C. Afan Advanced Digestion Project Geotechnical Desk Study

Dwr Cymru Welsh Water

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September 2008

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1 INTRODUCTION

Dwr Cymru Welsh Water (DCWW) propose to undertake an upgrade of the sludge treatment facilities at Afan Waste Water Treatment Works (WWTW), Port Talbot.

This will involve the construction of an advanced digestion system comprising sludge dewatering and cake storage buildings, 2 digester tanks, gas storage tank, combined heat and power (CPH) generator equipment and associated facilities.

This report presents the findings of a geotechnical desk study of the site and identifies potential contamination issues.

2 THE SITE

2.1 Site Location and Description

The study area is located at Afan Waste Water Treatment Works (WWTW) near Port Talbot, South Wales. It comprises nearly 3 hectares of land, centred at National Grid Reference 276120, 187390, see Figure 1.

Located on reclaimed land close to the shoreline of the tidal Severn Estuary (Swansea Bay), the WWTW is surrounded on three sides by the large industrial complex of Port Talbot Steel Works, with Port Talbot Deep Water Harbour situated immediately to its west. An elevated conveyor runs from the harbour and passes close to the northern and eastern boundaries of the WWTW. Immediately beyond this to the north and east, the steel works site is occupied by areas that have been used for tipping of steelworks wastes, whilst further afield there are areas used for storage and processing of iron ore. Immediately to the east of the WWTW is the western end of an elongated pond. This is referred to on plans as the steel works sludge pond or Betsi pool.

West of the site is the southern breakwater of the Deep Water Harbour, with reclaimed land extending further west of its northern side. A sewage pumping station is located at the eastern end of the breakwater, close to the WWTW.

The site layout is shown on Figure 2. The WWTW consists of buildings, tanks, access roads, storage areas, associated facilities and some grassed areas. The site elevation is between about 8mOD and 9mOD.

Immediately south of the WWTW, a stockpile or mound of steelworks waste, apparently mainly slag, terminates in a steep face beside the WWTW boundary fence. The mound has a plateau surface at an elevation of about 15mOD.

Afan WWTW and sludge treatment facility serve a population of 350,000 in Neath, Port Talbot and surrounding area.

2.2 History

The history of the site had been researched from historical Ordnance Survey (OS) 1:2500, 1:10560 and 1:10000 plans and 10k Raster maps, dating from 1885 to 2008. A review of the available aerial photographs ranging from 1945 to 1992 was undertaken at the Central Register of Aerial Photography for Wales, Welsh Assembly Government, in Cardiff.

The 1885 plan shows the site to be located at the former mouth of the River Afan, the course of which had been previously diverted to enter the sea some 2km to the north. The old river channel passed the south-east corner of the site at a distance of about 80m. The site area comprised beach (part of Margam Sands), with the high water mark of ordinary tides shown about 100m north of the site. Beyond the tidal zone, the coast comprised an extensive area of dunes known as Morfa Newydd.

According to Reference 10, the “Port Talbot Railway and Docks Company” opened a dock at Port Talbot in 1897.

On the 1900 plan, the Port Talbot Railway Docks Branch is shown extending onto the Morfa Newydd area which was being raised and reclaimed by tipping. The course of the “old river” had altered, the channel passing close to the south-east corner of the site. High water mark of ordinary tides had moved southwards and passed through the north end of the site.

The 1921 plan shows that a large sand pit had been developed at Morfa Newydd, about 0.7km NW of the site. The tipping and reclamation of the area was continuing and extended further south, the rail lines terminating at a loading stage on the north bank of the “old river”, 200m north-east of the site. The course of the “old river” channel had altered again, passing 140m east of the site, the 1900 course evidently having become infilled.

The 1951 plan, together with aerial photographs dated 1945 and 1946, show that no further reclamation of Morfa Newydd had taken place. High water mark of ordinary tides had moved southwards and is shown passing through the centre of the site, the northern part of the site comprising sand dunes. Margam Iron and Steel Works had been constructed 1.5km north-east of the site. South of the works, part of the inter-tidal area of the "old river" course was being reclaimed by tipping of steelworks wastes to form an area known as Morfa Bank.

By 1965, the area had undergone considerable change. The steel works had expanded and the Morfa Bank tipping had been extended southwards to reclaim most of the mouth of the "old river". High water mark of medium tides is shown about 50m south-west of the site and the whole area of the site comprised sand dunes. An elevation of 25ft (7.6mOD) is shown within the site area. A track and pipeline are shown passing through the site from NE to SW, the pipeline terminating about 200m south-west of the high water mark. An elongated part of the old river mouth, extending 800m north-east from the site, remained as a low area of sand and mud.

By 1967, the construction of Port Talbot Deep Water Harbour had commenced to the west of the site. Aerial photographs dated 1967, 1968 and 1969 show the phases of construction, apparently complete by 1971.

The 1980 plan shows the steel works had been further expanded and the Morfa Newydd area developed with travelling cranes and conveyors (the former already visible on 1968 aerial photographs). The Morfa Bank tipping/reclamation had been extended to cover the southern two thirds of the site, i.e. to the south of the pipeline which remained in use. Part of the former river course, located NE of the site, had been developed as a sludge pond. Drains are shown within the south-west part of the site, possibly taking overflow from the sludge pond.

The same general situation is shown on the 1989 and 1992 aerial photographs and on plans dated 1993, 1999 and 2008; the sewage pumping station west of the site had been constructed by 1989 and Afan WWTW was built in 1998 (see Reference 11). The slag mound to the south of the site appears to have been placed in about the 1980s and originally extended into the southern part of the WWTW. It was cut back to its present profile when the WWTW was constructed.

2.3 Published Geology

The geology has been reviewed using the 1:10,560 OS geological map, Sheet SS 78 NE, (Reference 4), the British Geological Survey (BGS) 1:50,000 Sheet 247 "Swansea" (Reference 3) and related geological memoir (Reference 5). Five borehole logs, obtained from the British Geological Survey archive, are included in Appendix B.

The published geological map shows the site to be directly underlain by blown sand. The borehole information for an area just south-west of the site shows the sand to be 10-15m thick, beneath 1.5m to 3m of made ground containing slag fragments.

The sand is underlain at depths of about 10m by an alluvial sequence of interbedded sand, sandy silt and organic silty clay, including a thin layer of peat. The published map confirms the alluvium to be present within the former tidal mouth of the River Afan.

One borehole proved a dense granular glacial deposit below approximately 24m depth.

The solid geology comprises Middle Coal Measures strata, consisting of sandstones, shales and siltstones. The strata dip approximately 14-15°in a northerly direction.

The conjectural outcrop of the 2-feet-9 coal seam lies approximately 200 metres north of the site (Figure 5). According to the generalised vertical section, the 6-feet coal seam could lay some 80 metres beneath the study area.

The strata beneath the site form part of a synclinal structure and are also displaced by associated major and minor faults. The conjectural position of one such fault, the "Giant's

Grave Fault" , is shown some 400 metres east of the site. No faults are shown affecting the site itself.

2.4 Mining and Quarrying

A Coal and Brine Report was obtained from The Coal Authority and is enclosed within Appendix C. Its conclusions are summarised below.

Underground Mining

According to the records in the possession of the Coal Authority, the site is not within the zone of likely physical influence (at the surface) of recorded underground workings.

The site is not in the likely zone of influence of any present underground coal workings, and is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

However, the property is in an area for which a licence to remove coal using underground methods was granted in September 2007. The grant for this licence is conditional on the applicant securing any other rights, permissions (including planning permission) and consents to enable operations to be carried out. It is understood that this licence relates to a proposal by Corus to develop a deep mine known as "Margam West". Presently, a feasibility study is in progress to determine the mine location and working areas.

Should planning permission be granted for Margam West, Corus would have the right to mine beneath the Afan WWTW. Under the 1991 Subsidence Act, they would be liable for the costs of repairing any resulting damage. Alternatively, negotiations could be held with the purpose of avoiding damage by leaving a protective pillar of coal beneath the site. Failing this, the proposed Advanced Digestion facilities could be engineered to minimise the effects of subsidence on the structures (slip membranes, etc…).

The Coal Authority Report also notes that the property is not in an area that is likely to be affected at the surface from any planned future workings. However, reserves of coal exist in the local area which could be worked at some time in the future.

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

There are no known coal mine entries in or within 20m of the boundary of the site.

At the surface, there are no known faults or other lines of weakness due to coal mining that have made the property unstable.

Opencast Coal Mining

The site is not within the boundary or within 200m of an opencast site from which coal has been removed by opencast methods. The site also does not lie within 800m of an opencast site for which the Coal Authority has or is determining whether to grant a license to remove coal by opencast methods.

Hazards and Subsidence

There is no record of mine gas emissions requiring action by the Coal Authority within the site boundary, and the site has not been subject to remedial works by the Coal Authority under its hazard call out procedures.

2.5 Natural Cavities

Based on the characteristic of the underlying bedrock and superficial deposits, any hazard related with collapse of natural cavities is considered very low at this site.

According to the Envirocheck Report (Reference 1), no hazard for ground dissolution has been identified.

2.6 Landslip/Coastal Erosion

Based on site inspection and desk study information, the potential for landslide ground stability hazard is considered to be negligible.

The edge of the reclaimed land, south of the Deep Water Harbour breakwater, is subject to on-going coastal erosion from wave action.

2.7 Ground Stability Hazards

This section reports hazards potentially affecting the site and surrounding area, based on desk study information. Maps from the Envirocheck Report are given in Figures 6a and 6c.

Compressible Ground

Most of the site lies in an area of moderate potential for compressible ground stability hazard.

Collapsible Ground

No potential for this hazard is considered to be present on site.

Running sand

The potential for running sand (the flow of the sand into an excavation or void due to water pressure) is considered to be high, given that sands beneath the water table are expected to be present and probably affected by tidal pressures.

Shrinking or swelling clay

It is unlikely that there is any potential for shrinking or swelling of the underlying alluvial clays given their depth below the water table.

3 HYDROLOGY AND HYDROGEOLOGY

3.1 Flooding Potential

The risk of flooding on site has been assessed from a review of both the current flood maps provided by the Environment Agency (EA), see Figure 7, and the TAN15 Development and Flood Risk advice map SS78NE, see Figure 8.

The EA flood map shows the site lying mainly within a Zone 2 area, the furthest western part of the site lying within a Zone 3 area. From the EA website (Reference 9), the flood plain zones are described as follows:

- Zone 2 - Extreme flooding from rivers or sea without defences: the additional extent of an extreme flood from rivers or the sea. These outlying areas are likely to be affected by a major flood, with up to a 0.1% (1 in 1000) chance of occurrence each year. The likelihood of flooding in this zone is therefore considered to be low.
- Zone 3 - Flooding from rivers or sea without defences: the area that could be affected by flooding, either from rivers or the sea, if there were no flood defences or certain other manmade structures and channel improvements. This zone is indicated as having a significant chance of flooding, greater than 1.3% (1 in 75) each year.

On the TAN15 Development and Flood Risk advice map SS78NE, the northern part of the site is classified Zone C2, meaning that it without significant flood defence infrastructure, whilst the south of the site is within an area known to have been flooded in the past.

3.2 Watercourses and Pipelines

Prior to industrialisation of the area, the site was located at the mouth of the River Afan. The river was diverted northwards in the nineteenth century to facilitate dock construction. The site then lay within the former course of the river, known as “Old River”, and for a period was subject to encroachment by beach and dunes from the north-west, becoming part of Margam Sands at the edge of the Bristol Channel. Subsequently, the old river mouth was infilled in the mid twentieth century by the tipping of steel works waste on Morfa Bank. This process eventually extended to the site itself which was accordingly raised and reclaimed from the estuary, see section 2.2.

Part of the “old river” course was left unfilled to form the steel works sludge pond or Betsi pool. With the consequent removal of tidal flushing of the “old river”, a 1067mm diameter pipeline was installed along the north-west side of the sludge pond to discharge storm and foul effluent to the sea. This pipeline passed through the site and discharged onto the beach between the high and low water marks. With construction of the WWTW, the section of pipeline affected by the works was abandoned and demolished. The upstream section was utilised as part of the Abbey rising main from the pumping station west of the site and the downstream section was utilised as the pumping station storm overflow.

DCWW plans indicate that two other pipelines also crossed the site from north to south, both originating from the sludge pond. One was a 1050mm dia concrete pipe known as the high level overflow pipe. During construction of the WWTW, this was diverted around the south-east end of Basins 5 to 8. The other, more south-easterly pipeline, known as the British Steel overflow pipe, originally discharged to a series of chambers, probably silt traps, within the southern corner of the site (as seen on aerial photographs, see section 2.2. It is not clear from the available plans whether this pipeline was abandoned and demolished when the WWTW was built or incorporated into the works.

3.3 Hydrogeology

The EA Groundwater Vulnerability Map covering the site (Reference 2) shows that it is underlain by a minor aquifer of variable permeability. The soil at the site is unclassified, which is common for industrial areas. An extract of the EA map as given in the Envirocheck Report is included in Appendix A.

The made ground, blown sands and granular glacial deposits beneath the site are likely to have medium permeability, whilst the intervening alluvium is likely to have low permeability.

Drilling works adjacent to the study site provided some information on water strikes. These are summarized in the following table and a map showing the corresponding borehole locations is given in Figure 11.

Borehole ID	Water observations
SS78NE 100	Strike at 6.4m depth.
SS78NE 221	Strike at 5m depth. Rose to 4.55m in half an hour.
SS78NE 222	Strike not observed as water was added to reduce sand blowing up casing.
SS78NE 223	Strike at 5m depth.
SS78NE 224	Strike at 4.2m depth.

Table 1 – Water Strikes during Previous SI

From the above information, it can be supposed that a water table lies some 4m to 5m below the study site. The water levels may be influenced by tidal variations.

During the drilling of borehole SS78NE 223 some problems were experienced with blowing sand.

4 ENVIRONMENTAL INFORMATION

4.1 Unexploded Ordnance

During the Second World War, Port Talbot (as part of the Swansea Bay) underwent enemy bombing attacks.

As the site (at that time only partially reclaimed and part of the “Margam Sands”) was located close to the docks area and the steelworks, there is some potential for the sands to contain unexploded ordnance, such as aircraft bombs or anti-aircraft shells.

Enquiries are underway to check if there are any records of unexploded ordnance within the proposed development area and an appropriate risk assessment will be undertaken.

4.2 Designated Sites

No sensitive land uses, including adopted green belts, Areas of Outstanding Beauty, Ramsar sites or Sites of Special Scientific Interest (SSSI) exist on or within 1km radius of the site.

4.3 Radon

Radon is a natural radioactive gas, which enters buildings from the ground. Outdoors it is diluted to very low levels. However, in some cases the radon level indoors can build up to high concentrations, posing a serious risk to human health. The Health Protection Agency recommends that radon levels should be reduced in homes where the average is more that 200 Becquerels per cubic metre (Bq/m3).This is defined as the “Action Level”.

From the British Geological Survey National Geoscience Information system service (Reference 1), the site lies in a radon affected area, as between 1% and 3% of homes are above the radon action level. This has been confirmed by a review of the mapping of radon potential included in the “Indicative Atlas of Radon in England and Wales”, see Reference 8.

According to the Envirocheck Report (Appendix A), no radon protective measures are yet considered necessary for the construction of new dwellings or extensions within the site area.

4.4 Potential contamination

The potential for contamination has been reviewed by assessment of the historical plans and aerial photographs and information in the Envirocheck Report (Appendix A). These are further discussed below.

The site has had a limited history of previous site uses. It was reclaimed from coastal dunes in about the 1970s and used for tipping of slag waste.

4.4.1 Envirocheck Report Information

The Historical Land Use map (Appendix A) shows the site to lie in an area where, historically, the land uses were potentially contaminative. No more details are provided by the Historical Land Use Report (Reference 1), but it can be assumed that the area is so marked as it was (and still is) lying close to works and factories, as described in Section 1 of this report.

A Category 3 Minor Incident to controlled waters, involving chemical waste (paints and dyes) occurred in February 1998 some 50m from the site, close to the pumping station immediately to the west.

4.4.2 Potential sources of contamination

These are summarised in the following Table 2.

Table 2 – Sources of Potential Contamination

Potential Sources of Contamination	Description
Made Ground	The made ground at and around the site is to be a potential source of contamination. It is expected to comprise steelworks waste materials, probably including slag, ash and clinker. Such materials are generally contaminated with heavy metals.
Waste Water Treatment Works	Contamination that may be found at such works is related mainly to sewage and industrial waste waters. Incoming industrial effluents may contain heavy metals and organic chemicals compounds, and may include pesticides and solvents. After the treatment process, heavy metals (e.g. copper, lead, zinc), inorganic and organic compounds (sulphate, nitrate, asbestos, PCBs, hydrocarbons, methane, carbon dioxide, hydrogen sulphide etc…) are concentrated in a range of waste products that include final sludge, final liquid effluent, spent filter media, grit and screenings. The mobility and solubility of all these elements vary with their composition and soil conditions (grain size, presence of clay, organic matter or water, pH). Contamination generally arises through leakages from pipelines and tanks, leading to localised higher concentrations of contaminants, and from the use of land for temporary storage for screenings, grits and used filter media. Storage of fuel oils (for use in pumps, heating systems, plant or vehicles) and other hydrocarbons, solvents etc can result in contamination from spillages or leakages when tanks are damaged.
Iron and Steel Works	"Corus Strip Products UK Port Talbot Works", also known as "Abbey Works", are located at Margam some 800m off the site. The plant produces hot rolled and cold rolled annealed steel coils for different end uses. Metals and metal compounds and the products of metal finishing are potentially the most significant contaminants at iron and steel works. Contamination may be present in or near waste storage areas, waste water drainage systems and waste water treatment plants. In particular, contamination may be present in and around bulk storage areas. Leakages may have occurred from tanks and pipe work carrying process products or wastes. Contaminants may also be present in on site landfills, lagoon or soakaways. Transformers or other electrical equipment may contain polychlorinated biphenyls (PCBs). Metal contamination is likely to be closely related to the locations of specific deposits and processes except where leaching has occurred. The movement of metals through soils is significantly hindered by the presence of clay minerals and organic matter. Inorganic compounds such

	as cyanide, sulphates and phosphates may also be expected in foundry areas. Asbestos roofing and lagging and fuels and oils may also be encountered.
Railway lines	As shown ion the historical plans, railways are/were located north to site, running some 800m out of the site boundaries. A number of potential contaminants are associated with railway lines. Ash ballasts can contain heavy metals, phenols, sulphates and polycyclic aromatic hydrocarbons (PAH). Contamination in siding areas can result from spillages of cargo. Railway sleepers are known to contain creosote, in which they have been treated to prevent water saturation.

5 PROPOSED DEVELOPMENT

It is proposed to modify the site arrangements by removing the existing dryer plant and constructing an advanced sludge treatment facility.

The scheme comprises the construction of a thermal hydrolysis plant and digesters. A gas holder will be constructed to store the methane generated by the digesters and the gas will be used to fuel a combined heat and power plant. In addition, a MCC de-watering plant and a sludge cake storage building will be built and improvements made to the import facilities.

Two alternative arrangements are proposed for the cake storage and MCC de-watering buildings:

- Alternative 1: this requires the purchase of additional land to the north-west of the WWTW.
- Alternative 2: this is the preferred arrangement. It requires that the existing tip/stockpile south of the WWTW is locally removed or modified to allow the WWTW to be extended. The possibility of locating the cake storage and MCC de-watering buildings on top of existing tip/stockpile will also be considered.

The proposed layout of the treatment facility is shown on Figure 2.

6 ANTICIPATED GROUND CONDITIONS

Based on the geology and limited borehole information obtained, the following ground conditions are expected beneath the site.

Table 3 – Anticipated Ground Conditions

Stratum	Approximate thickness (m)
Made Ground: mainly coarse sand and rounded gravel, with occasional pieces of slag and shell fragments. Cobbles and boulders are recorded at various depths. Possibly the fill beneath the WWTW will contain a higher percentage of slag type materials.	1.5-3
Blown Sand: medium dense to dense coarse deposits, with rounded gravel and shell fragments at depth.	10-15
Estuarine Alluvium: sandy and silty/very silty sediments, of probable alluvial origin with bands of sandy silt and pockets of partially decomposed roots, thin beds of peat and occasional gravel and shells.	12
Glacial Deposits: silty clay grading to rounded and sub-rounded gravel and clayey silty sand	5
Coal Measures Bedrock: sandstones, shales and siltstones	Not recorded

Groundwater can be expected to be present at depths of 4m to 5m.

7 PROPOSED GROUND INVESTIGATION

7.1 Previous information

No reports on previous ground investigation undertaken at the site are currently available. It would be reasonable to expect that a ground investigation would have been carried out in the 1990s to provide information for the design and construction of Afan WWTW. To date, no documents relating to such an investigation have been made available.

The BGS borehole logs enclosed in Appendix B are the only previous information obtained with regard to ground conditions at the site.

7.2 Proposed Ground Investigations

A ground investigation should be undertaken to achieve the following:

- confirm the underlying stratigraphy of the site;
- prove the ground conditions and obtain relevant geotechnical data;
- obtain geo-environmental data and determine site contamination status;
- facilitate the design of appropriate foundation solutions.

The following scope of investigation is recommended (see Table 4 and relative notes for details):

- drilling of 8 boreholes using open-hole pre-drilling, cable percussion and rotary coring techniques;
- excavation of 8 trial pits;
- installation of 4 gas and groundwater monitoring standpipes;
- permeability testing;
- in-situ testing using SPTs/CPTs;
- open-hole sampling in cohesive strata;
- geotechnical and chemical laboratory testing of samples obtained.

A layout of proposed ground investigation is presented in Figure 11.

Table 4 Schedule of Proposed Ground Investigation

BH ID	Ground Surface Type	Provisional BH Depth	Drilling			SPTs/CPTs	Driven Tube Samples	Variable Head Permeability Tests	Instrumentation
			hole Pre-drill through Made Groun	Cable Percussion Boring **	Rotary Coring ***				
1	Grass	28m	-	to approx. 28m depth	-	✓	✓	-	-
2	Grass	28m	-	to approx. 28m depth	-	✓	✓	✓ at approx 10m	✓ at approx 25m
3	Grass	35m	-	to approx. 28m depth	28 to 35m	✓	✓	-	-
4	Grass	28m	-	to approx. 28m depth	-	✓	✓	✓ at approx 10m	-
5	Grass	28m	-	to approx. 28m depth	-	✓	✓	-	✓ at approx 25m

6	Grass	35m	-	to approx. 28m depth	28 to 35m	✓	✓	✓ at approx 10m	-
7	Slag/ Grass	38m	approx. to 6m depth	from approx. 6m to approx. 32m depth	32 to 38m	✓	✓	✓ at approx 10m	✓ at approx 32m
8	Slag/ Grass	32m	approx. to 6m depth	from approx. 6m to approx. 32m depth	-	✓	✓	-	✓ at approx 32m

Notes for Table 4:

*. Pre-excavation/loosening by tracked excavator (and possibly initial casing installation) could be an alternative solution to be discussed with SI Contractor.

**. Cable percussion boring to extend through full thicknesses of sand (assumed 12m thick) and alluvium (assumed 12m thick) to penetrate 2-3m into glacial deposits (assumed to be up to 5m thick, where present).

***. Rotary coring assumed to continue from base of cable percussion borehole, with casing left in place. Contractor may alternatively backfill cable percussion borehole (or install instrumentation if specified) and carry out separate rotary borehole (within 2m of cable percussion hole). This hole to be advanced by open hole to depth corresponding to bottom of cable percussion hole and advanced by rotary coring before this depth.

1. All trial pits to be machine-excavated.

2. All boreholes to commence with hand-excavated starter pits.

3. All Rotary Coring to produce cores of 90mm minimum diameter.

4. Driven tube samples (at least 1 thin wall sample plus U100 samples) to be taken at 1.5m centres in cable percussion-bored cohesive strata below made ground.

5. Driven tube samples (at least 1 thin wall sample plus U100 samples) to be taken at 1.5m centres in cable percussion-bored cohesive strata below made ground.

6. Instrumentation to be 50mm diameter combined gas and groundwater monitoring standpipe. Details of response zone to be given on-site.

7. Holes without instrumentation to be backfilled with cement-bentonite grout.

8. Disturbed samples to be recovered from made ground during cable percussion boring below made ground.

REFERENCES

[1] Envirocheck Report “Afan WWTW”, July 2008; Landmark Information Group Service.

[2] Groundwater Vulnerability Map of West Glamorgan and South Dyfed, Sheet 35, Environment Agency.

[3] Swansea Sheet 247 One-Inch Series Geological Map, IGS Institute of Geological Sciences.

[4] Sheet SS78NE Scale 1:10,560 Geological Map, Ordnance Survey.

[5] 247, Memoirs of the Geological Survey, England and Wales, the geology of the south Wales Coal-field, Part VIII, the Country around Swansea, British Geological Survey, 1907.

[6] Coal and Brine Report, Site at sewage Works, port Talbot, West Glamorgan, The coal Authority, July 2008.

[7] SS78NE 100, SS78NE 221, SS78NE 222, SS78NE 223 and SS78NE224 borehole logs, British Geological Survey.

[8] HPA-RPD-033, Indicative Atlas of radon in England and Wales, Health Protection Agency and British Geological Survey, October 2007.

[9] Environment Agency website < http://www.environment-agency.gov.uk >, accessed on the 30th of July 2008.

[10] Wikipedia website < http://en.wikipedia.org/wiki/Port_Talbot >, accessed on the 30th of July 2008.

[11] Constructing Excellence website < http://demos.constructingexcellence.org.uk/knowledgebase/main.php ?ProjectID=2056 >, accessed on 30th July 2008.

