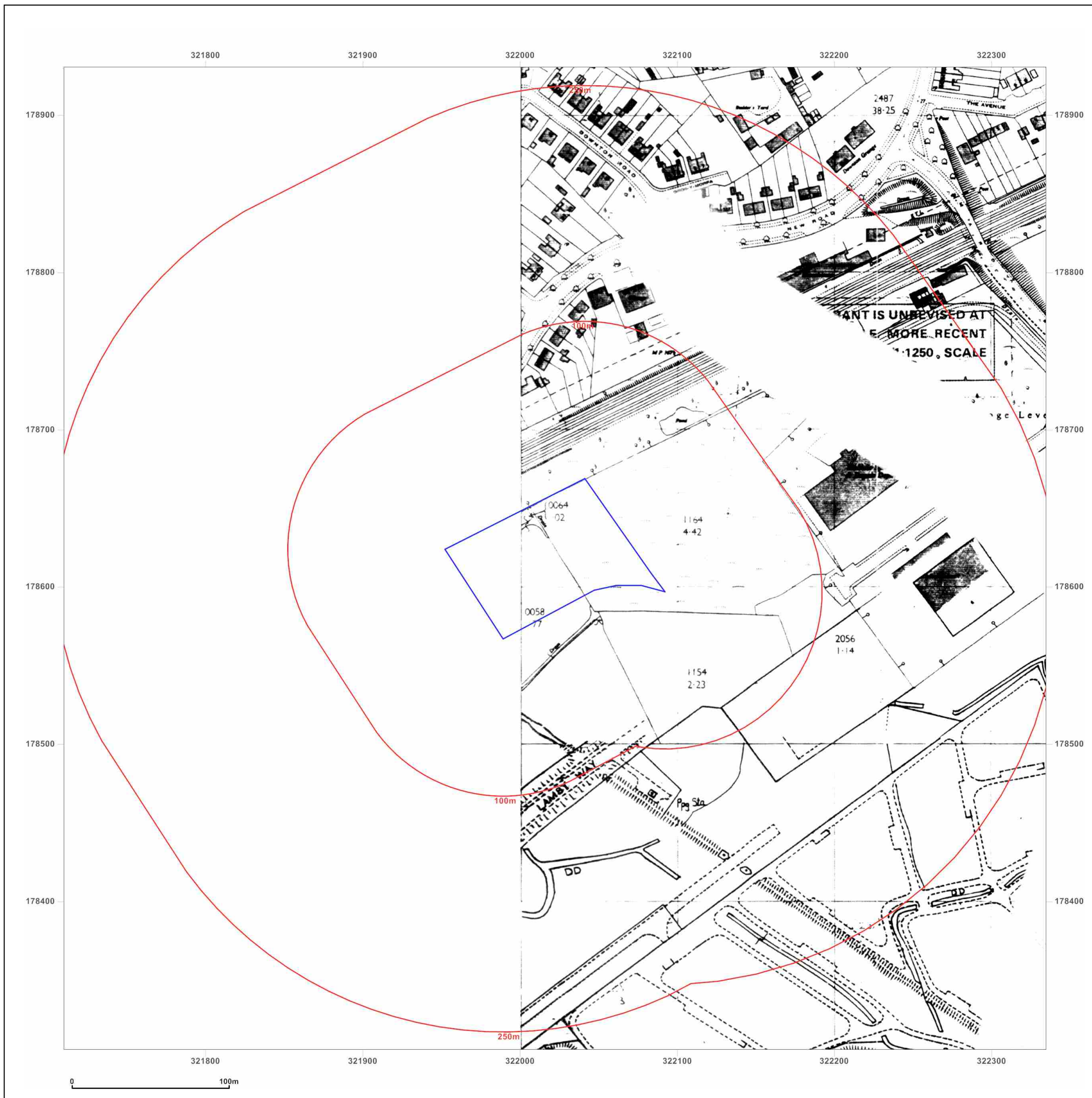


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Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

Map date: 1988-1992

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A Revised N/A Edition N/A Copyright 1988 Levelled 1961	Surveyed 1961 Revised 1988 Edition N/A Copyright 1988 Levelled 1961
Surveyed 1961 Revised 1988 Edition N/A Copyright 1988 Levelled 1961	Surveyed N/A Revised N/A Edition N/A Copyright 1992 Levelled N/A

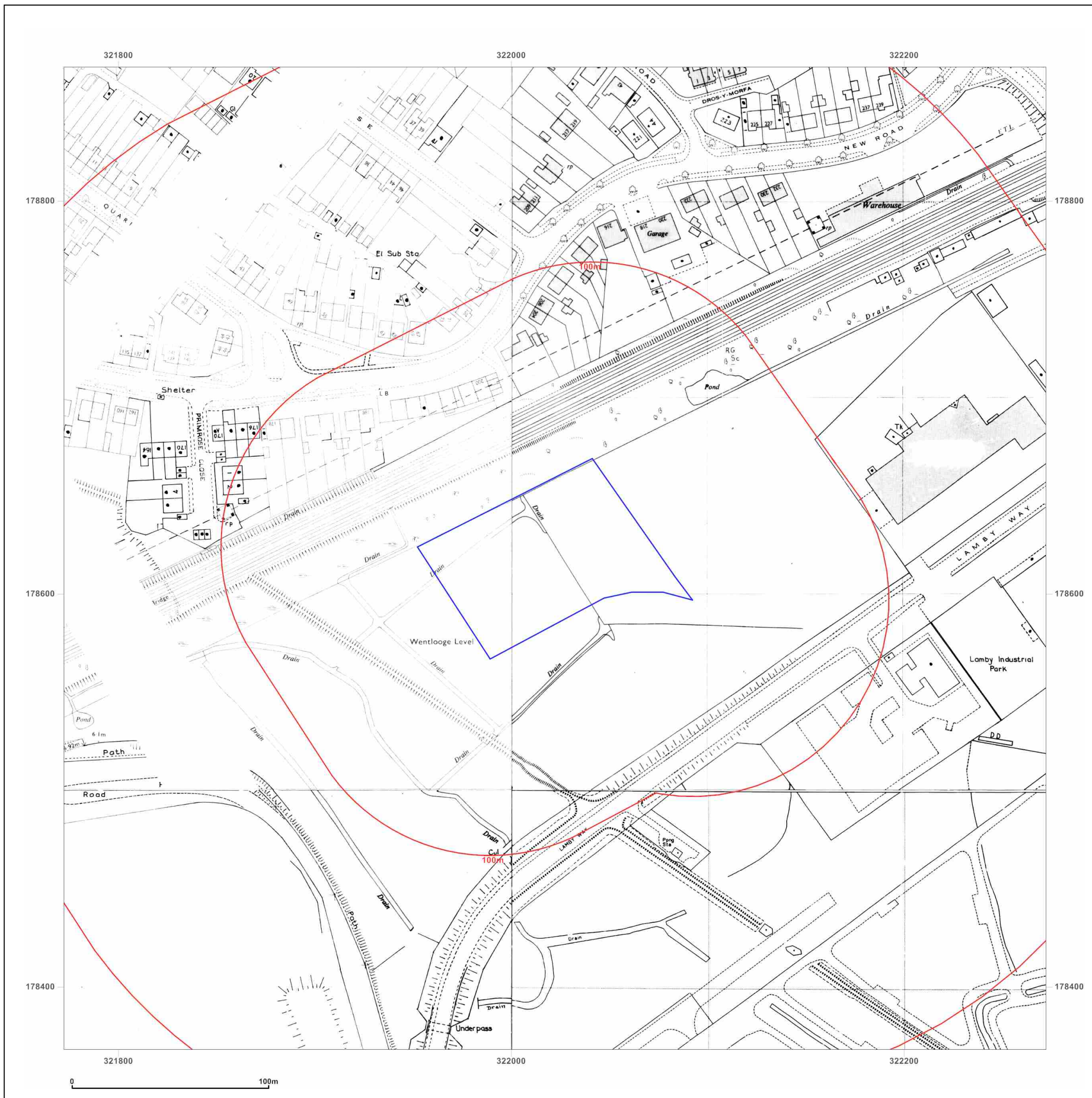


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Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

Map date: 1992-1994

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A Revised N/A Edition N/A Copyright 1992 Levelled N/A	Surveyed N/A Revised N/A Edition N/A Copyright 1992 Levelled N/A
Surveyed N/A Revised N/A Edition N/A Copyright 1994 Levelled N/A	Surveyed 1994 Revised 1994 Edition N/A Copyright 1994 Levelled N/A

