

Monmouthshire Housing Association Limited

LAND PARCELS AT MON BANK, NEWPORT

Site Investigation Report

14234/FG/23/SI

CLIENT: Monmouthshire Housing Association Limited

PROJECT: Land Parcels at Mon Bank, Newport

TITLE: Site Investigation Report

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1.0 INTRODUCTION

1.1 GENERAL

Monmouthshire Housing Association Limited are proposing to redevelop two land parcels within the Mon Bank site in Newport for residential end-use. The location of the site is shown on Figure 1, while a site plan is presented in Figure 2.

Intégral Géotechnique (Wales) Limited have been appointed as the Geotechnical Engineers to undertake a site investigation to enable a geotechnical and geoenvironmental appraisal of the site and provide a basis for design.

This report presents the findings of the site investigation and gives recommendations for the design of foundations, floor slabs and other geotechnical and geoenvironmental aspects of the project.

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1.2 PROPOSED DEVELOPMENT

The proposed development will comprise a housing mix including houses, bungalows and flats. The development will include associated infrastructure such as access roads, car parking areas and private driveways and also areas of soft landscaping and private gardens.

A proposed development plan is shown in Figure 3.

1.3 SCOPE OF WORKS

The work instructed included a desk study of available information, site reconnaissance and intrusive investigation. This was followed by laboratory testing, on site monitoring and geotechnical and geoenvironmental reporting.

The desk study comprised a review of:

1.3 SCOPE OF WORKS (CONTINUED)

- An Envirocheck Report obtained for the site
- Old Ordnance Survey maps covering the site, included within the Envirocheck Report
- A Radon GeoReport obtained from the British Geological Survey
- Geological maps of the area provided by the British Geological Survey
- Natural Resources Wales groundwater vulnerability map and aquifer database for the area
- Existing site investigation data

The desk study information was used to make an initial assessment of the site and to design an investigation to be carried out by Intégral Géotechnique. The site investigation was designed in accordance with BS 5930:2015+A1:2020, the Code of Practice for Site Investigations, BS10175:2011+A2:2017, the code of practice for investigation of potentially contaminated sites, and 'Development of Land Affected by Contamination: A Guide for Developers' prepared by Welsh Local Government Association (WLGA)/Natural Resources Wales (NRW) Land Contamination Working Group, 2017.

The site investigation included:

- An intrusive investigation carried out during July and September 2023 comprising the excavation of nine trial pits and seven windowless sample boreholes,
- Soil infiltration testing within selected trial pits,
- Sampling of soil for laboratory chemical and geotechnical testing,
- Monitoring for concentrations of methane, carbon dioxide, oxygen, hydrocarbon vapours and gas flow.

1.4 LIMITATIONS

This document is intended to be a working document for further development in discussion with all concerned including the Local Planning Authority, Natural Resources Wales, and the NHBC as appropriate.

"Contamination" is taken throughout the report to mean the "presence of one or more potentially harmful substances as a result of human activity". The use of the term in this way does not imply that harm is being or might be caused by the contamination. It should be noted that "contamination" can have different meanings under different regulatory regimes, for example, planning, building control and Part IIA of the Environmental Protection Act 1990. Naturally elevated concentrations of potentially harmful substances may also be of concern and the significance of any that have been found is also evaluated in this report.

1.4 LIMITATIONS (CONTINUED)

It is important to recognise that there may be areas of contamination that have not been found, or that contaminants are present at concentrations above those that have been found. It is also important to recognise that contamination may be localised and that no investigation, however comprehensive, is capable of finding such occurrences other than by chance.

It should also be noted that vertical and lateral changes in ground conditions may be present between exploratory hole locations.

Access for the intrusive site investigation was limited at the time due to services and dense vegetation. The densely vegetated areas of the site were not investigated as part of this site investigation.

2.0 THE SITE

2.1 SITE LOCATION AND DESCRIPTION

The site is located within the northern part of the Mon Bank development site approximately 1km south of Newport city centre at a National Grid Reference of 330380, 186770, see Figure 1.

The site is irregular in shape and comprises two land parcels which occupy a total area of approximately 1.2 hectares. The boundaries of the site are defined by the existing railway to the northwest, and existing footpath with a heavily vegetated area beyond to the north, undeveloped land to the east and existing estate roads and residential development to the south. A site plan is presented in Figure 2.

The site is situated on gently sloping ground which typically falls to the north and west towards the railway line. The majority of the site is situated on relatively level ground at an elevation of between 15m and 17m AOD. The southwest corner and the northwest edge of the smaller parcel falls to an elevation of approximately 10m to 12m AOD towards the railway line and falls to an approximate minimum elevation of 14m AOD along the northern edge of the larger land parcel.

The northern parcel is currently undeveloped and laid to a hummocky surface covering of vegetation, semi mature trees and saplings. The north easter corner of this parcel is significantly more densely vegetated than the surrounding area. At the time of the fieldworks several areas within the eastern site area were waterlogged with the soils being highly saturated under foot. Several pathways exist across the northern parcel primarily utilised for dog walkers.

The southern parcel is currently undeveloped and laid to the relatively even surface covering of hard-core material/ballast. Conversations held with staff of Network Rail indicate that the southern parcel is often utilized for storage of ballast and hardcore materials derived from their compound just north of the site. The peripheries of the site are vegetated with sparse semi mature trees and saplings being observed. The southern parcel is currently inaccessible to the public with the boundaries being defined by stone walls to the east, steep embankments to the north and vegetation/ palisade fencing to the south and west.

The two parcels are currently divided by Monmouth Caste Drive bridge/road.

2.2 SITE OPERATIONS

The site is undeveloped and has no current site uses.

2.3 SURROUNDING LAND USE

The area to the south of the site is developed for residential use as part of the wider Mon Bank development. The area to the northeast is currently being developed for residential use and with mixed commercial and residential use beyond the railway to the north and west.

2.4 AVAILABLE SITE INVESTIGATION DATA

A series of ground investigations have been undertaken across the entire Mon Bank development area, which includes the northern land parcels, between circa 1995 and April 2007, comprising a combination of desk studies, trial pitting, cable tool boring and rotary boring. These works have been carried out across the site, and at specific locations, to assess the nature and condition of the made ground soils, underlying natural strata and groundwater, and the extent, nature and concentration of contaminants of concern. A summary of the investigation works is given in Table 1, below:

Table 1: Previous Site Investigations Summary		
Date of Report	Investigation Carried out by	Details
October 1995	Acer Environmental (Extracts comprising factual data only provided in Appendix A)	5 shell & auger boreholes (B01, B02, B10, B17, B18) 13 rotary openhole boreholes (B03-B09 & B11-B16) 36 trial pits (NPTP/T1-36) 16 groundwater monitoring standpipes (B02-B17) Laboratory chemical testing (No geotechnical testing)
November 1996	Dames & Moore (Extracts comprising factual data only provided in Appendix B)	7 trial pits (TP1-7) 7 shell & auger boreholes (DM/D1-7) 7 gas & groundwater monitoring standpipes Laboratory chemical testing Geotechnical testing (Particle size distribution only)
July 2000	Hyder (Extracts comprising factual data only provided in Appendix C)	7 trial pits 3 boreholes Laboratory chemical testing Gas monitoring

2.4 AVAILABLE SITE INVESTIGATION DATA (CONTINUED)

Table 1: Previous Site Investigations Summary (Continued)		
April 2007	Wardell Armstrong (Extracts comprising factual data only provided in Appendix D)	9 shell & auger boreholes (BH1-BH9) – Jan/Feb 2006 8 shell & auger boreholes (BH10-BH17) – June 2006 29 trial pits (TP101-TP129) – June 2006 4 standpipe piezometers (BH10, BH13, BH16, BH17) Laboratory chemical testing (soil, groundwater, surface water) CCTV survey of culvert

Most recently a detailed Site Investigation Report was carried out by Intégral Géotechnique (Wales) Limited for Redrow Homes for the entire Mon Bank development area. The findings were presented within Site Investigation Report Ref: 10566/RB/11/SI/Rev B, dated April 2012. Subsequently a Reclamation and Validation Report was prepared for the wider site area with the findings presented within Report Ref: 11018/TD/14/RRVR. The purpose of the reclamation and remediation works was to render the site suitable for a proposed residential development. The reclamation and remediation works were undertaken across the wider site area including the currently investigated land parcels.

The rotary and shell and auger borehole logs from the 2012 site investigation relevant to the current development site are presented in Appendix A and their locations illustrated on Figures 2 and 3.

2.5 CONSULTATIONS WITH REGULATORS

The regulators have not been consulted at this stage.

3.0 SITE HISTORY

The recent history of the site, which comprises two land parcels, has been traced with the aid of an Envirocheck Report, a copy of which is included in Appendix B. The Envirocheck Report includes the following scaled historical maps:

Map Scale	Dates
1:2,500	1884, 1902, 1921, 1937, 1956-1957
1:1,250	1956, 1966-1973, 1974, 1977-1989, 1993, 1996, 2000 (aerial photo)
1:10,560	1886-1887, 1902, 1922, 1938, 1947 (aerial photo), 1954
1:10,000	1964-1965, 1972-1973, 1981-1982, 1983, 1987, 1999, 2006, 2023

The earliest edition of the map dated 1884 indicated the Alexandra Dock Railway (Southern Branch) constructed on an embankment to run approximately through the centre of the northern area and continuing to the west of the southwest part of the site. The embankment within the northern area of the site was indicated to be heavily wooded. The southwest area was undeveloped at this time with the western boundary formed by the Monmouthshire Section Western Valleys Line of the Great Western Railway. The surrounding areas were typically undeveloped, apart from the railway lines, and crossed by a network of reens including Nant Melyn Reen directly to the east and Twenty Acres Reen approximately 130m to the south.

The 1902 edition of the map indicated the site to have remained relatively unchanged. The railway network had expanded including the construction of Mendalgylf Sidings approximately 330m to the south of the site which followed the route of the Alexandra Dock Railway. Maes-glas Sidings had also been constructed to the southwest of the site. Residential development had taken place beyond the railway approximately 50m to the north of the site.

By the 1921 edition of the map the railway network had expanded significantly with tracks now covering the entire northern area of the site with the embankment forming the northern edge. Evidence of earthworks was indicated within the southwest area with excavations noted which extended off-site to the southeast. A small building was also indicated within the southwest area.

3.0 SITE HISTORY (CONTINUED)

The edition of the map dated 1937 indicated the site to have remained relatively unchanged apart from the building within the southwest area which had increased in size. The railway network had continued to expand in the vicinity of the site. The undeveloped southwest area was indicated to form part of the allotment gardens which extended away from site to the southeast. A large steelworks building had been constructed beyond the railway to the northeast of the site. Residential development continued beyond the railway to the northwest.

By the edition of the map dated 1956-1957 the railway lines which occupied the northern area of the site were known as Monmouthshire Bank Sidings. The southwest area remained undeveloped, but a drain was indicated across the eastern side of the area. The area approximately 20m to the south of the site was now indicated to be a pond. Additional sidings had been constructed approximately 100m to the south of the site.

The edition of the map dated 1966-1973 indicated the site had remained relatively unchanged apart from the partial removal of some railway tracks associated with Monmouthshire Bank Sidings which crossed the northern site area. West Mendalgief Sidings much further to the south of the site and part of Maes-glas Sidings to the southwest had also been dismantled by this time.

By the edition of the map dated 1987 the railway lines which crossed the site had been dismantled and the site cleared of tracks. The area beyond the remaining railway tracks to the southwest was indicated to be a spoil heap.

The year 2000 aerial photo indicated the site to be undeveloped ground with evidence of stockpiles of material and disturbed ground associated with the site clearance and potential landfilling. Railway tracks remained to the northwest of the site and looped around to the southwest and south. New commercial development had been constructed on the spoil heap top the southwest of the site.

Over the years the site and the area to the south and southeast remained undeveloped and covered with scrub vegetation. Reclamation works commenced across the site and the surrounding area by circa 2013 in readiness for residential development which involved the releveling and raising of ground levels. Residential development was complete up to the southeast boundary of the site by 2015 and continued to the south of the site over the subsequent years. Development was complete along the entire southern boundary of the site and across the wider Mon Bank development area by 2018.

4.0 SITE ENVIRONMENTAL SETTING

4.1 PHYSICAL SETTING

The site is situated within a mainly residential setting on the northern edge of the Mon Bank development site.

The majority of the site is situated on relatively level ground at an elevation of between 15m and 17m AOD. The southwest corner and the northwest edge of the smaller parcel falls to an elevation of approximately 10m to 12m AOD towards the railway line and falls to an approximate minimum elevation of 14m AOD along the northern edge of the larger land parcel.

4.2 GEOLOGY

The 1:50,000 scale geological map of the area indicates the site to be underlain by St Maughans Formation of the Devonian period. These rocks typically comprise interbedded purple, brown and green sandstones and red mudstones with intraformational conglomerates containing calcrete clasts.

Superficial Tidal Flat Deposits of Quaternary period are indicated to overlie the solid strata. These deposits typically comprise unconsolidated sediment, mainly mud and/or sand. The geological boundary of these deposits approximately follows the northern and western boundary of the site and therefore these deposits would be anticipated to thin towards the north and west of the site.

A variable thickness of made ground is anticipated above the superficial deposits across the site. Available information suggests that the made ground could be approximately 4m to 6m in thickness and variable in nature containing various construction materials, ashy materials and reworked natural ground.

A summary of the anticipated geological succession is given below in Table 2.

4.2 GEOLOGY (CONTINUED)

Table 2: Summary of Anticipated Site Geology		
Geological unit	Horizon	Description
Recent	Made ground	Various materials including construction materials, ashy materials and reworked natural ground
Quaternary	Tidal Flat Deposits	Unconsolidated sediment, mainly mud and/or sand
Devonian	St Maughans Formation	Interbedded purple, brown and green sandstones and red mudstones with intraformational conglomerates containing calcrete clasts

4.3 RADON

Information with regard to Radon Protective Measures is provided within the Envirocheck Report and the BGS Radon GeoReport as presented in Appendices B and C respectively. The reports state that the site is located within a lower probability area, as less than 1% of properties are above action level, and that therefore no radon protective measures would be necessary in the construction of new buildings within the site.

4.4 MINING

The site is not located within an area that would be affected by any past, present or future underground mining.

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK

The Envirocheck Report indicates that the nearest surface water feature is located 16m to the north of the site. The available maps indicate this to be a small pond. The OS Water Network Lines map indicates the nearest surface water feature to be located 73m to the west. Two additional unnamed features are located 150m and 204m to the northwest. The nearest named feature is Twenty Acres Reen located 383m to the east.

The groundwater vulnerability map and aquifer database classifies the bedrock beneath the site as a Secondary 'A' Aquifer. Secondary 'A' Aquifers are 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.

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK (CONTINUED)

The Natural Resources Wales groundwater vulnerability map and aquifer database classifies the superficial deposits beneath the site as Unproductive Strata. Unproductive strata are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

A perched water body could be encountered within the made ground. This is particularly likely due to the impermeable nature of the underlying Tidal Flat Deposits.

It is considered possible that the existing site drainage could act as a pathway for potential surface contaminants.

There are no active discharge consents recorded within 250m of the site boundary. The nearest consent is recorded 390m to the east where trade and other matter discharge is received by Twenty Acre Reen.

The Envirocheck Report states that there are no water abstractions recorded within 500m of the site. There are no groundwater abstractions recorded within 1km of the site boundary.

Tables 3 and 4 present a summary of the hydrological features and key hydrogeological nature of the site.

Table 3: Summary of Site Hydrology					
Feature	Distance from site	Flow	Classification	Abstraction	Discharge
Pond	16m north	Not known	Pond	No	Not known
Unnamed surface water features	73m west, 150m northwest and 204m northwest	Not known	Inland rivers	No	Not known
Twenty Acres Reen	383m east	Southerly	Inland river	No	Cefn Adda Reen
Surface run-off	On site	Flows into site drainage	N/A	No	Not known
Site Drainage	On site	Not known	N/A	No	Not known

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK (CONTINUED)

Table 4: Summary of Site Hydrogeology				
Geological Unit	Aquifer Classification	Aquifer Characteristics	Source Protection Zone	Groundwater Abstractions
Made ground	Not classified	Highly variable permeability and porosity. Perched water may be present with variable flow directions.	No	None
Tidal Flat Deposits	Unproductive Strata	Negligible permeability and porosity with intergranular flow possible. High clay content likely to restrict flow.	No	None
St Maughans Formation	Secondary A Aquifer	Variable moderate permeability sandstones, mudstones and conglomerates capable of supporting water supplies at a local rather than strategic scale	No	None

The Groundwater Vulnerability map of the area indicates the secondary bedrock aquifer to have a high vulnerability. The pollutant speed is high with well-connected fractures.

The Natural Resources Wales Flood Risk map as presented within the Envirocheck Report indicates that the site is not at risk of extreme flooding from rivers or sea without defences.

The Natural Resources Wales Surface Water Flood Risk map as presented within the Envirocheck Report indicates that the site is not at a high-risk of surface water flooding (1 in 30-year flood extent).

The BGS Groundwater Flooding Susceptibility map as indicated in the Envirocheck Report indicates that the site is not susceptible to groundwater flooding.

4.6 LANDFILL SITES

The site and the area extending to the south is registered as an historical landfill, but no further detail is provided but was operated by Network Rail. The area 16m to the south was also registered as an historical landfill and operated by British Rail. The last input date was 31st December 1976 and deposited waste included inert waste. An additional historical landfill was registered 174m to the southwest, but no further detail is provided.

4.6 LANDFILL SITES (CONTINUED)

The site and the area extending to the south and southeast is registered as a Licensed Waste Management Facility operated by Level of Mendalgief Maesglas Recycling Limited. The site is categorised as landfills taking other wastes (construction, demolition, dredgings).

A registered landfill site is located 187m to the southeast where the waste source was produced and controlled by Railtrack Plc. Authorised waste included hardcore and rubble, other materials, railway ballast, timber and other organic material. Prohibited waste included poisonous, noxious, polluting waste and putrescible waste.

There are eight areas of Potentially Infilled Land (water) located within 250m of the site boundary. The areas are located 8m south, 183m southeast and 220m southeast at the location of former ponds and 35m northeast, 137m northeast, 160m east, 166m east and 198m northeast at the location of former streams/reens.

4.7 POTENTIAL CONTAMINATION

Previous Uses

The various activities in the vicinity of the site which may have resulted in ground or water resource contamination on this site are listed below in Tables 5 and 6. Reference to Department of the Environment Industry Profiles has been made and a summary of the potential contaminants can be found in the tables.

Table 5: Potential Contaminants		
Land Use: Railway land from pre-1880		
Material/Process	Contamination/Hazard	Evidence
Construction of the railway tracks and subsequent expansion which may have utilised imported materials of unknown origin and evidence of earthworks within the southern area which may also have involved the use of imported materials	Metals, semi metals, non-metals, PAH, asbestos	Historical maps
Use and maintenance of the railway tracks	Petroleum hydrocarbons, polychlorinated biphenyls, PAH, solvents, ethylene glycol, creosote, herbicides, metals, asbestos	D of E Industrial Profile

4.7 POTENTIAL CONTAMINATION (CONTINUED)

Table 5: Potential Contaminants (Continued)		
Land Use: Reprofilling works/earthworks since 1970's and use as a landfill		
Material/Process	Contamination/Hazard	Evidence
Removal of the railway tracks which would have disturbed the ground and may have utilised imported materials of unknown origin	Metals, semi metals, non-metals, PAH, asbestos	Historical maps
Use as a landfill typically comprising inert/ballast recycling with accepted wastes including hardcore, rubble, other mineral, railway ballast, timber and other organic material	Metals, semi metals, non-metals, PAH, asbestos and potential organic/hydrocarbon contamination associated with the railway ballast	Historical maps/Envirocheck Report
Land Use: Site reclamation and remediation works during 2012-2014		
Material/Process	Contamination/Hazard	Evidence
Provision of an engineered formation free from obstructions with remediation/reclamation works to reprocess the top 2m of the site formation and reprocess suitable materials for re-use	Metals, semi metals, non-metals, PAH, petroleum hydrocarbons, asbestos	Available information

Existing Uses

Since reclamation and remediation of the site it has remained undeveloped. Following reclamation works hot spots/areas of PAH compounds remained within the shallow soils. The current uses would not add any additional contamination concerns.

Adjacent Site Uses

Table 6: Potential Contaminants: Adjacent Site Uses		
Potential Contamination Source	Boundary	Associated Contaminants and Hazards
Railway line	Western and north western	Metals, semi metals, non-metals, PAH, petroleum hydrocarbons, asbestos
Undeveloped land	Northern and eastern	No Potential Contaminants
Residential development	Southern	No Potential Contaminants

4.8 OTHER ENVIRONMENTAL ISSUES

The Envirocheck Report indicates that there is no environmentally sensitive land indicated within 500m of the site boundary.

There is one effective Local Authority Pollution Prevention and Control in place within 250m of the site. The permit is for a petrol filling station located 145m to the southwest.

The Envirocheck Report indicates that there have been no pollution incidents to controlled waters recorded on site or within 500m of the site boundary.

There have been no substantiated pollution incidents registered on site but one recorded within 500m of the site boundary. The incident was recorded 38m to the north where storm sewage caused a significant impact on water but no impact on air or land.

There have been no prosecutions relating to controlled waters or to authorised processes recorded on site or recorded within 1km of the site boundary.

There is one active Contemporary Trade Directory within 250m of the site boundary associated with the petrol filling station located 136m to the southwest.

There is scrub vegetation present within the site, but it is not known if any invasive plant species are present. It may be prudent to undertake a vegetation survey prior to development.

5.0 PRELIMINARY CONCEPTUAL SITE MODEL

5.1 RISK ASSESSMENT FRAMEWORK

In order to be consistent with current UK government policies and legislation, it is necessary to identify, assess, estimate, evaluate, and take appropriate action to deal with land contamination, in accordance with the procedures specified in the Environment Agency guidance Land Contamination Risk Management (LCRM) published in October 2020. This replaces the now withdrawn 'Model Procedures for the Management of Land Contamination CLR-11' (Environment Agency 2004).

The risk assessment process is designed to provide a reasoned, structured and pragmatic mechanism for the identification of any potential human health and controlled waters risks associated with land contamination and where necessary to develop a robust remediation strategy to ensure protection of the sensitive receptors (human health of future residents, controlled waters, etc).

In accordance with LCRM, the term 'land contamination' is defined as:

- All land affected by contamination – land that might have contamination present which may, or may or may not, meet the statutory definition of contaminated land,
- Land determined as contaminated land under Part 2A of the Environmental Protection Act 1990.

LCRM provides a tiered approach to risk assessment, comprising a preliminary risk assessment (including the development of an initial conceptual site model), a generic quantitative risk assessment and a detailed quantitative risk assessment. For each tier of risk assessment, the following steps must be followed:

1. Identify the hazard - establish contaminant sources,
2. Assess the hazard – use a source-pathway-receptor linkage approach to determine if there is potential for unacceptable risk,
3. Estimate the risk – predict what degree of harm or pollution may result and how likely it is to occur, and
4. Evaluate the risk – decide whether a risk is unacceptable.

LCRM also provides definitions of the following terms:

- Hazard – a property or situation that in particular circumstances could lead to harm or pollution,

5.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

- Risk – a combination of the probability, or frequency of occurrence of a defined hazard and the magnitude of the consequences of the occurrence,
- Risk assessment – the formal process of identifying, assessing and evaluating the health and environmental risks that may be associated with a hazard,
- Risk management – the formal process to identify, assess and determine the risks, and to select and take action to mitigate them.

The three essential elements to any risk are defined by LCRM as follows:

- A contaminant, or pollutant, that is in, on, or under the land and that has the potential to cause harm, or pollution (Source)
- A route by which a receptor is, or could be affected by a contaminant (Pathway)
- A receptor, i.e. something that could be adversely affected by a contaminant, for example a person, controlled waters, an organism, an ecosystem, or Part 2A receptors such as buildings, crops or animals (Receptor).

In order for there to be a potential risk, all three of the above elements must be present. If there is a source of contamination and a receptor (for example a resident or site user), then there is only a potential risk if there is a pathway linking the two. Such an active pathway is known as a relevant pollutant linkage. It is possible for the same contaminant to be linked to a receptor via a number of pathways, and hence it is important that all relevant pollutant linkages, to both human health and controlled waters, are separately identified on a site in order that a comprehensive conceptual model can be formed and ultimately a robust remediation strategy designed.

Current practice during Generic Quantitative Risk Assessment of land affected by contamination is to use generic soil screening values based on the appropriate proposed end use. These usually comprise risk based Soil Guideline values (SGVs) or Generic Assessment Criteria (GACs) derived by the Environment Agency's Contaminated Land Exposure Assessment Model (CLEA). The SGVs and the supporting technical guidance were developed in order to assist in the assessment of long term risk to human health from the exposure to contaminated soils.

Revised Statutory Guidance, published in 2012, to support Part 2A of the Environmental Protection Act 1990, introduced a new four category system for classifying land under Part 2A. Category 1 includes land where the level of risk is clearly unacceptable and Category 4 includes land where the level of risk posed is considered to be acceptably low. Under Part 2A, land would be determined as contaminated if it falls within Categories 1 or 2.

5.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

The revised Part 2A Statutory Guidance was accompanied by an Impact Assessment that identified a role for new 'Category 4 Screening Levels' (C4SLs) that would provide a simple test for determining when land is suitable for use and definitely not contaminated land. A Policy Companion Document including the C4SLs was published in March 2014 (England) and May 2014 (Wales).

The C4SLs have been based on the CLEA methodology and derived using the CLEA model, with modified toxicological and exposure parameters. To date, C4SLs have been released for six substances (arsenic, cadmium, chromium (VI), lead, benzo(a)pyrene and benzene).

The C4SLs have been derived on the assumption that where they exist, they will be used as generic screening criteria within generic quantitative risk assessment.

Following publication of the C4SLs, Land Quality Management (LQM), in conjunction with the Chartered Institute for Environmental Health (CIEH) released Suitable 4 Use Levels (S4ULs) in January 2015.

The S4ULs have been derived in accordance with UK legislation, and using a modified version of the Environment Agency's CLEA software. As such, the S4ULs are based on the concept of minimal or tolerable risk as described in Human Health Toxicological Assessment of Contaminants in Soil (Science Report SR2, Environment Agency 2009a).

S4ULs have been derived for a wider number of substances.

In addition to the existing SGVs, C4SLs and S4ULs, Atkins ATRISK^{soil} also provide a set of Soil Screening Values. These are currently intended to be used in conjunction with SGVs, although they intend to update these values in line with the C4SLs in due course.

We have reviewed all sets of values and intend to use the most appropriate assessment criteria as Tier 1 screening values in the first instance. Where a published S4UL is available, and considered appropriate, this will be used in the first instance.

5.2 CONCEPTUAL MODEL FRAMEWORK

The preliminary stage of the risk assessment process is to develop and define a conceptual site model, based on the desk study and any existing site investigation data. This is used to establish any potential contaminant sources, identify existing and future receptors and assess if there are any potentially active pathways by which a potential risk may be present.

5.2 CONCEPTUAL MODEL FRAMEWORK (CONTINUED)

The preliminary conceptual site model will be developed and refined as site specific data is gathered, such as actual ground conditions and chemical data, resulting in a more robust conceptual understanding of the site.

5.3 CRITICAL SENSITIVE RECEPTOR – HUMAN HEALTH

The proposed redevelopment of the site is for a residential end use. Therefore, the critical sensitive receptor from a human health perspective is an on-site residential receptor.

In accordance with S4UL/C4SL and CLEA guidance for a standard residential with homegrown produce scenario, the critical sensitive receptor for a residential end use risk assessment is a female child, with exposure from 0 to 6 years.

The standard residential with homegrown produce end use conceptual model defined by S4UL/C4SL and CLEA is assumed to be suitable for the purposes of this assessment.

5.4 CRITICAL SENSITIVE RECEPTOR – CONTROLLED WATERS

Based on the proposed redevelopment of the site for a residential end use, and the findings of the desk study, the critical sensitive receptor from a controlled water perspective is groundwater within the Secondary 'A' Aquifer of the St Maughans Formation.

By considering groundwater as the critical sensitive receptor for controlled waters, the groundwater/hydrogeological risk assessment will also be protective of any nearby surface water features.

5.5 POTENTIAL CONTAMINANT SOURCES

As identified in the desk study, the site was railway land from pre-1880's with railway tracks occupying the northern area of the site. The site was subsequently reprofiled and the railway tracks were removed. The site was utilised as a landfill site with wastes including hardcore, rubble, other mineral, railway ballast, timber and other organic material. The site was reclaimed and remediated between 2012 and 2014 which involved the reprocessing of the top 2m of the site formation and the reprocessing of suitable materials for re-use. Following completion of the reclamation and remediation works hot spots/areas remained within the site.

The potential types of contaminants of concern are listed below:

5.5 POTENTIAL CONTAMINANT SOURCES (CONTINUED)

- Metals, semi-metals, and inorganics within the shallow made ground,
- Polyaromatic hydrocarbons (PAH) within the shallow made ground,
- Petroleum Hydrocarbons (VPH/EPH) within the shallow made ground,
- Asbestos within the shallow made ground.

5.6 POTENTIAL EXPOSURE PATHWAYS

Potential exposure pathways for the critical receptors (both human health and controlled waters) are listed below:

- Dermal contact with soil and/or soil derived dust,
- Ingestion of soil and/or soil attached to home-grown produce,
- Ingestion of home-grown produce,
- Inhalation of soil derived dust,
- Inhalation of vapours – indoor and outdoor air,
- Leaching of contaminants from made ground to groundwater,
- Transportation of contaminants within groundwater.

In addition, the following exposure pathways have also been considered:

- Ground gas generation and migration,
- Building materials durability.

5.7 SUMMARY OF CONCEPTUAL EXPOSURE MODEL

A preliminary conceptual exposure model has been developed for the site. This is based on the findings of the desk study, historical review and site walk over and includes all potential sources, pathways and receptors that may be present on site. Those that have been identified as being potentially active require further investigation in the form of sampling and testing of soils and groundwater, followed by appropriate risk assessment.

The preliminary conceptual exposure model will be reviewed and refined following the completion of the site works and laboratory testing.

The preliminary conceptual exposure model is presented below in Table 7.

5.7 SUMMARY OF CONCEPTUAL EXPOSURE MODEL (CONTINUED)

Table 7: Preliminary Conceptual Exposure Model				
Source		Receptor	Pathway	Potentially Active Pathway?
Origin	Contaminant			
Made Ground of unknown origin and historical land uses	Metals, semi-metals, non-metals, PAH, petroleum hydrocarbons, asbestos,	Resident – human health	Dermal Contact with made ground/dust	✓
			Ingestion of soil and/or soil attached to home-grown produce	✓
			Ingestion of home-grown produce	✓
			Inhalation of dust	✓
			Inhalation of vapours – indoor/outdoor	✓
	Metals, semi-metals, inorganics, PAH, petroleum hydrocarbons	Groundwater quality	Leaching from made ground	✓
	Metals, semi-metals, inorganics, PAH, petroleum hydrocarbons	Surface water quality	Transportation within groundwater	✓
Made Ground of unknown origin and natural ground	pH and water-soluble sulphate	Building Materials Durability	Direct contact	✓
Ground Gas – organic, gas producing materials	Methane, carbon dioxide	Human health	Accumulation of gases in confined spaces, and/or migration off site, leading to asphyxiation, or risk of explosion	✓

6.0 THE SITE INVESTIGATION

6.1 FIELDWORKS

A site investigation was designed in accordance with BS 5930:2015+A1:2020, the Code of Practice for Site Investigations, BS10175:2011+A2:2017, the Code of Practice for Investigation of Potentially Contaminated Sites, and 'Development of Land Affected by Contamination: A Guide for Developers' prepared by Welsh Local Government Association (WLGA)/Natural Resources Wales (NRW) Land Contamination Working Group, 2017.

The site investigation was also designed to provide information to support and refine the preliminary conceptual site model/conceptual exposure model.

An investigation comprising the drilling of 5 No. windowless sample boreholes was carried out on 10th July 2023 and a further 5 No. windowless sample boreholes and 7 No. trial pits, was carried out during 26th and 27th September 2023.

The boreholes were located across the site and drilled to a maximum depth of 5.0m below existing ground level. The purpose of the boreholes was to prove the deeper ground conditions and allow an assessment of the most appropriate foundation type for the proposed development. In situ strength testing (SPT/CPTs) was carried out in the boreholes. Shallow ground gas and deeper groundwater monitoring standpipes were installed within select boreholes to allow both ground gas and groundwater to be monitored, sampled and tested.

The trial pits were located across the site and excavated to a maximum depth of 3.0m below existing ground level using a 3 tonne tracked excavator. The purpose of the trial pits was to prove the shallow ground conditions, obtain soil samples for laboratory analysis, and to allow an assessment of the most appropriate foundation type for the proposed development.

Soil infiltration testing was carried out in 4 No. trial pits in order to assess/monitor the likely permeability of the underlying soils. The soil infiltration testing was undertaken within shallow 0.5m depth trial pits before being extended deeper to assess the ground conditions after data on the infiltration has been recorded.

Representative soil samples were taken from the trial pits/boreholes for laboratory chemical and geotechnical testing and placed in the appropriate sample containers deemed suitable for the analysis required. Strict protocols were adopted during this process to limit the cross contamination of samples.

6.1 FIELDWORKS (CONTINUED)

A programme of gas monitoring was commenced as soon as the site works were complete.

The fieldworks were supervised by a qualified Geotechnical Engineer from Intégral Géotechnique (Wales) Limited who also logged the trial pits/boreholes and prepared their detailed engineering logs in accordance with the requirements of BS5930:2015+A1:2020. The engineering logs provide descriptions of the materials encountered in accordance with BSEN ISO 14688-1 (2002) and 14689-1 (2003) for soils and rocks respectively.

The approximate locations of the trial pits and windowless sample boreholes are shown on Figure 2, while their logs are presented in Appendices D and E, respectively. The results of the soil infiltration testing are presented in Appendix F.

6.2 FIELD OBSERVATIONS

No visual or olfactory evidence of any contamination was observed during the excavation/drilling of the trial pits and windowless sample boreholes.

6.3 LABORATORY CHEMICAL TESTING

Representative soil samples were taken from the trial pits and windowless sample boreholes across the site, stored at the appropriate temperature and dispatched to the laboratories of i2 Analytical Limited for laboratory chemical testing within 24 hours.

The samples were tested for a range of contaminants that reflects the historical use of the site, the findings of the desk study and the preliminary conceptual site model/conceptual exposure model. A list of the soil testing carried out is given below:

Beryllium	Cadmium
Total Chromium	Hexavalent Chromium (VI)
Copper	Lead
Mercury	Nickel
Vanadium	Zinc
Arsenic	Boron
Selenium	Elemental Sulphur
Total Cyanide	Total Sulphate
Sulphide	Water Soluble Sulphate
pH	Monohydric Phenol
Polyaromatic Hydrocarbons (PAH)	Petroleum Hydrocarbons (VPH/EPH)

6.3 LABORATORY CHEMICAL TESTING (CONTINUED)

All soil samples were also screened for the presence of Asbestos.

The results of the laboratory soil chemical testing are presented in Appendix G.

6.4 LABORATORY GEOTECHNICAL TESTING

During the site investigation works representative soil samples of made ground and natural ground were also taken and dispatched to the laboratories of GSTL for laboratory geotechnical testing including pH, water soluble sulphate, Atterberg Limits and water content.

The result of the geotechnical testing is presented in Appendix H.

6.5 IN-SITU GAS MONITORING

Gas monitoring standpipes were installed in four of the windowless sample boreholes and these have been monitored at fortnightly intervals following completion of the respective fieldworks.

The gas monitoring programme for the northern parcel commenced on 21/07/2023 while the monitoring programme for the southern parcel commenced on the 06/10/2023.

The concentration levels of methane, carbon dioxide and oxygen were measured in the standpipes during each visit by using a GA5000 Landfill Gas Analyser. In addition, gas flow rate and the atmospheric pressure at the time of the field measurements were also recorded.

Gas monitoring was carried out over a range of atmospheric pressures to include at least one reading in low and/or falling pressure, in accordance with the recommendations made in CIRIA Report C665.

At the time of writing the programme of gas monitoring was on going. A complete set of ground gas monitoring results will be forwarded as a revision to this report upon completion of the monitoring programme.

The results of the field gas monitoring to date are presented in Appendix I.

7.0 GROUND CONDITIONS

The ground conditions underlying the site generally comprised a surface covering of topsoil/ made ground overlying further deep variable made ground deposits. Occasionally, natural alluvial soils were encountered underlying the made ground, comprising clays and peat.

It is understood that the northern and southern parcels have undergone reclamation and remedial earthworks as part of the wider Mon Bank development. As such, much of the made ground has been civilised and created difficult drilling and excavation conditions.

7.1 TOPSOIL

A surface covering of topsoil was occasionally encountered across the northern land parcel. The topsoil was proven to be approximately 0.15m/0.2m thick and generally comprise soft brown and reddish brown slightly sandy gravelly silty organic rich clay or very soft reddish/ orangish brown gravelly silt.

The topsoil was typically recorded as organic with occasional roots and rootlets throughout.

The gravel constituents typically comprised fine to coarse angular to sub-rounded mudstone and sandstone.

7.2 MADE GROUND

Made ground was encountered at every exploratory location either underlying the topsoil or encountered directly at the surface where no topsoil was recorded.

The made ground was typically encountered from 0.0m/0.2m and proven to extend to depths ranging between 2.1m and >5.0m below existing ground level.

The made ground was typically variable in nature and comprised a mixture of fill and reworked natural materials. Within many locations, the base of the made ground was not proven.

The made ground comprised variable layers of cohesive and granular material generally comprising medium dense, reddish brown/brown/grey/black silty ashy sandy, sometimes locally clayey gravel or firm/ stiff brown silty gravelly clay.

7.2 MADE GROUND (CONTINUED)

The gravel constituents of the made ground typically comprised angular to rounded sandstone, mudstone, ash, vesicular and vitreous slag, brick, concrete, clinker and coal. Local inclusions of metal, timber and plastic were also occasionally recorded.

Low to high cobble and boulder contents were frequently recorded which typically comprised sub-angular and sub-rounded brick, concrete, and sandstone.

Locally, towards the interface of the base of the made ground and natural soils, a layer of soft/firm blueish grey gravelly silt/ clay was recorded. It is considered that this layer is a layer of reworked alluvial soil that has been disturbed as a result of previous earthworks undertaken across the site.

Locally, frequent layers of sand were encountered which comprised loose /medium dense dark grey and brown clayey gravelly fine to coarse sand. The gravel in these layers typically comprised fine to coarse angular limestone, ash and sometimes coal.

The base of the made ground was not proven within locations TP01, TP05, TP06, TP07, WS04, WS06 to WS10 inclusive.

Uncorrected SPT 'N' values recorded within the made ground range between 2 and 50 indicating the materials range between very soft/very loose to very stiff/ dense. It should be noted that lower N values were encountered locally and at depths of circa. 3m. An SPT N value plot is presented in Figure 4.

Laboratory plasticity testing undertaken on samples of natural soils recorded plasticity indices ranging between 18% and 36%. The calculated modified plasticity indices of 15.5% and 32.8%, indicate this stratum has a medium volume change potential.

7.3 SUPERFICIAL SOILS

When encountered beneath the made ground, the natural alluvial soils were found to extend from depths ranging between 2.1m and 3.9m and proven to depths of >5.0m below existing ground level.

It should be noted that the depth to natural soils was variable and locally the natural soils were not encountered where made ground was thicker and extended beyond 5.0m.

The highly variable depths to in-situ natural strata are reflective of much of the site having been raised and undergoing previous earthworks.

7.3 SUPERFICIAL SOILS (CONTINUED)

When encountered, the alluvial soils generally comprised very soft/ soft / firm blueish and brownish grey slightly gravelly clay / silty organic clay.

Locally at TP03 and TP04 the natural alluvium contained occasional cobble and boulder sized minor inclusions of peat. These inclusions comprised black spongy pseudo fibrous peat.

The gravel constituents of the alluvium generally comprised fine to coarse angular to sub-rounded mudstone and sandstone.

The organic soils / peat pockets recorded across the site are indicative of alluvial deposits. These layers commonly have high organic and water contents and can be highly compressible in nature.

Uncorrected SPT 'N' values recorded within the natural soils ranged between 2 and 13.

Laboratory plasticity testing undertaken on a sample of natural soils recorded a plasticity index of 24%. The calculated modified plasticity indices of 24%, indicates this stratum has a medium volume change potential.

7.4 DEEPER GROUND CONDITIONS AND SOLID STRATA

During previous investigations across the wider Mon Bank site area, several boreholes were drilled comprising shell and auger, rotary open hole, and rotary cored boreholes.

Boreholes BHS1, BHS2, BHS11, BHR1, BHR2, BHR18, BHA and BHB are the most relevant to this site investigation as they were drilled within and around the current site area.

The majority of the boreholes encountered made ground from depths ranging from ground level to 4.1m/10.2m below existing ground level.

BHA and BHB were drilled within the railway cutting for the new bridge construction at the entrance to the site. These boreholes encountered made ground from ground level but only extended to 0.6/1.2m below existing ground level.

Underlying the made ground superficial soils were encountered which extended to depths ranging from 9.4m and 13.2m. BHA and BHB drilled within the very northern extent of the site encountered the superficial soils to a maximum depth of 4.2m and 2.0m respectively.

7.4 DEEPER GROUND CONDITIONS AND SOLID STRATA (CONTINUED)

Bedrock was encountered at variable depths underlying the superficial soils ranging between depths of 4.1m/10.2m and typically comprised either mudstone/marl or sandstone.

The mudstone was encountered within the majority of boreholes drilled and typically comprised highly weathered red silty mudstone recovered as stiff red brown clay with frequent mudstone lithorelicts or a very weak highly weathered red brown locally grey and brown mudstone.

Sandstone was primarily encountered interbedded with the mudstone. However, it was encountered immediately underlying the superficial soils within BHS11 and BHB. The sandstone comprised a moderately weak to strong / becoming strong moderately weathered red brown medium to coarse grained sandstone.

Within BHB, a conglomerate was also encountered interbedded throughout the sandstone and mudstone. The conglomerate was recorded as a strong red brown and grey moderately weathered well cemented conglomerate. The clasts were recorded to be matrix supported randomly orientated and up to 8mm in diameter.

Throughout all the rock mass encountered within the boreholes frequent discontinuities were encountered comprising bedding and fractures. The fractures were often recorded as infilled with occasionally soft sandy clay throughout.

7.5 GROUNDWATER

No perched or standing groundwater was encountered within any exploratory hole during the current site investigation.

During the 2012 investigation groundwater was encountered at depth within the boreholes.

Water strikes in the boreholes ranged from 3.7mbgl in BHS11 to 14mbgl in BHR1, within the natural ground. The water levels were observed to rise over a period of 20 minutes in the shell and auger boreholes, generally rising approximately 0.4m/0.5m.

The groundwater conditions are based on observations made at the time of the fieldwork. It should be noted that groundwater levels may vary due to seasonal and other effects.

A summary of the borehole groundwater strikes is provided below in Table 8.

7.5 GROUNDWATER (CONTINUED)

Table 8: Summary of Groundwater Levels				
Borehole	Depth to Groundwater (mbgl)	Approximate Ground Level (mAOD)	Approximate Groundwater Level (mAOD)	Stratum
BHR1	14.0	16.5	2.5	Marl
BHR2	13.5	16.4	2.9	Marl
BHR18	11.0	14.7	3.7	Marl
BHS1	7.0	15.3	8.3	Organic Clay
BHS2	7.9	16.0	8.1	Made Ground
BHS11	3.7	15.4	11.7	Made Ground
BHS11	6.5	15.4	8.9	Gravelly Clay

7.6 SOIL INFILTRATION TESTING

Soakaway testing was carried out in four trial pits (TP01 to TP04 inclusive).

The trial pits were excavated to a depth of 0.5m to allow the shallow infiltration rate to be recorded. Once the data on the infiltration had been recorded the pits were then bailed out and excavated further to assess the shallow ground conditions in the respective areas of the site.

The trial pits were rapidly filled with water from a towed bowser and the water level monitored over a period of time.

Insufficient infiltration was observed in all test locations, and it was not possible to calculate a design infiltration rate/soil permeability.

The soil infiltration test calculation sheets are presented in Appendix F.

The soil infiltration test results are specific to the location and depths of the tests undertaken.

It should also be noted that this initial testing should only be regarded as indicative. If it should be proposed to use soakaways for this site, then more extensive follow-up tests will be required and should fully comply with BRE 365, in order to confirm the suitability of the site and to satisfy the local authority.

8.0 CONTAMINATION

8.1 AVERAGING AREAS

In order to assess the laboratory test results reliably and in context, the data have been grouped into an averaging area. An averaging area (or area of interest) is that area of soil to which a receptor is exposed or which otherwise contributes to the creation of hazardous conditions. This may be an area of historical industrial usage, a soil type, or a specific proposed end use.

In the case of this analysis, the averaging area has been determined according to the proposed residential end use.

8.2 SOIL CONTAMINATION

The Suitable 4 Use Levels (S4ULs) published by LQM have been adopted as critical concentrations against which soil contaminant concentrations can be compared. In the absence of additional published S4ULs, the Category 4 Screening Levels (C4SLs) derived by DEFRA and Soil Screening Values (SSVs) derived by Atkins ATRISK^{soil} for a residential with home grown produce end use have been adopted, where considered appropriate.

Since the results of the testing indicate total organic carbon content (TOC) in the range of 0.8% to 3.2%, the results have been compared to the respective guidelines, where applicable, for 1% soil organic matter content.

The soil test results for topsoil and made ground have been summarised and are shown in Appendix J.

8.2.1 *Made Ground*

The results of the laboratory testing indicate that most of the analysed chemical elements or compounds are present at concentrations below the appropriate thresholds. However, the initial screening indicates exceedances of lead and several speciated PAH compounds.

A singular exceedance of lead was detected within a sample of made ground from TP07 at 0.1m depth. The concentration of 210mg/kg narrowly exceeds the published C4SL threshold value of 200mg/kg for a residential with home grown produce end use.

A singular exceedance of Benzo(a)pyrene was detected within a sample of made ground taken from TP04 at 0.4m depth. The concentration of 4mg/kg exceeds to respective published S4UL threshold value of 2.2mg/kg.

8.2 SOIL CONTAMINATION (CONTINUED)

Benzo(b)fluoranthene was detected within several samples of made ground from locations WS04, WS05 and TP04 at respective depths of 0.4m, 0.1m and 0.4m. The concentrations of 2.7mg/kg, 2.7mg/kg and 5mg/kg exceed the published S4UL threshold value of 2.6mg/kg.

Dibenzo(ah)anthracene was detected within several samples of made ground from locations WS01, WS03, WS04, WS05 and TP04 at respective depths of 0.4m, 0.3m, 0.4m, 0.1m and 0.4m. The concentrations of 0.33mg/kg, 0.33mg/kg, 0.26mg/kg, 0.37mg/kg, and 0.44mg/kg exceed the published S4UL threshold value of 0.24mg/kg.

No further exceedances were detected within the samples of made ground.

8.2.2 In-situ Superficial Deposits

No visual or olfactory evidence of contamination of the in-situ superficial deposits was identified during the drilling of the boreholes/ excavation of the trial pits.

At the time of writing this report no samples of insitu superficial deposits had been tested. It is considered likely that concentrations of determinants within the natural ground are likely to be naturally occurring and as such, the natural ground poses no significant threat to human health or the environment.

8.3 GROUND GASES

Ground gas was monitored on a fortnightly basis using a GA 5000 Gas Analyser. The results of the gas monitoring programme to date are included in Appendix H.

A summary of the results is given in the following Table 8.

Table 8: Summary of Ground Gas Results				
Borehole	Maximum Methane Concentration (%)	Maximum Carbon Dioxide Concentration (%)	Minimum Oxygen Concentration (%)	Gas Flow Rate (l/hr)
WS01	18.1	0.5	1.9	<0.3
WS02	0.4	6.1	5.4	<0.3
WS04	0.2	1.3	17.8	<0.3
WS06	0.3	0.7	18.9	<0.3

Note: Results of WS06 are based on three rounds of monitoring completed to date.

8.3 GROUND GASES (CONTINUED)

It should be noted that WS01, WS02 and WS04 were drilled across the northern land parcel, while WS06 was drilled within the southern land parcel.

Across the combined site, the results show a maximum methane concentration of 18.1% and a maximum carbon dioxide concentration of 6.1%. A maximum gas flow rate of <0.3l/hr was measured during the gas monitoring programme to date.

9.0 REVISED CONCEPTUAL EXPOSURE MODEL

The preliminary conceptual exposure model has been reviewed and revised to reflect the findings of the site investigation and the results of the laboratory testing of soils, soil leachate, groundwater and gas monitoring. Pathways identified as a relevant pollutant linkage require appropriate risk assessment or mitigation measures (see Section 10).

Table 9: Revised Conceptual Exposure Model

Table 9: Revised Conceptual Exposure Model						
Source		Receptor	Pathway	Preliminary Active Pathway ? (see Sect. 5.7)	Relevant Pollutant Linkage	Justification/ Mitigation
Origin	Contaminant					
Made Ground of unknown origin and historical land uses	Metals, semi-metals, non-metals, PAH, petroleum hydrocarbons, Asbestos	Resident – human health	Dermal Contact with made ground/dust	✓	✓	Elevated concentrations of lead and PAH compounds identified within the made ground – Risk Assess.
			Ingestion of soil and/or soil attached to home-grown produce	✓	✓	
			Ingestion of home-grown produce	✓	✓	
			Inhalation of dust	✓	✓	
			Inhalation of vapours – indoor/outdoor	✓	X	No sufficiently volatile contaminants identified.
	Metals, semi-metals, inorganics, PAH, petroleum hydrocarbons	Groundwater quality	Leaching from made ground	✓	X	No significantly elevated leachate concentrations identified.
	Metals, semi-metals, inorganics, PAH, petroleum hydrocarbons	Surface water quality	Transportation within groundwater	✓	X	No significantly elevated groundwater contamination identified.

9.0 REVISED CONCEPTUAL EXPOSURE MODEL (CONTINUED)

Source		Receptor	Pathway	Preliminary Active Pathway?	Relevant Pollutant Linkage	Justification/ Mitigation
Origin	Contaminant					
Made Ground of unknown origin and natural ground	pH and Water-Soluble Sulphate	Building Materials Durability	Direct contact	✓	✓	Building materials will be in contact with made ground. – Risk Assess
Ground Gas – organic, gas producing materials	Methane, carbon dioxide	Human health	Accumulation of gases in confined spaces, and/or migration off site, leading to asphyxiation, or risk of explosion	✓	✓	Significant elevations of Methane, Carbon Dioxide and Monoxide detected. Gas monitoring programme ongoing. – Risk Assess

10.0 RISK ASSESSMENT

10.1 METHODOLOGY

The risk of pollution, health effects or environmental harm occurring as a result of ground contamination is dependent upon three principal factors:

- The scale of the contamination sources;
- The presence of sensitive “receptors”, eg Humans: health of the general public, site occupiers, redevelopment workers. Environment: flora, fauna, etc;
- The existence of migration pathways by which contaminants can reach the sensitive receptors.

This section assesses each of these factors in order to evaluate the overall level of risk and potential harm to receptors. The receptor may be human, a water resource, an eco-system or construction materials. Pathways connecting a perceived hazard to a receptor are referred to as exposure pathways.

The sources of contamination and the links connecting the hazards to the sensitive receptors will represent the basis for the risk assessment.

10.2 SOURCE-PATHWAY-RECEPTOR MODEL

The preliminary conceptual site model was based on the findings of the desk study. This was later reviewed and refined according to the findings of the site investigation, allowing for the ground conditions encountered and the results of laboratory testing of soil and groundwater. Any pathways considered to be inactive were removed from the model and all remaining potentially active pathways require risk assessment.

The pathways shown as potentially active in the Revised Conceptual Site Model in Section 9.0 above have been assessed below.

10.3 HUMAN HEALTH RISK ASSESSMENT

10.3.1 *Site in its Present Condition*

The site does not pose any risks to casual visitors or trespassers.

10.3 HUMAN HEALTH RISK ASSESSMENT (CONTINUED)

10.3.2 Future Site Users

The contamination test results, and investigation observations show elevated concentration levels in the topsoil and made ground (at shallow depth) of lead and several polyaromatic hydrocarbon compounds only.

Given the elevated lead and PAH concentrations within the general made ground encountered across the site, it is considered that a potential risk to human health may exist via the following relevant pollutant linkages:

- Dermal contact,
- Ingestion of soil or soil derived dust,
- Ingestion of soil attached to homegrown produce,
- Ingestion of homegrown produce,
- Inhalation of soil bourn dust.

The inhalation of vapours pathways (indoor and outdoor air) are not considered to be active since the contaminants of concern identified are not sufficiently volatile.

It is therefore considered necessary to protect end users from the elevated concentrations of PAH in the shallow made ground. It is considered necessary to break the above listed relevant pollutant linkages in order to remove the potential risk.

It is recommended that a capping layer, of a minimum thickness of 600mm, of clean imported subsoil and topsoil, placed above a high visibility anti-dig membrane is placed in all private gardens and areas of soft landscaping. This would break all the above listed relevant pollutant linkages and removing the potential risk to future end users.

10.3.3 Construction Operatives

With future site development works involving the excavation and removal of the made ground, there would be a risk to workers from contaminants in the soils. Appropriate measures are therefore recommended for works involving the made ground materials which are known to be present beneath the site.

All excavations should be regularly checked for safe atmospheres.

Normal good hygiene practices should be adequate to protect the health and safety of redevelopment workers, and should include:

10.3 HUMAN HEALTH RISK ASSESSMENT (CONTINUED)

- Minimum handling of materials;
- Washing of hands prior to all meal breaks, which should be taken in a designated clean area;
- The use of standard protective clothing such as boots and overalls and gloves, where considered relevant.

In dry weather, inhalation of dust and gases should be avoided preferably by the use of dust suppression techniques to minimise fugitive emissions and minimisation of exposed materials at any particular time.

Additionally, a system should be established by which any 'unusual' materials that may be encountered are reported rapidly to the site management, so that the appropriate action may be taken, following specialist advice if necessary. An unusual material may be identified on site by colour, odour or physical nature.

Reference should be made to the Health and Safety Executive document "Protection of Workers and the General Public during the development of contaminated land" for detailed guidance on these matters.

10.4 RISKS TO VEGETATION

The concentrations of zinc in the shallow made ground materials, indicate the potential for adverse effects to vegetation. Similarly, the physical nature of the existing made ground does not provide a suitable growing medium for vegetation. To ensure viable landscape areas by preventing upward migration of contaminants into the overlying soils, and in order to promote plant growth, any landscaped areas will require the provision of a minimum 600mm thick capping layer of clean, inert subsoil and topsoil materials, placed above a high visibility anti-dig membrane.

10.5 GROUNDWATER RISK ASSESSMENT

Localised elevated concentrations of lead and three PAH compounds (benzo(a)pyrene, benzo(b)fluoranthene and dibenzo(ah)anthracene were encountered within the made ground located beneath the site.

The underlying natural ground comprised of generally cohesive alluvium deposits.

Shallow groundwater such as standing water or seepages was not encountered during the intrusive works.

10.5 GROUNDWATER RISK ASSESSMENT (CONTINUED)

In the developed state, the site will be covered by either the building footprint or areas of hardstanding and the areas of soft landscaping and any sport pitches underlain by made ground will be covered by a minimum 600mm thick capping layer of clean inert imported soils, placed above a high visibility anti-dig membrane.

It is therefore considered that the potential for rainfall infiltration into the made ground, subsequent leachate generation from the made ground and the potential for vertical migration of unacceptable leachate concentrations to impact the underlying groundwater is considered to be low.

10.6 GROUND GAS RISK

Across the site the results show a maximum methane concentration of 18.1% and a maximum carbon dioxide concentration of 6.1%. A maximum gas flow rate of <0.3l/hr was measured during the gas monitoring programme.

As stated in Section 8.3, maximum carbon monoxide concentrations of 9ppm were detected during the gas monitoring programme. No hydrogen sulphide was detected throughout the 6 rounds of testing.

In accordance with CIRIA Report C665 a Gas Screening Value (GSV) of 0.054l/hour has been calculated. This GSV corresponds to gas characteristic situation 1/green.

However, due to the significant thickness of made ground, the presence of methane, carbon dioxide and carbon monoxide concentrations above 1%, 5% and <1% respectively, and the presence of significantly thick organic cohesive soils underlying the site, it would be prudent to increase the gas Characteristic Situation to Situation 2 (CS2).

Reference should also be made to BS8485+A1:2019.

In accordance with BS8485+A1:2019 and based on the results of the ground gas monitoring programme with the site being classified as CS2, for Development Type A buildings, the minimum gas protection score is 3.5. A gas protection score of 3.5 can be achieved with a combination of appropriate floor slab design, ventilation and inclusion of a suitable gas resistant membrane.

As previously mentioned, maximum carbon monoxide concentrations of 9ppm were detected during the gas monitoring programme.

10.6 GROUND GAS RISK ASSESSMENT (CONTINUED)

The HSE Workplace Exposure Limit for carbon monoxide is 20ppm for long term exposure (8-hour time weighted average period), which is not exceeded by the maximum recorded concentration. It is therefore considered that the potential risk from carbon monoxide within the proposed school buildings is considered to be low.

10.6.2 Radon

No radon protective measures are considered necessary in the construction of new buildings on site.

10.7 RISKS TO BUILDINGS AND MATERIALS DURABILITY

10.7.1 Concrete Classification

A summary of the laboratory chemical test results for the chemicals monohydric phenol, sulphur, total sulphate, water soluble sulphate, sulphide and pH, which may adversely affect the durability of building materials is presented in Appendix J.

Evidence to date does not indicate any specifically aggressive conditions, but it would be reasonable to expect a degree of sulphate and acidic aggressiveness from the made ground.

Made Ground

In accordance with BRE Digest SD1:2005 and adopting the assessment procedure specified therein for brownfield sites, the laboratory chemical test results indicate a characteristic value (taking the highest test results) for water soluble sulphate within the made ground of 1900mg/l. Using Table C2 of BRE Digest SD1:2005, this characteristic value corresponds to Design Sulphate Class DS-3.

The groundwater regime of the site has been assessed as 'mobile' and a characteristic pH value within the made ground of 7.8 has been determined (adopting the lowest test results). The Design Sulphate Class has been modified to give a site ACEC class of AC-3 for concrete structures constructed within the made ground.

Natural Soils

In accordance with BRE Digest SD1:2005 and adopting the assessment procedure specified therein for brownfield sites, the laboratory chemical test results indicate a characteristic value (taking the highest test results) for water soluble sulphate within the natural soils of 600mg/l.

10.7 RISKS TO BUILDINGS AND MATERIALS DURABILITY (CONTINUED)

Using Table C2 of BRE Digest SD1:2005, this characteristic value corresponds to Design Sulphate Class DS-2.

The groundwater regime of the site has been assessed as 'mobile' and a characteristic pH value within the made ground of 7.9 has been determined (adopting the lowest test results). The Design Sulphate Class has been modified to give a site ACEC class of AC-2 for concrete structures constructed within the natural soils.