FIGURES

Figure 1 Site Location

Figure 2 Site Layout

Figure 3 Historical Maps
- a - 1885
- b - 1900
- c - 1921
- d - 1951
- e - 1964
- f - 1965
- g - 1980-1982
- h - 1982
- I - 1993
- j - 1999
- k - 2008

Figure 4 Aerial Photograph

Figure 5 Geological Map

Figure 6 Ground Stability Hazards Maps
- Collapsible and Compressible Ground
- Landslips and Ground Dissolution
- Running Sand and Shrinking/Swelling Clay

Figure 7 Flood Map

Figure 8 TAN15 Map

Figure 9 Groundwater Vulnerability Map

Figure 10 Boreholes Location Map

Figure 11 Proposed Investigations

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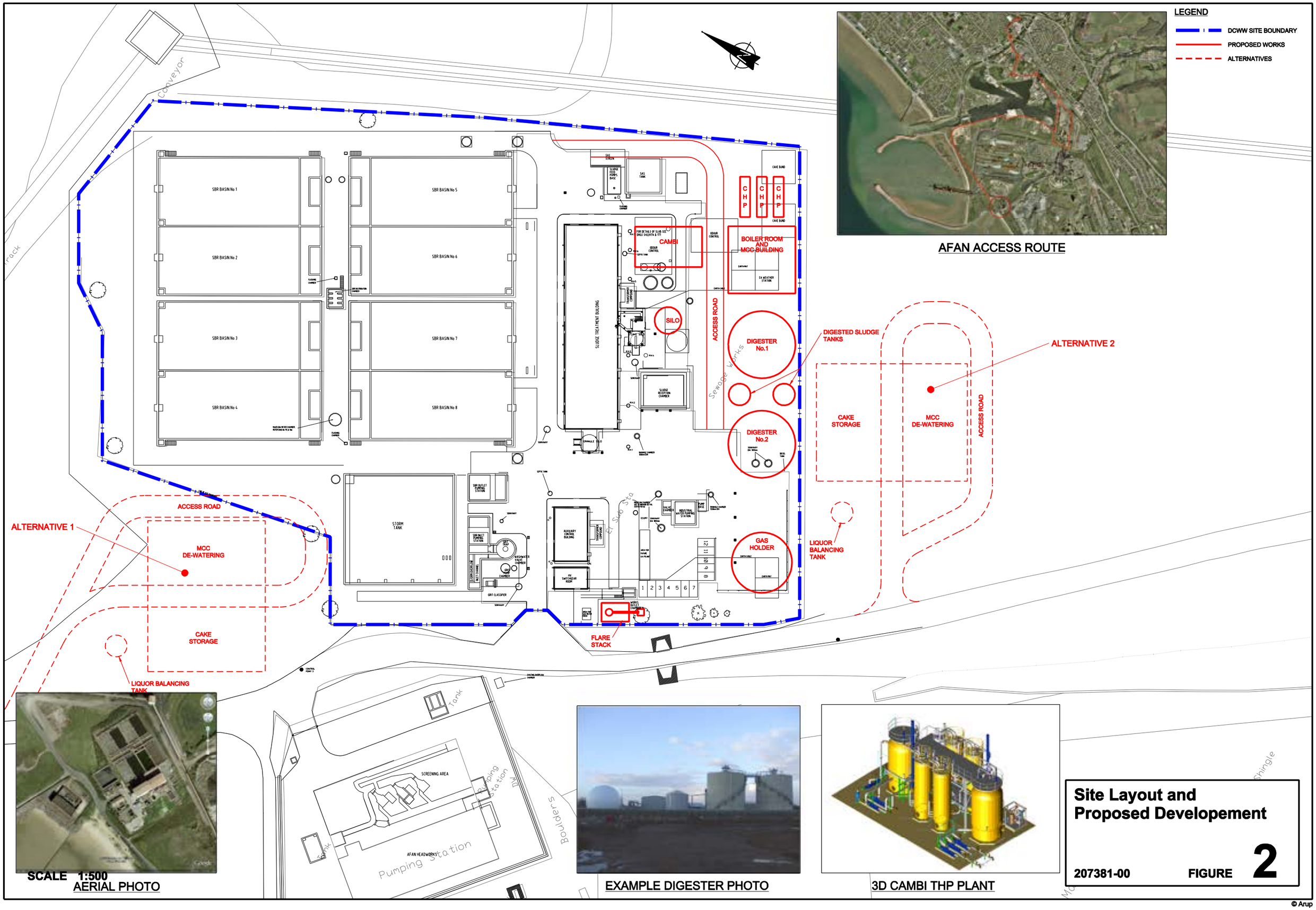
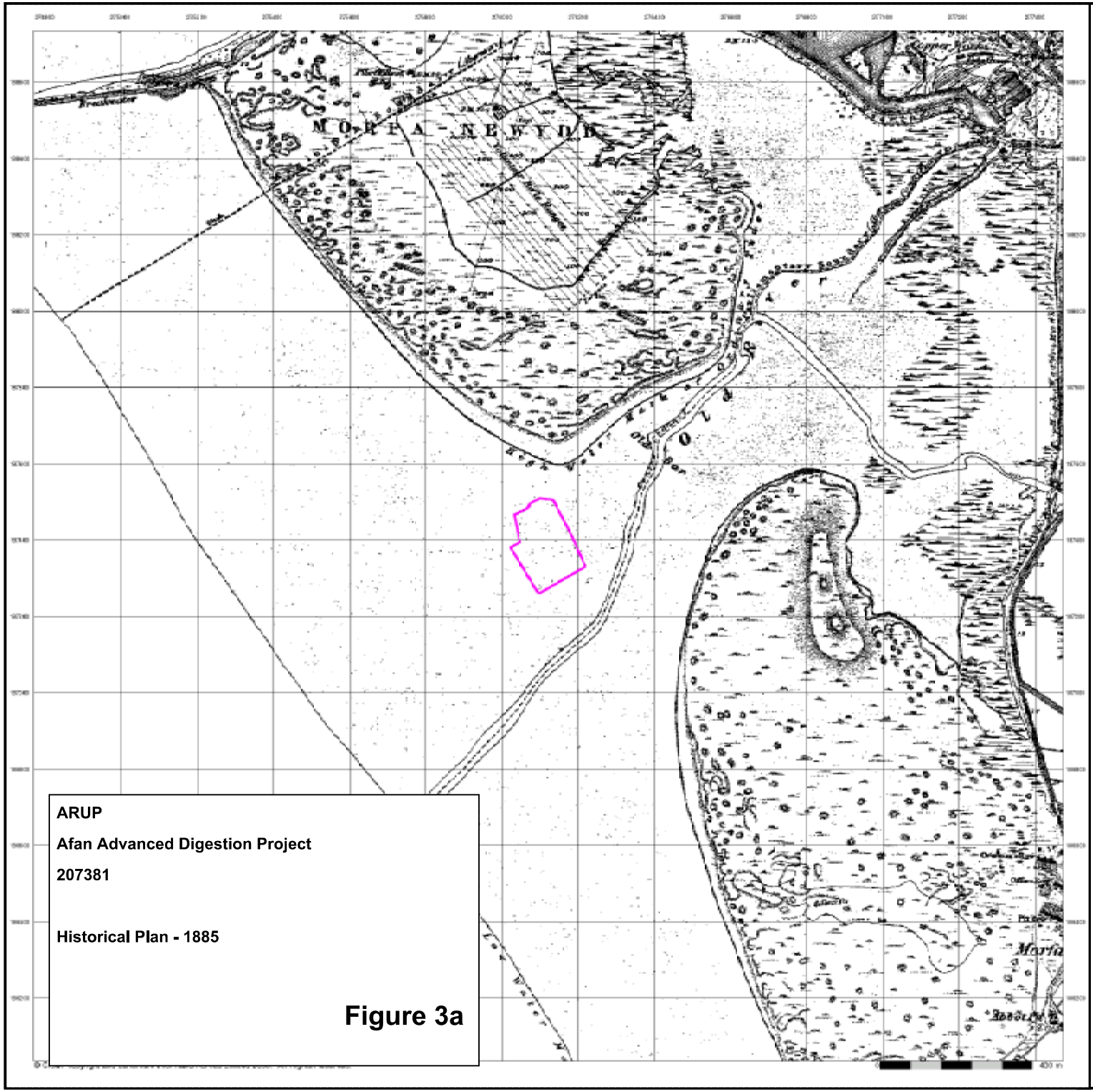
Site location

Figure 1



J:\207000\207381-004 Internal Project Data\4-33 Drawings\4-33 Civil\zFigure 2.dgn



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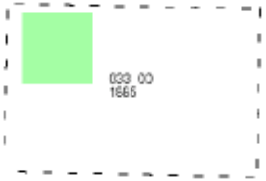
Glamorganshire

Published 1885

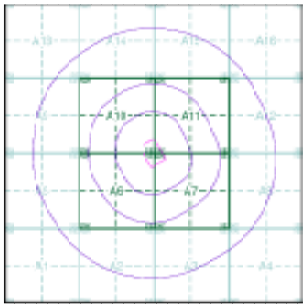
Source map scale - 1:10,560

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

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Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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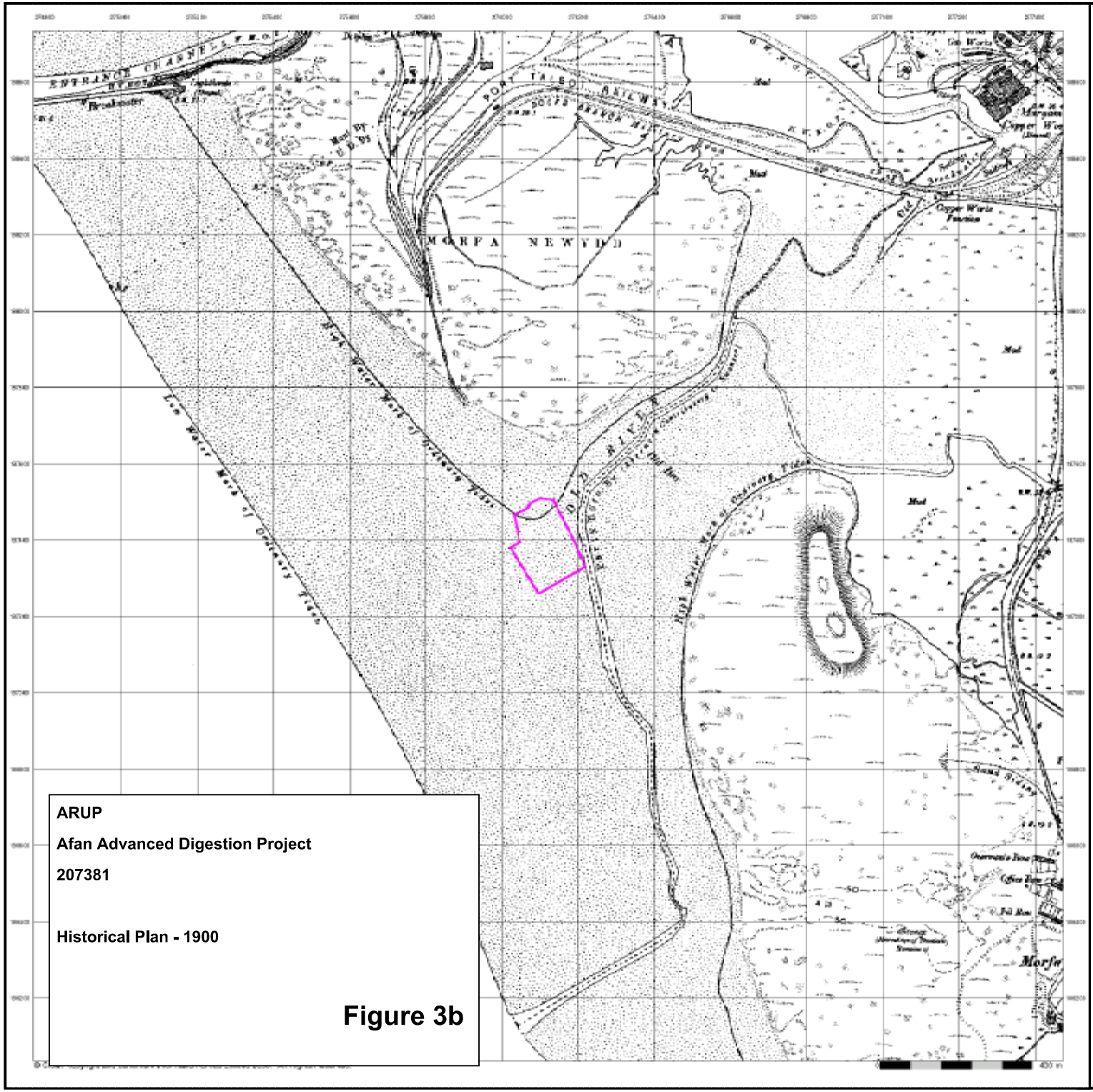
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Historical Plan - 1900

Figure 3b

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Glamorganshire

Published 1900

Source map scale - 1:10,560

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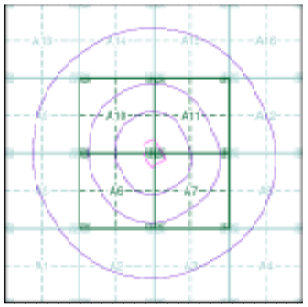
Map Name(s) and Date(s)

Historical Map - Slice A



N

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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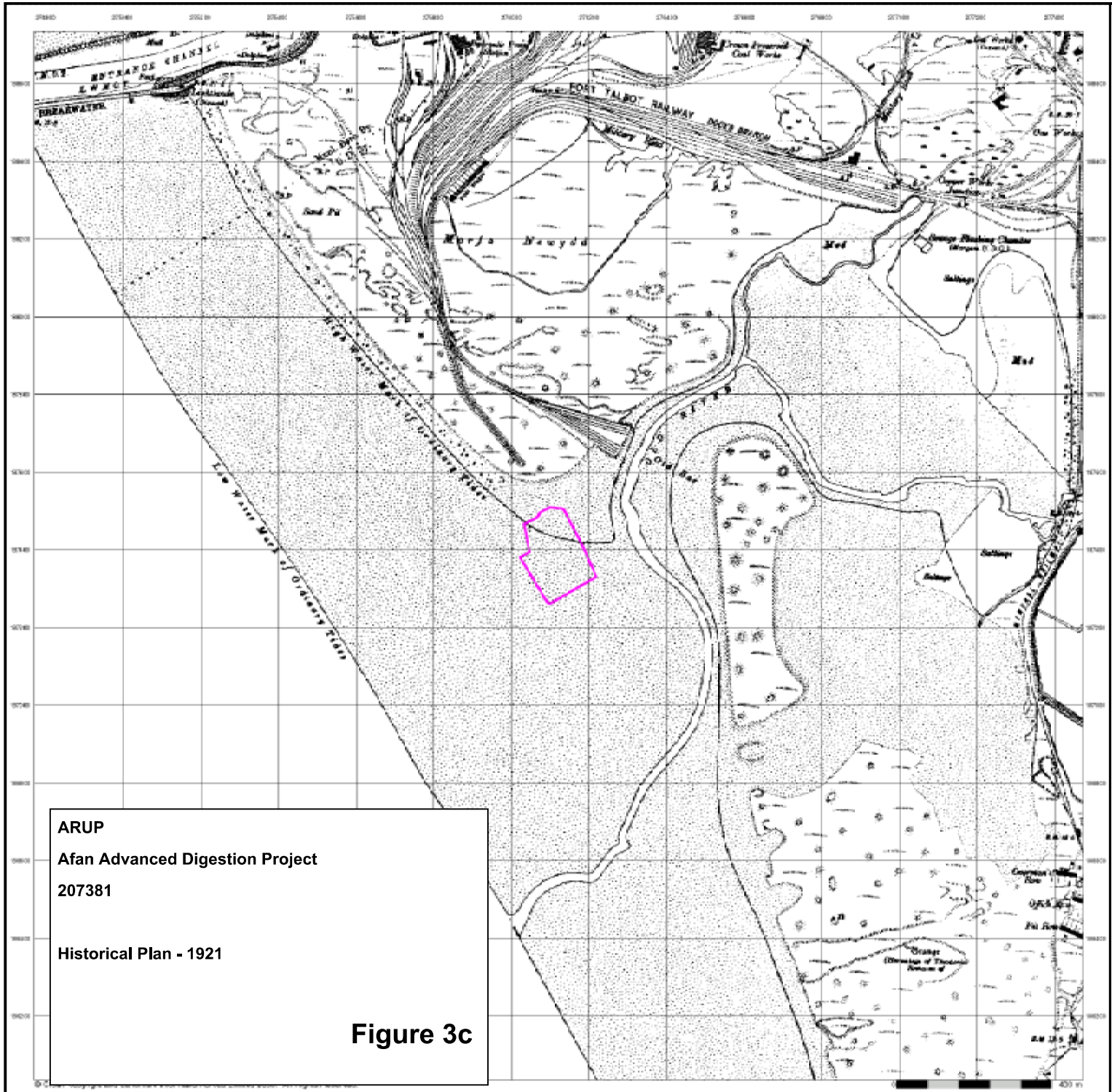

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Historical Plan - 1921

Figure 3c

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Glamorganshire

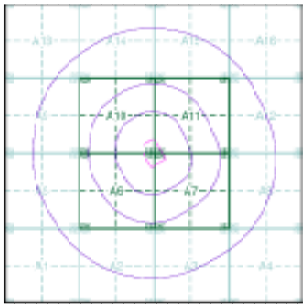
Published 1921

Source map scale - 1:10,560

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:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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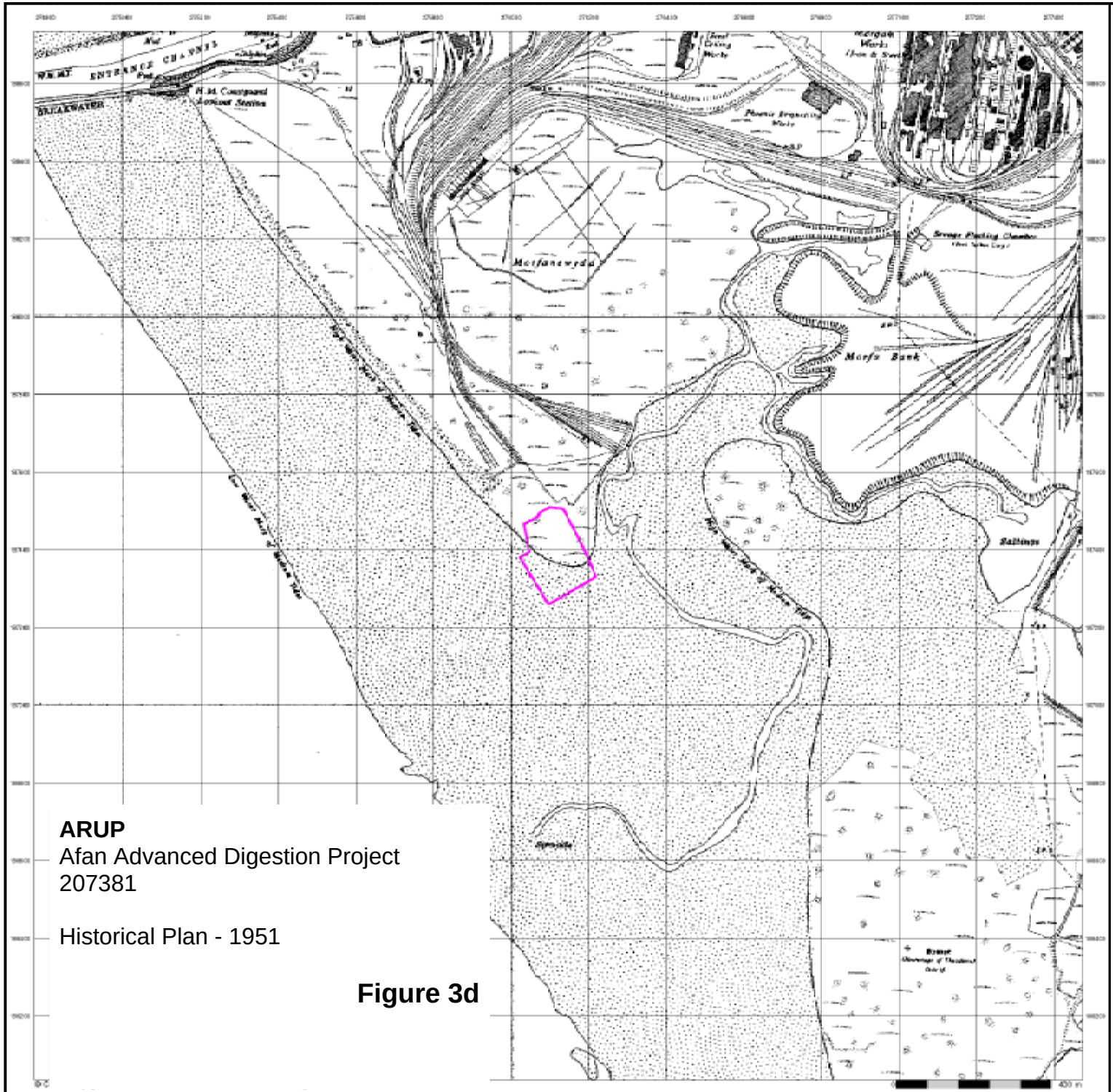

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Historical Plan - 1951

Figure 3d

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Glamorganshire

Published 1951

Source map scale - 1:10,560

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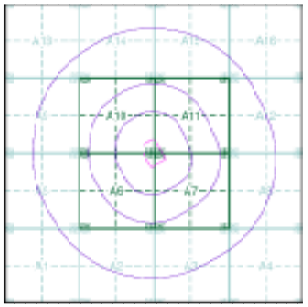
Map Name(s) and Date(s)

Historical Map - Slice A



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Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
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Site at 276000, 187370

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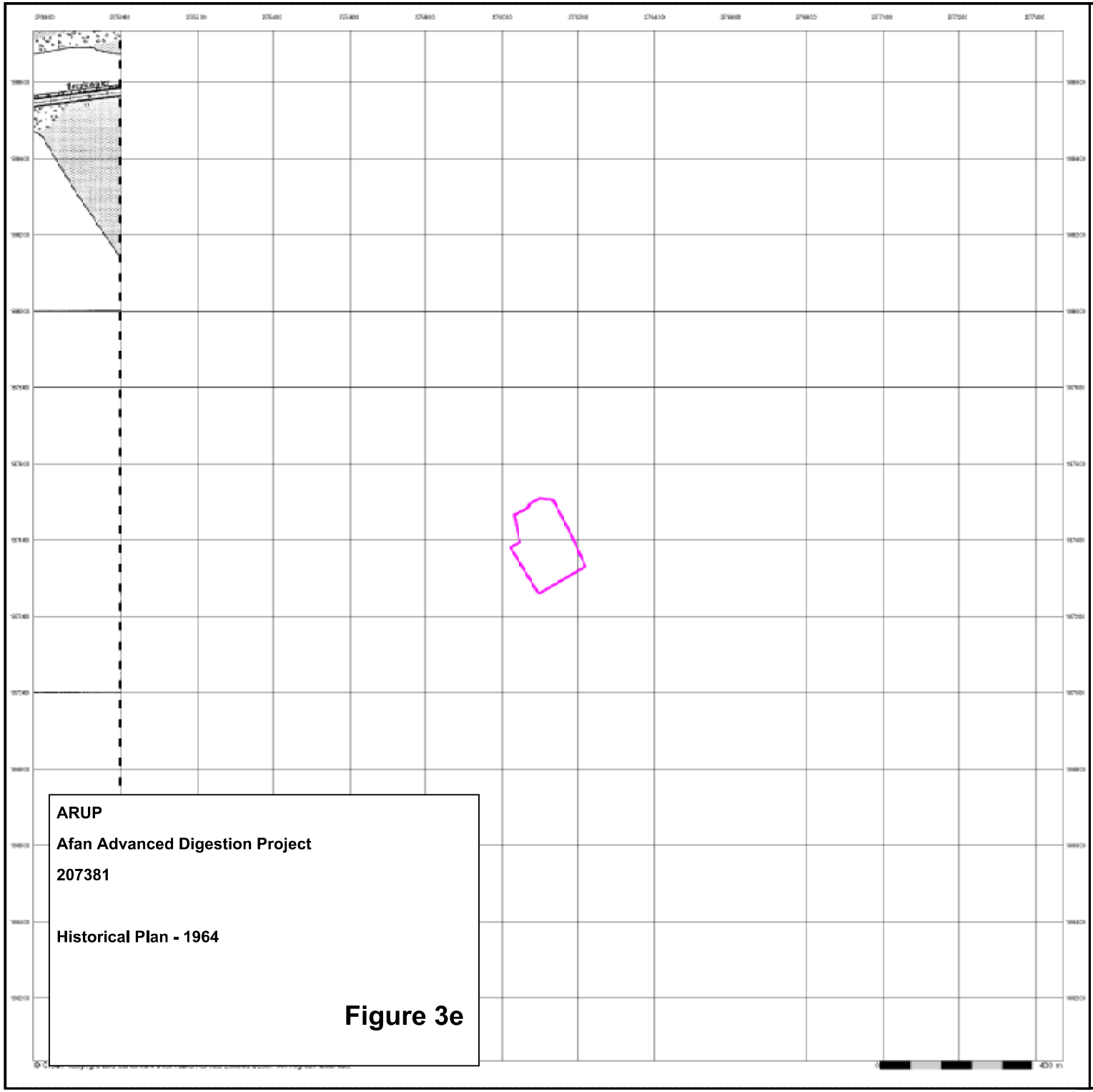

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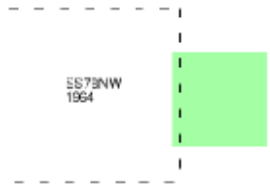
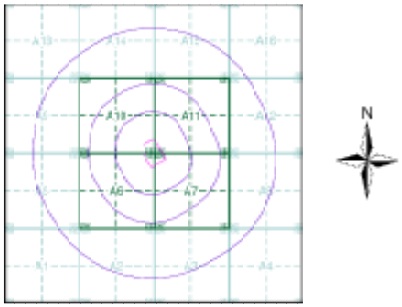
Ordnance Survey Plan
Published 1964
Source map scale - 1:10,560

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



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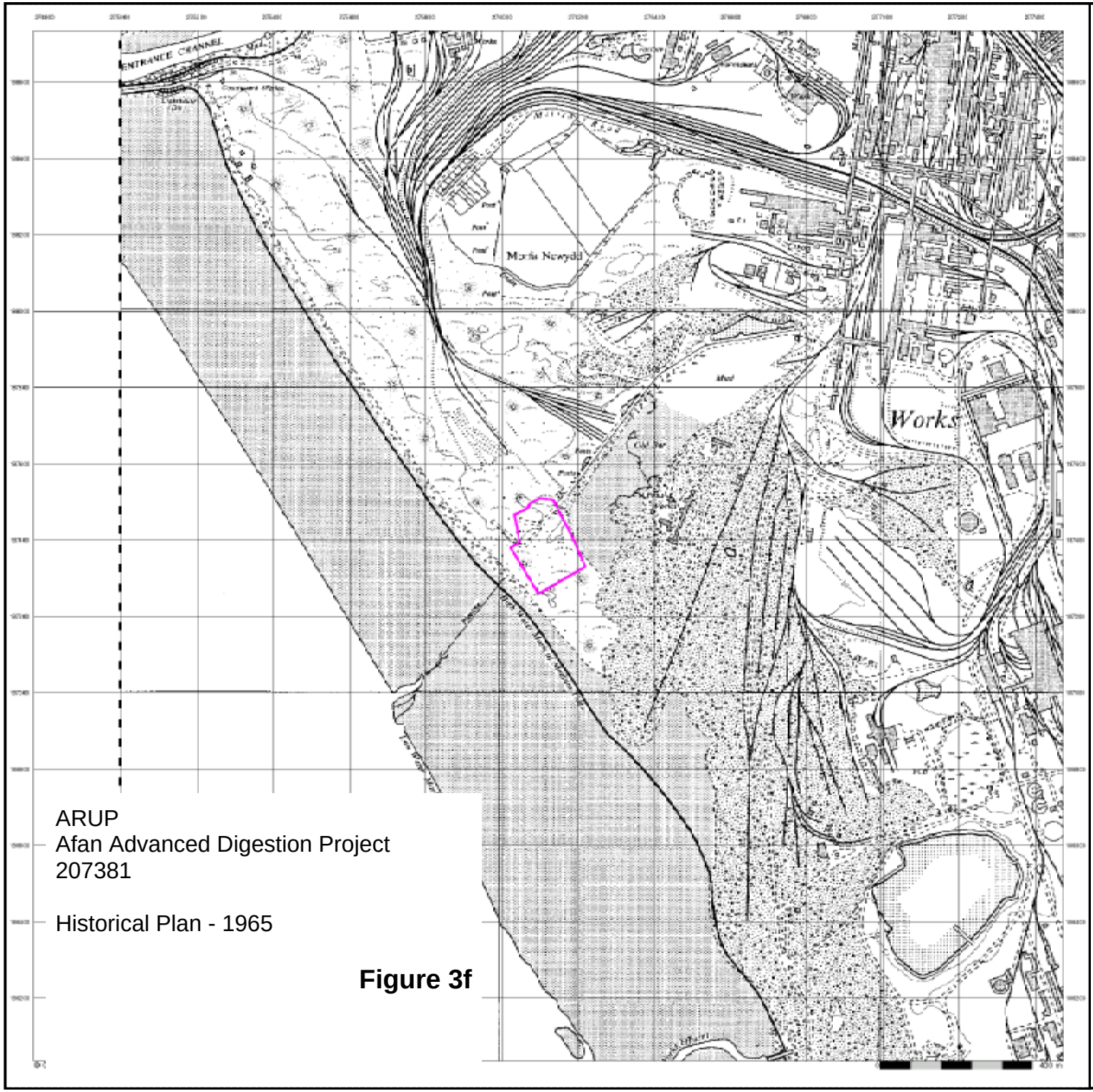

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Historical Plan - 1965

Figure 3f

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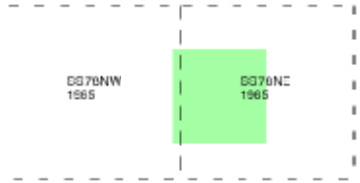
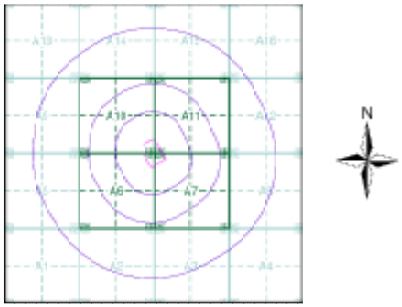
Ordnance Survey Plan
Published 1965
Source map scale - 1:10,560

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:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
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Site Area (Ha):	2.95
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Site Details