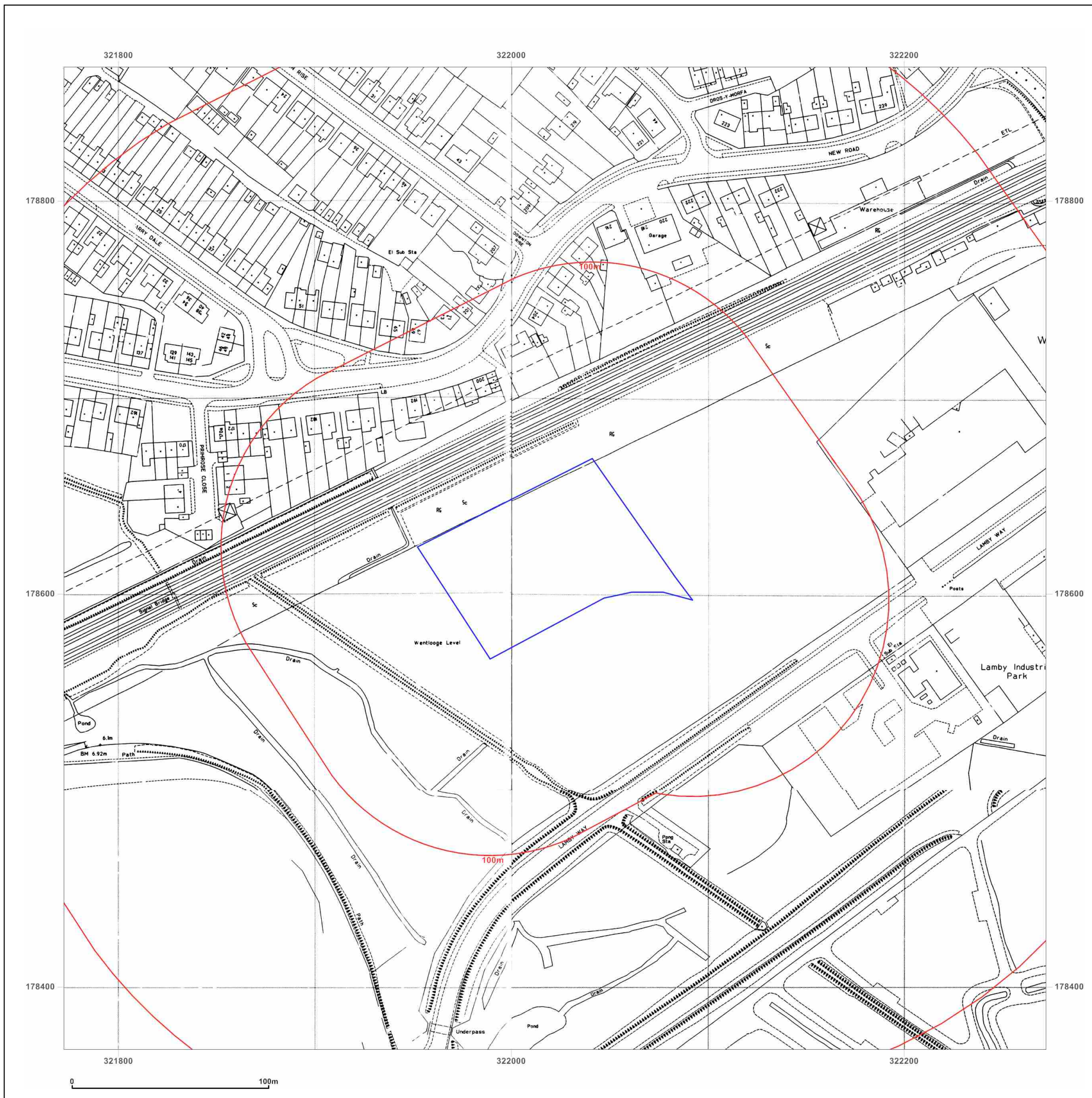


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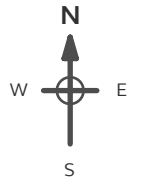
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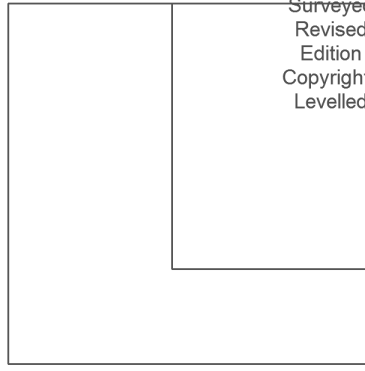


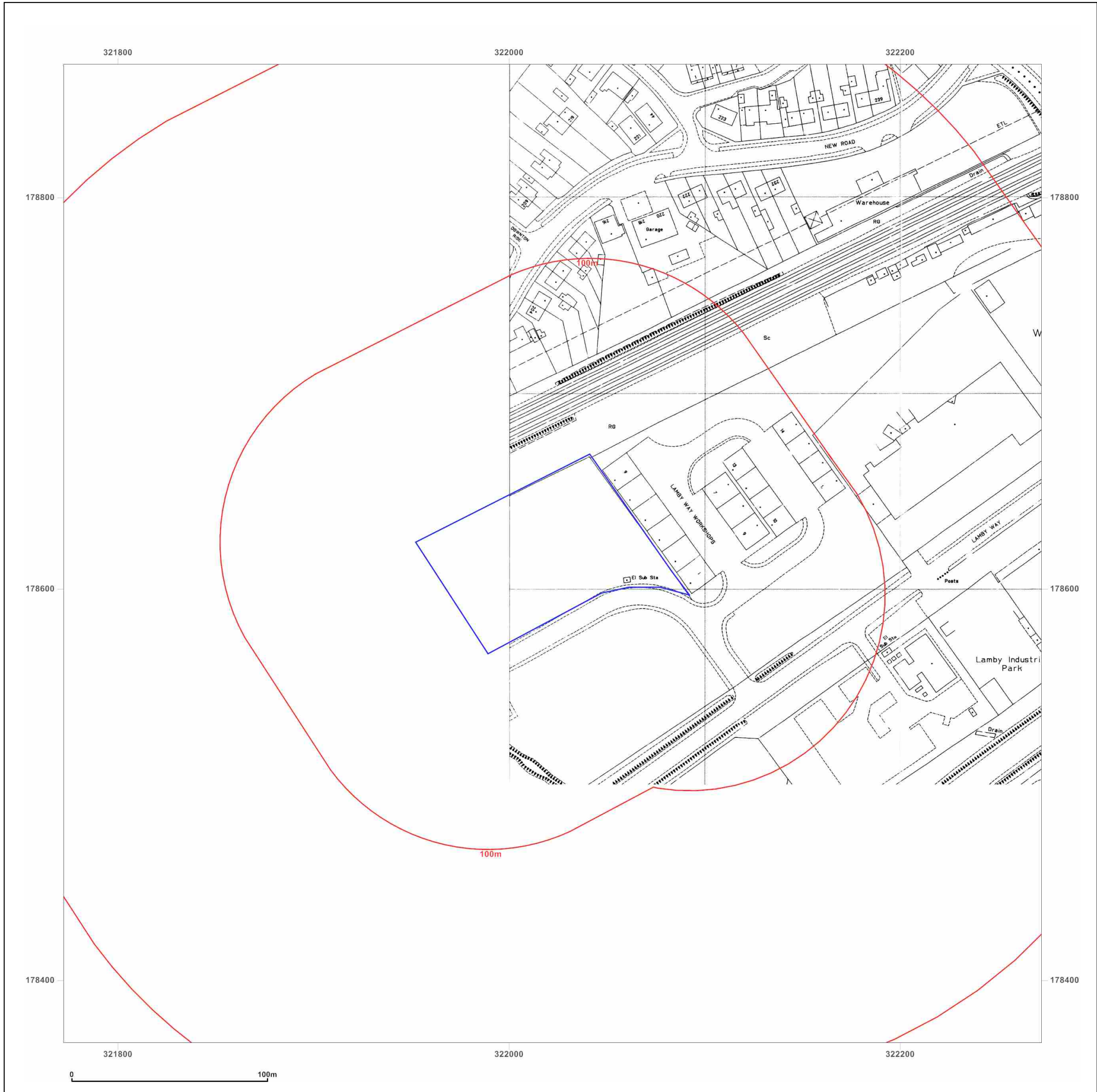
Site Details:
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 LAMBY WAY, RUMNEY,
 CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid
Map date: 1994
Scale: 1:1,250
Printed at: 1:2,000



	Surveyed N/A Revised N/A Edition N/A Copyright 1994 Levelled N/A
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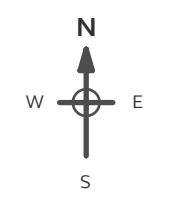
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Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