10.7.2 Water Services

Water supply pipes will need to be protected from any contamination present within the ground. In particular, the presence of organic contaminants (such as PAH) should be addressed when selecting pipe materials. Measures to protect the pipes will include clean backfill to trenches and possibly alternative material selection.

Reference should be made to UKWIR Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites, document No. 10/WM/03/21. The final design and selection of the pipe and associated backfill should be agreed with the appropriate Regulator prior to installation.

In order to comply with the UKWIR guidance, specific sampling and testing along the actual line of the proposed water supply route may need to be carried out once this has been established.

10.8 WASTE DISPOSAL

Excavated materials generated by the development may be considered as waste and subject to waste controls. Any re-use of excavated materials on-site should be undertaken in accordance with current waste and environmental legislation and which may require the production of an approved Materials Management Plan (MMP) prepared in accordance with the CL:AIRE Code of Practice.

It is recommended that a sustainable development strategy is adopted which reduces to a practicable minimum the generation of waste materials and the need for disposal to a licensed tip. Emphasis should be on recovery and re-use rather than disposal.

However, any waste or surplus materials that are generated will need to be classified in accordance with current EC regulations and Environment Agency guidance prior to disposal. It is the responsibility of the waste producer to classify the waste.

10.8 WASTE DISPOSAL (CONTINUED)

Based on the data obtained from the site investigation works, any waste materials comprising the existing made ground are likely to be classified as non-hazardous waste. The existing natural ground are likely to be classified as non-hazardous waste.

Any asbestos containing materials (ACMs) will be classified as hazardous waste.

This classification is provisional and indicative of the likely waste classification based on the data obtained to date (including chemical composition, moisture content, etc.). It also assumes that the materials tested will be representative of future generated waste.

In order to minimise disposal, the materials generated should be segregated and examined, with appropriate testing as necessary, to enable the materials to be sorted or treated into lower classifications, with the resultant benefit of potentially generating re-use rather than disposal.

Once final waste sources and volumes are known, the waste stockpile to be disposed off-site will need to be classified in accordance with Environment Agency/Natural Resources Wales Waste Classification – Guidance on the Classification and Assessment of Waste Technical Guidance WM3 (2015). This is likely to require additional sampling and testing of the generated waste materials to provide an up to date current basis for classification. Depending on the waste classification, waste acceptance criteria (WAC) testing may be required, in order to determine which class of landfill site the waste can be sent to.

It is recommended that the results of the waste classification and any WAC test results are sent to the intended licensed waste operator prior to disposal in order to confirm their classification and acceptance.

10.9 UNCERTAINTIES

It is important to recognise that there may be areas of contamination within the site that have not been found or that contaminants may be present at concentrations above those that have been found. It is also important to recognise that contamination may be localised and that no investigation, however comprehensive, is capable of finding such occurrences, other than by chance.

The near-surface drainage patterns have not been fully established. At the time of the investigation several areas of the northern parcel and the peripheries of the southern parcels were densely vegetated. It is recommended that a full invasive pest plant survey is undertaken across the site.

11.0 ENGINEERING CONSIDERATIONS AND RECOMMENDATIONS

11.1 DETAILS OF PROPOSED DEVELOPMENT

The proposed development will comprise a housing mix including houses, bungalows and flats. The development will include associated infrastructure such as access roads, car parking areas and private driveways and also areas of soft landscaping and private gardens.

Note that if external ground levels are planned to be raised in excess of 600mm above existing ground levels, then detailed settlement assessments will be required to quantify the generated differential settlements. This assessment would inform the engineering mitigation measures required to accommodate differential settlement between piled buildings and external areas and inform infrastructure design mitigation measures.

11.2 SITE PREPARATION

Invasive Plant Species

Much of the site is covered in vegetation, with some areas comprising dense vegetation. It is recommended that a full pest plant survey is undertaken and should the existence of Invasive Plants be identified, a licenced and competent contractor is engaged to undertake an eradication programme.

Services

Prior to any works commencing on site, any existing buried services, including any culverts, within the site area should be identified and either diverted or protected. Any diversion works should be carried out undertaken the supervision of, and to the specification of, the appropriate statutory authorities. The resulting excavations should be backfilled with suitable granular material. Particular attention should be made to the existing substation on site.

Site Vegetation Strip

There are semi mature trees within the site area, with some mature trees within the vicinity of the site. Allowances should therefore be made for the removal of any associated roots that may become exposed in any proposed nearby earthworks and foundation excavations. Any such works should be conducted in accordance with the code of practice recommended by the National House Building Council (NHBC). Any protection order relating to existing vegetation/ecology should be adhered to during the development of the site.

11.2 SITE PREPARATION (CONTINUED)

The made ground and natural soils have been classed as medium volume change potential in accordance with NHBC chapter 4.2. However, any such works should be conducted in accordance with the code of practice recommended by the NHBC.

Unforeseen Contamination

A system should be established for identification and dealing with any unforeseen contamination. Any contamination, or suspected contamination, should be reported to the site manager in the first instance, so that appropriate action may be taken, following specialist advice if necessary.

In areas where contamination has been already identified, it is recommended that the excavation works are supervised by a qualified geotechnical/geoenvironmental engineer.

In addition, any occurrences of asbestos containing materials will also need to be assessed and removed from site.

Careful consideration of the re-use of made ground/potentially contaminated soils should be undertaken prior to undertaking any earthworks activities.

All unacceptable materials should be removed from site and disposed of at a suitable landfill facility.

Garden Capping

Upon completion of the construction works, all garden and landscaped areas situated within the site, need to be capped by a minimum thickness of 600mm of clean, subsoil and topsoil.

11.3 FOUNDATIONS AND FLOOR SLABS

The ground conditions underlying the site comprised a variable thickness of made ground overlying alluvium deposits of soft, firm, soft locally silty gravelly organic clay.

It is recommended that the proposed residential development, is founded by using pre cast concrete or steel tube driven piles, driven to an appropriate set within the natural stiff/dense superficial deposits or highly weathered red silty mudstone deposits.

Subject to vibration and noise, driven pre-cast concrete piles or driven steel tubes may be suitable. Alternatively, consideration may need to be given to augured or drilled piles.

11.3 FOUNDATIONS AND FLOOR SLABS

Based on the results of the intrusive site investigation, pile lengths are anticipated at approximately around 6-12m, although variations should be expected dependent on localised ground conditions, pile diameters and choice of pile. Pile capacity would be generated from both skin friction and end bearing resistance, subject to the advice of a specialist piling contractor.

It is recommended that follow on rotary cored boreholes are progressed 5m below base of the proposed pile toe levels to establish the bedrock strength / degree of weathering. Point load and UCS testing should be undertaken on core samples gained.

Variations in pile lengths should be limited to avoid over-stressing adjacent piles of different lengths. Allowances should be made for moving piles affected by shallow obstructions, or alternatively any shallow obstructions removed with excavation plant.

Piles will need to be designed to ignore load contribution from the made ground and soft and very soft underlying alluvial clay strata.

In the event that ground levels are to be raised greater than 600mm above existing, then detailed settlement assessments will be required in order to assess potential differential settlement risks at the interface between external areas and piled structures.

Rocker details capable of accommodating 50mm differential movement should be used for service connections to piled buildings. Flexible threshold details should also be incorporated.

Any piles that are driven to a premature set should be investigated and allowances made for re-driving, digging out any encountered shallow obstructions, or pile replacement. Steel driven piles would be a viable alternative and a contingency should be allowed for a certain number of steel piles.

Note that the adopted piling system will need to consider any potential vibration and noise issues in relation to the adjacent buildings/structures and Railtrack land interests. If noise and/or vibration issues preclude the use of driven pre-cast concrete piles, then steel driven piles or a bored or drilled piling system deriving load capacity in the form of a suitably designed and constructed socket within superficial deposits and bedrock could be considered.

11.3 FOUNDATIONS AND FLOOR SLABS (CONTINUED)

If an augured piling system is adopted, it will be necessary to segregate the made ground arisings from the natural soil arisings for appropriate off-site disposal. It is recommended that the advice of a specialist piling contractor is sought in order to confirm the most appropriate piling technique and for the detailed pile design.

The results of the laboratory plasticity tests indicate that the near surface soils underlying the site have a medium volume change potential. Suitable protection should be provided to the ground beams,

CIRIA Report C665 gas Characteristic Situation to Situation 2 (CS2) gas protection measures are required to building ground slabs. Refer to Section 10.6 for full details.

11.4 EXCAVATIONS AND FORMATIONS

The ground investigation was undertaken using a 3 Tonne tracked excavator. Earthworks excavations should be possible with similar machinery to depths in the region of 3.0m.

Allowances should be made for the use of hydraulic breaking equipment during the breaking out of obstructions.

No groundwater was encountered during the current site investigation; however, it should be feasible to deal with any encountered groundwater by conventional pumping techniques.

Localised instability of trial pit sides was encountered throughout the made ground deposits. Excavations should not be entered and the sides of excavations deeper than 1.0m should be fully supported by trench boxes, or temporarily battered at gradients of typically 30°.

Deep excavations will require suitable benching to maintain stability and reduce any rapid changes in ground level.

Any excavated materials, such as cobbles and boulders, that are to be reused on site should be crushed and screened to achieve a suitable grade (<125mm maximum particle size) and stockpiled on site for re-use as granular fill. Any unacceptable materials, such as plastic, timber, etc. will need to be removed.

Any localised encountered soft spots and/or pockets of contaminated materials should be removed for appropriate treatment and assessment.

11.4 EXCAVATIONS AND FORMATIONS (CONTINUED)

The excavated materials should be sorted, processed and any unsuitable materials removed.

The reduced formation should be brought back up to the required level with site-won acceptable materials, placed and well compacted in layers in accordance with the Department of Transport (DTp) Specification for Highways Works.

Given the nature of much of the near surface soils, the exposed surface of the site will deteriorate in poor weather and due to trafficking of plant. We therefore recommend that to minimise surface water management risks and minimise the generations of silt, softened materials and unsuitable arisings, a strategic earthworks materials management is required.

Areas of stripping should be minimised at all times. The exposed areas should be protected from damage in wet weather (for example using a layer of blinding concrete or layer of single size granular material).

Designated access routes should be well maintained and suitably designed and maintained working platforms should be provided for construction plant.

11.5 ACCESS ROADS AND CAR PARKING AREAS

All topsoil should be stripped from beneath roads and car parking areas.

For initial design purposes, a range of California Bearing Ratio (CBR) values between 2% and 3% should be assumed for any near surface cohesive natural soils.

After proof rolling the pavement formations, any 'soft spots/areas' should be removed and replaced with well-compacted imported granular materials.

Department of Transport (DTp) Type 1 Sub-Base, or similar approved, could be used and should be compacted in layers in accordance with the current DTp Specification for Highway Works.

It should be noted that the local highway authority may insist that further field CBR tests should be carried out in order to confirm the above recommendations. Allowances should therefore be made for carrying out such tests and any further works which the local authority may require as a result of these tests.

11.5 ACCESS ROADS AND CAR PARKING AREAS (CONTINUED)

The near surface cohesive natural soils should be considered frost susceptible.

11.6 DRAINAGE

Protection of formations from surface water and inclement weather will be required.

Shallow soil infiltration testing was undertaken at four trial pit locations. The results of soakaway tests are summarised in Section 7.5 above.

Note that the soakaway test results are specific to the locations and depths of the tests undertaken.

Soil infiltration testing undertaken recorded negligible to limited infiltration over the monitoring period and therefore an infiltration rate could not be calculated for any test location. The tests were undertaken within the shallow made ground deposits.

The soil infiltration testing calculation sheets are presented in Appendix F.

11.7 RECOMMENDED FURTHER WORKS

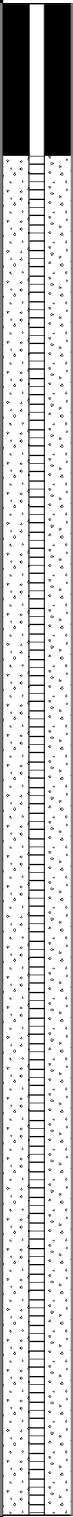
In order to inform pile design it is recommended that rotary borehole core samples are gained and point load / UCS laboratory testing is carried out.

APPENDIX A

**AVAILABLE BOREHOLE LOGS FROM IG 2012 INVESTIGATION
REF:10566/RB/11/SI/REV B**

Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name : Monmouthshire Bank Sidings				Project No.: 10566		Borehole No.: BHS1 Sheet 1 of 2	
Location : Newport			Client: Redrow Homes				Coordinates : 30324 mE 86832 mN		Hole Type : Cable	
Equipment : Dando 2000			Diameter of Casing : 200 mm				Level : 15.3 mAOD		Scale : 1:50	
Diameter of Boring : 200mm			Depth of Casing : 6.00 mBGL				Dates 24/11/2011 - 28/11/2011		Logged By : SI	
Well	Water Strikes	Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description		
		Depth (m)	Type	Results						
	 Rising to 6.50 m 7.00 m	1.00 1.00 1.00	CPT B	N=36 (2,5,6,14,8,8)				MADE GROUND: Brown and black clayey locally ashy SAND with frequent cobbles of shale and brick, and frequent fragments of timber.	0	
								- Chiselling between 1.2-1.6m depth for 1 hour	1	
		2.00 2.00	CPT B	N=7 (1,1,2,1,2,2)					2	
		3.00 3.00	CPT B	N=9 (2,2,2,2,3,2)					3	
		4.00 4.00-4.45	B U	19					4	
		5.00 5.00 5.00-5.45	SPT B D	N=4 (1,0,1,1,1,1)	5.30	9.99		Soft grey silty sandy slightly organic CLAY.	5	
		6.50 6.50 6.50-6.95	SPT B D	N=3 (1,0,1,0,1,1)					6	
		8.00 8.00 8.00-8.45	SPT B D	N=3 (1,0,1,0,1,1)					7	
		9.50 9.50 9.50-9.95	SPT B D	N=3 (0,0,1,0,1,1)	9.90	5.39			8	
									9	
		Depth (m)	Type	Results			(Continued next sheet)		10	
Remarks :							Key : D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone) W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation			

		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name : Monmouthshire Bank Sidings			Project No.: 10566		Borehole No.: BHS2 Sheet 1 of 2	
Location : Newport				Client: Redrow Homes			Coordinates : 30331 mE 86709 mN		Hole Type : Cable	
Equipment : Dando 2000				Diameter of Casing : 200 mm			Level : 16.0 mAOD		Scale : 1:50	
Diameter of Boring : 200mm				Depth of Casing : 11.00 mBGL			Dates 08/11/2011 - 10/11/2011		Logged By : SI	

Well	Water Strikes	Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		1.00 1.00	CPT B	N=11 (1,1,3,4,2,2)			MADE GROUND: Firm brown and grey silty sandy locally ashy CLAY, with frequent gravels and cobbles of slag, clinker, brick and ballast, and frequent fragments of timber. - Chiselling between 1.6-1.8m depth for 0.5 hours	0	
		2.00 2.00	CPT B	N=20 (2,7,7,4,4,5)				1	
		3.00 3.00	CPT B	N=9 (2,3,2,2,3,2)				2	
		4.00 4.00	CPT B	N=6 (2,1,2,2,1,1)				3	
		5.00 5.00	CPT B	N=15 (4,7,8,3,2,2)				4	
		6.50 6.50	CPT B	N=9 (3,2,2,3,2,2)				5	
		8.00 8.00	CPT B	N=51 (2,2,4,2,3,42)				6	
		9.50 9.50	CPT B	N=19 (2,10,9,3,3,4)			7		
							- Chiselling between 8.5-9.0m depth for 2 hours	8	
								9	
								10	

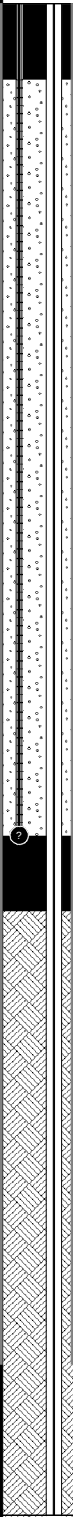
Remarks :				Key : D - Small disturbed sample W - Water sample B - Bulk disturbed sample U - Undisturbed sample ES - Environmental soil sample TCR - Total Core Recovery SPT - Standard Penetration Test (split spoon) SCR - Solid Core Recovery CPT - Standard Penetration Test (solid cone) RQD - Rock Quality Designation			
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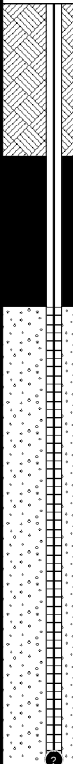
Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name : Monmouthshire Bank Sidings				Project No.: 10566		Borehole No.: BHS2 Sheet 2 of 2			
Location : Newport				Client: Redrow Homes				Coordinates : 30331 mE 86709 mN		Hole Type : Cable	
Equipment : Dando 2000				Diameter of Casing : 200 mm				Level : 16.0 mAOD		Scale : 1:50	
Diameter of Boring : 200mm				Depth of Casing : 11.00 mBGL				Dates 08/11/2011 - 10/11/2011		Logged By : SI	
Well	Water Strikes	Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
		Depth (m)	Type	Results							
					10.20	5.82		MADE GROUND: Firm brown and grey silty sandy locally ashy CLAY, with frequent gravels and cobbles of slag, clinker, brick and ballast, and frequent fragments of timber.		10	
								Firm brown silty CLAY.			
			11.00	CPT	N=11 (1,1,2,2,3,4)	11.10	4.92		Firm brown silty organic CLAY with localised pockets of peat.		11
			11.00	B							
			12.50	CPT	N=11 (1,0,1,2,4,4)						12
			13.00	B		13.00	3.02		Highly weathered red silty MUDSTONE (recovered as stiff red brown CLAY with frequent mudstone lithorelicts).		13
		14.00	CPT	N=52 (8,9,10,12,14,16)						14	
		14.80	CPT	N=67 (5,11,14,15,18,20)	14.80	1.22		- Chiselling between 14.4-14.8m depth for 1 hour		14	
								End of Borehole at 14.80 m		15	
										16	
										17	
										18	
										19	
										20	
Remarks :							Key : D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone) W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation				
											

Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com				Project Name : Monmouthshire Bank Sidings				Project No.: 10566		Borehole No.: BHS11 Sheet 1 of 1	
Location : Newport				Client: Redrow Homes				Coordinates : 30314 mE 86812 mN		Hole Type : Cable	
Equipment : Dando 2000				Diameter of Casing : 200 mm				Level : 15.4 mAOD		Scale : 1:50	
Diameter of Boring : 200mm				Depth of Casing : 9.50 mBGL				Dates 06/12/2011 - 07/12/2011		Logged By : SI	
Well	Water Strikes	Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
		Depth (m)	Type	Results							
								MADE GROUND: Ash, clinker, brick, red brown sand, and railway ballast. - Chiselling between 0.4-0.6m depth for 0.5 hours		0	
		1.00 1.00	CPT B	N=4 (1,0,1,1,1,1)						1	
		2.00 2.00	CPT B	N=4 (1,0,1,1,1,1)						2	
		3.00 3.00	CPT B	N=10 (5,6,4,2,2,2)						3	
		4.00 4.00	CPT B	N=9 (3,2,2,2,2,3)	4.10	11.31			Firm grey silty CLAY.	4	
		4.50-4.95	U	18						5	
		5.10 5.10-5.55	SPT D	N=2 (0,1,0,1,0,1)	5.60	9.81			Firm red brown silty sandy gravelly CLAY.	6	
		6.00-6.45	U	29						7	
		7.00 7.00	CPT B	N=8 (1,1,2,1,2,3)	7.20	8.21			Medium dense sandy GRAVEL.	8	
		8.00	CPT	N=20 (2,4,3,4,6,7)						9	
	9.00	B							10		
	9.50	CPT	31/0mm - Abandoned	9.40	6.01			Red SANDSTONE. - Chiselling between 9.5-9.9m depth for 2 hours			
				9.90	5.51			End of Borehole at 9.90 m			
Remarks :				Key : D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon)SCR - Solid Core Recovery CPT - Standard Penetration Test (solid cone) RQD - Rock Quality Designation W - Water sample U - Undisturbed sample TCR - Total Core Recovery							
											

		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name : Monmouthshire Bank Sidings			Project No.: 10566		Borehole No.: BHR1 Sheet 1 of 2	
Location : Newport				Client: Redrow Homes			Coordinates : 30410 mE 86860 mN		Hole Type : RO	
Equipment : Beretta T44				Diameter of Casing : 115 mm			Level : 16.5 mAOD		Scale : 1:50	
Diameter of Boring : 115mm				Depth of Casing : 9.00 mBGL			Dates 23/11/2011		Logged By : SI	

Well	Water Strikes	Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
							MADE GROUND (Driller's description)	0	
									1
									2
									3
									4
	4.80				11.68		MADE GROUND: Alluvium fill (Driller's description)	5	
	6.00				10.48		Stiff CLAY (Driller's description)	6	
									7
									8
									9
								10	

Remarks :				Key : D - Small disturbed sample W - Water sample B - Bulk disturbed sample U - Undisturbed sample ES - Environmental soil sample TCR - Total Core Recovery SPT - Standard Penetration Test (split spoon) SCR - Solid Core Recovery CPT - Standard Penetration Test (solid cone) RQD - Rock Quality Designation					
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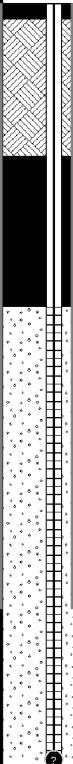
		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name : Monmouthshire Bank Sidings			Project No.: 10566		Borehole No.: BHR1 Sheet 2 of 2	
Location : Newport				Client: Redrow Homes			Coordinates : 30410 mE 86860 mN		Hole Type : RO	
Equipment : Beretta T44				Diameter of Casing : 115 mm			Level : 16.5 mAOD		Scale : 1:50	
Diameter of Boring : 115mm				Depth of Casing : 9.00 mBGL			Dates 23/11/2011		Logged By : SI	
Well	Water Strikes	Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description		
		Depth (m)	Type	Results						
	 14.00 m							Stiff CLAY (Driller's description)	10	
										11
									12	
									13	
					13.20	3.28		MARL (Driller's description)		
									14	
									15	
					15.00	1.48		End of Borehole at 15.00 m		
									16	
									17	
									18	
									19	
									20	
Remarks :							Key : D - Small disturbed sample W - Water sample B - Bulk disturbed sample U - Undisturbed sample ES - Environmental soil sample TCR - Total Core Recovery SPT - Standard Penetration Test (split spoon) SCR - Solid Core Recovery CPT - Standard Penetration Test (solid cone) RQD - Rock Quality Designation			



		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name : Monmouthshire Bank Sidings			Project No.: 10566		Borehole No.: BHR2 Sheet 1 of 2	
Location : Newport				Client: Redrow Homes			Coordinates : 30305 mE 86740 mN		Hole Type : RO	
Equipment : Beretta T44				Diameter of Casing : 115 mm			Level : 16.4 mAOD		Scale : 1:50	
Diameter of Boring : 115mm				Depth of Casing : 14.00 mBGL			Dates 22/11/2011 - 23/11/2011		Logged By : SI	
Well	Water Strikes	Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description		
		Depth (m)	Type	Results						
								MADE GROUND (Driller's description)	0	
									1	
									2	
									3	
									4	
									5	
									6	
									7	
									8	
									9	
					9.60	6.79		Sandy CLAY (Driller's description)	10	
		Depth (m)	Type	Results				(Continued next sheet)		
Remarks :							Key : D - Small disturbed sample W - Water sample B - Bulk disturbed sample U - Undisturbed sample ES - Environmental soil sample TCR - Total Core Recovery SPT - Standard Penetration Test (split spoon) SCR - Solid Core Recovery CPT - Standard Penetration Test (solid cone) RQD - Rock Quality Designation			

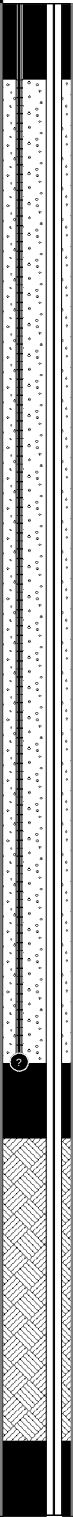


		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name : Monmouthshire Bank Sidings			Project No.: 10566		Borehole No.: BHR2 Sheet 2 of 2	
Location : Newport				Client: Redrow Homes			Coordinates : 30305 mE 86740 mN		Hole Type : RO	
Equipment : Beretta T44				Diameter of Casing : 115 mm			Level : 16.4 mAOD		Scale : 1:50	
Diameter of Boring : 115mm				Depth of Casing : 14.00 mBGL			Dates 22/11/2011 - 23/11/2011		Logged By : SI	

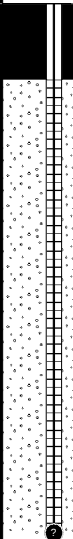
Well	Water Strikes	Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
							Sandy CLAY (Driller's description)	10	
									11
									12
									13
					13.20	3.19		Red MARL (Driller's description)	13
									14
									15
									16
									17
									18
				15.00	1.39		End of Borehole at 15.00 m	15	
								16	
								17	
								18	
								19	
								20	

Remarks :				Key : D - Small disturbed sample W - Water sample B - Bulk disturbed sample U - Undisturbed sample ES - Environmental soil sample TCR - Total Core Recovery SPT - Standard Penetration Test (split spoon) SCR - Solid Core Recovery CPT - Standard Penetration Test (solid cone) RQD - Rock Quality Designation					
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name : Monmouthshire Bank Sidings			Project No.: 10566		Borehole No.: BHR18 Sheet 1 of 2	
Location : Newport				Client: Redrow Homes			Coordinates : 30459 mE 86807 mN		Hole Type : RO	
Equipment : Beretta T44				Diameter of Casing : 115 mm			Level : 14.7 mAOD		Scale : 1:50	
Diameter of Boring : 115mm				Depth of Casing : 10.00 mBGL			Dates 24/11/2011		Logged By : SI	

Well	Water Strikes	Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
							MADE GROUND (Driller's description)	0	
									1
									2
									3
									4
									5
									6
									7
									8
									9
					2.10	12.55		MADE GROUND: : Alluvium fill (Driller's description)	
									10
					7.30	7.35		Stiff CLAY (Driller's description)	
									10

Remarks :				Key : D - Small disturbed sample W - Water sample B - Bulk disturbed sample U - Undisturbed sample ES - Environmental soil sample TCR - Total Core Recovery SPT - Standard Penetration Test (split spoon) SCR - Solid Core Recovery CPT - Standard Penetration Test (solid cone) RQD - Rock Quality Designation					
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name : Monmouthshire Bank Sidings			Project No.: 10566		Borehole No.: BHR18 Sheet 2 of 2	
Location : Newport				Client: Redrow Homes			Coordinates : 30459 mE 86807 mN		Hole Type : RO	
Equipment : Beretta T44				Diameter of Casing : 115 mm			Level : 14.7 mAOD		Scale : 1:50	
Diameter of Boring : 115mm				Depth of Casing : 10.00 mBGL			Dates 24/11/2011		Logged By : SI	
Well	Water Strikes	Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description		
		Depth (m)	Type	Results						
	 11.00 m				0.00	4.15		Stiff CLAY (Driller's description)	10	
					10.50	4.15		MARL (Driller's description)	11	
										12
										13
										14
										15
										16
										17
										18
										19
										20
		Remarks :				Key : D - Small disturbed sample W - Water sample B - Bulk disturbed sample U - Undisturbed sample ES - Environmental soil sample TCR - Total Core Recovery SPT - Standard Penetration Test (split spoon) SCR - Solid Core Recovery CPT - Standard Penetration Test (solid cone) RQD - Rock Quality Designation				

Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name : Monmouthshire Bank Sidings				Project No.: 10566		Borehole No.: BHA Sheet 1 of 1			
Location : Newport				Client: Redrow Homes				Coordinates : 30308 mE 86840 mN		Hole Type : Rotary	
Equipment : Pioneer				Diameter of Casing : 116 mm				Level : 10.3 mAOD		Scale : 1:50	
Diameter of Boring : 128mm				Depth of Casing : 3.80 mBGL				Dates 13/12/2011		Logged By : SI	
Well	Water Strikes	Samples & In-situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description		
		Depth (m)	Type	Results							
										Hand-dug inspection pit through railway ballast - no sampling undertaken. (MADE GROUND).	0
		1.20 1.30-1.40 1.20-1.65	SPT D D	N=1 (1,1)		1.20	9.14			Loose red brown very clayey slightly gravelly fine to medium SAND. Gravel is fine to medium, subangular, of mudstone and sandstone.	1
		2.40-2.50 2.70 2.70-3.15	D SPT D	N=12 (1,1,3,2,3,4)							2
		3.70-3.80 3.80 3.80-3.90 3.80-4.25 4.20-4.40 4.40-4.60 3.80-5.30	D SPT D D 100	N=37 (4,5,7,8,10,12) 60 19		3.50 4.20 4.60	6.84 6.14 5.74		Stiff becoming very stiff red brown silty sandy slightly gravelly CLAY. Gravel is fine occasionally medium, angular and subangular, of mudstone.	4	
		5.20-5.30 5.30 5.40-5.60 5.60-5.80	CPT	50/35mm (3,12,50)					Very weak highly weathered red brown locally grey brown MUDSTONE.	5	
		5.30-6.80 6.00-6.10 6.30-6.40 6.40-6.60 6.60-6.80 6.80	100 SPT	83 53 12 50/135mm (10,15,33,17)		6.80	3.54		Discontinuities subhorizontal, medium spaced, undulating and rough, open, with some sandy clay infill.	6	
									Moderately weak becoming strong moderately weathered red brown medium to coarse grained SANDSTONE.	7	
									Discontinuities subhorizontal, closely to medium spaced, planar occasionally undulating and rough, open, with some sandy clay infill.	8	
									End of Borehole at 6.80 m	9	
											10
		Depth (m)	TCR	SCR	RQD	FI					
Remarks :							Key : D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone) W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation				
							AGS				

Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name : Monmouthshire Bank Sidings			Project No.: 10566		Borehole No.: BHB Sheet 1 of 1	
Location : Newport			Client: Redrow Homes			Coordinates : 30277 mE 86790 mN		Hole Type : Rotary	
Equipment : Pioneer			Diameter of Casing : 116 mm			Level : 10.3 mAOD		Scale : 1:50	
Diameter of Boring : 128mm			Depth of Casing : 1.90 mBGL			Dates 14/12/2011		Logged By : SI	
Well	Water Strikes	Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
								Hand-dug inspection pit through railway ballast - no sampling undertaken. (MADE GROUND).	0
					0.40	9.90		Medium dense clayey sandy fine to coarse, angular and subangular GRAVEL of slag and occasionally sandstone and mudstone. (MADE GROUND).	
		1.20-1.30 1.30 1.30-1.75	D SPT D	N=38 (5,6,5,9,12,12)				Dense red brown clayey silty slightly gravelly SAND. Gravel is fine occasionally medium, angular and subangular, of mudstone.	1
		1.80-1.90	D						
		1.90-2.60	100	0	0	2.00	8.30	Weak to moderately strong highly weathered red brown and grey medium grained SANDSTONE.	2
		2.40-2.50						Discontinuities subhorizontal, medium spaced, planar and rough, open, with some sandy clay infill.	
		2.50-2.60				2.60	7.70	Very weak highly weathered red brown MUDSTONE.	
		2.60	CPT	50/180mm (14,11,20,20,10)				Discontinuities subhorizontal, medium spaced, planar and smooth, open, with some sandy clay infill.	3
		2.80-3.10							
		2.60-4.10	100	67	37				
		3.40-3.60							
		3.70-3.80				3.70	6.60	Moderately strong to strong moderately weathered red brown and grey medium to coarse grained SANDSTONE.	4
		3.90-4.00			6			Discontinuities subhorizontal, closely spaced, planar and rough, open, with some sandy clay infill.	
		4.10	CPT	50/10mm (25,50)					
		4.30-4.50				4.50	5.80	Very weak highly weathered red brown MUDSTONE.	
		4.60-4.70				4.70	5.60	Discontinuities subhorizontal, medium spaced, planar and smooth, open, with some sandy clay infill.	5
		4.10-5.60	100	87	63	7		Strong red brown and grey moderately weathered well cemented CONGLOMERATE. Generally matrix supported with clasts up to 8mm randomly orientated.	
		4.90-5.10						Surface occasionally pitted with 3-10mm spherical and ovate vug cavities.	
		5.10-5.30						Discontinuities subhorizontal, medium spaced, planar and smooth, tight, with some sandy clay infill.	6
		5.60	CPT	50/10mm (25,50)		5.50	4.80	Moderately strong to strong moderately weathered red brown and grey medium to coarse grained SANDSTONE.	
		5.50-5.80						Discontinuities subhorizontal, closely spaced, planar and rough, open, with some sandy clay infill.	7
		5.80-5.90						Strong red brown and grey moderately weathered well cemented CONGLOMERATE. Generally matrix supported with clasts up to 8mm randomly orientated.	
		6.00-6.10						Surface occasionally pitted with 3-10mm spherical and ovate vug cavities.	
		6.10-6.40	100	100	60	7		Discontinuities subhorizontal, medium spaced, planar and smooth, tight, with some sandy clay infill.	8
		5.60-7.10						Moderately strong to strong moderately weathered red brown and grey medium to coarse grained SANDSTONE.	
		6.50-6.70						Discontinuities subhorizontal, closely spaced, planar and rough, open, with some sandy clay infill.	9
		6.90-7.10	CPT	50/10mm (25,50)		7.10	3.20	End of Borehole at 7.10 m	9
		7.10							
Depth (m)			TCR	SCR	RQD	FI			
Remarks :							Key : D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone) W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
									

APPENDIX B

ENVIROCHECK REPORT

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

314117352_1_1

Customer Reference:

14234/LP/Rev A

National Grid Reference:

330380, 186770

Slice:

A

Site Area (Ha):

1.22

Search Buffer (m):

1000

Site Details:

Mon Bank Parcels

Cleeve Grange Crescent

Newport

NP20 2PY

Client Details:

MR H Pritchard

Integral Geotechnique

Integral House

7 Beddau Way

Castlegate Business Park

Caerphilly

CF83 2AX

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	24
Hazardous Substances	31
Geological	32
Industrial Land Use	35
Sensitive Land Use	53
Data Currency	54
Data Suppliers	60
Useful Contacts	61

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility					n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1			10	21
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 8				1
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 8		2	1	5
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 9		Yes		
Pollution Incidents to Controlled Waters	pg 10				4
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances	pg 10				24
River Quality	pg 14				1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 14		1		1
Water Abstractions	pg 14				2 (*4)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 16	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 16	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 16	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 16		3	20	33

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 24	1	2	2	2
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 25	1			1
Licensed Waste Management Facilities (Locations)	pg 25				4
Local Authority Landfill Coverage	pg 26	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 26				4
Potentially Infilled Land (Water)	pg 26		8	11	20
Registered Landfill Sites	pg 29		1	2	
Registered Waste Transfer Sites	pg 30				2
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)	pg 31				2
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)	pg 31				2
Planning Hazardous Substance Consents	pg 31				1
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 32	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 32	Yes			Yes
BGS Recorded Mineral Sites	pg 33			1	2
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 33	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 33	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 33	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 34	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 34	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 34	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 35		1	26	81
Fuel Station Entries	pg 44		1	1	2
Points of Interest - Commercial Services	pg 44		2	2	15
Points of Interest - Education and Health	pg 46				6
Points of Interest - Manufacturing and Production	pg 46		1	18	15
Points of Interest - Public Infrastructure	pg 49		2	4	16
Points of Interest - Recreational and Environmental	pg 51		1	3	12
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 53				1
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Newport Cae Brynton Relief Sew Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: AA0030801 Permit Version: 1 Effective Date: 8th March 1962 Issued Date: 8th March 1962 Revocation Date: 16th May 2006 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Cefn Adda Reen Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A12SE (SW)	378	2	329960 186470
2	Discharge Consents Operator: Victoria Court (Newport No1) Residents Management Property Type: Domestic Property (Multiple) Location: British Steel Ltd Whitehead Works, British Steel Ltd Whitehead Wrks, Mendelgeif Road, Newport, Wales, Np20 2nf Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Ac0130201 Permit Version: Not Supplied Effective Date: 21st July 2022 Issued Date: 28th June 2022 Revocation Date: Not Supplied Discharge Type: Trade And Other Matter Discharge Discharge: Freshwater Stream/River Environment: Receiving Water: The 20 Acre Reen Status: Effective Positional Accuracy: Located by supplier to within 10m	A14SW (E)	390	2	330825 186597
2	Discharge Consents Operator: National Assembly For Wales Property Type: Not Supplied Location: British Steel Ltd Whitehead Works, British Steel Ltd Whitehead Wrks, Mendelgeif Road, Newport, Wales, Np20 2nf Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Ac0130201 Permit Version: 3 Effective Date: 4th June 2004 Issued Date: 3rd June 2004 Revocation Date: Not Supplied Discharge Type: Trade And Other Matter Discharge Discharge: Freshwater Stream/River Environment: Receiving Water: The 20 Acre Reen Status: Effective Positional Accuracy: Located by supplier to within 10m	A14SW (E)	390	2	330825 186597
2	Discharge Consents Operator: British Steel Property Type: Iron & Steel Industries Location: Whitehead Works Newport Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: Ad0012101 Permit Version: 1 Effective Date: 10th March 1972 Issued Date: 10th March 1972 Revocation Date: 28th May 1993 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Twenty Acre Reen Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A14SW (SE)	431	2	330850 186560

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Byron Road Newport Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: AN0159101 Permit Version: 1 Effective Date: 13th December 1991 Issued Date: 13th December 1991 Revocation Date: 2nd February 1999 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gaer Pond Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A12NE (NW)	428	2	329930 186970
4	Discharge Consents Operator: British Steel Property Type: Iron & Steel Industries Location: Whitehead Narrow Strip Mendalgief R, Mendalgief Rd, Newport Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: An0054701 Permit Version: 1 Effective Date: 14th December 1987 Issued Date: 14th December 1987 Revocation Date: 7th February 1994 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Stream Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	432	2	330800 186500
4	Discharge Consents Operator: British Steel Ltd (Corus Group Plc) Property Type: Iron & Steel Industries Location: 20 Acre Reen Mendalgief Road Newpo, Mendalgief Road Newport Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: AC0130201 Permit Version: 2 Effective Date: 31st March 1995 Issued Date: 31st March 1995 Revocation Date: 3rd June 2004 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: The 20 Acre Reen Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A14SW (SE)	468	2	330850 186500
4	Discharge Consents Operator: British Steel Ltd (Corus Group Plc) Property Type: Iron & Steel Industries Location: 20 Acre Reen Mendalgief Road Newpo, Mendalgief Road Newport Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: Ac0130201 Permit Version: 1 Effective Date: 30th April 1981 Issued Date: 30th April 1981 Revocation Date: 30th March 1995 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: The 20 Acre Reen Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m	A14SW (SE)	468	2	330850 186500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Meredith Close/Glasllwch Lane New, Newport Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: AN0159201 Permit Version: 1 Effective Date: 13th December 1991 Issued Date: 13th December 1991 Revocation Date: 2nd February 1999 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gaer Pond Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A12NE (W)	441	2	329870 186880
6	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Rupert Brook Drive Newport Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: AN0159001 Permit Version: 1 Effective Date: 13th December 1991 Issued Date: 13th December 1991 Revocation Date: 2nd February 1999 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gaer Pond Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A12NE (W)	451	2	329830 186790
7	Discharge Consents Operator: British Telecom Plc Property Type: Undefined Or Other Location: Telephone Ex Biderford Newport, Biderford Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: Ac0143401 Permit Version: 1 Effective Date: 3rd January 1984 Issued Date: 3rd January 1984 Revocation Date: 19th April 1993 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Cefn Adda Reen Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	517	2	330600 186250
8	Discharge Consents Operator: Newport County Borough Council Property Type: Undefined Or Other Location: Water Treatment Area C (Final Eff), (Final Eff) Newport Southern Dis, Newport Southern Distrib Road Ph, Phase J Authority: Natural Resources Wales Catchment Area: Hawse Reen Reference: AN0275103 Permit Version: 1 Effective Date: 5th September 1997 Issued Date: 5th September 1997 Revocation Date: 8th February 2002 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Morfa Gronw Reen Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A12NE (NW)	518	2	329875 187050

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Drinkwater Gardens Newport Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: AN0158901 Permit Version: 1 Effective Date: 13th December 1991 Issued Date: 13th December 1991 Revocation Date: 2nd February 1999 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gaer Pond Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A12SW (W)	639	2	329630 186670
10	Discharge Consents Operator: Rockhold Plc Property Type: Undefined Or Other Location: Not Supplied Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: An0127501 Permit Version: 2 Effective Date: 18th January 1989 Issued Date: 18th January 1989 Revocation Date: 19th April 1993 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Unnamed Stream Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A18NE (N)	650	2	330500 187500
10	Discharge Consents Operator: Rockhold Plc Property Type: Undefined Or Other Location: Not Supplied Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: An0127501 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 17th January 1989 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Unnamed Stream Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A18NE (N)	650	2	330500 187500
11	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Masefield Vale Newport Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: AN0158801 Permit Version: 1 Effective Date: 13th December 1991 Issued Date: 13th December 1991 Revocation Date: 2nd February 1999 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Gaer Pond Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A12SW (W)	674	2	329600 186610

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	Discharge Consents Operator: Welsh Development Agency Property Type: Undefined Or Other Location: Maesglas Factory Site Docks Way New, Docks Way Newport Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Ac0127301 Permit Version: 1 Effective Date: 23rd December 1980 Issued Date: 23rd December 1980 Revocation Date: 5th April 1995 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Unspecified Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8NE (SE)	697	2	330700 186100
13	Discharge Consents Operator: Former British Steel Depot Property Type: Undefined Or Other Location: Newport Off Maesglas Rd Former Brit, Off Maesglas Rd Former British S, Former British Steel Depot Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: An0081101 Permit Version: 1 Effective Date: 2nd September 1988 Issued Date: 1st September 1988 Revocation Date: 9th February 1994 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Twenty Acres Reen Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	708	2	331010 186320
14	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Maesglas High Level Cso Maesglas, Off Maesglas Avenue, Newport, Np9 3bw Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: An030020101 Permit Version: 1 Effective Date: 31st December 2000 Issued Date: 13th October 2000 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: River Ebbw Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A8SW (S)	709	2	330370 185980
14	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Maesglas High Level Cso Maesglas, Off Maesglas Avenue, Newport, Np9 3bw Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: An0300201 Permit Version: 1 Effective Date: 31st December 2000 Issued Date: 13th October 2000 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Ebbw Status: Surrendered Positional Accuracy: Located by supplier to within 10m	A8SW (S)	709	2	330370 185980

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Maesglas High Level Cso Maesglas, Off Maesglas Avenue, Newport, Np9 3bw Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: An0300201 Permit Version: 1 Effective Date: 31st December 2000 Issued Date: 13th October 2000 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Ebbw Status: Surrendered Positional Accuracy: Located by supplier to within 10m	A8SW (S)	709	2	330370 185980
15	Discharge Consents Operator: Associated British Ports Property Type: Support Services - Sea Transport Location: Newport Docks Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: An0033352 Permit Version: 1 Effective Date: 10th September 1987 Issued Date: 10th September 1987 Revocation Date: 11th December 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Severn Estuary Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	742	2	330830 186140
15	Discharge Consents Operator: Associated British Ports Property Type: Support Services - Sea Transport Location: Newport Docks Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: An0033351 Permit Version: 1 Effective Date: 10th September 1987 Issued Date: 10th September 1987 Revocation Date: 11th December 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Severn Estuary Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	761	2	330850 186130
16	Discharge Consents Operator: Associated British Ports Property Type: Support Services - Sea Transport Location: Newport Docks Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: An0033349 Permit Version: 1 Effective Date: 10th September 1987 Issued Date: 10th September 1987 Revocation Date: 11th December 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Severn Estuary Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	804	2	330900 186110

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	Discharge Consents Operator: Ashley Griffiths Property Type: Public Gas Supply Location: Mendalgief Holder Station, Transco, Docks Way, Newport, Np2 2ns Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: An0304401 Permit Version: 1 Effective Date: 15th March 2002 Issued Date: 15th March 2002 Revocation Date: 14th September 2010 Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: The 20 Acre Reen Status: Surrendered under EPR 2010 Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	827	2	330940 186110
16	Discharge Consents Operator: Associated British Ports Property Type: Support Services - Sea Transport Location: Newport Docks Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: An0033348 Permit Version: 1 Effective Date: 10th September 1987 Issued Date: 10th September 1987 Revocation Date: 11th December 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Severn Estuary Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	832	2	330920 186090
17	Discharge Consents Operator: London Brick Co Ltd Property Type: Manufacture Of Other Building Materials Location: Newport Maesglas Road Allotment Lan, Maesglas Road Allotment Land Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Ac0111701 Permit Version: 1 Effective Date: 21st March 1978 Issued Date: 21st March 1978 Revocation Date: 23rd September 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Cefn Adda Reen Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A8SE (S)	850	2	330710 185930
18	Discharge Consents Operator: Associated British Ports Property Type: Support Services - Sea Transport Location: Newport Docks Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: An0033347 Permit Version: 1 Effective Date: 10th September 1987 Issued Date: 10th September 1987 Revocation Date: 11th December 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Severn Estuary Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	874	2	330950 186060

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Discharge Consents Operator: Axa Sun Life Property Type: Not Supplied Location: Sps Maesglas Retail Park Docks Way, Maesglas, Newport, NP20 2ns Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: An0314101 Permit Version: 1 Effective Date: 1st December 2001 Issued Date: 15th November 2001 Revocation Date: 6th September 2016 Discharge Type: Sewage Discharges - Pumping Station - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Cefn Adda Reen Status: Revoked Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	882	2	330950 186050
18	Discharge Consents Operator: Associated British Ports Property Type: Support Services - Sea Transport Location: Newport Docks Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: An0033346 Permit Version: 1 Effective Date: 10th September 1987 Issued Date: 10th September 1987 Revocation Date: 11th December 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Severn Estuary Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A9SW (SE)	896	2	330960 186040
19	Discharge Consents Operator: Newport Borough Council Property Type: Undefined Or Other Location: Newport Duffryn Housing Site T Authority: Natural Resources Wales Catchment Area: River Usk (Afon Wysg) Reference: Ac0093101 Permit Version: 1 Effective Date: 2nd September 1974 Issued Date: 2nd September 1974 Revocation Date: 20th November 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Ebbw River Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A8SE (S)	944	2	330540 185770
20	Integrated Pollution Prevention And Control Name: Docksway Generation Plant Epr/Lp3135sb/V003 Location: Docksway Generation Plant, Generation Plant, Docks Way, Maesglas, Newport, NP20 2NS Authority: Natural Resources Wales Permit Reference: Lp3135sb Original Permit Ref: Yp3835zf Effective Date: 12th June 2013 Status: Effective Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Manually positioned to the road within the address or location Activity Code: 0.0 Associated Process Activity Description: Not Supplied Primary Activity: Y	A9NE (SE)	743	2	331066 186330
21	Local Authority Pollution Prevention and Controls Name: Belle Vue Service Station Location: 71 Cardiff Road, NEWPORT, Gwent, NP20 2EN Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: P006/05 Dated: 31st December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Site Closed Positional Accuracy: Manually positioned to the address or location	A13SW (SW)	134	3	330156 186616

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	Local Authority Pollution Prevention and Controls Name: Tesco Stores Ltd Location: Harlech Retail Park, Cardiff Road, NEWPORT, Gwent, NP20 3BA Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: P004/05v1 Dated: 31st December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Manually positioned to the address or location	A13SW (SW)	145	3	330143 186616
22	Local Authority Pollution Prevention and Controls Name: Johnsons Cleaners Uk Ltd Location: 156-160 Cardiff Road, Newport, Np20 1gf Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: LAPPC/044/10 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Manually positioned to the address or location	A12SE (SW)	327	3	329970 186557
23	Local Authority Pollution Prevention and Controls Name: Coilcolor Ltd Location: Whitehead Estate, Docks Way, NEWPORT, Gwent, NP20 2NW Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: LAPPC/026/06/v2 Dated: 19th October 1993 Process Type: Local Authority Pollution Prevention and Control Description: PG6/13 Coil coating processes Status: Permitted Positional Accuracy: Manually positioned within the geographical locality	A14SW (E)	523	3	330956 186557
24	Local Authority Pollution Prevention and Controls Name: Newport Galvanisers Ltd Location: Whitehead Works, Mendalgief Road, NEWPORT, Gwent, NP20 2NF Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: Ad1992 Dated: 26th August 1992 Process Type: Application under SI 318, 1989 The Control of Industrial Air Pollution (Registration of Works) Regulations 1989 Description: PG2/2 Hot dip galvanising processes Status: Authorised Positional Accuracy: Manually positioned to the address or location	A14SW (E)	557	3	331031 186647
25	Local Authority Pollution Prevention and Controls Name: Stow Hill Service Station Location: Stow Hill, NEWPORT, Gwent, NP20 4GA Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: P012/05v3 Dated: 31st December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Automatically positioned to the address	A18NE (N)	760	3	330641 187590
26	Local Authority Pollution Prevention and Controls Name: Newport Filling Station Location: Cardiff Road, NEWPORT, NP20 3AG Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: Apa/071/98 Dated: 31st December 1998 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Automatically positioned to the address	A7SW (SW)	827	3	329699 186089
27	Local Authority Pollution Prevention and Controls Name: Johnsons Cleaners Uk Ltd Location: 12a Risca Road, Newport Authority: Newport City Council, Public Protection and Environmental Services Permit Reference: LAPPC/034/06 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Manually positioned to the address or location	A18NW (N)	887	3	330088 187674
	Nearest Surface Water Feature	A13NE (N)	16	-	330386 186856

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: River Ebbw; Spillage Incident Date: 4th December 1997 Incident Reference: 34407 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Poor Management Control Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	591	4	330800 186300
29	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Ad Yard Junction, (Close To Tesco), NEWPORT Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Cefn Adder Reen; Spillage Incident Date: 25th October 1997 Incident Reference: 34005 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Vandalism Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	688	4	330350 186000
30	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Adjacent To Comet Maesglas, NEWPORT Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Blockage Incident Date: 24th March 1997 Incident Reference: 31839 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Overflow Incident Severity: Category 3 - Minor Incident Positional Accuracy: Unknown	A14SE (E)	767	4	331200 186500
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Gaer Estate By, Childrens Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Not Supplied Incident Date: 9th April 1992 Incident Reference: 3628 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	769	4	329500 186700
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Royal Gwent Hospital, Cardiff Road, NEWPORT, Gwent, NP9 2UB Authority: Natural Resources Wales Permit Reference: AJ6874 Dated: 9th November 1994 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A19SW (NE)	604	2	330927 187242
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Royal Gwent Hospital, Cardiff Road,, NEWPORT, Gwent, NP9 2UB Authority: Natural Resources Wales Permit Reference: CC9504 Dated: 25th September 2008 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Substantial variation to a registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation either revoked or cancelled Positional Accuracy: Manually positioned to the address or location	A19SW (NE)	607	2	330931 187242

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Royal Gwent Hospital, Cardiff Road,, NEWPORT, Gwent, NP9 2UB Authority: Natural Resources Wales Permit Reference: CC9539 Dated: 25th September 2008 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Substantial variation to authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Manually positioned to the address or location	A19SW (NE)	607	2	330931 187242
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Friars Field Management Centre, Royal Gwent Hospital, Cardiff Road, NEWPORT, Gwent, NP9 2UB Authority: Natural Resources Wales Permit Reference: AT4635 Dated: 15th September 1995 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A19SW (NE)	607	2	330927 187247
32	Registered Radioactive Substances Name: Aneurin Bevan Local Health Board Location: Royal Gwent Hospital, Cardiff Road, NEWPORT, Gwent, NP20 2UB Authority: Natural Resources Wales Permit Reference: CD8333 Dated: 24th August 2009 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Discretionary authorisation under RSA Status: Application has been authorised and any conditions apply to the operator Positional Accuracy: Automatically positioned to the address	A19SW (NE)	608	2	330932 187243
32	Registered Radioactive Substances Name: Aneurin Bevan Local Health Board Location: Royal Gwent Hospital, Cardiff Road, NEWPORT, Gwent, NP20 2UB Authority: Natural Resources Wales Permit Reference: CD8341 Dated: 24th August 2009 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Discretionary registration under the Act of an open source which is also the subject of an authorisation Status: Application has been authorised and any conditions apply to the operator Positional Accuracy: Automatically positioned to the address	A19SW (NE)	608	2	330932 187243
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Royal Gwent Hospital, Cardiff Road, NEWPORT, Gwent, NP9 2UB Authority: Natural Resources Wales Permit Reference: BG0636 Dated: 14th May 1999 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Discretionary registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A19SW (NE)	608	2	330932 187242
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Royal Gwent Hospital, Cardiff Road, NEWPORT, Gwent, NP9 2UB Authority: Natural Resources Wales Permit Reference: BG0644 Dated: 14th May 1999 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Discretionary authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A19SW (NE)	608	2	330932 187242

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Cardiff Road, NEWPORT, Gwent, NP9 2UB Authority: Natural Resources Wales Permit Reference: AF1853 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Unknown	A19SW (NE)	608	2	330932 187243
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Royal Gwent Hospital, Cardiff Road, Newport, Gwent, NP20 2UB Authority: Natural Resources Wales Permit Reference: Bw8763 Dated: 1st December 2003 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A19SW (NE)	609	2	330932 187243
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Royal Gwent Hospital, Cardiff Road, Newport, Gwent, NP20 2UB Authority: Natural Resources Wales Permit Reference: Bq3851 Dated: 26th February 2002 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Minor variation to a registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A19SW (NE)	609	2	330932 187243
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Royal Gwent Hospital, Cardiff Road, Newport, Gwent, NP20 2UB Authority: Natural Resources Wales Permit Reference: Bm3558 Dated: 23rd November 2001 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Substantial variation to a registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A19SW (NE)	609	2	330932 187243
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Royal Gwent Hospital, Cardiff Road, Newport, Gwent, NP20 2UB Authority: Natural Resources Wales Permit Reference: Bm3531 Dated: 23rd November 2001 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Substantial variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A19SW (NE)	609	2	330932 187243
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Friars Field Management Centre, Royal Gwent Hospital, Cardiff Road, NEWPORT, Gwent, NP9 2UB Authority: Natural Resources Wales Permit Reference: AP0348 Dated: 25th November 1994 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A19SW (NE)	609	2	330937 187237

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Royal Gwent Hospital, Cardiff Road, NEWPORT, Gwent, NP9 2UB Authority: Environment Agency, Welsh Region Permit Reference: AL1474 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA dated pre April 1991 Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A19SW (NE)	609	4	330937 187238
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Royal Gwent Hospital, Cardiff Road, NEWPORT, Gwent, NP9 2UB Authority: Natural Resources Wales Permit Reference: AX7377 Dated: 17th February 1997 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Initial variation to an authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Unknown	A19SW (NE)	612	2	330932 187248
32	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Friars Field Management Centre, Royal Gwent Hospital, Cardiff Road, NEWPORT, Gwent, NP9 2UB Authority: Natural Resources Wales Permit Reference: AR9761 Dated: 8th August 1995 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A19SW (NE)	612	2	330937 187242
32	Registered Radioactive Substances Name: Glan Hafren Nhs Trust Location: Royal Gwent Hospital, Cardiff Road, NEWPORT, Gwent, NP9 2UB Authority: Natural Resources Wales Permit Reference: AN5608 Dated: 6th September 1994 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Unknown	A19SW (NE)	615	2	330937 187247
33	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: St. Woolos Hospital, 131 Stow Hill, NEWPORT, Gwent, NP9 4SZ Authority: Natural Resources Wales Permit Reference: AT4589 Dated: 15th September 1995 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A18NE (N)	673	2	330607 187509
33	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: St. Woolos Hospital, 131 Stow Hill, NEWPORT, Gwent, NP9 4SZ Authority: Natural Resources Wales Permit Reference: AC3485 Dated: 27th August 1993 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Unknown	A18NE (N)	674	2	330612 187509
33	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: St Woolos Hospital, Stow Hill, NEWPORT, Gwent, NP20 4SZ Authority: Natural Resources Wales Permit Reference: Bw8771 Dated: 1st December 2003 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Automatically positioned to the address	A18NE (N)	677	2	330607 187514

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: St Woolos Hospital, Stow Hill, NEWPORT, Gwent, NP20 4SZ Authority: Natural Resources Wales Permit Reference: BG0652 Dated: 14th May 1999 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A18NE (N)	677	2	330607 187514
33	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Stow Hill, NEWPORT, Gwent, NP9 4SZ Authority: Environment Agency, Welsh Region Permit Reference: AL0311 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA dated pre April 1991 Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A18NE (N)	678	4	330607 187514
33	Registered Radioactive Substances Name: Gwent Healthcare Nhs Trust Location: Stow Hill, NEWPORT, Gwent, NP9 4SZ Authority: Natural Resources Wales Permit Reference: AX7385 Dated: 11th February 1997 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Substantial variation to authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Unknown	A18NE (N)	679	2	330612 187514
	River Quality Name: Ebbw Fawr GQA Grade: River Quality A Reach: Tidal Limit -Bassaleg Bridge Estimated Distance 4.1 (km): Flow Rate: Flow less than 10 cumecs Flow Type: River Year: 2000	A8SW (S)	878	4	330267 185807
34	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 16th April 2007 Incident Reference: 486306 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Storm Sewage	A13NE (N)	38	2	330427 186886
35	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 4th May 2015 Incident Reference: 1334523 Water Impact: Category 3 - Minor Incident Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants and Effects: Smoke	A8SE (S)	763	2	330529 185954
36	Water Abstractions Operator: Corus Uk Ltd Licence Number: 20/56/11/0013 Permit Version: 102 Location: Dock Feeder At Pillgwenlly To Whitehead Authority: Environment Agency, Welsh Region Abstraction: Metal: General Use Relating To Secondary Category (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Whitehead Works, Newport Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 17th April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	754	4	330800 186100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	Water Abstractions Operator: British Steel Plc Licence Number: 20/56/11/0013 Permit Version: 101 Location: Dock Feeder At Pillgwenly To Whitehead Authority: Environment Agency, Welsh Region Abstraction: Metal: General Use Relating To Secondary Category (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Whitehead Works, Newport Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 3rd March 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	754	4	330800 186100
	Water Abstractions Operator: Natural Resources Wales Licence Number: Wa/056/0061/0004 Permit Version: Not Supplied Location: River Ebbw At Sandy Lane Pumping Station, Sandy Lane, Newport, Np10 8tb Authority: Natural Resources Wales Abstraction: Drainage Operations: Transfer Between Sources (Post Water Act 2003) Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A2NE (SW)	1157	2	329752 185652
	Water Abstractions Operator: Natural Resources Wales Licence Number: Wa/056/0061/0005 Permit Version: Not Supplied Location: Offtake From Newport Dock Feeder To Pontycywcw Reen, Newport Dock Feeder, Newport, Np10 8tg Authority: Natural Resources Wales Abstraction: Drainage Operations: Transfer Between Sources (Post Water Act 2003) Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7SW (SW)	1225	2	329379 185847
	Water Abstractions Operator: Newbridge Construction Ltd Licence Number: 20/56/61/0017 Permit Version: 101 Location: Stream In Rogerstone Authority: Natural Resources Wales Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 30 November Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(W)	1754	2	328520 186820