Site at 276000, 187370

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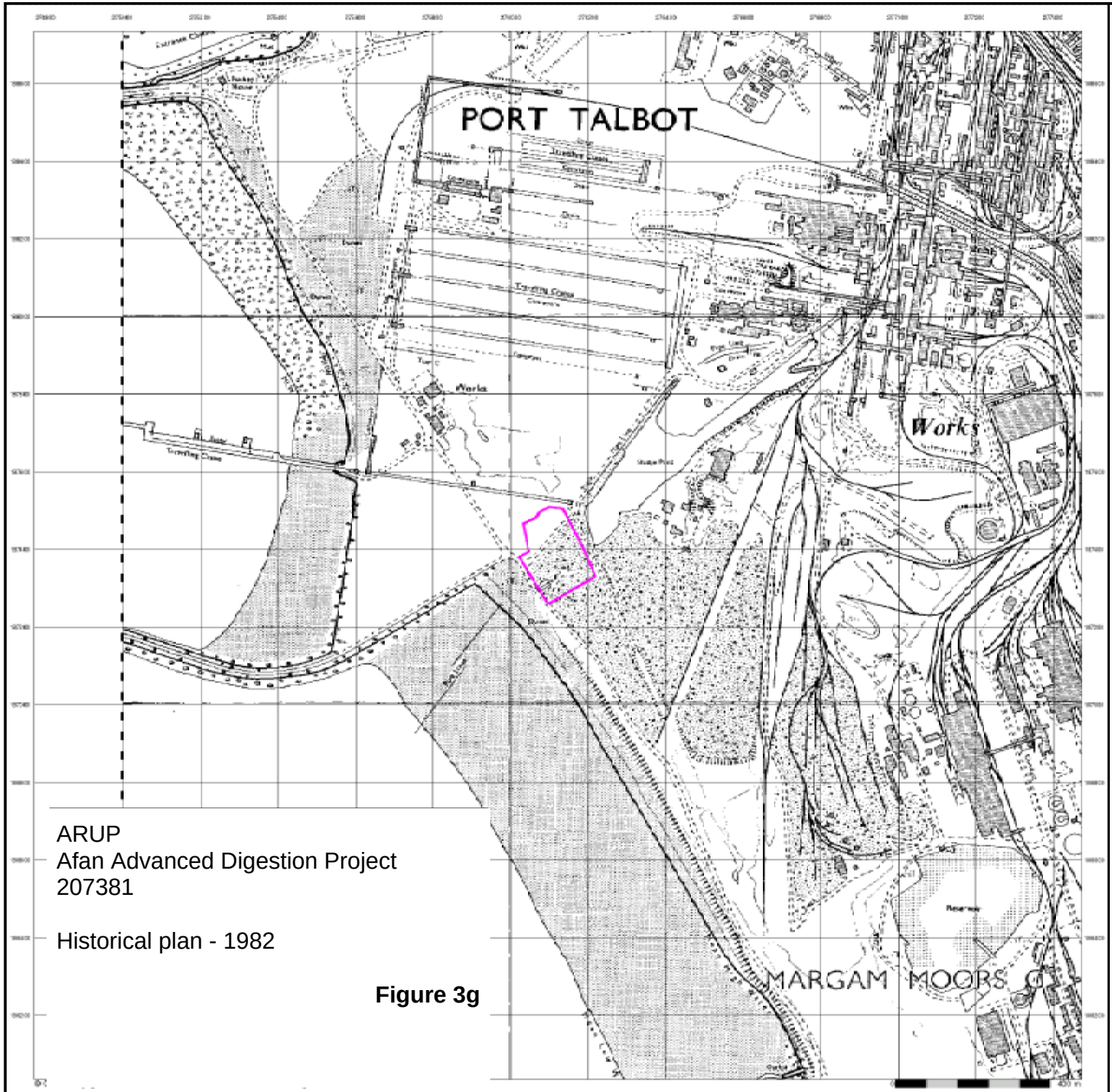
Web: www.envirocheck.co.uk



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Historical plan - 1982

Figure 3g

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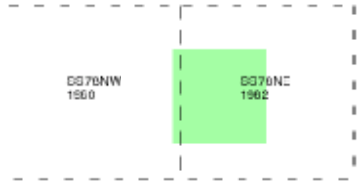
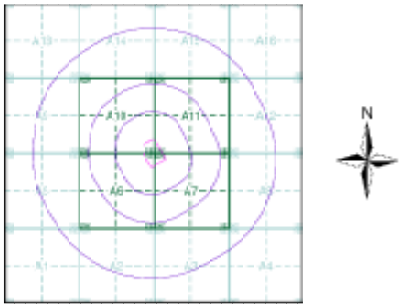
Ordnance Survey Plan
Published 1980 - 1982
Source map scale - 1:10,000

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

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Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
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Site Details

Site at 276000, 187370

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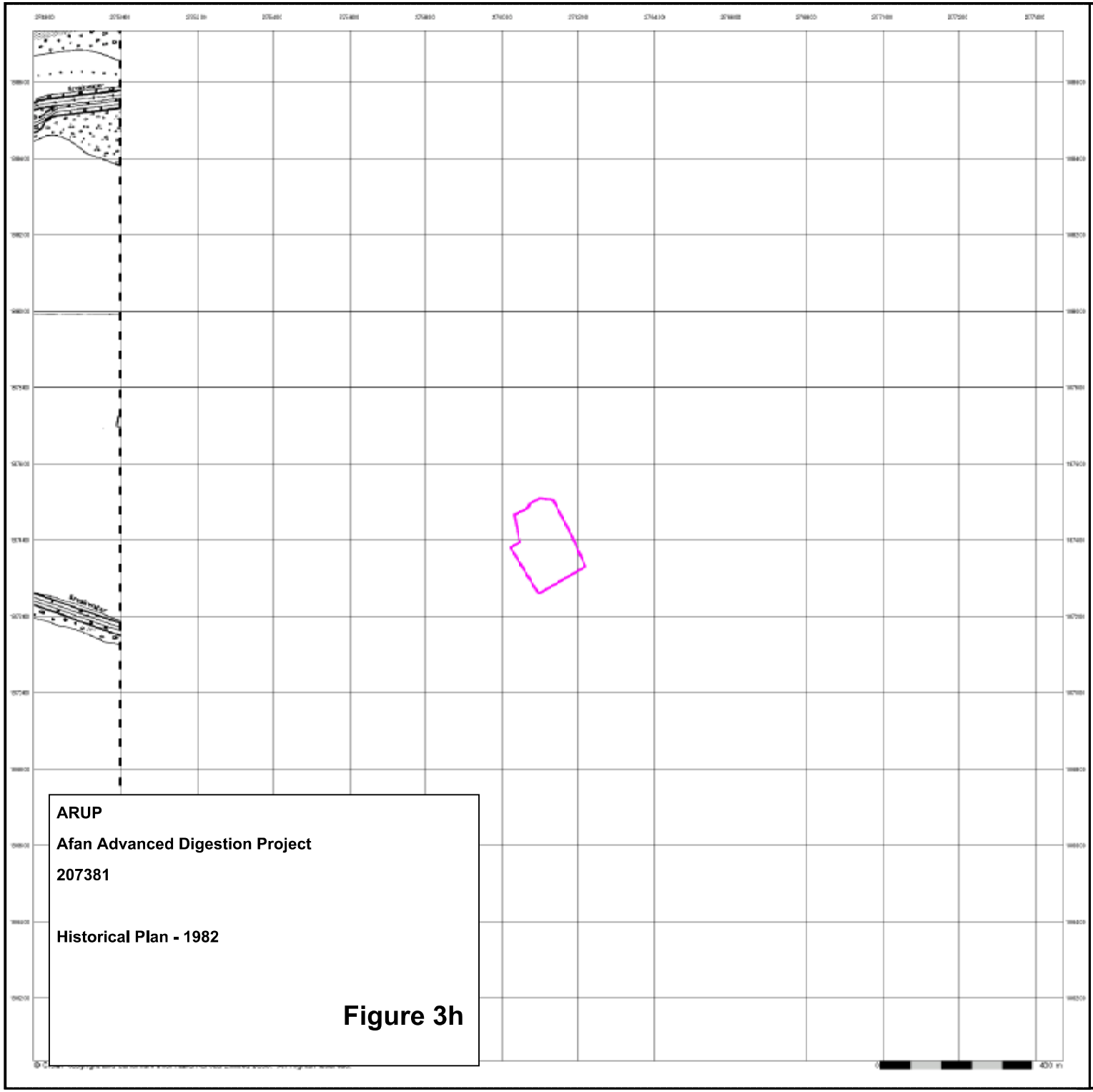

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Historical Plan - 1982

Figure 3h

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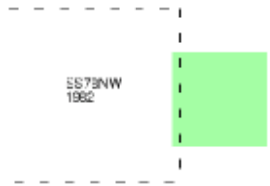
Ordnance Survey Plan

Published 1982

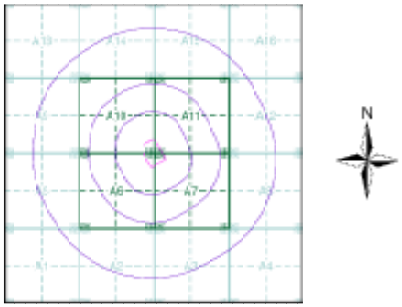
Source map scale - 1:10,000

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:	25931460_1_1
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Slice:	A
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Site Details

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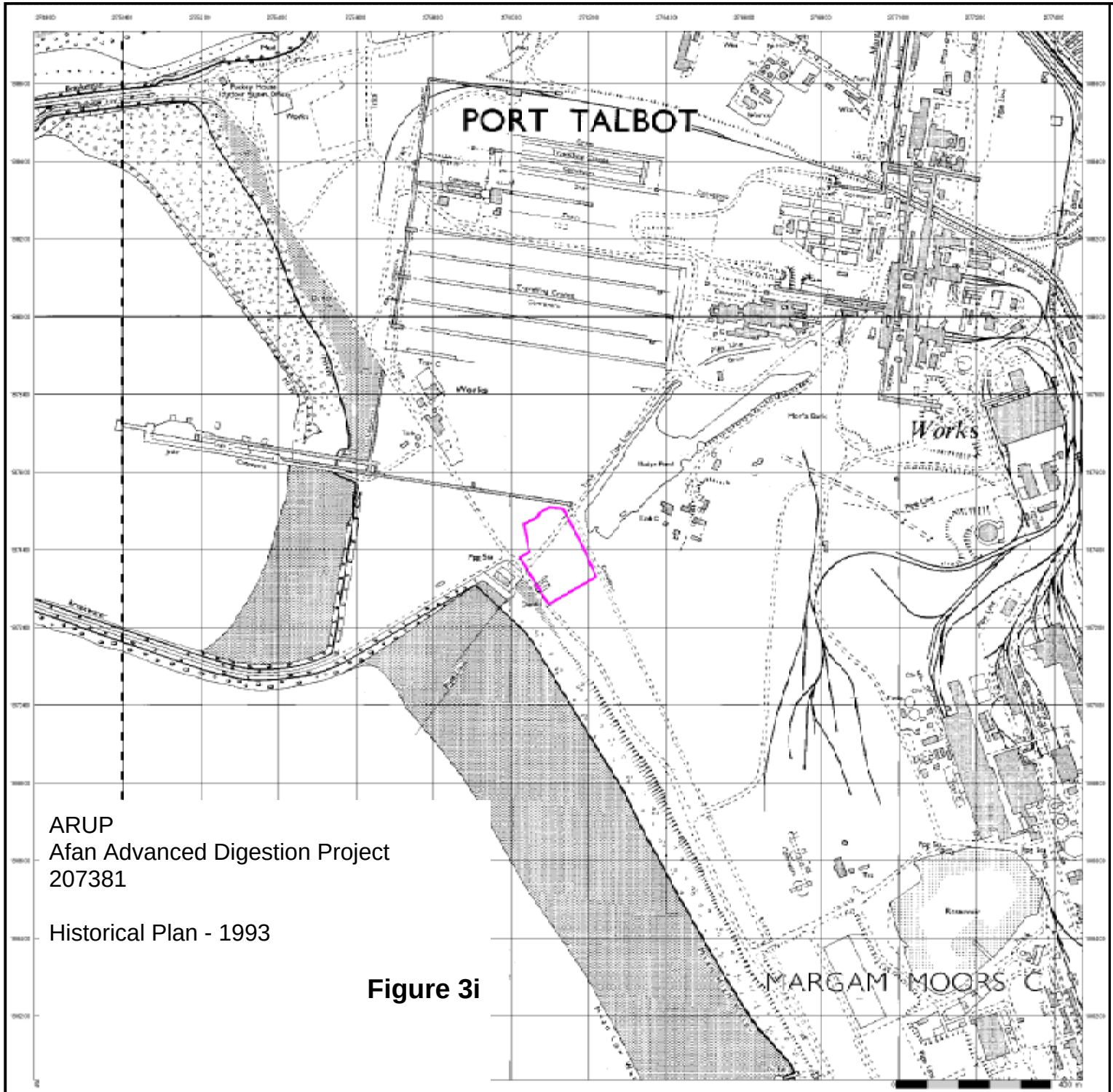

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Historical Plan - 1993

Figure 3i

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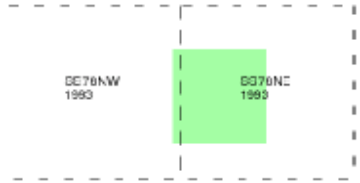
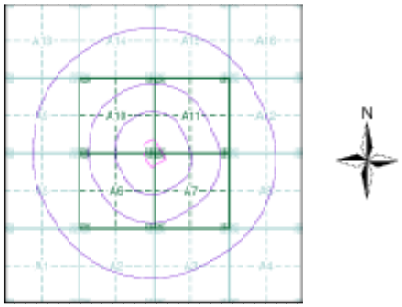
Ordnance Survey Plan
Published 1993
Source map scale - 1:10,000

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:	25931460_1_1
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National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

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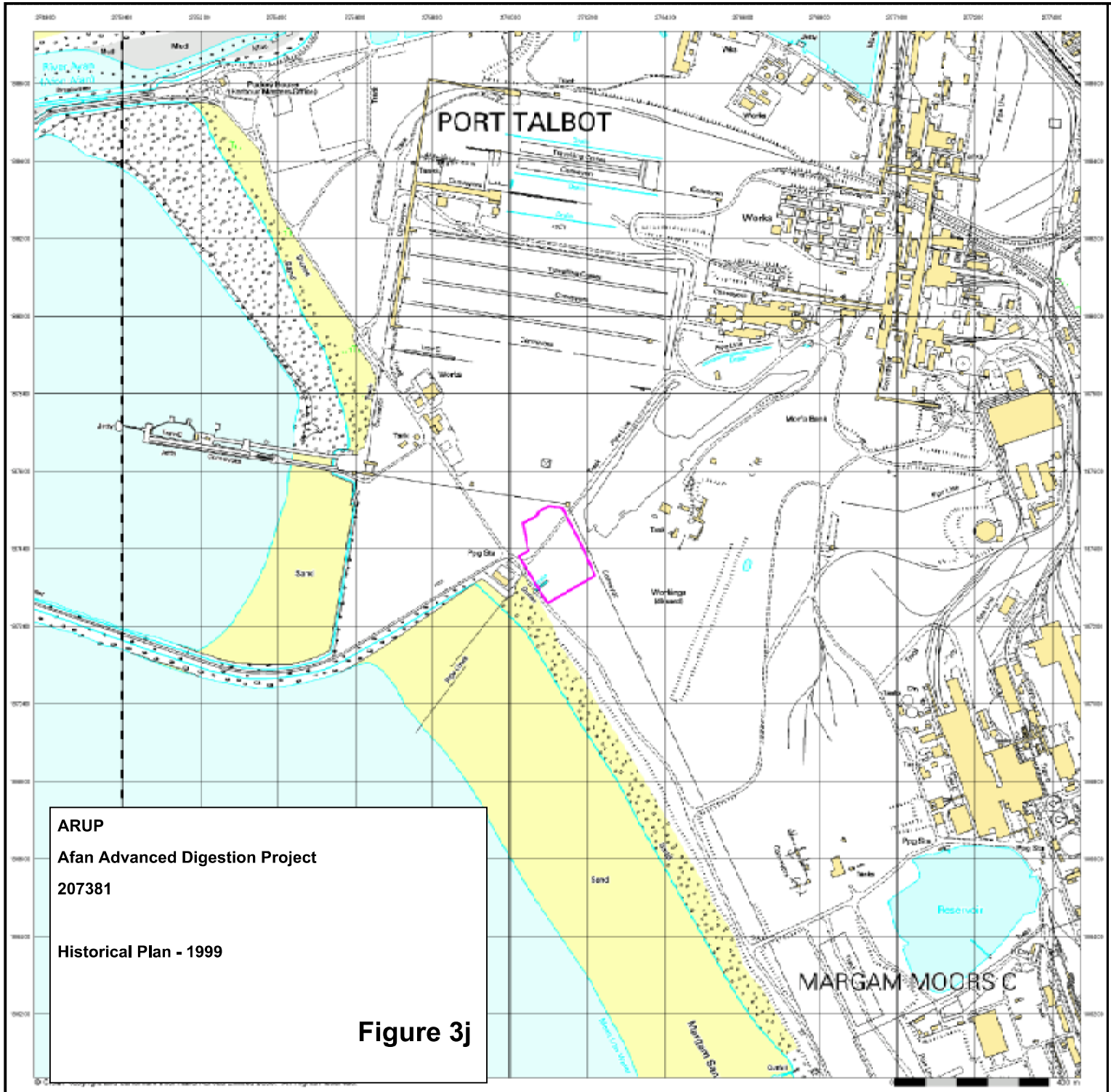

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Historical Plan - 1999

Figure 3j

Envirocheck®
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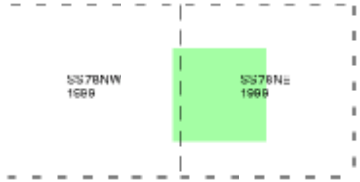
10K Raster Mapping

Published 1999

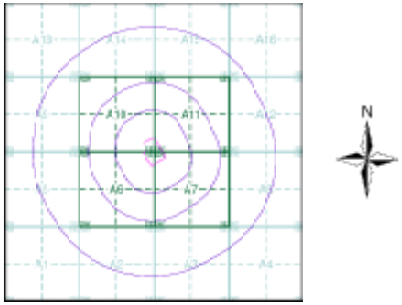
Source map scale - 1:10,000

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

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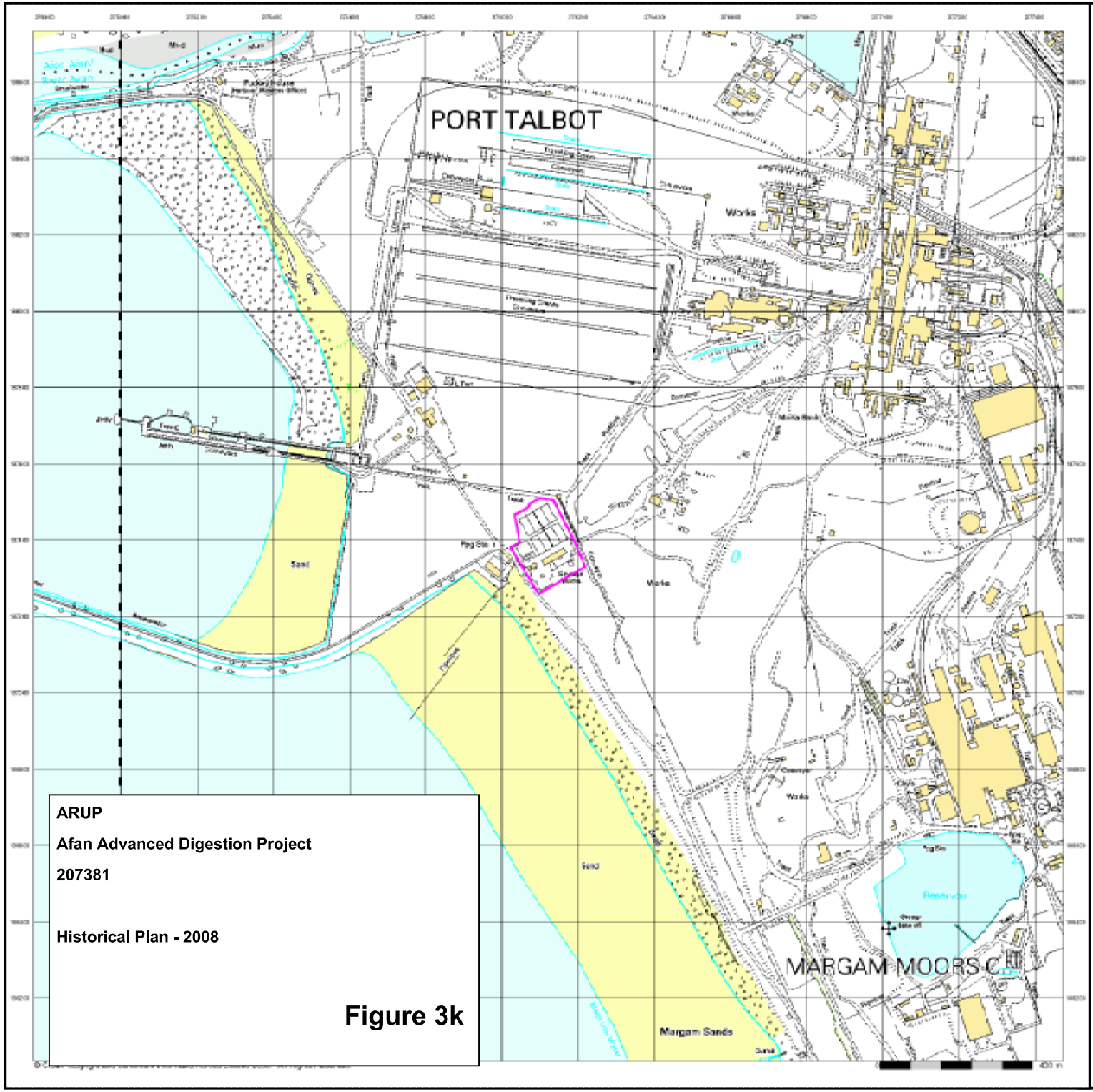
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Envirocheck®
A Landmark service

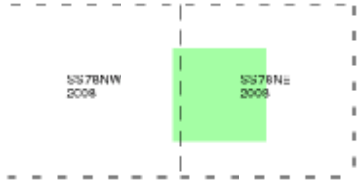
10K Raster Mapping

Published 2008

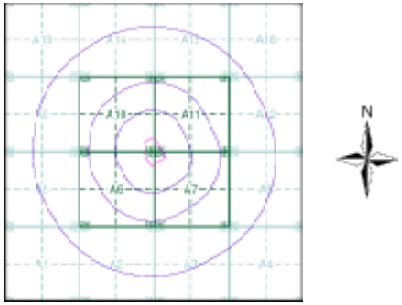
Source map scale - 1:10,000

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:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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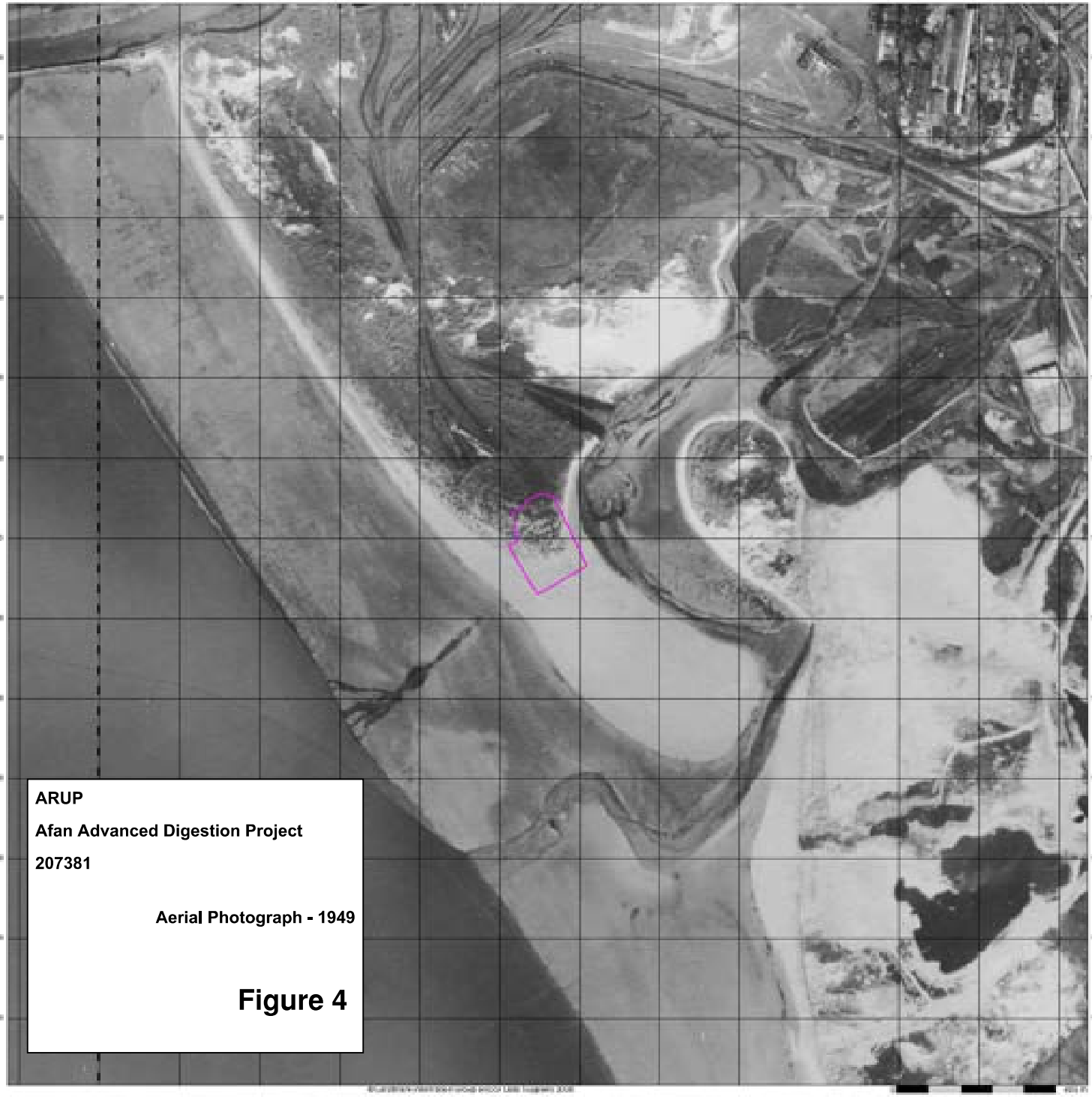
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Envirocheck® Historical Aerials
A Landmark service

Historical Aerial Photography

Published 1949

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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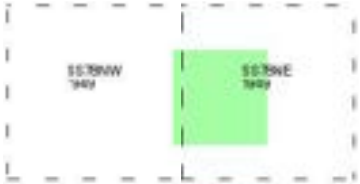
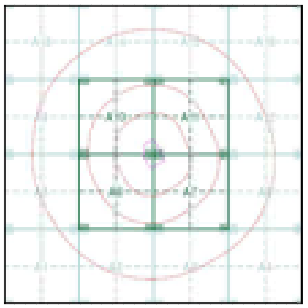
Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



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Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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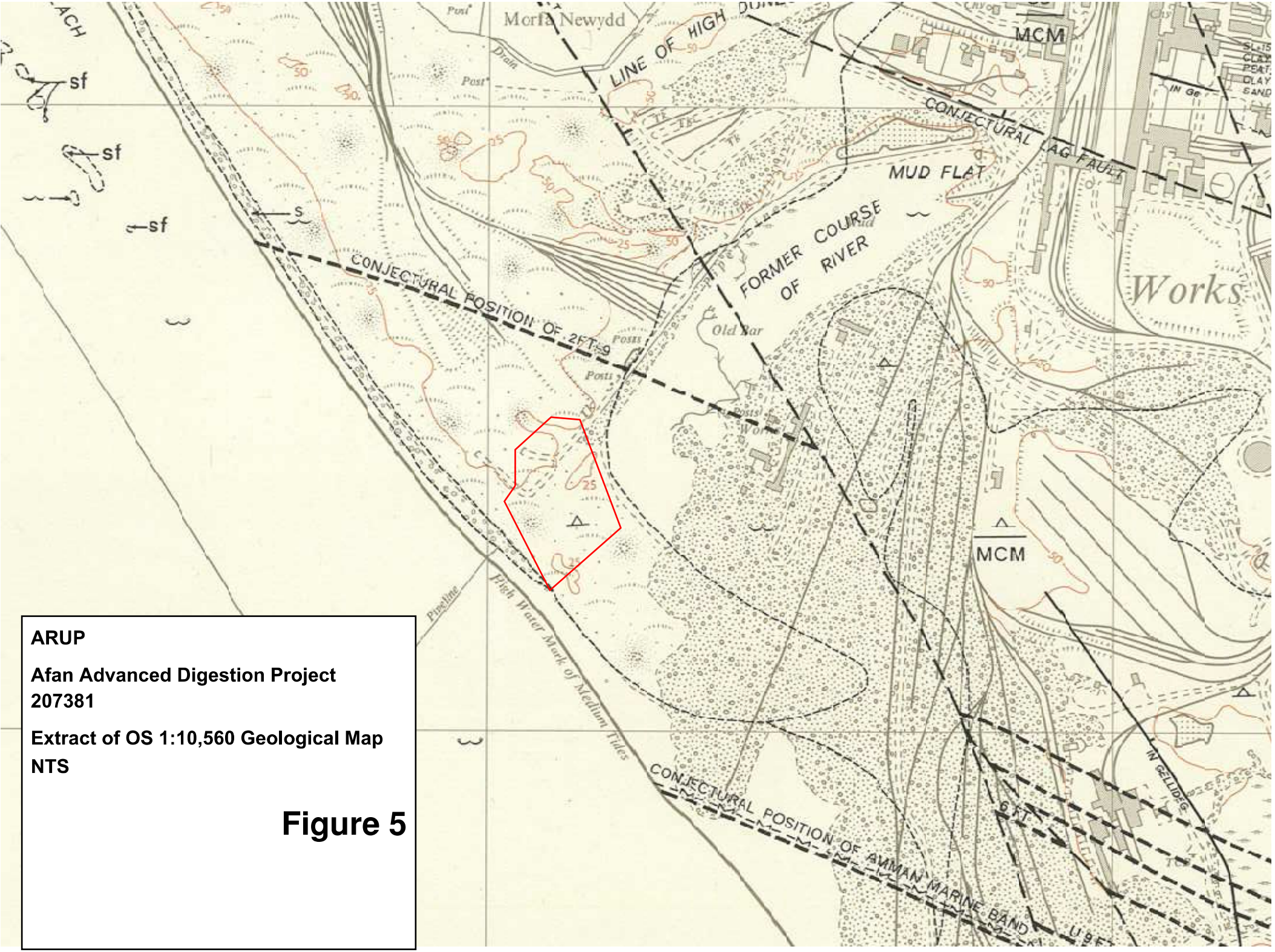