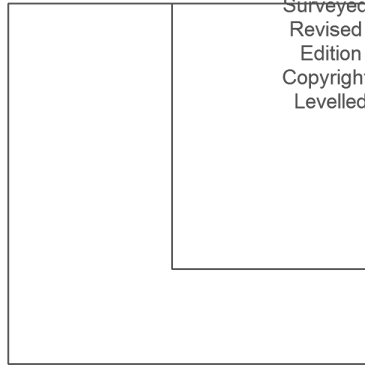
Map Name: National Grid

Map date: 1994

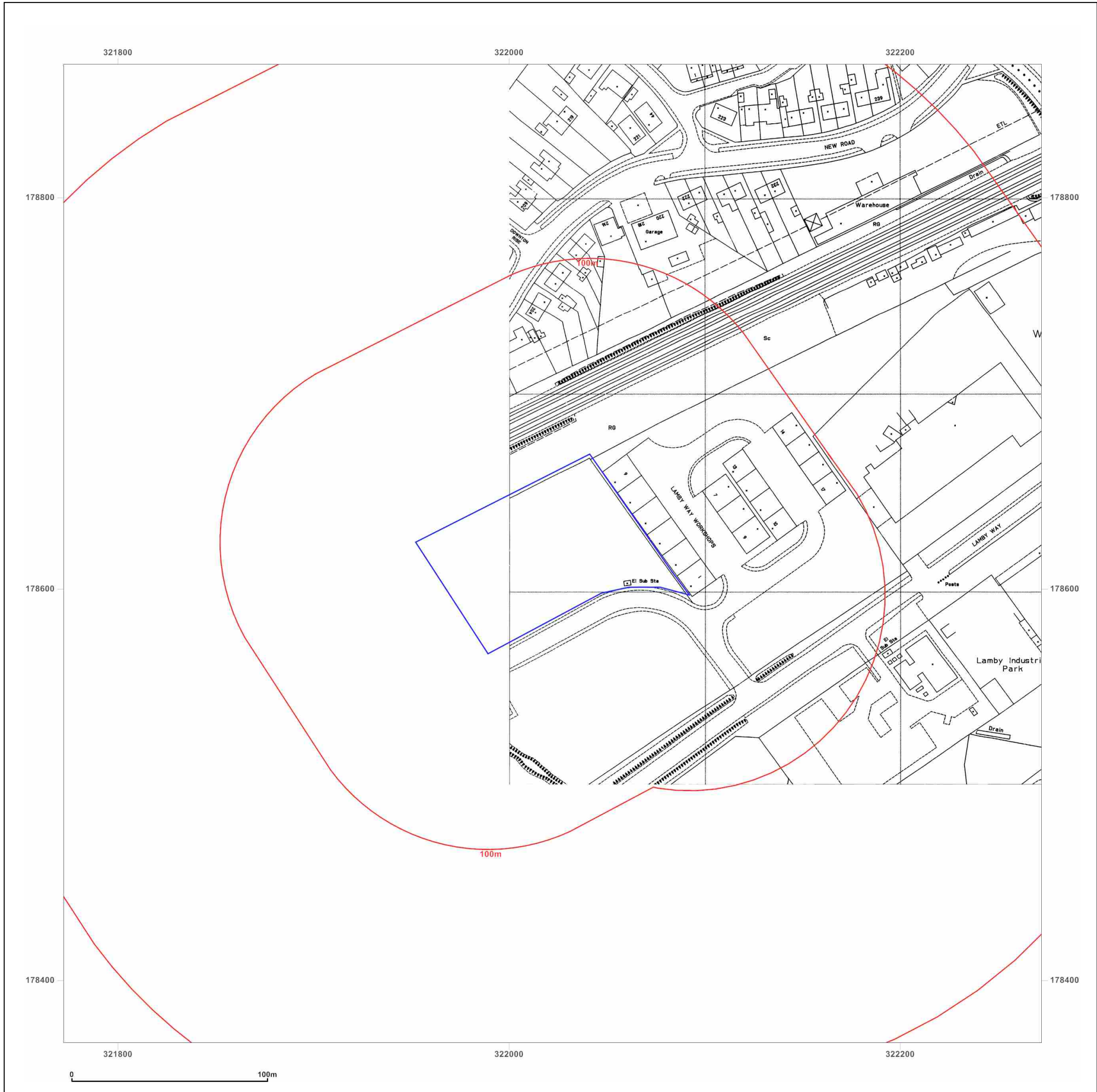
Scale: 1:1,250

Printed at: 1:2,000





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



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CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

Map date: 1989-1994

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1961 Revised 1989 Edition N/A Copyright 1989 Levelled 1961	Surveyed 1990 Revised 1990 Edition N/A Copyright 1991 Levelled N/A
Surveyed N/A Revised N/A Edition N/A Copyright 1992 Levelled N/A	Surveyed N/A Revised N/A Edition N/A Copyright 1994 Levelled N/A

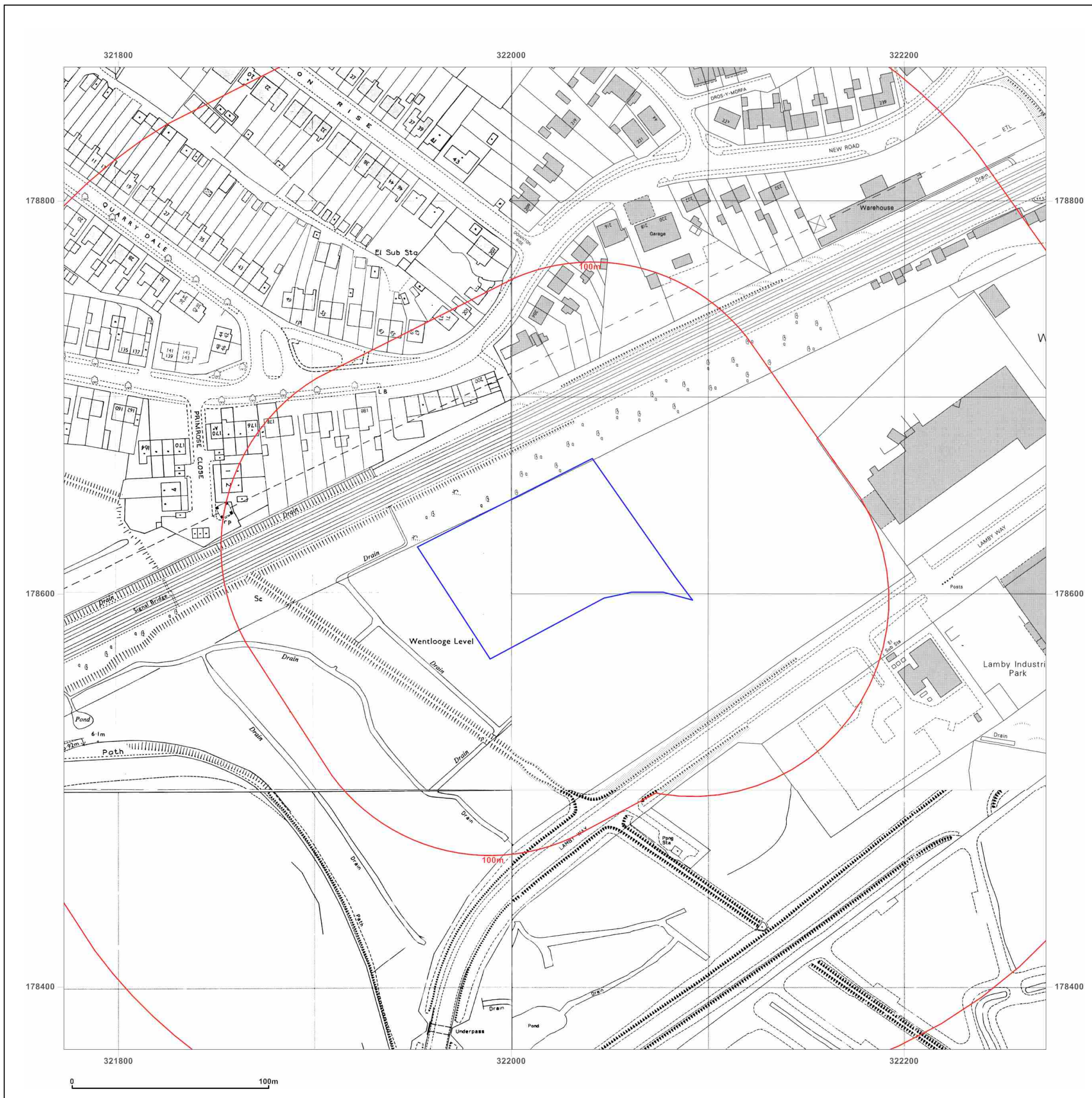


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CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: County Series

Map date: 1881-1882

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1881
Revised 1881
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1882
Revised 1882
Edition N/A
Copyright N/A
Levelled N/A

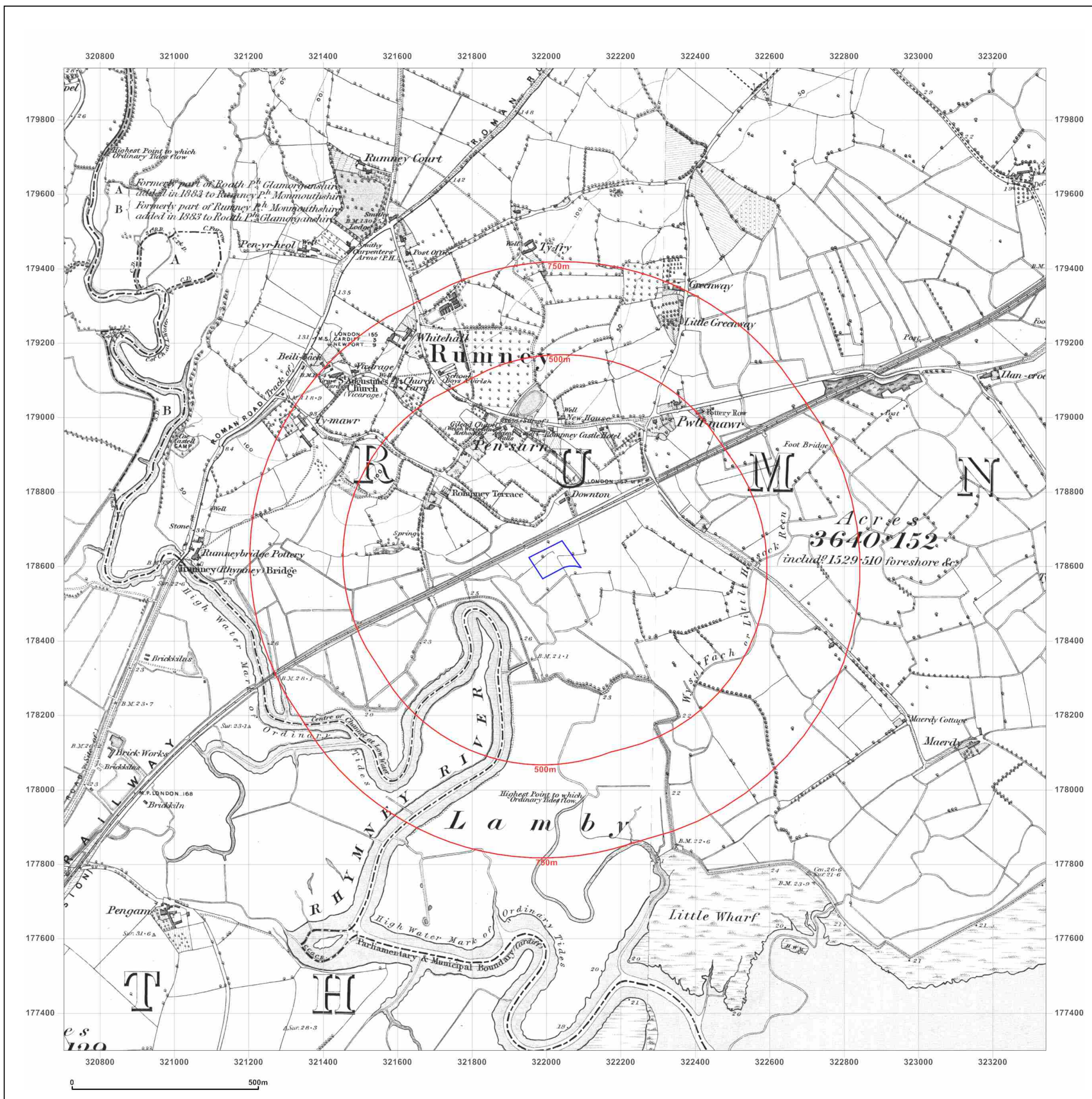


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Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: County Series