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Newbridge Construction Ltd Licence Number: 20/56/61/0017 Permit Version: Not Supplied Location: Former Tredegar Park Golf Club Spray Irrigation Authority: Natural Resources Wales Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(W)	1754	2	328520 186820
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Unproductive Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: No Data	A13SW (W)	0	2	330380 186766
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: No Data	A13NW (NW)	0	2	330347 186801
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SW (W)	0	2	330380 186766
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	A13SW (W)	0	2	330380 186766
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A13SW (W)	73	5	330220 186763

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A13NW (NW)	150	5	330203 186872
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A13NW (NW)	204	5	330267 187004
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 474.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A14NW (E)	277	5	330776 186828
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 323.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SE (N)	356	5	330399 187210
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A14SW (E)	359	5	330807 186625
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 124.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A14NW (NE)	362	5	330734 187094
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	372	5	330352 187212
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	381	5	330339 187218
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 219.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Twenty Acres Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A14SW (E)	383	5	330818 186597

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 87.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cefn Adda Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A8NW (S)	399	5	330319 186288
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 64.1 Watercourse Level: Underground Permanent: True Watercourse Name: Cefn Adda Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A8NW (S)	399	5	330317 186289
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cefn Adda Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A8NW (S)	406	5	330253 186280
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 99.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	412	5	330330 187248
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 91.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	412	5	330335 187249
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.5 Watercourse Level: Underground Permanent: True Watercourse Name: Cefn Adda Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A8NW (S)	414	5	330225 186275
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 204.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cefn Adda Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A8NW (S)	421	5	330198 186271
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 591.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Cefn Adda Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A8NE (S)	449	5	330444 186256
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 2	A8NW (S)	461	5	330381 186231

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 280.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Maes-glas Reen Catchment Name: Ebbw Sirhowy Primacy: 2	A8NW (S)	463	5	330381 186229
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	496	5	330303 187329
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	496	5	330303 187329
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 59.6 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	496	5	330303 187329
60	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 4.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	514	5	330299 187347
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 40.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	518	5	330295 187350
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	546	5	330326 187384
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	555	5	330321 187392
64	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 21.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A12SE (W)	577	5	329709 186550

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 41.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A12SW (W)	586	5	329696 186567
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A12SW (W)	586	5	329696 186568
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Twenty Acres Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A9NW (SE)	587	5	330945 186429
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 69.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18SW (N)	597	5	330316 187434
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 61.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A12SW (W)	623	5	329657 186573
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 93.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Twenty Acres Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A9NW (SE)	640	5	330971 186378
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 29.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18NW (N)	643	5	330256 187469
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18NW (N)	671	5	330244 187496
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 92.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A12SW (W)	681	5	329597 186584

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18NW (N)	693	5	330222 187513
75	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 18.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18NW (N)	705	5	330208 187521
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 208.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Maes-glas Reen Catchment Name: Ebbw Sirhowy Primacy: 2	A8SW (S)	706	5	330378 185984
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A18NW (N)	709	5	330191 187521
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 46.4 Watercourse Level: Underground Permanent: True Watercourse Name: Twenty Acres Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A9NW (SE)	721	5	331041 186334
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A12SW (W)	751	5	329521 186629
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 16.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A12SW (W)	751	5	329521 186629
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A12SW (W)	766	5	329506 186633
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 64.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Twenty Acres Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A9NE (SE)	766	5	331064 186294

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 220.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 1	A12SW (W)	769	5	329502 186638
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 51.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Ebbw Sirhowy Primacy: 2	A8SE (S)	805	5	330571 185923
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 130.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Twenty Acres Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A9NW (SE)	825	5	330997 186147
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 74.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Great Wharf Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A9NW (SE)	829	5	330967 186119
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.9 Watercourse Level: Underground Permanent: True Watercourse Name: Upper Great Wharf Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A9NW (SE)	839	5	330942 186097
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 122.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Maes-glas Pill Catchment Name: Ebbw Sirhowy Primacy: 1	A9SW (SE)	842	5	330929 186084
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Upper Great Wharf Reen Catchment Name: Ebbw Sirhowy Primacy: 1	A9SW (SE)	842	5	330931 186086
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 299.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Ebwy Catchment Name: Ebbw Sirhowy Primacy: 1	A8SW (S)	911	5	330358 185778
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 123.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Ebwy Catchment Name: Ebbw Sirhowy Primacy: 1	A8SW (S)	913	5	330367 185776

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.7 Watercourse Level: Underground Permanent: True Watercourse Name: Maes-glas Pill Catchment Name: Ebbw Sirhowy Primacy: 1	A9SW (SE)	961	5	330995 185984

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	Historical Landfill Sites Licence Holder: Network Rail Infrastructure Ltd Location: Maesglas, Newport Name: Land at Newport Sidings Operator Location: 40 Melton Street, London Boundary Accuracy: As Supplied Provider Reference: EAHLD35574 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 30010 Regis Ref: WU1/L/RAI001 WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: Not Supplied	A13SW (W)	0	2	330380 186766
94	Historical Landfill Sites Licence Holder: British Rail Location: Maesglas Name: Level of Mendalgief Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD15047 First Input Date: 31st December 1976 Last Input Date: Not Supplied Specified Waste: Deposited Waste included Inert Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6935/0022 BGS Ref: Not Supplied Other Ref: 025/92, 025/76	A13SW (S)	16	2	330379 186683
95	Historical Landfill Sites Licence Holder: Not Supplied Location: Newport, Gwent Name: Alexandra Dock Junction Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14091 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Not Supplied Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6935/0003 BGS Ref: Not Supplied Other Ref: Not Supplied	A13SW (SW)	174	2	330214 186521
96	Historical Landfill Sites Licence Holder: Not Supplied Location: Maesglas Retail Park, Maesglas Name: Maesglas Sidings South Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14102 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Deposited Waste included Inert and Industrial Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6935/0057 BGS Ref: Not Supplied Other Ref: Not Supplied	A8NE (S)	371	2	330398 186325
97	Historical Landfill Sites Licence Holder: D J Litt Location: Maesglas Name: The Dingles Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD15033 First Input Date: 31st December 1988 Last Input Date: 10th April 1990 Specified Waste: Deposited Waste included Inert and Industrial Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6935/0049 BGS Ref: Not Supplied Other Ref: 48/88	A8NE (S)	449	2	330521 186284

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
98	Historical Landfill Sites Licence Holder: Not Supplied Location: Maesglas Industrial Estate, Newport, Gwent Name: Unit 3, Maesglas Industrial Estate Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14101 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste: Deposited Waste included Industrial and Household Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6935/0053 BGS Ref: Not Supplied Other Ref: Not Supplied	A8NE (S)	535	2	330591 186223
99	Historical Landfill Sites Licence Holder: Newport County Borough Council Location: Docks Way, Newport, Gwent Name: Docksway Landfill Newport Phase 1 Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14580 First Input Date: 31st December 1958 Last Input Date: 31st December 1980 Specified Waste: Deposited Waste included Inert, Industrial, Commercial and Household Waste, and Liquid Sludge Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6935/0012 BGS Ref: Not Supplied Other Ref: 066/92	A9SW (SE)	935	2	330805 185883
100	Licensed Waste Management Facilities (Landfill Boundaries) Name: Level Of Mendalgief Maesglas Recycling Ltd Licence Number: 30010 Location: Maesglas, Newport, NP20 2NS Licence Holder: Network Rail Infrastructure Ltd Authority: Natural Resources Wales Site Category: Landfills Taking Other Wastes (Construction, Demolition, Dredgings) Max Input Rate: Not Supplied Licence Status: Inactive Issued: 4th July 1979 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A13SW (W)	0	2	330380 186766
101	Licensed Waste Management Facilities (Landfill Boundaries) Name: Docks Way Landfill Licence Number: 30058 Location: Docks Way Landfill, Docks Way, Maesglas, Newport, Gwent, NP20 2NS Licence Holder: Newport City Council Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Waste Landfills Max Input Rate: Not Supplied Licence Status: Closure Issued: 28th February 1992 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied	A8SE (S)	831	2	330386 185859
102	Licensed Waste Management Facilities (Locations) Licence Number: 30062 Location: St Woolos Hospital, Stow Hill, Newport, Gwent, NP20 4SZ Operator Name: Aneurin Bevan Health Board Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Clinical Waste Transfer Stations Licence Status: Surrendered Issued: 7th April 1992 Last Modified: 12th January 2004 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 2nd October 2012 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A18SE (NE)	600	2	330664 187417

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
103	Licensed Waste Management Facilities (Locations) Licence Number: 30010 Location: Maesglas, Newport, Gwent, NP20 2NS Operator Name: Network Rail Infrastructure Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Landfills Taking Other Wastes (Construction, Demolition, Dredgings) Licence Status: Surrendered Issued: 4th July 1979 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 22nd January 2008 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	669	2	330973 186338
104	Licensed Waste Management Facilities (Locations) Licence Number: 30281 Location: Land/ Premises At, Newport, Gwent, NP20 2NS Operator Name: Network Rail Infrastructure Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Surrendered Issued: 30th April 2003 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 18th October 2010 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	717	2	330992 186289
105	Licensed Waste Management Facilities (Locations) Licence Number: NP3199FM Location: Maesglas, Newport, Gwent, NP20 2NS Operator Name: Newport City Council Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Waste Landfills Licence Status: Effective Issued: 28th February 1992 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8SW (S)	839	2	330380 185851
	Local Authority Landfill Coverage Name: Newport County Borough Council - Has no landfill data to supply		0	6	330380 186766
106	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A7NW (SW)	730	-	329667 186274
107	Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1994	A8SE (S)	775	-	330516 185938
108	Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1994	A14SE (E)	793	-	331213 186466
109	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1994	A9NE (SE)	960	-	331341 186351
110	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (SE)	8	-	330421 186671
111	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A13NE (NE)	35	-	330507 186854

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
112	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A13NE (NE)	137	-	330600 186900
113	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A13NE (E)	160	-	330658 186824
114	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A13NE (E)	166	-	330665 186806
115	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (SE)	183	-	330529 186614
116	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A13NE (NE)	198	-	330654 186931
117	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (SE)	220	-	330526 186570
118	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14NW (NE)	261	-	330726 186937
119	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (E)	378	-	330848 186665
120	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14NW (E)	378	-	330860 186919
121	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A12SE (SW)	420	-	329914 186465
122	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (E)	424	-	330918 186749
123	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A8NE (S)	441	-	330465 186271
124	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A14SW (E)	457	-	330915 186621
125	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1887	A9NW (SE)	462	-	330735 186411
126	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1887	A9NW (SE)	463	-	330729 186406
127	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A8NE (SE)	495	-	330703 186352
128	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (SE)	499	-	330916 186536
129	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A8NE (SE)	504	-	330598 186263
130	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (E)	518	-	330964 186583
131	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A8NE (S)	525	-	330436 186175
132	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A17SE (NW)	539	-	330031 187246

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
133	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A8NE (S)	558	-	330489 186156
134	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (E)	560	-	330992 186544
135	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A17SE (NW)	572	-	329928 187196
136	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1887	A9NW (SE)	578	-	330843 186345
137	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A8NE (S)	614	-	330565 186124
138	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (SE)	615	-	331011 186469
139	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A17SE (NW)	619	-	330004 187326
140	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A17SE (NW)	632	-	329868 187220
141	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A14SE (E)	634	-	331068 186533
142	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A8NE (SE)	643	-	330705 186168
143	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SE (E)	671	-	331119 186555
144	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A9NW (SE)	671	-	330838 186229
145	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A9NW (SE)	737	-	330862 186166
146	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9NW (SE)	743	-	330854 186153
147	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9SW (S)	896	-	330727 185884
148	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8SE (S)	950	-	330697 185814

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
149	Registered Landfill Sites Licence Holder: Railtrack Plc Licence Reference: 025/92 Site Location: Level of Mendalgief, Maesglas, NEWPORT, Gwent, CF27 9NR Licence Easting: 330500 Licence Northing: 186600 Operator Location: Railtrack House, Euston Square, LONDON, Greater London, NW1 2EE Authority: Environment Agency Wales, South East Area Site Category: Landfill Max Input Rate: Undefined Waste Source: Waste produced/controlled by licence holder Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 4th July 1979 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Hardcore And Rubble Other Minerals Railway Ballast Timber And Other Organic Material Prohibited Waste: Poisonous, Noxious, Polluting Wastes Putrescible Waste Waste N.O.S.	A13SE (SE)	187	4	330500 186600
150	Registered Landfill Sites Licence Holder: E & J Meeks Ltd Licence Reference: 032/83 Site Location: Plots 4 & 5 Port Road, Maesglas Industrial Estate, Newport, Gwent Licence Easting: 330700 Licence Northing: 186300 Operator Location: Summit Close, Southwell Lane, Kirkby In Ashfield, Nottinghamshire Authority: Environment Agency Wales, South East Area Site Category: Landfill Max Input Rate: Undefined Waste Source: Only waste produced on site Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st January 1983 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Accuracy: Not Applicable Authorised Waste: Constr'N/Demol. Inert/Non-Haz/Non-Tox Hardcore And Rubble	A8NE (SE)	437	4	330644 186383
151	Registered Landfill Sites Licence Holder: D J Litt Licence Reference: 048/88 Site Location: The Dingle, Unit 3 Port Road, Newport, Gwent Licence Easting: 330540 Licence Northing: 186260 Operator Location: Unit 6 Latches Wharf, Mill Parade, Newport, Gwent Authority: Environment Agency Wales, South East Area Site Category: Landfill Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st May 1988 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Building Rubble Other Similar Inert Waste	A8NE (S)	479	4	330540 186260

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
152	Registered Waste Transfer Sites Licence Holder: Glan Hafn Nhs Trust Licence Reference: 065/92 Site Location: St Woolos Hospital, Stow Hill, Newport, Gwent Operator Location: As Site Address Authority: Environment Agency Wales, South East Area Site Category: Transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 7th April 1992 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Clinical Wastes	A18SE (N)	614	4	330640 187440
153	Registered Waste Transfer Sites Licence Holder: Newport Waste Disposal Company Ltd Licence Reference: 067/92 Site Location: Docks Way Civic Amenity Site, Maesglas, NEWPORT, Gwent, NP9 4UR Operator Location: Civic Centre, NEWPORT, Gwent, NP9 4UR Authority: Environment Agency Wales, South East Area Site Category: Civic Amenity Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 28th February 1992 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Bonded Asbestos Glass Household Waste Metal Waste Oil Waste Paper Waste Plastic Prohibited Waste: Any Waste Containing Flammable Liquids Percussive/Explosive/Similar Waste Special Wastes Sub'S Control. Radioactive Subs Act'60	A8SE (S)	956	4	330550 185760

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
154	Control of Major Accident Hazards Sites (COMAH) Name: Calor Gas Ltd Location: Maesglas Industrial Estate, NEWPORT, Gwent, NPT 2XF Reference: Not Supplied Type: Lower Tier Status: Record Ceased To Be Supplied Under COMAH Regulations Positional Accuracy: Manually positioned to the road within the address or location	A8NE (S)	553	7	330471 186156
155	Control of Major Accident Hazards Sites (COMAH) Name: Transco Plc Location: Maes Glas Road, Docks Way, NEWPORT, Gwent, NPT 3DD Reference: Not Supplied Type: Lower Tier Status: Record Ceased To Be Supplied Under COMAH Regulations Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	773	7	330928 186167
156	Notification of Installations Handling Hazardous Substances (NIHHS) Name: Calor Gas Limited Location: Newport Calor Centre, Maesglas Industrial Estate, NEWPORT, Gwent, NPT 2XF Status: Not Active Positional Accuracy: Manually positioned to the road within the address or location	A8NE (S)	557	7	330471 186151
157	Notification of Installations Handling Hazardous Substances (NIHHS) Name: Transco Location: Mendalgief Holder Station, Maes Glas Road, Docks Way, NEWPORT, Gwent, NPT 3DD Status: Not Active Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	777	7	330928 186162
158	Planning Hazardous Substance Consents Name: Bg Transco Limited Location: Mendalgief Holder station, Maes Glas Road, Docks Way, NEWPORT, NP1 3DD Authority: Newport City Council, Planning Department Application Ref: 00/0914 Hazardous Substance: Liquefied extremely flammable gas (including LPG) and natural gas (whether liquefied or not) Maximum Quantity: 82.4 Application date: 10th August 2000 Decision: Deemed Consent Granted Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	773	8	330930 186168

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Lower Devonian Rocks (Undifferentiated)	A13SW (W)	0	1	330380 186766
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (W)	0	1	330380 186766
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7NE (SW)	521	1	329985 186250
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SE (S)	718	1	330567 186012
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SE (S)	719	1	330608 186025
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SE (S)	730	1	330657 186038
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8SW (S)	740	1	330360 185949

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic <15 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A8SW (S)	754	1	330207 185935
159	BGS Recorded Mineral Sites Site Name: Mon Bank Sidings Location: Newport, Gwent Source: British Geological Survey, National Geoscience Information Service Reference: 3068 Type: Tip Status: Ceased Operator: Hanson Aggregates, South West Region Operator Location: Not Supplied Periodic Type: Anthropogene Geology: Quarry (Hard Rock) Commodity: Secondary Positional Accuracy: Unknown	A13SE (SE)	255	1	330500 186500
160	BGS Recorded Mineral Sites Site Name: Castell Glas Location: Newport, Gwent Source: British Geological Survey, National Geoscience Information Service Reference: 160572 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Triassic Geology: Blue Lias Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A8SE (S)	828	1	330478 185875
161	BGS Recorded Mineral Sites Site Name: Pont-Ebbw Location: Newport, Gwent Source: British Geological Survey, National Geoscience Information Service Reference: 176567 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: River Terrace Deposits (Undifferentiated) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	848	1	329562 186220
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	330347 186801
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	240	1	330445 186474
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	330347 186801
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	240	1	330445 186474
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	330347 186801
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	240	1	330445 186474
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	330347 186801
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	240	1	330445 186474
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	330347 186801
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	240	1	330445 186474
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
162	Contemporary Trade Directory Entries Name: Tesco Petrol Filling Station Location: TESCO PETROL FILLING STATION, HARLECH RETAIL PARK, CARDIFF ROAD, NEWPORT, NP20 3BA Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	136	-	330154 186615
163	Contemporary Trade Directory Entries Name: Squeaky Clean Location: 29, CAE PERLLAN ROAD, NEWPORT, NP20 3FW Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	269	-	330131 186969
164	Contemporary Trade Directory Entries Name: Tesco Petrol Filling Station Location: Unit 6, Harlech Retail Park, Cardiff Road, Newport, Gwent, NP20 3BA Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	303	-	330154 186407
164	Contemporary Trade Directory Entries Name: Tesco Petrol Filling Station Location: Unit 6, Harlech Retail Park, Cardiff Road, Newport, Gwent, NP20 3BA Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8NW (SW)	303	-	330154 186407
165	Contemporary Trade Directory Entries Name: P R G Powerhouse Location: Unit 4, Harlech Retail Park, Cardiff Road, Newport, Gwent, NP20 3BA Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	311	-	330102 186425
165	Contemporary Trade Directory Entries Name: Currys Location: 3B, HARLECH RETAIL PARK, CARDIFF ROAD, NEWPORT, NP20 3BA Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	316	-	330083 186433
165	Contemporary Trade Directory Entries Name: Currys Location: Unit 3, Harlech Retail Park, Cardiff Road, Newport, Gwent, NP20 3BA Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	318	-	330073 186437
165	Contemporary Trade Directory Entries Name: Currys Pc World Location: Unit 3, Harlech Retail Park, Cardiff Road, Newport, NP20 3BA Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (SW)	319	-	330073 186436
166	Contemporary Trade Directory Entries Name: C Robinson Location: 68, Cae Perllan Road, Newport, Gwent, NP20 3FU Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	339	-	330173 187102
167	Contemporary Trade Directory Entries Name: Johnsons The Cleaners Location: 156-160, Cardiff Road, Newport, NP20 3AE Classification: Dry Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A12SE (SW)	364	-	329939 186535
168	Contemporary Trade Directory Entries Name: Walls Truck Services Location: Unit 6, Maesglas Retail Park, Newport, NP20 2NS Classification: Commercial Vehicle Breakdown & Recovery Services Status: Active Positional Accuracy: Automatically positioned to the address	A8NE (S)	377	-	330495 186352

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
168	Contemporary Trade Directory Entries Name: Walls Trucks Services Ltd Location: Unit 6, Maesglas Retail Park, Newport, Gwent, NP20 2NS Classification: Commercial Vehicle Breakdown & Recovery Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	383	-	330514 186355
168	Contemporary Trade Directory Entries Name: Calor Gas Ltd Location: Maesglas Retail Park, Newport, Gwent, NP20 2XF Classification: Gas Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	397	-	330543 186355
168	Contemporary Trade Directory Entries Name: Newport Calor Gas Centre Location: Maesglas Retail Park, Newport, Gwent, NP20 2XF Classification: Gas Appliances - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	397	-	330543 186355
168	Contemporary Trade Directory Entries Name: Gas On Ltd Location: Unit 7a, Maesglas Retail Park, Newport, Gwent, NP20 2XF Classification: Gas Suppliers Status: Active Positional Accuracy: Automatically positioned to the address	A8NE (S)	397	-	330543 186355
168	Contemporary Trade Directory Entries Name: Gas On Location: Maesglas Retail Park, Newport, Gwent, NP20 2XF Classification: Gas Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	397	-	330543 186355
168	Contemporary Trade Directory Entries Name: Gas On Location: Maesglas Retail Park, Newport, Gwent, NP20 2XF Classification: Gas Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	397	-	330543 186355
169	Contemporary Trade Directory Entries Name: Ryland Honda (Newport) Location: 71, Cardiff Road, Newport, Gwent, NP20 2EN Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NW (NE)	395	-	330808 187056
170	Contemporary Trade Directory Entries Name: Newport Galvanisers Ltd Location: Whitehead Works, Mendalgief Road, Newport, Gwent, NP20 2NF Classification: Corrosion Prevention & Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NW (E)	428	-	330893 186976
170	Contemporary Trade Directory Entries Name: B R C Location: Whitehead Works, Mendalgief Road, Newport, Gwent, NP20 2NF Classification: Steel Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A14NW (E)	428	-	330893 186976
170	Contemporary Trade Directory Entries Name: R & R Industrial Location: Whitehead Works, Mendalgief Road, Newport, Gwent, NP20 2NF Classification: Engineers - General Status: Inactive Positional Accuracy: Manually positioned to the address or location	A14NW (E)	428	-	330893 186976
171	Contemporary Trade Directory Entries Name: K & K Car Commercial Location: Unit 3, Maesglas Retail Park, Newport, Gwent, NP20 2NS Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	449	-	330568 186309
171	Contemporary Trade Directory Entries Name: Sportsman Gun Centre Ltd Location: Unit 3, Maesglas Retail Park, Newport, Gwent, NP20 2NS Classification: Gunsmiths Status: Active Positional Accuracy: Automatically positioned to the address	A8NE (S)	449	-	330568 186309

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
171	Contemporary Trade Directory Entries Name: Car & Lorry Repairs Ltd Location: Unit 3, Maesglas Retail Park, Newport, Gwent, NP20 2NS Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	449	-	330568 186309
172	Contemporary Trade Directory Entries Name: Belle View Service Station Location: 71, Cardiff Road, Newport, NP20 2EN Classification: Petrol Filling Stations - 24 Hour Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NW (NE)	451	-	330874 187058
173	Contemporary Trade Directory Entries Name: Pegler & Loudon Ltd Location: Unit 13A, Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Valve Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	473	-	330448 186232
174	Contemporary Trade Directory Entries Name: D X Freight Location: 181 Cardiff Road, Newport, Gwent, NP20 3BP Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	480	-	329912 186367
175	Contemporary Trade Directory Entries Name: Maesglas Metal Management Location: Unit 17, Greenwich Road, Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Scrap Metal Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	503	-	330523 186226
175	Contemporary Trade Directory Entries Name: Plastic Parts Centre Location: Unit 17, Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Distribution Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	503	-	330523 186226
176	Contemporary Trade Directory Entries Name: I Flight & Sons Ltd Location: 108, Cae Perlann Road, Newport, Gwent, NP20 3FT Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (NW)	504	-	330157 187288
177	Contemporary Trade Directory Entries Name: S W Freight Logistics Location: Unit 2 Maesglas Retail Park, Port Road, Newport, Gwent, NP20 2NS Classification: Freight Forwarders Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A8NE (SE)	525	-	330650 186274
178	Contemporary Trade Directory Entries Name: H & T Fragrance & Skincare Supplies Location: 23, Winchester Close, Newport, Gwent, NP20 3BL Classification: Perfume Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (S)	530	-	330148 186170
179	Contemporary Trade Directory Entries Name: Macback Location: Unit 18-19 Maesglas Industrial Estate, Greenwich Road, Newport, Gwent, NP20 2NN Classification: Recycling Services Status: Active Positional Accuracy: Manually positioned to the address or location	A8NE (S)	537	-	330509 186185
179	Contemporary Trade Directory Entries Name: Body Cote Location: Unit 20, Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Coating Specialists Status: Active Positional Accuracy: Automatically positioned to the address	A8NE (S)	564	-	330538 186167

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
180	Contemporary Trade Directory Entries Name: Ats Euromaster Ltd Location: Port Rd, Maesglas Ind Est, Newport, Gwent, NP20 2NN Classification: Tyre Dealers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A8NE (S)	539	-	330489 186176
180	Contemporary Trade Directory Entries Name: Comet Location: Unit 8, Maesglas Ind Est, Newport, Gwent, NP20 2NN Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A8NE (S)	539	-	330489 186176
180	Contemporary Trade Directory Entries Name: S I G Roofline Location: Unit 8, Greenwich Road, Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Builders' Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	578	-	330475 186131
180	Contemporary Trade Directory Entries Name: Sig Pbm-Dqs Location: Unit 8, Greenwich Road, Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Builders' Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	578	-	330475 186131
180	Contemporary Trade Directory Entries Name: Comet Group Plc Location: Unit 8, 28 Maesglas Ind Est, Newport, Gwent, NP20 2NN Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8NE (S)	579	-	330475 186130
180	Contemporary Trade Directory Entries Name: Comet Group Plc Location: Maesglas Ind Est, Newport, Gwent, NP20 2NN Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8NE (S)	579	-	330475 186130
180	Contemporary Trade Directory Entries Name: Gap Ltd Location: Unit 8 Maesglas Industrial Estate, Greenwich Road, Newport, Gwent, NP20 2NN Classification: Window Frame Manufacturers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A8NE (S)	585	-	330482 186125
180	Contemporary Trade Directory Entries Name: Electronic Manufacturing Services Location: Unit 9, Greenwich Road, Newport, NP20 2NN Classification: Printed Circuit Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	588	-	330472 186120
180	Contemporary Trade Directory Entries Name: Electronic Manufacturing Services Location: Unit 9, Greenwich Road, Newport, NP20 2NN Classification: Printed Circuit Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	588	-	330472 186120
180	Contemporary Trade Directory Entries Name: Miter Location: Unit 11, Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Nuts, Bolts & Fixings Status: Active Positional Accuracy: Automatically positioned to the address	A8NE (S)	589	-	330444 186111
180	Contemporary Trade Directory Entries Name: Flogard Systems Ltd Location: Unit 11, Greenwich Road, Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Filtration Systems & Services Status: Active Positional Accuracy: Automatically positioned to the address	A8NE (S)	589	-	330444 186111

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
180	Contemporary Trade Directory Entries Name: Filtech 2000 Ltd Location: Unit 10, Greenwich Road, Maesglas Industrial Estate, Newport, NP20 2NN Classification: Filter Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	592	-	330462 186113
180	Contemporary Trade Directory Entries Name: Fentrade Ltd Location: UNIT 12, GREENWICH ROAD, MAESGLAS INDUSTRIAL ESTATE, NEWPORT, NP20 2NN Classification: Aluminium Fabricators Status: Active Positional Accuracy: Automatically positioned to the address	A8NE (S)	599	-	330440 186101
180	Contemporary Trade Directory Entries Name: Seven Day Windows Location: UNIT 7, GREENWICH ROAD, MAESGLAS INDUSTRIAL ESTATE, NEWPORT, NP20 2NN Classification: PVC-U Products - Manufacturers & Suppliers Status: Active Positional Accuracy: Automatically positioned to the address	A8SE (S)	621	-	330485 186089
181	Contemporary Trade Directory Entries Name: Coilcolor Location: 28 East Retail Park, Docks Way, NEWPORT, Gwent, NP20 2NW Classification: Coating Specialists Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	591	-	330997 186492
181	Contemporary Trade Directory Entries Name: Colorpro Systems Ltd Location: Docks Way, Newport, Gwent, NP20 2NW Classification: Cladding Suppliers & Installers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	591	-	330997 186492
181	Contemporary Trade Directory Entries Name: Colorpro Ltd Location: Docks Way, Newport, Gwent, NP20 2NW Classification: Cladding Suppliers & Installers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	591	-	330997 186492
182	Contemporary Trade Directory Entries Name: Just Plumbing Location: 82, Capel Crescent, NEWPORT, Gwent, NP20 2FS Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NW (E)	596	-	331049 187038
182	Contemporary Trade Directory Entries Name: Newport French Polishers Location: 54 Capel Crescent, Newport, Gwent, NP20 2FT Classification: French Polishing Status: Active Positional Accuracy: Automatically positioned to the address	A14NE (E)	609	-	331075 187005
183	Contemporary Trade Directory Entries Name: Computing Europe Location: 191, Cardiff Road, Newport, Gwent, NP20 3BP Classification: Computer Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	599	-	329848 186262
183	Contemporary Trade Directory Entries Name: Pick Up & Press Location: 201, Cardiff Road, Newport, Gwent, NP20 3BP Classification: Ironing & Home Laundry Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	623	-	329841 186235
183	Contemporary Trade Directory Entries Name: Pick Up & Press Location: 201, Cardiff Road, Newport, NP20 3BP Classification: Ironing & Home Laundry Services Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	624	-	329840 186235

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
184	Contemporary Trade Directory Entries Name: Asyst Technologies Location: Unit 12A, Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Electronic Component Manufacturers & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	599	-	330424 186098
184	Contemporary Trade Directory Entries Name: Appliance Direct Location: Unit 12A, Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	599	-	330424 186098
185	Contemporary Trade Directory Entries Name: Royal Gwent Hospital Location: Royal Gwent Hospital, Cardiff Road, Newport, Gwent, NP20 2UB Classification: Hospitals Status: Active Positional Accuracy: Automatically positioned to the address	A19SW (NE)	608	-	330932 187243
186	Contemporary Trade Directory Entries Name: T G Howell & Sons Ltd Location: Maesglas Retail Park, Newport, Gwent, NP20 2NS Classification: Gas Suppliers - Bottled Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	611	-	330734 186231
187	Contemporary Trade Directory Entries Name: Motorline Toyota Location: Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Car Dealers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A8NE (S)	617	-	330521 186104
188	Contemporary Trade Directory Entries Name: Terry Howell Location: Unit 17, Maesglas Retail Park, Newport, Gwent, NP20 2NS Classification: Builders' Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	653	-	330929 186318
189	Contemporary Trade Directory Entries Name: Terry Howell Location: Unit 15, Maesglas Retail Park, Newport, Gwent, NP20 2NS Classification: Builders' Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (SE)	659	-	331070 186481
190	Contemporary Trade Directory Entries Name: Exel Location: Unit 22, Maesglas Industrial Estate, Newport, Gwent, NP20 2NN Classification: Distribution Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (SE)	661	-	330660 186118
191	Contemporary Trade Directory Entries Name: Motorline Toyota Newport Location: Toyota House Unit 16, Maesglas Retail Park, Newport, NP20 2NS Classification: Car Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A9NW (SE)	673	-	330881 186256
191	Contemporary Trade Directory Entries Name: Toyota World (Newport) Location: Unit 16, Maesglas Retail Pk, Newport, Gwent, NP20 2NS Classification: Car Dealers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	675	-	330887 186257
191	Contemporary Trade Directory Entries Name: Ryburn Toyota Location: Toyota House, Maesglas Retail Park, Newport, Gwent, NP20 2NS Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	675	-	330887 186257
191	Contemporary Trade Directory Entries Name: Marshall Toyota Newport Location: Toyota House Maesglas Retail Park, Newport, Gwent, NP20 2NS Classification: Car Dealers Status: Active Positional Accuracy: Manually positioned to the address or location	A9NW (SE)	679	-	330885 186251

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
192	Contemporary Trade Directory Entries Name: Bale Engineering Location: Maesglas Rd, Newport, Gwent, NP20 3DD Classification: Engineering Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A7NE (SW)	697	-	329825 186151
193	Contemporary Trade Directory Entries Name: Sportsworld Promotions Location: 1, Friars Road, Newport, Gwent, NP20 4EZ Classification: Leisure & Sportswear Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A19NW (NE)	720	-	330758 187509
194	Contemporary Trade Directory Entries Name: Screwfix Newport - Maesglas Ind Est Location: UNIT 3, GREENWICH ROAD, MAESGLAS INDUSTRIAL ESTATE, NEWPORT, NP20 2NN Classification: Builders' Merchants Status: Active Positional Accuracy: Automatically positioned to the address	A8SE (S)	721	-	330461 185980
195	Contemporary Trade Directory Entries Name: Aa Service Centre Location: Unit 4, Maesglas Retail Park, Newport, Gwent, NP20 2NS Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (SE)	723	-	331129 186455
196	Contemporary Trade Directory Entries Name: Appliance Repair Location: 22, Dewslan Park Road, Newport, Gwent, NP20 4EF Classification: Washing Machines - Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	732	-	330896 187443
196	Contemporary Trade Directory Entries Name: Appliance Repair Location: 22, Dewslan Park Road, Newport, Gwent, NP20 4EF Classification: Washing Machines - Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	732	-	330896 187443
197	Contemporary Trade Directory Entries Name: Newport Concrete Pumping Ltd Location: 34, Stelvio Park Drive, Newport, NP20 3EJ Classification: Concrete Pumping Services Status: Active Positional Accuracy: Automatically positioned to the address	A17SE (NW)	741	-	329727 187225
198	Contemporary Trade Directory Entries Name: Stow Park Church Printers Location: Brynhyfryd Road, Newport, NP20 4FX Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	753	-	330481 187604
198	Contemporary Trade Directory Entries Name: Stow Park Church Printers Location: Brynhyfryd Road, Newport, Gwent, NP20 4FX Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	769	-	330494 187619
199	Contemporary Trade Directory Entries Name: B P Service Station Location: 140, Stow Hill, Newport, NP20 4GA Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A18NE (N)	757	-	330638 187588
199	Contemporary Trade Directory Entries Name: Esso Location: Stow Hill, Newport, Gwent, NP20 4GA Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A18NE (N)	758	-	330638 187589

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
199	Contemporary Trade Directory Entries Name: Datakom Location: 140, Stow Hill, Newport, Gwent, NP20 4GA Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	760	-	330641 187590
199	Contemporary Trade Directory Entries Name: Three Elms Investments Ltd Location: Stow Hill, Newport, Gwent, NP20 4GA Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	760	-	330641 187590
200	Contemporary Trade Directory Entries Name: Be Generators Location: The Power House, Maesglas Rd, Newport, Gwent, NP20 3DD Classification: Generators - Sales & Service Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7SE (SW)	760	-	329969 185989
201	Contemporary Trade Directory Entries Name: J A Harkins Ltd Location: Docks Way, Newport, Gwent, NP20 2NS Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A9NE (SE)	765	-	331127 186374
202	Contemporary Trade Directory Entries Name: Robins Transport Location: Old Cardiff Rd, Newport, Gwent, NP20 3AT Classification: Road Haulage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7NE (SW)	771	-	329768 186102
203	Contemporary Trade Directory Entries Name: J Otley Rhodes Ltd Location: 35, Bassaleg Road, Newport, Gwent, NP20 4TG Classification: Radiographic Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NE (NW)	775	-	329946 187476
204	Contemporary Trade Directory Entries Name: Dewsland Dairy Location: 119, Stow Hill, Newport, Gwent, NP20 4ED Classification: Dairies Status: Inactive Positional Accuracy: Manually positioned to the address or location	A19NW (NE)	777	-	330790 187558
205	Contemporary Trade Directory Entries Name: Sentel Technology Ltd Location: 218, Stow Hill, Newport, Gwent, NP20 4HA Classification: Electronic Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	805	-	330218 187627
205	Contemporary Trade Directory Entries Name: Sensemaster Ltd Location: 218, Stow Hill, Newport, Gwent, NP20 4HA Classification: Automation Systems & Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	805	-	330218 187627
206	Contemporary Trade Directory Entries Name: Clarkes Cleaners Location: 4, Deanery Gardens, Dewsland Park Road, Newport, Gwent, NP20 4ER Classification: Cleaning Services - Commercial Status: Inactive Positional Accuracy: Automatically positioned to the address	A19NW (NE)	818	-	330906 187541
207	Contemporary Trade Directory Entries Name: Newport Filling Station Location: Cardiff Road, Newport, Gwent, NP20 3AG Classification: Petrol Filling Stations - 24 Hour Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (SW)	827	-	329699 186089
208	Contemporary Trade Directory Entries Name: G B S Press Location: 9, St. Woolos Place, Newport, Gwent, NP20 4GQ Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A19NW (NE)	831	-	330749 187633

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
209	Contemporary Trade Directory Entries Name: Platinum Products Ltd Location: West Way Park, West Way Road, Newport, Gwent, NP20 2DY Classification: Concrete & Mortar Ready Mixed Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A9SW (SE)	858	-	330949 186078
210	Contemporary Trade Directory Entries Name: Spizzle Dizzle Ltd Location: 168, MAESGLAS CRESCENT, NEWPORT, NP20 3DA Classification: Printers Textile Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	882	-	329803 185938
211	Contemporary Trade Directory Entries Name: Lewis & Son Location: 33, Shakespeare Crescent, Newport, Gwent, NP20 3JE Classification: Electrical Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	883	-	329455 186346
212	Contemporary Trade Directory Entries Name: Johnson Cleaners (UK) Ltd Location: A, 12, Risca Road, Newport, Gwent, NP20 4JW Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	887	-	330089 187674
213	Contemporary Trade Directory Entries Name: St Woolos Cemetery Location: 48, Bassaleg Road, Newport, Gwent, NP20 3PY Classification: Cemeteries & Crematoria Status: Active Positional Accuracy: Automatically positioned to the address	A17SE (NW)	900	-	329710 187443
214	Contemporary Trade Directory Entries Name: Axworchys Ltd Location: 74, York Place, Newport, Gwent, NP20 4GD Classification: Office Furniture & Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	909	-	330572 187754
215	Contemporary Trade Directory Entries Name: Ges Ltd Location: Mendalgief Road, Newport, Gwent, NP20 2HF Classification: Engineering Machine Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (SE)	915	-	331256 186296
216	Contemporary Trade Directory Entries Name: Burrow Heath Ltd Location: 108, Stow Hill, Newport, Gwent, NP20 4DW Classification: Freight Forwarders Status: Inactive Positional Accuracy: Automatically positioned to the address	A19NW (NE)	956	-	330965 187666
217	Contemporary Trade Directory Entries Name: Central Tyres & Valeting Location: Queen St, Newport, Gwent, NP20 2EB Classification: Tyre Dealers Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A19NE (NE)	966	-	331216 187461
217	Contemporary Trade Directory Entries Name: Queen Street Garage Location: Queen Street, Newport, NP20 2EB Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A19NE (NE)	966	-	331216 187461
217	Contemporary Trade Directory Entries Name: Queen St Garage Location: Queen Street, Newport, Gwent, NP20 2EB Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A19NE (NE)	967	-	331216 187461
217	Contemporary Trade Directory Entries Name: Queen Street Garage Location: Queen Street, Newport, Gwent, NP20 2EB Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A19NE (NE)	967	-	331216 187461

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
217	Contemporary Trade Directory Entries Name: Autowest Location: Queen St, Newport, Gwent, NP20 2EB Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A19NE (NE)	993	-	331240 187474
218	Contemporary Trade Directory Entries Name: South Wales Network Location: 3, Macauley Gardens, Newport, Gwent, NP20 3JZ Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Automatically positioned to the address	A11SE (W)	980	-	329313 186473
219	Contemporary Trade Directory Entries Name: Squire Cars Location: Bassaleg Rd, Newport, Gwent, NP20 3NA Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A17SW (NW)	982	-	329540 187378
220	Contemporary Trade Directory Entries Name: Newport Roof Truss Co Ltd Location: Unit 1-2, The Timberyard, Usk Way, Newport, Gwent, NP20 2DS Classification: Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (SE)	984	-	331224 186145
221	Contemporary Trade Directory Entries Name: Minerals 4 Life Location: 5, Francis Drive, Newport, NP20 2RU Classification: Distribution Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A15NW (E)	988	-	331442 187102
222	Fuel Station Entries Name: Tesco Newport Gwent Extra Location: Cardiff Road , Harlech Retail Park, Newport, Newport, NP20 3BA Brand: Tesco Extra Premises Type: Hypermarket Status: Open Positional Accuracy: Manually positioned to the address or location	A13SW (SW)	145	-	330143 186616
223	Fuel Station Entries Name: Belle Vue Service Station Location: 71, Cardiff Road , , Newport, Newport, NP20 2EN Brand: Texaco Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A14NW (NE)	396	-	330808 187056
224	Fuel Station Entries Name: Stow Hill Filling Station Location: Stow Hill , , Newport, Newport, NP20 4GA Brand: Esso Premises Type: Petrol Station Status: Open Positional Accuracy: Automatically positioned to the address	A18NE (N)	760	-	330641 187590
225	Fuel Station Entries Name: Newport Filling Station Location: Cardiff Road , , Newport, Newport, NP20 3AG Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A7SW (SW)	827	-	329699 186089
226	Points of Interest - Commercial Services Name: Car Wash Location: Cardiff Road, Harlech Retail Park, Newport, Gwent, NP20 3BA Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A13SW (SW)	145	9	330143 186616
226	Points of Interest - Commercial Services Name: Tesco Newport Gwent Extra Location: Cardiff Road, Harlech Retail Park, Newport, NP20 3BA Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A13SW (SW)	150	9	330153 186593

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
227	Points of Interest - Commercial Services Name: Autoglass Location: Unit 13, Maesglas Industrial Estate, Newport, NP20 2NN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NE (S)	478	9	330440 186225
227	Points of Interest - Commercial Services Name: Plastic Parts Centre Location: Unit 17, Maesglas Industrial Estate, Newport, NP20 2NN Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A8NE (S)	503	9	330523 186226
227	Points of Interest - Commercial Services Name: Maesglas Metal Management Location: Unit 17 Greenwich Road, Maesglas Industrial Estate, Newport, NP20 2NN Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A8NE (S)	503	9	330523 186226
227	Points of Interest - Commercial Services Name: Macback Location: Unit 18-19 Maesglas Industrial Estate, Greenwich Road, Newport, NP20 2NN Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A8NE (S)	536	9	330508 186185
228	Points of Interest - Commercial Services Name: DX Location: 181 Cardiff Road, Newport, NP20 3BP Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A7NE (SW)	481	9	329911 186367
228	Points of Interest - Commercial Services Name: DX Location: 181 Cardiff Road, Newport, NP20 3BP Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A7NE (SW)	515	9	329914 186315
228	Points of Interest - Commercial Services Name: Nightfreight GB Ltd Location: 181 Cardiff Road, Newport, NP20 3BP Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A7NE (SW)	515	9	329914 186315
229	Points of Interest - Commercial Services Name: D & G Auto Electronics Location: 1 Bideford Road, Newport, NP20 3BJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (S)	591	9	330178 186102
230	Points of Interest - Commercial Services Name: Stow Hill Filling Station Location: Stow, Hill, Newport, NP20 4GA Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A18NE (N)	760	9	330651 187588
230	Points of Interest - Commercial Services Name: B P Car Wash Location: Stow Hill, Newport, NP20 4GA Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A18NE (N)	760	9	330651 187588
230	Points of Interest - Commercial Services Name: Car Wash Location: Stow Hill, Newport, Gwent, NP20 4GA Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A18NE (N)	760	9	330641 187590
231	Points of Interest - Commercial Services Name: IMO - arc Clean Car Centres Location: 227 Cardiff Road, Newport, NP20 3AG Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A7SE (SW)	817	9	329713 186089

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
232	Points of Interest - Commercial Services Name: Burrow Heath Ltd Location: 108 Stow Hill, Newport, NP20 4DW Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A19NW (NE)	956	9	330965 187666
232	Points of Interest - Commercial Services Name: Burrowheath Ltd Location: 108 Stow Hill, Newport, NP20 4DW Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A19NW (NE)	956	9	330965 187666
233	Points of Interest - Commercial Services Name: Queen Street Garage Location: Queen Street, Newport, NP20 2EB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19NE (NE)	966	9	331216 187461
233	Points of Interest - Commercial Services Name: Queen Street Garage Location: Queen Street, Newport, NP20 2EB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19NE (NE)	967	9	331216 187461
234	Points of Interest - Commercial Services Name: Minerals 4 Life Location: 5 Francis Drive, Newport, NP20 2RU Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A15NW (E)	988	9	331442 187102
235	Points of Interest - Education and Health Name: Royal Gwent Hospital Location: Royal Gwent Hospital, Cardiff Road, Newport, NP20 2UB Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A19SW (NE)	608	9	330932 187242
235	Points of Interest - Education and Health Name: Royal Gwent Hospital Location: Royal Gwent Hospital, Cardiff Road, Newport, NP20 2UB Category: Health Practitioners and Establishments Class Code: Accident & Emergency Department Positional Accuracy: Positioned to address or location	A19SW (NE)	608	9	330932 187243
235	Points of Interest - Education and Health Name: Royal Gwent Hospital Location: Royal Gwent Hospital, Cardiff Road, Newport, NP20 2UB Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A19SW (NE)	608	9	330932 187243
236	Points of Interest - Education and Health Name: St. Woolos Hospital Location: St. Woolos Hospital 131, Stow Hill, Newport, NP20 4SZ Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NE (N)	677	9	330607 187514
236	Points of Interest - Education and Health Name: St Woolos Hospital Location: St Woolos Hospital 131, Stow Hill, Newport, NP20 4SZ Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NE (N)	685	9	330613 187520
237	Points of Interest - Education and Health Name: Royal Gwent Hospital Location: Royal Gwent Hospital, Cardiff Road, Newport, NP20 2UB Category: Health Practitioners and Establishments Class Code: Accident & Emergency Department Positional Accuracy: Positioned to address or location	A19SW (NE)	747	9	331040 187329
238	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	47	9	330492 186890

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
239	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NW (NE)	314	9	330743 187006
240	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	333	9	330822 186886
240	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	345	9	330843 186830
241	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SW (E)	377	9	330847 186666
241	Points of Interest - Manufacturing and Production Name: Tanks Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	384	9	330850 186654
241	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SW (E)	387	9	330854 186657
241	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	387	9	330844 186635
241	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SW (E)	392	9	330858 186653
241	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SW (E)	402	9	330865 186645
241	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SW (E)	409	9	330870 186639
241	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	409	9	330870 186639
241	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14SW (E)	418	9	330877 186632

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
241	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	418	9	330877 186631
242	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	388	9	330855 186963
243	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	425	9	330923 186792
243	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	466	9	330961 186867
243	Points of Interest - Manufacturing and Production Name: Tanks Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	479	9	330977 186834
244	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	437	9	330925 186714
245	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	506	9	329928 186314
245	Points of Interest - Manufacturing and Production Name: Works Location: NP20 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NE (SW)	506	9	329928 186314
246	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	539	9	330837 186390
246	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	566	9	330869 186381
247	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	564	9	331040 186650
248	Points of Interest - Manufacturing and Production Name: Maesglas Industrial Estate Location: NP20 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	567	9	330443 186134

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
249	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SW (SE)	587	9	330992 186491
249	Points of Interest - Manufacturing and Production Name: Works Location: NP20 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SW (SE)	587	9	330992 186492
250	Points of Interest - Manufacturing and Production Name: Industrial Estate Location: NP20 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	594	9	330542 186136
251	Points of Interest - Manufacturing and Production Name: Tanks Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	629	9	330646 187454
251	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A18NE (N)	633	9	330661 187453
251	Points of Interest - Manufacturing and Production Name: Tank Location: NP20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A18NE (N)	634	9	330655 187456
252	Points of Interest - Manufacturing and Production Name: Power Station Location: NP20 Category: Industrial Features Class Code: Energy Production Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	795	9	330962 186163
253	Points of Interest - Manufacturing and Production Name: Kingsmill Works Location: NP20 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	903	9	330595 187745
253	Points of Interest - Manufacturing and Production Name: Kingsmill Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	904	9	330595 187746
254	Points of Interest - Public Infrastructure Name: Tesco Petrol Filling Station Location: Tesco Petrol Filling Station Harlech Retail Park, Cardiff Road, Newport, NP20 3BA Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13SW (SW)	136	9	330154 186615
254	Points of Interest - Public Infrastructure Name: Tesco Newport Gwent Extra Location: Cardiff Road, Harlech Retail Park, Newport, NP20 3BA Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A13SW (SW)	145	9	330143 186616
255	Points of Interest - Public Infrastructure Name: Tesco Petrol Filling Station Location: Unit 6 Harlech Retail Park, Cardiff Road, Newport, NP20 3BA Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A8NW (SW)	303	9	330154 186407

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
255	Points of Interest - Public Infrastructure Name: Tesco Petrol Filling Station Location: Unit 6 Harlech Retail Park, Cardiff Road, Newport, NP20 3BA Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A8NW (SW)	303	9	330154 186407
256	Points of Interest - Public Infrastructure Name: Sluice Location: NP20 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	411	9	330839 186580
257	Points of Interest - Public Infrastructure Name: Spoil Heap Location: NP20 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	430	9	330100 186291
258	Points of Interest - Public Infrastructure Name: BP Service Station Location: 140 Stow Hill, Newport, NP20 4GA Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A18NE (N)	757	9	330638 187588
258	Points of Interest - Public Infrastructure Name: Esso Location: Stow Hill, Newport, NP20 4GA Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A18NE (N)	757	9	330638 187588
258	Points of Interest - Public Infrastructure Name: 3 Elms Investment Location: 140 Stow Hill, Newport, NP20 4GA Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A18NE (N)	760	9	330641 187590
258	Points of Interest - Public Infrastructure Name: Stow Hill Filling Station Location: Stow Hill, Newport, NP20 4GA Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A18NE (N)	760	9	330641 187590
258	Points of Interest - Public Infrastructure Name: Stow Hill Filling Station Location: Stow Hill, Newport, Gwent, NP20 4GA Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A18NE (N)	760	9	330641 187590
259	Points of Interest - Public Infrastructure Name: East Mendalgief Junction Location: NP20 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	764	9	331021 186252
260	Points of Interest - Public Infrastructure Name: Sewage Pumping Station Location: NP20 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	795	9	331175 186391
261	Points of Interest - Public Infrastructure Name: St Woollos Cemetery Location: Bassaleg Road, Newport, NP20 3PY Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to address or location	A17NE (NW)	922	9	329720 187483
261	Points of Interest - Public Infrastructure Name: St Woollos Cemetery Location: NP20 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A17NW (NW)	955	9	329652 187461

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
262	Points of Interest - Public Infrastructure Name: Refuse Tip (Public) Location: NP20 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	929	9	330513 185779
262	Points of Interest - Public Infrastructure Name: Refuse Tip (Public) Location: NP20 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	930	9	330518 185779
262	Points of Interest - Public Infrastructure Name: Refuse Tip Location: NP20 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	947	9	330490 185756
263	Points of Interest - Public Infrastructure Name: Newport Central Police Station Location: Transport House, Cardiff Road, Newport, NP20 2EH Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A19SE (NE)	942	9	331255 187370
263	Points of Interest - Public Infrastructure Name: Newport Central Police Station Location: Newport Central Police Station 3, Cardiff Road, Newport, NP20 2EH Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A19SE (NE)	997	9	331306 187395
264	Points of Interest - Public Infrastructure Name: Garden of Remembrance Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A19NW (NE)	975	9	330896 187726
264	Points of Interest - Public Infrastructure Name: Garden of Remembrance Location: NP20 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A19NW (NE)	984	9	330906 187731
265	Points of Interest - Recreational and Environmental Name: Play Area Location: NP20 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	214	9	330583 186608
266	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	261	9	330631 187053
266	Points of Interest - Recreational and Environmental Name: Play Area Location: NP20 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	265	9	330583 187089
266	Points of Interest - Recreational and Environmental Name: Playground Location: Cardiff Road, NP20 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A13NE (NE)	289	9	330662 187064
267	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	601	9	329952 187260

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
267	Points of Interest - Recreational and Environmental Name: Playground Location: Stelvio Park Crescent, NP20 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A17SE (NW)	602	9	329953 187262
268	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	614	9	330222 186074
268	Points of Interest - Recreational and Environmental Name: Playground Location: Bideford Road, NP20 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8SW (S)	614	9	330219 186074
269	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	827	9	329456 186536
269	Points of Interest - Recreational and Environmental Name: Playground Location: Goldsmith Close, NP20 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	827	9	329456 186536
270	Points of Interest - Recreational and Environmental Name: Play Area Location: Jeddo Street, NP20 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14NE (E)	843	9	331341 186827
271	Points of Interest - Recreational and Environmental Name: Playground Location: Maesglas Crescent, NP20 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8SW (S)	903	9	330167 185789
271	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	905	9	330166 185787
272	Points of Interest - Recreational and Environmental Name: Playground Location: Clifton Road, NP20 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A19NW (NE)	972	9	330932 187704
272	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19NW (NE)	974	9	330928 187708
273	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A15NW (E)	994	9	331492 186820

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
274	Ancient Woodland Name: Not Supplied Reference: 15878 Area(m²): 11343.63 Type: Ancient and Semi-Natural Woodland	A12SW (W)	668	2	329608 186595

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Newport City Council - Public Protection and Environmental Services Natural Resources Wales Torfaen County Borough Council - Department for the Environmental Caerphilly County Borough Council - Environmental Health Department	January 2015 June 2020 October 2017 September 2017	Annual Rolling Update Annually Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 May 2023	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	
Integrated Pollution Controls Environment Agency - Welsh Region	January 2009	
Integrated Pollution Prevention And Control Environment Agency - Welsh Region Natural Resources Wales	January 2021 May 2023	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Torfaen County Borough Council - Department for the Environmental Newport City Council - Public Protection and Environmental Services Caerphilly County Borough Council - Environmental Health Department	December 2015 June 2014 September 2014	Variable Variable Variable
Local Authority Pollution Prevention and Controls Newport City Council - Public Protection and Environmental Services Torfaen County Borough Council - Department for the Environmental Caerphilly County Borough Council - Environmental Health Department	June 2014 November 2015 September 2014	Annual Rolling Update Annual Rolling Update Not Applicable
Local Authority Pollution Prevention and Control Enforcements Torfaen County Borough Council - Department for the Environmental Newport City Council - Public Protection and Environmental Services Caerphilly County Borough Council - Environmental Health Department	December 2015 June 2014 September 2014	Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	May 2023	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region Natural Resources Wales	July 2015 July 2015	
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 June 2016	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
Substantiated Pollution Incident Register Natural Resources Wales Environment Agency Wales - South East Area	April 2023 January 2021	Quarterly Quarterly
Water Abstractions Environment Agency - Welsh Region Natural Resources Wales	April 2023 June 2023	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Welsh Region Natural Resources Wales	October 2017 October 2022	

Agency & Hydrological	Version	Update Cycle
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	Annually
Superficial Aquifer Designations Natural Resources Wales	January 2018	Annually
Source Protection Zones Natural Resources Wales	July 2022	Annual Rolling Update
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	Quarterly
OS Water Network Lines Ordnance Survey	April 2023	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water Suitability Natural Resources Wales	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Natural Resources Wales	March 2023	As notified
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency Wales - South East Area Natural Resources Wales	January 2023 October 2021	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency Wales - South East Area Natural Resources Wales	July 2021 May 2023	Quarterly Quarterly
Local Authority Landfill Coverage Caerphilly County Borough Council - Environmental Health Department Newport City Council Torfaen County Borough Council - Department for the Environmental	February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Caerphilly County Borough Council - Environmental Health Department Newport City Council Torfaen County Borough Council - Department for the Environmental	October 2018 October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency Wales - South East Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - South East Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South East Area	June 2015	
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	March 2023	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Caerphilly County Borough Council - Planning Department Torfaen County Borough Council - Planning Department Newport City Council - Planning Department	January 2023 June 2023 October 2015	Variable Variable Variable
Planning Hazardous Substance Consents Torfaen County Borough Council - Planning Department Caerphilly County Borough Council - Planning Department Newport City Council - Planning Department	February 2016 January 2023 October 2015	Variable Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	June 2023	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	September 2022	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	September 2022	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	April 2023	Quarterly
Fuel Station Entries Catalist Ltd - Experian	June 2023	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	June 2023	Quarterly
Points of Interest - Education and Health PointX	June 2023	Quarterly
Points of Interest - Manufacturing and Production PointX	June 2023	Quarterly
Points of Interest - Public Infrastructure PointX	June 2023	Quarterly
Points of Interest - Recreational and Environmental PointX	June 2023	Quarterly
Underground Electrical Cables National Grid	February 2023	Bi-Annually

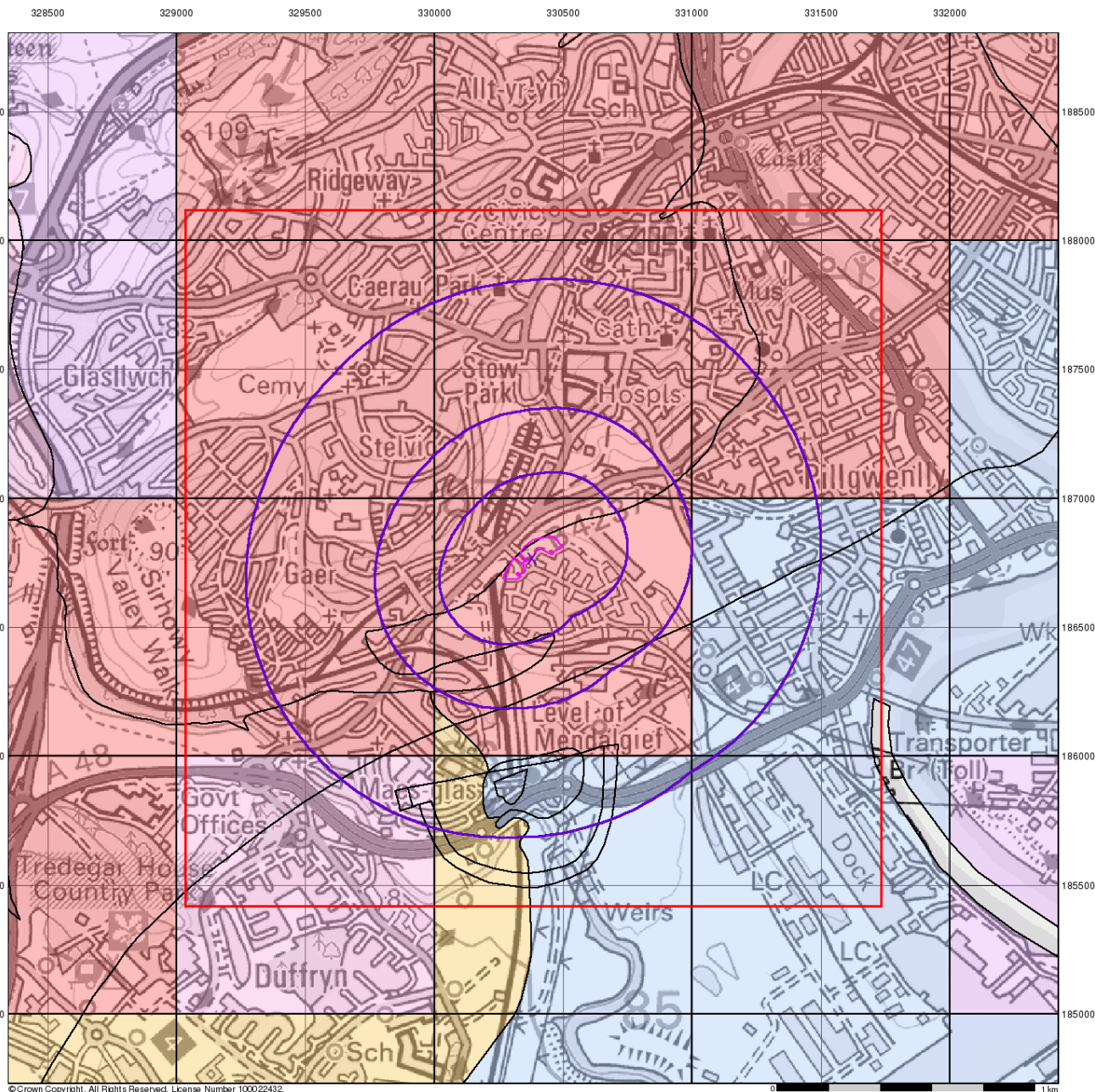
Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	April 2023	Bi-Annually
Areas of Adopted Green Belt Caerphilly County Borough Council Newport City Council Torfaen County Borough Council	July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt Caerphilly County Borough Council Newport City Council Torfaen County Borough Council	July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural Resources Wales	April 2023	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Caerphilly County Borough Council Newport City Council Torfaen County Borough Council	March 2023 March 2023 March 2023	Bi-Annually Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	April 2023	Bi-Annually
National Nature Reserves Natural Resources Wales	February 2023	Bi-Annually
National Parks Natural Resources Wales	February 2018	Annually
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside) Natural Resources Wales	April 2016 March 2023	Bi-Annually
Ramsar Sites Natural Resources Wales	March 2023	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	March 2023	Bi-Annually
Special Areas of Conservation Natural Resources Wales	April 2023	Bi-Annually
Special Protection Areas Natural Resources Wales	April 2023	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Newport City Council - Public Protection and Environmental Services Civic Centre, Newport, Gwent, NP20 4UR	Telephone: 01633 656656 Fax: 01633 232429 Website: www.newport.gov.uk
4	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	Newport City Council Civic Centre, Newport, South Wales, NP9 4UR	Telephone: 01633 656656 Fax: 01633 244721 Website: www.newport.gov.uk
7	Health and Safety Executive 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk
8	Newport City Council - Planning Department Civic Centre, Newport, South Wales, NP9 4UR	Telephone: 01633 656656 Fax: 01633 244721 Website: www.newport.gov.uk
9	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.