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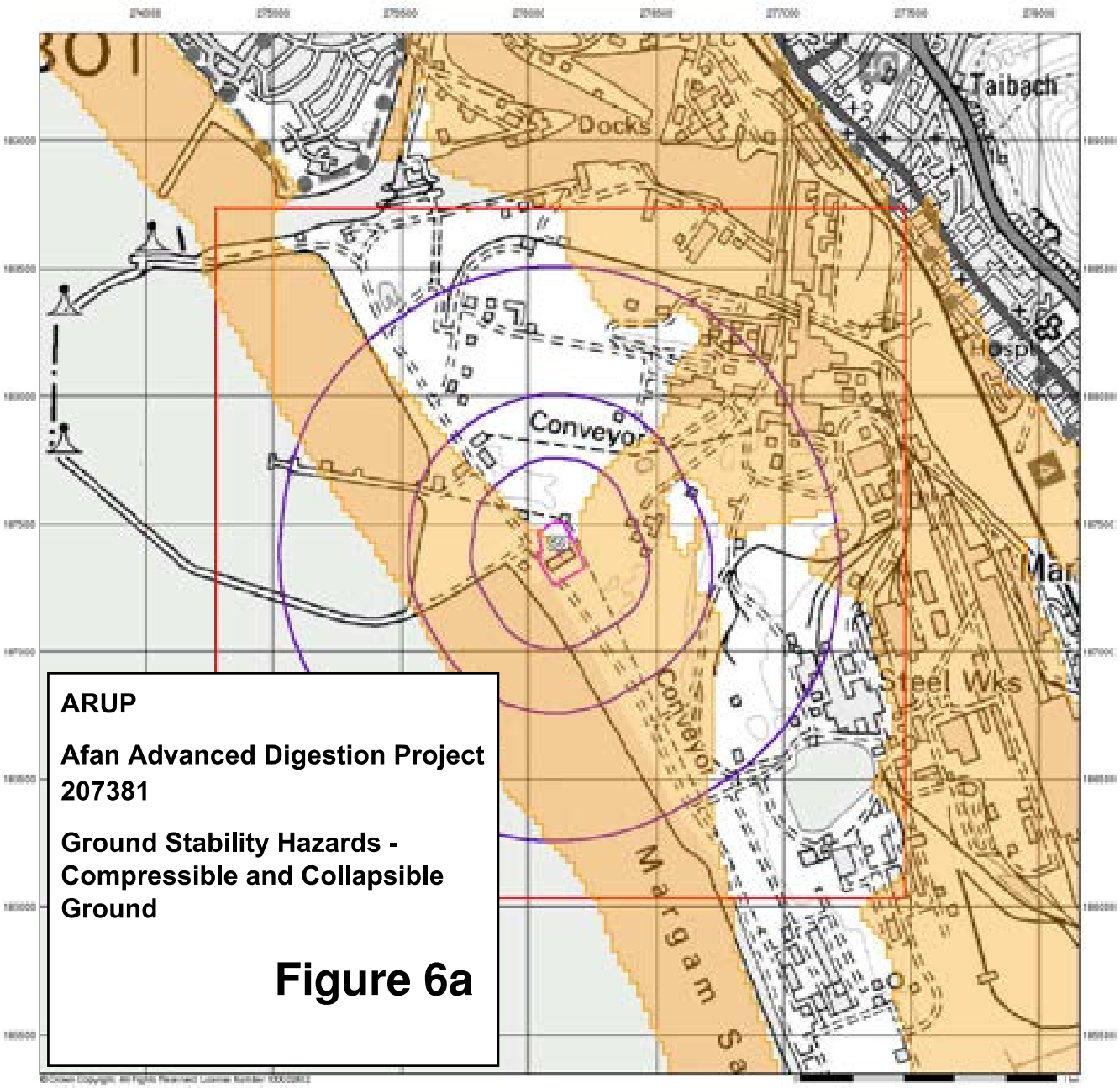
Extract of OS 1:10,560 Geological Map
NTS

Figure 5



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Ground Stability Hazards - Compressible and Collapsible Ground

Figure 6a

Envirocheck®
Mining & Ground Stability
A Landmark service

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
Low
Moderate
Very Low

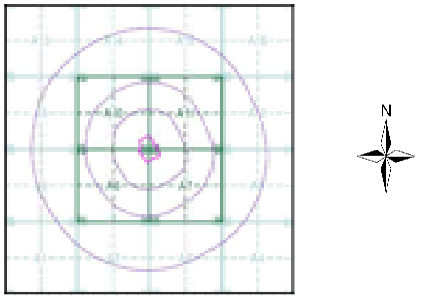
Potential for Collapsible Ground Stability Hazards

Moderate
Low

Brine Pumping and Salt Mining

	Point	Polygon
Brine Pumping Related Feature	▲	▨
Salt Mining Related Feature	▲	▨

Mining and Ground Stability - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
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Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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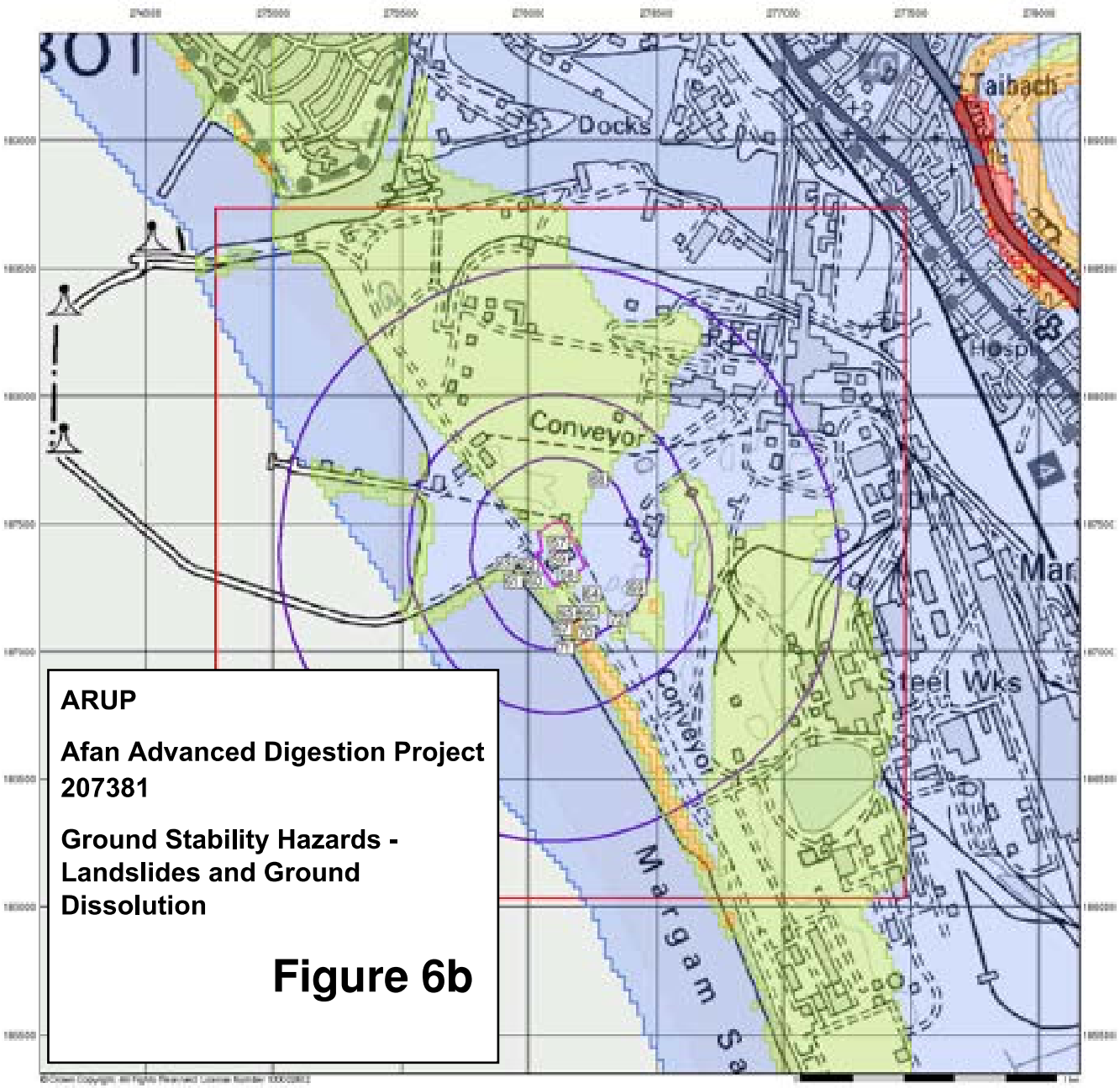

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Ground Stability Hazards - Landslides and Ground Dissolution

Figure 6b

Envirocheck®
Mining & Ground Stability
A Landmark service

Ground Stability Data (1:50,000)

General

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

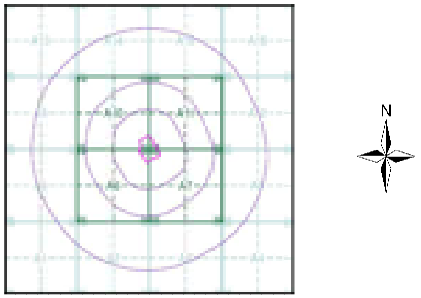
Potential for Landslide Ground Stability Hazards

High
Low
Moderate
Very Low

Potential for Ground Dissolution Stability Hazards

High
Low
Moderate
Very Low

Mining and Ground Stability - Slice A



Order Details

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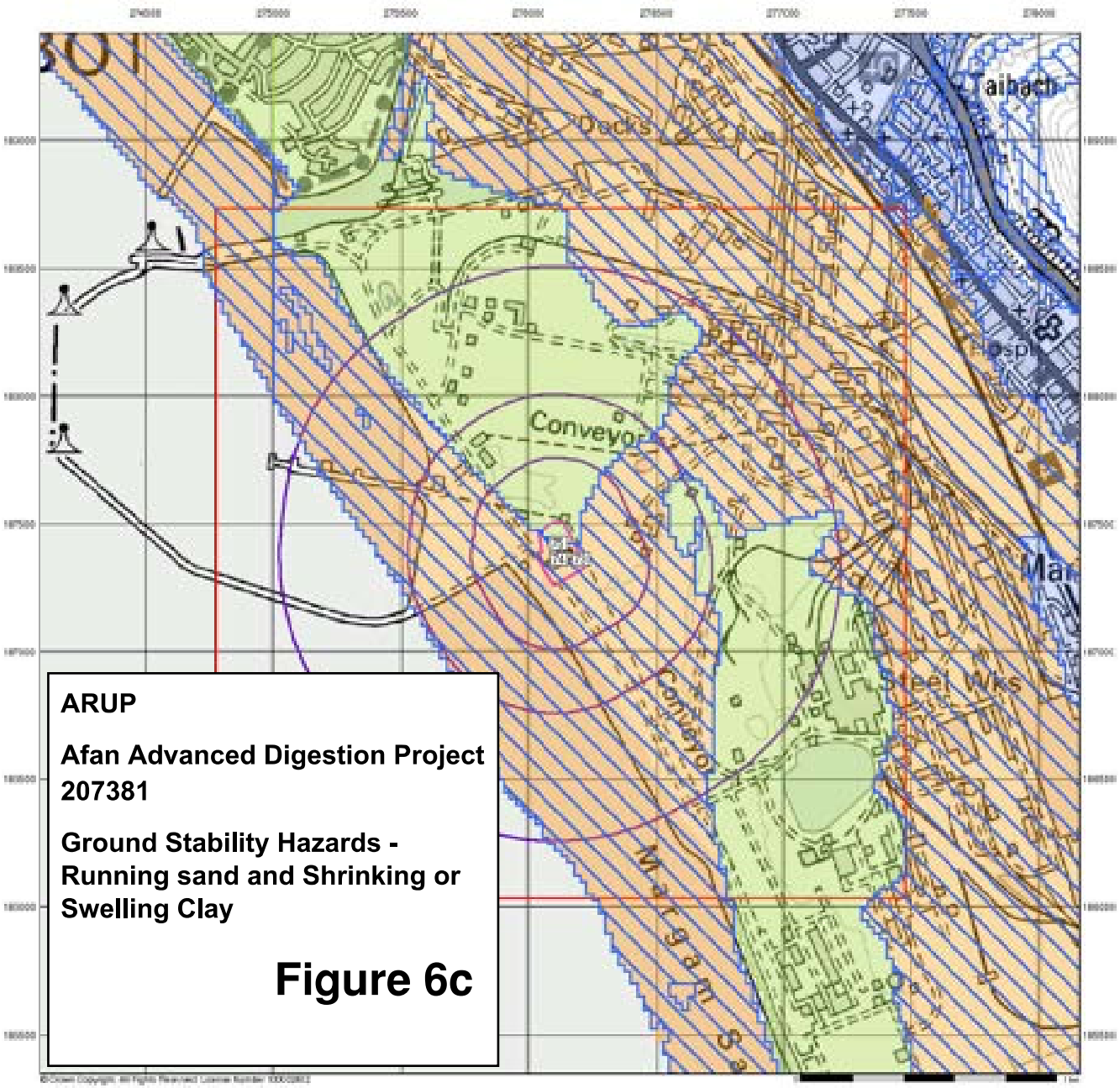

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Ground Stability Hazards - Running sand and Shrinking or Swelling Clay

Figure 6c

Envirocheck®
Mining & Ground Stability
A Landmark service

Ground Stability Data (1:50,000)

General

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

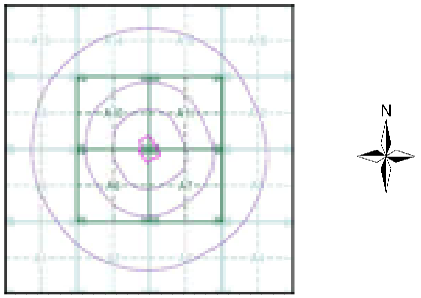
Potential for Running Sand Ground Stability Hazards

High | Low
Moderate | Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

High | Low
Moderate | Very Low

Mining and Ground Stability - Slice A



Order Details

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Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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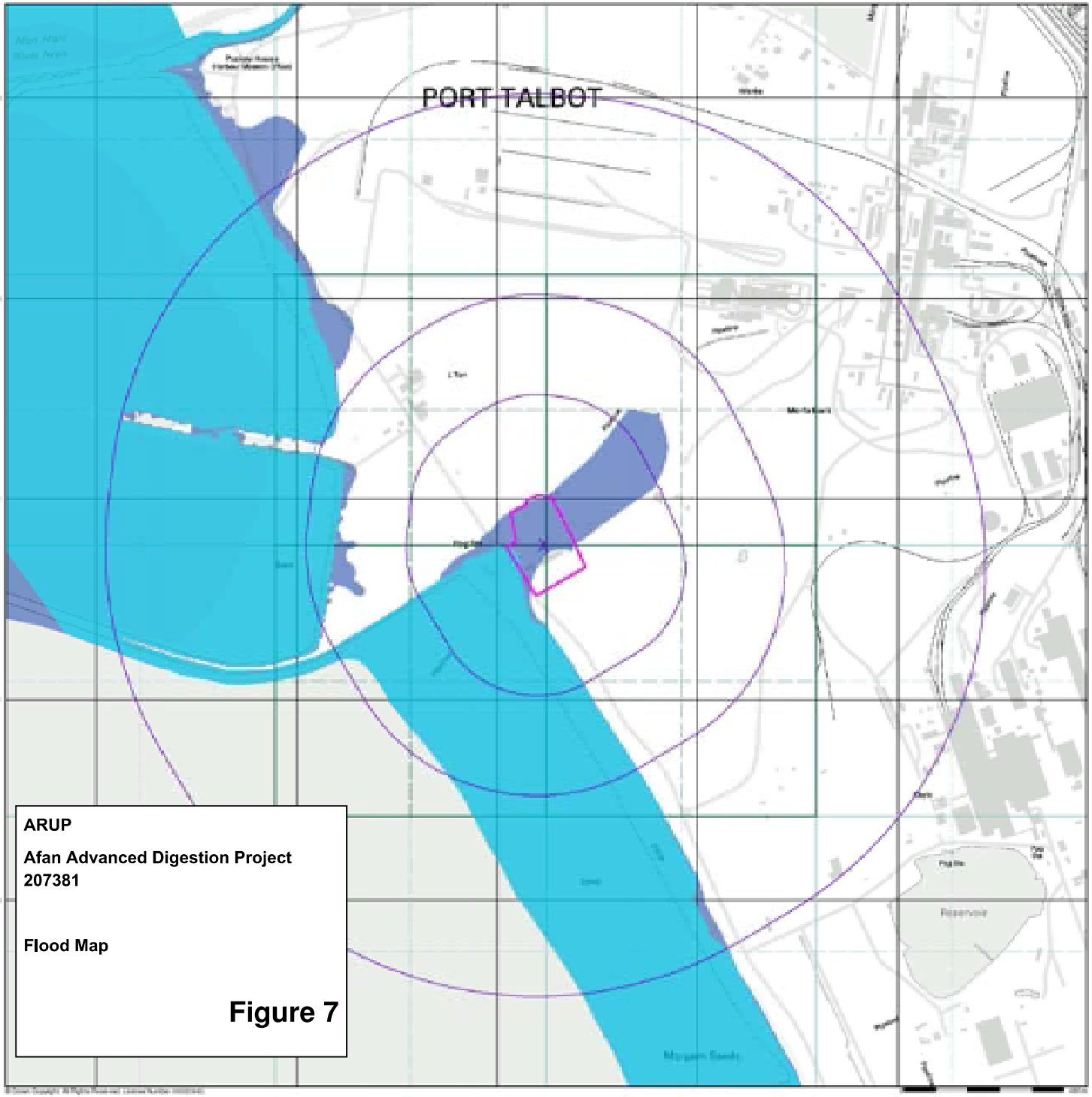

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Flood Map

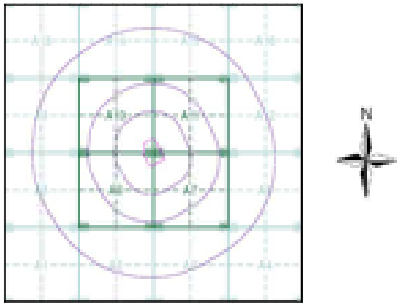
Figure 7

Envirocheck
A Landmark service

General

Agency and Hydrological (Flood)

Flood Map - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
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Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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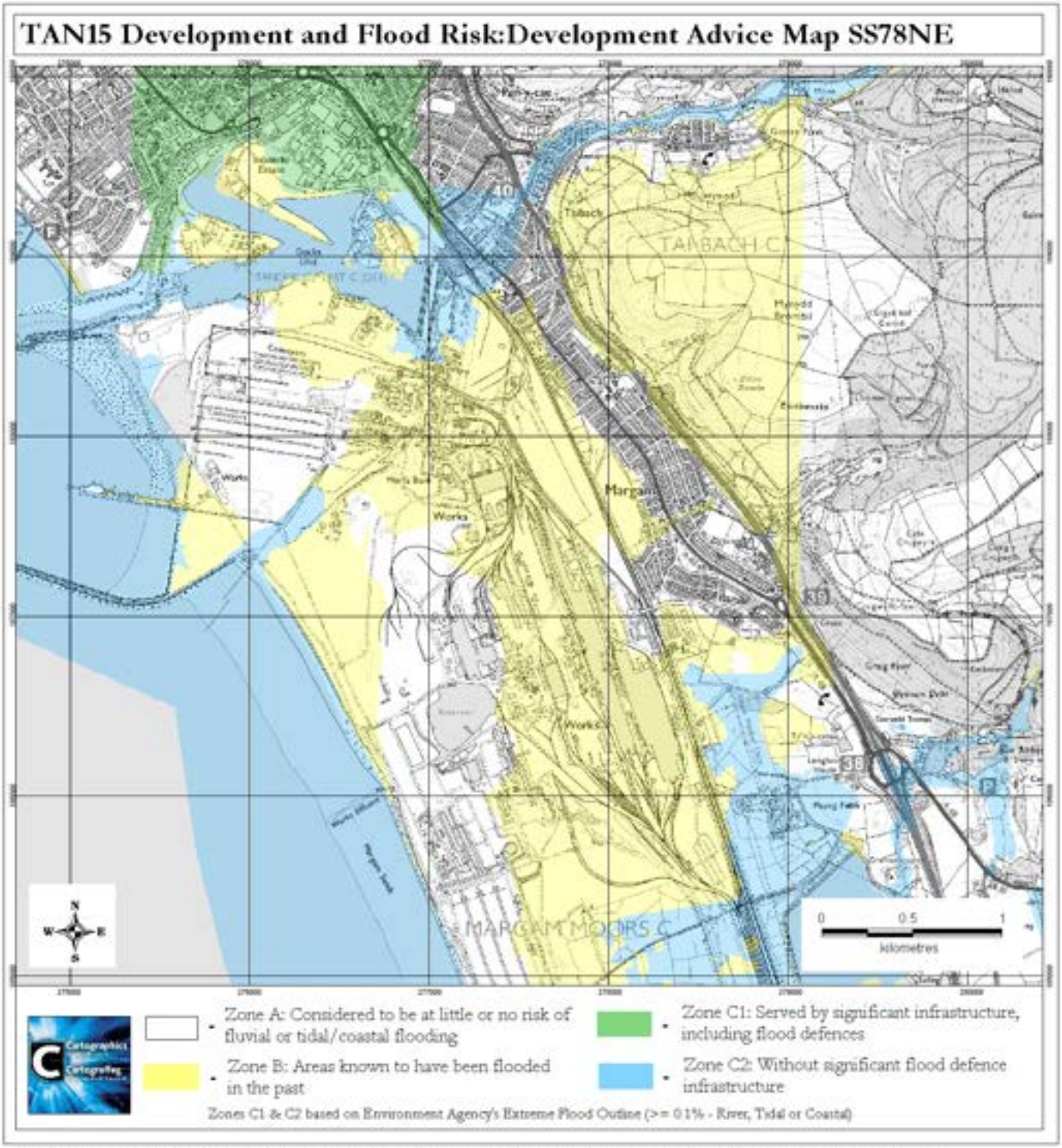

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Mae atgynhyrchu heb ganiatâd yn torri hawlfraint y Goron a gall hyn arwain at erlyniad neu achos sifil. Cynulliad Cenedlaethol Cymru - Rhif treyddiad: 100017916

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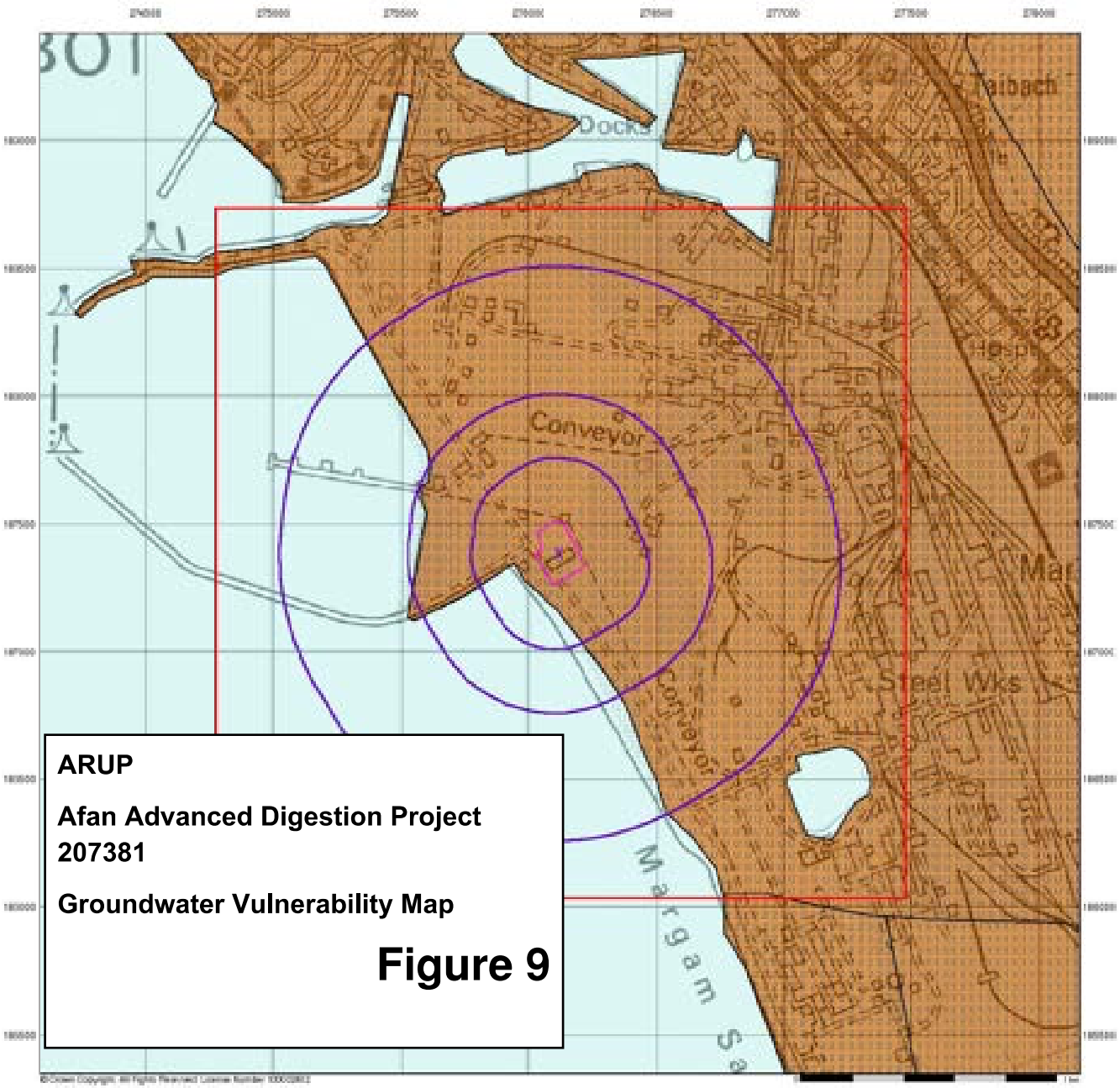
TAN15 Development Advice Map SS78NE

Figure 8



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Groundwater Vulnerability Map

Figure 9

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A Landmark service

Groundwater Vulnerability

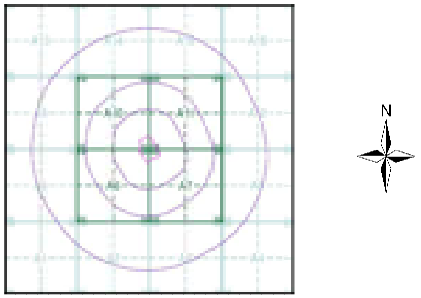
General

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

Agency and Hydrological

Geological Classes	Soil Classes
Major Aquifer (Highly Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Minor Aquifer (Variably Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Non Aquifer (Negligibly Permeable)	
Water or Sea	
Drift Deposit	

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276120, 187390
Slice: A
Site Area (Ha): 2.95
Search Buffer (m): 1000