Map date: 1899-1902

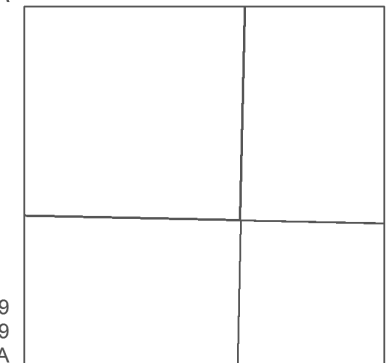
Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1878
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1881
Revised 1902
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1879
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1878
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

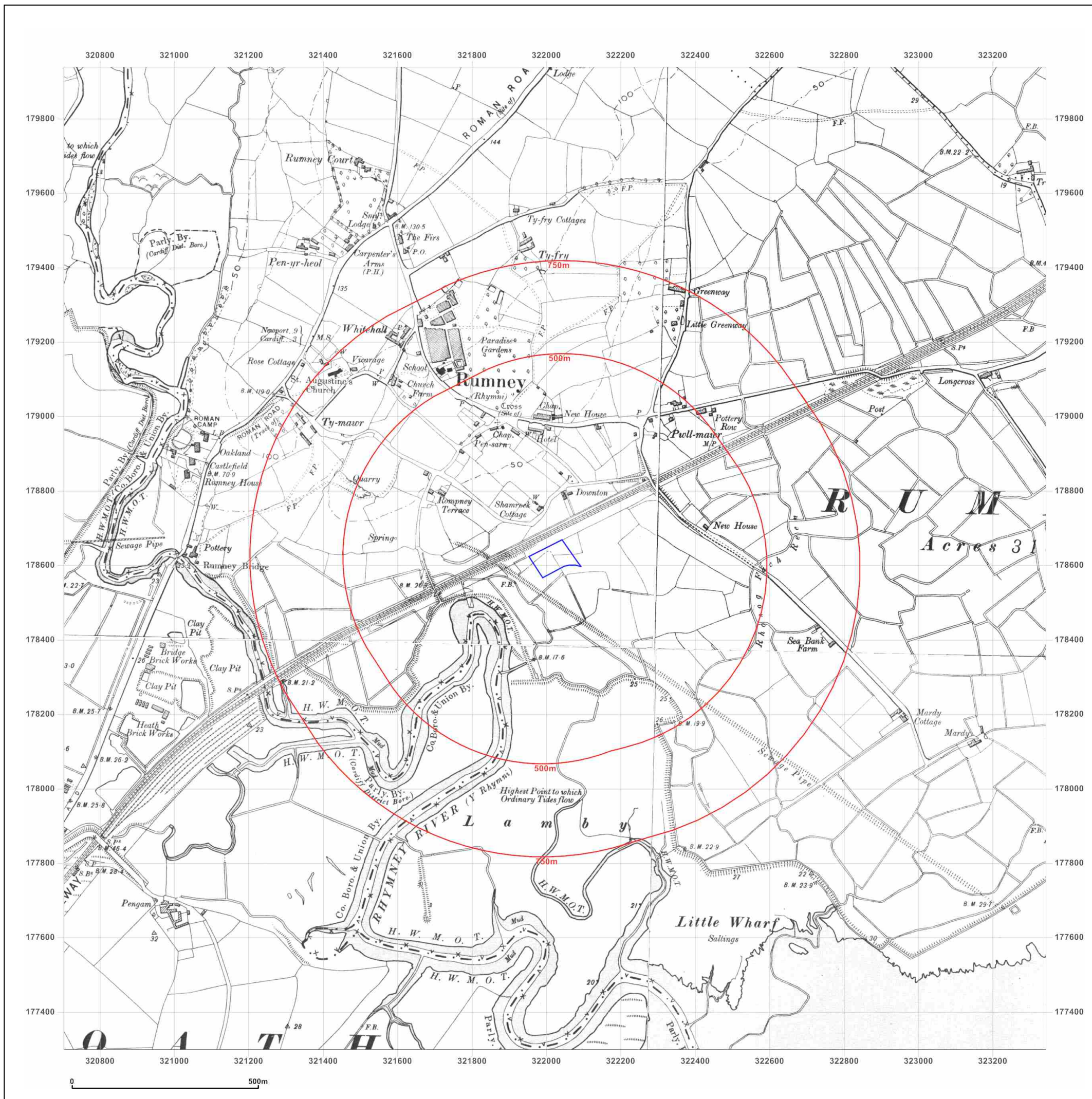


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CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: County Series

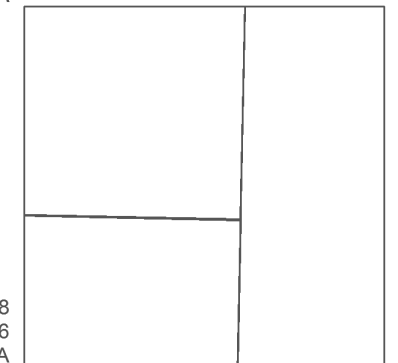
Map date: 1916

Scale: 1:10,560

Printed at: 1:10,560

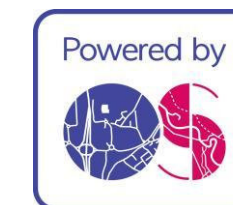


Surveyed 1878
Revised 1916
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1878
Revised 1916
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1878
Revised 1916
Edition N/A
Copyright N/A
Levelled N/A

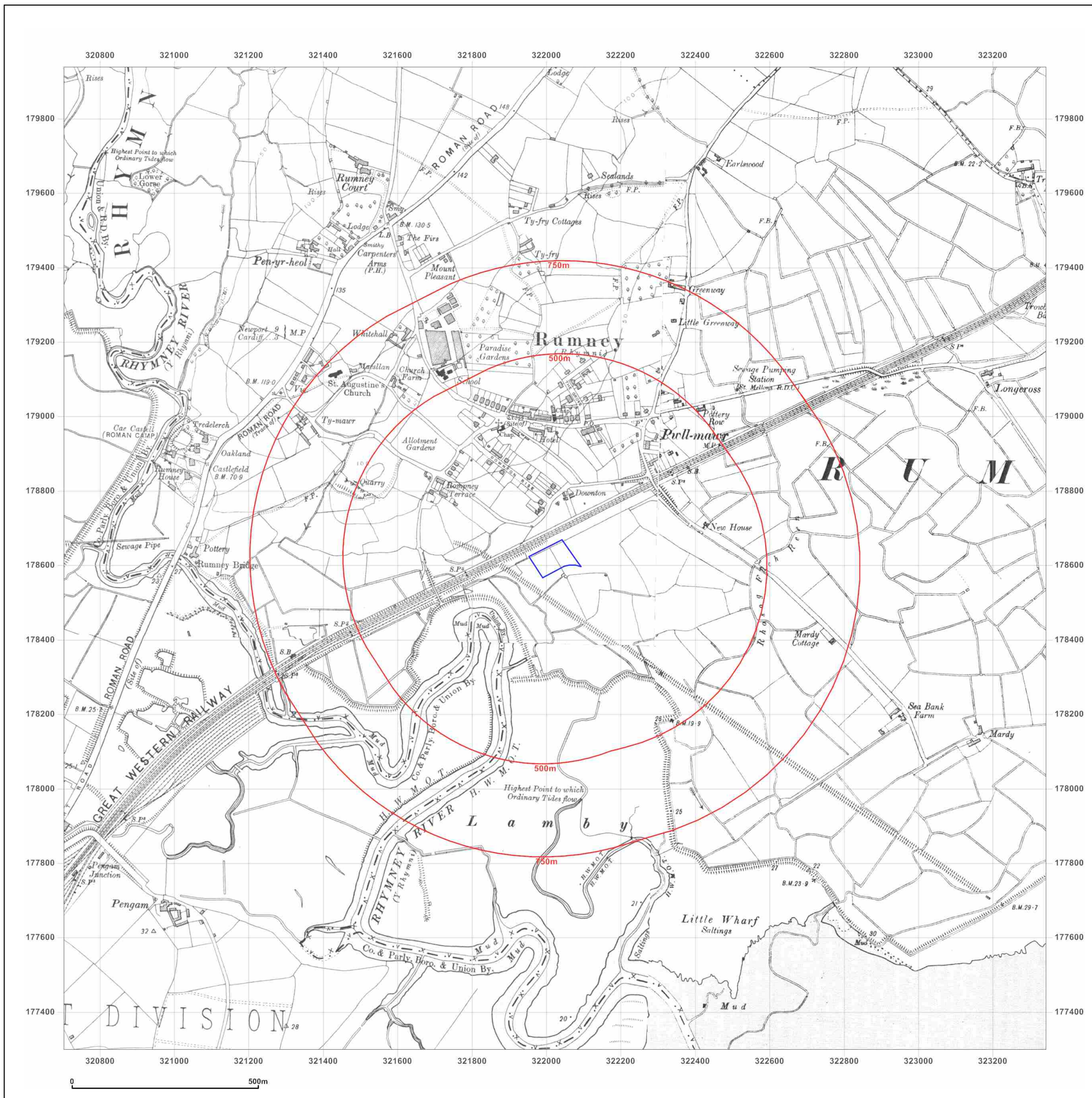


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Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: County Series