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0 1 km

Intégral Géotechnique

Groundwater Vulnerability

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Bedrock Aquifers

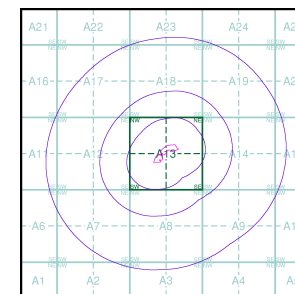
- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

- Unproductive Aquifer
- Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

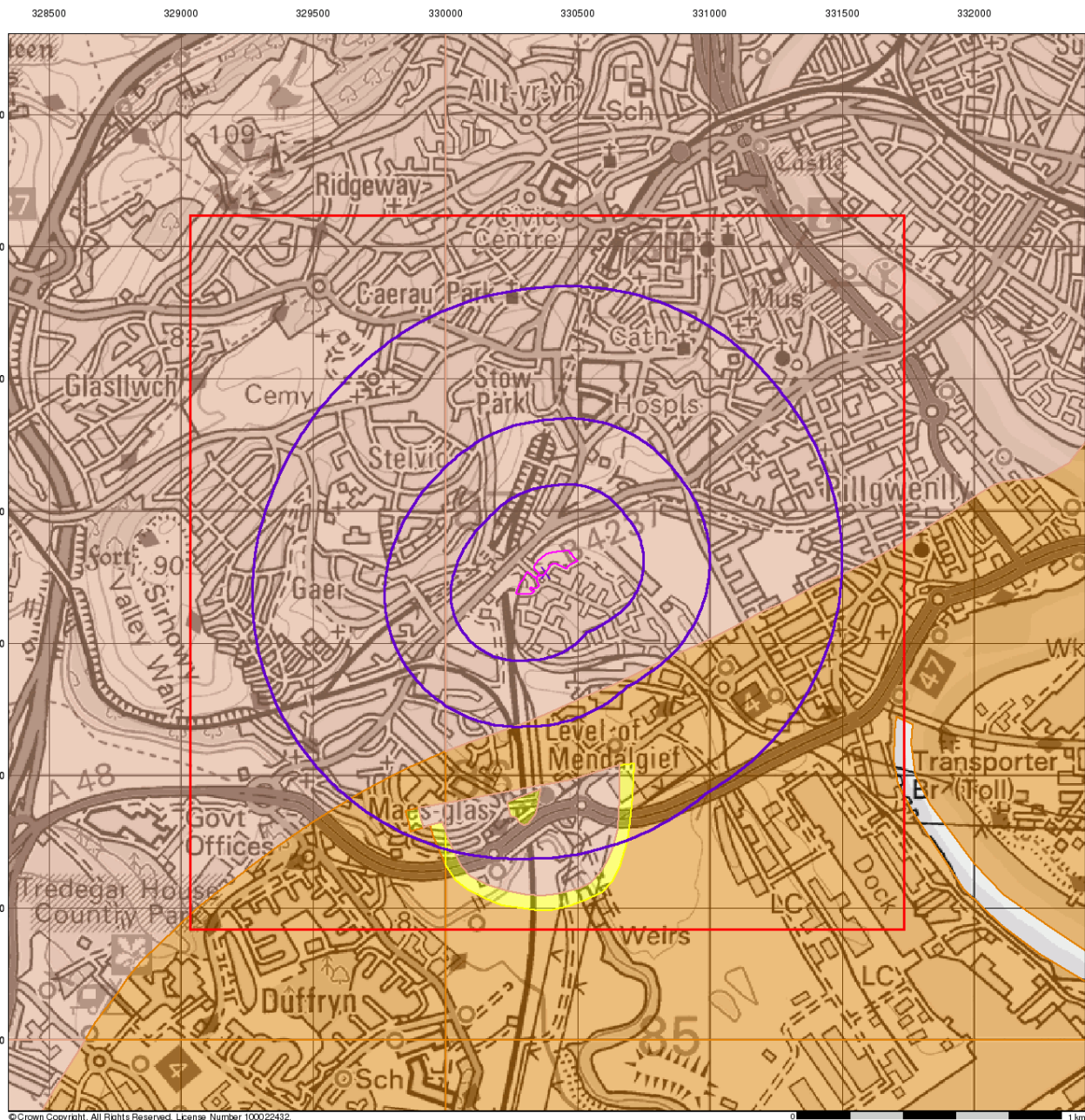
Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

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Web: www.envirocheck.co.uk



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0 1 km

Intégral Géotechnique

Bedrock Aquifer Designation

General

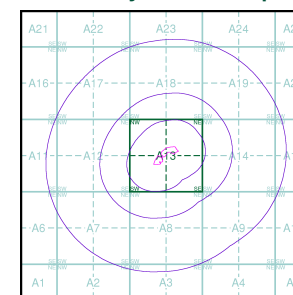
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

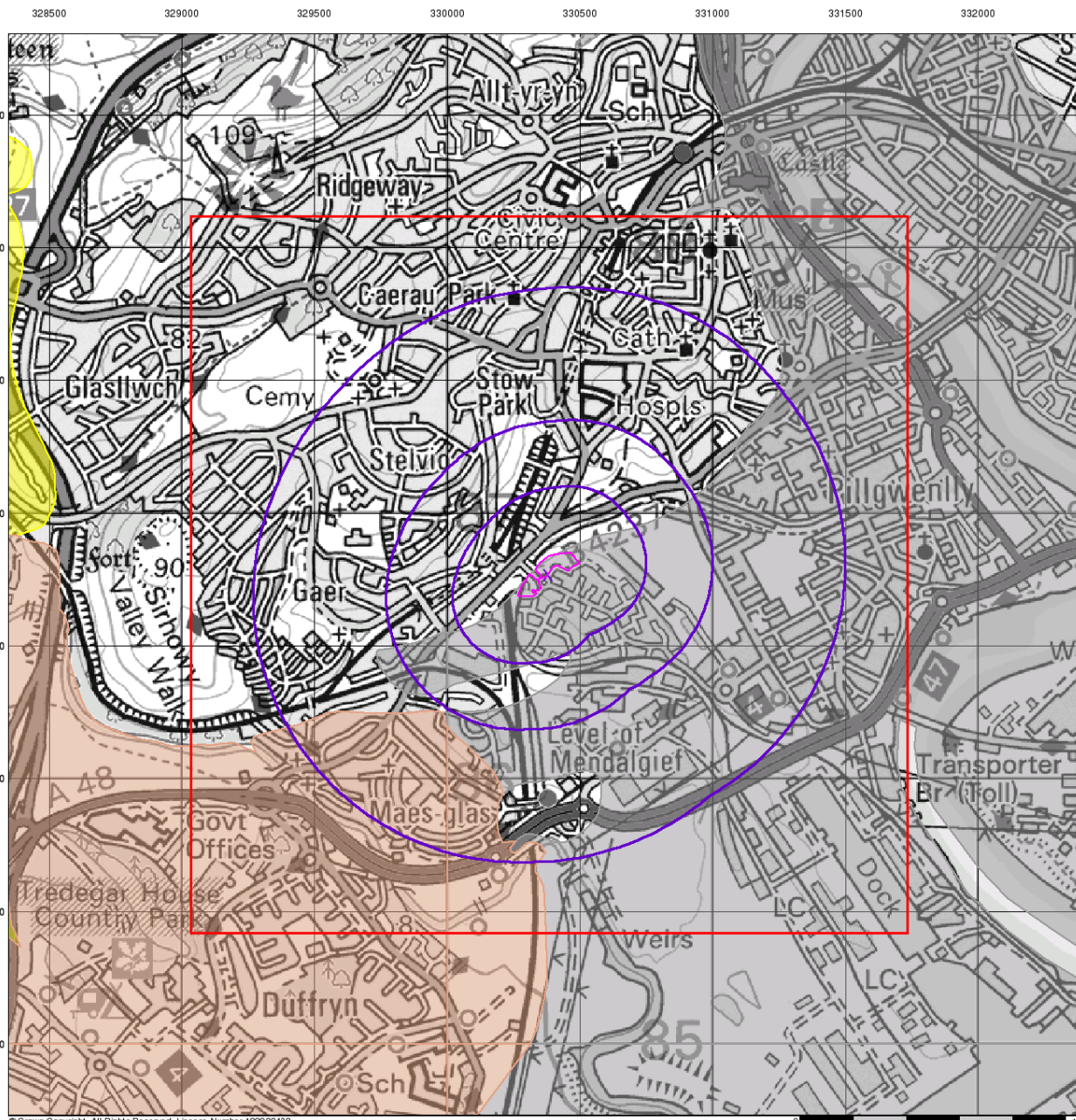
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Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

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0 1 km

Intégral Géotechnique

Superficial Aquifer Designation

General

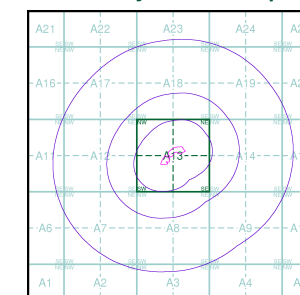
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

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Intégral Géotechnique

Sensitive Land Uses

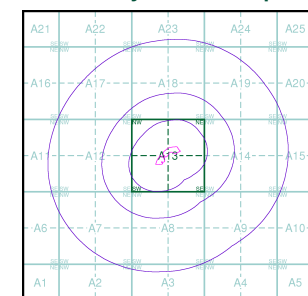
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



Order Details

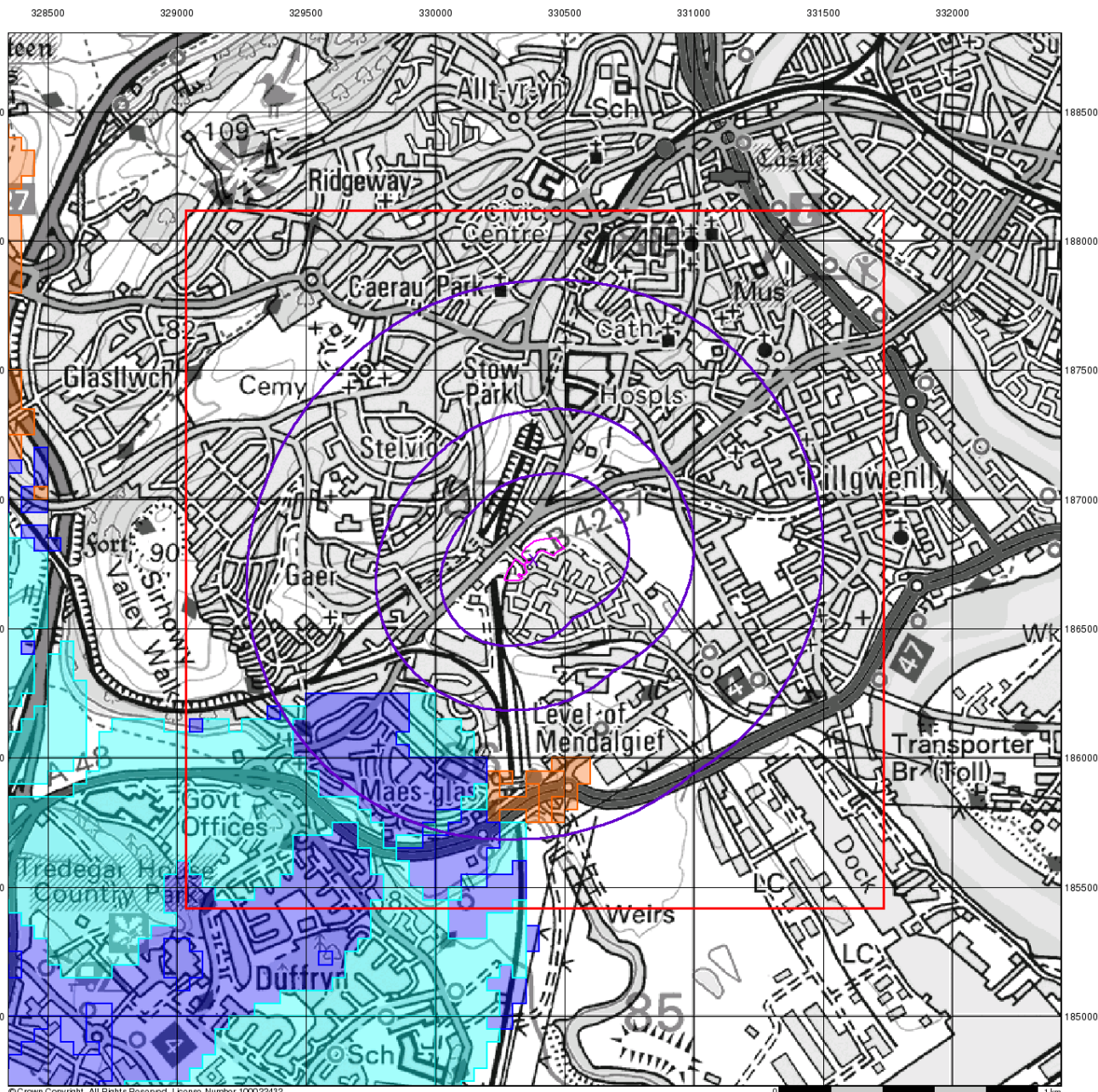
Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

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Intégral Géotechnique

BGS Flood GFS Data

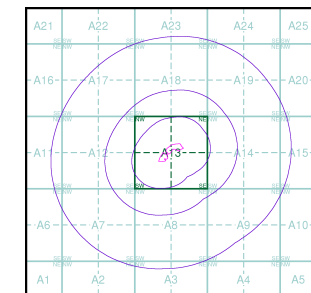
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

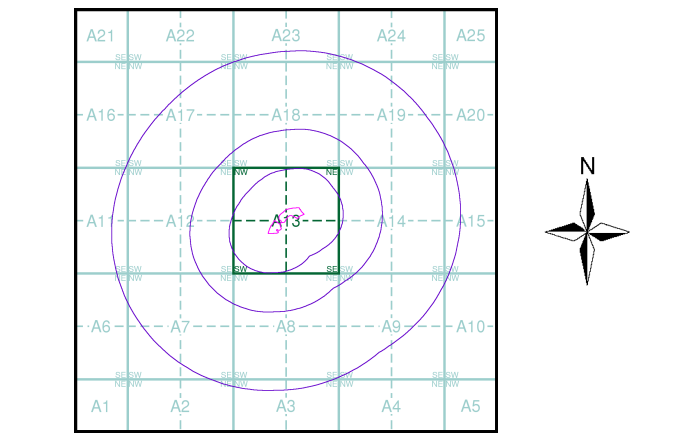
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

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- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A

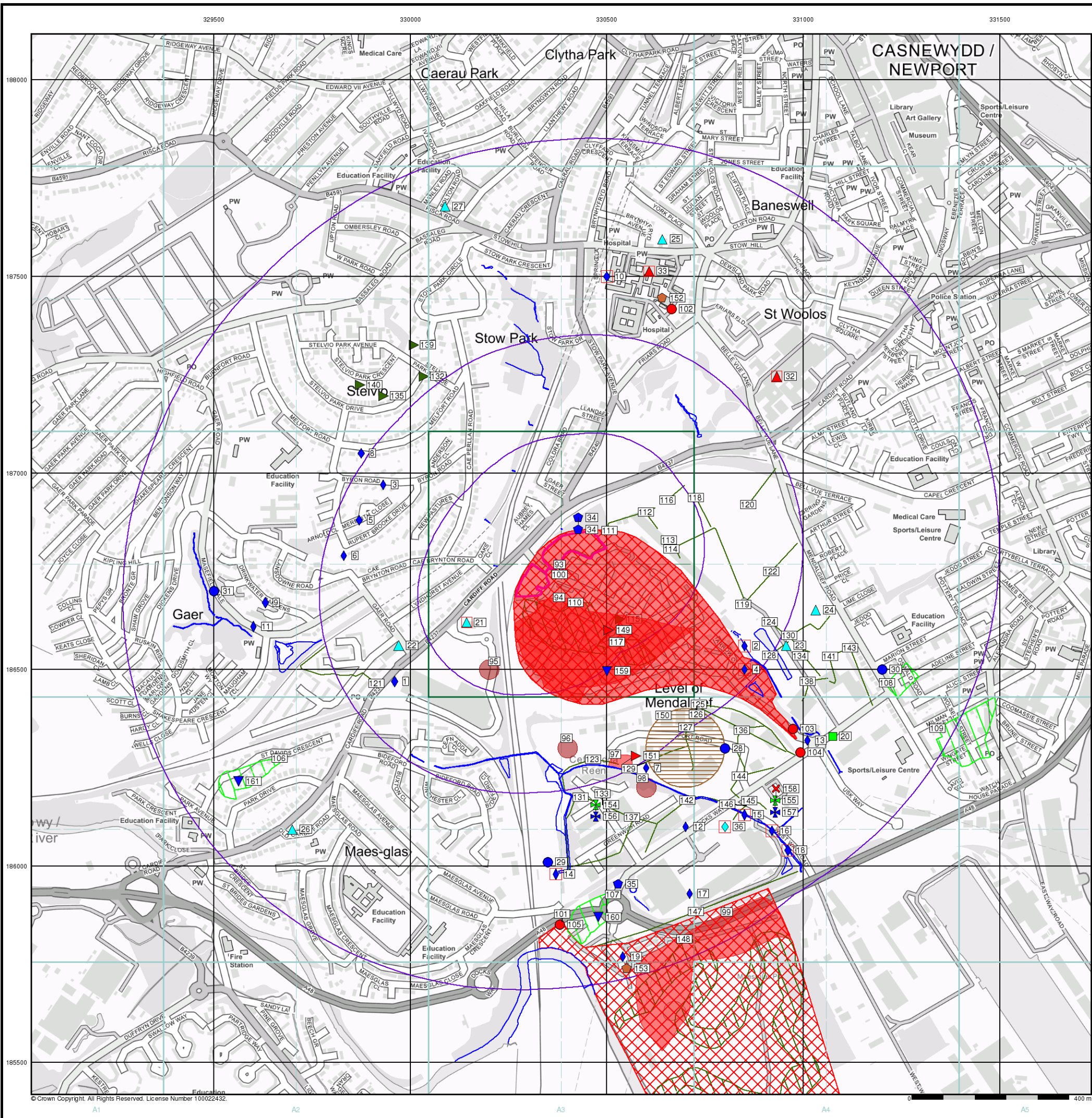


Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY



Intégral Géotechnique

Industrial Land Use Map

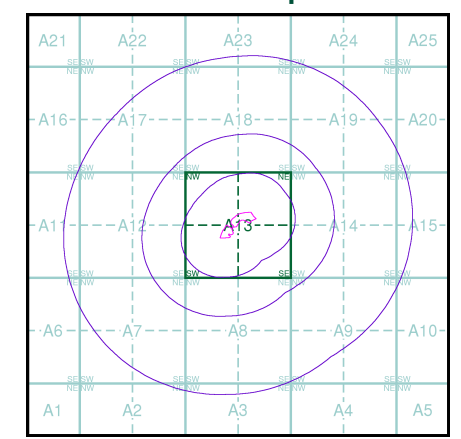
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

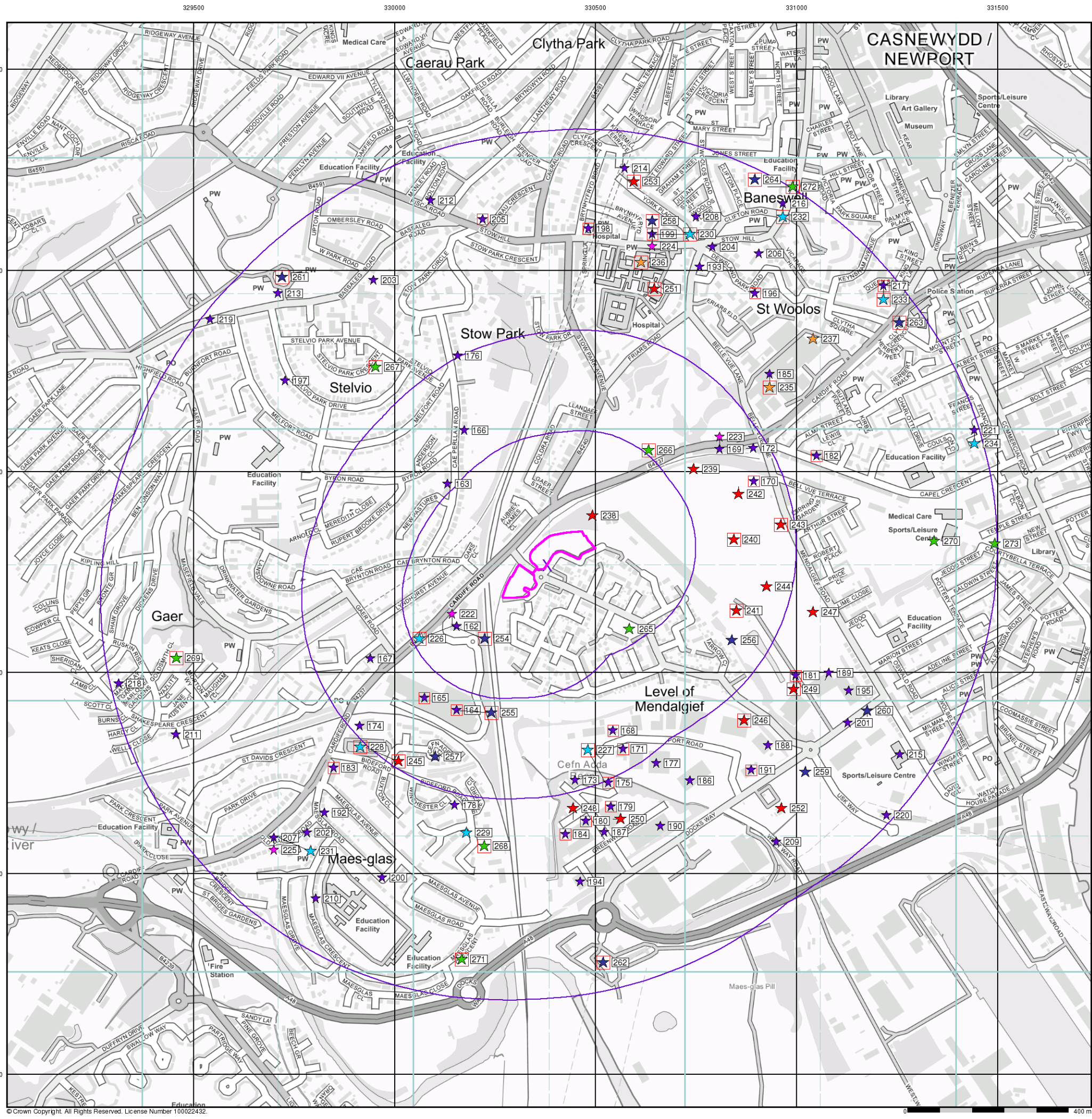
Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

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Fax: 0844 844 9951
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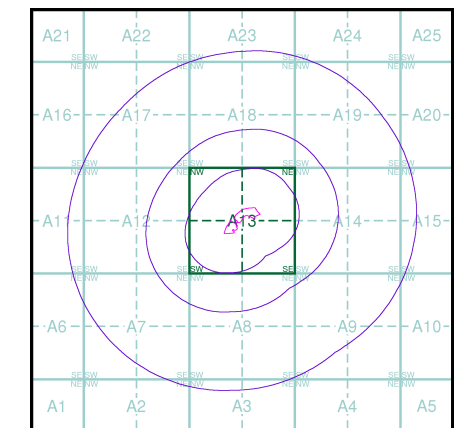
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A

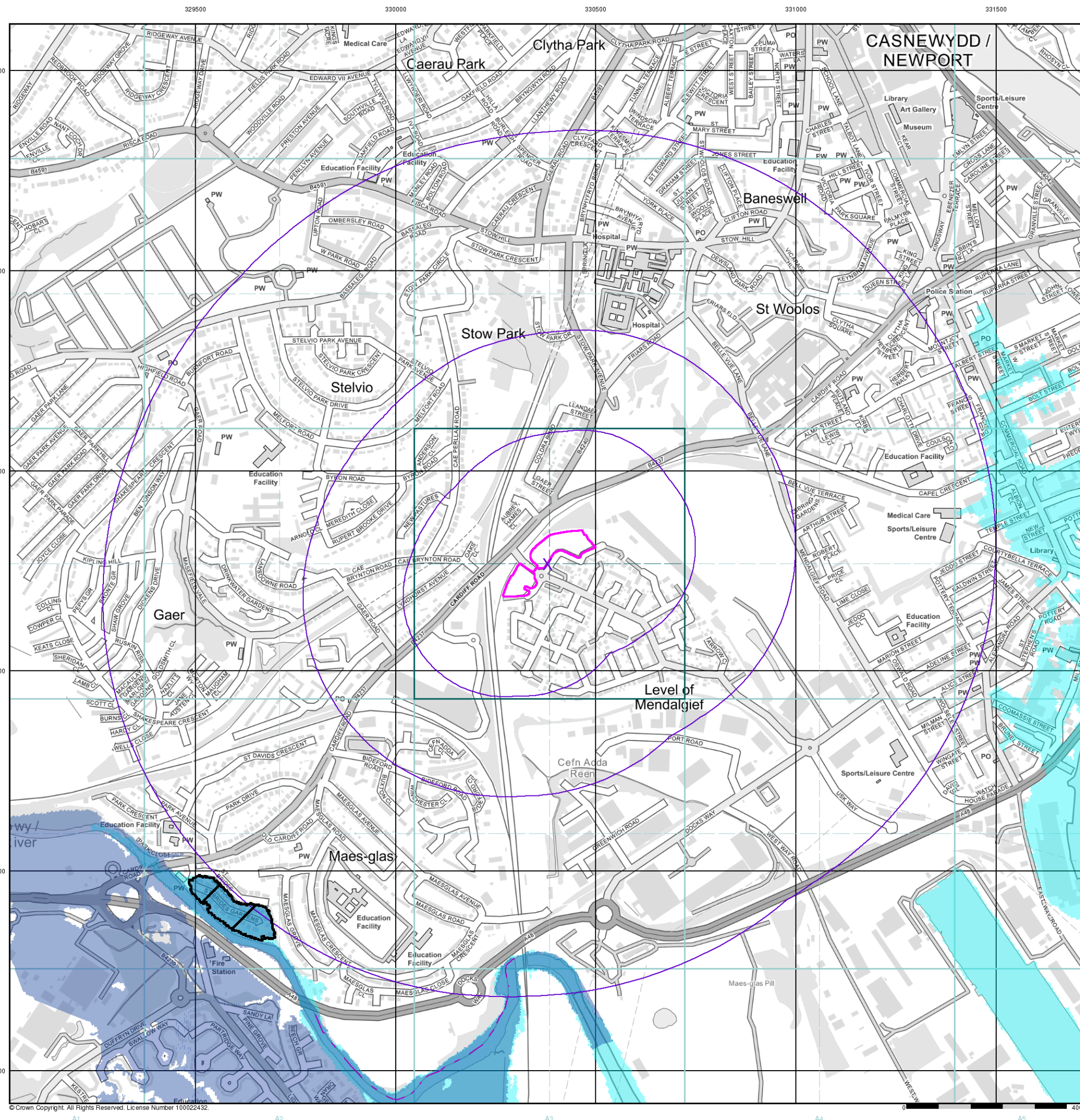


Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY



General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

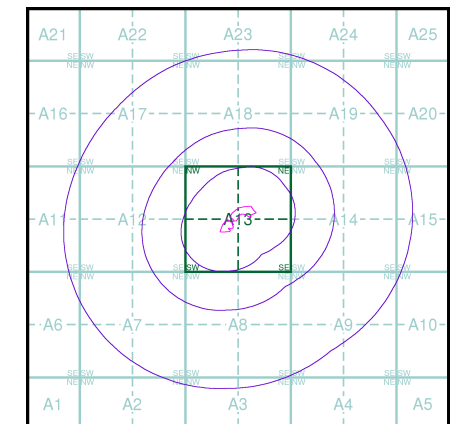
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Intégral Géotechnique

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

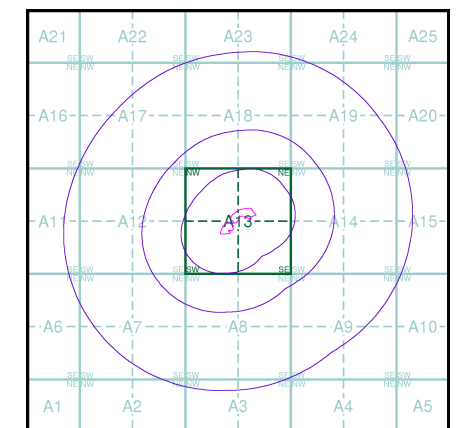
OS Water Network Data

- | | |
|--------------|-------------------------|
| Canal | Drain |
| Reservoir | Other |
| Foreshore | Lake |
| Marsh | Transfer |
| Tidal River | Lock Or Flight Of Locks |
| Inland River | Sea |

Contours (height in meters)

- Standard Contour 105 100 95
- Master Contour
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Intégral Géotechnique

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Risk of Flooding from Surface Water

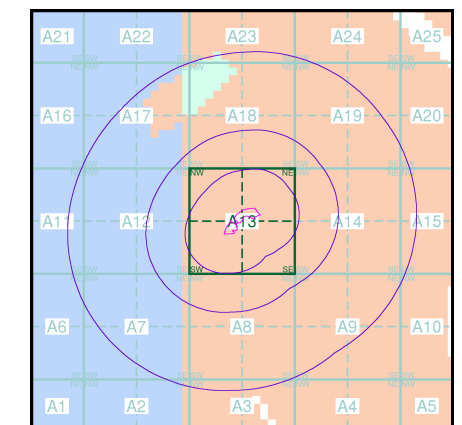
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

E/NRW Suitability Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

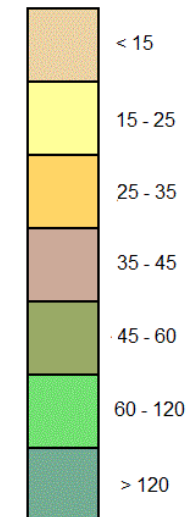
Intégral Géotechnique

General

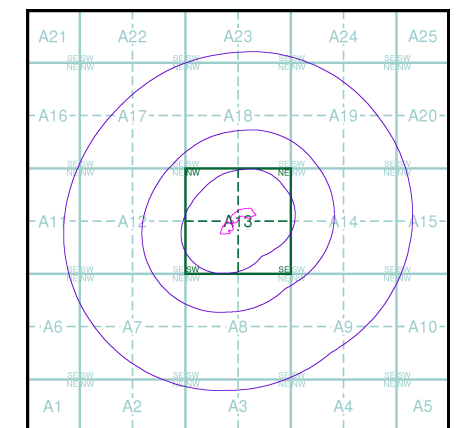
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

Order Details: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

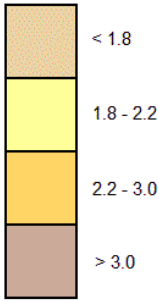
Intégral Géotechnique

General

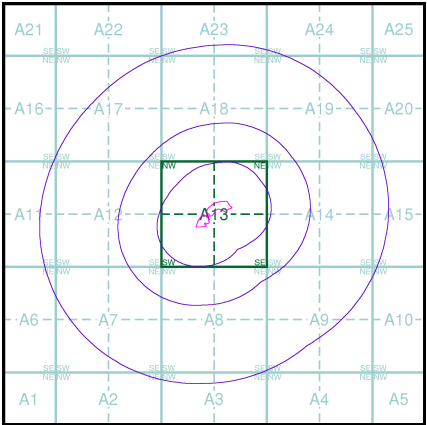
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

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Fax: 0844 844 9951
Web: www.envirocheck.co.uk

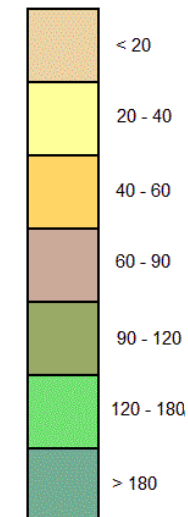


General

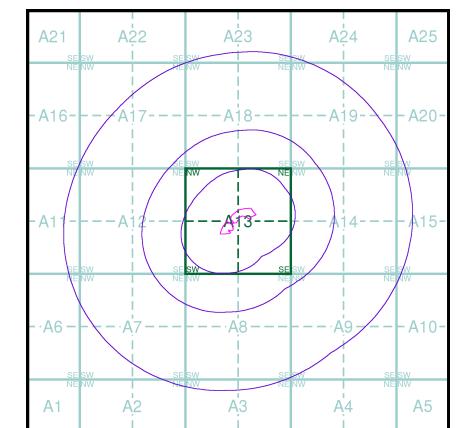
 Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

Order Details: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20
2PY

Landmark®
INFORMATION GROUP

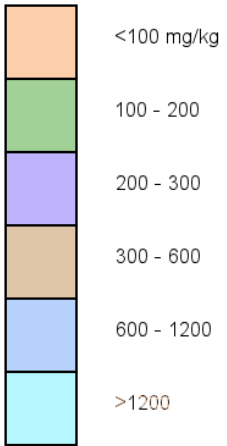
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

General

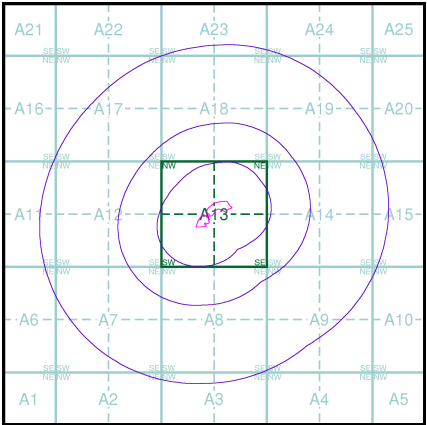
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

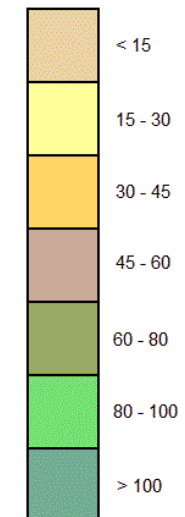
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

General

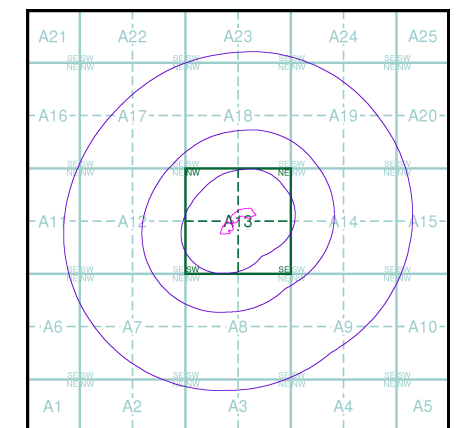
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

Order Details: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

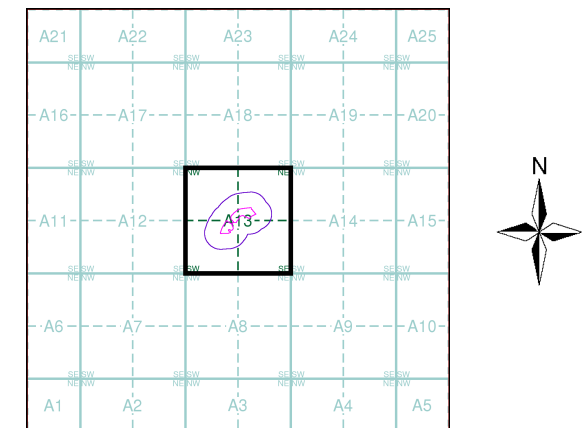
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Intégral Géotechnique

General

- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Types at Location
 - Pylon
 - Overhead Transmission Line
- ## Agency and Hydrological
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Recorded Landfill Site
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- ## Hazardous Substances
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- ## Waste
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Segment A13



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Plot Buffer (m): 100

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

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Geology 1:50,000 Maps Legends

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	TFD	Tidal Flat Deposits	Clay and Silt	Not Supplied - Holocene
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	BLI	Blue Lias Formation	Limestone and Mudstone, Interbedded	Not Supplied - Rhaetian
	PNG	Penarth Group	Mudstone	Not Supplied - Rhaetian
	MMG	Mercia Mudstone Group	Mudstone	Not Supplied - Early Triassic
	SMG	St Maughans Formation	Argillaceous Rocks and [Subequal/Subordinate] Sandstone, Interbedded	Not Supplied - Early Devonian
	SMG	St Maughans Formation	Sandstone	Not Supplied - Early Devonian
	RG	Raglan Mudstone Formation	Mudstone and Sandstone, Interbedded	Not Supplied - Pridoli
	RG	Raglan Mudstone Formation	Sandstone	Not Supplied - Pridoli
		Faults		

Intégral Géotechnique

Geology 1:50,000 Maps

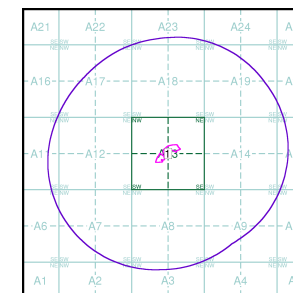
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	249
Map Name:	Newport
Map Date:	1969
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

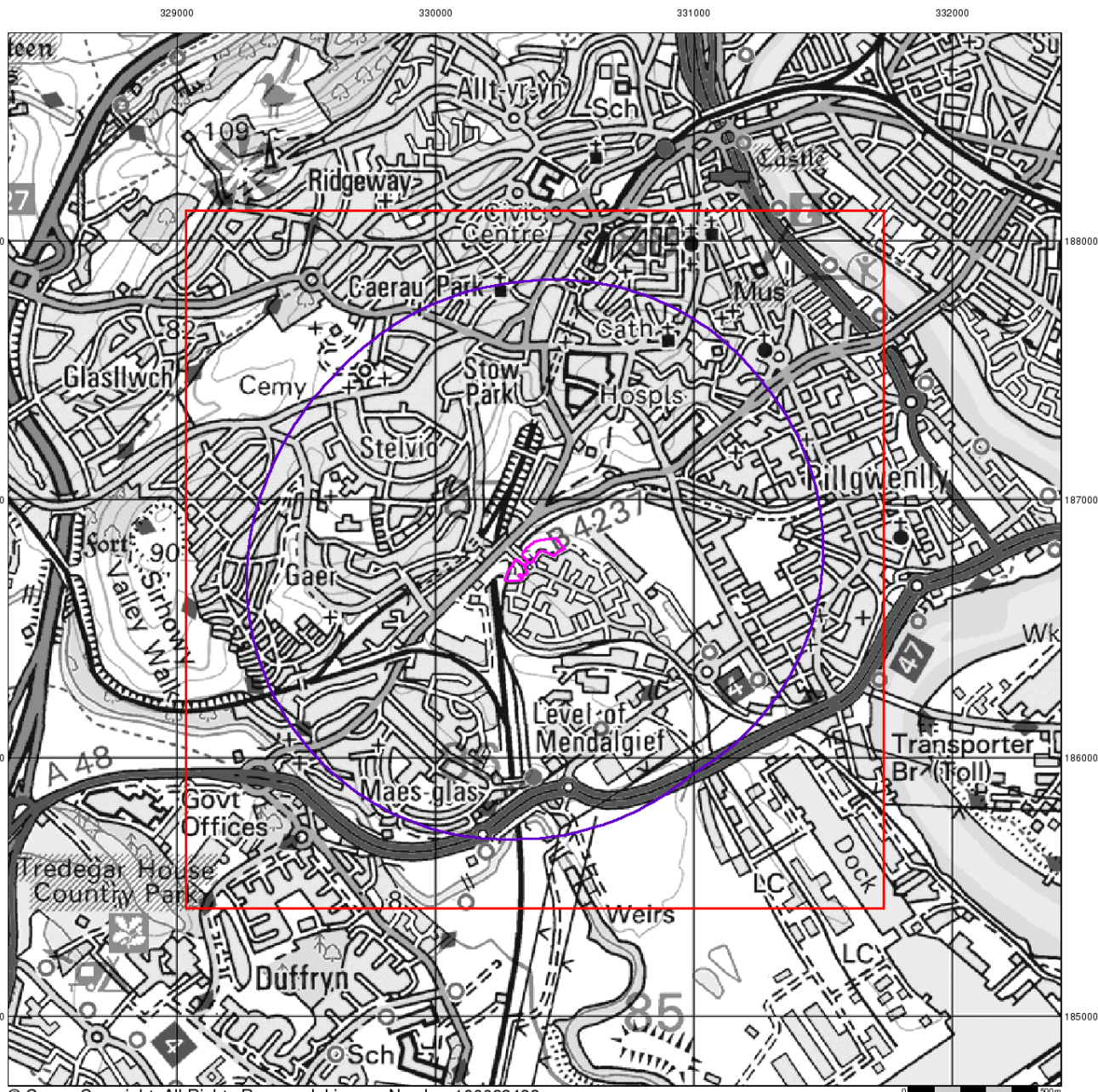
Order Number:	314117352_1_1
Customer Reference:	14234/LP/Rev A
National Grid Reference:	330380, 186770
Slice:	A
Site Area (Ha):	1.22
Search Buffer (m):	1000

Site Details:

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Intégral Géotechnique

Artificial Ground and Landslip

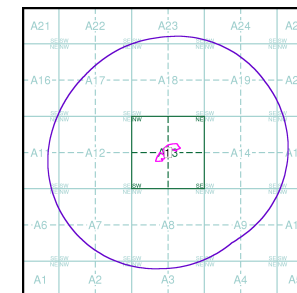
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details:

Order Number: 314117352_1_1
Customer Reference: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details:

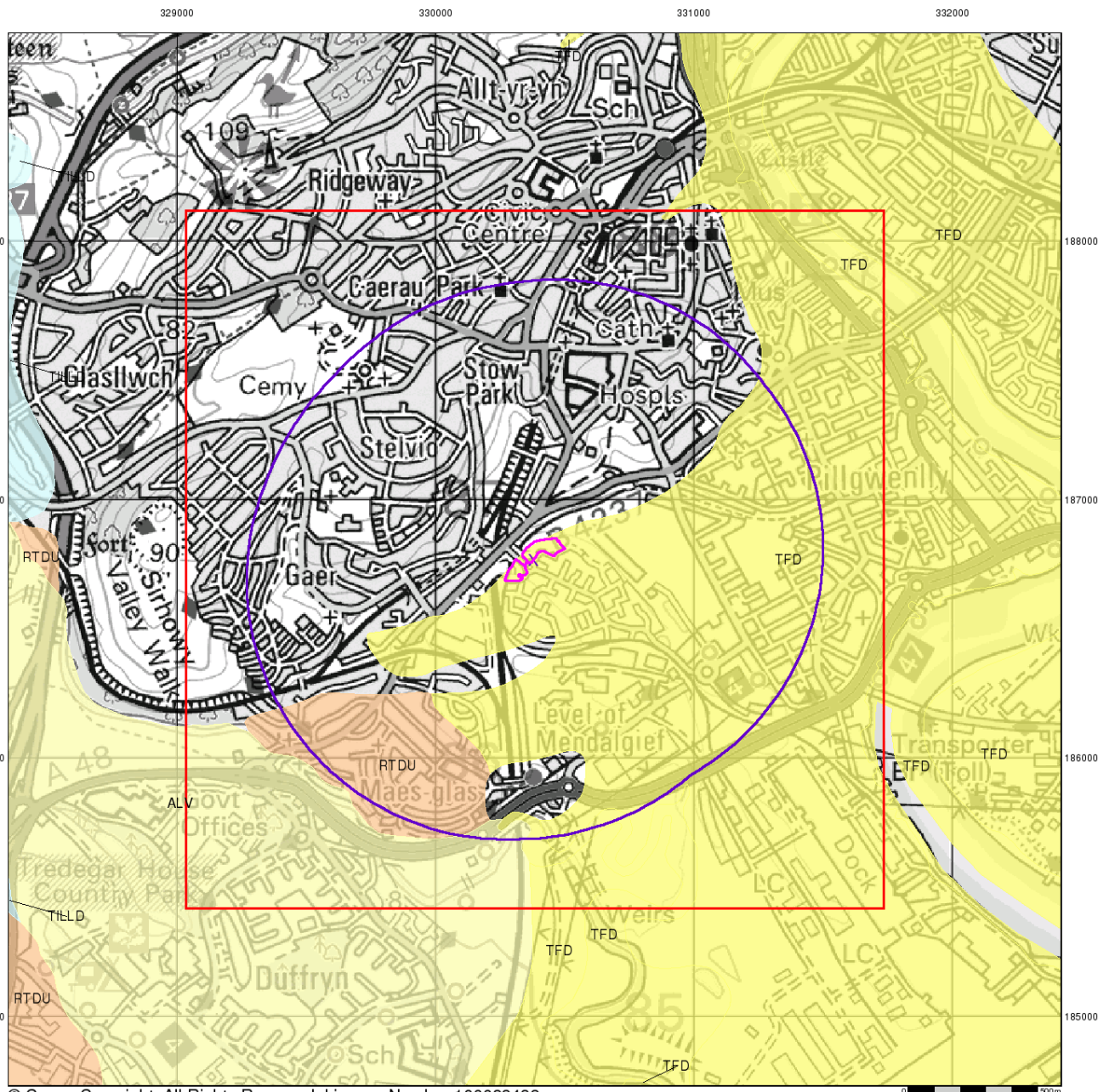
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Page 2 of 5



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Intégral Géotechnique

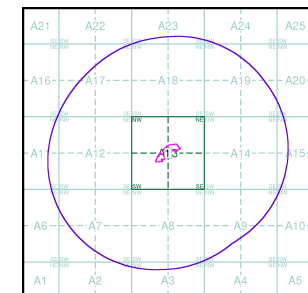
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details:

Order Number: 314117352_1_1
Customer Reference: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details:

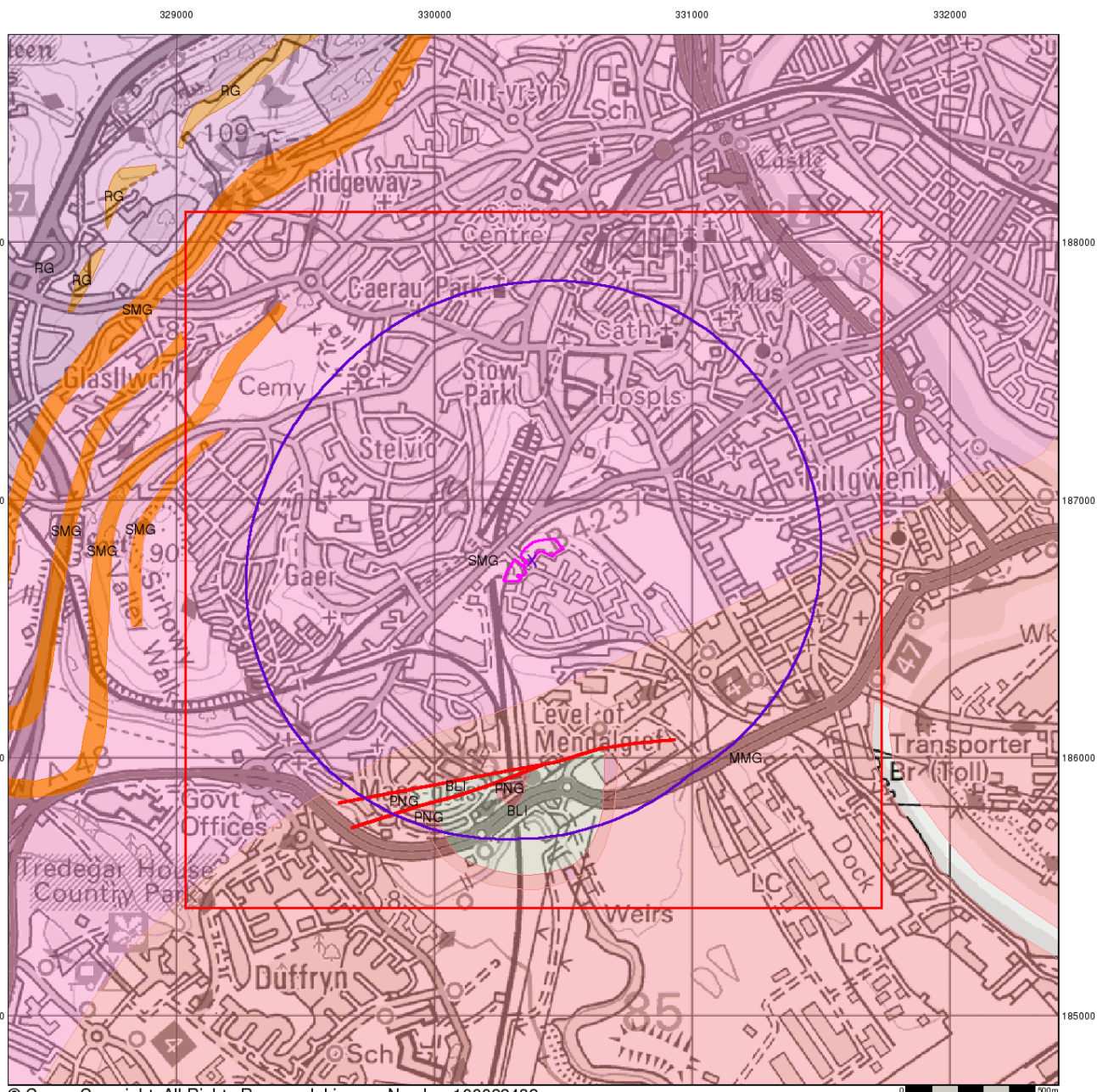
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

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Page 3 of 5



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Intégral Géotechnique

Bedrock and Faults

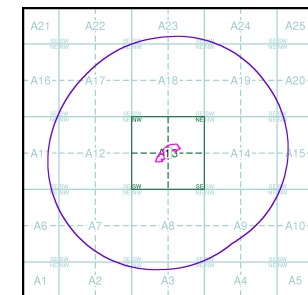
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

Order Number: 314117352_1_1
Customer Reference: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details:

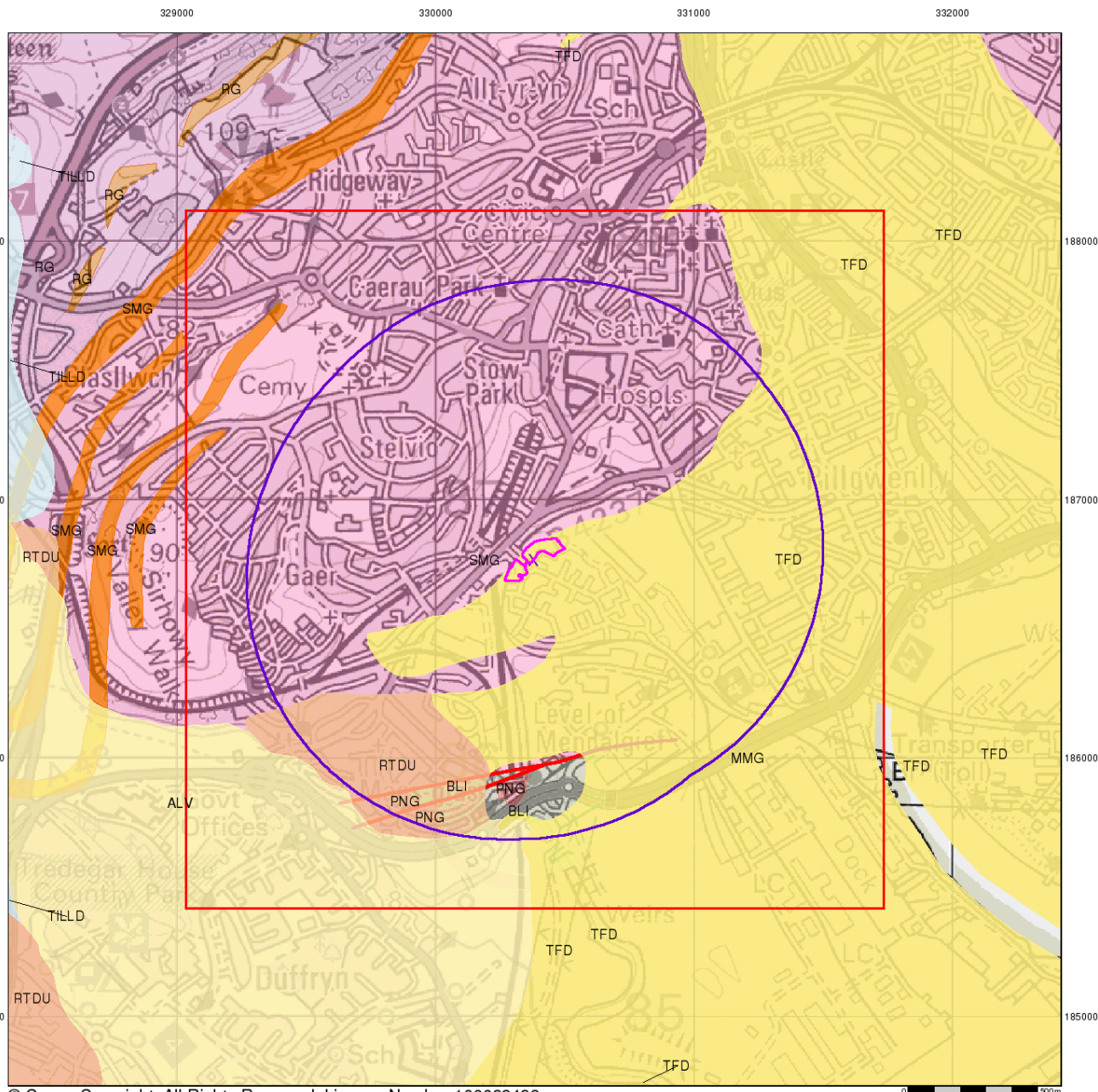
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

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Page 4 of 5



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Intégral Géotechnique

Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

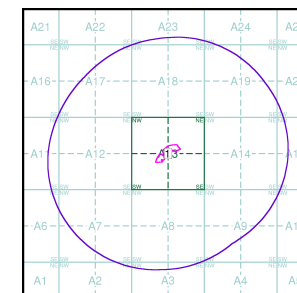
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

Order Number: 314117352_1_1
Customer Reference: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details:

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

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Page 5 of 5

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		Administrative County, County Borough or County of City
	Municipal Borough, Urban or Rural District, Burgh or District Council		Borough, Burgh or County Constituency
	Civil Parish		
	BP, BS		Ch
	CH		F E Sta
	FB		Fn
	GP		MP
	MS		Pol Sta
	PO		PC
	PH		SB
	Spr		TCB
	TCP		W

1:10,000 Raster Mapping

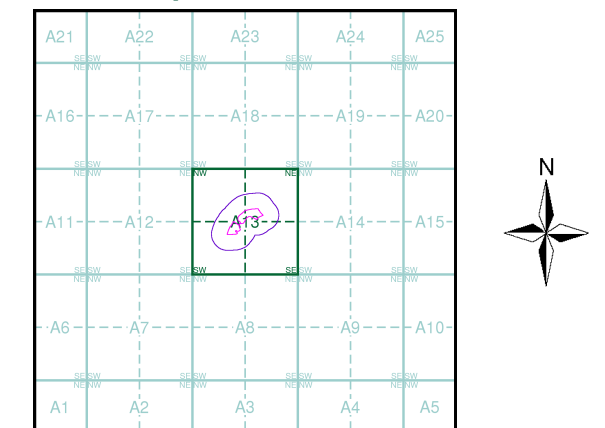
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil,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

Intégral Géotechnique

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Monmouthshire	1:10,560	1886 - 1887	3
Monmouthshire	1:10,560	1902	4
Monmouthshire	1:10,560	1922	5
Monmouthshire	1:10,560	1938	6
Historical Aerial Photography	1:10,560	1947	7
Historical Aerial Photography	1:10,560	1947	8
Monmouthshire	1:10,560	1954	9
Ordnance Survey Plan	1:10,000	1964 - 1965	10
Ordnance Survey Plan	1:10,000	1972 - 1973	11
Ordnance Survey Plan	1:10,000	1981 - 1982	12
Newport	1:10,000	1983	13
Ordnance Survey Plan	1:10,000	1987	14
Ordnance Survey Plan	1:10,000	1992	15
10K Raster Mapping	1:10,000	1999	16
10K Raster Mapping	1:10,000	2006	17
VectorMap Local	1:10,000	2023	18

Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

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Russian Military Mapping Legends

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

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings

Military and Industrial Buildings

Military and Communication Areas

Subway Entrance

Fireproof Building

Prominent Fireproof Building

Non-fireproof Building

Non-fireproof Building (non-dwelling)

Factory, mill, and flour mill, with chimneys

Factory, mill, and flour mill, without chimneys

Power Station, drawn to scale

Hydroelectric Power Station

Radio Station, drawn to scale

Telephone Station, drawn to scale

Abandoned Open-pit Mine or Quarry

Open-pit Salt Mine

Pit

Oil Deposit or Well

Oil Seepage

Tailings Pile

Fuel Storage Tanks

Natural Gas Tank

Bench Mark

Drill Hole

Burial Mound

Triangulation Point on Burial Mound

Single-track Railroad

Double-track Railroad and Station Building

Coniferous Forest

Deciduous Forest

Mixed Forest

Lawns

Citrus Orchard

Wet Ground

Scattered Vegetation

243.8 Values for prominent elevations

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

0.2 Velocity of the current, width of river bed, depth of river

180 12 Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

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

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

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings

Military and Industrial Buildings

Military and Communication Areas

Subway Entrance

Partly Demolished Buildings

Demolished Buildings

Built-Up Area with Fireproof Buildings Predominant

Built-Up Area with Non-Fireproof Buildings Predominant

Individual Fireproof Building

Prominent Industrial Building

Individual Dwelling, Fireproof

Ruins of an Individual Dwelling

Factory or Mill Chimney

Factory or Mill with Chimney

Factory or Mill without Chimney

Mine or Open Pit Mine

Operating Shaft or Mine

Non-Operating Shaft or Mine

Salt Mine

Tailings Pile

Pit

Stone Quarry

Gas Pump or Service Station

Fuel Storage or Natural Gas Tank

Oil or Natural Gas Derrick

Small Hydroelectric Power Station

Power Station

Transformer Station

Cemetery

Burial Mound (height in metres)

Triangulation Point on Burial Mound

Triangulation Point

Bench Mark

Bench Mark (monumented)

Telegraph Office

Telephone Station

Radio Station

Radio Tower

Airfield or Seaplane Base

Landing Strip

Telegraph/Telephone Lines

Main Highway

Highway under Construction

Improved Dirt Road (former truck road)

Double-track Railroad with First Class Station

Railroad Under Construction

Shore Embankment

River or Ditch with Embankment

Water Gauge

Water Level Mark

Well

Water Reservoir or Rain Water Pit

Spring

Isobath with value

Heavy (Index) Contour Line

Contour Line and Value

Half Contour Line

Spot Elevation Value

Coniferous

Deciduous

Mixed

Scrub

Key to Numbers on Mapping

ST28NE_Newport

No.	Description
57	Post Office

ST38NW_Newport

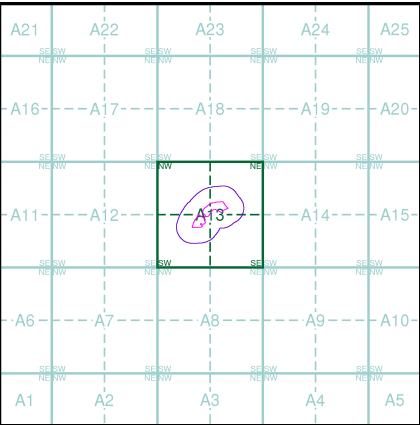
No.	Description
22	Factory (Metal Works) And Mill (Steel)
52	Post Office
67	Railway Station
72	Railway Station
74	Railway Station
77	Railway Station

Intégral Géotechnique

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Monmouthshire	1:10,560	1886 - 1887	3
Monmouthshire	1:10,560	1902	4
Monmouthshire	1:10,560	1922	5
Monmouthshire	1:10,560	1938	6
Historical Aerial Photography	1:10,560	1947	7
Historical Aerial Photography	1:10,560	1947	8
Monmouthshire	1:10,560	1954	9
Ordnance Survey Plan	1:10,000	1964 - 1965	10
Ordnance Survey Plan	1:10,000	1972 - 1973	11
Ordnance Survey Plan	1:10,000	1981 - 1982	12
Newport	1:10,000	1983	13
Ordnance Survey Plan	1:10,000	1987	14
Ordnance Survey Plan	1:10,000	1992	15
10K Raster Mapping	1:10,000	1999	16
10K Raster Mapping	1:10,000	2006	17
VectorMap Local	1:10,000	2023	18

Russian Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

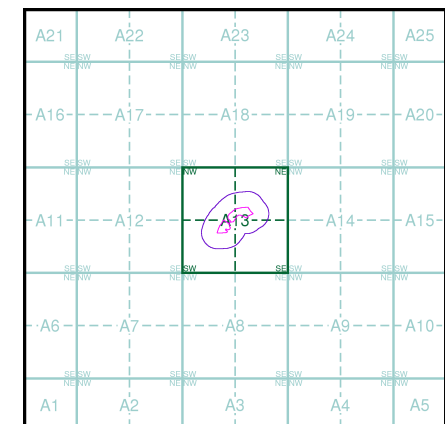
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

02800	1886	1:10,560
03300	1887	1:10,560

Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

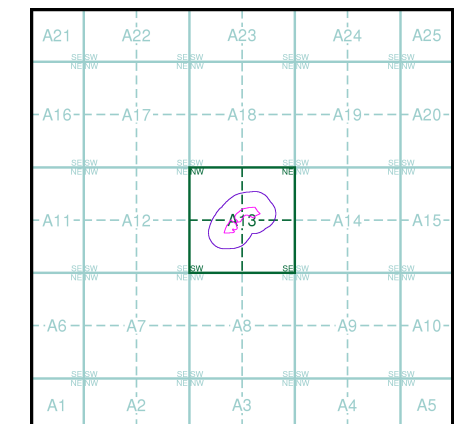
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

028SE
1902
1:10,560
033NE
1902
1:10,560

Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

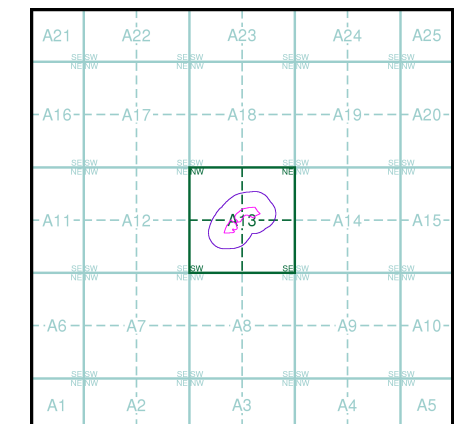
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

028SE
1922
1:10,560
033NE
1922
1:10,560

Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
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Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

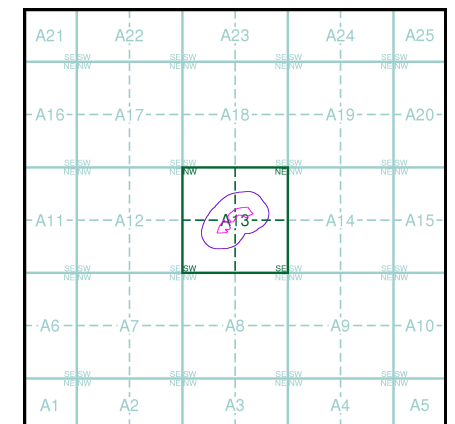
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

028SE 1938 1:10,560
033NE 1938 1:10,560

Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Historical Aerial Photography

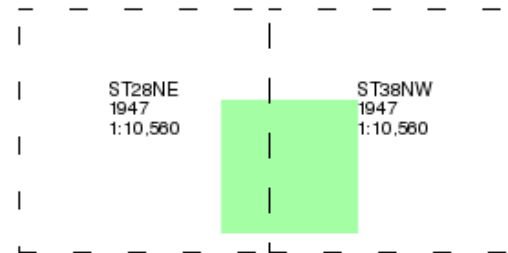
Published 1947

Source map scale - 1:10,560

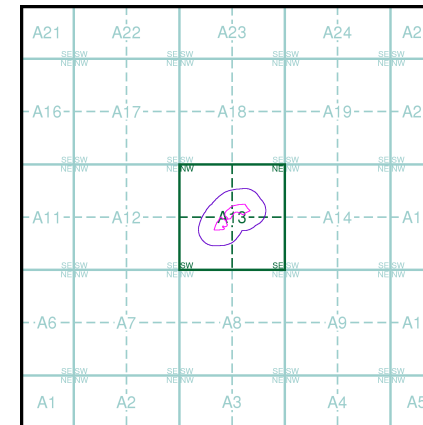
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Historical Aerial Photography

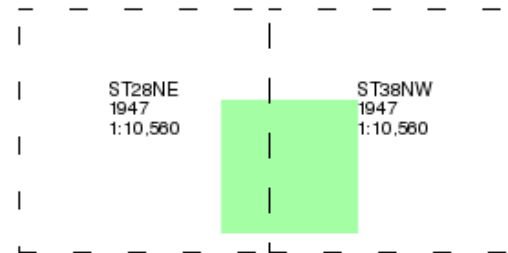
Published 1947

Source map scale - 1:10,560

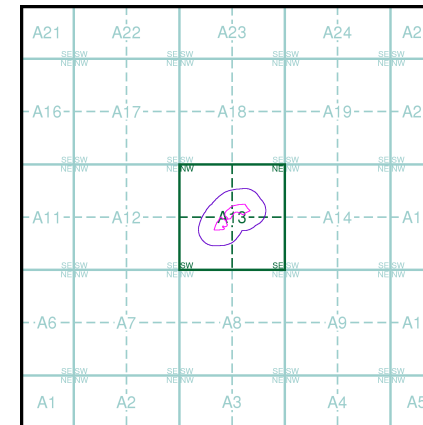
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

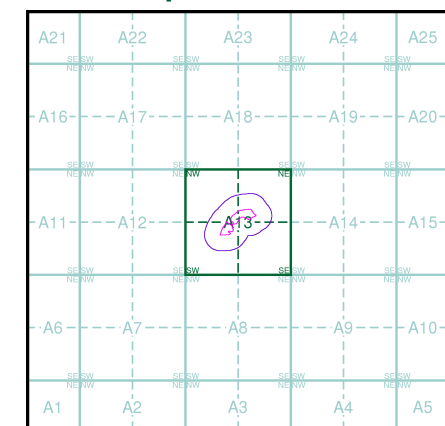
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

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Map Name(s) and Date(s)

028SE
1954
1:10,560
033NE
1954
1:10,560

Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

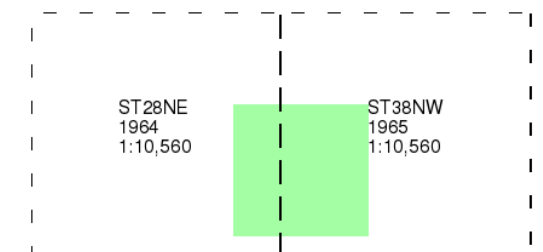
Ordnance Survey Plan

Published 1964 - 1965

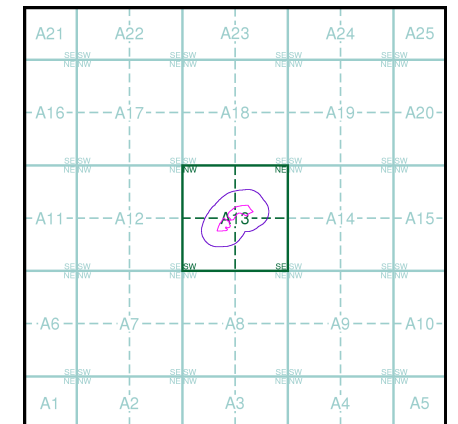
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
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Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY



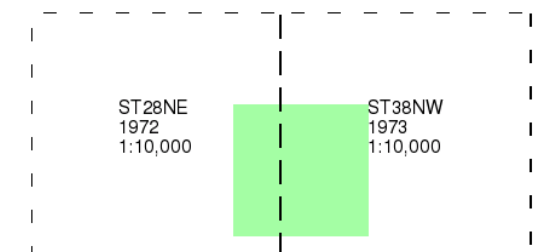
Ordnance Survey Plan

Published 1972 - 1973

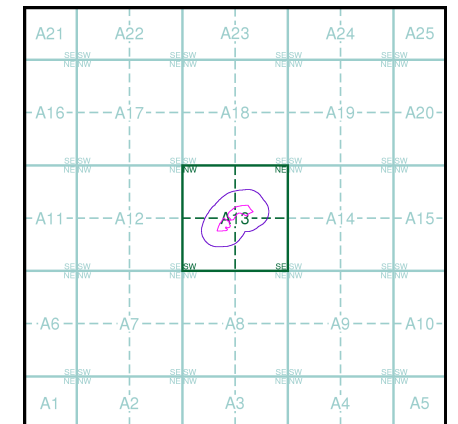
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
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Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY



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Fax: 0844 844 9951
Web: www.envirocheck.co.uk

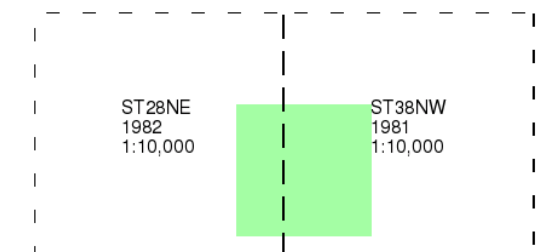
Ordnance Survey Plan

Published 1981 - 1982

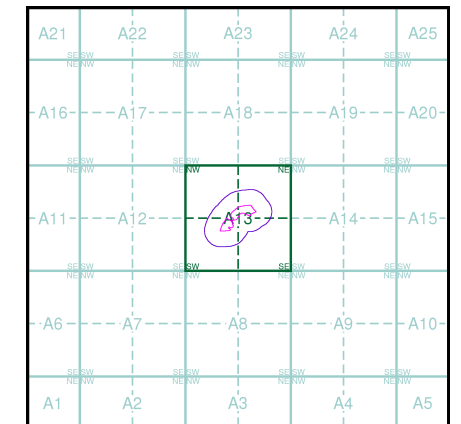
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Newport

Published 1983

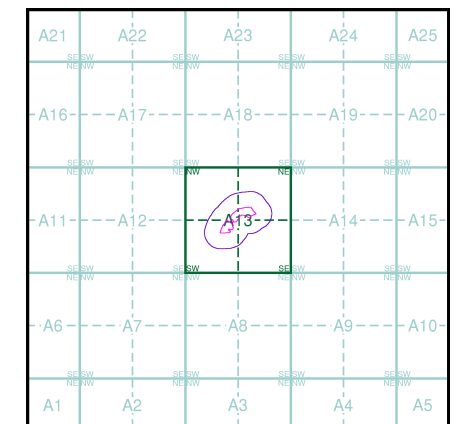
Source map scale - 1:10,000

These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a numbered key describing their use. They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that are mapped.

Map Name(s) and Date(s)

ST28NE 1983 1:10,000	ST38NW 1983 1:10,000
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Russian Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

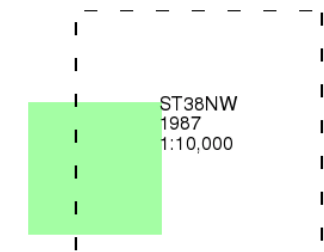
Ordnance Survey Plan

Published 1987

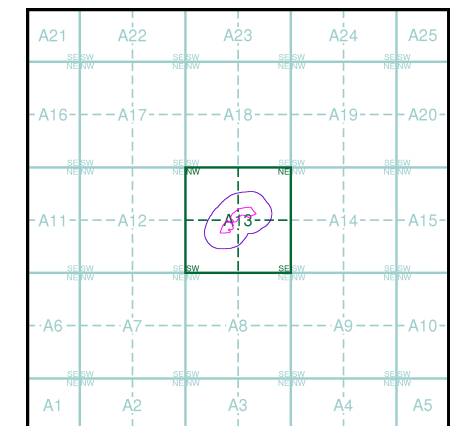
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

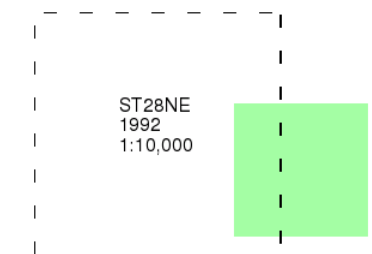
Ordnance Survey Plan

Published 1992

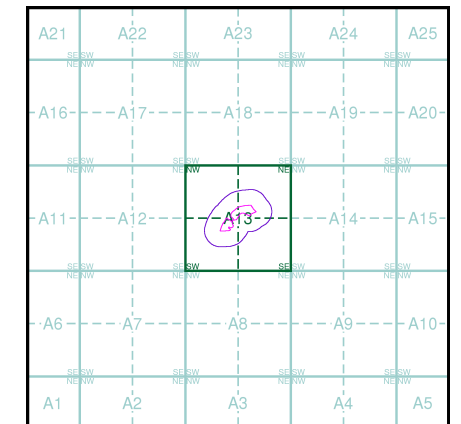
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
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Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Intégral Géotechnique

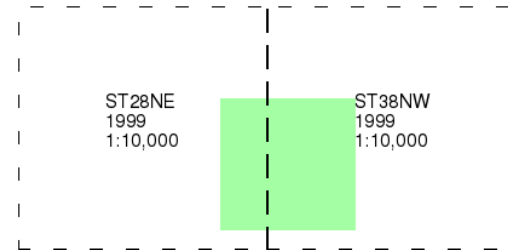
10k Raster Mapping

Published 1999

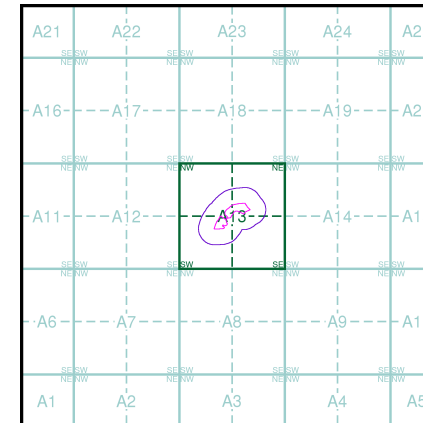
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

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Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Intégral Géotechnique

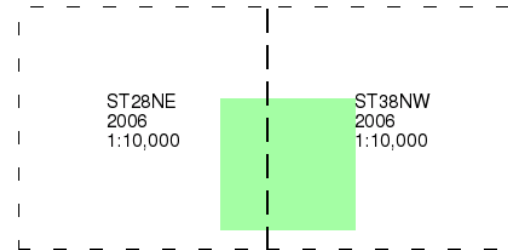
10k Raster Mapping

Published 2006

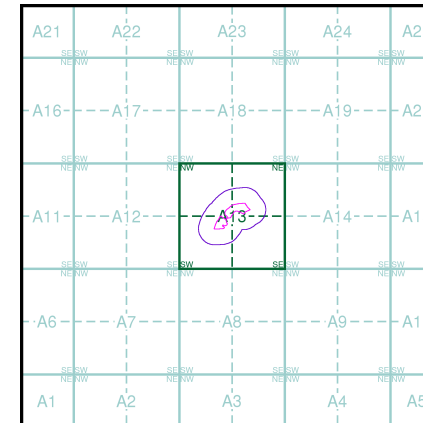
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

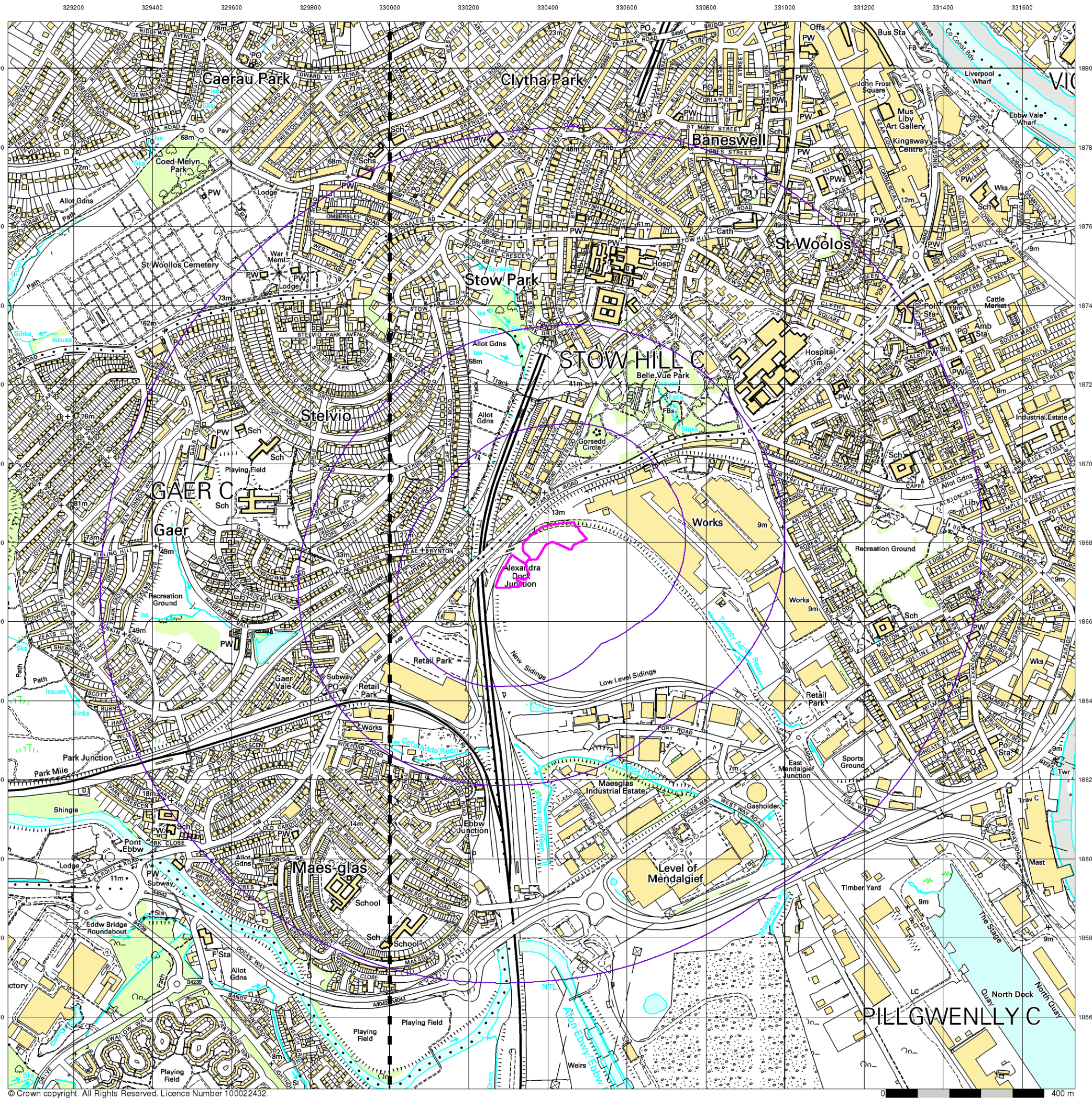
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Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
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Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

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Intégral Géotechnique

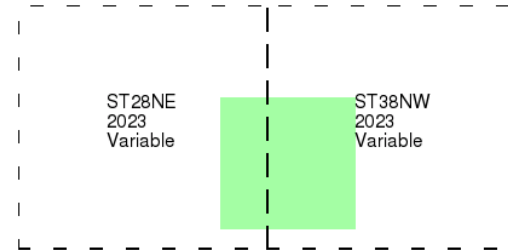
VectorMap Local

Published 2023

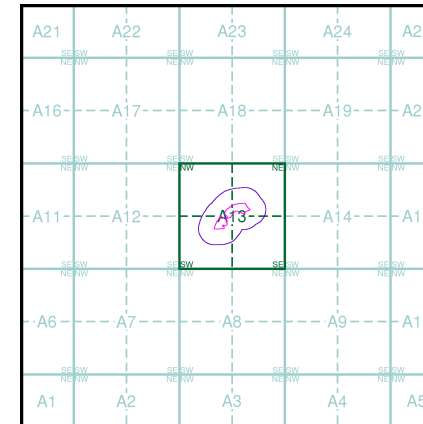
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

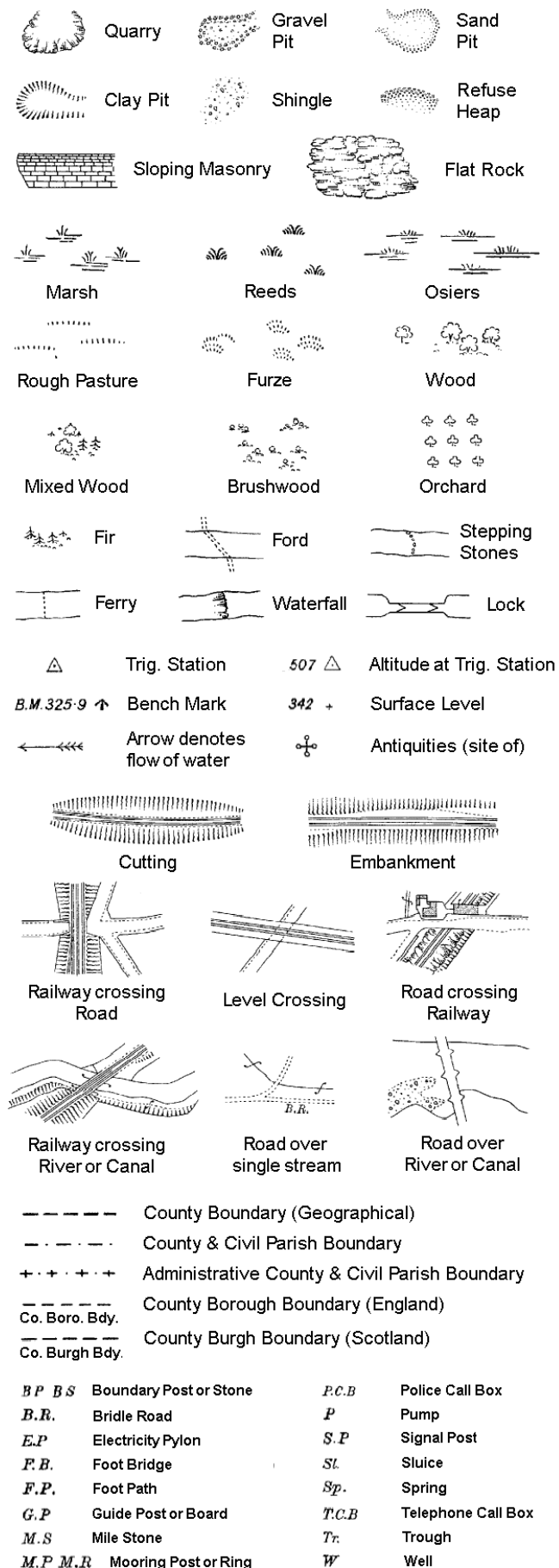
Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

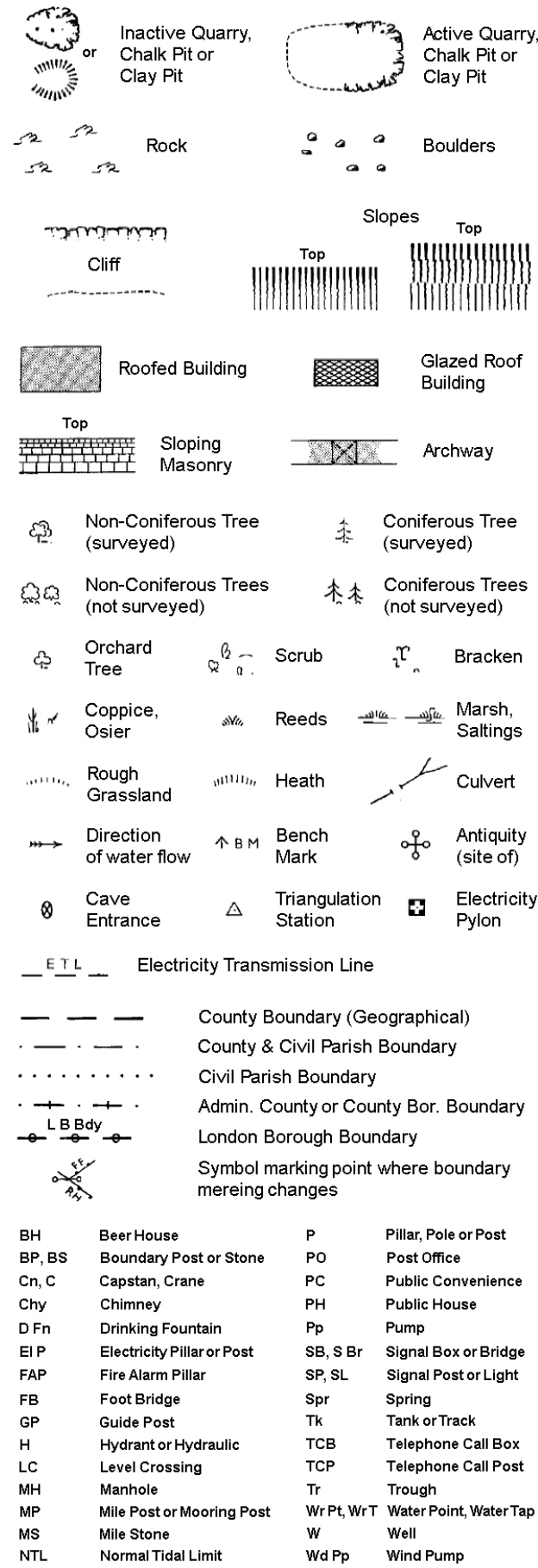


Historical Mapping Legends

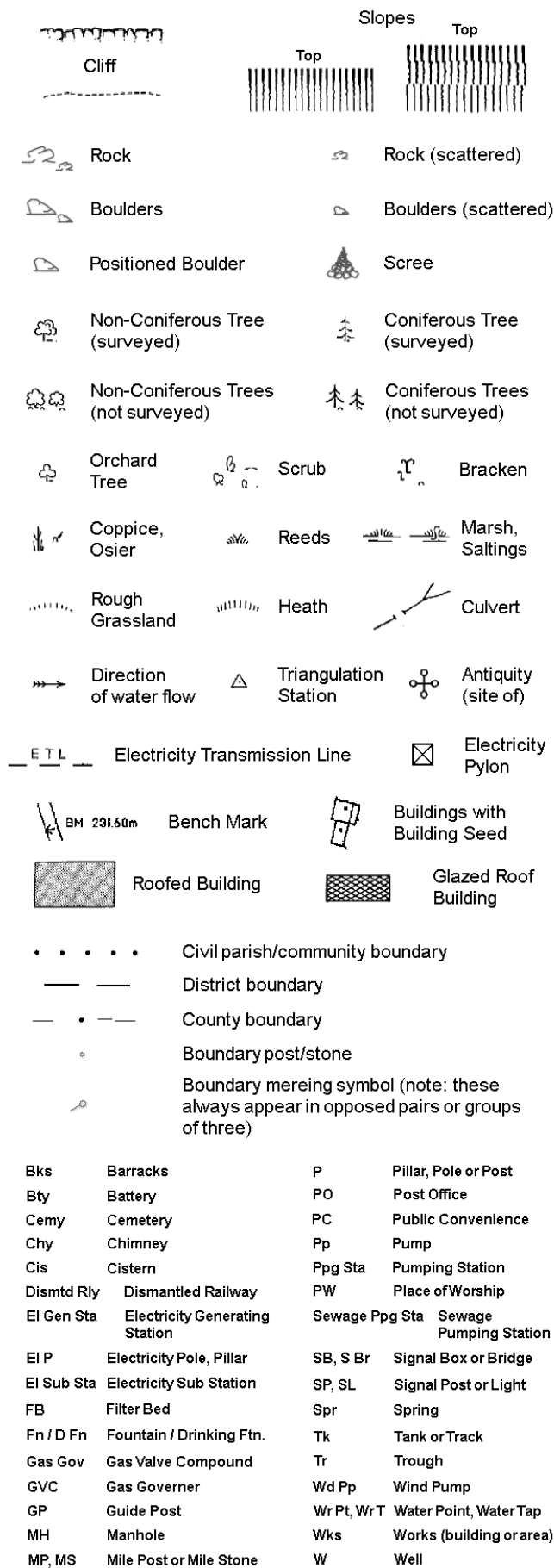
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



Large-Scale National Grid Data 1:2,500 and 1:1,250

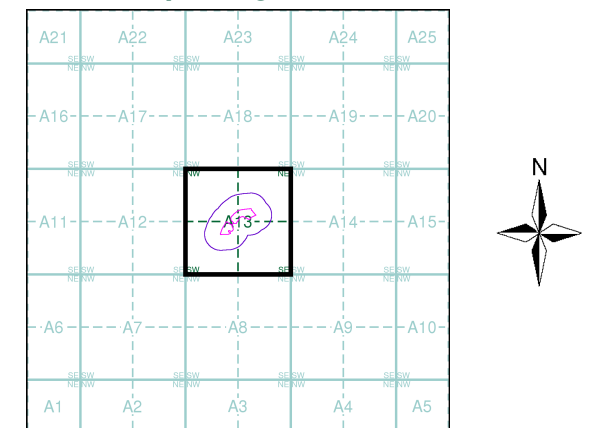


Intégral Géotechnique

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Monmouthshire	1:2,500	1884	2
Monmouthshire	1:2,500	1902	3
Monmouthshire	1:2,500	1921	4
Monmouthshire	1:2,500	1937	5
Ordnance Survey Plan	1:2,500	1956 - 1957	6
Ordnance Survey Plan	1:1,250	1956	7
Ordnance Survey Plan	1:1,250	1966 - 1973	8
Ordnance Survey Plan	1:2,500	1970	9
Supply of Unpublished Survey Information	1:1,250	1974	10
Additional SIMs	1:1,250	1977 - 1989	11
Additional SIMs	1:1,250	1982 - 1991	12
Additional SIMs	1:1,250	1982	13
Ordnance Survey Plan	1:1,250	1987	14
Large-Scale National Grid Data	1:1,250	1993	15
Large-Scale National Grid Data	1:1,250	1994 - 1995	16
Large-Scale National Grid Data	1:1,250	1995	17
Large-Scale National Grid Data	1:1,250	1996	18
Large-Scale National Grid Data	1:1,250	1996	19
Historical Aerial Photography	1:2,500	2000	20

Historical Map - Segment A13



Order Details

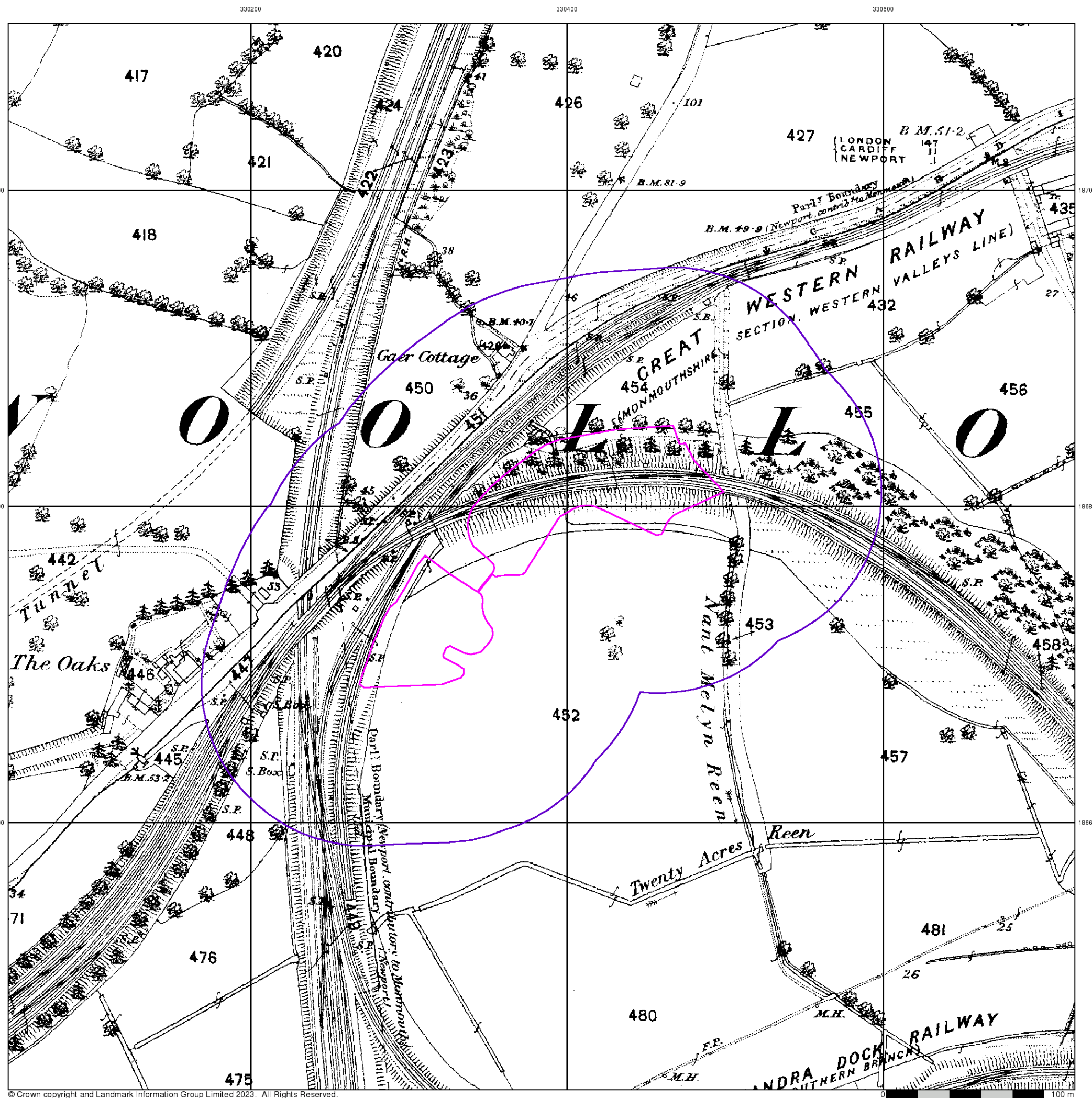
Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

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Intégral Géotechnique

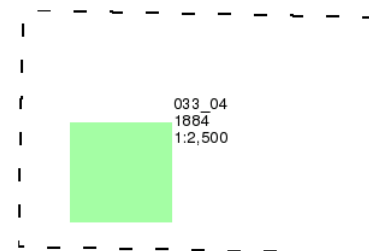
Monmouthshire

Published 1884

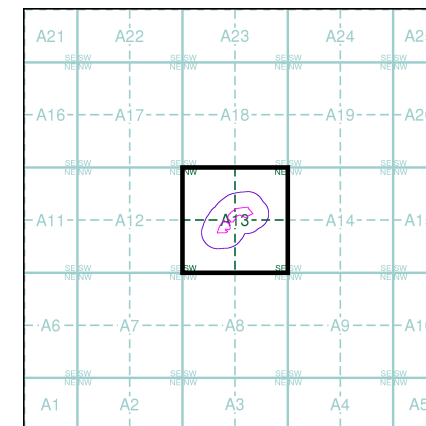
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

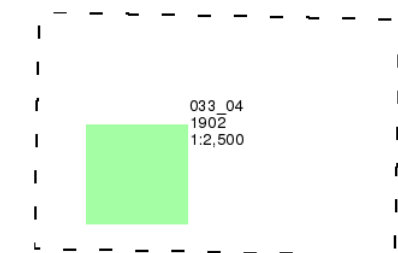
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

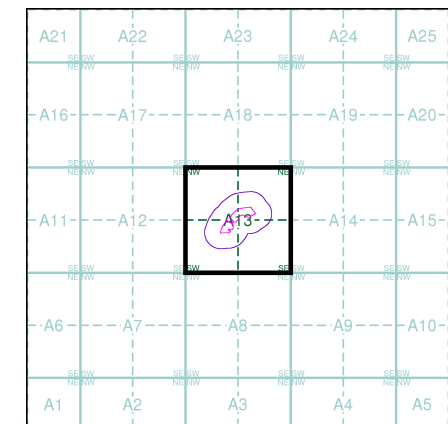
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13

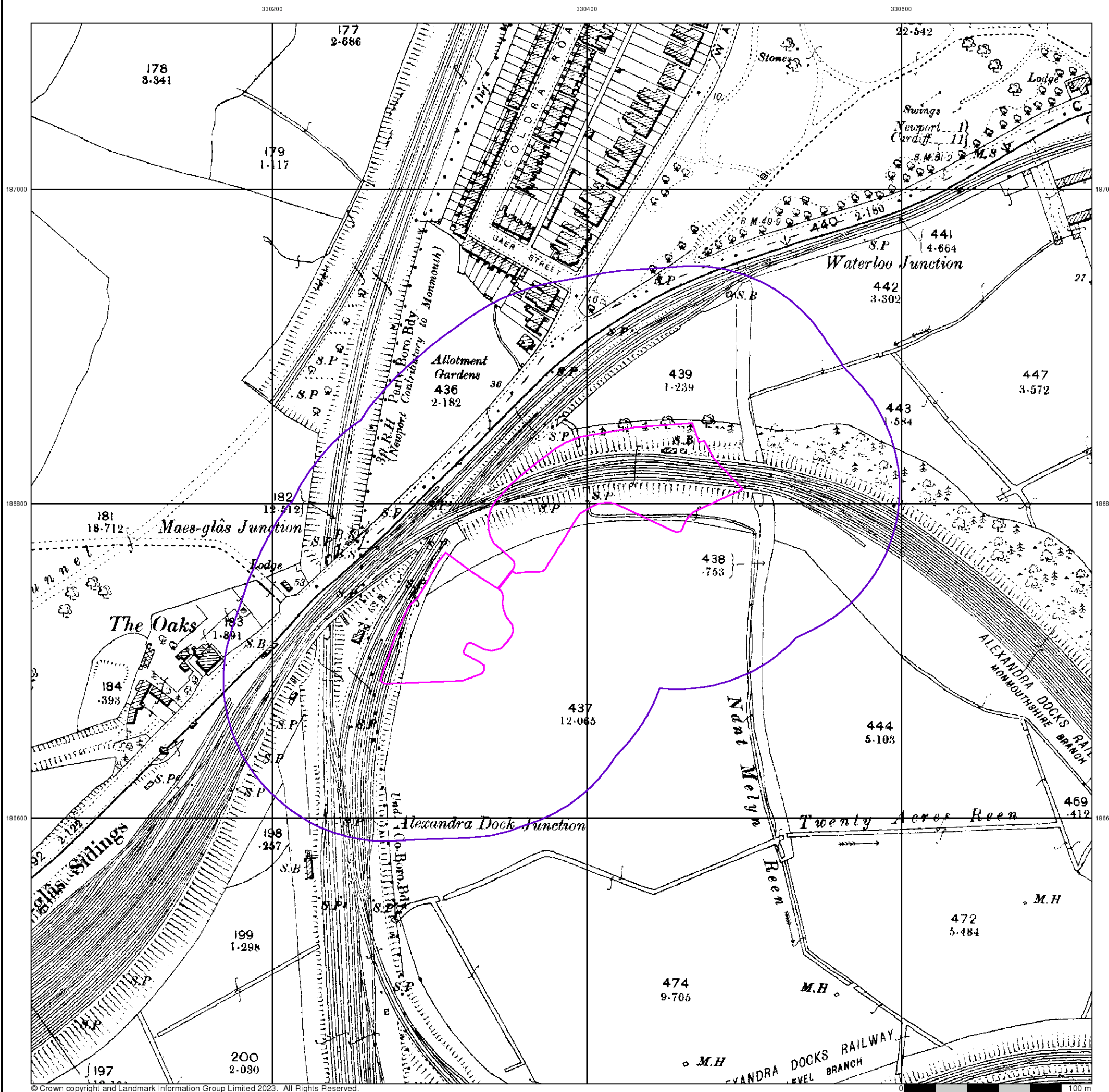


Order Details

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National Grid Reference: 330380, 186770
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Search Buffer (m): 100

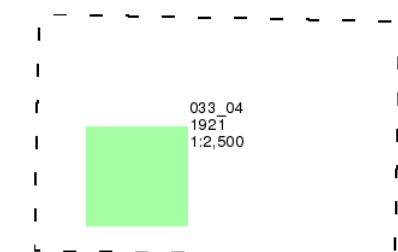
Site Details

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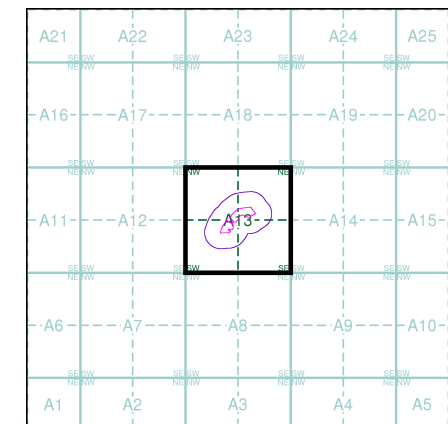


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13

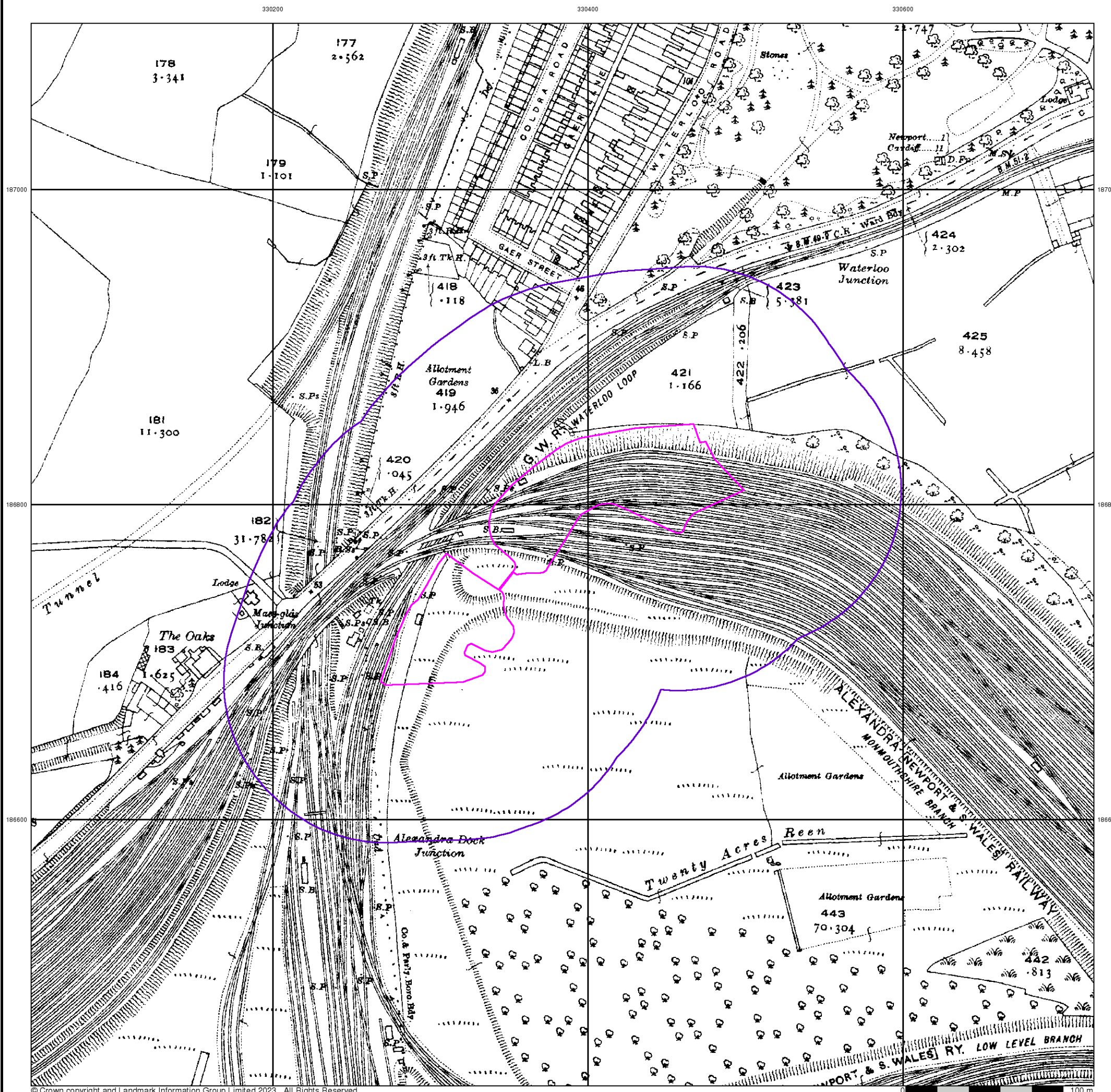


Order Details

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Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

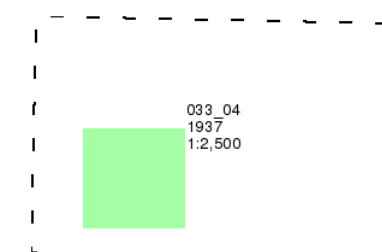
Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

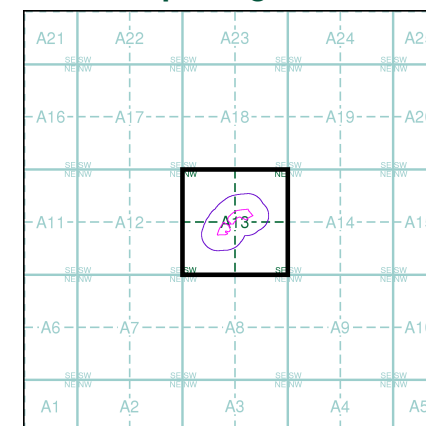


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY



Ordnance Survey Plan

Published 1956 - 1957

Source map scale - 1:2,500

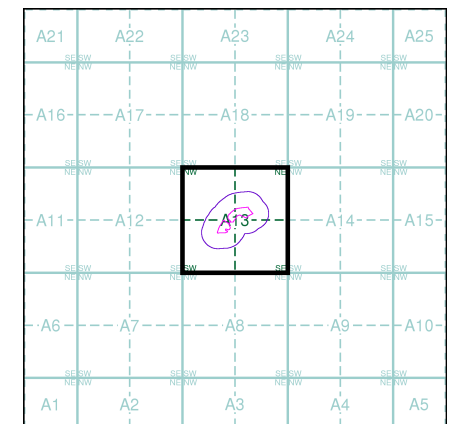
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

ST3087
1956
1:2,500

ST3086
1957
1:2,500

Historical Map - Segment A13



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1956

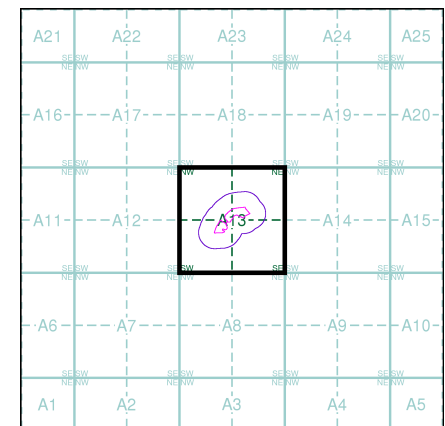
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

T3087SV	T3087SE
1956	1956
1:1,250	1:1,250
T3086NV	T3086NE
1956	1956
1:1,250	1:1,250
T3086SW	T3086SE
1956	1956
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

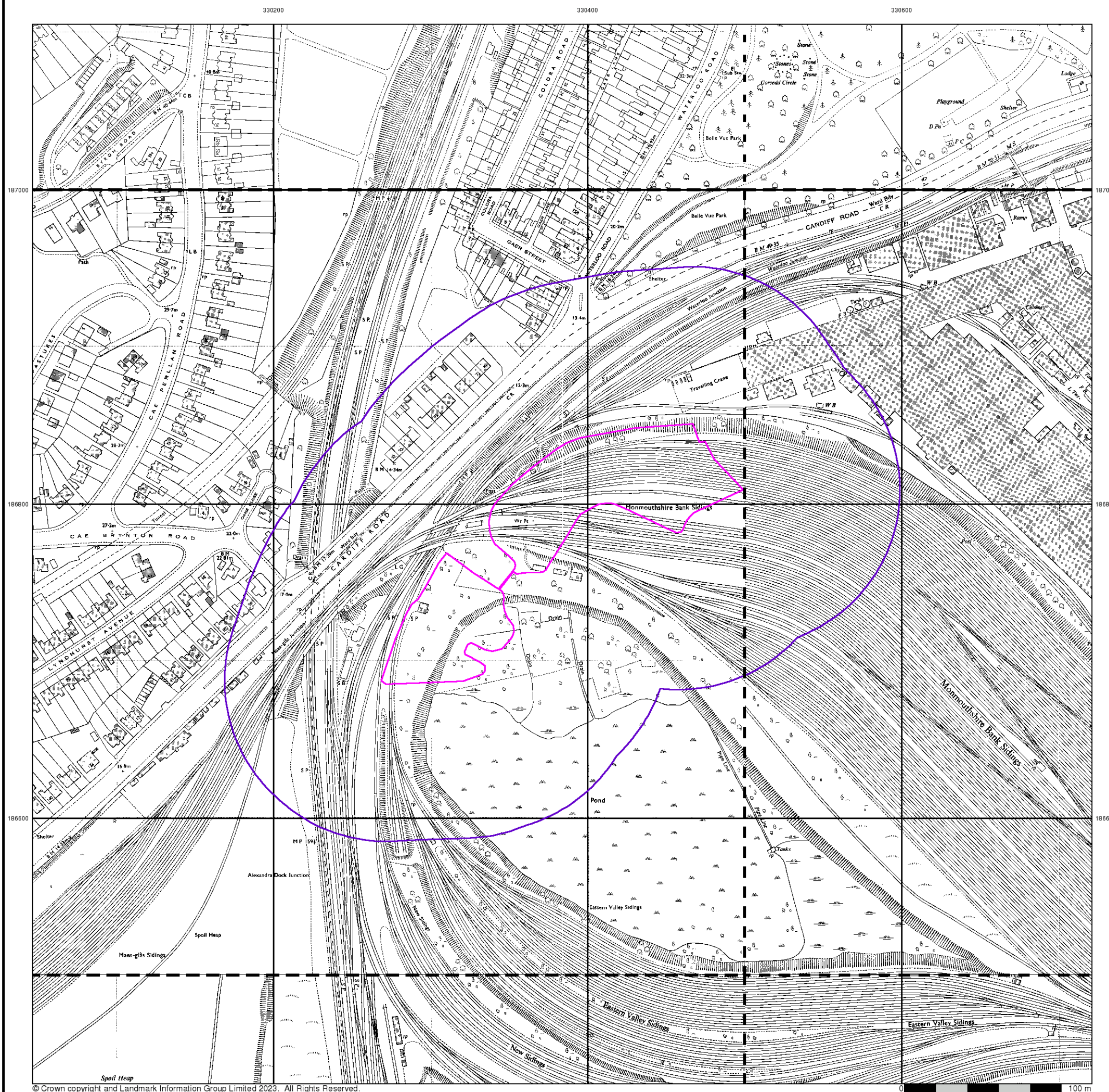
Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

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Intégral Géotechnique

Ordnance Survey Plan

Published 1966 - 1973

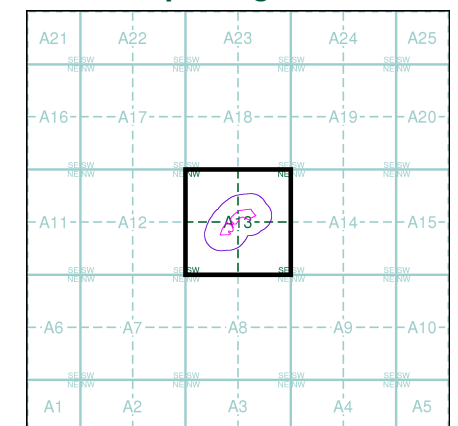
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

ST3087SW	ST3087SE
973	1968
:1,250	:1,250
ST3086NW	ST3086NE
971	1966
:1,250	:1,250
ST3086SW	ST3086SE
968	1971
:1,250	:1,250

Historical Map - Segment A13



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

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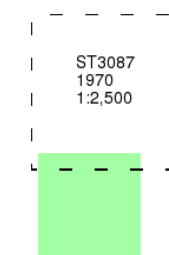
Ordnance Survey Plan

Published 1970

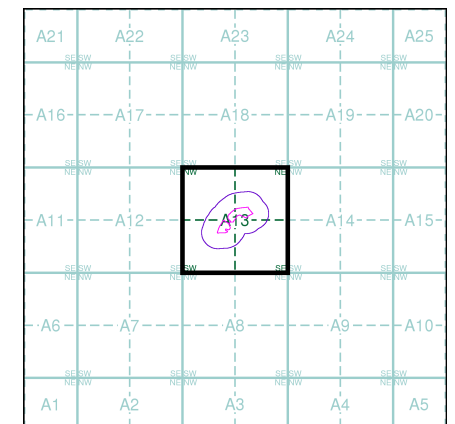
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