Site Details

Site at 276000, 187370

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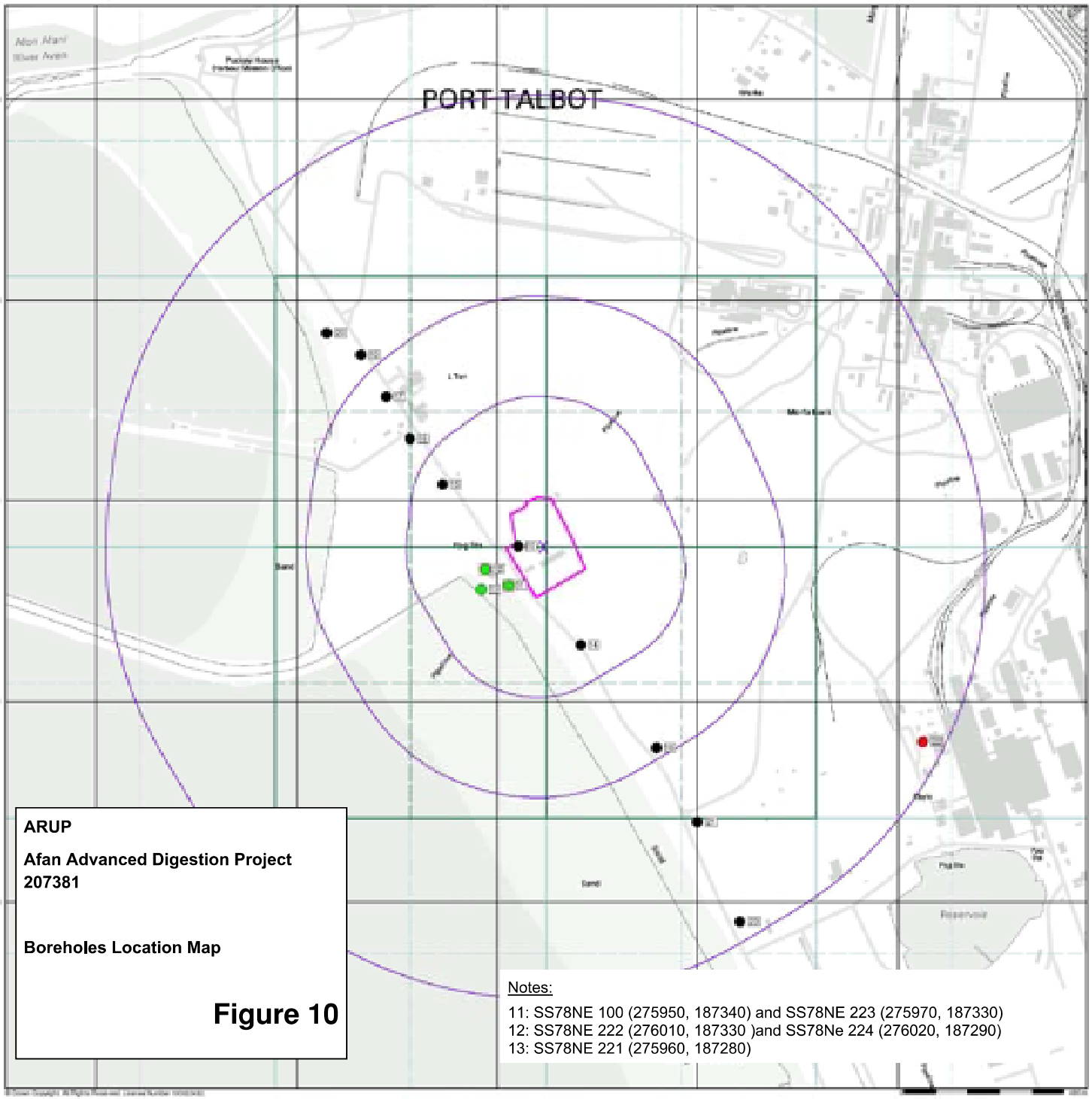

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Boreholes Location Map

Figure 10

Notes:

11: SS78NE 100 (275950, 187340) and SS78NE 223 (275970, 187330)
12: SS78NE 222 (276010, 187330)and SS78Ne 224 (276020, 187290)
13: SS78NE 221 (275960, 187280)

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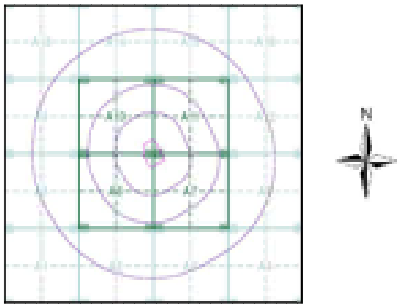
General

Agency and Hydrological (Boreholes)

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:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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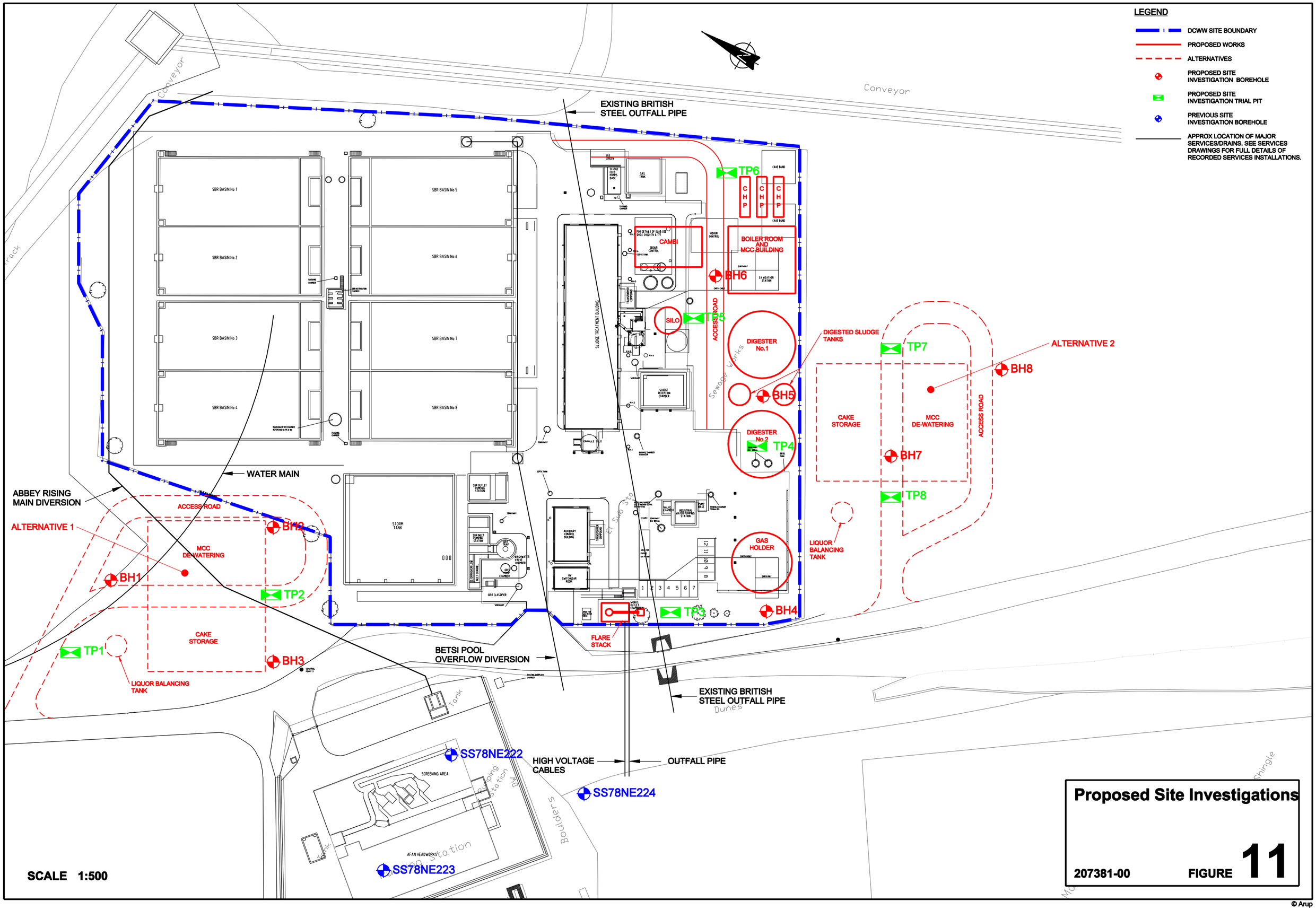
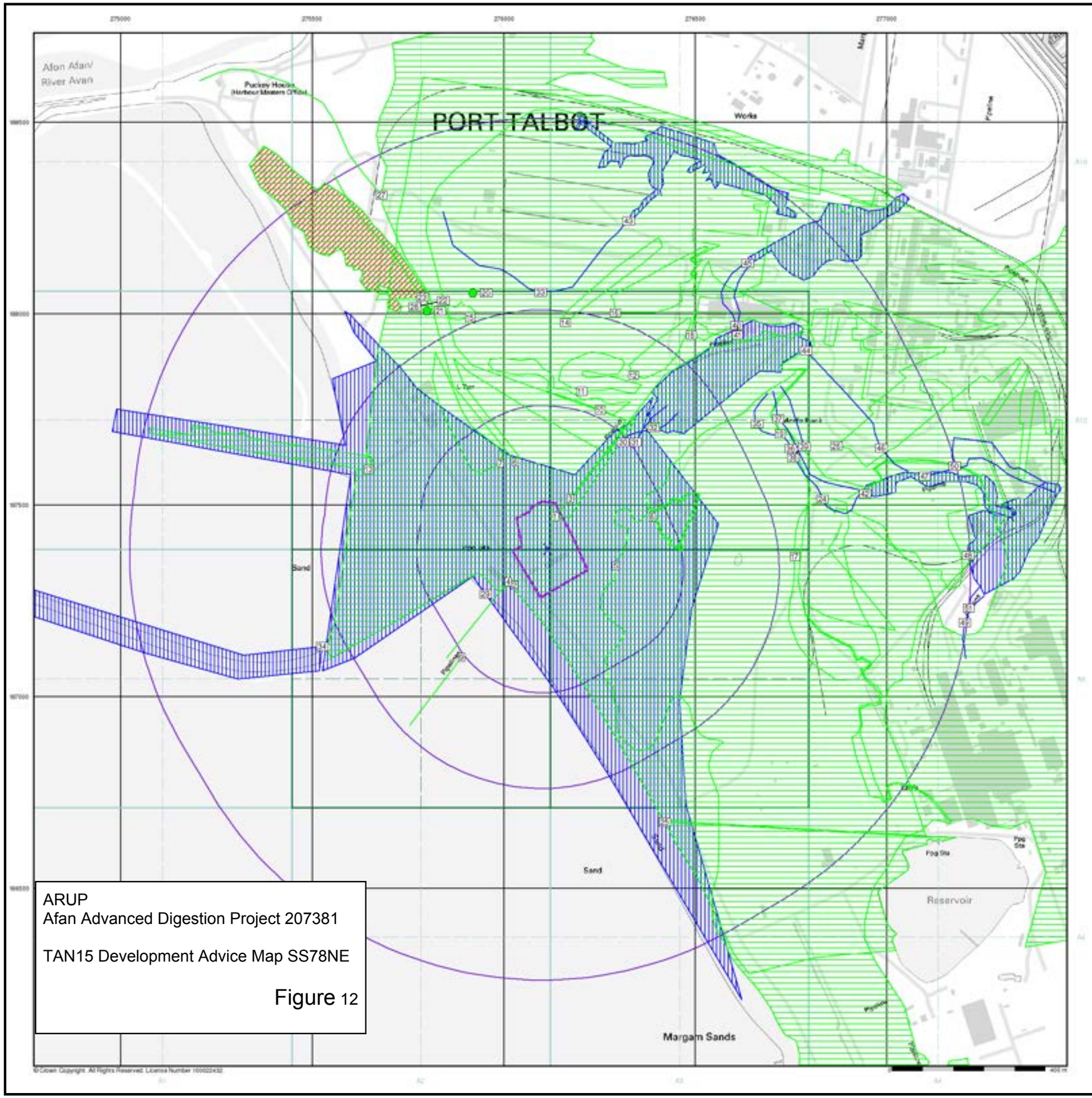


J:\207000\207381-00\4 Internal Project Data\4-30 Drawings\4-33 Civil\zFigure 11.dgn



Envirocheck®
Historical Data Report
A Landmark service

General

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

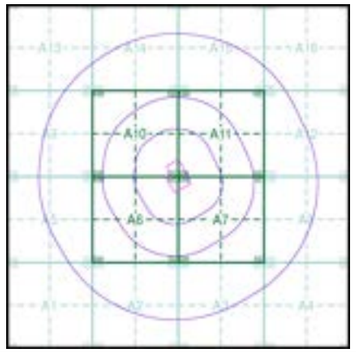
Historical Building Plans

Area Cleared due to Enemy Action

Historical Land Use

Former Marsh
Historical Flood Liability
Historical Flood Liability (Location)
Potentially Contaminative Industrial Use (Past Land Use)
Potentially Contaminative Industrial Use (Past Land Use) (Linear)
Potentially Contaminative Industrial Use (Past Land Use) (Location)
Potentially Infilled Land (Non-Water)
Potentially Infilled Land (Non-Water) (Linear)
Potentially Infilled Land (Non-Water) (Location)
Potentially Infilled Land (Water)
Potentially Infilled Land (Water) (Linear)
Potentially Infilled Land (Water) (Location)

Historical Data Report - Slice Map A



Order Details

Order Number:	25931460_1_1
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National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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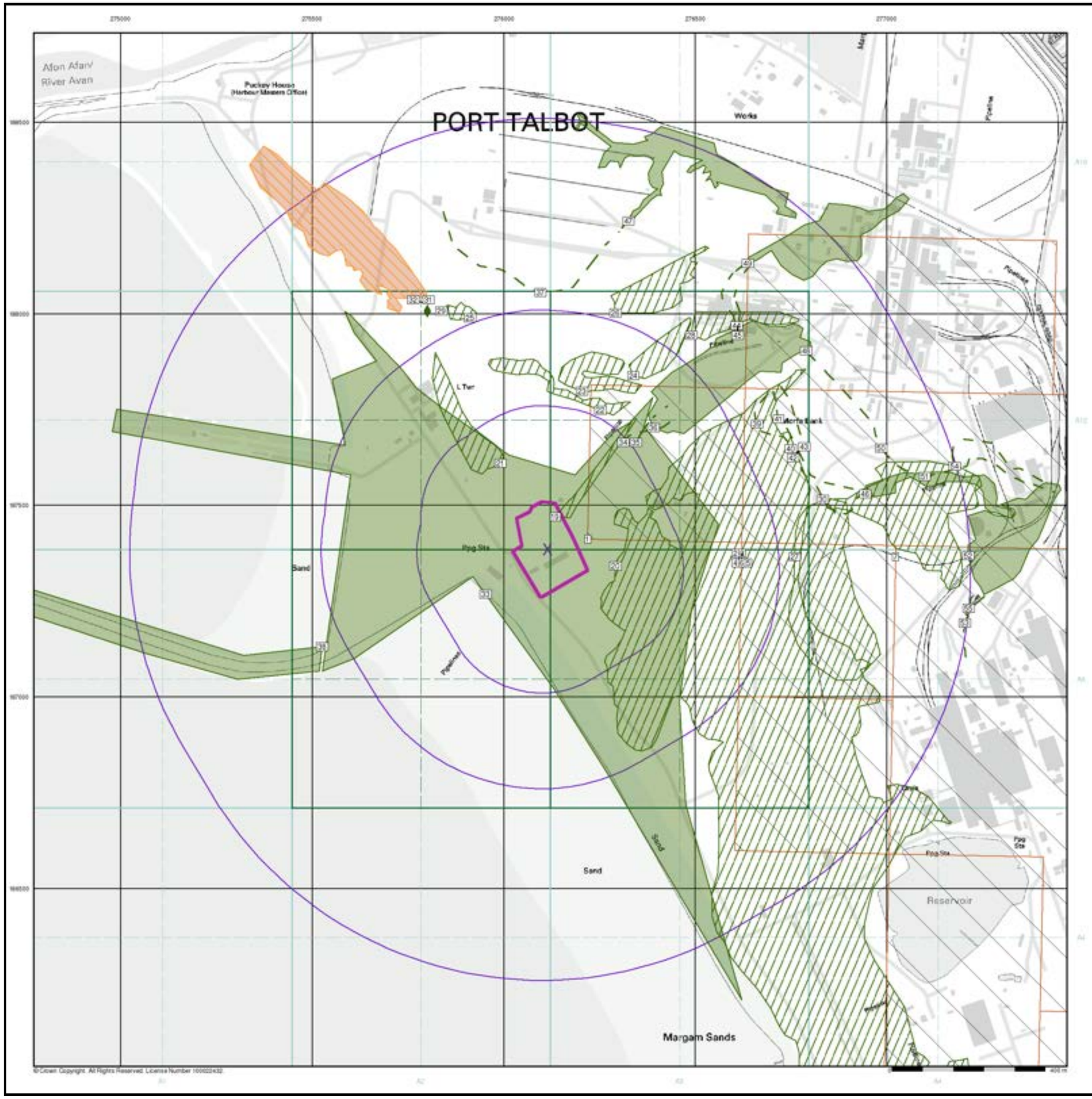
Appendix A

Envirocheck Report



Envirocheck®
Mining & Ground Stability
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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			

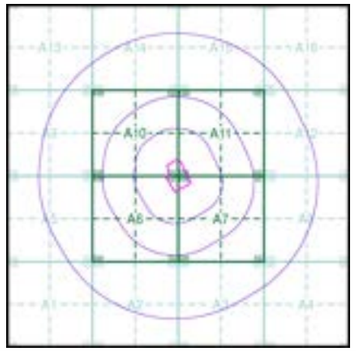
Historical Land Use

	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



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Order Details

Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276120, 187390
Slice: A
Site Area (Ha): 2.95
Search Buffer (m): 1000

Site Details

Site at 276000, 187370

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Envirocheck® Report:

Datasheet

Order Details:

Order Number:
25931460_1_1

Customer Reference:
207381

National Grid Reference:
276120, 187390

Slice:
A

Site Area (Ha):
2.95

Search Buffer (m):
1000

Site Details:

Site at 276000, 187370

Client Details:

Miss L Dymock
Ove Arup & Partners International Ltd
4 Pier Head Street
Capital Waterside
Cardiff
CF10 4QP

Contents

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	5
Hazardous Substances	-
Geological	6
Industrial Land Use	-
Sensitive Land Use	-
Data Currency	8
Data Suppliers	12
Useful Contacts	13

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 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 the attached 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 v36.0

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		2	6	1
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 3				1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 3		Yes		
Pollution Incidents to Controlled Waters	pg 3		1		1
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions					
Water Industry Act Referrals					
Groundwater Vulnerability	pg 3	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 3	Yes		n/a	n/a
Flooding from Rivers or Sea without Defences	pg 4	Yes		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
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Recorded Landfill Sites	pg 5			1	
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					
Geological					
BGS Recorded Mineral Sites					
BGS 1:625,000 Solid Geology	pg 6	Yes	n/a	n/a	n/a
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas	pg 6	Yes	n/a	n/a	n/a
Mining Instability	pg 6	Yes	n/a	n/a	n/a
Natural and Mining Cavities					
Potential for Collapsible Ground Stability Hazards				n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 6	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards		Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 7	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 7	Yes		n/a	n/a
Radon Potential - Radon Affected Areas		Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Shallow Mining Hazards	pg 7	Yes		n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries					
Fuel Station Entries					

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Sensitive Land Use					
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					

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Afan Ps, Neath Port Talbot Cbc, Waleswn Authority: Environment Agency, Welsh Region Catchment Area: Boundary Of HA 58 & HA 59 Reference: Bb3024901 Permit Version: 2 Effective Date: 22nd December 2000 Issued Date: 21st December 2000 Revocation Date: 7th February 2007 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Controlled Sea Receiving Water: To Sea **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A6NE (W)	36	1	276000 187350
2	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewage Disposal Works - Water Company Location: Afan Wwtw Phoenix Wharf Harbour Rd, Phoenix Wharf Harbour Rd, Port Talbot Authority: Environment Agency, Welsh Region Catchment Area: Not Supplied Reference: Bp028770101 Permit Version: 1 Effective Date: 1st December 2000 Issued Date: 1st December 2000 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Controlled Sea Receiving Water: Swansea Bay **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	A6NE (SW)	84	1	275980 187290
3	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Abbey Sps British Steel Site, Port Talbot Authority: Environment Agency, Welsh Region Catchment Area: Arnallt Brook Reference: Bw0202801 Permit Version: 3 Effective Date: 1st December 2000 Issued Date: 1st December 2000 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Controlled Sea Receiving Water: Swansea Bay **Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A6NE (SW)	299	1	275850 187090
3	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Abbey Sps British Steel Site, Port Talbot Authority: Environment Agency, Welsh Region Catchment Area: Not Supplied Reference: Bw020280102 Permit Version: 1 Effective Date: 1st December 2000 Issued Date: 1st December 2000 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Controlled Sea Receiving Water: Swansea Bay **Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A6NE (SW)	299	1	275850 187090

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
3	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Abbey Sps British Steel Site, Port Talbot Authority: Environment Agency, Welsh Region Catchment Area: Arnallt Brook Reference: Bw0202801 Permit Version: 3 Effective Date: 1st December 2000 Issued Date: 1st December 2000 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Controlled Sea Receiving Water: Swansea Bay **Status: Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A6NE (SW)	299	1	275850 187090
4	**Discharge Consents** Operator: British Steel Plc (Tinplate) Property Type: Iron & Steel Industries Location: Port Talbot Strip Product Works Mar, Strip Product Works Margam Outfa, Margam Outfall Authority: Environment Agency, Welsh Region Catchment Area: Boundary Of HA 58 & HA 59 Reference: Bp0059202 Permit Version: 3 Effective Date: 1st August 1995 Issued Date: 31st July 1995 Revocation Date: 30th August 1995 Discharge Type: Sewerage System Discharge Discharge Environment: Coastal Receiving Water: Swansea Bay **Status: Revoked and replaced by IPC Authorisation** Positional Accuracy: Located by supplier to within 100m	A6NW (SW)	422	1	275700 187100
4	**Discharge Consents** Operator: British Steel Plc (Tinplate) Property Type: Iron & Steel Industries Location: Port Talbot Strip Product Works Mar, Strip Product Works Margam Outfa, Margam Outfall Authority: Environment Agency, Welsh Region Catchment Area: Boundary Of HA 58 & HA 59 Reference: Bp0059202 Permit Version: 2 Effective Date: 7th March 1993 Issued Date: 7th December 1992 Revocation Date: 31st July 1995 Discharge Type: Sewerage System Discharge Discharge Environment: Coastal Receiving Water: Swansea Bay **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A6NW (SW)	422	1	275700 187100
4	**Discharge Consents** Operator: British Steel Plc (Tinplate) Property Type: Iron & Steel Industries Location: Port Talbot Strip Product Works Mar, Strip Product Works Margam Outfa, Margam Outfall Authority: Environment Agency, Welsh Region Catchment Area: Boundary Of HA 58 & HA 59 Reference: Bp0059202 Permit Version: 1 Effective Date: 16th September 1987 Issued Date: 16th September 1987 Revocation Date: 6th March 1993 Discharge Type: Sewerage System Discharge Discharge Environment: Coastal Receiving Water: Swansea Bay **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A6NW (SW)	422	1	275700 187100

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
5	**Discharge Consents** Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Abbey Ps. Authority: Environment Agency, Welsh Region Catchment Area: Arnallt Brook Reference: Bw0202801 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 9th May 1993 Discharge Type: Unspecified Discharge Environment: Into And/Or Watercourse Receiving Water: Swansea Bay Via Betsi Lagoon **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A12SW (E)	800	1	277000 187500
6	**Local Authority Pollution Prevention and Controls** Name: Tarmac Western Ltd Location: Margam Slagworks, PO Box 12, PORT TALBOT, . Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/96 Dated: 25th October 2002 Process Type: Local Authority Air Pollution Control Description: PG3/16 Mobile screening and crushing processes **Status: Authorised** Positional Accuracy: Manually positioned to the address or location	A8SW (SE)	843	2	276957 186924
	Nearest Surface Water Feature	A6NE (SW)	12	-	276063 187290
7	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Afan Pumping Station Authority: Environment Agency, Welsh Region Pollutant: Chemicals - Paints / Dyes Note: Coastal Discharge; Effluent Quality Incident Date: 20th February 1998 Incident Reference: 34834 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Deliberate Act Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A6NE (SW)	61	1	276000 187300
8	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Not Supplied Incident Date: 20th August 1991 Incident Reference: 1841 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	A3NE (SE)	859	1	276500 186500
	Groundwater Vulnerability Geological Classification: Minor Aquifer (Variably permeable) - These can be fractured or potentially fractured rocks, which do not have a high primary permeability, or other formations of variable permeability including unconsolidated deposits. Although not producing large quantities of water for abstraction, they are important for local supplies and in supplying base flow to rivers Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 35 West Glamorgan Scale: 1:100,000	A6NE (SW)	0	1	276003 187259
	Drift Deposits Drift Deposit: Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Map Sheet: Sheet 35 West Glamorgan Scale: 1:100,000	A6NE (S)	0	1	276116 187375
	Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Boundary Accuracy: As Supplied	A7NW (SE)	0	1	276128 187368

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Boundary Accuracy: As Supplied	A6NE (W)	0	1	276050 187365
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Neath Port Talbot County Borough Council - Has supplied landfill data		0	2	275095 185153
9	**Local Authority Recorded Landfill Sites** Location: Morfa Newydd Refuse Tips Reference: Not Supplied Authority: Neath Port Talbot County Borough Council, Environmental Health Department **Last Reported Status: Not Supplied** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Applicable	A11NW (NE)	397	2	276400 187800

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Lower Westphalian (mainly Productive Coal Measures)	A11SW (NE)	0	3	276163 187425
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A6SE (S)	0	4	276000 187000
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A6SE (S)	0	-	276000 187000
	Potential for Collapsible Ground Stability Hazards No Hazard				
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	3	276115 187425
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	3	276115 187425
	Potential for Ground Dissolution Stability Hazards No Hazard				
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	3	276115 187425
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	0	3	276150 187300
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	3	276115 187425
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A6NE (SW)	53	3	276025 187275
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A6NE (SW)	58	3	276000 187275
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A6NE (SW)	61	3	276000 187300
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A6NE (SW)	70	3	275975 187325
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SE)	107	3	276250 187225
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	121	3	276150 187150
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	133	3	276175 187150
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	168	3	276200 187125
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11SW (NE)	221	3	276275 187675
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SE)	221	3	276425 187250
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	223	3	276225 187075

Geological

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	224	3	276175 187050
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SE)	244	3	276350 187125
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	3	276115 187425
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	3	276115 187425
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	3	276115 187425
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	3	276115 187425
	Radon Potential - Radon Affected Areas Affected Area: The property is in a radon affected area, as between 1 and 3% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A6NE (S)	0	3	276115 187350
	Radon Potential - Radon Affected Areas Affected Area: The property is not in a radon affected area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A6NE (S)	0	3	276115 187350
	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	A6NE (S)	0	3	276115 187350
	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	A6NE (S)	0	3	276115 187350
	Shallow Mining Hazards Risk: Low Source: British Geological Survey, National Geoscience Information Service	A6NE (SW)	0	3	275995 187264

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Neath Port Talbot County Borough Council - Environmental Health Department	January 2008	Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region	April 2008	Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	July 2008	As notified
Integrated Pollution Controls Environment Agency - Welsh Region	April 2008	Quarterly
Integrated Pollution Prevention And Control Environment Agency - Welsh Region	April 2008	Quarterly
Local Authority Integrated Pollution Prevention And Control Neath Port Talbot County Borough Council - Environmental Health Department	May 2008	Annual Rolling Update
Local Authority Pollution Prevention and Controls Neath Port Talbot County Borough Council - Environmental Health Department	May 2008	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Neath Port Talbot County Borough Council - Environmental Health Department	May 2008	Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	April 2008	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region	July 2008	As notified
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region	July 2008	As notified
Registered Radioactive Substances Environment Agency - Welsh Region	April 2008	Quarterly
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	September 2007	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	August 2007	Annually
Substantiated Pollution Incident Register Environment Agency - Welsh Region - South West Area	April 2008	Quarterly
Water Abstractions Environment Agency - Welsh Region	April 2008	Quarterly
Water Industry Act Referrals Environment Agency - Welsh Region	April 2008	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	January 1999	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Source Protection Zones Environment Agency - Head Office	April 2008	Variable
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	April 2008	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	April 2008	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	April 2008	Quarterly

Data Currency

Agency & Hydrological	Version	Update Cycle
Flood Water Storage Areas Environment Agency - Head Office	April 2008	Quarterly
Flood Defences Environment Agency - Head Office	April 2008	Quarterly
Waste	**Version**	**Update Cycle**
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Welsh Region - South West Area	May 2008	As notified
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	April 2008	Quarterly
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - Welsh Region - South West Area	May 2008	Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - Welsh Region - South West Area	May 2008	Quarterly
Local Authority Landfill Coverage Neath Port Talbot County Borough Council - Environmental Health Department	May 2000	Not Applicable
Local Authority Recorded Landfill Sites Neath Port Talbot County Borough Council - Environmental Health Department	September 2003	Not Applicable
Registered Landfill Sites Environment Agency - Welsh Region - South West Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency - Welsh Region - South West Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - Welsh Region - South West Area	March 2003	Not Applicable
Hazardous Substances	**Version**	**Update Cycle**
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	April 2008	Bi-Annually
Explosive Sites Health and Safety Executive	February 2008	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Neath Port Talbot County Borough Council - Planning Department	September 2007	Annual Rolling Update
Planning Hazardous Substance Consents Neath Port Talbot County Borough Council - Planning Department	September 2007	Annual Rolling Update