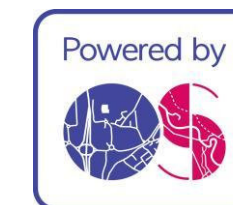
Map date: 1922

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1878
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

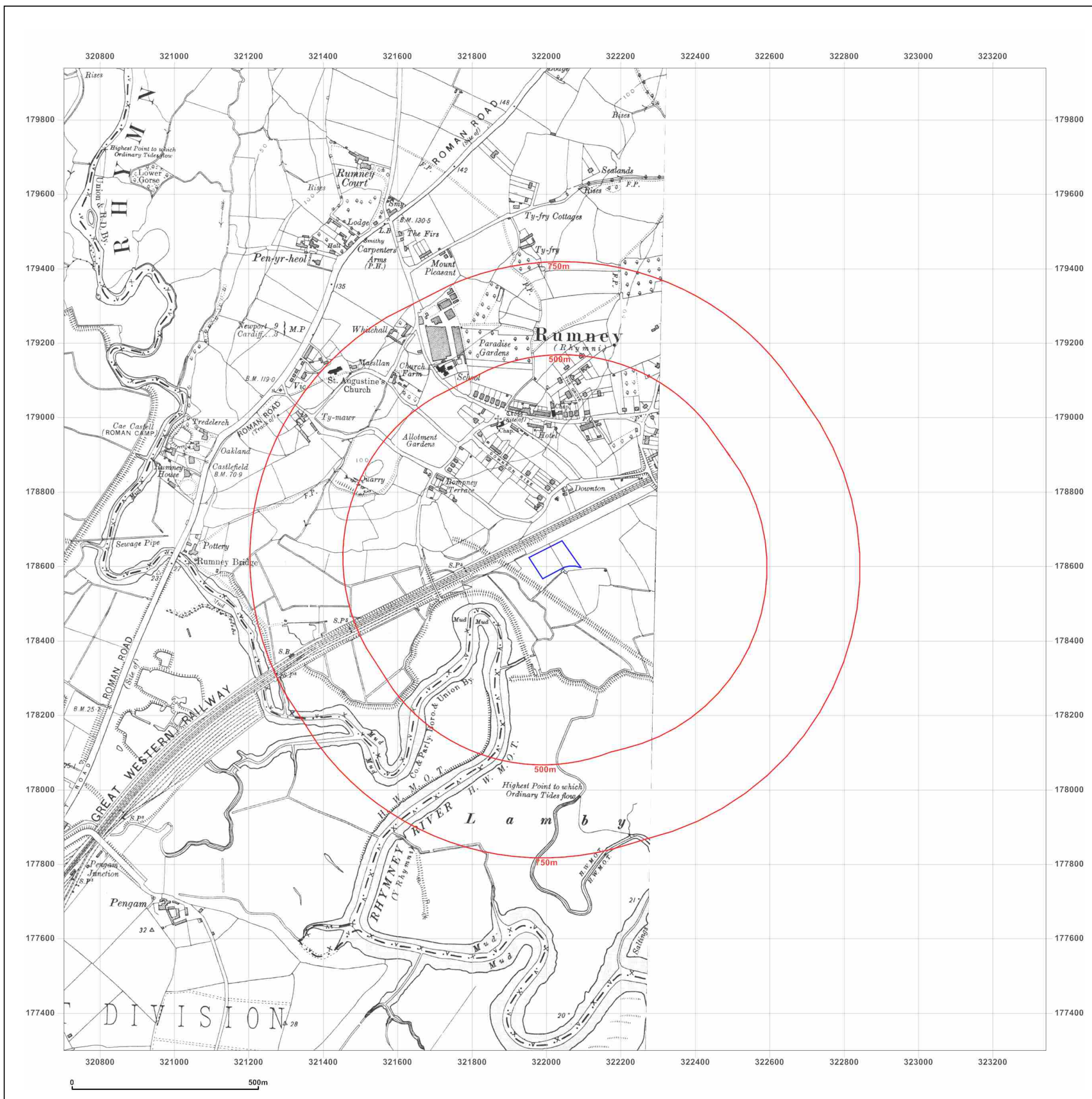


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CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: County Series

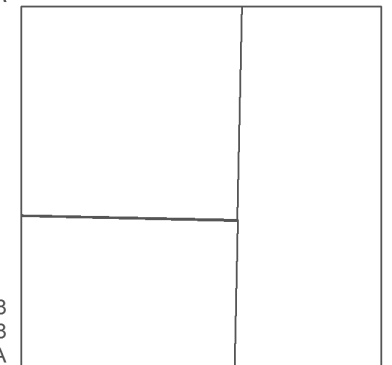
Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1878
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1878
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

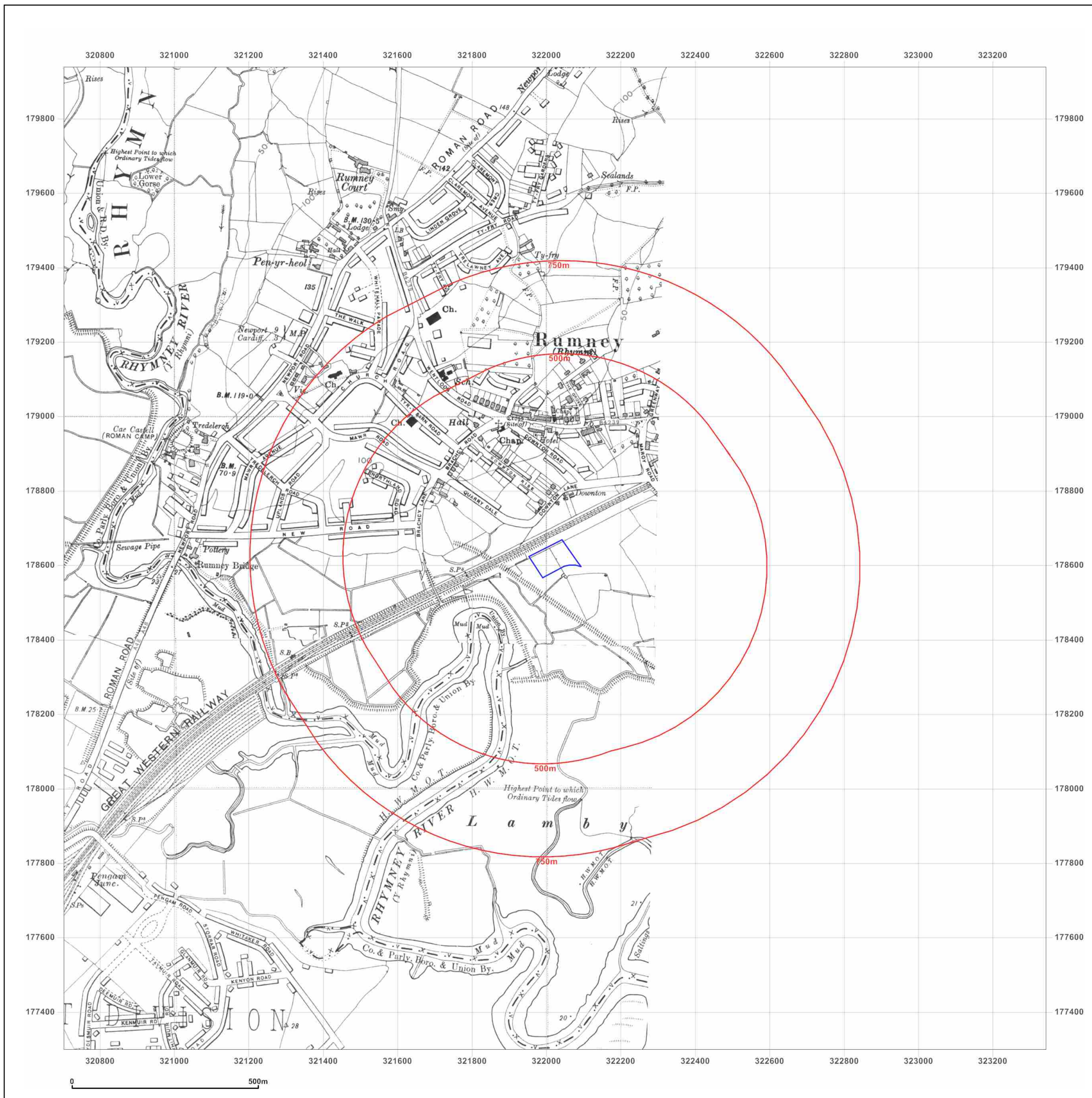


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CARDIFF

Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: County Series

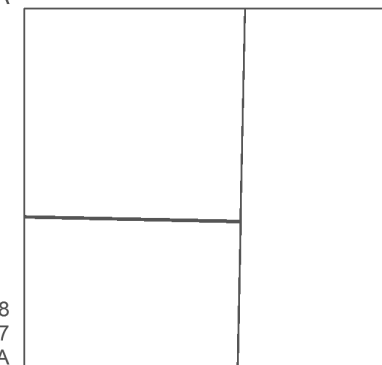
Map date: 1947-1948

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1878
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A



Surveyed N/A
Revised 1947
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1878
Revised 1947
Edition N/A
Copyright N/A
Levelled N/A