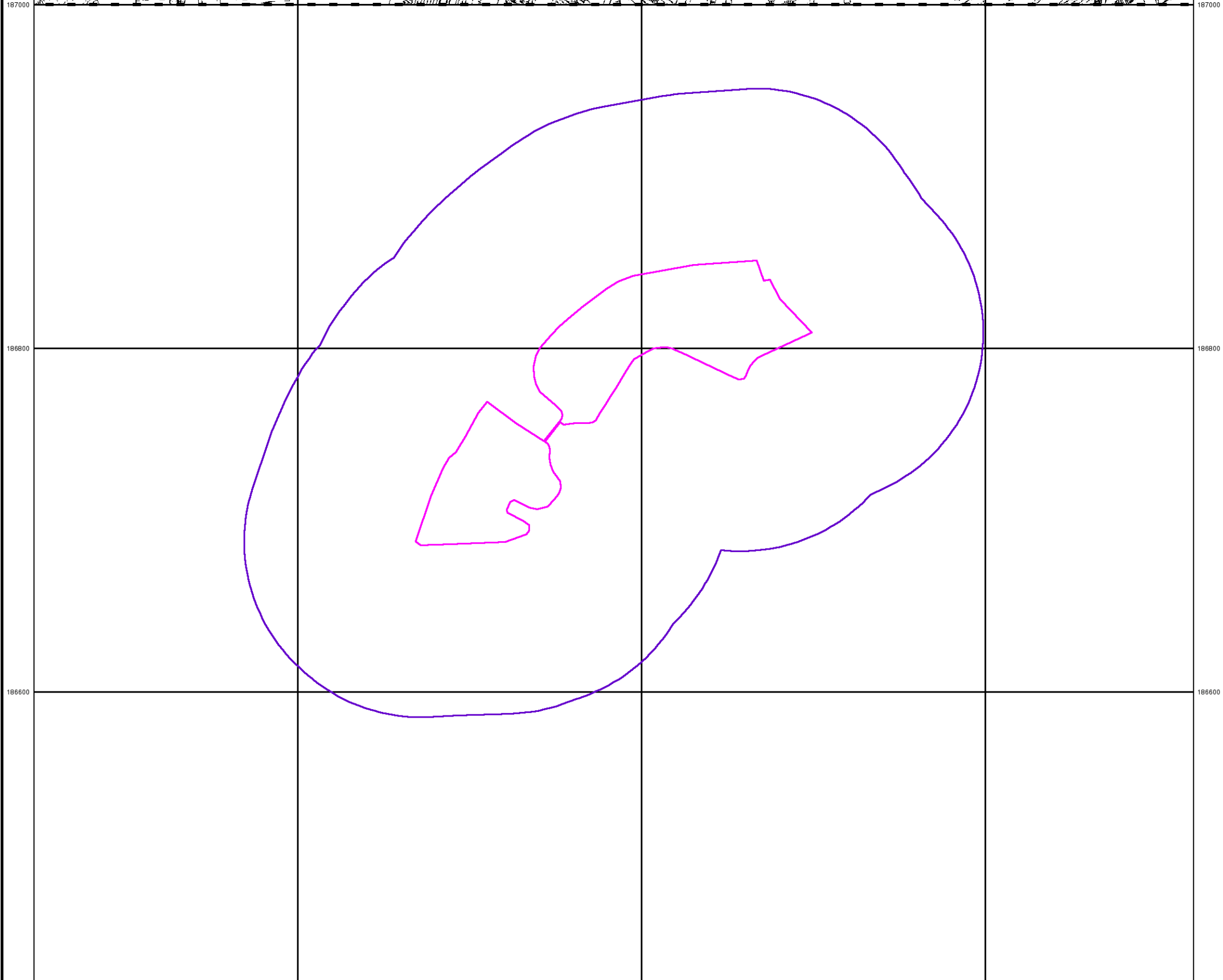
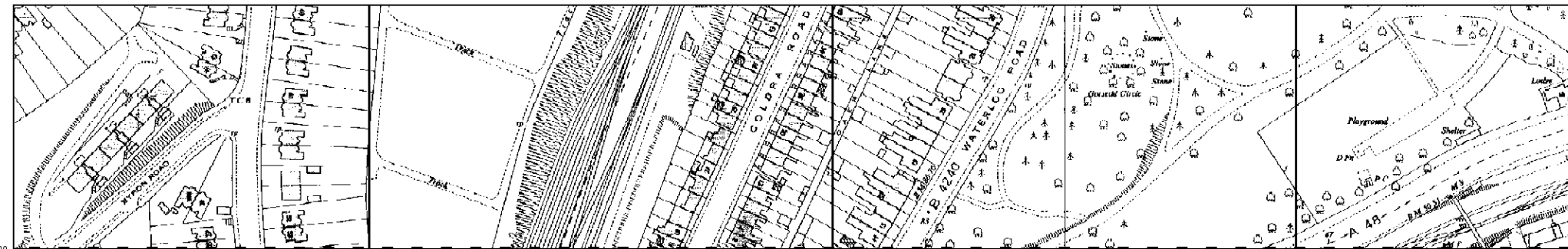
Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

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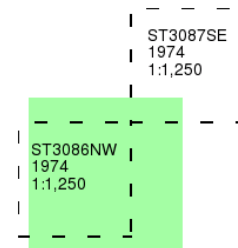
Supply of Unpublished Survey Information

Published 1974

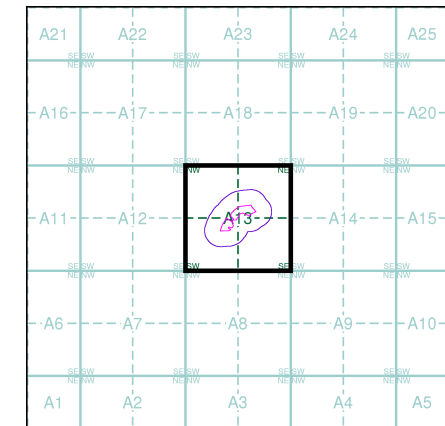
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

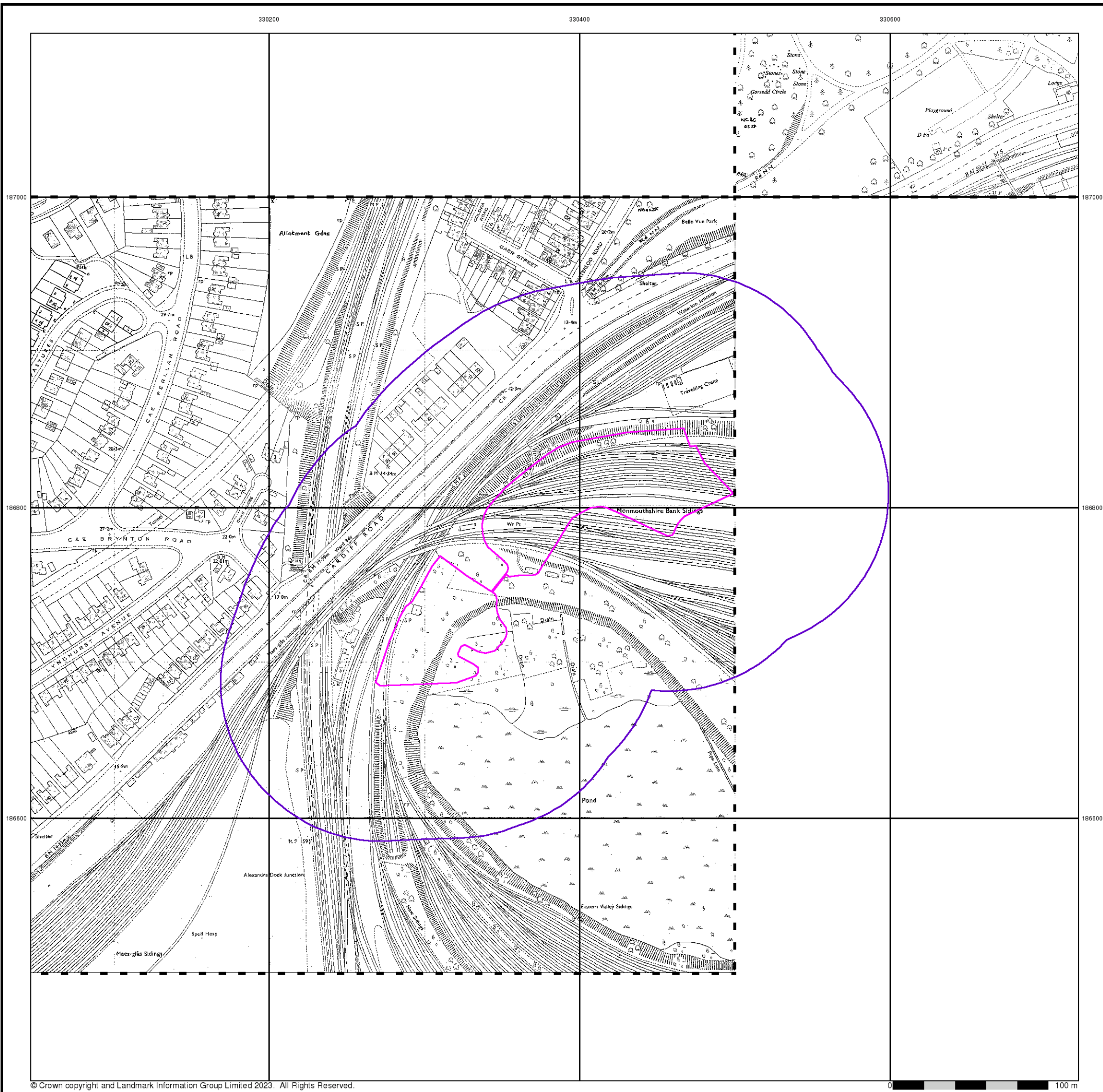
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Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

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Additional SIMs

Published 1977 - 1989

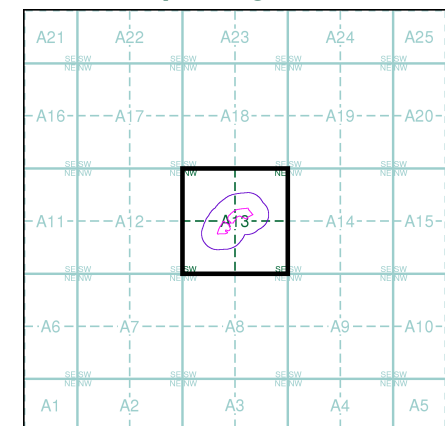
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

BT3087SE	1977	1:1,250
BT3086NW	1978	1:1,250
BT3086SW	1977	1:1,250
BT3086SE	1978	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY



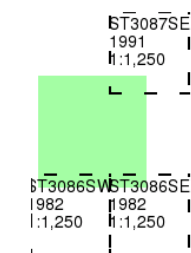
Additional SIMs

Published 1982 - 1991

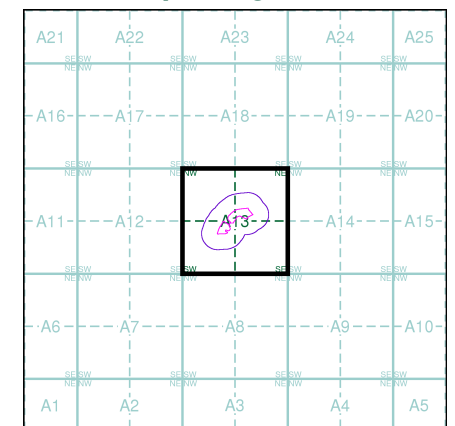
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

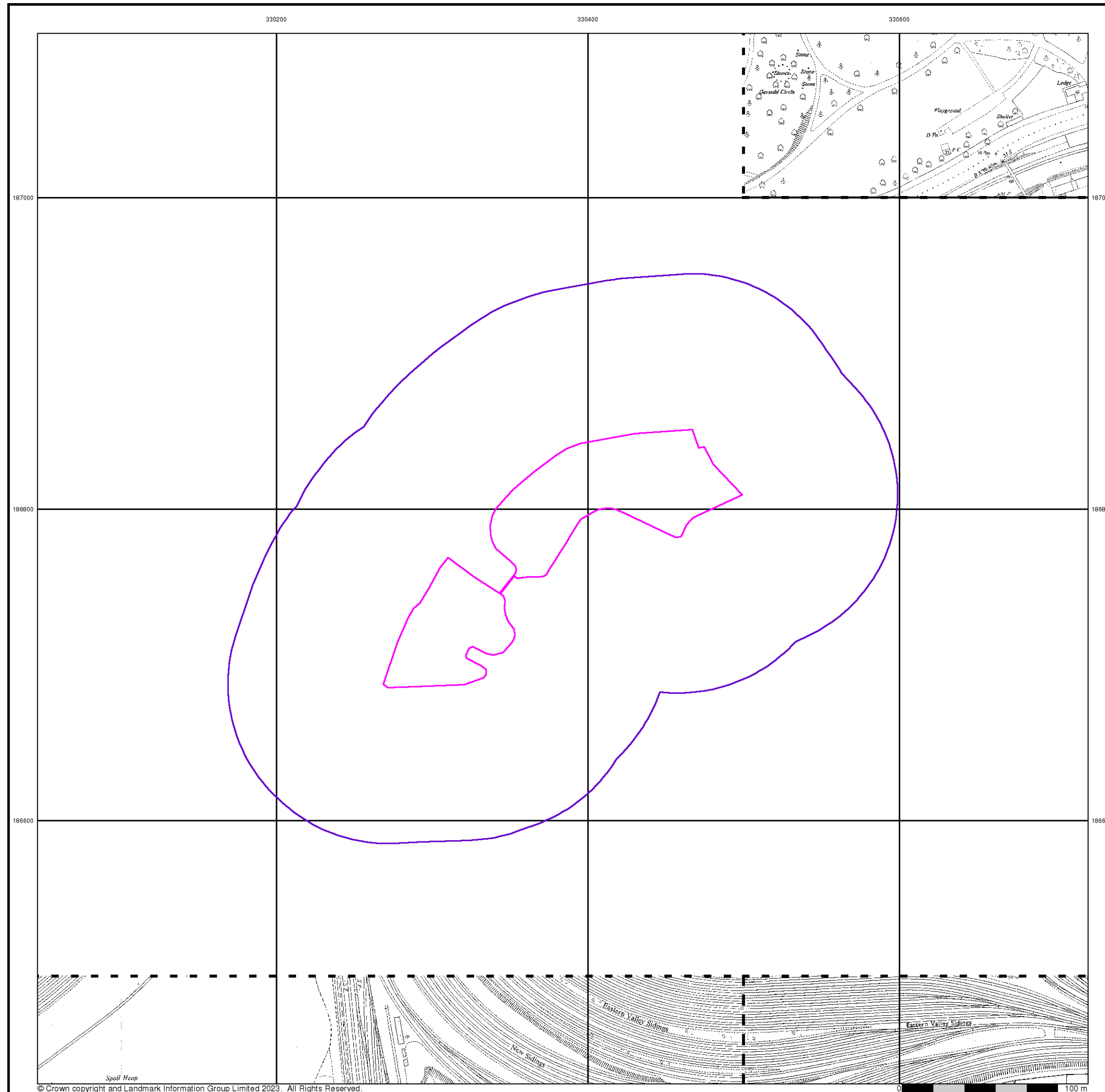
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Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
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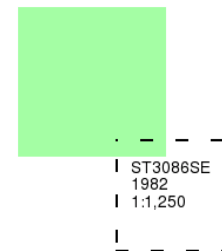
Additional SIMs

Published 1982

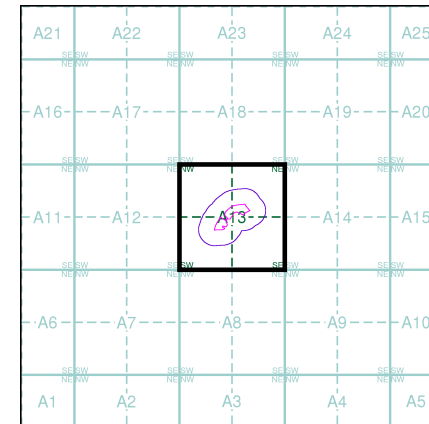
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

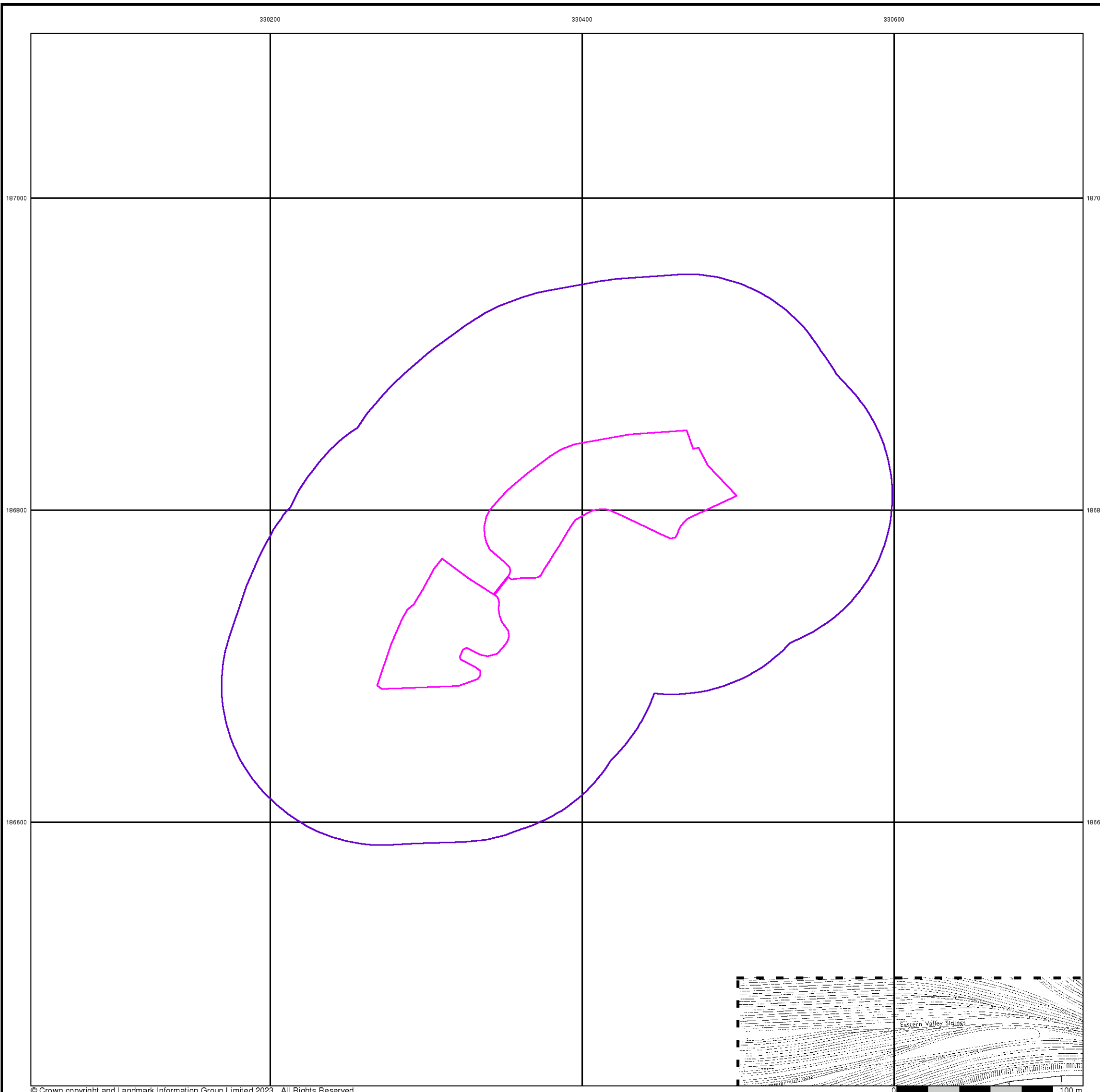
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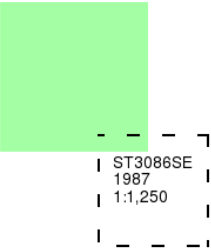
Ordnance Survey Plan

Published 1987

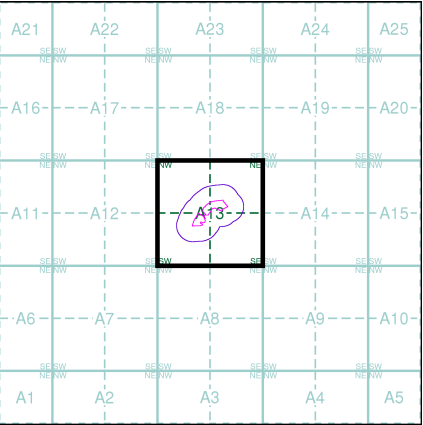
Source map scale - 1:1,250

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

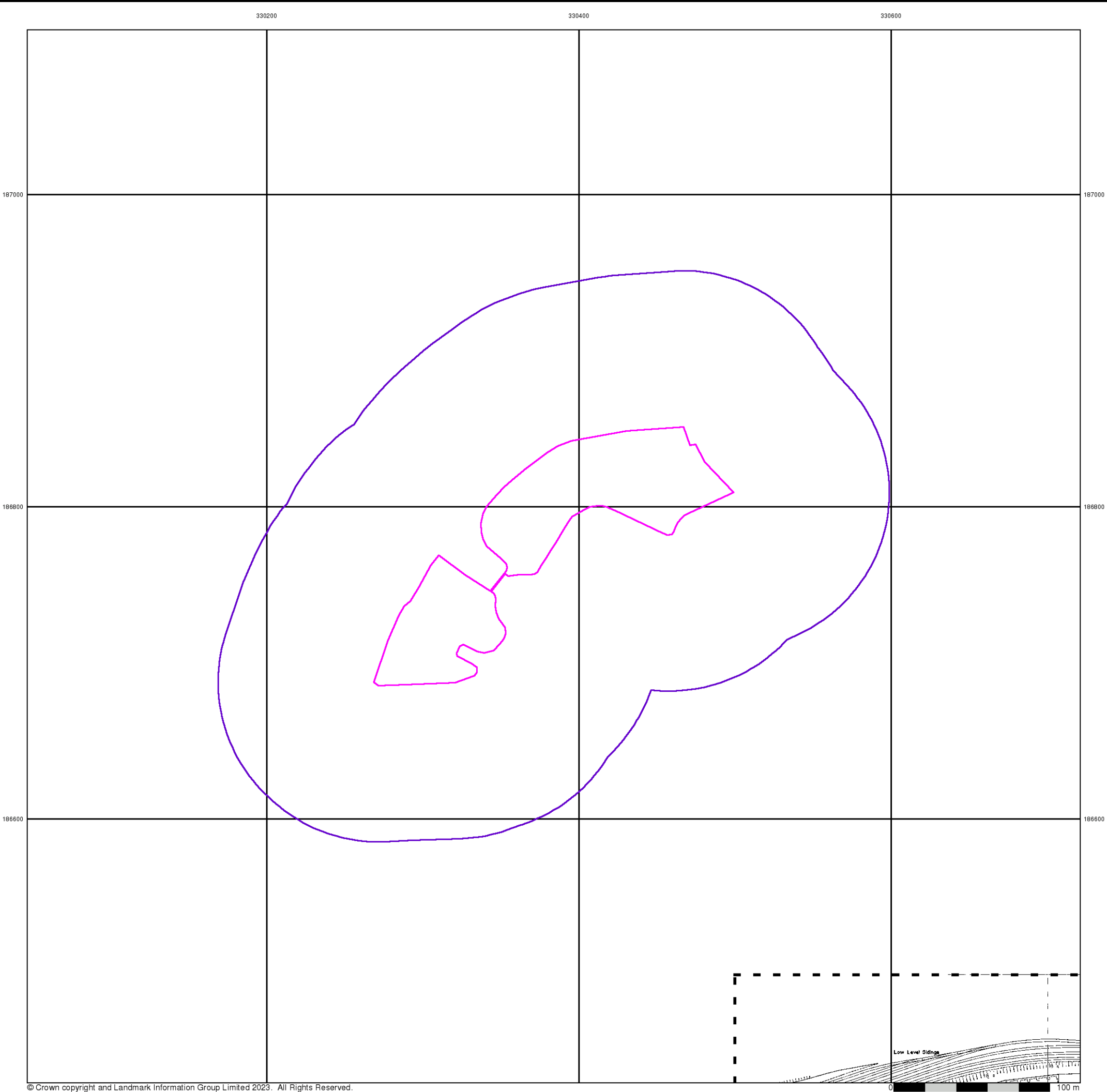
Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY



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Large-Scale National Grid Data

Published 1993

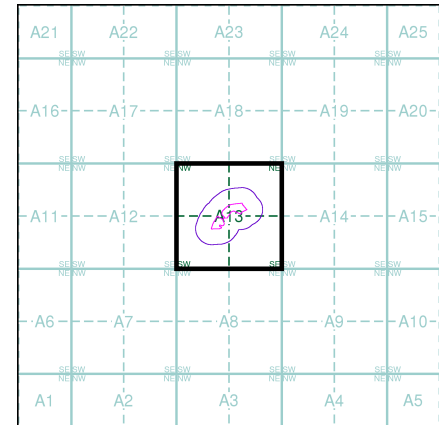
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

BT3087SW	BT3087SE
1993	1993
1:1,250	1:1,250
BT3086NW	BT3086NE
1993	1993
1:1,250	1:1,250
BT3086SW	BT3086SE
1993	1993
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

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Large-Scale National Grid Data

Published 1994 - 1995

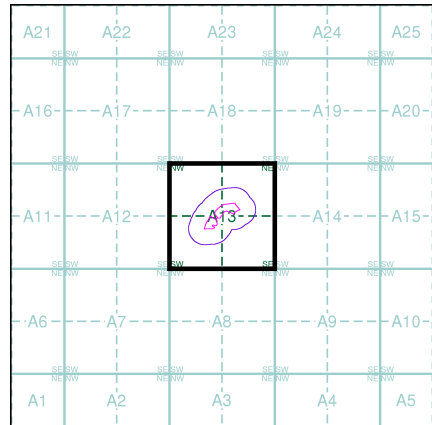
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

T3087SW
995
1:1,250
T3086SW
994
1:1,250

Historical Map - Segment A13



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
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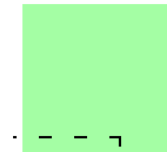
Large-Scale National Grid Data

Published 1995

Source map scale - 1:1,250

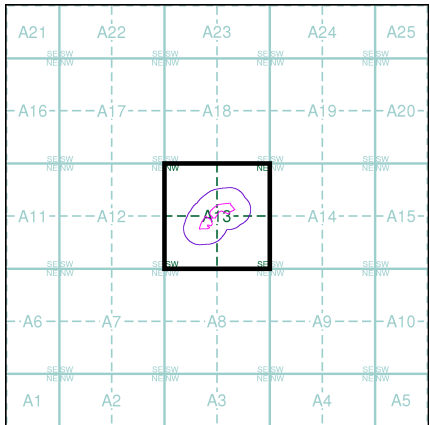
'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



ST3086SW
1995
1:1,250

Historical Map - Segment A13



Order Details

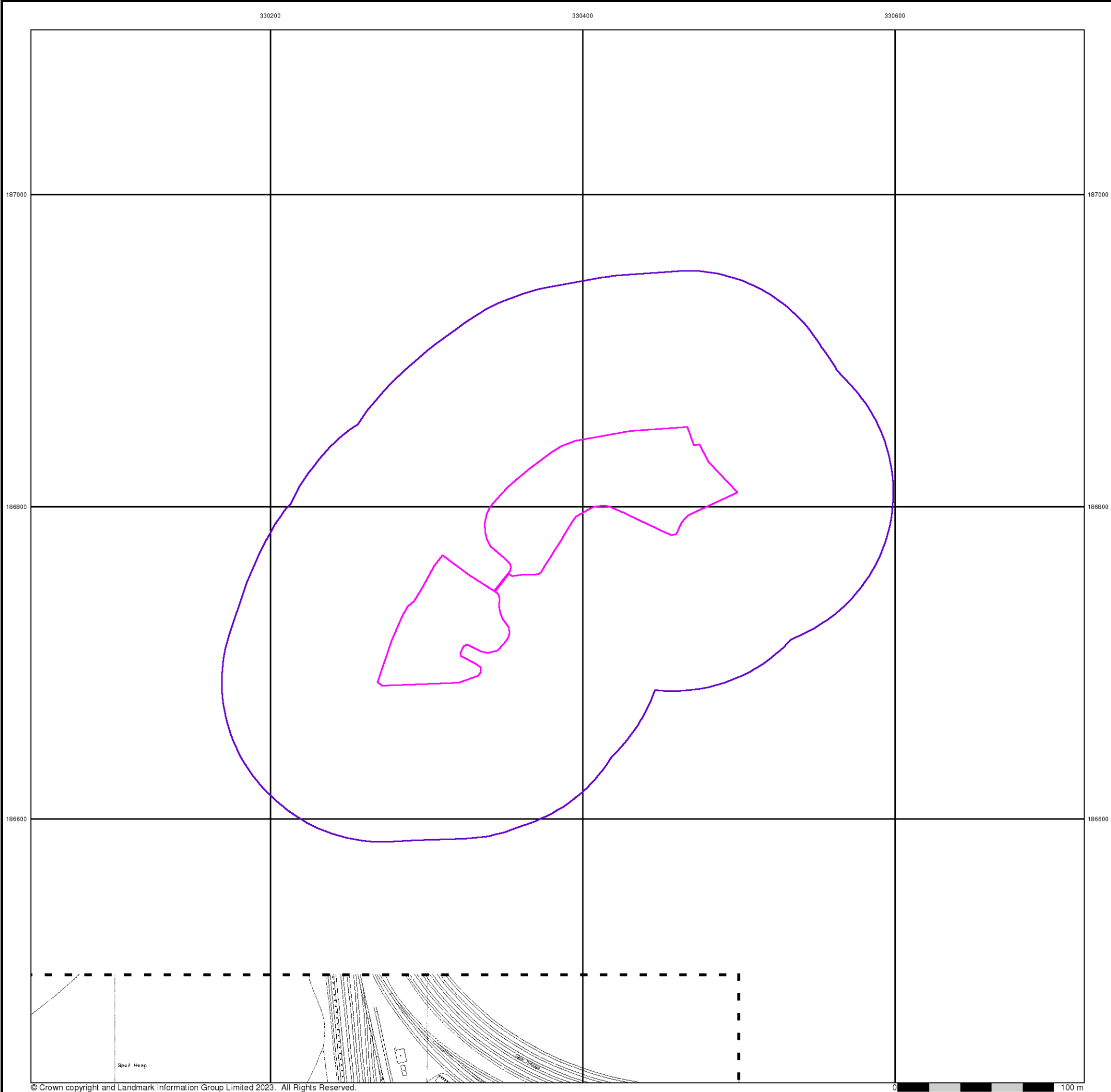
Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

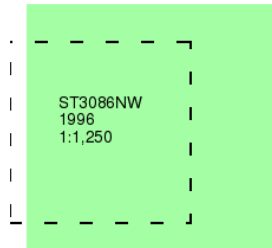


Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

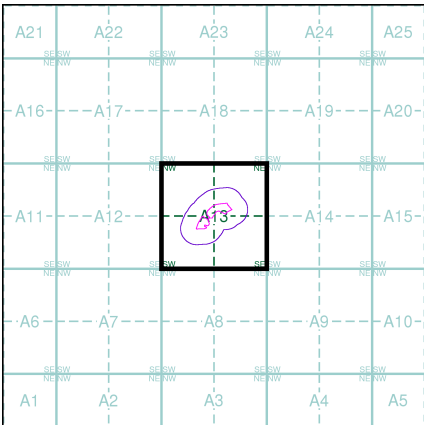


'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



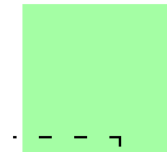
Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

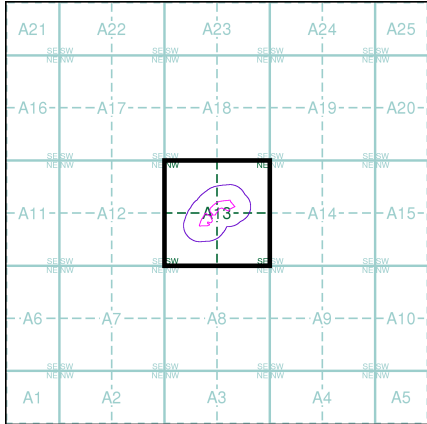
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Map Name(s) and Date(s)



ST3086SW
1996
1:1,250

Historical Map - Segment A13



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

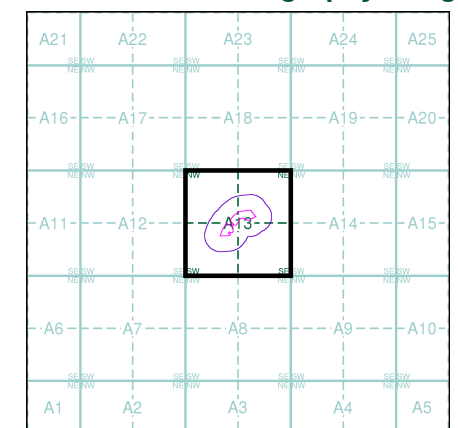
Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Historical Aerial Photography

Published 2000

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 100

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

314117352_1_1

Customer Reference:

14234/LP/Rev A

National Grid Reference:

330380, 186770

Slice:

A

Site Area (Ha):

1.22

Search Buffer (m):

1000

Site Details:

Mon Bank Parcels

Cleeve Grange Crescent

Newport

NP20 2PY

Client Details:

MR H Pritchard

Integral Geotechnique

Integral House

7 Beddau Way

Castlegate Business Park

Caerphilly

CF83 2AX

Report Section and Details	Page Number
Summary	-
The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected. For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).	
Mining and Natural Cavities Data	1
The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities. Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.	
Historical Land Use Information (1:2,500)	2
The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative. For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.	
Historical Land Use Information (1:10,000)	3
The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.	
Ground Stability Data (1:50,000)	6
The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.	
Historical Map List	7
The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.	
Data Currency	8
Data Suppliers	9
Useful Contacts	10

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The brine subsidence data relating to the Droitwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

The Mining Instability data was obtained on licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The supplied Mining Instability data is derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1			1	2
Coal Mining Affected Areas			n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability			n/a	n/a	n/a
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 1	Yes		n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)	pg 2	3	4	n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying	pg 3				1
Heap, unknown constituents	pg 3		1	1	
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits	pg 3				1
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 3				4
Potentially Infilled Land (Water)	pg 3		8	11	20
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 6	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Salt Mining Related Features					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	BGS Recorded Mineral Sites Site Name: Mon Bank Sidings Location: Newport, Gwent Source: British Geological Survey, National Geoscience Information Service Reference: 3068 Type: Tip Status: Ceased Operator: Hanson Aggregates, South West Region Operator Location: Not Supplied Periodic Type: Anthropogene Geology: Quarry (Hard Rock) Commodity: Secondary Positional Accuracy: Unknown	A13SE (SE)	255	1	330500 186500
2	BGS Recorded Mineral Sites Site Name: Castell Glas Location: Newport, Gwent Source: British Geological Survey, National Geoscience Information Service Reference: 160572 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Triassic Geology: Blue Lias Formation Commodity: Limestone Positional Accuracy: Located by supplier to within 10m	A8SE (S)	828	1	330478 185875
3	BGS Recorded Mineral Sites Site Name: Pont-Ebbw Location: Newport, Gwent Source: British Geological Survey, National Geoscience Information Service Reference: 176567 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: River Terrace Deposits (Undifferentiated) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	848	1	329562 186220
	Coal Mining Affected Areas In an area which may not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Extractive Industries or Potential Excavations from 1950-1980 Use: Unspecified Deposited Material First Map Published 1956 Date: Last Map Published N/A Date:	A13SW (S)	0	-	330373 186746
5	Extractive Industries or Potential Excavations from 1950-1980 Use: Unspecified Pit First Map Published 1956 Date: Last Map Published 1956 Date:	A13SW (S)	0	-	330378 186739
6	Extractive Industries or Potential Excavations from 1950-1980 Use: Unspecified Deposited Material First Map Published 1956 Date: Last Map Published N/A Date:	A13NW (W)	0	-	330340 186773
7	Extractive Industries or Potential Excavations from 1950-1980 Use: Pond First Map Published 1956 Date: Last Map Published 1956 Date:	A13SW (S)	9	-	330342 186672
8	Extractive Industries or Potential Excavations from 1950-1980 Use: Railway Embankment First Map Published 1956 Date: Last Map Published N/A Date:	A13SW (SW)	22	-	330271 186664
9	Extractive Industries or Potential Excavations from 1950-1980 Use: Railway Cutting First Map Published 1956 Date: Last Map Published N/A Date:	A13NW (W)	59	-	330256 186793
10	Extractive Industries or Potential Excavations from 1950-1980 Use: Pipe Line First Map Published 1956 Date: Last Map Published 1956 Date:	A13SE (SE)	90	-	330460 186692

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	General Quarrying Use: Not Supplied Date of Mapping: 1887 - 1902	A8SE (S)	771	-	330526 185945
12	Heap, unknown constituents Use: Not Supplied Date of Mapping: 1992	A13SW (SW)	62	-	330206 186690
13	Heap, unknown constituents Use: Not Supplied Date of Mapping: 1994	A8NW (SW)	375	-	330132 186337
14	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1902	A7NW (SW)	730	-	329667 186274
15	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A7NW (SW)	730	-	329667 186274
16	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1994	A8SE (S)	775	-	330516 185938
17	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1994	A14SE (E)	793	-	331213 186466
18	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1994	A9NE (SE)	960	-	331341 186351
19	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (SE)	8	-	330421 186671
20	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A13NE (NE)	35	-	330507 186854
21	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A13NE (NE)	137	-	330600 186900
22	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A13NE (E)	160	-	330658 186824
23	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A13NE (E)	166	-	330665 186806
24	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (SE)	183	-	330529 186614
25	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A13NE (NE)	198	-	330654 186931
26	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (SE)	220	-	330526 186570
27	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14NW (NE)	261	-	330726 186937
28	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (E)	378	-	330848 186665
29	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14NW (E)	378	-	330860 186919
30	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A12SE (SW)	420	-	329914 186465
31	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (E)	424	-	330918 186749

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A8NE (S)	441	-	330465 186271
33	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A14SW (E)	457	-	330915 186621
34	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1887	A9NW (SE)	462	-	330735 186411
35	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1887	A9NW (SE)	463	-	330729 186406
36	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A8NE (SE)	495	-	330703 186352
37	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (SE)	499	-	330916 186536
38	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A8NE (SE)	504	-	330598 186263
39	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (E)	518	-	330964 186583
40	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A8NE (S)	525	-	330436 186175
41	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A17SE (NW)	539	-	330031 187246
42	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A8NE (S)	558	-	330489 186156
43	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (E)	560	-	330992 186544
44	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A17SE (NW)	572	-	329928 187196
45	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1887	A9NW (SE)	578	-	330843 186345
46	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A8NE (S)	614	-	330565 186124
47	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SW (SE)	615	-	331011 186469
48	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A17SE (NW)	619	-	330004 187326
49	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A17SE (NW)	632	-	329868 187220
50	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A14SE (E)	634	-	331068 186533
51	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A8NE (SE)	643	-	330705 186168
52	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1922	A14SE (E)	671	-	331119 186555

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A9NW (SE)	671	-	330838 186229
54	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A9NW (SE)	737	-	330862 186166
55	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9NW (SE)	743	-	330854 186153
56	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A9SW (S)	896	-	330727 185884
57	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8SE (S)	950	-	330697 185814

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBSCB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
58	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	330347 186801
59	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	240	1	330445 186474
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
60	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	330347 186801
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	240	1	330445 186474
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
61	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
62	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	330347 186801
63	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	240	1	330445 186474
64	Potential for Running Sand Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	330347 186801
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	240	1	330445 186474
65	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	330380 186766
66	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	0	1	330347 186801
67	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	240	1	330445 186474

The following mapping has been analysed for Historical Land Use Information (1:2,500):

1:2,500	Mapsheet	Published Date
Ordnance Survey Plan	ST3087	1956

The following mapping has been analysed for Historical Land Use Information (1:10,000):

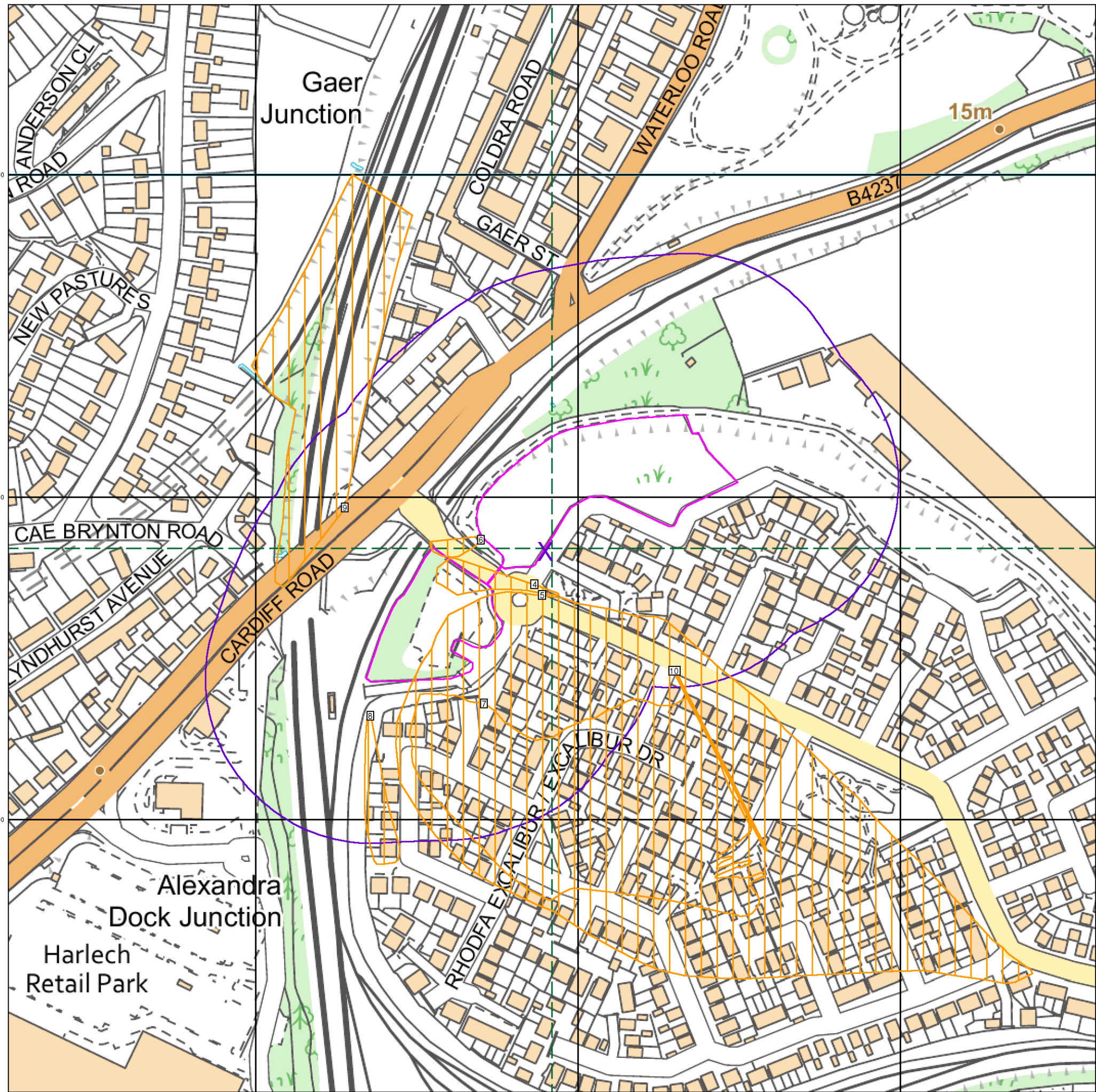
1:10,560	Mapsheet	Published Date
Monmouthshire	028_00	1886
Monmouthshire	033_00	1887
Monmouthshire	028_SE	1902
Monmouthshire	033_NE	1902
Monmouthshire	028_SE	1922
Monmouthshire	033_NE	1922
Monmouthshire	028_SE	1954
Monmouthshire	033_NE	1954
Ordnance Survey Plan	ST28NE	1964
Ordnance Survey Plan	ST38NW	1965
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	ST28NE	1992
Ordnance Survey Plan	ST38NW	1994

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	June 2023	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Man Made Mining Cavities Stantec UK Ltd	December 2022	Bi-Annually
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Natural Cavities Stantec UK Ltd	December 2022	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	Version	Update Cycle
Subterranean Features Landmark Information Group Limited	July 2023	Bi-Annually
Ground Stability Data (1:50,000)	Version	Update Cycle
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Brine Subsidence Solution Area Johnson Poole & Bloomer	December 2020	

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
The Coal Authority	 The Coal Authority
Ove Arup	
Stantec UK Ltd	
Wardell Armstrong	 wardell armstrong your earth our world
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk



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Intégral

Géotechnique

Historical Land Use Information (1:2,500)

General

Specified Site

Specified Buffer(s)

Bearing Reference Point

Map ID

Several of Type at Location

Potentially Contaminative Industrial Uses
(Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	■
Extractive Industries Activity from 1893 - 1915	▲	—	■
Extractive Industries Activity from 1906 - 1937	▲	—	■
Extractive Industries Activity from 1924 - 1949	▲	—	■
Extractive Industries Activity from 1950 - 1980	▲	—	■

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	---	■

Mining and Ground Stability - Segment A13

A21

A22

A23

A24

A25

A16

A17

A18

A19

A20

A11

A12

A13

A14

A15

A6

A7

A8

A9

A10

A1

A2

A3

A4

A5

N

Order Details

Order Number:

314117352_1_1

Customer Ref:

14234/LP/Rev A

National Grid Reference:

330380, 186770

Slice:

A

Site Area (Ha):

1.22

Plot Buffer (m):

100

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark

INFORMATION GROUP

Tel:

0844 844 9952

Fax:

0844 844 9951

Web:

www.envirocheck.co.uk

A Landmark Information Group Service v50.0 12-Jul-2023 Page 1 of 1

Historical Land Use Information (1:10,000)

General

- Specified Site Specified Buffer(s) Bearing Reference Point Map ID
Several of Type at Location

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

	Point	Line	Polygon
Air Shafts			
Disturbed Ground			
General Quarrying			
Heap, unknown constituents			
Mineral Railway			
Mining and Quarrying General			
Mining of Coal & Lignite			
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits			

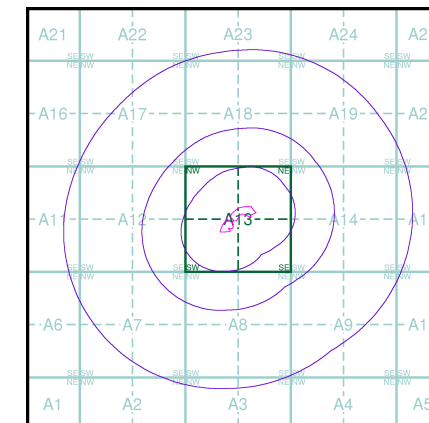
Historical Land Use

	Point	Line	Polygon
Potentially Infilled Land (Non-Water)			
Potentially Infilled Land (Water)			
Former Marsh			

Mining Data

- Potential Mining Area
BGS Recorded Mineral Site

Mining and Ground Stability - Slice A



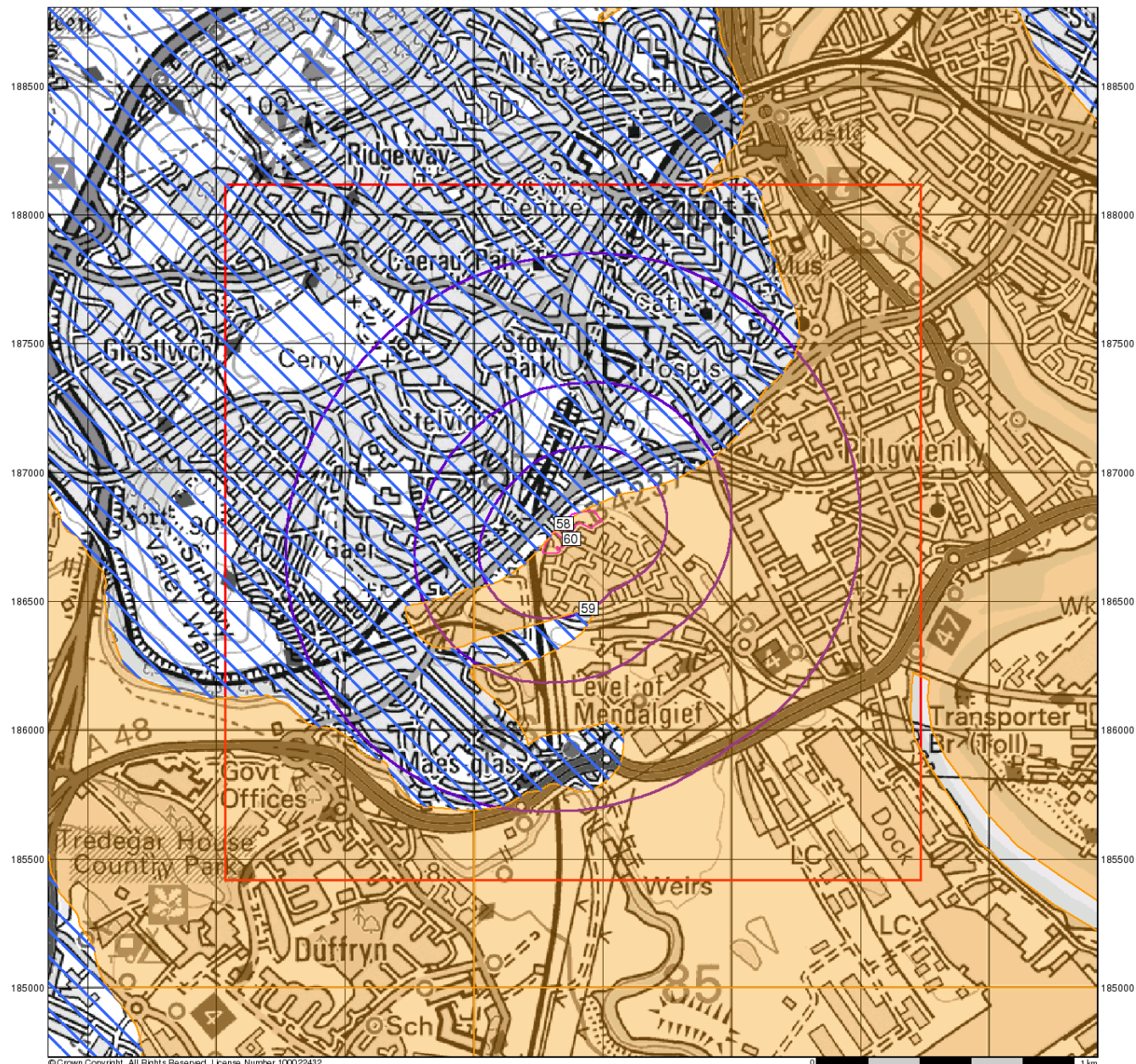
Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

328500 329000 329500 330000 330500 331000 331500 332000



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0 1 km

Intégral Géotechnique

Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Potential for Compressible Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Collapsible Ground Stability Hazards

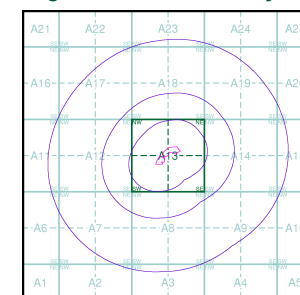
- High
- Moderate
- Low
- Very Low

Brine Pumping and Salt Mining

- Brine Pumping Related Feature
- Salt Mining Related Feature

- | Point | Polygon |
|-------------------------------|---------|
| Brine Pumping Related Feature | |
| Salt Mining Related Feature | |

Mining and Ground Stability - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

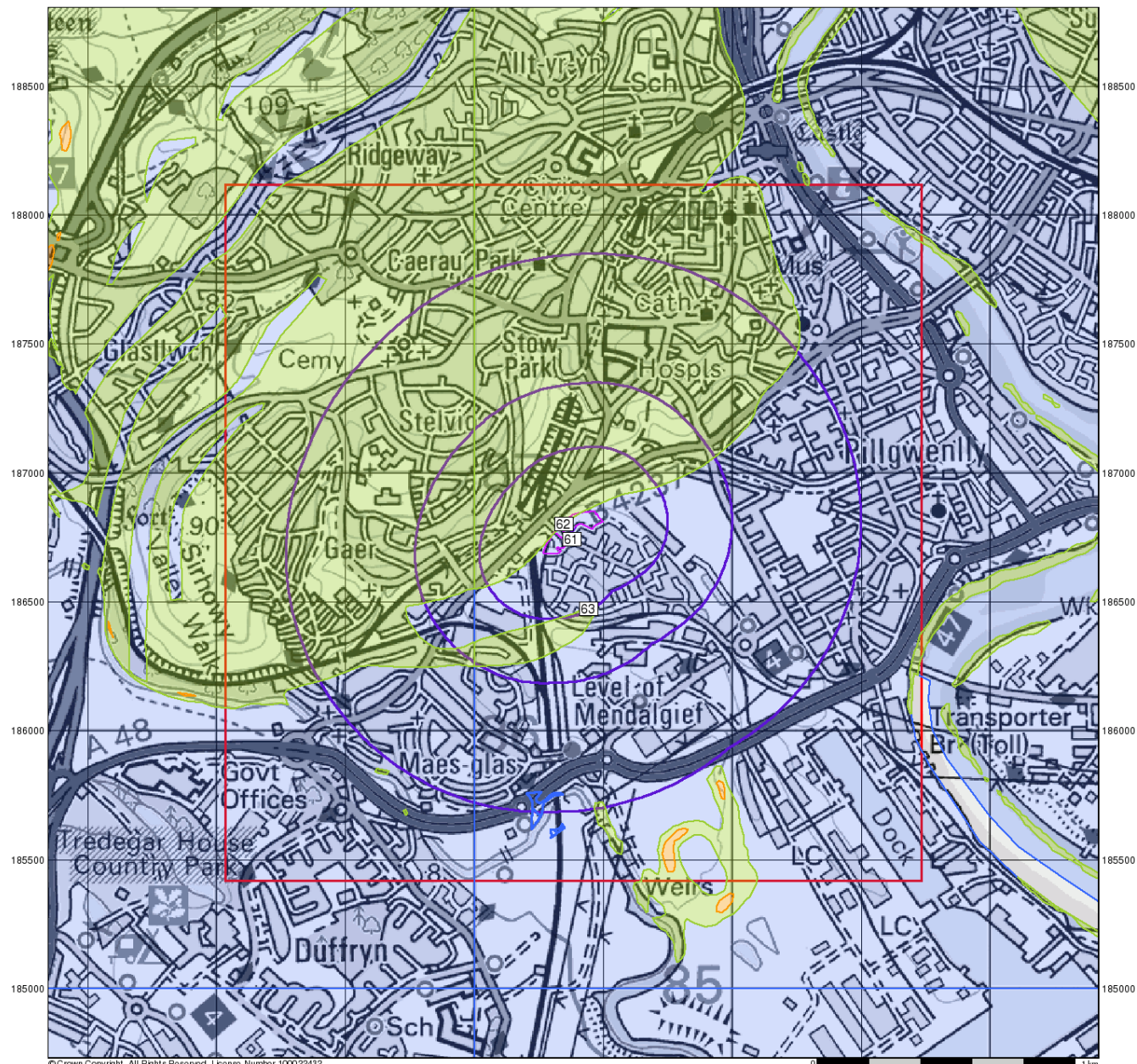
Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.ernirocheck.co.uk

328500 329000 329500 330000 330500 331000 331500 332000



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0 1 km

Intégral Géotechnique

Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

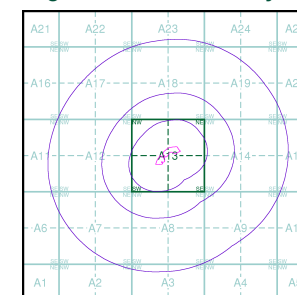
Potential for Landslide Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Ground Dissolution Stability Hazards

- High
- Moderate
- Low
- Very Low

Mining and Ground Stability - Slice A



Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

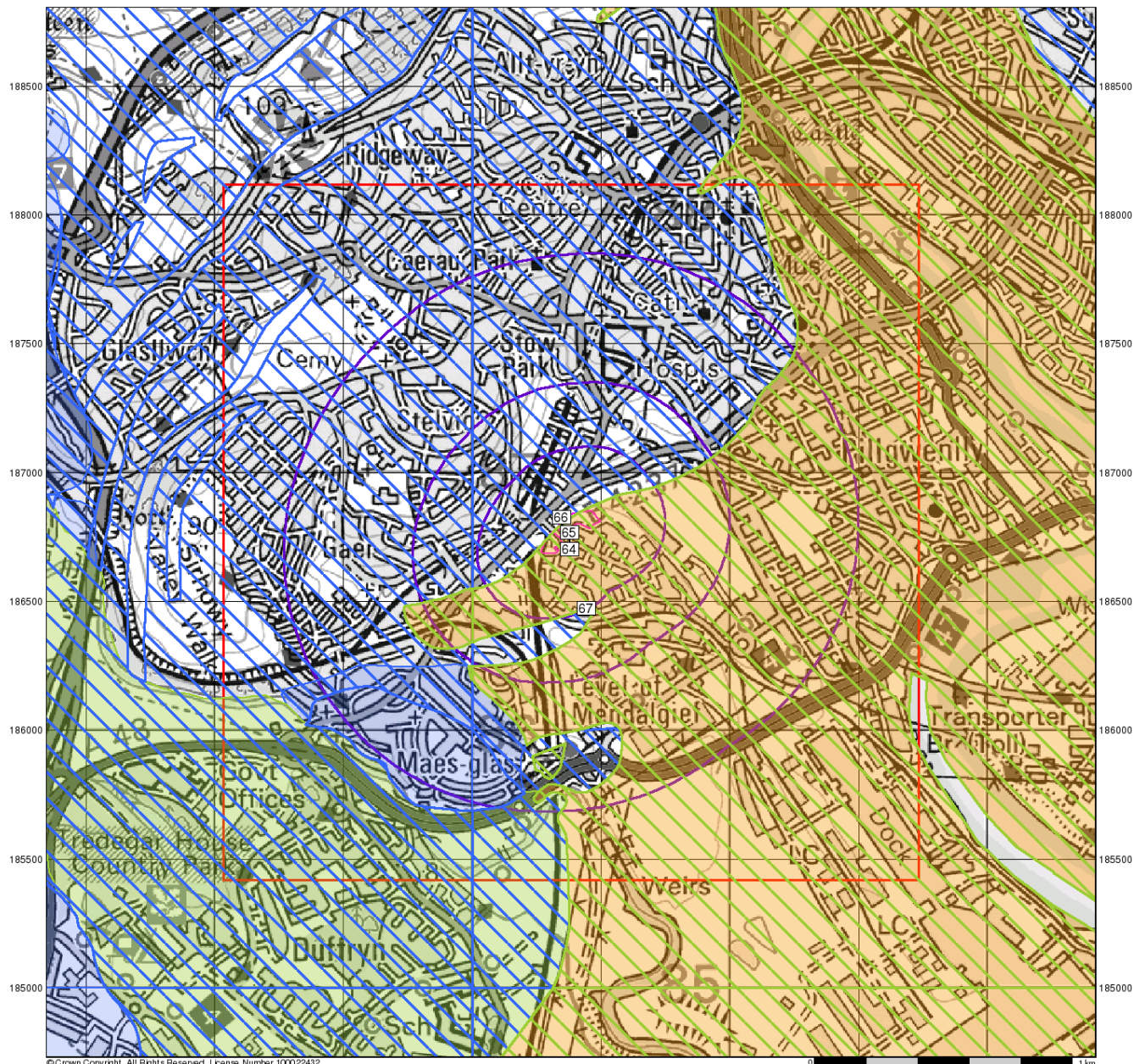
Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

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INFORMATION GROUP

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Web: www.ernirocheck.co.uk

328500 329000 329500 330000 330500 331000 331500 332000



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Intégral Géotechnique

Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

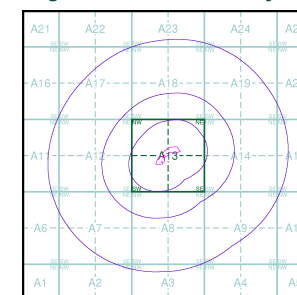
Potential for Running Sand Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Mining and Ground Stability - Slice A



Order Details

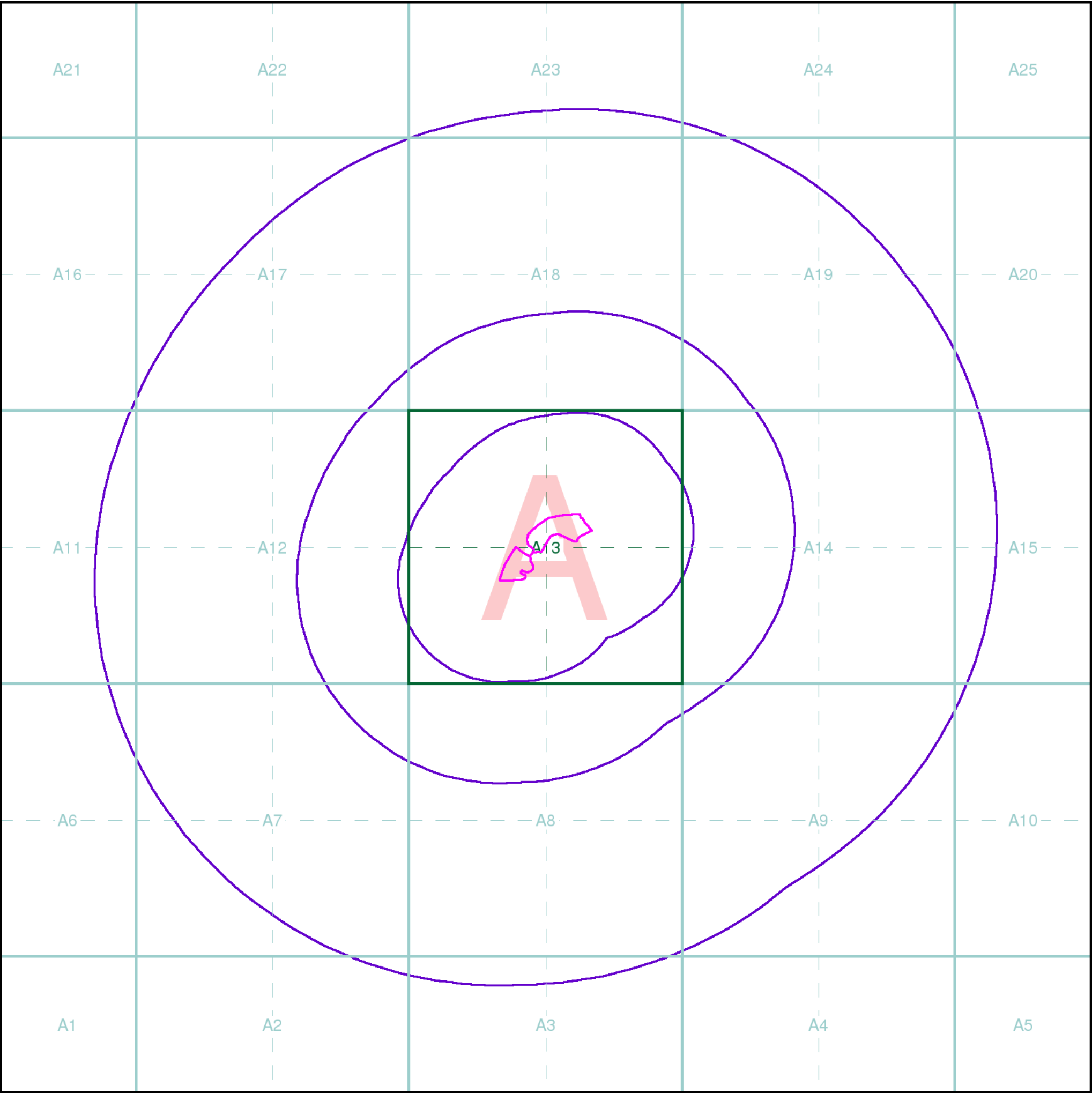
Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186770
Slice: A
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

Landmark
INFORMATION GROUP

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Web: www.ernirocheck.co.uk



Intégral Géotechnique

Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice
Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment
A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant
A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

MR H Pritchard, Integral Geotechnique, Integral House, 7 Beddau Way, Castlegate Business Park, Caerphilly, CF83 2AX

Order Details

Order Number: 314117352_1_1
Customer Ref: 14234/LP/Rev A
National Grid Reference: 330380, 186780
Site Area (Ha): 1.22
Search Buffer (m): 1000

Site Details

Mon Bank Parcels, Cleeve Grange Crescent, Newport, NP20 2PY

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APPENDIX C

BGS RADON GEOREPORT

LAURA PULLIN
INTEGRAL GEOTECHNIQUE (WALES) LTD
INTEGRAL HOUSE
7 BEDDAU WAY
CAERPHILLY
CF83 2AX

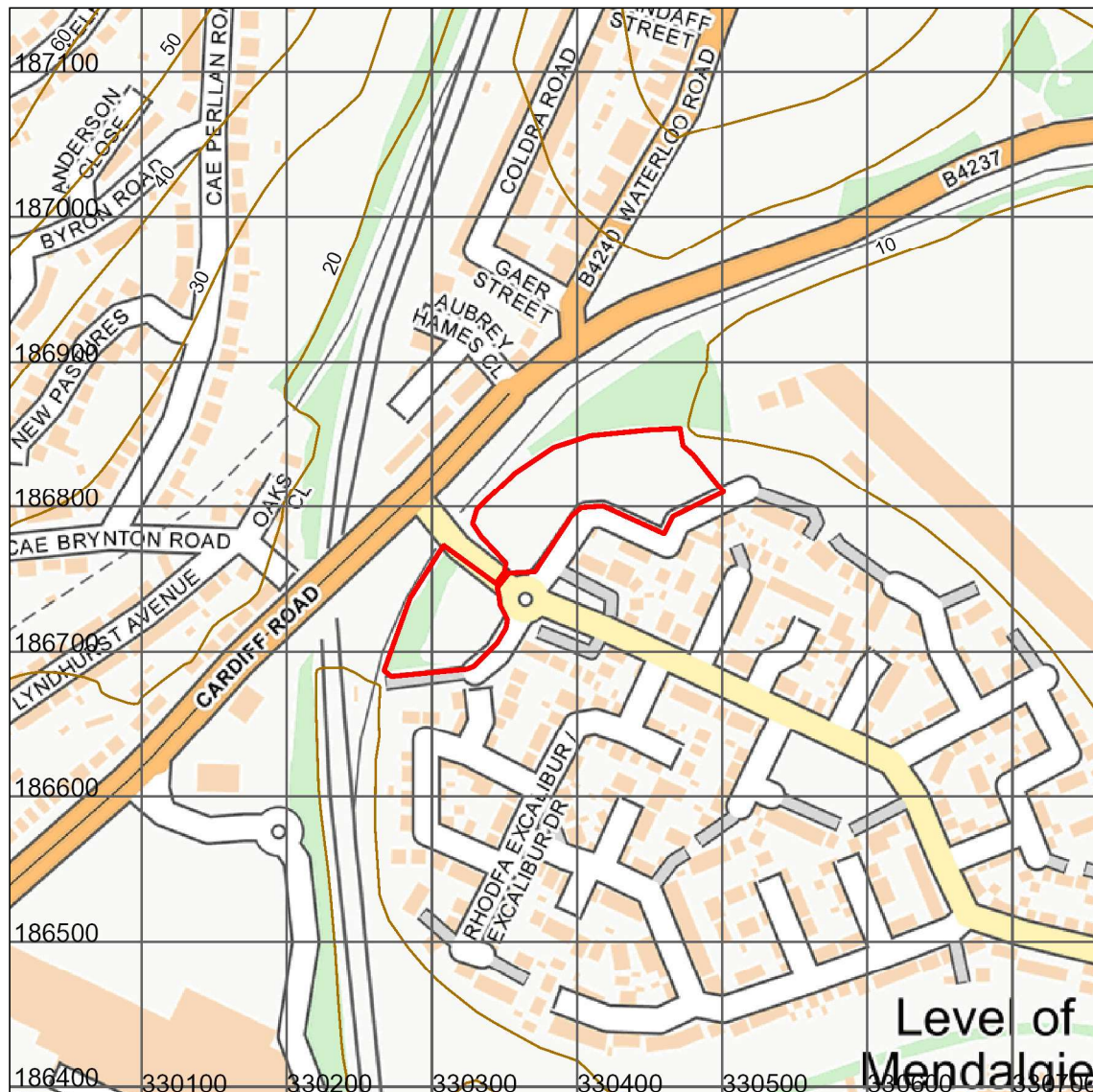
Radon Report

Advisory report on the requirement for radon protective measures in new buildings, conversions and extensions to existing buildings. The report also indicates whether a site is located within a radon Affected Area

Report Id: *BGS_333697/46359*

Client reference: 14234 Mon Bank

Search location



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Search location indicated in red

*This report describes a site located at National Grid Reference 330384, 186768.
Note that for sites of irregular shape, this point may lie outside the site boundary.
Where the client has submitted a site plan the assessment will be based on the area given.*

Radon Report: UK

When extensions are made to existing buildings in high radon areas, or new buildings are constructed in these areas, the Building Regulations for England, Wales, Scotland and Northern Ireland require that protective measures are taken against radon entering the building.