Data Currency

Geological	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2008	Bi-Annually
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
Coal Mining Affected Areas The Coal Authority - Mining Report Service	January 2006	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural and Mining Cavities Peter Brett Associates	December 2005	Variable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	May 2007	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	May 2007	Annually
Shallow Mining Hazards British Geological Survey - National Geoscience Information Service	August 2002	Not Applicable
Industrial Land Use	**Version**	**Update Cycle**
Contemporary Trade Directory Entries Thomson Directories	February 2008	Quarterly
Fuel Station Entries Catalist Ltd - (Fuel Station Data)	June 2008	Quarterly

Data Currency

Sensitive Land Use	Version	Update Cycle
Areas of Outstanding Natural Beauty Countryside Council for Wales	February 2008	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	June 2006	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Neath Port Talbot County Borough Council	February 2008	Bi-Annually
Marine Nature Reserves Countryside Council for Wales	February 2008	Bi-Annually
National Nature Reserves Countryside Council for Wales	February 2008	Bi-Annually
National Parks The National Assembly for Wales - GI Services (Department of Planning & Countryside)	November 2007	Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December 2003	Not Applicable
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside)	October 2005	Annually
Ramsar Sites Countryside Council for Wales	February 2008	Bi-Annually
Sites of Special Scientific Interest Countryside Council for Wales	February 2008	Bi-Annually
Special Areas of Conservation Countryside Council for Wales	February 2008	Bi-Annually
Special Protection Areas Countryside Council for Wales	February 2008	Bi-Annually

Data Suppliers

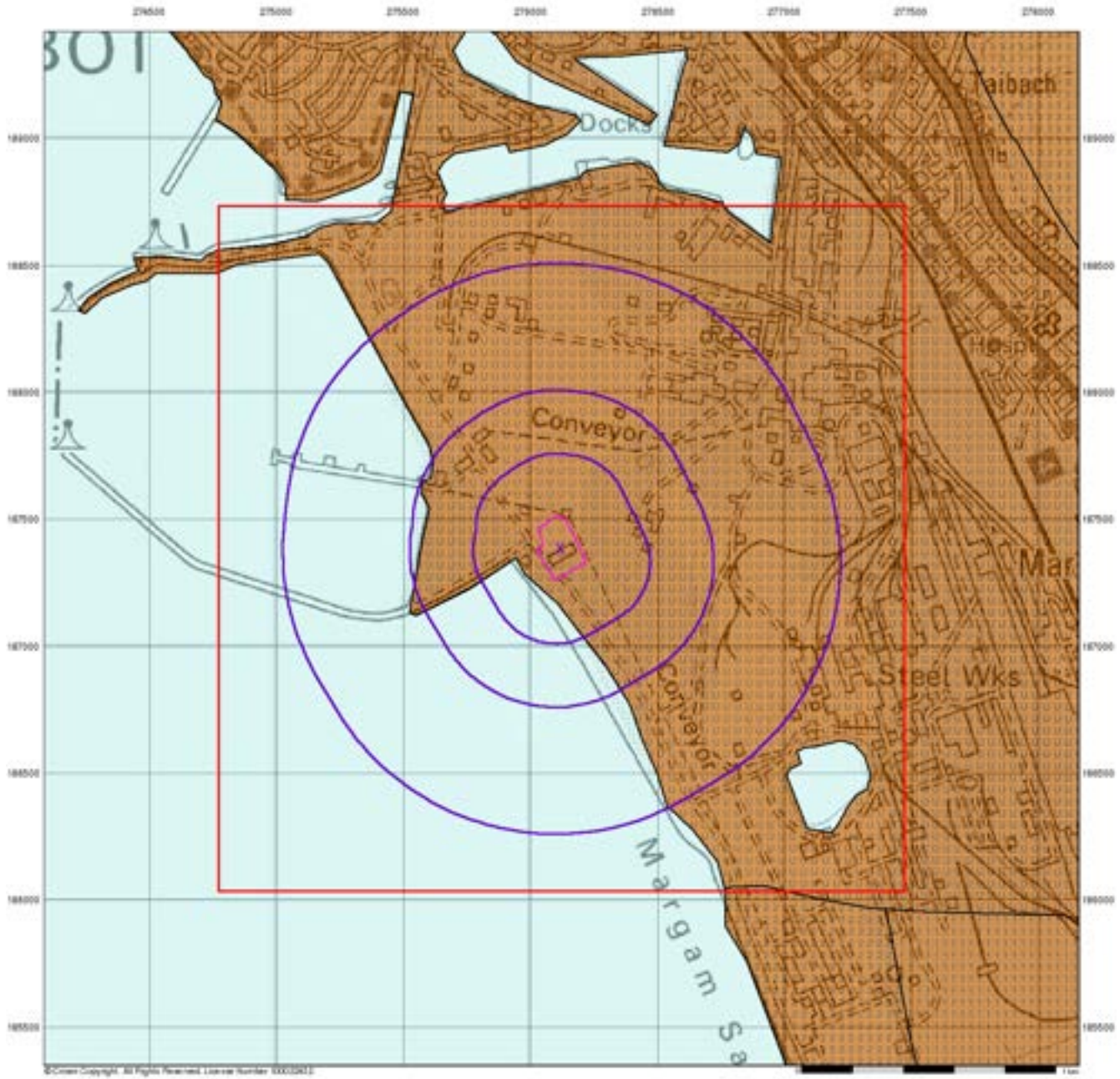
A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Countryside Council for Wales	
Scottish Natural Heritage	
Natural England	
Health Protection Agency	
Ove Arup	
Peter Brett Associates	

Useful Contacts

Contact	Name and Address	Contact Details
1	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	**Neath Port Talbot County Borough Council - Environmental Health Department** Room 322, Neath Civic Centre, Neath, West Glamorgan, SA11 3QZ	Telephone: 01639 763333 Fax: 01693 763444 Website: www.neath-porttalbot.gov.uk
3	**British Geological Survey - Enquiry Service** British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
4	**The Coal Authority - Mining Report Service** 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0845 7626848 Email: thecoalauthority@coal.gov.uk
-	**Health Protection Agency - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@hpa.org.uk Website: www.hpa.org.uk
-	**Landmark Information Group Limited** The Smith Centre, Henley On Thames, Oxfordshire, RG9 6AB	Telephone: 0870 850 6670 Fax: 0870 850 6671 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



Envirocheck®
A Landmark service

Groundwater Vulnerability

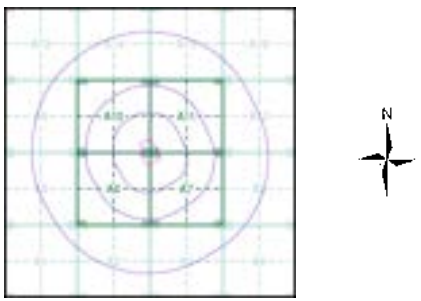
General

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

Agency and Hydrological

Geological Classes	Soil Classes
Major Aquifer (Highly Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Minor Aquifer (Variably Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Non Aquifer (Negligibly Permeable)	
Water or Sea	
Drift Deposit	

Site Sensitivity Context Map - Slice A



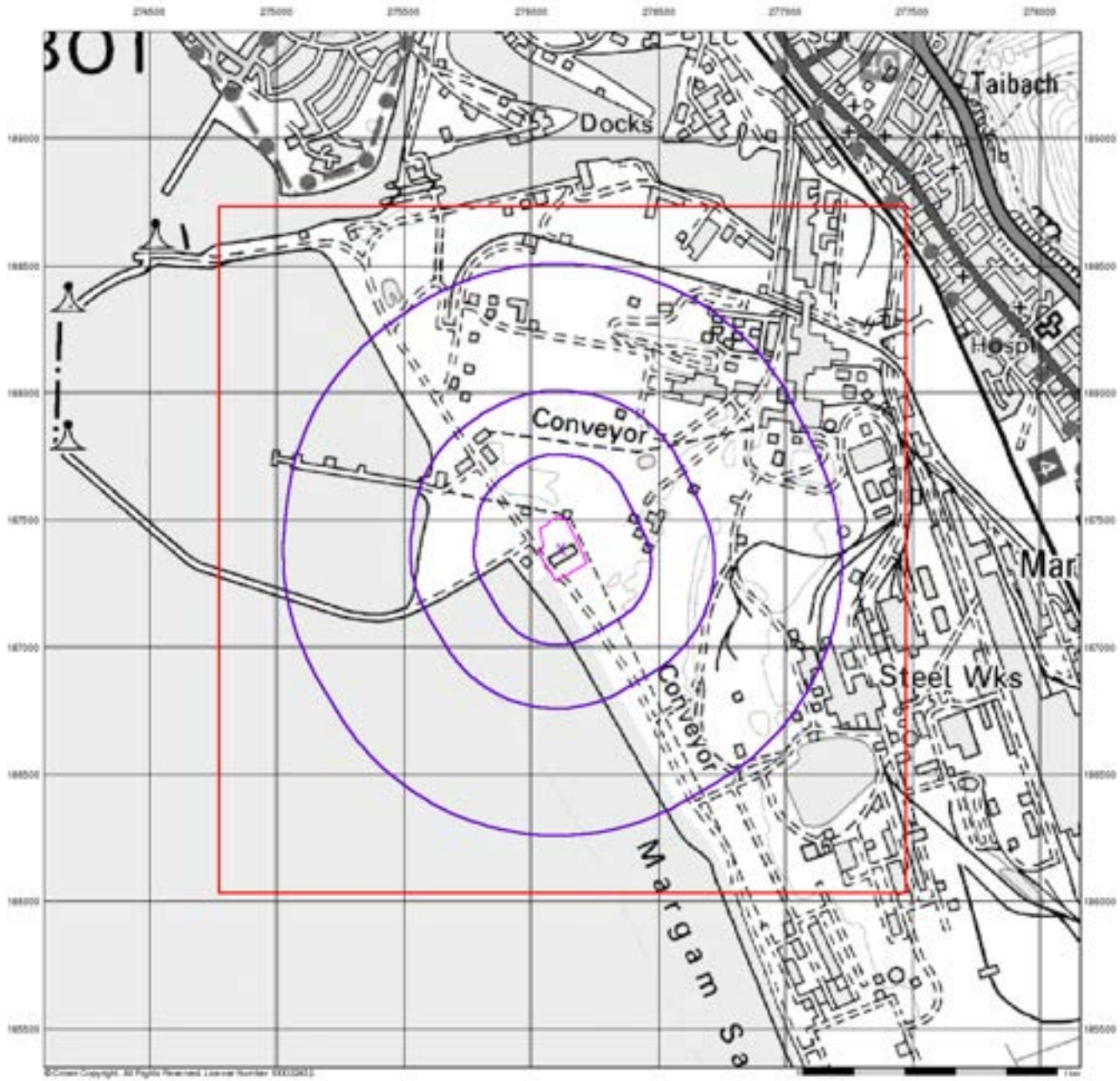
Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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



Envirocheck®
A Landmark service

Source Protection Zones

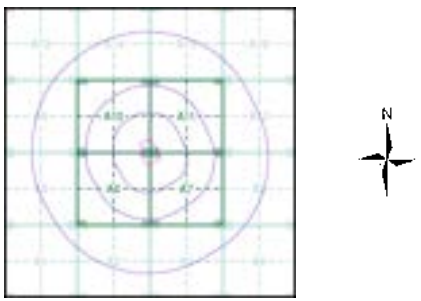
General

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

Agency and Hydrological

Source Protection Zone I
Source Protection Zone II
Source Protection Zone III
Zone of Special Interest
Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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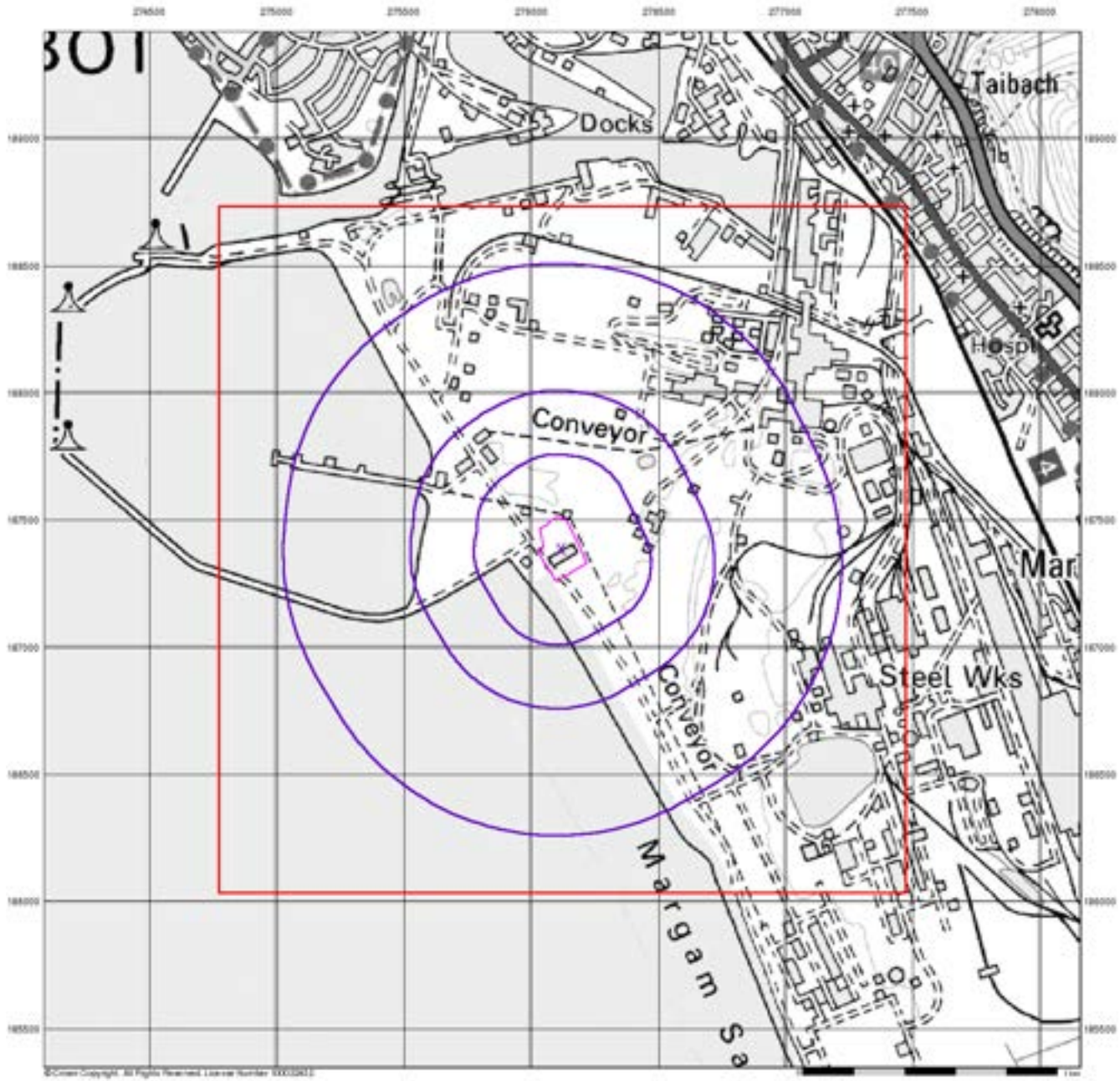
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Sensitive Land Uses

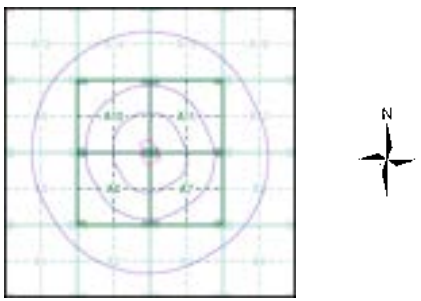
General

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

Sensitive Land Uses

- 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

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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Historical Mapping Legends

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

[redacted]

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

[redacted]

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

[redacted]

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Ordnance Survey mapping included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1917 - 1919	4
Glamorganshire	1:2,500	1940	5
Ordnance Survey Plan	1:1,250	1952 - 1978	6
Ordnance Survey Plan	1:2,500	1953 - 1964	7
Ordnance Survey Plan	1:1,250	1961 - 1968	8
Ordnance Survey Plan	1:2,500	1964	9
Ordnance Survey Plan	1:1,250	1968	10
Ordnance Survey Plan	1:2,500	1969	11
Additional SIMs	1:1,250	1978 - 1991	12
Additional SIMs	1:1,250	1991	13
Large-Scale National Grid Data	1:1,250	1993	14
Large-Scale National Grid Data	1:1,250	1995	15

Historical Map - Segment A11

[redacted]

N

Order Details

Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276120, 187390
Slice: A
Site Area (Ha): 2.95
Search Buffer (m): 250

Site Details

Site at 276000, 187370

LANDMARK Information Group
Tel: 0844 844 9952
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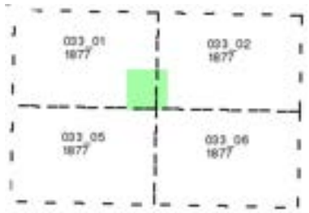
Glamorganshire

Published 1877

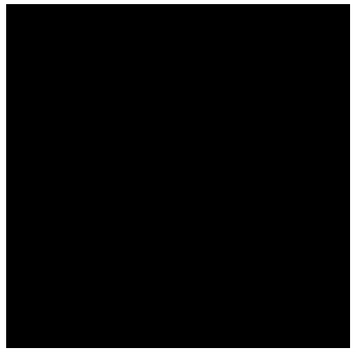
Source map scale - 1:2,500

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 A11



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

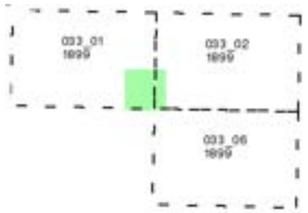
Glamorganshire

Published 1899

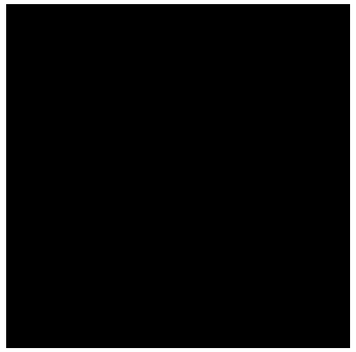
Source map scale - 1:2,500

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 A11



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

[redacted]

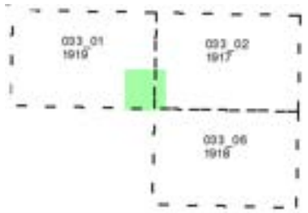
Glamorganshire

Published 1917 - 1919

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 A11

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

Glamorganshire

Published 1940

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 A11

N

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

[redacted]

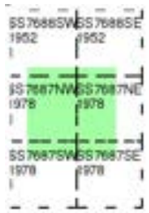
Ordnance Survey Plan

Published 1952 - 1978

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)



Historical Map - Segment A11

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

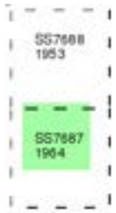
Ordnance Survey Plan

Published 1953 - 1964

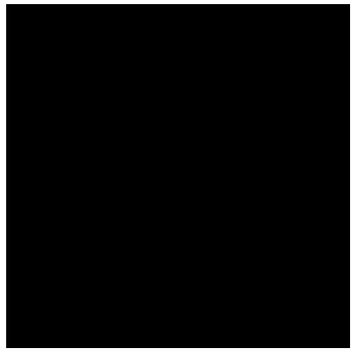
Source map scale - 1:2,500

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 A11



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

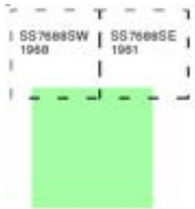
Ordnance Survey Plan

Published 1961 - 1968

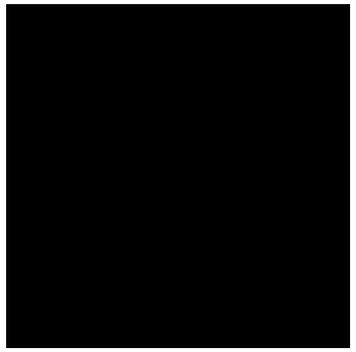
Source map scale - 1:1,250

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)



Historical Map - Segment A11



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

[redacted]

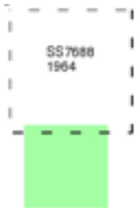
Ordnance Survey Plan

Published 1964

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 A11

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

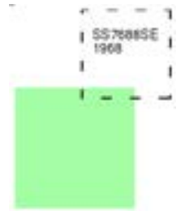
Ordnance Survey Plan

Published 1968

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)



Historical Map - Segment A11

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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[redacted]

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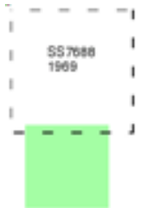
Ordnance Survey Plan

Published 1969

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 A11

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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Web: www.envirocheck.co.uk

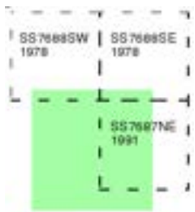
Additional SIMs

Published 1978 - 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 A11

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

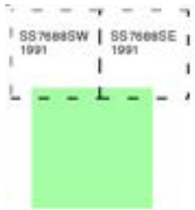
Additional SIMs

Published 1991

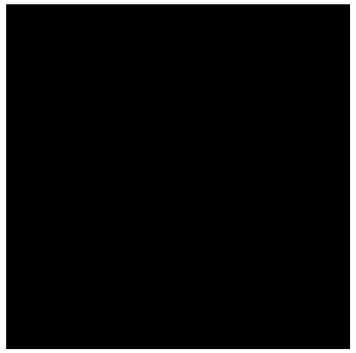
Source map scale - 1:1,250

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 A11



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

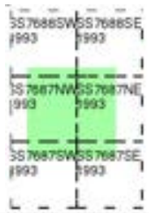
Large-Scale National Grid Data

Published 1993

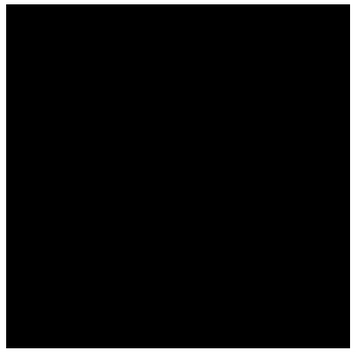
Source map scale - 1:1,250

'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)



Historical Map - Segment A11



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

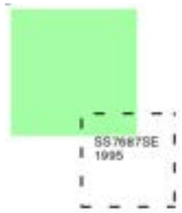
Large-Scale National Grid Data

Published 1995

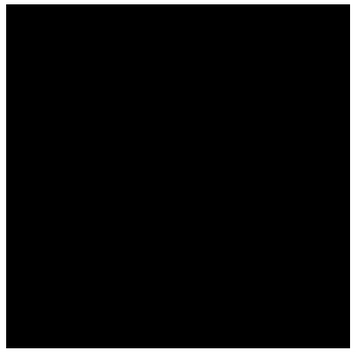
Source map scale - 1:1,250

'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)



Historical Map - Segment A11



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

[redacted]

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

[redacted]

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

[redacted]

Envirocheck®
A Landmark service

Ordnance Survey mapping included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1919	4
Glamorganshire	1:2,500	1940	5
Ordnance Survey Plan	1:1,250	1952 - 1979	6
Ordnance Survey Plan	1:2,500	1953 - 1964	7
Ordnance Survey Plan	1:2,500	1964 - 1981	8
Ordnance Survey Plan	1:1,250	1968	9
Ordnance Survey Plan	1:2,500	1969 - 1982	10
Additional SIMs	1:1,250	1978	11
Additional SIMs	1:1,250	1991	12
Large-Scale National Grid Data	1:1,250	1993	13

Historical Map - Segment A10

[redacted]

N

Order Details

Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276120, 187390
Slice: A
Site Area (Ha): 2.95
Search Buffer (m): 250

Site Details

Site at 276000, 187370

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

Glamorganshire

Published 1877

Source map scale - 1:2,500

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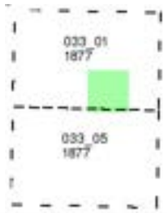
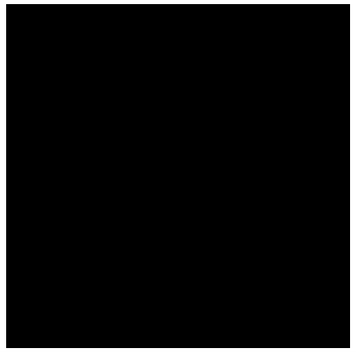
Map Name(s) and Date(s)



Historical Map - Segment A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

Tel: 0844 844 9952
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Glamorganshire

Published 1899

Source map scale - 1:2,500

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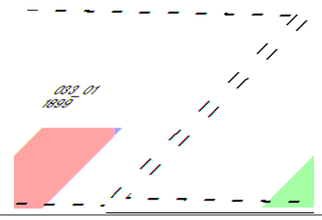
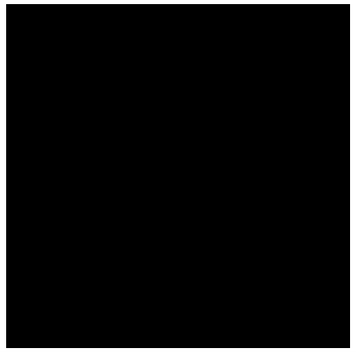
Map Name(s) and Date(s)



Historical Map - Segment A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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Web: www.envirocheck.co.uk

Glamorganshire

Published 1919

Source map scale - 1:2,500

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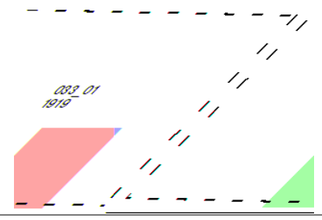
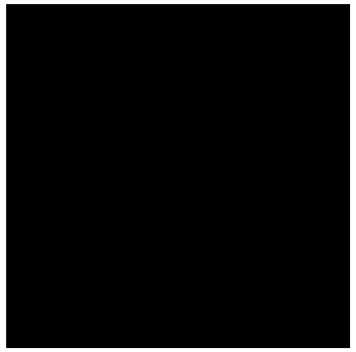
Map Name(s) and Date(s)



Historical Map - Segment A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

Glamorganshire

Published 1940

Source map scale - 1:2,500

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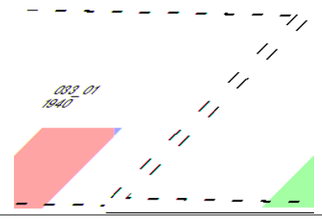
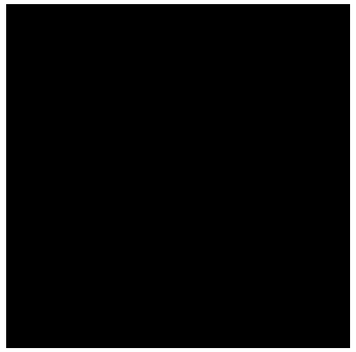
Map Name(s) and Date(s)



Historical Map - Segment A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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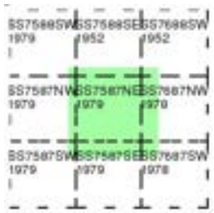
Ordnance Survey Plan

Published 1952 - 1979

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)



Historical Map - Segment A10

[redacted]

N

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

Tel: 0844 844 9952
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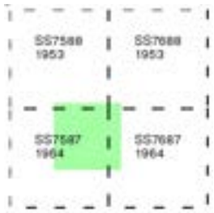
Ordnance Survey Plan

Published 1953 - 1964

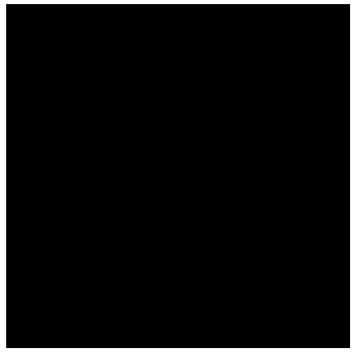
Source map scale - 1:2,500

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 A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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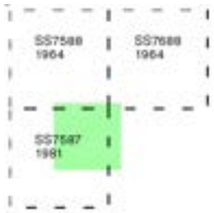
Ordnance Survey Plan

Published 1964 - 1981

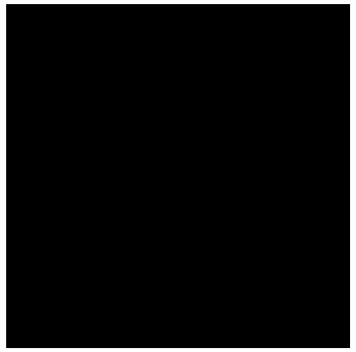
Source map scale - 1:2,500

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 A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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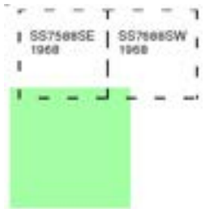
Ordnance Survey Plan