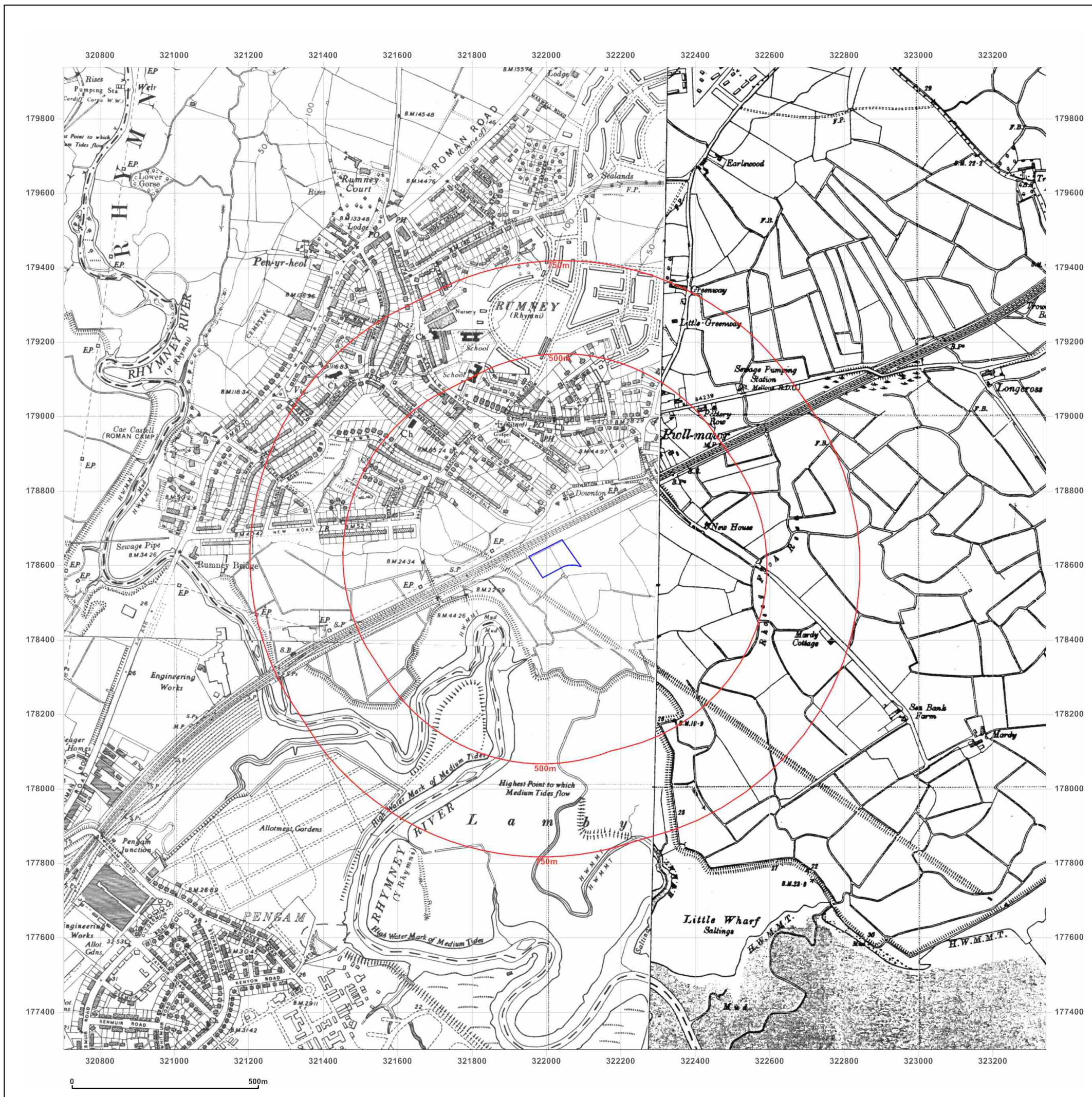


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Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

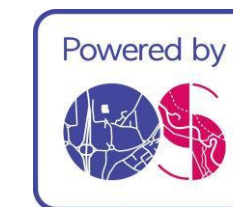
Map date: 1973

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1972
Revised 1973
Edition N/A
Copyright N/A
Levelled N/A

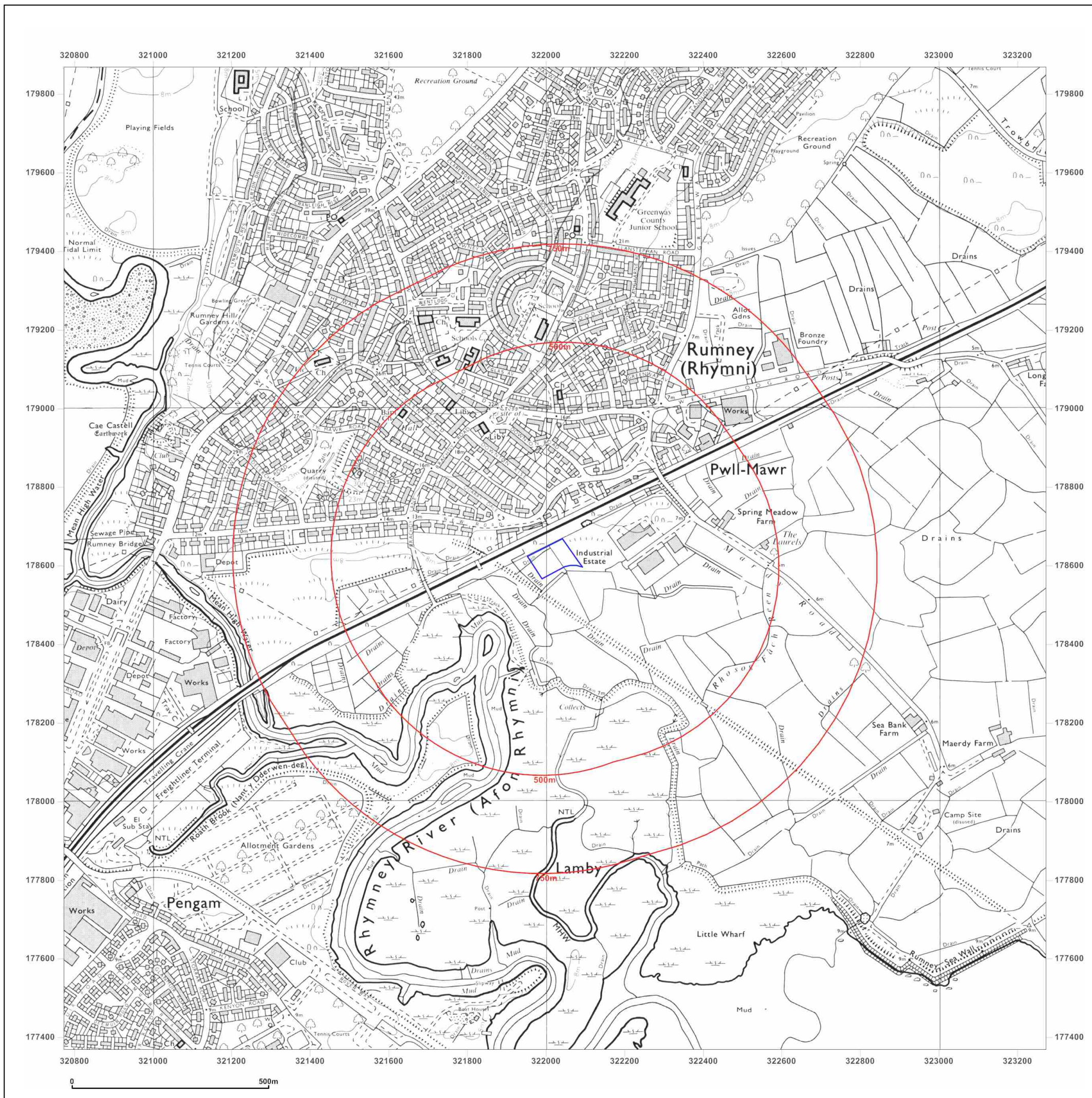


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Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

Map date: 1987

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1983
Revised 1987
Edition N/A
Copyright N/A
Levelled N/A