This report provides information on whether radon protective measures are required. Depending on the probability of buildings having high radon levels, the Regulations may require either:

1. No protective measures
2. Basic protective measures
3. Full protective measures

This is an advisory report on the requirement for radon protective measures in new buildings, conversions and extensions. The report also indicates whether a site is located within a radon Affected Area

Requirement for radon protective measures

The determination below follows advice in *BR211 Radon: Guidance on protective measures for new buildings (2023 edition)*, which also provides guidance on what to do if the result indicates that protective measures are required.

Is the property in an area where radon protective measures are required for new buildings or extensions to existing ones as described in publication BR211 (2023 edition) Radon: Guidance on protective measures for new buildings?

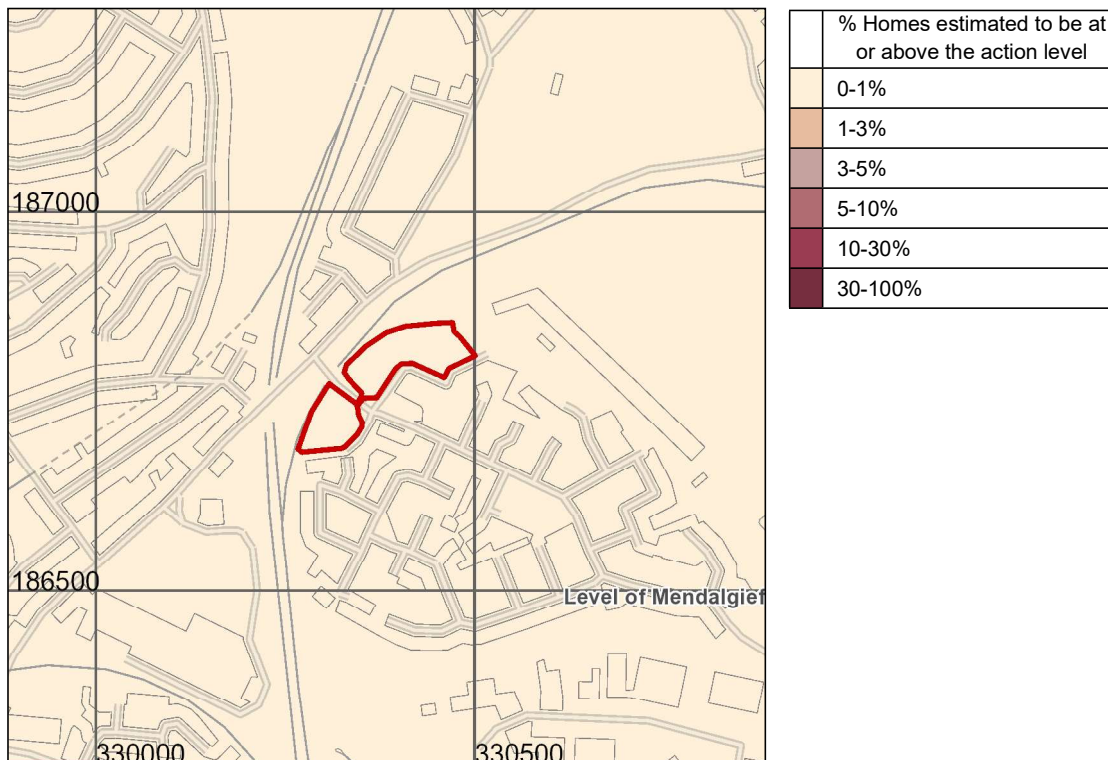
NO RADON PROTECTIVE MEASURES ARE REQUIRED FOR THE REPORT AREA.

More details of the protective measures required are available in *BR211 Radon: Guidance on protective measures for new buildings (2023 Edition)*. Additional information and guidance is available from the Building Research Establishment website (<http://www.bre.co.uk/radon/>).

Whether or not the radon level in a building is above or below the radon Action Level can only be established by having the building tested. The UKHSA provides a radon testing service which can be accessed at www.ukradon.org or by telephone (01235 822622).

If you require further information or guidance, you should contact your local authority building control officer or approved inspector.

Radon Affected Area



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Scale: 1:10 000 (1cm = 100 m)

Search area indicated in red

Is the property in a radon Affected Area as defined by the UK Health Security Agency (UKHSA) and if so what percentage of homes are estimated to be at or above the Action Level? NO

Additional Information

THE PROPERTY IS IN AN AREA WHERE LESS THAN 1% OF HOMES ARE ESTIMATED TO BE AT OR ABOVE THE ACTION LEVEL. THE PROPERTY IS NOT IN A RADON AFFECTED AREA.

The UKHSA recommends a radon 'Action Level' of 200 Becquerels per cubic metre of air (Bq m^{-3}) for the annual average of the radon gas concentration in a home. Where 1% or more of homes are estimated to be at or above the Action Level the area should be regarded as a radon Affected Area.

This report informs you whether the property is in a radon Affected Area and the percentage of homes that are estimated to be at or above the radon Action Level at this location. Being in an Affected Area does not necessarily mean there is a high radon level within the property; the only way to determine the radon level is to carry out a radon measurement.

The UKHSA advises that radon gas should be measured in all properties within radon Affected Areas and that homes with radon levels at or above the Action Level (200 Bq m⁻³) should be remediated. Householders with levels between the Target Level (100 Bq m⁻³) and Action Level should seriously consider reducing their radon level, especially if they are at greater risk, such as if they are current or ex smokers. Whether or not a home is in fact above or below the Action Level or Target Level can only be established by having the building tested. The UKHSA provides a validated radon testing service which can be accessed at www.ukradon.org.

The information in this report provides an answer to one of the standard legal enquiries on house purchase in England and Wales, known as Law Society CON29 Enquiries of the Local Authority (2016); 3.14 Radon Gas: Do records indicate that the property is in a “Radon Affected Area” as identified by the UKHSA. The data can also be used to advise house buyers and sellers in Scotland and Northern Ireland.

If you are buying a new build property in a Radon Affected Area, you should ask the builder whether radon protective measures were incorporated in the construction of the property.

If you are buying a currently occupied property in a radon Affected Area, you should ask the present owner whether radon levels have been measured in the property. If they have, ask whether the results were at or above the radon Action Level and if so, whether remedial measures were installed, radon levels were re-tested, and if the results of re-testing confirmed the effectiveness of the measures.

Further information on radon is available from the UKHSA at www.ukradon.org.

What is radon?

Radon is a naturally occurring radioactive gas, which is produced by the radioactive decay of radium which, in turn, is derived from the radioactive decay of uranium. Uranium is found in small quantities in all soils and rocks, although the amount varies from place to place. Radon released from rocks and soils is quickly diluted in the atmosphere. Concentrations in the open air are normally very low and do not present a hazard. Radon that enters enclosed spaces such as some buildings (particularly basements), caves, mines, and tunnels may reach high concentrations in some circumstances. The construction method and degree of ventilation will influence radon levels in individual buildings. A person's exposure to radon will also vary according to how particular buildings and spaces are used.

Inhalation of the radioactive decay products of radon gas increases the chance of developing lung cancer. If individuals are exposed to high concentrations for significant periods of time, there may be cause for concern. In order to limit the risk to individuals, the Government has adopted an Action Level for radon in homes of 200 becquerels per cubic metre (Bq m^{-3}). The Government advises householders that, where the radon level is at or above the Action Level, measures should be taken to reduce the concentration.

Radon in workplaces

The Ionising Radiation Regulations 2017 require employers to take action when radon is present above a defined level in the workplace. Advice may be obtained from your local Health and Safety Executive Area Office or the Environmental Health Department of your local authority. The BRE publishes a guide (BR293): **Radon in the workplace**. BRE publications may be obtained from the BRE Bookshop, Tel: 01923 664262, email: bookshop@bre.co.uk website: www.brebookshop.com

Contact Details

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British Geological Survey
Environmental Science Centre
Nicker Hill
Keyworth
Nottingham
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Tel: 0115 9363100
Email: enquiries@bgs.ac.uk

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Maclean Building
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OX10 8BB
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Lyell Centre
Research Avenue South
Edinburgh
EH14 4AP
Tel: 0131 6671000
Email: enquiry@bgs.ac.uk

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- Geological observations and interpretations are made according to the prevailing understanding of the subject at the time. The quality of such observations and interpretations may be affected by the availability of new data, by subsequent advances in knowledge, improved methods of interpretation, and better access to sampling locations.
- Raw data may have been transcribed from analogue to digital format, or may have been acquired by means of automated measuring techniques. Although such processes are subjected to quality control to ensure reliability where possible, some raw data may have been processed without human intervention and may in consequence contain undetected errors.
- Detail, which is clearly defined and accurately depicted on large-scale maps, may be lost when small-scale maps are derived from them.
- Although samples and records are maintained with all reasonable care, there may be some deterioration in the long term.
- The most appropriate techniques for copying original records are used, but there may be some loss of detail and dimensional distortion when such records are copied.
- Data may be compiled from the disparate sources of information at BGS's disposal, including material donated to BGS by third parties, and may not originally have been subject to any verification or other quality control process.
- Data, information and related records, which have been donated to BGS, have been produced for a specific purpose, and that may affect the type and completeness of the data recorded and any interpretation. The nature and purpose of data collection, and the age of the resultant material may render it unsuitable for certain applications/uses. You must verify the suitability of the material for your intended usage.
- If a report or other output is produced for you on the basis of data you have provided to BGS, or your own data input into a BGS system, please do not rely on it as a source of information about other areas or geological features, as the report may omit important details.
- The topography shown on any map extracts is based on the latest OS mapping and is not necessarily the same as that used in the original compilation of the BGS geological map, and to which the geological linework available at that time was fitted.
- Note that for some sites, the latest available records may be historical in nature, and while every effort is made to place the analysis in a modern geological context, it is possible in some cases that the detailed geology at a site may differ from that described.

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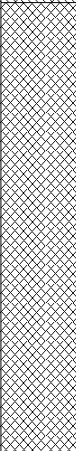


**Report issued by
BGS Enquiry Service**

APPENDIX D

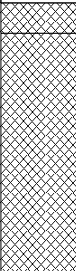
TRIAL PIT LOGS

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Land Parcels, Mon Bank, Newport			Project No.: 14234		Trial Pit No.: TP01 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY			Client: Monmouthshire Housing Association			Logged By: FG		Scale 1:25	
Equipment: 3-Tonne Tracked Excavator			Coordinates:			Dimensions 2.20m			
Date Excavated: 27/08/2023			Level:			Depth : 2.30m 0.75m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.30	ES		0.20			TOPSOIL - Grass over soft brown and reddish brown slightly sandy gravelly silty CLAY with occasional roots and rootlets. Gravel is fine to coarse angular of mudstone.			
						MADE GROUND - Loose becoming medium dense reddish brown locally black silty ashy slightly sandy GRAVEL with moderate cobble and boulder content of sub-angular to sub-rounded sandstone. Gravel is fine to coarse angular to sub-rounded of sandstone, mudstone, brick, vitreous and vesicular slag with boulders of concrete.			
1.70	D		1.60			MADE GROUND - Firm black and grey locally reddish brown silty slightly sandy gravelly CLAY with moderate cobble and boulder content of sub-angular sandstone and concrete. Gravel is fine to coarse angular to sub-rounded of brick, concrete, ash, and vesicular slag and sandstone.			
			2.30			End of Trialpit at 2.30 m			
Remarks: 1. Pit terminated at 2.30m due to slow progress of excavation. 2. Soil infiltration test undertaken.			Groundwater: 1. Groundwater not encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: 1. Generally stable in the short term with local instability associated with cobble and boulder removal.						

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Land Parcels, Mon Bank, Newport			Project No.: 14234		Trial Pit No.: TP02 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY			Client: Monmouthshire Housing Association			Logged By: FG		Scale 1:25	
Equipment: 3-Tonne Tracked Excavator			Coordinates:			Dimensions 2.30m			
Date Excavated: 27/08/2023			Level:			Depth : 3.00m 0.75m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.10	ES		0.20			TOPSOIL - Grass over very soft reddish brown silty slightly sandy gravelly organic CLAY with common roots and rootlets. Gravel is fine to coarse sub-angular of sandstone and mudstone.			
0.50	ES					MADE GROUND - Medium dense grey to black locally reddish brown slightly silty ashy sandy GRAVEL with low cobble content of angular to sub-rounded brick sandstone and concrete. Gravel is fine to coarse sub-angular to rounded of sandstone, mudstone, ash, brick, concrete and vesicular slag. Inclusions of timber, plastic and metal.			
2.00	D		1.70			MADE GROUND - Medium dense greyish brown and brown very silty very sandy GRAVEL. Gravel is fine to coarse angular of sandstone, brick, shell fragments and mudstone.			
			2.90			Firm bluish-grey clayey slightly gravelly SILT. Gravel is fine to coarse sub-rounded sandstone.			
			3.00			End of Trialpit at 3.00 m			
Remarks: 1. Pit terminated at 3.0m due to maximum depth of excavation equipment achieved. 2. Soil infiltration test undertaken.			Groundwater: 1. Groundwater not encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Land Parcels, Mon Bank, Newport			Project No.: 14234		Trial Pit No.: TP03 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY			Client: Monmouthshire Housing Association			Logged By: FG		Scale 1:25	
Equipment: 3-Tonne Tracked Excavator			Coordinates:			Dimensions 2.30m			
Date Excavated: 27/08/2023			Level:			Depth : 3.00m 0.75m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.10	ES		0.20			TOPSOIL - Grass over soft brown and reddish brown slightly silty gravelly organic CLAY with common rootlets. Gravel is fine to coarse sub-angular sandstone and mudstone.			
0.40	ES		0.70			MADE GROUND - Medium dense grey locally reddish-brown silty sandy GRAVEL with low cobble and boulder content of sub-angular brick and concrete. Gravel is fine to coarse sub-angular to rounded of sandstone, mudstone, brick, concrete and rare vesicular slag. Inclusions of timber and scrap metal.			
			1.80			MADE GROUND - Medium dense grey sandy very slightly clayey GRAVEL with moderate cobble content. Gravel is fine to coarse sub-angular to sub-rounded of sandstone brick and concrete. Moderate cobble and boulder content of sub-angular, brick, and concrete. Inclusions of plastic and timber.			
			2.10			MADE GROUND - Firm bluish-grey slightly silty very slightly sandy gravelly CLAY with low cobble content of rounded sandstone. Gravel is fine to coarse sub-angular to rounded of sandstone, brick, mudstone and concrete.			
2.20	D		3.00			Firm to soft bluish grey mottled black clayey sandy SILT with cobble and boulder sized pockets of black spongy pseudo fibrous peat.			
						End of Trialpit at 3.00 m			
Remarks: 1. Pit terminated at 3.0m due to maximum depth of excavation equipment achieved. 2. Soil infiltration test undertaken.						Groundwater: 1. Groundwater not encountered.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample	
						Stability: 1. Generally stable in the short term with local instability associated with cobble and boulder removal.			

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Land Parcels, Mon Bank, Newport			Project No.: 14234		Trial Pit No.: TP04 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY			Client: Monmouthshire Housing Association			Logged By: FG		Scale 1:25	
Equipment: 3-Tonne Tracked Excavator			Coordinates:			Dimensions 2.30m			
Date Excavated: 27/08/2023			Level:			Depth : 3.00m 0.75m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.15	ES		0.20			TOPSOIL - Grass over very soft reddish brown slightly silty slightly sandy gravelly organic CLAY with common roots and rootlets. Gravel is fine to coarse angular to sub-rounded of sandstone and mudstone.			
0.40	ES		0.30			MADE GROUND - Medium dense black and grey silty very sandy GRAVEL. Gravel is fine to coarse angular to sub-rounded of sandstone, mudstone, brick, ash and clinker.			
1.50	D					MADE GROUND - Medium dense reddish grey and brownish grey and grey sandy clayey GRAVEL with low cobble content of sub-angular to sub-rounded brick, concrete and sandstone. Gravel is fine to coarse angular to sub-rounded of sandstone, concrete, brick, ash and clinker.			
			2.00			MADE GROUND - Firm bluish-grey gravelly clayey SILT with low cobble content of sub-angular brick, concrete and mudstone.			
			2.30			Firm bluish-grey clayey sandy SILT with cobble sized pockets of black spongy pseudo fibrous peat.			
			3.00			End of Trialpit at 3.00 m			
Remarks: 1. Pit terminated at 3.0m due to maximum depth of excavation equipment achieved.			Groundwater: 1. Groundwater not encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: 1. Generally stable in the short term with local instability associated with cobble and boulder removal.						

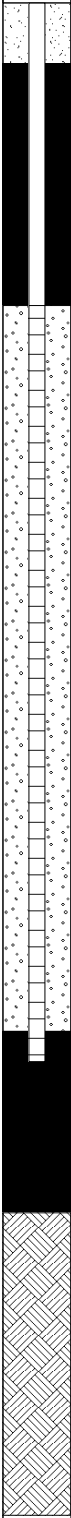
 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Land Parcels, Mon Bank, Newport			Project No.: 14234		Trial Pit No.: TP05 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY			Client: Monmouthshire Housing Association			Logged By: FG		Scale 1:25	
Equipment: 3-Tonne Tracked Excavator			Coordinates:			Dimensions 2.30m			
Date Excavated: 27/08/2023			Level:			Depth : 2.70m 0.75m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.20	ES		0.10			MADE GROUND - Compact reddish brown and grey fine to coarse angular GRAVEL of sandstone and limestone (Hardcore). MADE GROUND - Medium dense to dense grey silty sandy GRAVEL of fine to coarse angular to sub-rounded limestone and sandstone. Inclusion of geo fabric.			
			0.90			MADE GROUND - Firm grey slightly silty slightly sandy gravelly CLAY with moderate cobble and boulder content of sub-angular to rounded sandstone, brick and concrete. Gravel is fine to coarse angular to sub-rounded of sandstone, brick, vitreous slag and coal.			
			2.70			End of Trialpit at 2.70 m			
Remarks: 1. Pit terminated at 2.7m. 2. Made ground deposits becoming softer below 1.5m. 2. Soil infiltration test undertaken.			Groundwater: 1. Groundwater not encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: 1. Generally stable in the short term with local instability associated with cobble and boulder removal.						

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Land Parcels, Mon Bank, Newport			Project No.: 14234		Trial Pit No.: TP06 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY			Client: Monmouthshire Housing Association			Logged By: FG		Scale 1:25	
Equipment: 3-Tonne Tracked Excavator			Coordinates:			Dimensions 2.20m			
Date Excavated: 27/08/2023			Level:			Depth : 2.10m 0.75m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.30	ES		0.10			MADE GROUND - Compact reddish brown sandy GRAVEL of fine to coarse angular mudstone (Hardcore). MADE GROUND - Medium dense to dense grey slightly silty sandy very slightly clayey GRAVEL with moderate cobble content of sub-angular sandstone, brick and concrete. Gravel is fine to coarse angular to sub-rounded of sandstone, brick, concrete, ash and rare vesicular and vitreous slag. Inclusions of geo fabric and wire netting.			
1.50	D		0.60			MADE GROUND - Firm grey slightly silty sandy gravelly CLAY with moderate cobble content of sub-angular and sub-rounded sandstone, brick and concrete. Gravel is fine to coarse angular to sub-rounded of sandstone, brick, concrete and rare vesicular slag. Inclusions of rubber, plastic and metal.			
			2.10			End of Trialpit at 2.10 m			
Remarks: 1. Pit terminated at 2.1m. due to slow progress of excavation.			Groundwater: 1. Groundwater not encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: 1. Generally stable in the short term with local instability associated with cobble and boulder removal.						

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Land Parcels, Mon Bank, Newport			Project No.: 14234		Trial Pit No.: TP07 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY			Client: Monmouthshire Housing Association			Logged By: FG		Scale 1:25	
Equipment: 3-Tonne Tracked Excavator			Coordinates:			Dimensions 2.20m			
Date Excavated: 27/08/2023			Level:			Depth : 2.40m 0.75m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.10	ES		0.10			MADE GROUND - Compact reddish brown sandy slightly clayey GRAVEL with common roots and rootlets. Gravel is fine to coarse angular of mudstone (Hardcore). MADE GROUND - Soft to firm grey slightly silty slightly sandy gravelly CLAY with high cobble and boulder content of sub-angular to rounded sandstone, brick and concrete. Gravel is fine to coarse sub-angular and sub-rounded of sandstone, brick, concrete and vesicular slag. Inclusions of sponge, timber, metal and plastic.			
			1.80			MADE GROUND - Dense reddish brown sandy slightly clayey GRAVEL with low cobble content of sub-angular brick. Gravel is fine to coarse angular of mudstone and sandstone.			
			2.20			MADE GROUND - Medium dense to dense grey and black ashy gravelly SAND with low cobble content of sub-angular sandstone. Gravel is fine to coarse angular to sub-rounded of sandstone.			
			2.40			End of Trialpit at 2.40 m			
Remarks: 1. Pit terminated at 2.4m.			Groundwater: 1. Groundwater not encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: 1. Generally stable in the short term with local instability associated with cobble and boulder removal.						

APPENDIX E

WINDOWLESS SAMPLE BOREHOLE LOGS

Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Land Parcels, Mon Bank, Newport			Project No.: 14234		Borehole No.: WS01 Sheet 1 of 1			
Location: Cardiff Road, Newport, NP20 2PY			Client: Monmouthshire Housing Association			Coordinates:		Hole Type: WS		
Equipment: Dart 346			Diameter of Casing:			Level:		Scale 1:25		
Diameter of Boring: 101+86+56+73+64mm			Depth of Casing:			Dates 10/07/2023 -		Logged By: FG		
Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		0.40	ES		0.30			MADE GROUND - Grass over soft orangish brown gravelly slightly clayey SILT. Gravel is fine to coarse angular mudstone.		
		1.00	C	N=17 (15,6/4,4,5,4)	1.00			MADE GROUND - Firm to stiff brown silty gravelly CLAY with low cobble content of sub-angular concrete and sandstone. Gravel is fine to coarse sub-angular of mudstone, sandstone and concrete.		
		1.70	D					MADE GROUND - Firm brown locally grey orangish brown silty gravelly CLAY. Gravel is fine to coarse angular and sub-angular of sandstone, mudstone, fine ash and clinker.		
		2.00	C	N=12 (1,2/2,3,3,4)						
		3.00	C	N=32 (16,8/11,8,7,6)	3.00			MADE GROUND - Soft black and bluish grey slightly sandy slightly gravelly CLAY. Gravel is fine to coarse of mudstone, fine ash and clinker.		
		4.00	C	N=3 (1,0/1,0,1,1)	3.90			Very soft bluish grey silty slightly gravelly CLAY. Gravel is fine to coarse angular mudstone.		
		5.00	C	N=3 (1,0/1,1,0,1)	5.00			End of Borehole at 5.00 m		
Remarks: 1. Termination at 5.00m. 2. No groundwater encountered. 3. Generally stable in the short term. 4. Installation of ground gas monitoring standpipe within borehole.						Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone) W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation				



Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Land Parcels, Mon Bank, Newport			Project No.: 14234		Borehole No.: WS02 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY			Client: Monmouthshire Housing Association			Coordinates:		Hole Type: WS	
Equipment: Dart 346			Diameter of Casing:			Level:		Scale 1:25	
Diameter of Boring: 56+64+73+86+101mm			Depth of Casing:			Dates 10/07/2023 -		Logged By: FG	
Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	ES		0.15			TOPSOIL - Soft orangish brown slightly gravelly SILT. Gravel is fine to coarse sun-angular and sub-rounded sandstone and mudstone.	
								MADE GROUND - Firm brown locally grey and black slightly silty gravelly CLAY with low cobble content of sub-angular concrete. Gravel is fine to coarse sub-angular mudstone, sandstone, brick, concrete, fine ash and clinker.	
		1.00	C	N=11 (2,3/11 for 150mm)					
		2.00	C	N=29 (11,12/29 for 150mm)	2.00			MADE GROUND - Medium dense black gravelly slightly clayey SAND. Gravel is fine to coarse angular of fine ash, clinker and vesicular slag.	
					2.50			MADE GROUND - Soft brownish grey silty sandy CLAY.	
		3.00	C	N=9 (4,3/9 for 150mm)	3.00			MADE GROUND - Loose black gravelly slightly clayey SAND. Gravel is fine to coarse angular of fine ash, clinker and vesicular slag.	
		3.30	D		3.30			Very soft grey and brownish grey silty very slightly gravelly CLAY. Gravel is fine to coarse sub-angular mudstone and sandstone.	
		4.00	C	N=2 (1,0/2 for 150mm)					
	5.00	C	N=3 (1,0/3 for 150mm)	5.00			End of Borehole at 5.00 m		
Remarks: 1. Termination at 5.00m. 2. No groundwater encountered. 3. Generally stable in the short term.						Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone) W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation			

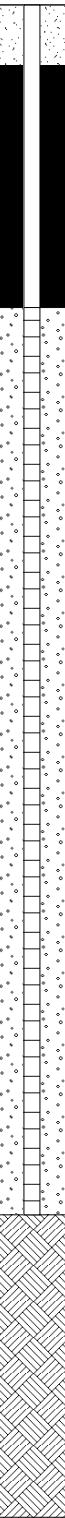


 Integral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name:		Project No.:		Borehole No.:	
		Land Parcels, Mon Bank, Newport		14234		WS03 Sheet 1 of 1	
Location:		Client:		Coordinates:		Hole Type:	
Cardiff Road, Newport, NP20 2PY		Monmouthshire Housing Association				WS	
Equipment: Dart 346		Diameter of Casing:		Level:		Scale	
						1:25	
Diameter of Boring: 56+64+73+86+101mm		Depth of Casing:		Dates		Logged By:	
				10/07/2023 -		FG	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20			TOPSOIL - Soft orangish brown slightly gravelly SILT. Gravel is fine to coarse sub-angular mudstone.	
		0.30	ES				MADE GROUND - Firm brown locally orange slightly silty gravelly CLAY with low cobble content of sub-angular concrete and sandstone. Gravel is fine to coarse angular to sub-rounded of sandstone, mudstone, rare concrete, brick, fine ash and clinker.		
		1.00	C	N=14 (2,2/14 for 150mm)				1	
		2.00	C	N=15 (8,5/15 for 150mm)				2	
		3.00	C	N=11 (3,5/11 for 150mm)				3	
					3.20			Very soft bluish grey silty slightly organic CLAY.	
		4.00	C	N=3 (2,1/3 for 150mm)					4
		5.00	C	N=2 (1,0/2 for 150mm)	5.00				5
								End of Borehole at 5.00 m	

Remarks: 1. Termination at 5.00m. 2. No groundwater encountered. 3. Generally stable in the short term. 4. Installation of ground gas monitoring standpipe within borehole.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Land Parcels, Mon Bank, Newport		Project No.: 14234		Borehole No.: WS04 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY				Client: Monmouthshire Housing Association		Coordinates:		Hole Type: WS	
Equipment: Dart 346				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 56+64+73+86+101mm				Depth of Casing:		Dates 10/07/2023 -		Logged By: FG	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10	ES		0.15		TOPSOIL - Grass over soft organish brown gravelly SILT. Gravel is fine to coarse sub-angular and sub-rounded of mudstone and sandstone. MADE GROUND - Firm brown locally organish brown and grey slightly silty gravelly CLAY. Gravel is fine to coarse sub-angular of sandstone, mudstone, concrete, brick, fine ash, clinker. Inclusions of timber and plastic.	1	
		1.00	C	N=10 (3,2/10 for 150mm)					
		1.50	D		1.70				
		2.00	C	N=18 (5,5/18 for 150mm)			MADE GROUND - Medium dense silty slightly gravelly SAND with low cobble content of sub-angular concrete. Gravel is fine to coarse of fine ash and clinker.	2	
		3.00	C	N=5 (1,2/5 for 150mm)	3.10		MADE GROUND - Medium dense grey angular GRAVEL of fine to coarse mudstone (poor recovery between 3.1m and 4.5m depth <30%).	3	
		4.00	C	N=3 (1,0/3 for 150mm)	4.50		MADE GROUND - Medium dense yellow fine to coarse SAND.	4	
	5.00	C	N=2 (1,1/2 for 150mm)	5.00		End of Borehole at 5.00 m	5		

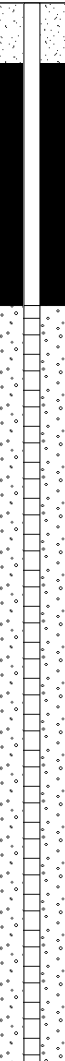
Remarks: 1. Termination at 5.00m. 2. No groundwater encountered. 3. Generally stable in the short term. 4. Installation of ground gas monitoring standpipe within borehole.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Land Parcels, Mon Bank, Newport		Project No.: 14234		Borehole No.: WS05 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY				Client: Monmouthshire Housing Association		Coordinates:		Hole Type: WS	
Equipment: Dart 346				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 56+86+101+73+64mm				Depth of Casing:		Dates 10/07/2023 -		Logged By: FG	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20			TOPSOIL - Grass over soft orangish brown gravelly SILT. Gravel is fine to coarse sub-angular and sub-rounded of sandstone and mudstone.	
		0.40	ES					MADE GROUND - Firm brown and grey silty slightly sandy slightly gravelly CLAY. Gravel is fine to coarse angular and sub-angular of sandstone, mudstone, brick, concrete, fine ash, clinker. Inclusions of timber.	1
		1.00	C	N=18 (5,3/18 for 150mm)					
		2.00	C	N=13 (3,3/13 for 150mm)	2.10				2
		2.20	D						
		3.00	C	N=7 (3,4/7 for 150mm)					3
		4.00	C	N=8 (2,2/8 for 150mm)					4
		5.00	C	N=13 (4,3/13 for 150mm)	5.00				5
								End of Borehole at 5.00 m	

Remarks: 1. Termination at 5.00m. 2. No groundwater encountered. 3. Generally stable in the short term.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Land Parcels, Mon Bank, Newport		Project No.: 14234		Borehole No.: WS06 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY				Client: Monmouthshire Housing Association		Coordinates:		Hole Type: WS	
Equipment: Dart 346				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 64+101+86+73mm				Depth of Casing:		Dates 26/09/2023 -		Logged By: AG	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.20	ES		0.20		MADE GROUND - Loose reddish brown slightly clayey slightly silty GRAVEL. Gravel is fine to coarse angular of limestone.		
		1.00	S	N=9 (1,1/2,2,2,3)			MADE GROUND - Firm becoming soft grey brown mottled red slightly sandy gravelly SILT/CLAY with occasional cobbles of sub-angular limestone. Gravel is fine to coarse sub-angular to angular of coal, ash, limestone, mudstone and brick.	1	
		2.00	S	N=21 (1,1/1,4,12,4)	2.20		MADE GROUND - Stiff red brown mottled brown and grey slightly gravelly silty CLAY. Gravel is fine to coarse angular of ash, sandstone and brick, with occasional fragments of plastic.	2	
		3.00	S	N=21 (1,2/4,4,5,8)	3.20		MADE GROUND - Medium dense dark grey and brown clayey gravelly fine to coarse SAND. Gravel is fine to coarse angular of ash.	3	
		3.50	S	50 (10,13/50 for 265mm)	3.50		End of Borehole at 3.50 m	4	
								5	

Remarks: 1. Refusal at 3.50m. 2. No groundwater encountered. 3. Generally stable in the short term. 4. Installation of ground gas monitoring standpipe within borehole.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Land Parcels, Mon Bank, Newport		Project No.: 14234		Borehole No.: WS07 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY				Client: Monmouthshire Housing Association		Coordinates:		Hole Type: WS	
Equipment: Dart 346				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 101+86+73mm				Depth of Casing:		Dates 26/09/2023 -		Logged By: AG	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40	ES		0.20			MADE GROUND - Reddish brown slightly clayey slightly silty sandy GRAVEL Gravel is fine to coarse sub-angular of limestone.	
		1.00	S	N=11 (2,2/2,2,4,3)				MADE GROUND - Firm brown grey mottled red slightly silty sandy gravelly CLAY with low cobble content of sub-angular limestone. Gravel is fine to coarse sub-angular of limestone, coal and brick.	1
		2.00	S	N=20 (4,6/5,5,4,6)	1.80			MADE GROUND - Medium dense dark grey to black and brown slightly clayey slightly silty gravelly SAND. Gravel is fine to coarse sub-angular of limestone and ash.	2
		2.90	S	N=50 (9,11/50 for 245mm)	2.90			End of Borehole at 2.90 m	3
									4
									5

Remarks: 1. Refusal at 2.90m on unknown obstruction. 2. No groundwater encountered. 3. Generally stable in the short term.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name:		Project No.:		Borehole No.:	
		Land Parcels, Mon Bank, Newport		14234		WS08 Sheet 1 of 1	
Location:		Client:		Coordinates:		Hole Type:	
Cardiff Road, Newport, NP20 2PY		Monmouthshire Housing Association				WS	
Equipment: Dart 346		Diameter of Casing:		Level:		Scale	
						1:25	
Diameter of Boring: 101+86mm		Depth of Casing:		Dates		Logged By:	
				26/09/2023 -		AG	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.30			MADE GROUND - Loose light brown clayey slightly silty slightly sandy GRAVEL with roots and rootlets. Gravel is fine to coarse sub-angular of limestone and coal.	
								MADE GROUND - Firm to stiff grey brown mottled green and red slightly silty gravelly CLAY with low cobble content of sub-angular brick and sandstone. Gravel is fine to coarse sub-angular of limestone, ash, brick and mudstone.	
		1.00	S	N=10 (1,1/2,2,3,3)					1
		1.80	S	50 (8,13/50 for 245mm)	1.80			End of Borehole at 1.80 m	2
									3
									4
									5

Remarks: 1. Refusal at 1.80m on unknown obstruction. 2. No groundwater encountered. 3. Generally stable in the short term.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Land Parcels, Mon Bank, Newport		Project No.: 14234		Borehole No.: WS09 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY				Client: Monmouthshire Housing Association		Coordinates:		Hole Type: WS	
Equipment: Dart 346				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 56+64+73+86+101mm				Depth of Casing:		Dates 26/09/2023 -		Logged By: AG	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		1.00	S	N=13 (2,3/3,3,3,4)	0.30			MADE GROUND - Loose light brown clayey slightly silty GRAVEL with occasional roots and rootlets. Gravel is fine to coarse sub-angular of limestone.	1
					MADE GROUND - Firm reddish brown slightly silty sandy gravelly CLAY with occasional cobbles of sub-angular limestone. Gravel is fine to coarse sub-angular limestone, sandstone, coal, brick and ash.				
		2.00	S	N=12 (2,3/2,3,2,5)	1.00			MADE GROUND - Firm dark brown mottled red slightly silty sandy gravelly CLAY. Gravel is fine to coarse sub-angular of limestone, sandstone and brick.	2
					MADE GROUND - Loose brown dark grey to black slightly silty gravelly SAND. Gravel is fine to coarse sub-angular limestone, coal and ash.				
		3.00	S	N=7 (2,3/2,1,2,2)	2.30			MADE GROUND - Soft grey silty slightly gravelly CLAY. Gravel is fine sub-angular of coal.	3
					MADE GROUND - Loose brown dark grey to black slightly silty gravelly SAND. Gravel is fine to coarse subangular limestone, coal and ash.				
		4.00	S	N=5 (1,1/1,1,1,2)	3.50			MADE GROUND - Soft reddish brown silty gravelly CLAY. Gravel is fine to medium sub-angular of limestone and coal.	4
					MADE GROUND - Soft reddish brown silty gravelly CLAY. Gravel is fine to medium sub-angular of limestone and coal.				
		5.00	S	N=10 (2,2/3,2,3,2)	4.30				5
							End of Borehole at 5.00 m		

Remarks: 1. Termination at 5.00m. 2. No groundwater encountered. 3. Generally stable in the short term.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Integral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Land Parcels, Mon Bank, Newport		Project No.: 14234		Borehole No.: WS10 Sheet 1 of 1	
Location: Cardiff Road, Newport, NP20 2PY				Client: Monmouthshire Housing Association		Coordinates:		Hole Type: WS	
Equipment: Dart 346				Diameter of Casing:		Level:		Scale 1:25	
Diameter of Boring: 56+64+73+86+101mm				Depth of Casing:		Dates 26/09/2023 -		Logged By: AG	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.15			MADE GROUND - Loose light brown clayey slightly silty sandy GRAVEL with roots and rootlets. Gravel is fine to coarse sub-angular limestone.	
								MADE GROUND - Stiff dark brown mottled red and grey silty sandy gravelly CLAY. Gravel is fine to coarse sub-angular of limestone, brick, ash and sandstone.	
		1.00	S	N=17 (3,6/6,5,3,3)					1
		2.00	S	N=10 (2,1/2,2,3,3)	1.90			MADE GROUND - Firm light grey clayey slightly gravelly SILT. Gravel is fine to medium, sub-angular of limestone.	2
		3.00	S	N=8 (2,3/2,3,2,1)	3.00			MADE GROUND - Loose dark grey slightly clayey silty sandy GRAVEL. Gravel is fine to coarse sub-angular of limestone, coal and ash.	3
					3.40			MADE GROUND - Soft to firm light grey clayey slightly gravelly SILT. Gravel is fine to medium sub-angular of limestone.	
		4.00	S	N=8 (1,2/2,2,2,2)					4
		5.00	S	N=5 (1,2/1,1,2,1)	5.00				5
End of Borehole at 5.00 m									

Remarks: 1. Termination at 5.00m. 2. No groundwater encountered. 3. Generally stable in the short term.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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APPENDIX F

SOIL INFILTRATION TEST RESULTS

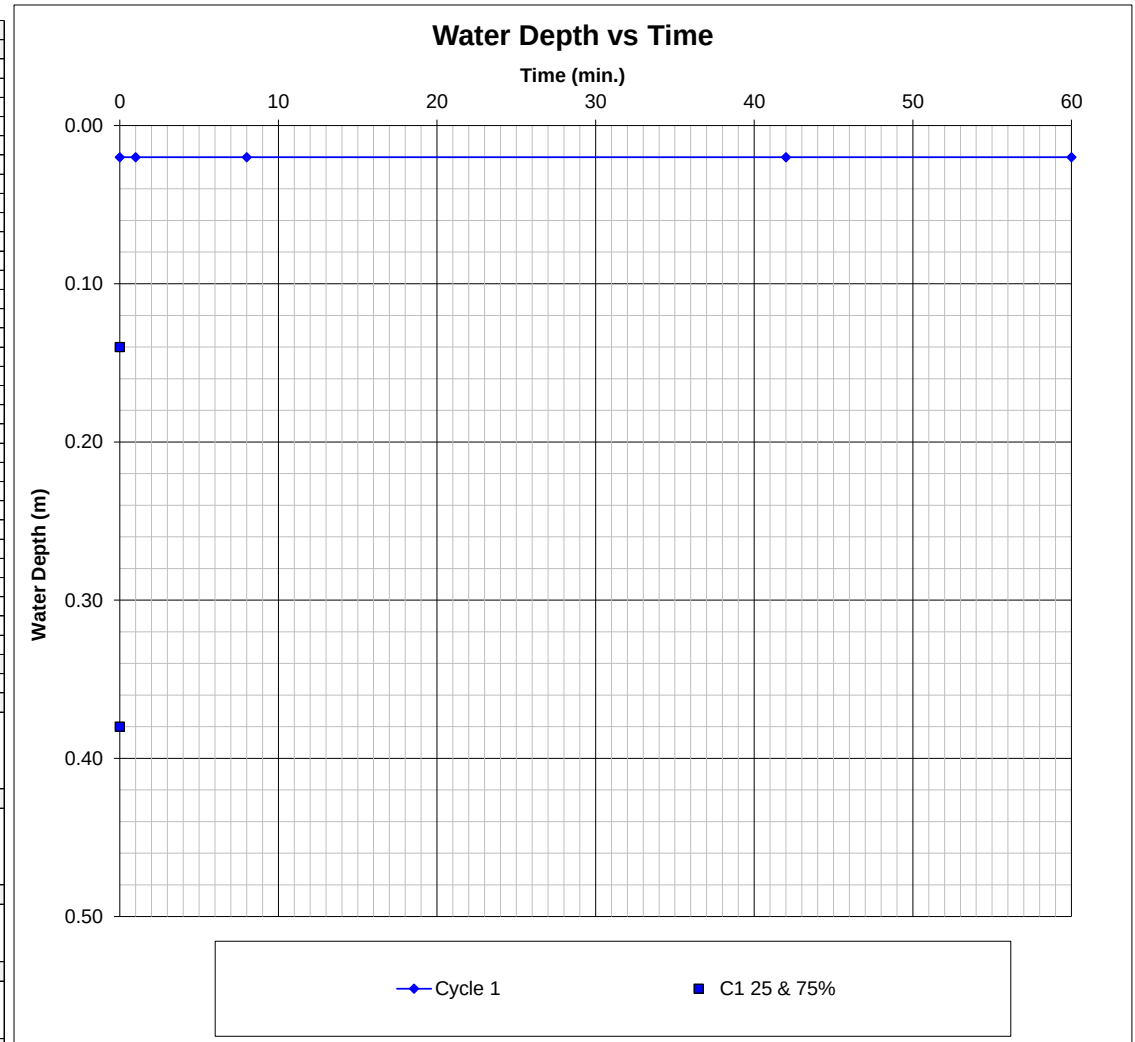
BRE365 SOIL INFILTRATION RATE TEST - TP01

14234 Land Parcels, Mon Bank, Newport

Trial Pit Information	
Length (m)	2.20
Width (m)	0.75
Depth (m)	0.50
Groundwater	Dry
Weather Conditions	Cloudy
Date	27-Aug-23

Remarks
1. Insufficient infiltration in order to calculate design infiltration rate.

	Cycle 1	Cycle 2	Cycle 3
Final Excavation Depth (m)	0.50		
At end of testing cycle			
Water Depths (m)			
Water depth at start of test	0.02		
Water depth at end of test	0.02		
Effective depth (measured)	0.00		
% Effective storage depth	0.00		
Effective Storage Depths (m)			
Effective storage depth (100%)	0.48		
Effective storage depth (75%)	0.36		
Effective storage depth (50%)	0.24		
Effective storage depth (25%)	0.12		
Outflow Time (min)			
Time for measured outflow	N/a		
Time for 100% outflow	N/a		
Time for 75-25% outflow	N/a		
Volume of Outflow (m³)			
Over measured effective depth	0.00		
Over 100% effective depth	0.79		
From 75% - 25% effective depth	0.40		
Surface Area (m²)			
For 100% effective storage	4.48		
For 50% effective storage	3.07		
Over measured depth	1.65		
Soil Infiltration Rate (m/s)	Cycle 1	Cycle 2	Cycle 3
Over 100% effective depth			
Over measured depth			
Over 75% - 25% effective depth			



Design Soil Infiltration Rate: 0.0E+00 m/s

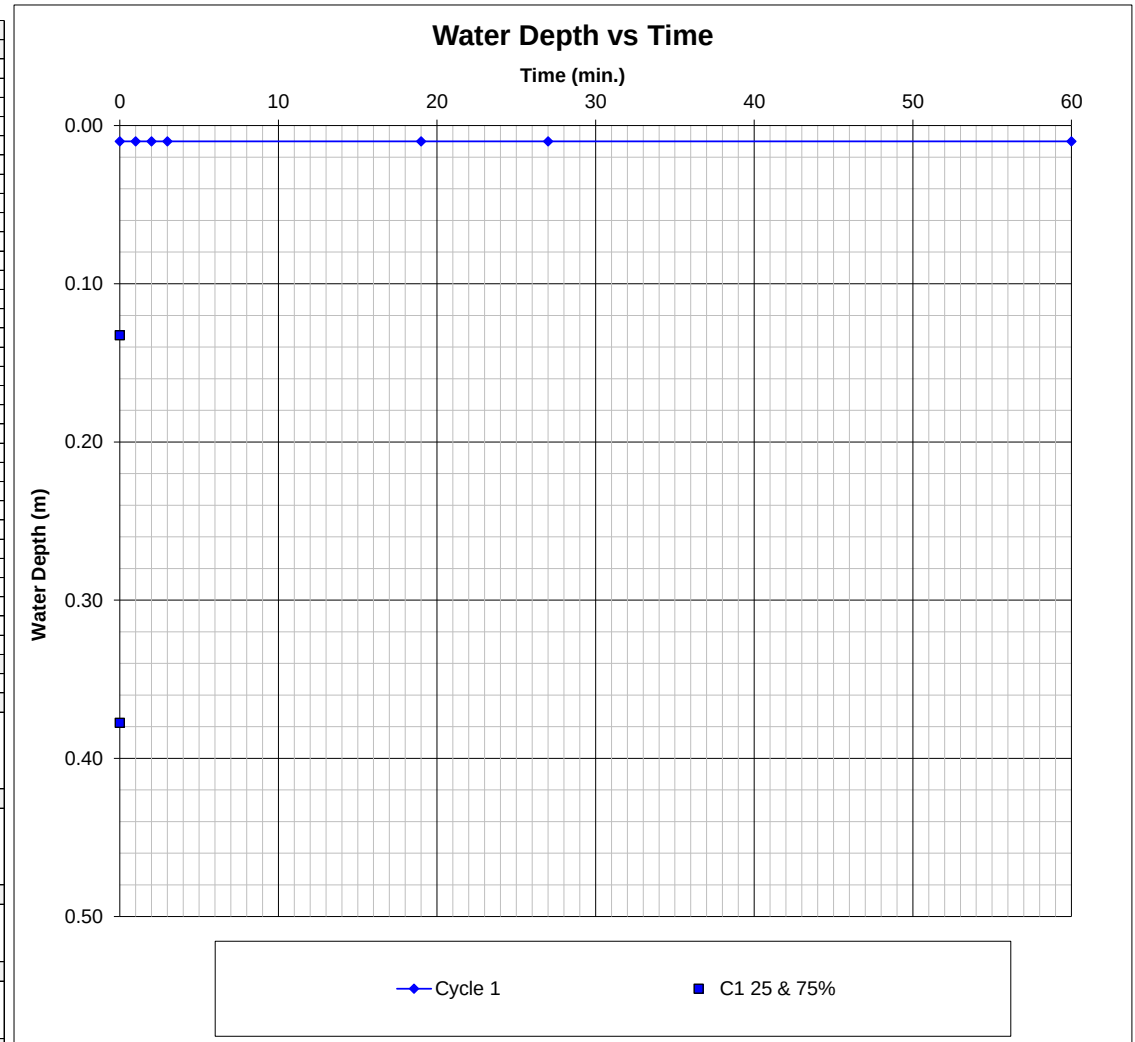
BRE365 SOIL INFILTRATION RATE TEST - TP02

14234 Land Parcels, Mon Bank, Newport

Trial Pit Information	
Length (m)	2.30
Width (m)	0.75
Depth (m)	0.50
Groundwater	Dry
Weather Conditions	Cloudy
Date	27-Aug-23

Remarks
1. Insufficient infiltration in order to calculate design infiltration rate.

Final Excavation Depth (m)	Cycle 1	Cycle 2	Cycle 3
At end of testing cycle	0.50		
Water Depths (m)			
Water depth at start of test	0.01		
Water depth at end of test	0.01		
Effective depth (measured)	0.00		
% Effective storage depth	0.00		
Effective Storage Depths (m)			
Effective storage depth (100%)	0.49		
Effective storage depth (75%)	0.37		
Effective storage depth (50%)	0.25		
Effective storage depth (25%)	0.12		
Outflow Time (min)			
Time for measured outflow	N/a		
Time for 100% outflow	N/a		
Time for 75-25% outflow	N/a		
Volume of Outflow (m ³)			
Over measured effective depth	0.00		
Over 100% effective depth	0.85		
From 75% - 25% effective depth	0.42		
Surface Area (m ²)			
For 100% effective storage	4.71		
For 50% effective storage	3.22		
Over measured depth	1.73		
Soil Infiltration Rate (m/s)	Cycle 1	Cycle 2	Cycle 3
Over 100% effective depth			
Over measured depth			
Over 75% - 25% effective depth			



Design Soil Infiltration Rate: 0.0E+00 m/s

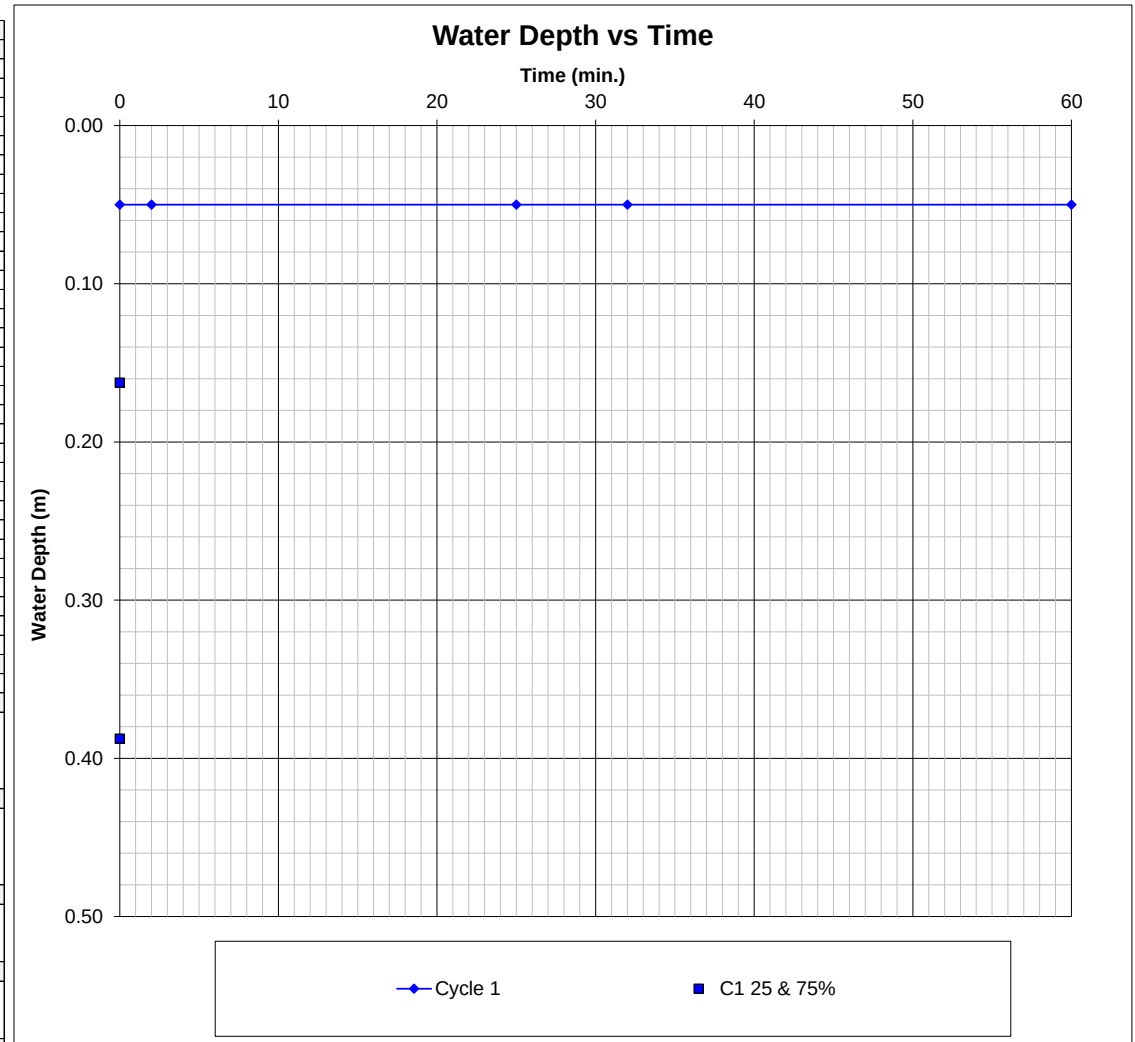
BRE365 SOIL INFILTRATION RATE TEST - TP03

14234 Land Parcels, Mon Bank, Newport

Trial Pit Information	
Length (m)	2.30
Width (m)	0.75
Depth (m)	0.50
Groundwater	Dry
Weather Conditions	Cloudy
Date	27-Aug-23

Remarks
1. Insufficient infiltration in order to calculate design infiltration rate.