Published 1968

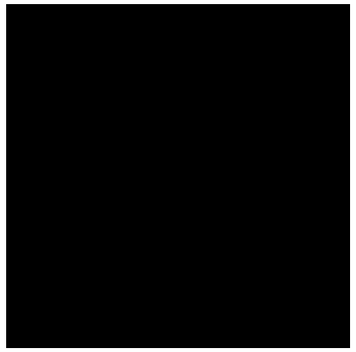
Source map scale - 1:1,250

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)



Historical Map - Segment A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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Fax: 0844 844 9951
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[redacted]

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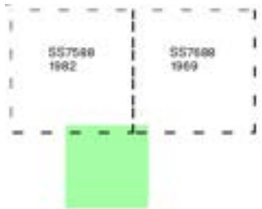
Ordnance Survey Plan

Published 1969 - 1982

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 A10

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

LANDMARK Information Group

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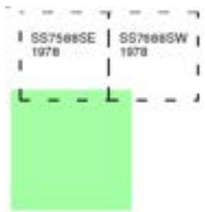
Additional SIMs

Published 1978

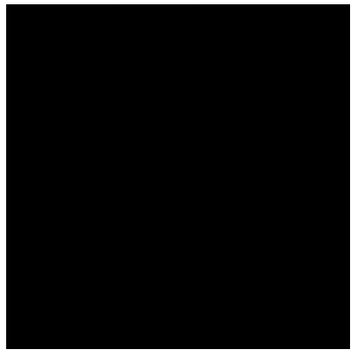
Source map scale - 1:1,250

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 A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

Tel: 0844 844 9952
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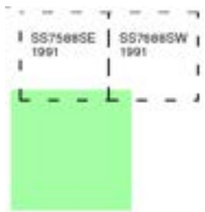
Additional SIMs

Published 1991

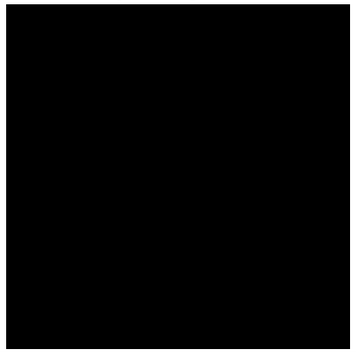
Source map scale - 1:1,250

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 A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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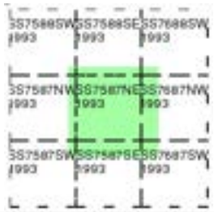
Large-Scale National Grid Data

Published 1993

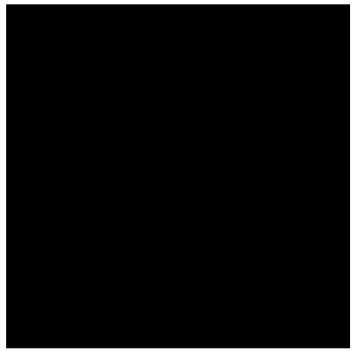
Source map scale - 1:1,250

'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)



Historical Map - Segment A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

[redacted]

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

[redacted]

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

[redacted]

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Ordnance Survey mapping included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1918	4
Glamorganshire	1:2,500	1940	5
Ordnance Survey Plan	1:2,500	1964	6
Ordnance Survey Plan	1:1,250	1978 - 1983	7
Additional SIMs	1:1,250	1983	8
Large-Scale National Grid Data	1:1,250	1993	9
Large-Scale National Grid Data	1:1,250	1995	10

Historical Map - Segment A7

[redacted]

Order Details

Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276120, 187390
Slice: A
Site Area (Ha): 2.95
Search Buffer (m): 250

Site Details

Site at 276000, 187370

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

[redacted]

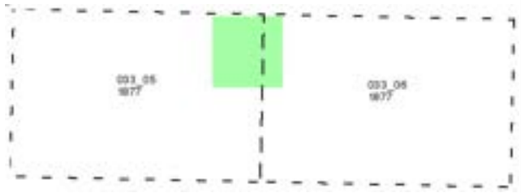
Glamorganshire

Published 1877

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 A7

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

[redacted]

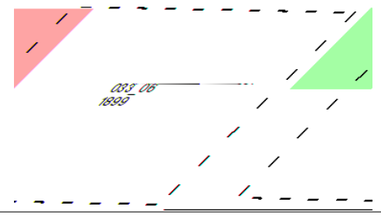
Glamorganshire

Published 1899

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 A7

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

[redacted]

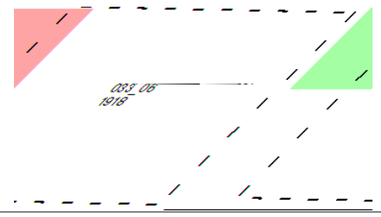
Glamorganshire

Published 1918

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 A7

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

[redacted]

Glamorganshire

Published 1940

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 A7

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

[redacted]

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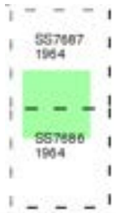
Ordnance Survey Plan

Published 1964

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 A7

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

LANDMARK Information Group

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

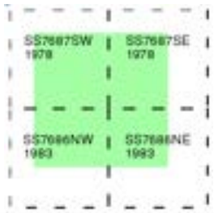
Ordnance Survey Plan

Published 1978 - 1983

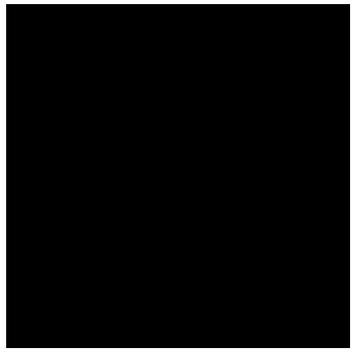
Source map scale - 1:1,250

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)



Historical Map - Segment A7



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

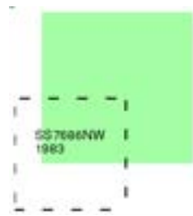
Additional SIMs

Published 1983

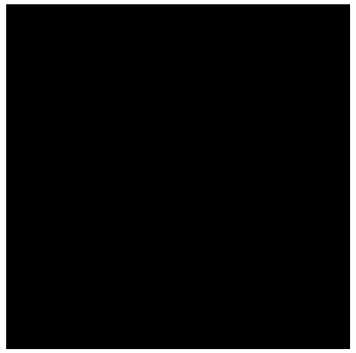
Source map scale - 1:1,250

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 A7



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

Tel: 0844 844 9952
Fax: 0844 844 9951
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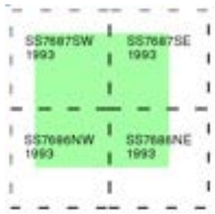
Large-Scale National Grid Data

Published 1993

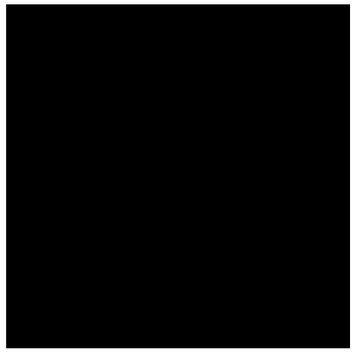
Source map scale - 1:1,250

'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)



Historical Map - Segment A7



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

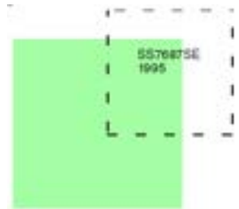
Large-Scale National Grid Data

Published 1995

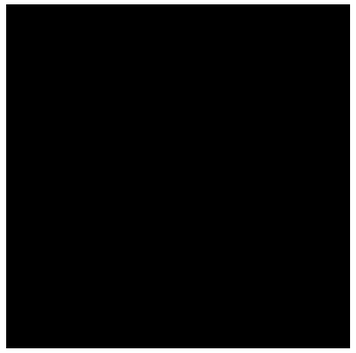
Source map scale - 1:1,250

'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)



Historical Map - Segment A7



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

[redacted]

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

[redacted]

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

[redacted]

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Ordnance Survey mapping included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Ordnance Survey Plan	1:2,500	1964	3
Ordnance Survey Plan	1:1,250	1978 - 1983	4
Ordnance Survey Plan	1:2,500	1981	5
Additional SIMs	1:1,250	1983	6
Large-Scale National Grid Data	1:1,250	1993	7

Historical Map - Segment A6

[redacted]

N

Order Details

Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276120, 187390
Slice: A
Site Area (Ha): 2.95
Search Buffer (m): 250

Site Details

Site at 276000, 187370

LANDMARK Information Group
Tel: 0844 844 9952
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Web: www.envirocheck.co.uk

[redacted]

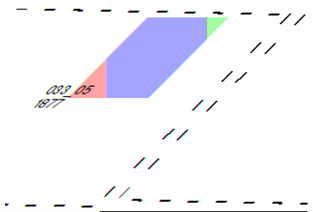
Glamorganshire

Published 1877

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 A6

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

Tel: 0844 844 9952
Fax: 0844 844 9951
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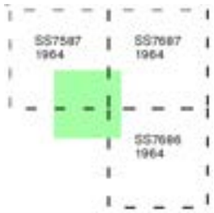
Ordnance Survey Plan

Published 1964

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 A6

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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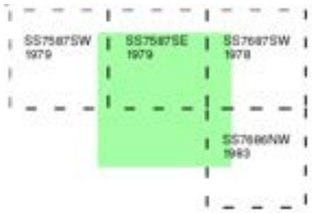
Ordnance Survey Plan

Published 1978 - 1983

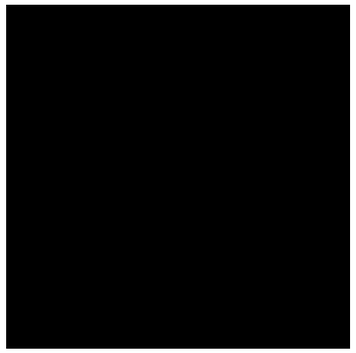
Source map scale - 1:1,250

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)



Historical Map - Segment A6



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

Ordnance Survey Plan

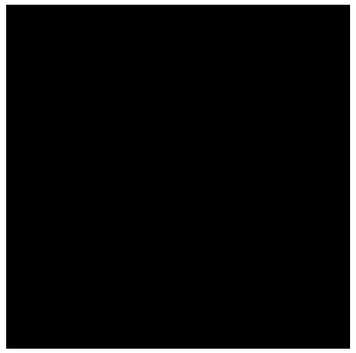
Published 1981

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 A6



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

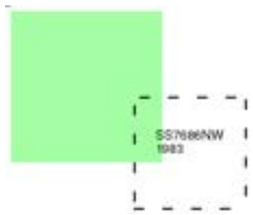
Additional SIMs

Published 1983

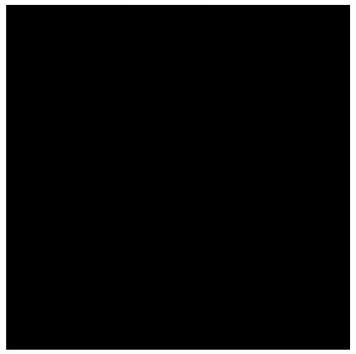
Source map scale - 1:1,250

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 A6



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

Site Details

Site at 276000, 187370

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

[redacted]

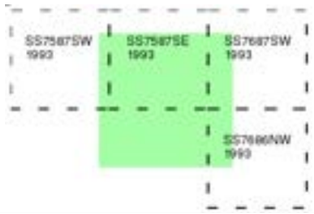
Large-Scale National Grid Data

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)



Historical Map - Segment A6

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	250

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Site at 276000, 187370

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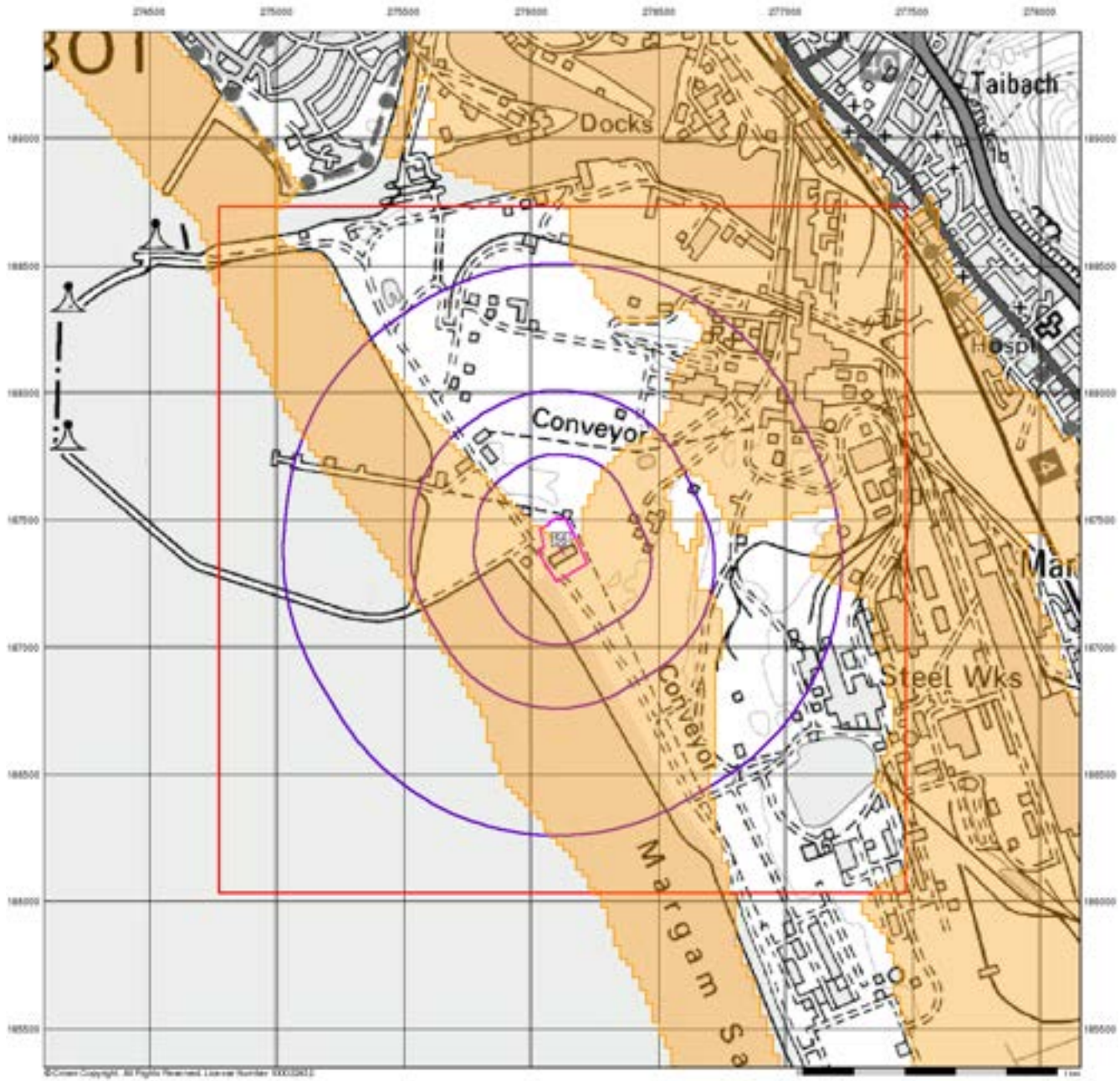

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Mining & Ground Stability
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Ground Stability Data (1:50,000)

General

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

Potential for Compressible Ground Stability Hazards

High | Low
Moderate | Very Low

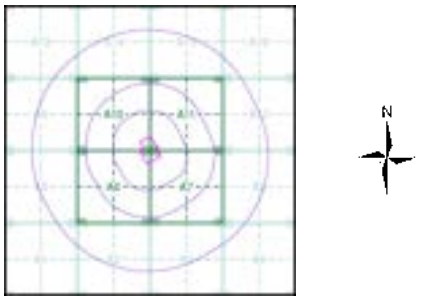
Potential for Collapsible Ground Stability Hazards

Moderate | Low

Brine Pumping and Salt Mining

	Point	Polygon
Brine Pumping Related Feature	▲	
Salt Mining Related Feature	▲	

Mining and Ground Stability - Slice A



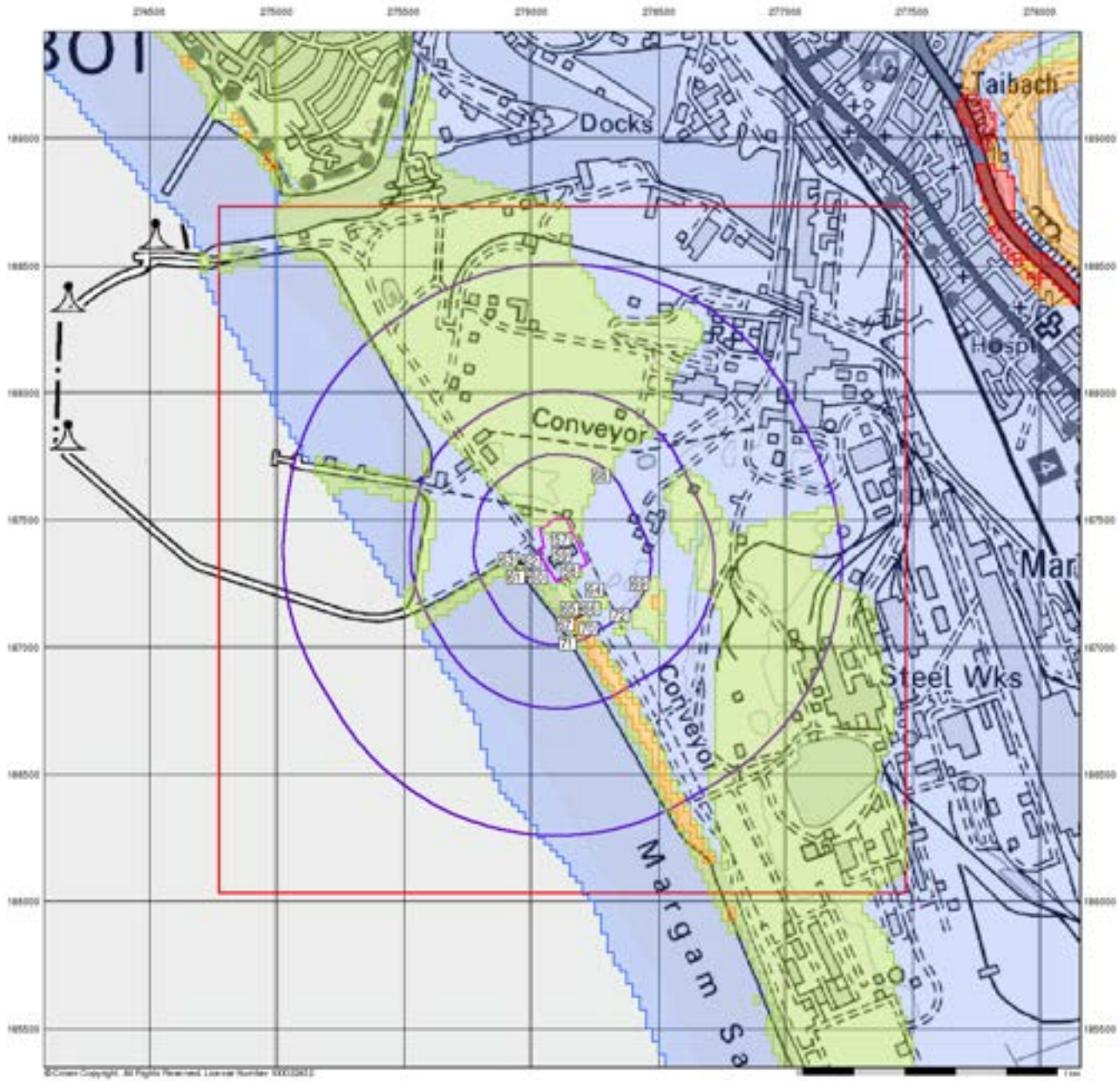
Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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



Envirocheck®
Mining & Ground Stability
A Landmark service

Ground Stability Data (1:50,000)

General

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

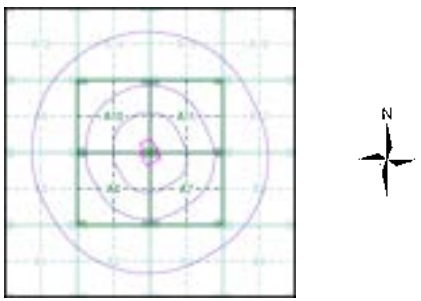
Potential for Landslide Ground Stability Hazards

High
Low
Moderate
Very Low

Potential for Ground Dissolution Stability Hazards

High
Low
Moderate
Very Low

Mining and Ground Stability - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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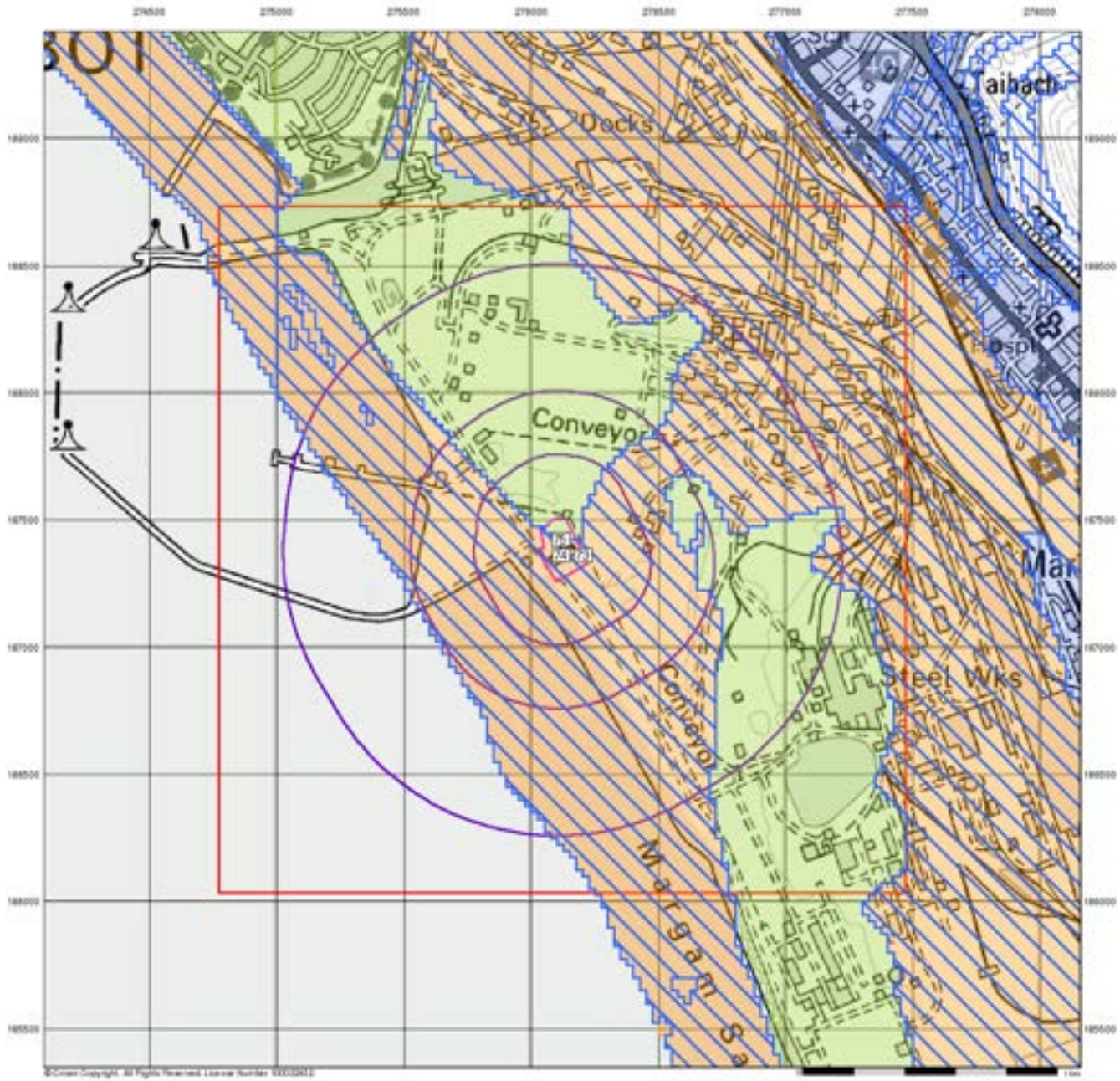
Web: www.envirocheck.co.uk



Envirocheck®
Mining & Ground Stability
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Ground Stability Data (1:50,000)

General

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

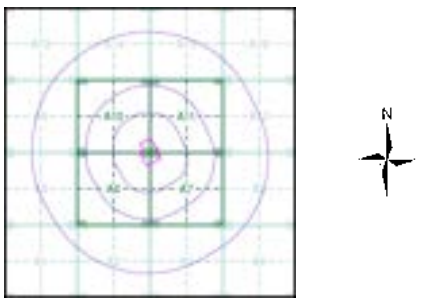
Potential for Running Sand Ground Stability Hazards

High
Low
Moderate
Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

High
Low
Moderate
Very Low

Mining and Ground Stability - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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

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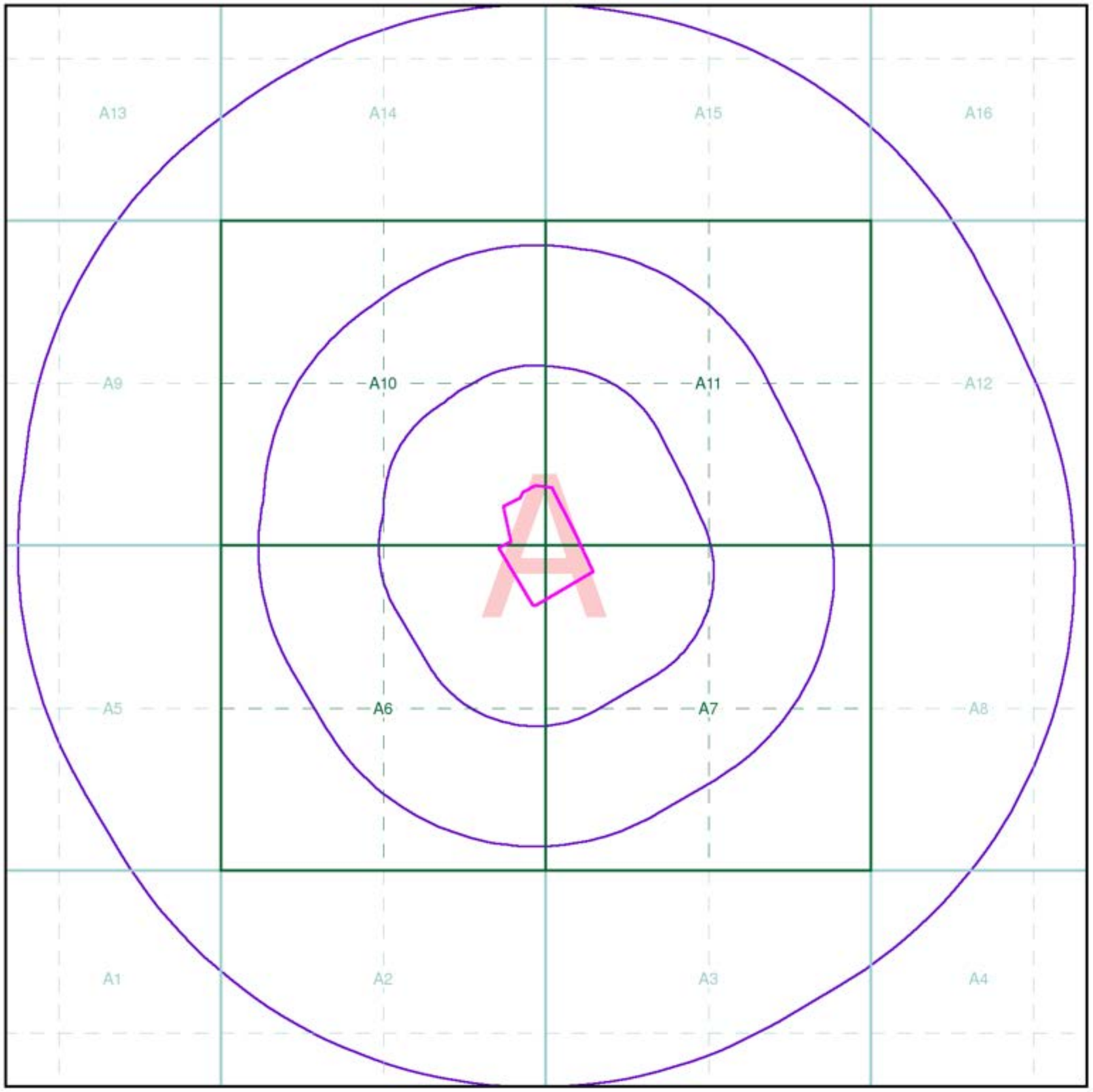
ORDER CONFIRMATION

Created by: Lisa Dymock
Date: 24/07/2008

Order Number: 25931460
PO Ref:
Your Ref: 207381

Site Address	Delivery Address	On Behalf of
Site at 276000, 187370	Miss Flavia Cappelletti Ove Arup & Partners International Ltd flavia.cappelletti@arup.com	N/A

Product			Cost £
Envirocheck A0			
1:10,000 Search Buffer	1000 m Search Buffer		
1:2,500 Search Buffer	250 m Search Buffer		
Site Sensitivity Maps and Datasheet	Paper size A3		£ 130.00
	Borehole File Type	csv file	
	Borehole/Trade Directory Buffer	1000 m	
Historical Maps	Plot Historical Maps Buffers?	No	£ 130.00
Mining and Ground Stability			£ 15.00
Historical Aerial Photography	Plot Historical Aerial Photography Buffers?	No	£ 10.00
Historical Data Report			£ 50.00
Media	Email		
Licence to copy report up to 20 times			£ 10.00
Coal Authority Coal and Brine Report	Electronic (Delivered in 5 to 10 working days)		£ 42.55
Total			£ 387.55
VAT			£ 67.83
Total incl. VAT			£ 455.38



Envirocheck®
A Landmark service

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:

Ordnance Survey® Licensed Partner
British Geological Survey
Environment Agency
Cyngor Cefn Gwlad Cymru / Countryside Council for Wales

Envirocheck reports are compiled from 136 different sources of data.