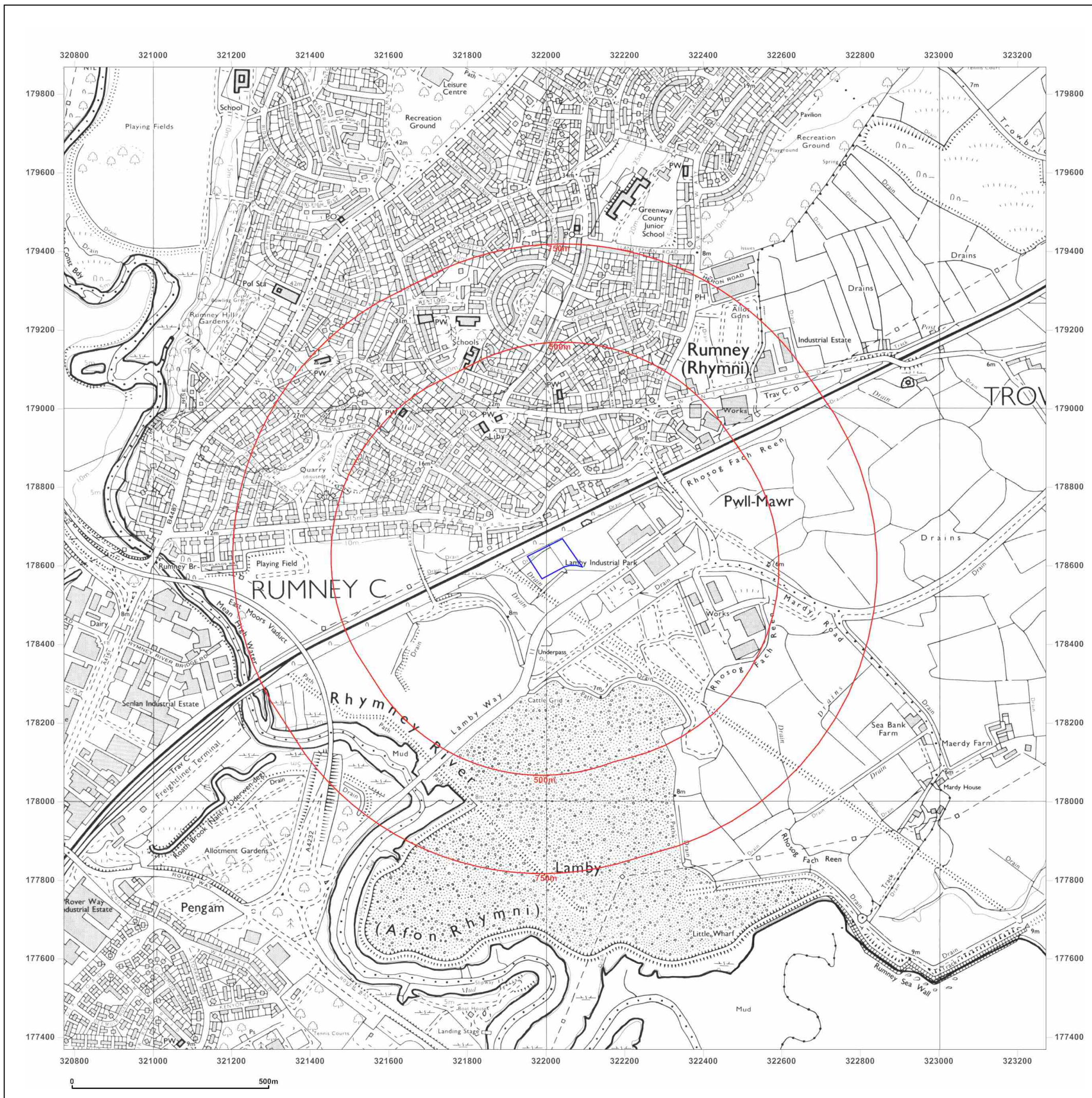


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Site Details:

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LAMBLY WAY, RUMNEY,
CARDIFF

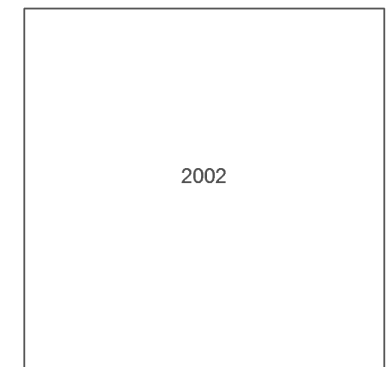
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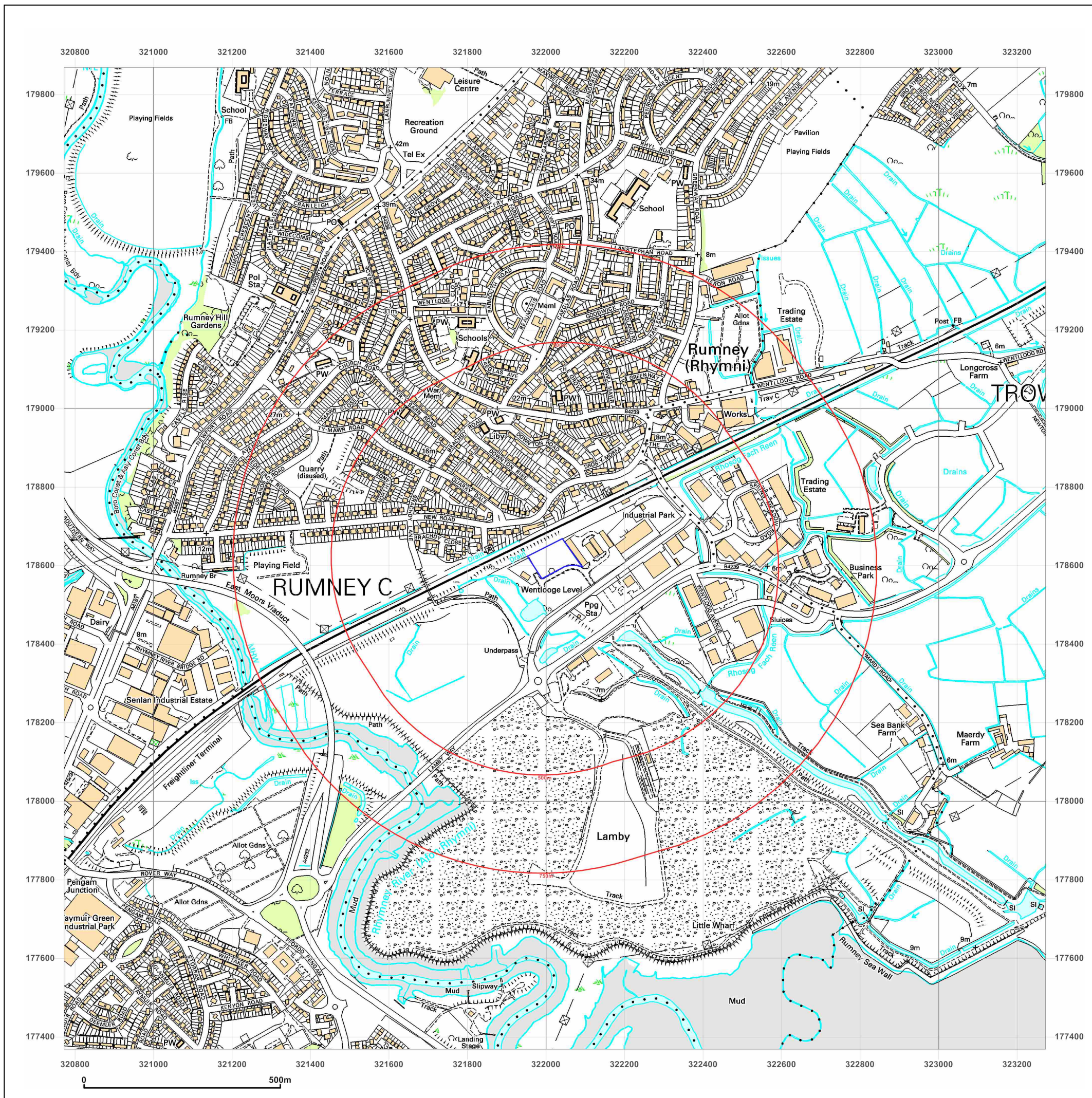


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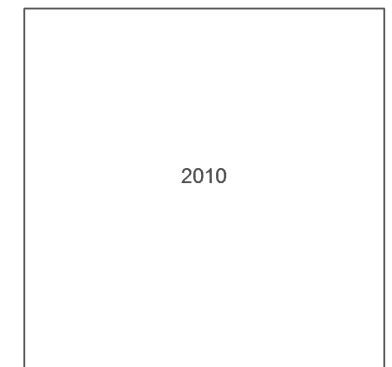
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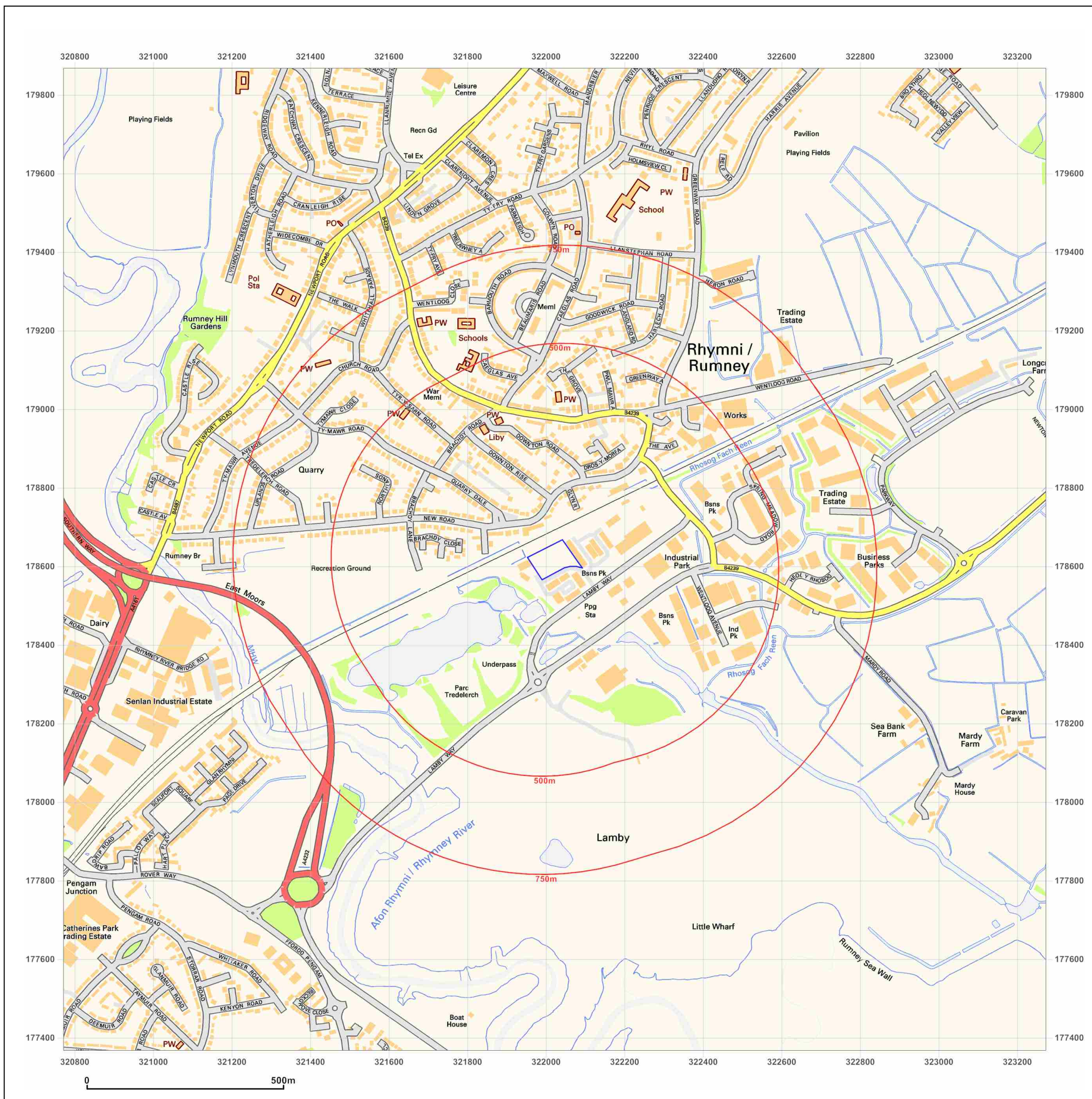