	Cycle 1	Cycle 2	Cycle 3
Final Excavation Depth (m)			
At end of testing cycle	0.50		
Water Depths (m)			
Water depth at start of test	0.05		
Water depth at end of test	0.05		
Effective depth (measured)	0.00		
% Effective storage depth	0.00		
Effective Storage Depths (m)			
Effective storage depth (100%)	0.45		
Effective storage depth (75%)	0.34		
Effective storage depth (50%)	0.23		
Effective storage depth (25%)	0.11		
Outflow Time (min)			
Time for measured outflow	N/a		
Time for 100% outflow	N/a		
Time for 75-25% outflow	N/a		
Volume of Outflow (m³)			
Over measured effective depth	0.00		
Over 100% effective depth	0.78		
From 75% - 25% effective depth	0.39		
Surface Area (m²)			
For 100% effective storage	4.47		
For 50% effective storage	3.10		
Over measured depth	1.73		
Soil Infiltration Rate (m/s)			
Over 100% effective depth			
Over measured depth			
Over 75% - 25% effective depth			



Design Soil Infiltration Rate: 0.0E+00 m/s

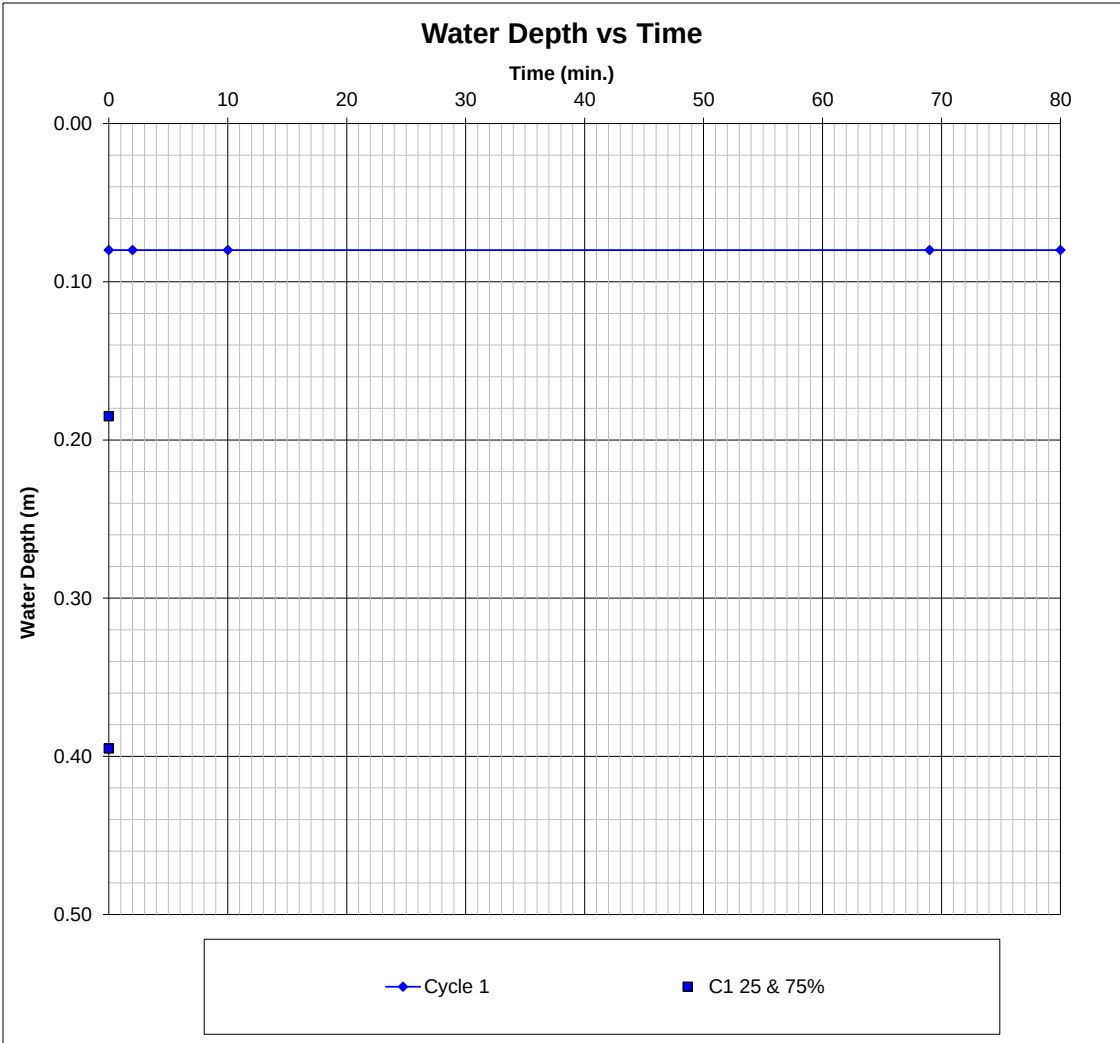
BRE365 SOIL INFILTRATION RATE TEST - TP05

14234 Land Parcels, Mon Bank, Newport

Trial Pit Information	
Length (m)	2.30
Width (m)	0.75
Depth (m)	0.50
Groundwater	Dry
Weather Conditions	Cloudy
Date	27-Aug-23

Remarks
1. Insufficient infiltration in order to calculate design infiltration rate.

Final Excavation Depth (m)	Cycle 1	Cycle 2	Cycle 3
At end of testing cycle	0.50		
Water Depths (m)			
Water depth at start of test	0.08		
Water depth at end of test	0.08		
Effective depth (measured)	0.00		
% Effective storage depth	0.00		
Effective Storage Depths (m)			
Effective storage depth (100%)	0.42		
Effective storage depth (75%)	0.32		
Effective storage depth (50%)	0.21		
Effective storage depth (25%)	0.11		
Outflow Time (min)			
Time for measured outflow	N/a		
Time for 100% outflow	N/a		
Time for 75-25% outflow	N/a		
Volume of Outflow (m³)			
Over measured effective depth	0.00		
Over 100% effective depth	0.72		
From 75% - 25% effective depth	0.36		
Surface Area (m²)			
For 100% effective storage	4.29		
For 50% effective storage	3.01		
Over measured depth	1.73		
Soil Infiltration Rate (m/s)	Cycle 1	Cycle 2	Cycle 3
Over 100% effective depth			
Over measured depth			
Over 75% - 25% effective depth			



Design Soil Infiltration Rate: 0.0E+00 m/s

APPENDIX G

LABORATORY CHEMICAL TEST RESULTS (SOILS)

Finn Guilfoyle

Integral Geotechnique
Integral House
7 Beddau Way
Castlegate Business Park
CF83 2AX

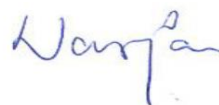
t: 02920807991
f: 02920862176
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i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 23-45402

Project / Site name:	Land Parcels Mon Banks Newport	Samples received on:	14/07/2023
Your job number:	14234	Samples instructed on/ Analysis started on:	18/07/2023
Your order number:	14234 FG	Analysis completed by:	26/07/2023
Report Issue Number:	1	Report issued on:	26/07/2023
Samples Analysed:	5 soil samples		

**Signed:**

Dominika Warjan
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 23-45402

Project / Site name: Land Parcels Mon Banks Newport

Your Order No: 14234 FG

Lab Sample Number				2750542	2750543	2750544	2750545	2750546
Sample Reference				WS01	WS02	WS03	WS04	WS05
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.10	0.30	0.40	0.10
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		
Stone Content				%	0.1	NONE	< 0.1	< 0.1
Moisture Content				%	0.01	NONE	9.4	5.7
Total mass of sample received				kg	0.001	NONE	12	4.4
							0.8	0.8

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DSA	DSA	DSA	DSA	DSA

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.5	8.9	8.2	8.4	8.2
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	820	1100	1100	300	1600
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.098	0.15	0.34	0.036	0.33
Sulphide	mg/kg	1	MCERTS	9.4	120	13	< 1.0	29
Total Sulphur	mg/kg	50	MCERTS	710	1100	1100	260	1100
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.6	1.6	3.2	0.8	2.5
Loss on Ignition @ 450oC	%	0.2	MCERTS	5.4	4.1	8.6	2	6.5

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.33	0.14	0.2	< 0.05	0.22
Acenaphthylene	mg/kg	0.05	MCERTS	0.08	< 0.05	0.1	< 0.05	0.14
Acenaphthene	mg/kg	0.05	MCERTS	0.2	0.08	0.2	0.11	0.13
Fluorene	mg/kg	0.05	MCERTS	0.24	0.1	0.27	0.11	0.2
Phenanthrene	mg/kg	0.05	MCERTS	1.7	0.79	1.9	0.82	1.6
Anthracene	mg/kg	0.05	MCERTS	0.45	0.19	0.54	0.26	0.49
Fluoranthene	mg/kg	0.05	MCERTS	2.7	1.7	3.5	2.2	3.5
Pyrene	mg/kg	0.05	MCERTS	2.2	1.4	2.9	1.9	2.9
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.7	1.1	2	1.6	2
Chrysene	mg/kg	0.05	MCERTS	1.7	0.97	2	1.5	2.1
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	2.2	1.4	2.5	2.7	2.7
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.69	0.42	0.83	2.7	0.9
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.5	0.95	1.7	1.3	1.8
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.98	0.62	1.1	0.86	1.2
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.33	0.2	0.33	0.26	0.37
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.97	0.6	1	0.87	1.1

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	17.9	10.6	21.1	17	21.4
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Analytical Report Number: 23-45402
Project / Site name: Land Parcels Mon Banks Newport
Your Order No: 14234 FG

Lab Sample Number				2750542	2750543	2750544	2750545	2750546
Sample Reference				WS01	WS02	WS03	WS04	WS05
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.10	0.30	0.40	0.10
Date Sampled				Deviating	Deviating	Deviating	Deviating	Deviating
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	15	12	17	8	17
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.2	1.3	1.1	0.59	1
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	0.3	1.9	0.2	0.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.7	< 0.2	0.9	< 0.2	1
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	29	40	39	23	51
Copper (aqua regia extractable)	mg/kg	1	MCERTS	47	40	62	16	62
Lead (aqua regia extractable)	mg/kg	1	MCERTS	68	49	83	19	92
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	31	23	32	18	29
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	36	34	37	25	39
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	150	120	210	67	190

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 _{HS_1D_AL}	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aliphatic >EC6 - EC8 _{HS_1D_AL}	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aliphatic >EC8 - EC10 _{HS_1D_AL}	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aliphatic >EC10 - EC12 _{EH_CU_1D_AL}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 _{EH_CU_1D_AL}	mg/kg	2	MCERTS	2.3	< 2.0	6.7	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	< 8.0	< 8.0	17	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 _{EH_CU_1D_AL}	mg/kg	8	MCERTS	40	< 8.0	86	< 8.0	36
TPH-CWG - Aliphatic >EC16 - EC35 _{EH_CU_1D_AL}	mg/kg	10	MCERTS	40	< 10	100	< 10	36
TPH-CWG - Aliphatic > EC35 - EC44 _{EH_CU_1D_AL}	mg/kg	8.4	NONE	< 8.4	< 8.4	34	< 8.4	15
TPH-CWG - Aliphatic (EC5 - EC35) _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	49	< 10	110	< 10	39
TPH-CWG - Aliphatic (EC5 - EC44) _{EH_CU+HS_1D_AL}	mg/kg	10	NONE	49	< 10	140	< 10	54

TPH-CWG - Aromatic >EC5 - EC7 _{HS_1D_AR}	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aromatic >EC7 - EC8 _{HS_1D_AR}	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aromatic >EC8 - EC10 _{HS_1D_AR}	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aromatic >EC10 - EC12 _{EH_CU_1D_AR}	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 _{EH_CU_1D_AR}	mg/kg	2	MCERTS	3.5	3.7	2.7	< 2.0	5.6
TPH-CWG - Aromatic >EC16 - EC21 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	13
TPH-CWG - Aromatic >EC21 - EC35 _{EH_CU_1D_AR}	mg/kg	10	MCERTS	34	26	50	27	48
TPH-CWG - Aromatic >EC35 - EC40 _{EH_CU_1D_AR}	mg/kg	10	NONE	< 10	< 10	16	< 10	15
TPH-CWG - Aromatic > EC35 - EC44 _{EH_CU_1D_AR}	mg/kg	8.4	NONE	9.8	< 8.4	27	13	27
TPH-CWG - Aromatic (EC5 - EC35) _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	46	35	62	35	67
TPH-CWG - Aromatic (EC5 - EC44) _{EH_CU+HS_1D_AR}	mg/kg	10	NONE	56	38	89	48	94

TPH Total C5 - C44 _{EH_CU+HS_1D_TOTAL}	mg/kg	10	NONE	100	38	230	48	150
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U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 23-45402

Project / Site name: Land Parcels Mon Banks Newport

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2750542	WS01	None Supplied	0.4	Brown clay and sand with gravel.
2750543	WS02	None Supplied	0.1	Brown loam and sand with gravel and vegetation.
2750544	WS03	None Supplied	0.3	Brown clay and loam with gravel and vegetation.
2750545	WS04	None Supplied	0.4	Brown loam and sand with gravel and vegetation.
2750546	WS05	None Supplied	0.1	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 23-45402

Project / Site name: Land Parcels Mon Banks Newport

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS

Analytical Report Number : 23-45402

Project / Site name: Land Parcels Mon Banks Newport

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Sample Deviation Report



Analytical Report Number : 23-45402

Project / Site name: Land Parcels Mon Banks Newport

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
WS01	None Supplied	S	2750542	a	None Supplied	None Supplied	None Supplied
WS02	None Supplied	S	2750543	a	None Supplied	None Supplied	None Supplied
WS03	None Supplied	S	2750544	a	None Supplied	None Supplied	None Supplied
WS04	None Supplied	S	2750545	a	None Supplied	None Supplied	None Supplied
WS05	None Supplied	S	2750546	a	None Supplied	None Supplied	None Supplied

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Analytical Report Number : 23-60196

Replaces Analytical Report Number: 23-60196, issue no. 1
Report format change.
Removed colour boxes for sample 2832843 from report.

Project / Site name:	Land Parcels Mon Banks Newport	Samples received on:	02/10/2023
Your job number:	14234	Samples instructed on/ Analysis started on:	03/10/2023
Your order number:	14234-FG	Analysis completed by:	13/10/2023
Report Issue Number:	2	Report issued on:	13/10/2023
Samples Analysed:	5 soil samples		

Signed:



Dominika Liana
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 23-60196
Project / Site name: Land Parcels Mon Banks Newport
Your Order No: 14234-FG

Lab Sample Number				2832840	2832841	2832842	2832843	2832844
Sample Reference				WS06	WS07	TP02	TP04	TP07
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.40	0.10	0.40	0.10
Date Sampled				27/09/2023	27/09/2023	26/09/2023	26/09/2023	26/09/2023
Time Taken				1000	1100	1000	1315	1600
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	9.1	12	18	15	10
Total mass of sample received	kg	0.001	NONE	0.9	0.8	0.3	0.2	0.3

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	WEM	WEM	WEM	WEM	WEM

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8	8.1	8	8	8.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	1200	1000	430	1400	1900
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.168	0.118	0.017	0.305	0.0713
Sulphide	mg/kg	1	MCERTS	24	3.6	1.3	36	23
Total Sulphur	mg/kg	50	MCERTS	780	520	280	1200	1100
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.6	1.5	1.3	2.6	1.4
Loss on Ignition @ 450oC	%	0.2	MCERTS	5.8	6	3.2	11.6	4.6

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.24	0.12	< 0.05	0.25	0.15
Acenaphthylene	mg/kg	0.05	MCERTS	0.06	< 0.05	< 0.05	0.07	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	0.34	0.17	0.22	0.7	0.34
Fluorene	mg/kg	0.05	MCERTS	0.36	0.11	0.19	0.81	0.25
Phenanthrene	mg/kg	0.05	MCERTS	1.6	0.44	0.53	8	0.53
Anthracene	mg/kg	0.05	MCERTS	0.43	0.08	0.14	2.2	0.1
Fluoranthene	mg/kg	0.05	MCERTS	2.6	0.66	1.2	11	0.55
Pyrene	mg/kg	0.05	MCERTS	2	0.57	1.1	7.9	0.46
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.6	0.43	1	4.4	0.37
Chrysene	mg/kg	0.05	MCERTS	1.6	0.54	1.1	4.1	0.45
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	2.2	0.7	1.6	5	0.65
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.89	0.28	0.69	1.9	0.25
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.6	0.53	1.1	4	0.45
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.75	0.28	0.65	1.6	0.25
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.22	0.09	0.18	0.44	0.08
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.86	0.35	0.75	1.7	0.28

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	17.3	5.35	10.4	53.6	5.16
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Analytical Report Number: 23-60196
 Project / Site name: Land Parcels Mon Banks Newport
 Your Order No: 14234-FG

Lab Sample Number	2832840	2832841	2832842	2832843	2832844
Sample Reference	WS06	WS07	TP02	TP04	TP07
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.20	0.40	0.10	0.40	0.10
Date Sampled	27/09/2023	27/09/2023	26/09/2023	26/09/2023	26/09/2023
Time Taken	1000	1100	1000	1315	1600
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	13	8.3	27	12
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.1	0.9	0.55	1.3	0.57
Boron (water soluble)	mg/kg	0.2	MCERTS	1.3	1.7	0.3	2.5	0.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	< 0.2	0.3	< 0.2	3.7
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	25	18	18	24	23
Copper (aqua regia extractable)	mg/kg	1	MCERTS	41	33	17	92	39
Lead (aqua regia extractable)	mg/kg	1	MCERTS	71	38	22	190	210
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	31	28	16	30	15
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	29	24	24	47	19
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	130	89	66	300	310

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6 HS 1D AL	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aliphatic >EC6 - EC8 HS 1D AL	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aliphatic >EC8 - EC10 HS 1D AL	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aliphatic >EC10 - EC12 EH CU 1D AL	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	2.4	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 EH CU 1D AL	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	5.9	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 EH CU 1D AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	13	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 EH CU 1D AL	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	57	< 8.0
TPH-CWG - Aliphatic >EC16 - EC35 EH CU 1D AL	mg/kg	10	MCERTS	< 10	< 10	< 10	69	< 10
TPH-CWG - Aliphatic >EC35 - EC44 EH CU 1D AL	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	29	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35) EH CU+HS 1D AL	mg/kg	10	NONE	< 10	< 10	< 10	78	< 10
TPH-CWG - Aliphatic (EC5 - EC44) EH CU+HS 1D AL	mg/kg	10	NONE	< 10	< 10	< 10	110	< 10

TPH-CWG - Aromatic >EC5 - EC7 HS 1D AR	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aromatic >EC7 - EC8 HS 1D AR	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aromatic >EC8 - EC10 HS 1D AR	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TPH-CWG - Aromatic >EC10 - EC12 EH CU 1D AR	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 EH CU 1D AR	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	10	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 EH CU 1D AR	mg/kg	10	MCERTS	< 10	< 10	< 10	38	< 10
TPH-CWG - Aromatic >EC21 - EC35 EH CU 1D AR	mg/kg	10	MCERTS	< 10	< 10	< 10	52	< 10
TPH-CWG - Aromatic >EC35 - EC40 EH CU 1D AR	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC35 - EC44 EH CU 1D AR	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	13	< 8.4
TPH-CWG - Aromatic (EC5 - EC35) EH CU+HS 1D AR	mg/kg	10	NONE	11	< 10	< 10	99	< 10
TPH-CWG - Aromatic (EC5 - EC44) EH CU+HS 1D AR	mg/kg	10	NONE	11	< 10	< 10	110	< 10

TPH Total C5 - C44 EH CU+HS 1D TOTAL	mg/kg	10	NONE	11	< 10	< 10	220	< 10
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U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 23-60196

Project / Site name: Land Parcels Mon Banks Newport

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2832840	WS06	None Supplied	0.2	Brown clay and sand with gravel and coal.
2832841	WS07	None Supplied	0.4	Brown clay and sand with gravel.
2832842	TP02	None Supplied	0.1	Brown clay and loam with gravel and vegetation.
2832843	TP04	None Supplied	0.4	Brown clay and sand with gravel.
2832844	TP07	None Supplied	0.1	Brown clay and loam with gravel and vegetation.

Analytical Report Number : 23-60196

Project / Site name: Land Parcels Mon Banks Newport

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards. Refer to CoA for analyte specific accreditation.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID. Refer to CoA for band specific accreditation.	In-house method with silica gel split/clean up.	L088/76-PL	D	MCERTS

Analytical Report Number : 23-60196
Project / Site name: Land Parcels Mon Banks Newport

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Sample Deviation Report



Analytical Report Number : 23-60196

Project / Site name: Land Parcels Mon Banks Newport

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis. Please note that the associated result(s) may be unreliable and should be interpreted with care.

Key: a - No sampling date b - Incorrect container c - Holding time d - Headspace e - Temperature

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
TP02	None Supplied	S	2832842	c	Sulphide in soil	L010-PL	c
TP02	None Supplied	S	2832842	c	Total cyanide in soil	L080-PL	c
TP04	None Supplied	S	2832843	c	Sulphide in soil	L010-PL	c
TP04	None Supplied	S	2832843	c	Total cyanide in soil	L080-PL	c
TP07	None Supplied	S	2832844	c	Sulphide in soil	L010-PL	c
TP07	None Supplied	S	2832844	c	Total cyanide in soil	L080-PL	c

APPENDIX H

LABORATORY GEOTECHNICAL TEST RESULTS



Laboratory Report



Contract Number: 68938

Client Ref: **14234**

Client PO: **14234/FG**

Date Received: **04-10-2023**

Date Completed: **20-10-2023**

Report Date: **20-10-2023**

Client: **Integral Geotechnique (Wales) Limited**

7 Beddau Way

Castlegate Business Park

Caerphilly

Cardiff

CF83 2AX

This report has been checked and approved by:

Paul Evans

Director

Contract Title: **Mon Bank, Newport**

For the attention of: **Finn Gullfoyle**

Test Description	Qty
Moisture Content BS 1377:1990 - Part 2 : 3.2 - * UKAS	4
4 Point Liquid & Plastic Limit BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS	4
Water Soluble Sulphate 2:1 extract Sub-contracted Test	4
pH value of soil Sub-contracted Test	4
Disposal of samples for job	1

Notes: Observations and Interpretations are outside the UKAS Accreditation

* - denotes test included in laboratory scope of accreditation

- denotes test carried out by approved contractor

@ - denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This test report/certificate shall not be reproduced except in full, without the approval of GEO Site & Testing Services Ltd. Any opinions or interpretations stated - within this report/certificate are excluded from the laboratories UKAS accreditation.

Approved Signatories:

Brendan Evans (Office Administrator) - Darren Bourne (Quality Senior Technician) - Paul Evans (Director)

Richard John (Quality/Technical Manager) - Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager)

Wayne Honey (Human Resources/ Health and Safety Manager)

GEO Site & Testing Services Ltd

Units 3-4, Heol Aur, Dafen, Llanelli, Carmarthenshire, Wales SA14 8QN

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(BS 1377:1990 - Part 2 : 4.3 & 5.3)

Contract Number	68938	
Project Name	Mon Bank, Newport	
Date Tested	06/10/2023	
	DESCRIPTIONS	

[illegible]

Operator

Clayton Jenkins



4161



7 - 11 Harding Street
Leicester
LE1 4DH

GSTL

Unit 3-4 Heol Aur
Dafen Ind Estate
Dafen
SA14 8QN

Analytical Test Report: L23/05884/GSL - 23-38005

Your Project Reference:	14234 MON BANK, NEWPORT		
Your Order Number:	68938	Samples Received / Instructed:	06/10/2023 / 06/10/2023
Report Issue Number:	1	Sample Tested:	06/10 to 17/10/2023
Samples Analysed:	4 soil samples	Report issued:	17/10/2023

Signed

James Gane
Analytical Services Manager
CTS Group

Notes:**General**

Please refer to Methodologies page for details pertaining to the analytical methods undertaken.

Samples will be retained for 14 days after issue of this report unless otherwise requested.

Moisture Content was determined in accordance with CTS method statement MS - CL - Sample Prep, oven dried at <30°C.

Moisture Content is reported as a percentage of the dry mass of soil, this calculation is in accordance with BS1377, Part 2, 1990, Clause 3.2

Where specification limits are included these are for guidance only. Where a measured value has been highlighted this is not implying acceptance or failure and certainty of measurement values have not been taken into account.

Uncertainty of measurement values are available on request.

Samples were supplied by customer, results apply to the samples as received.

Deviating Samples

On receipt samples are compared against our sample holding and handling protocols, where any deviations have been noted these are reported on our deviating sample page (if present)

Accreditation Key

UKAS = UKAS Accreditation, MCERTS = MCERTS Accreditation, u = Unaccredited

MCERTS Accreditation only covers the SAND, CLAY and LOAM matrices

Date of Issue: 10.10.2023

Issued by: J. Gane

Issue No: 4

Rev No: 4



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L23/05884/GSL - 23-38005

Project Reference - 14234 MON BANK, NEWPORT

Analytical Test Results - Chemical Analysis

Lab Reference			318749	318750	318751	318752
Client Sample ID			-	-	-	-
Client Sample Location			TP02	TP03	TP04	TP06
Client Sample Type			D	D	D	D
Client Sample Number			-	-	-	-
Depth - Top (m)			2.00	2.22	1.50	1.50
Depth - Bottom (m)			2.00	2.22	1.50	1.50
Date of Sampling			-	-	-	-
Time of Sampling			-	-	-	-
Sample Matrix			Clay	Clay	Clay	Clay
Determinant	Units	Accreditation				
Water soluble sulphate (as SO ₄)	(mg/l)	u	650	600	1900	590
pH Value	pH Units	MCERTS	7.8	7.9	8.0	8.1



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L23/05884/GSL - 23-38005

Project Reference - 14234 MON BANK,NEWPORT

Sample Descriptions

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Description	Moisture Content (%)	Stone Content (%)	Passing 2mm test sieve (%)
318749	-	TP02	D	-	Greyish brown silty clay	-	-	100
318750	-	TP03	D	-	Grey silty clay	-	-	100
318751	-	TP04	D	-	Dark brown gravelly slightly sandy silty clay	-	-	93
318752	-	TP06	D	-	Dark greyish brown slightly gravelly silty clay	-	-	92



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L23/05884/GSL - 23-38005

Project Reference - 14234 MON BANK,NEWPORT

Sample Comments

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Comments
318749	-	TP02	D	-	
318750	-	TP03	D	-	
318751	-	TP04	D	-	
318752	-	TP06	D	-	



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L23/05884/GSL - 23-38005

Project Reference - 14234 MON BANK,NEWPORT

Analysis Methodologies

Test Code	Test Name / Reference	Sample condition for analysis	Sample Preparation	Test Details
ANIONSS	MS - CL - Anions by Aquakem (2:1Extract)	Oven dried	Passing 2mm test sieve	Determination of Anions (inc Sulphate, chloride etc.) in soils by Aquakem. Analysis is based on a 2:1 water to soil extraction ratio
PHS	MS - CL - pH in Soils	As received	Passing 10mm test sieve	Determination of pH in soils using a pH probe (using a 1:3 soil to water extraction)
SAMPLEPREP	MS - CL - Sample Preparation	-	-	Preparation of samples (including determination of moisture content) to allow for subsequent analysis



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L23/05884/GSL - 23-38005

Project Reference - 14234 MON BANK,NEWPORT

Sample Deviations

Deviations are listed below against each sample and associated test method, where deviation(s) are noted it means data may not be representative of the sample at the time of sampling and it is possible that results provided may be compromised.

Observations on receipt

A - No date of sampling provided

C - Received in inappropriate container

H - Contains headspace

T - Temperature on receipt exceeds storage temperature

R - Sample(s) received with less than 96 hours for testing to commence/complete, any result formally classed as deviating will be marked with an X against the applicable test (i.e. RX)

Observations whilst in laboratory

X - Exceeds sampling to extraction or analysis timescales

Lab Reference	Client Sample ID	Client Sample Location	Client Sample Type	Client Sample Number	Test	Deviations
318749	-	TP02	D	-	MS - CL - Anions by Aquakem (2:1Extract)	A
318749	-	TP02	D	-	MS - CL - Sample Preparation	A
318749	-	TP02	D	-	MS - CL - pH in Soils	A
318750	-	TP03	D	-	MS - CL - Anions by Aquakem (2:1Extract)	A
318750	-	TP03	D	-	MS - CL - Sample Preparation	A
318750	-	TP03	D	-	MS - CL - pH in Soils	A
318751	-	TP04	D	-	MS - CL - Anions by Aquakem (2:1Extract)	A
318751	-	TP04	D	-	MS - CL - Sample Preparation	A
318751	-	TP04	D	-	MS - CL - pH in Soils	A
318752	-	TP06	D	-	MS - CL - Anions by Aquakem (2:1Extract)	A
318752	-	TP06	D	-	MS - CL - Sample Preparation	A
318752	-	TP06	D	-	MS - CL - pH in Soils	A

APPENDIX I

IN-SITU GROUND GAS MONITORING RESULTS

FIELD GAS MONITORING RESULTS - SUMMARY

Job No.: 14234
Site: Monbank

Maximum Methane Concentration (%v/v)	Maximum Carbon Dioxide Concentration (%v/v)	Maximum Gas Concentration (%v/v)	Maximum Gas Flow Rate (l/hr)	GSV (l/hr)
0.30	0.70	0.70	<0.3	<0.0021

Methane							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Maximum
WS 06	0.30	0.20	0.10				0.30

Carbon Dioxide							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Maximum
WS 06	0.70	0.40	0.40				0.70

Oxygen							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Minimum
WS 06	20.70	19.20	18.90				18.90

Gas Flow Rate							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Maximum
WS 06	<0.3	<0.3	<0.3				<0.30

FIELD GAS MONITORING RESULTS

Job No.: 14234
Site: Monbank
Monitoring Date: 06.10.23
Monitoring Round: 1

Monitoring Conditions

Weather:	Sunny	
Ambient Temp:	18	°C
Instrument:	GA5000	

Barometric Pressure (mb)

On Arrival:	1007
During Monitoring:	1007
End of Monitoring:	1007

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 06	3.68	Dry	0.30	0.30	6.00	6.00	20.70	20.70	0.70	0.70	<1	<1	<0.3	0.10
Typical Instrument Accuracy:														
%CH ₄	0-70% +/- 0.5%		CO	0-500ppm +/- 2% FS										
%CO ₂	0-60% +/- 0.5%		H ₂ S	0-5000ppm +/- 2.0% FS										
%O ₂	0-25% +/- 1.0%		Flow from borehole +/- 0.3l/h											
Notes:														

FIELD GAS MONITORING RESULTS

Job No.: 14234
Site: Monbank
Monitoring Date: 10.11.23
Monitoring Round: 2

Monitoring Conditions

Weather:	Cloudy	
Ambient Temp:	11	°C
Instrument:	GA5000	

Barometric Pressure (mb)

On Arrival:	987
During Monitoring:	987
End of Monitoring:	987

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 06	3.68	Dry	0.20	0.20	4.00	4.00	19.20	19.60	0.40	0.40	<1	<1	<0.3	0.10
Typical Instrument Accuracy:														
%CH ₄	0-70% +/- 0.5%		CO	0-500ppm +/- 2% FS										
%CO ₂	0-60% +/- 0.5%		H ₂ S	0-5000ppm +/- 2.0% FS										
%O ₂	0-25% +/- 1.0%		Flow from borehole +/- 0.3l/h											
Notes:														

FIELD GAS MONITORING RESULTS

Job No.: 14234
Site: Monbank
Monitoring Date: 24.11.23
Monitoring Round: 3

Monitoring Conditions

Weather:	Cloudy	
Ambient Temp:	9	°C
Instrument:	GA5000	

Barometric Pressure (mb)

On Arrival:	1001
During Monitoring:	1001
End of Monitoring:	1001

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 06	3.68	Dry	0.10	0.10	2.00	2.00	18.90	18.90	0.40	0.30	<1	<1	<0.3	0.20
Typical Instrument Accuracy:														
%CH ₄	0-70% +/- 0.5%		CO	0-500ppm +/- 2% FS										
%CO ₂	0-60% +/- 0.5%		H ₂ S	0-5000ppm +/- 2.0% FS										
%O ₂	0-25% +/- 1.0%		Flow from borehole +/- 0.3l/h											
Notes:														

FIELD GAS MONITORING RESULTS - SUMMARY

Job No.: 14234
Site: Mon-Bank Newport

Maximum Methane Concentration (%v/v)	Maximum Carbon Dioxide Concentration (%v/v)	Maximum Gas Concentration (%v/v)	Maximum Gas Flow Rate (l/hr)	GSV (l/hr)
18.10	6.10	18.10	<0.3	<0.0543

Methane							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Maximum
WS 01	18.10	12.80	13.20	11.70	8.90	10.80	18.10
WS 02	0.30	0.40	0.30	0.20	0.10	0.30	0.40
WS 04	0.10	0.10	0.10	0.10	0.10	0.20	0.20

Carbon Dioxide							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Maximum
WS 01	0.50	0.40	0.30	0.20	0.30	0.10	0.50
WS 02	5.10	5.00	6.10	5.80	4.80	6.10	6.10
WS 04	1.20	1.30	0.80	0.60	0.40	0.40	1.30

Oxygen							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Minimum
WS 01	1.90	2.30	2.10	2.20	2.30	3.80	1.90
WS 02	5.40	6.90	8.90	8.10	5.60	10.20	5.40
WS 04	17.80	18.10	19.20	18.70	19.60	19.10	17.80

Gas Flow Rate							
Location	Round 1	Round 2	Round 3	Round 4	Round 5	Round 6	Maximum
WS 01	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.30
WS 02	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.30
WS 04	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.30

FIELD GAS MONITORING RESULTS

Job No.: 14234
 Site: Mon-Bank Newport
 Monitoring Date: 21.07.23
 Monitoring Round: 1

Monitoring Conditions

Weather: Sunny
 Ambient Temp: 20 °C
 Instrument: GA5000

Barometric Pressure (mb)

On Arrival: 1016
 During Monitoring: 1016
 End of Monitoring: 1016

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	4.03	Dry	18.10	17.40	>100	>100	1.90	1.90	0.50	0.50	7.00	<1	<0.3	0.20
WS 02	4.11	Dry	0.30	0.30	6.00	6.00	5.40	5.90	5.10	5.10	6.00	<1	<0.3	0.10
WS 04	4.1	Dry	0.10	0.10	2.00	2.00	17.80	17.90	1.20	1.20	3.00	<1	<0.3	0.20

Typical Instrument Accuracy:

%CH ₄	0-70% +/- 0.5%	CO	0-500ppm +/- 2% FS	LEL = Lower Explosive Limit
%CO ₂	0-60% +/- 0.5%	H ₂ S	0-5000ppm +/- 2.0% FS	N/R = No Reading Taken
%O ₂	0-25% +/- 1.0%	Flow from borehole	+/- 0.3l/h	FS = Full Scale

Notes:

FIELD GAS MONITORING RESULTS

Job No.: 14234
 Site: Mon-Bank Newport
 Monitoring Date: 04.08.23
 Monitoring Round: 2

Monitoring Conditions

Weather: Sunny
 Ambient Temp: 19 °C
 Instrument: GA5000

Barometric Pressure (mb)

On Arrival: 1002
 During Monitoring: 1002
 End of Monitoring: 1002

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	4.03	Dry	12.80	12.70	>100	>100	2.30	2.30	0.40	0.40	8.00	<1	<0.3	0.10
WS 02	4.11	Dry	0.40	0.30	8.00	6.00	6.90	6.90	5.00	4.90	4.70	<1	<0.3	0.10
WS 04	4.07	Dry	0.10	0.10	2.00	2.00	18.10	18.10	1.30	1.20	2.00	<1	<0.3	0.30
Typical Instrument Accuracy: %CH ₄ 0-70% +/- 0.5% CO 0-500ppm +/- 2% FS %CO ₂ 0-60% +/- 0.5% H ₂ S 0-5000ppm +/- 2.0% FS %O ₂ 0-25% +/- 1.0% Flow from borehole +/- 0.3l/h LEL = Lower Explosive Limit N/R = No Reading Taken FS = Full Scale														
Notes: 														

FIELD GAS MONITORING RESULTS

Job No.: 14234
 Site: Mon-Bank Newport
 Monitoring Date: 14.08.23
 Monitoring Round: 3

Monitoring Conditions

Weather: Sunny
 Ambient Temp: 19 °C
 Instrument: GA5000

Barometric Pressure (mb)

On Arrival: 994
 During Monitoring: 994
 End of Monitoring: 994

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	4.03	Dry	13.20	13.10	>100	>100	2.10	2.10	0.30	0.30	9.00	<1	<0.3	0.20
WS 02	4.11	Dry	0.30	0.30	6.00	6.00	8.90	8.90	6.10	6.00	4.10	<1	<0.3	0.10
WS 04	4.07	Dry	0.10	0.10	2.00	2.00	19.20	19.20	0.80	0.60	1.00	<1	<0.3	0.20

Typical Instrument Accuracy:

%CH ₄	0-70% +/- 0.5%	CO	0-500ppm +/- 2% FS	LEL = Lower Explosive Limit
%CO ₂	0-60% +/- 0.5%	H ₂ S	0-5000ppm +/- 2.0% FS	N/R = No Reading Taken
%O ₂	0-25% +/- 1.0%	Flow from borehole	+/- 0.3l/h	FS = Full Scale

Notes:

FIELD GAS MONITORING RESULTS

Job No.: 14234
 Site: Mon-Bank Newport
 Monitoring Date: 22.08.23
 Monitoring Round: 4

Monitoring Conditions

Weather: Sunny
 Ambient Temp: 20 °C
 Instrument: GA5000

Barometric Pressure (mb)

On Arrival: 1004
 During Monitoring: 1004
 End of Monitoring: 1004

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	4.03	Dry	11.70	11.40	>100	>100	2.20	2.20	0.20	0.20	5.00	<1	<0.3	0.10
WS 02	4.11	Dry	0.20	0.20	4.00	4.00	8.10	8.10	5.80	5.80	3.80	<1	<0.3	0.10
WS 04	4.07	Dry	0.10	0.10	2.00	2.00	18.70	18.70	0.60	0.60	1.00	<1	<0.3	0.10

Typical Instrument Accuracy:

%CH ₄	0-70% +/- 0.5%	CO	0-500ppm +/- 2% FS	LEL = Lower Explosive Limit
%CO ₂	0-60% +/- 0.5%	H ₂ S	0-5000ppm +/- 2.0% FS	N/R = No Reading Taken
%O ₂	0-25% +/- 1.0%	Flow from borehole	+/- 0.3l/h	FS = Full Scale

Notes:

FIELD GAS MONITORING RESULTS

Job No.: 14234
 Site: Mon-Bank Newport
 Monitoring Date: 01.09.23
 Monitoring Round: 5

Monitoring Conditions

Weather: Sunny
 Ambient Temp: 20 °C
 Instrument: GA5000

Barometric Pressure (mb)

On Arrival: 998
 During Monitoring: 998
 End of Monitoring: 998

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	4.03	Dry	8.90	8.90	>100	>100	2.30	2.30	0.30	0.20	4.00	<1	<0.3	0.20
WS 02	4.11	Dry	0.10	0.10	2.00	2.00	5.60	5.40	4.80	4.80	3.20	<1	<0.3	0.10
WS 04	4.07	Dry	0.10	0.10	2.00	2.00	19.60	19.60	0.40	0.40	2.00	<1	<0.3	0.20

Typical Instrument Accuracy:

%CH ₄	0-70% +/- 0.5%	CO	0-500ppm +/- 2% FS	LEL = Lower Explosive Limit
%CO ₂	0-60% +/- 0.5%	H ₂ S	0-5000ppm +/- 2.0% FS	N/R = No Reading Taken
%O ₂	0-25% +/- 1.0%	Flow from borehole	+/- 0.3l/h	FS = Full Scale

Notes:

FIELD GAS MONITORING RESULTS

Job No.: 14234
Site: Mon-Bank Newport
Monitoring Date: 20.09.23
Monitoring Round: 6

Monitoring Conditions

Weather:	Cloudy	
Ambient Temp:	16	°C
Instrument:	GA5000	

Barometric Pressure (mb)

On Arrival:	981
During Monitoring:	981
End of Monitoring:	981

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
WS 01	4.03	Dry	10.80	10.80	>100	>100	3.80	3.90	0.10	0.10	4.00	<1	<0.3	0.20
WS 02	4.11	Dry	0.30	0.30	6.00	6.00	10.20	10.80	6.10	6.10	2.80	<1	<0.3	0.10
WS 04	4.07	Dry	0.20	0.10	4.00	2.00	19.10	19.10	0.40	0.40	1.00	<1	<0.3	<0.3
Typical Instrument Accuracy:														
%CH ₄	0-70% +/- 0.5%		CO	0-500ppm +/- 2% FS										
%CO ₂	0-60% +/- 0.5%		H ₂ S	0-5000ppm +/- 2.0% FS										
%O ₂	0-25% +/- 1.0%		Flow from borehole +/- 0.3l/h											
Notes:														

APPENDIX J

SUMMARY OF LABORATORY CHEMICAL TEST RESULTS (SOILS)

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14234
Site: Mon Bank Parcels, Newport
Soil Type: Made Ground
Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Elemental) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
1	WS01	0.40	15	0.6	1.2	0.7	29	< 1.8	47	68	< 0.3	31	< 1.0	36	150
2	WS02	0.10	12	0.3	1.3	< 0.2	40	< 1.8	40	49	< 0.3	23	< 1.0	34	120
3	WS03	0.30	17	1.9	1.1	0.9	39	< 1.8	62	83	< 0.3	32	< 1.0	37	210
4	WS04	0.40	8	0.2	0.59	< 0.2	23	< 1.8	16	19	< 0.3	18	< 1.0	25	67
5	WS05	0.10	17	0.9	1	1	51	< 1.8	62	92	< 0.3	29	< 1.0	39	190
6	WS06	0.20	13	1.3	1.1	0.6	25	< 1.8	41	71	< 0.3	31	< 1.0	29	130
7	WS07	0.40	13	1.7	0.9	< 0.2	18	< 1.8	33	38	< 0.3	28	< 1.0	24	89
8	TP02	0.10	8.3	0.3	0.55	0.3	18	< 1.8	17	22	< 0.3	16	< 1.0	24	66
9	TP04	0.40	27	2.5	1.3	< 0.2	24	< 1.8	92	190	< 0.3	30	< 1.0	47	300
10	TP07	0.10	12	0.9	0.57	3.7	23	< 1.8	39	210	< 0.3	15	< 1.0	19	310
Screening Criteria Value			37.0	290.0	1.7	11.0	-	6.0	2400.0	200.0	1.2	130.0	250.0	410.0	3700.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL

Made Ground
Topsoil

SUMMARY OF LABORATORY SOIL TEST RESULTS

INORGANIC CHEMICALS & OTHERS

Job No.: 14234
 Site: Mon Bank Parcels, Newport
 Soil Type: Made Ground
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (g/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
1	WS01	0.40	< 1.0	5.40	9.40	< 1.0	8.50	0.098	820.00	9.40	710.00	1.60	2.75	Not-detected	#N/A
2	WS02	0.10	< 1.0	4.10	5.70	< 1.0	8.90	0.150	1100.00	120.00	1100.00	1.60	2.75	Not-detected	#N/A
3	WS03	0.30	< 1.0	8.60	12.00	< 1.0	8.20	0.340	1100.00	13.00	1100.00	3.20	5.50	Not-detected	#N/A
4	WS04	0.40	< 1.0	2.00	4.40	< 1.0	8.40	0.036	300.00	< 1.0	260.00	0.80	1.38	Not-detected	#N/A
5	WS05	0.10	< 1.0	6.50	9.50	< 1.0	8.20	0.330	1600.00	29.00	1100.00	2.50	4.30	Not-detected	#N/A
6	WS06	0.20	< 1.0	5.80	9.10	< 1.0	8.00	0.168	1200.00	24.00	780.00	1.60	2.75	Not-detected	#N/A
7	WS07	0.40	< 1.0	6.00	12.00	< 1.0	8.10	0.118	1000.00	3.60	520.00	1.50	2.58	Not-detected	#N/A
8	TP02	0.10	< 1.0	3.20	18.00	< 1.0	8.00	0.017	430.00	1.30	280.00	1.30	2.24	Not-detected	#N/A
9	TP04	0.40	< 1.0	11.60	15.00	< 1.0	8.00	0.305	1400.00	36.00	1200.00	2.60	4.47	Not-detected	#N/A
10	TP07	0.10	< 1.0	4.60	10.00	< 1.0	8.40	0.071	1900.00	23.00	1100.00	1.40	2.41	Not-detected	#N/A
Screening Criteria Value			34.0	-	-	120.0	-	-	-	-	-	-	-	-	0.001
Source of Screening Criteria Value			ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

Made Ground
 Topsoil

SUMMARY OF LABORATORY SOIL TEST RESULTS

POLYAROMATIC HYDROCARBONS (PAH)

Job No.: 14234
Site: Mon Bank Parcels, Newport
Soil Type: Made Ground
Soil Organic Matter: 1%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
1	WS01	0.40	0.2	0.08	0.45	1.7	1.5	2.2	0.97	0.69	1.7	0.33	2.7	0.24	0.98	0.33	1.7	2.2
2	WS02	0.10	0.08	< 0.05	0.19	1.1	0.95	1.4	0.6	0.42	0.97	0.2	1.7	0.1	0.62	0.14	0.79	1.4
3	WS03	0.30	0.2	0.1	0.54	2	1.7	2.5	1	0.83	2	0.33	3.5	0.27	1.1	0.2	1.9	2.9
4	WS04	0.40	0.11	< 0.05	0.26	1.6	1.3	2.7	0.87	2.7	1.5	0.26	2.2	0.11	0.86	< 0.05	0.82	1.9
5	WS05	0.10	0.13	0.14	0.49	2	1.8	2.7	1.1	0.9	2.1	0.37	3.5	0.2	1.2	0.22	1.6	2.9
6	WS06	0.20	0.34	0.06	0.43	1.6	1.6	2.2	0.86	0.89	1.6	0.22	2.6	0.36	0.75	0.24	1.6	2
7	WS07	0.40	0.17	< 0.05	0.08	0.43	0.53	0.7	0.35	0.28	0.54	0.09	0.66	0.11	0.28	0.12	0.44	0.57
8	TP02	0.10	0.22	< 0.05	0.14	1	1.1	1.6	0.75	0.69	1.1	0.18	1.2	0.19	0.65	< 0.05	0.53	1.1
9	TP04	0.40	0.7	0.07	2.2	4.4	4	5	1.7	1.9	4.1	0.44	11	0.81	1.6	0.25	8	7.9
10	TP07	0.10	0.34	< 0.05	0.1	0.37	0.45	0.65	0.28	0.25	0.45	0.08	0.55	0.25	0.25	0.15	0.53	0.46
Screening Criteria Value			210.0	170.0	2400.0	7.2	2.2	2.6	320.0	77.0	15.0	0.24	280.0	170.0	27.0	2.3	95.0	620.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

Made Ground
Topsoil

SUMMARY OF LABORATORY SOIL TEST RESULTS

PETROLEUM HYDROCARBONS

Job No.: 14234
Site: Mon Bank Parcels, Newport
Soil Type: Made Ground
Soil Organic Matter: 1%

No.	Location	Depth (m)	Aliphatic C5-C6 (mg/kg)	Aliphatic C6-C8 (mg/kg)	Aliphatic C8-C10 (mg/kg)	Aliphatic C10- C12 EPH (mg/kg)	Aliphatic C12- C16 EPH (mg/kg)	Aliphatic C16-C35 EPH (mg/kg)	Aliphatic C35- C44 EPH (mg/kg)	Aromatic C5-C7 (mg/kg)	Aromatic C7-C8 (mg/kg)	Aromatic C8-C10 (mg/kg)	Aromatic C10- C12 EPH (mg/kg)	Aromatic C12- C16 EPH (mg/kg)	Aromatic C16- C21 EPH (mg/kg)	Aromatic C21- C35 EPH (mg/kg)	Aromatic C35- C40 EPH (mg/kg)
1	WS01	0.40	< 0.10	< 0.10	< 0.10	< 1.0	2.3	40	< 8.4	< 0.10	< 0.10	< 0.10	< 1.0	3.5	< 10	34	< 10
2	WS02	0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	< 10	< 8.4	< 0.10	< 0.10	< 0.10	< 1.0	3.7	< 10	26	< 10
3	WS03	0.30	< 0.10	< 0.10	< 0.10	< 1.0	6.7	100	34	< 0.10	< 0.10	< 0.10	< 1.0	2.7	< 10	50	16
4	WS04	0.40	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	< 10	< 8.4	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	< 10	27	< 10
5	WS05	0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	36	15	< 0.10	< 0.10	< 0.10	< 1.0	5.6	13	48	15
6	WS06	0.20	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	< 10	< 8.4	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	< 10	< 10	< 10
7	WS07	0.40	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	< 10	< 8.4	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	< 10	< 10	< 10
8	TP02	0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	< 10	< 8.4	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	< 10	< 10	< 10
9	TP04	0.40	< 0.10	< 0.10	< 0.10	2.4	5.9	69	29	< 0.10	< 0.10	< 0.10	< 1.0	10	38	52	< 10
10	TP07	0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	< 10	< 8.4	< 0.10	< 0.10	< 0.10	< 1.0	< 2.0	< 10	< 10	< 10
Screening Criteria Value			42.0	100.0	27.0	130.0	1100.0	65000.0	65000.0	0.1	130.0	34.0	74.0	140.0	260.0	1100.0	1100.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

Made Ground
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FIGURES

Site Location



Figure 1: Site Location

Project: Land Parcels, Mon Bank, Newport

Job no.: 14254

Client: Monmouthshire Housing Association

Scale: 1:25000 at A4

Intégral
Géotechnique

Integral House,
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Figure 2: Site Plan

Project: Land Parcels, Mon Bank, Newport

Client: Monmouthshire Housing Association

Job No.: 14234

Scale: 1/1000 at A3

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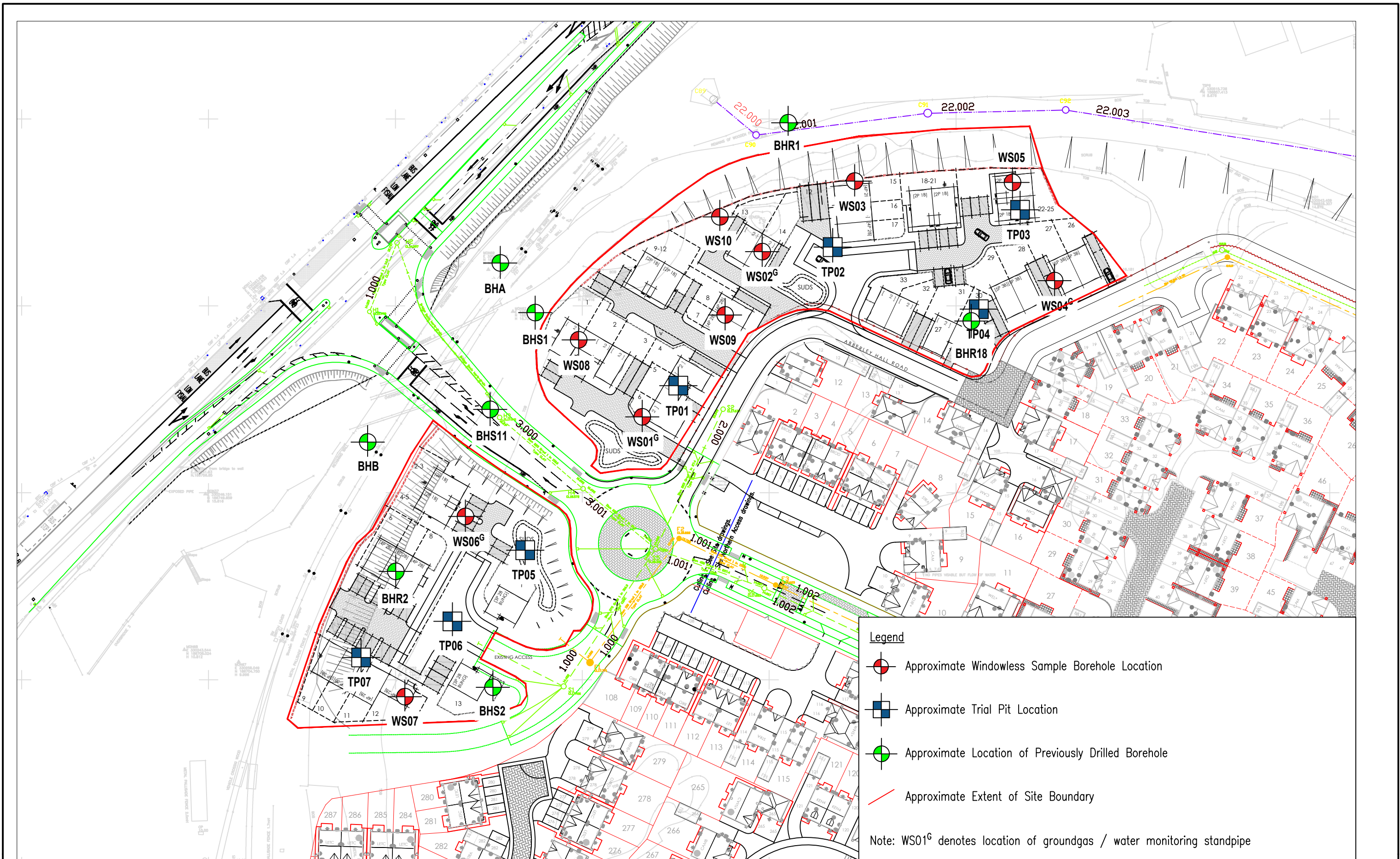


Figure 3 : Proposed Development Plan

Project: Land Parcels, Mon Bank, Newport

Client: Monmouthshire Housing Association

Job No.: 14234

Scale: 1:1000 at A3

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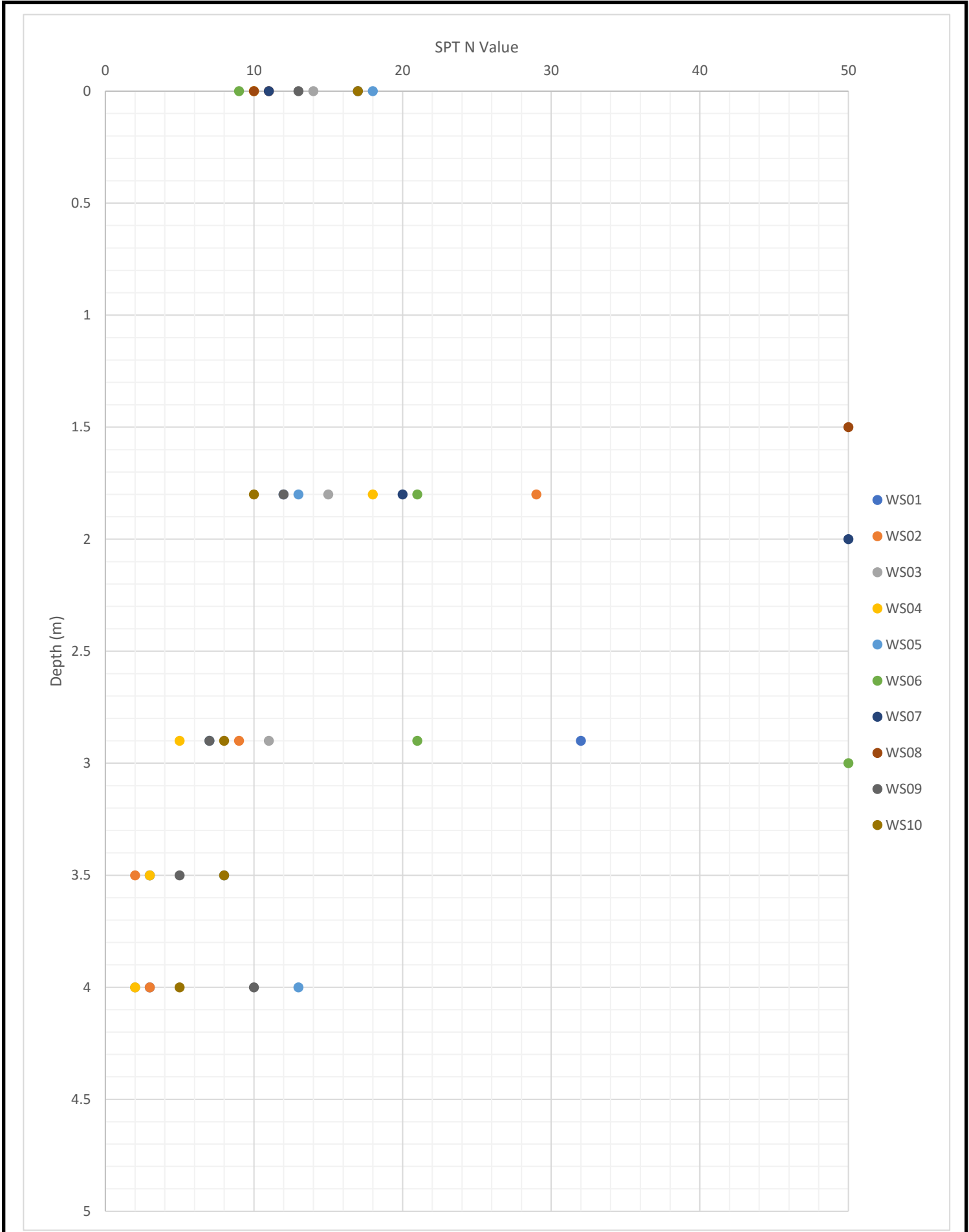


FIGURE 4 - SPT N Value v Depth Plot

Land Parcels at Mon Bank, Newport



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