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Client Ref: NTE2313_-_PO_TBC_JC
Report Ref: HMD-214-3302752
Grid Ref: 322022, 178618

Map Name: National Grid

Map date: 2014

Scale: 1:10,000

Printed at: 1:10,000

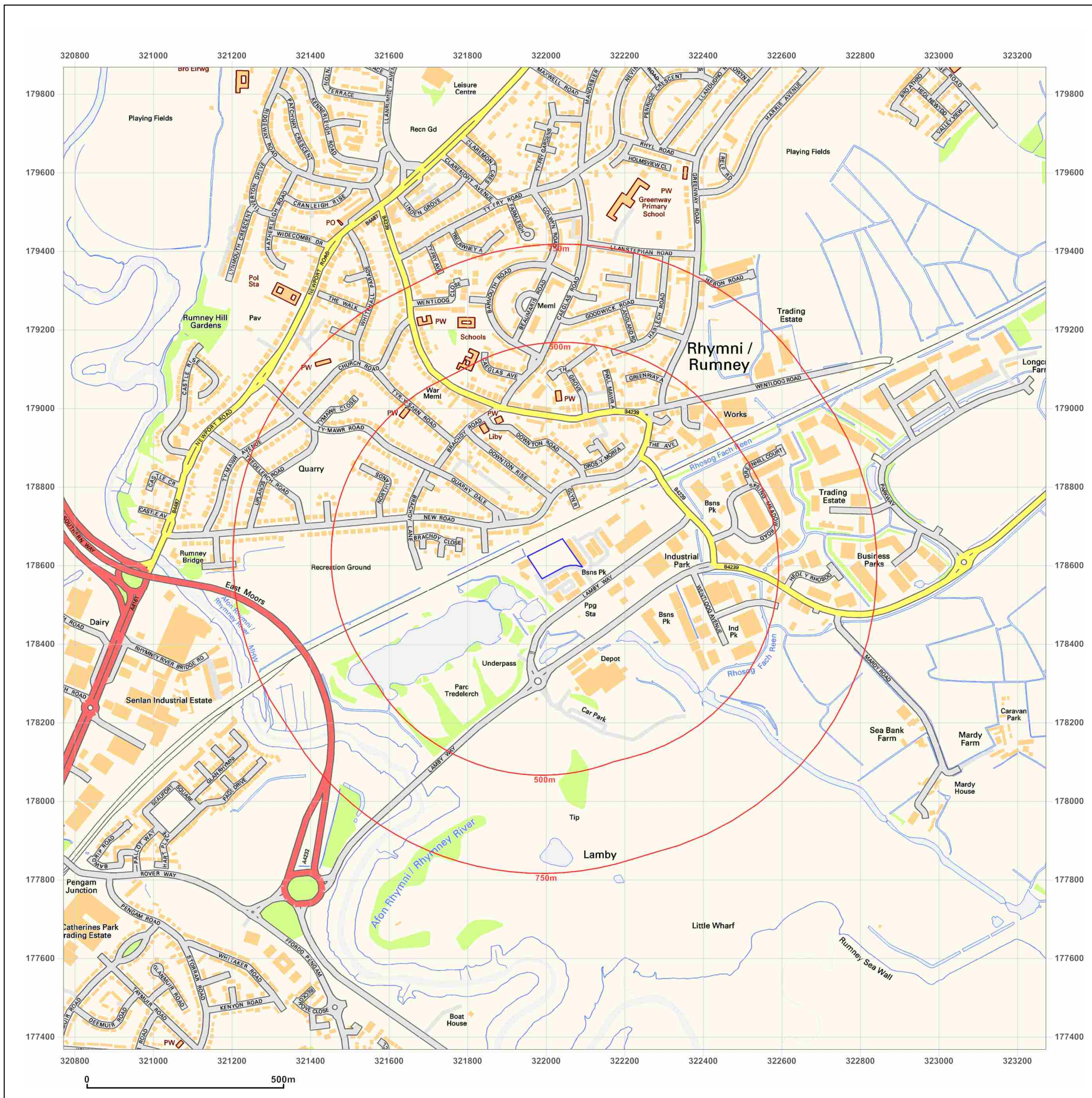


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APPENDIX 5
CIRIA RISK CLASSIFICATION SCHEME

BWB RISK ASSESSMENT CLASSIFICATION (AFTER CIRIA REPORT C552, CONTAMINATED LAND RISK ASSESSMENT: A GUIDE TO GOOD PRACTICE, 2001)

CIRIA Report C552, Contaminated Land Risk Assessment A Guide to Good Practice, 2001 sets out a methodology for estimating risk. The methodology for risk evaluation is a qualitative method for interpreting the output for the risk estimation stage of the assessment. It involves the classification of the:

- Magnitude of the potential consequence (severity) of risk occurring
- Magnitude of the probability (likelihood) of the risk occurring

The classification of consequence and probability are set out in table A1 and A2 below

Table A1 Classification of Consequence

Classification	Definition	Examples
Severe (Sv)	Short term (acute) risk to human health likely to result in "significant harm" as defined by the Environment protection Act 1990, Part IIA. Short term risk of pollution of controlled waters. Catastrophic damage to buildings/property. A short-term risk to a particular ecosystem, or organism forming part of such ecosystem	High concentrations of cyanide on the surface of an informal recreation area Major spillage of contaminants from site into controlled water. Explosion causing building collapse (can also equate to a short term human health risk if buildings are occupied.)
Medium (Md)	Chronic damage to Human Health ("significant harm"). Pollution of controlled waters. A significant change in a particular ecosystem, or organism forming part of such ecosystem.	Concentrations of contaminants from site exceeding generic or site specific screening criteria Leaching of contaminants into a major or minor aquifer. Death of species within a designated nature reserve.
Mild (Mi)	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services. Damage to sensitive buildings/structures/services or the environment	Pollution of non-classified groundwater Damage to building rendering it unsafe to occupy. (e.g. foundation damage resulting in instability)
Minor (Mr)	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by measures such as protective clothing etc). Easily reparable effects of damage to buildings, structures and services	The presence of contaminants at such concentration that protective equipment is required during site works. The loss of plants in a landscaping scheme. Discolouration of concrete.

The classification of consequence does not take into account the probability of the consequence being realised. Therefore there may be more than one consequence for a particular pollutant linkage. Both a severe and medium classification can result in death. Severe relates to short term (acute) risk while medium relates to long term (chronic) risk. Mild relates to significant harm but to less sensitive receptors. Minor classification relates to harm which is not significant but could have a financial cost.

Table A2 Classification of Probability

Classification	Definition
High likelihood (Hi)	There is a pollutant linkage and an event that either appears very likely in the short term and almost inevitable in the long term, or there is evidence at the receptor or harm or pollution
Likely (Li)	There is a pollutant linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low likelihood (Lw)	There is a pollutant linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place and is less likely in the short term.
Unlikely (UI)	There is a pollutant linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

The classification gives a guide as to the severity and consequence of identified risk when compared with other risk presented on the site. It should be noted that if a risk is identified it cannot be classified as “no risk” but as “very low risk”. Differing stakeholders may have a different view on the acceptability of a risk.

Once the consequence and probability have been classified these can be compared using a matrix (Table A3) to identify an overall risk category. These categories and the actions required are categorised in Table A4

Table A3 Risk Evaluation Matrix

		Consequence			
		Severe (Sv)	Medium (Md)	Mild (Mi)	Minor (Mr)
Probability	High likelihood (Hi)	Very high risk (VH)	High Risk (H)	Moderate Risk (M)	Mod/low risk (M/L)
	Likely (Li)	High risk (H)	Moderate risk (M)	Mod/low risk (M/L)	Low risk (L)
	Low likelihood (Lw)	Moderate risk (M)	Mod/low risk (M/L)	Low risk (L)	Very low risk (VL)
	Unlikely (UI)	Mod/low risk (M/L)	Low risk (L)	Very low risk (VL)	Very low risk (VL)

Table A4 Risk Categorisations

<p>Very high risk (VH)</p>	<p>There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.</p>
<p>High risk (H)</p>	<p>Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short-term and are likely over the longer-term.</p>
<p>Moderate risk (M)</p>	<p>It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer-term.</p>
<p>Low risk (L)</p>	<p>It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.</p>
<p>Very low risk (VL)</p>	<p>There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.</p>

Reference

Rudland, D J, Lancefield, R M, Mayell, P N; 2001; Contaminated land Risk Assessment. A guide to Good Practice; CIRIA Report C552.

BWB