Client Details
Miss L Dymock, Ove Arup & Partners International Ltd, 4 Pier Head Street, Capital Waterside, Cardiff, CF10 4QP

Order Details
Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276110, 187390
Site Area (Ha): 2.95
Search Buffer (m): 1000

Site Details
Site at 276000, 187370

LANDMARK Information Group
Tel: 0844 844 9952
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Web: www.envirocheck.co.uk

LANDMARK TERMS AND CONDITIONS

Version 6.04 28 Jul 2007

Definitions

"Authorised Reseller" means an agent or reseller of Landmark whom Landmark has duly appointed to resell its Reports and Services.

"Content" means any data, computing and information services and software, and other content and documentation or support materials and updates included in and/or supplied by or through the Websites, in Reports or Services or in any other way by Landmark and shall include Landmark developed and Third Party Content.

"First Purchaser" means the first person, or legal entity to purchase the Property Site following provision of a Report.

"First Purchaser's Lender" means the funding provider for the First Purchaser

"Information Pack" means a pack compiled by or on behalf of the owner or prospective buyer of the Property Site, designed to aid the marketing or purchase of the Property Site and containing information provided by or on behalf of the owner or prospective buyer of the Property Site.

"Intellectual Property Rights" means copyright, patent, design right (registered or unregistered), service or trade mark (registered or unregistered), database right or other data right, moral right or know how or any other intellectual property right.

"Order" means the request for Services from Landmark by You.

"Property Site" means a land site on which Landmark provides a Service.

References to **"We"**, **"Us"** and **"Our"** are references to Landmark Information Group Limited ("Landmark"), whose registered office is 7 Abbey Court, Eagle Way, Exeter, EX2 7HY. Where You are not ordering the Services directly from Landmark, but from an Authorised Reseller, references to "Landmark" or "We", "Us" and "Our" shall be construed so as to mean either Landmark and/or the Authorised Reseller as the context shall indicate.

References to **"You/Your/Yourself"** refer to the contracting party who accesses the Website or places an Order with Landmark.

"Report" includes any information that Landmark supplies to You including all reports, services, datasets, software or information contained in them.

"Services" means the provision of any service by Landmark pursuant to these Terms, including without limitation, any Report.

"Landmark Fees" means any charges levied by Landmark for Services provided to You.

"Suppliers" means any organisation who provides data or information of any form to Landmark.

"Terms" means these Terms & Conditions.

"Third Party Content" means the services, software, information and other content or functionality provided by third parties and linked to or contained in the Services.

"Websites" means websites hosted by Landmark and includes the Content and any report, service, document, data-set, software or information contained therein, derived there from or thereby.

1. Terms & Conditions

a. These Terms govern the relationship between You and Landmark whether You are an unregistered visitor to the Website or are purchasing Services. Where these Terms are not expressly accepted by You they will be deemed to have been accepted by You, and You agree to be bound by these Terms when You place any Order, or pay for any Services provided

b. If the person communicating with Landmark is an Authorised Reseller, they must ensure that You agree to these Terms.

c. The headings in these Terms are for convenience only and shall not affect the meaning or interpretation of any part of these Terms.

d. Landmark may modify these Terms, and may discontinue or revise any or all other aspects of the Services at our sole discretion, with immediate effect and without prior notice, including without limitation changing the Services available at any given time. Any amendment or variation to these Terms shall be posted on our Websites. Continued use of the Services by You shall be deemed an acceptance by You to be bound by any such amendments to the Terms.

e. These Terms, together with the prices and delivery details set out on our Websites, Landmark's Privacy Policy and Your Order comprise the whole agreement relating to the supply of Services to You by Landmark. No prior stipulation, agreement, promotional material or statement whether written or oral made by any sales or other person or representative on our behalf should be understood as a variation of these Terms. Save for fraud or misrepresentation, Landmark shall have no liability for any such representation being untrue or misleading.

f. These Terms shall prevail at all times to the exclusion of all other terms and conditions including any terms and conditions which You may purport to apply even if such other provisions are submitted in a later document or purport to exclude or override these Terms and neither the course of conduct between parties nor trade practice shall act to modify these Terms.

2. Services

a. Landmark will use reasonable care and skill in providing the Services to You, however, the Services are provided on the express basis that the information and data supplied in the Services are derived from third party sources and Landmark does not warrant the accuracy or completeness of such information or data. Such information is derived solely from those sources specifically cited in the Services and Landmark does not claim that these sources represent an exhaustive or comprehensive list of all sources that might be consulted.

3. Intellectual Property

a. You acknowledge that all Intellectual Property Rights in the Services are and shall remain owned by either Landmark or our Suppliers and nothing in these Terms purports to transfer, assign or grant any rights to You in respect of the Intellectual Property Rights.

b. Subject always to these Terms You may, without further charge, make the Services available to;
   i. the owner of the Property at the date of the Report,
   ii. any person who purchases the whole of the Property Site,
   iii. any person who provides funding secured on the whole of the Property Site,
   iv. any person for whom You act in a professional or commercial capacity,
   v. any person who acts for You in a professional or commercial capacity; and
   vi. prospective buyers of the Property Site as part of an Information Pack but for the avoidance of doubt, Landmark shall have no liability to such prospective buyer unless the prospective buyer subsequently purchases the Property Site, and the prospective (or actual) buyer shall not be entitled to make the Service available to any other third party.
   Accordingly Landmark shall have the same duties and obligations to those persons in respect of the Services as it has to You.

c. Each of those persons referred to in clause 3.b. shall have the benefit and the burden of Your rights and obligations under these Terms. The limitations of Landmark's liability as set out in clause 6 shall apply to all users of the Service in question in aggregate and Landmark shall not be liable to any other person.

d. All parties given access to the Services agree that they will treat as strictly private and confidential the Services and all information which they obtain from the Services and shall restrict any disclosure to employees or professional advisors to enable the relevant party to conduct its internal business. The requirement in this clause to treat the Services as confidential shall include a requirement to maintain adequate security measures to safeguard the Services from unauthorised access, use or copying.

e. Each recipient of the Services agrees (and agrees it will cause its employees, agents or contractors who may from time to time have access to the Services to agree) it will not, except as permitted herein or by separate agreement with Landmark:-
   i. effect or attempt to effect any modification, merger or change to the Service, nor permit any other person to do so; or
   ii. copy, use, market, re-sell, distribute, merge, alter, add to or carry on any redistribution, reproduction, translation, publication, reduction to any electronic medium or machine readable form or commercially exploit or in any other way deal with or utilise or (except as expressly permitted by applicable law) reverse engineer, decompile or disassemble the Services, Content or Website; or
   iii. remove, alter or in any way change any trademark or proprietary marking in any element of the Services and You shall acknowledge the ownership of the Content, where such Content is incorporated or used into Your own documents, reports, systems or services whether or not these are supplied to any third party.
   iv. create any product which is derived directly or indirectly from the data contained in the Services

f. The mapping contained in any Services is protected by Crown Copyright and must not be used for any purpose outside the context of the Services or as specifically provided by these Terms.

g. You are permitted to make five copies of any Report, but are not authorised to re-sell the Report, any part thereof or any copy thereof unless you are an Authorised Reseller. Further copies may not be made in whole or in part without the prior written permission of Landmark who shall be entitled to make a charge for each additional copy.

4. Charges

a. VAT at the prevailing rate shall be payable in addition to the Landmark Fees. You shall pay any other applicable indirect taxes related to Your use of the Services.

b. An individual or a monthly invoice showing all Orders created by You will be generated subject to these Terms. You will pay the Landmark Fees at the rates set out in Landmark's or its Authorised Reseller's invoice. The Landmark Fees are payable in full within 30 days without deduction, counterclaim or set off. You acknowledge that time is of the essence with respect to the payment of such invoices. Landmark reserve the right to amend the Landmark Fees from time to time and the Services will be charged at the Landmark Fee applicable at the date on which the Service is ordered.

c. We may charge interest on late payment at a rate equal to 3% per annum above the base lending rate of National Westminster Bank plc.

d. Landmark or its Authorised Reseller shall not be obliged to invoice any party other than You for the provision of Services, but where Landmark or its Authorised Reseller does so invoice any third party at Your request, and such invoice is not accepted or remains unpaid, Landmark or its Authorised Reseller shall have the option at any time to cancel such invoice and invoice You direct for such Services. Where Your order comprises a number of Services or severable elements within any one or more Services, any failure by Landmark or its Authorised Reseller to provide an element or elements of the Services shall not prejudice Landmark's or its Authorised Reseller's ability to require payment in respect of the Services delivered to You.

5. Termination

a. Landmark may suspend or terminate Your rights under these Terms without any liability to You with immediate effect if at any time:-
   i. You fail to make any payment due in accordance with clause 4;
   ii. You repeatedly breach or commit or cause to be committed any material breach of these Terms; or
   iii. You commit a breach and You fail to remedy the breach within 7 days of receipt of a written notice to do so; additionally, without prejudice to the foregoing, Landmark may remedy the breach and recover the costs thereof from You.

b. If Your rights are terminated under this clause and You have made an advance payment We will refund You a reasonable proportion of the balance as determined by Us in relation to the value of Services previously purchased.

c. Landmark reserves the right to refuse to supply any or all Services to You without notice or reason.

6. Liability

a. We provide warranties and accept liability only to the extent stated in this clause 6 and clause 7.

b. Nothing in these Terms excludes either party's liability for death or personal injury caused by that party's negligence or wilful default, and the remainder of this clause 6 is subject to this provision and Your statutory rights.

c. As most of the information contained in the Services is provided to Landmark by others, Landmark cannot control its accuracy or completeness, nor is it within the scope of Landmark's Services to check the information on the ground. Accordingly, Landmark will only be liable to You for any loss or damage caused by its negligence or willful default and subject to clause 6.o below neither Landmark nor any person providing information contained in any Services shall in any circumstances be liable for any inaccuracies, faults or omissions in the Services, nor shall Landmark have any liability if the Services are used otherwise than in accordance with these Terms.

d. Save as precluded by law, Landmark shall not be liable for any indirect or consequential loss, damage or expenses (including loss of profits, loss of contracts, business or goodwill) howsoever arising out of any problem, event, action or default by Landmark.

e. In any event, and notwithstanding anything contained in these Terms, Landmark's liability in contract, tort (including negligence or breach of statutory duty) or otherwise howsoever arising by reason or in connection with this Contract (except in relation to death or personal injury) shall be limited to an aggregate amount not exceeding £1 million if the complaint is in relation to a Report on residential property and an aggregate amount not exceeding £10 million in respect of any other Report or Service purchased from Landmark.

f. Landmark will not be liable for any defect, failure or omission relating to Services that is not notified to Landmark within six months of the date of the issue becoming apparent and in any event, within twelve years of the date of the Service.

g. You acknowledge that:-
   i. Subject to clause 6.o below You shall have no claim or recourse against any Third Party Content supplier nor any of our other Suppliers. You will not in any way hold us responsible for any selection or retention of, or the acts of omissions of Third Party Content suppliers or other Suppliers (including those with whom We have contracted to operate various aspects or parts of the Service) in connection with the Services (for the avoidance of doubt Landmark is not a Third Party Content supplier). Landmark does not promise that the supply of the Services will be uninterrupted or error free or provide any particular facilities or functions, or that the Content will always be complete, accurate, precise, free from defects of any other kind, computer viruses, software locks or other similar code although Landmark will use reasonable efforts to correct any inaccuracies within a reasonable period of them becoming known to us;
   ii. Landmark's only obligation is to exercise reasonable skill and care in providing environmental property risk information to persons acting in a professional or commercial capacity who are skilled in the use of property and environmental information and You hereby acknowledge that You are such a person;
   iii. no physical inspection of the Property Site reported on is carried out as part of any Services offered by Landmark and Landmark do not warrant that all land uses or features whether past or current will be identified in the Services. The Services do not include any information relating to the actual state or condition of any Property Site nor should they be used or taken to indicate or exclude actual fitness or unfitness of a Property Site for any particular purpose nor should it be relied upon for determining saleability or value or used as a substitute for any physical investigation or inspection. Landmark recommends that You inspect and take other advice in relation to the Property Site and not rely exclusively on the Services.
   iv. Subject to clause 6.o below, Landmark shall not be responsible for error or corruption in the Services resulting from inaccuracy or omission in primary or secondary information and data, inaccurate processing of information and data by third parties, computer malfunction or corruption of data whilst in the course of conversion, geo-coding, processing by computer or electronic means, or in the course of transmission by telephone or other communication link, or printing.
   v. Landmark will not be held liable in any way if a Report on residential property is used for commercial property or more than the one residential property for which it was ordered.
   vi. the Services have not been prepared to meet Your or anyone else's individual requirements; that You assume the entire risk as to the suitability of the Services and waive any claim of detrimental reliance upon the same; and You confirm You are solely responsible for the selection or omission of any specific part of the Content;
   vii. Landmark offer no warranty for the performance of any linked internet service not operated by Landmark;
   viii. You will on using the Services make a reasonable inspection of any results to satisfy Yourself that there are no defects or failures. In the event that there is a material defect You will notify us in writing of such defect within seven days of its discovery;
   ix. Any support or assistance provided to You in connection with these Terms is at Your risk;

h. All liability for any insurance products purchased by You rests solely with the insurer. Landmark does not endorse any particular product or insurer and no information contained within the Services should be deemed to imply otherwise. You acknowledge that if You Order any such insurance Landmark will deem such as Your consent to forward a copy of the Report to the insurers. Where such policy is purchased, all liability remains with the insurers and You are entirely responsible for ensuring that the insurance policy offered is suitable for Your needs and should seek independent advice. Landmark does not guarantee that an insurance policy will be available on a Property Site. All decisions with regard to the offer of insurance policies for any premises will be made solely at the discretion of the insurers and Landmark accepts no liability in this regard. The provision of a Report does not constitute any indication by Landmark that insurance will be available on the property.

i. Professional opinions contained in Reports are provided to Landmark by third parties, and such third parties are solely liable for the opinion provided. For the avoidance of doubt, those parties providing assessments or professional opinions on Landmark products include RPS Plc & Wilbourn Associates Limited, and any issues with regard to the provision of such opinion should be taken up with the relevant third party.
   If Landmark provides You with any additional service obtained from a third party, including but not limited to any interpretation or conclusion, risk assessment or environmental report or search carried out in relation to a Report on Your Property Site, subject to clause 6.o below Landmark will not be liable in any way for any information contained therein or any issues arising out of the provision of those additional services to You. Landmark will be deemed to have acted as an agent in these circumstances and the supply of these additional services will be governed by the terms and conditions of those Third Parties.

j. In any event no person may rely on a Service more than 12 months after its original date.

k. If You wish to vary any limitation of liability as set out in these Terms, You must request such variation prior to ordering the Service. Landmark shall use its reasonable endeavours to agree such variation but shall not be obliged to do so.

l. Time shall not be of the essence with respect to the provision of the Services.

m. Ordnance Survey have undertaken a positional accuracy improvement programme which may result in discrepancies between the positioning of features used in datasets in the Services and the updated Ordnance Survey mapping. Subject to clause 6.o below, Landmark and its Suppliers exclude all and any liability incurred as a result of the implementation of such positional accuracy improvement programme.

n. Where Landmark provides its own risk assessment in connection with any Report, Landmark shall carry out such assessment with all reasonable skill and care but shall have no liability for any such risk assessment conclusion which is provided for information only, save where Landmark conducted the same negligently, in which case the provisions of clause 6 shall apply. Notwithstanding the provision of any such risk assessment conclusion you should carefully examine the remainder of the Report and should not take or refrain from taking any action based solely on the basis of the risk assessment. For the avoidance of doubt, the provisions of this clause 6n apply solely to risk assessments conducted by Landmark, and the provision of any other risk assessment by a third party shall be governed by such third party's terms in accordance with the provisions of clause 6i above.

o. Landmark obtains much of the information contained in its Report from third parties. Landmark will not accept any liability to You for any negligent or incorrect entry, or error or corruption in the Third Party Content supplied to Landmark, but Landmark's Suppliers may be liable for such negligent or incorrect entries, or errors or corruptions, subject to the terms and conditions on which they supply the Third Party Content to Landmark.

7. Contribution

a. Save where expressly provided, this clause 7 shall apply solely to Envirosearch Residential Reports (regardless of the result of such Report). Nothing in this clause 7 shall operate to override or vary the provisions of clause 6.

b. Landmark are prepared to offer, at their sole discretion, and without any admission or inference of liability a contribution towards the costs of any remediation works required under a Notice (as defined below) on the terms of this clause 7 ("the Contribution")

c. In the event that a Remediation Notice is served on the First Purchaser or First Purchaser's Lender of a Property Site under Part II(A) of the Environmental Protection Act 1990 ("the Notice") Landmark will contribute to the cost of such works as either the First Purchaser or First Purchaser's Lender (but not both) are required to carry out under the Notice subject to the provisions of this clause 7 and on the following terms:
   i. the Contribution shall only apply to contamination or a pollution incident present or having occurred prior to the date of the Report;
   ii. the Contribution shall only apply where the Property Site is a single residential dwelling house or a single residential flat within a block of flats. For the avoidance of doubt, this obligation does not apply to any commercial property, nor to any Property Site being developed or redeveloped whether for residential purposes or otherwise;
   iii. the Contribution is strictly limited to the cost of works at the Property Site and at no other site.
   iv. the Contribution will not be paid in respect of any of the following:
   Radioactive contamination of whatsoever nature, directly or indirectly caused by or contributed to or arising from ionising radiations or contamination by radioactivity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel or the radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof.
   Asbestos arising out of or related in any way to asbestos or asbestos-containing materials on or in structures or services serving the structures.
   Naturally occurring materials arising from the presence or required removal of naturally occurring materials except in circumstances where such materials are present in concentrations which are in excess of their natural concentration.
   Intentional non-compliance arising from the intentional disregard of or knowing wilful or deliberate non-compliance by any owner or occupier of the Property Site with any statute, regulation, administrative complaint, notice of violation, or notice letter of any Regulatory Authority.
   Any condition which is known or ought reasonably to have been known to the First Purchaser or the First Purchaser's Lender prior to the purchase of the Report.
   Any condition which is caused by acts of War or an Act of Terrorism.
   Any property belonging to or in the custody or control of the First Purchaser which does not form a fixed part of the Property Site or the structure.
   Any fines liquidated damages punitive or exemplary damages.
   Any bodily injury including without limitation, death, illness or disease, mental injury, anguish or nervous shock.
   Any financial loss in respect of any loss of any rental, profit, revenue, savings or business or any consequential indirect or economic loss damage or expense including the cost of rent of temporary premises or business interruption.
   Any losses incurred following a material change in use of, alteration or development of the Property Site.

d. The maximum sum that shall be contributed by Landmark in respect of any Contribution shall be limited to £60,000. In the event that more than one Report is purchased on the Property Site the Contribution will only be payable under the first Report purchased by or on behalf of any First Purchaser or First Purchaser's Lender and no Contribution will be made in respect of subsequent Reports purchased by or on behalf of such First Purchaser, First Purchaser's Lender or any person connected to them.

e. Landmark shall only pay a Contribution where the Notice is served within 36 months of the date of the Report.

f. Any rights to a Contribution under this Clause 7 are not assignable in the event of a sale of the Property Site and Landmark will not make any Contribution after the date of completion of such sale.

g. In the event the First Purchaser or First Purchaser's Lender wishes to claim any Contribution, it shall notify Landmark in writing within 3 months of the date of the Notice. The First Purchaser or First Purchaser's Lender (as applicable) shall comply with all reasonable requirements of Landmark with regard to the commission and conduct of the remediation works to be carried out under the Notice, and in the event the First Purchaser or First Purchaser's Lender (as applicable) does not do so, including without limitation, obtaining Landmark's prior written consent to any estimates for such works or complying with any other reasonable request by Landmark, Landmark shall not be required to pay any Contribution. Notwithstanding the payment of the Contribution by Landmark the First Purchaser or First Purchaser's Lender as applicable shall take all reasonable steps to mitigate any costs incurred in connection with the conduct of works required under the terms of any Notice.

h. In the event that the First Purchaser or First Purchaser's Lender receives any communication from a statutory authority to the effect that there is an intent to serve a notice received under PartII(A) of the Environmental Protection Act 1990 they will advise Landmark within a maximum period of two months from receipt of such communication. This clause 7h and the service of any notice under it shall not affect the provisions of clauses 7 e and g, and any such communications, even if advised to Landmark will not operate as notice under clause 7e.

i. Landmark reserve the right at any time prior to a claim for Contribution being made in accordance with clause 7 g) above, to withdraw the offer of payment of Contributions without further notice.

8. Events Beyond Our Control

a. You acknowledge that Landmark shall not be liable for any delay, interruption or failure in the provision of the Services which are caused or contributed to by any circumstance which is outside our reasonable control including but not limited to, lack of power, telecommunications failure or overload, computer malfunction, inaccurate processing of data, or delays in receiving, loading or checking data, corruption of data whilst in the course of conversion, geo-coding, processing by computer in the course of electronic communication, or printing.

9. Severability

a. If any provision of these Terms are found by either a court or other competent authority to be void, invalid, illegal or unenforceable, that provision shall be deemed to be deleted from these Terms and never to have formed part of these Terms and the remaining provisions shall continue in full force and effect.

10. Governing Law

a. These terms shall be governed by and construed in accordance with English law and each party agrees irrevocably submit to the exclusive jurisdiction of the English courts If any dispute arises out of or in connection with this agreement (a "Dispute") the parties undertake that, prior to the commencement of Court proceedings, they will seek to have the Dispute resolved amicably by use of an alternative dispute resolution procedure acceptable to both parties with the assistance of the Centre for Dispute Resolution (CEDR) if required, by written notice initiating that procedure. If the Dispute has not been resolved to the satisfaction of either party within 60 days of initiation of the procedure or if either party fails or refuses to participate in or withdraws from participating in the procedure then either party may refer the Dispute to the Court.

11. General; Complaints

a. Landmark may assign its rights and obligations under these Terms without prior notice or any limitation.

b. Landmark may authorise or allow our contractors and other third parties to provide to Landmark and/or to You services necessary or related to the Services and to perform Landmark's obligations and exercise Landmark's rights under these Terms, which may include collecting payment on Landmark's behalf.

c. No waiver on Landmark's part to exercise, and no delay in exercising, any right, power or provision hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or provision hereunder preclude the exercise of that or any other right, power or provision.

d. Unless otherwise stated in these Terms, all notices from You to Landmark must be in writing and sent to the Landmark registered office (or in the case of an Authorised Reseller, to its registered office address) and subject to paragraph e below all notices from Landmark to You will be displayed on our Websites from time to time.

e. Any complaints in relation to the Services should, in the first instance, be in writing addressed to the Customer Service Support Manager at the Landmark registered office. Landmark or its agents will respond to any such complaints in writing as soon as practicably possible.

f. A person who is not a party to any contract made pursuant to these Terms shall have no right under the Contract (Right of Third Parties) Act 1999 to enforce any terms of such contract and Landmark shall not be liable to any such third party in respect of any Services supplied.

g. Landmark's Privacy Policy as displayed on the Website governs the use made of any information You supply to Landmark.

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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

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

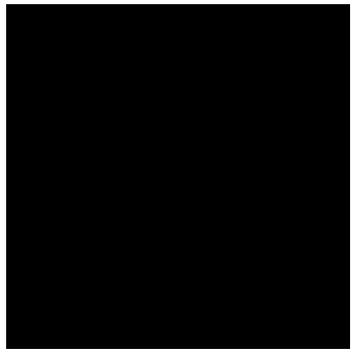
Waste

- 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
- 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

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

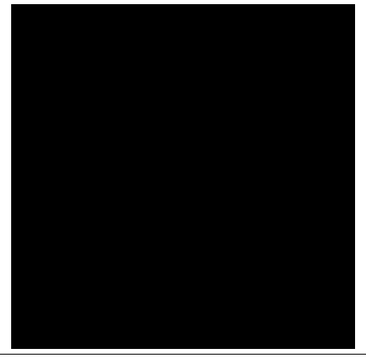
LANDMARK Information Group
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

Envirocheck®
A Landmark service

eneral
ecified Site
ed Buffer(s)
erence Point
l Hydrological (Flood)
Rivers or Sea without Defences (Zone 2)
without Defences (Zone 3)
ce

G
Sp
Specifi
Bearing Re
Agency an
Extreme Flooding from
Flooding from Rivers or Sea
Areas Benefiting from Flood Defe
Flood Water Storage Areas
Flood Defence

Flood Map - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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

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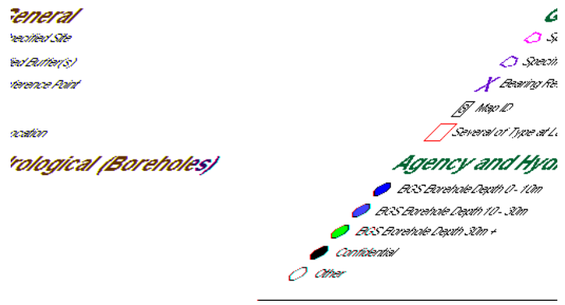
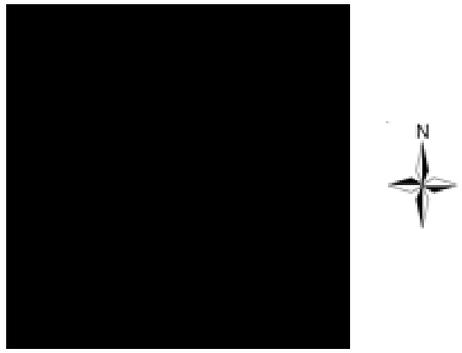


For Borehole information please refer to the Borehole .csv file which accompanied this slice.

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:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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General

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

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

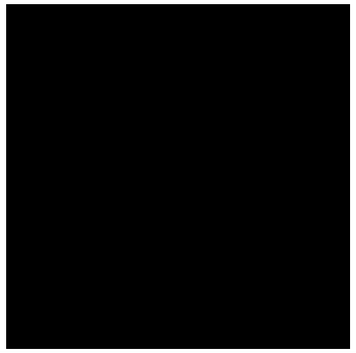
Waste

- 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
- 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

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Segment A6



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Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Plot Buffer (m):	250

Site Details

Site at 276000, 187370

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General

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

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

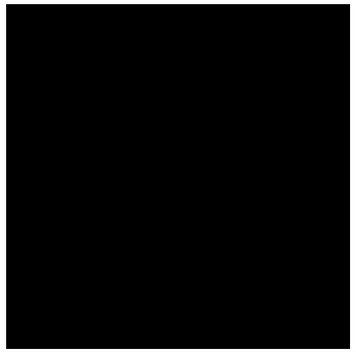
Waste

- 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
- 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

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Segment A7



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Plot Buffer (m):	250

Site Details

Site at 276000, 187370

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General

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

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

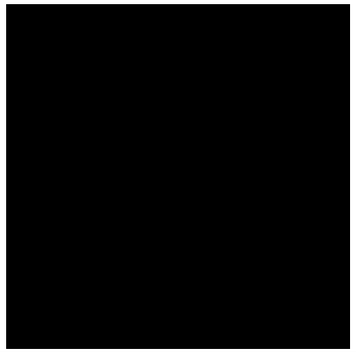
Waste

- 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
- 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

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Segment A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Plot Buffer (m):	250

Site Details

Site at 276000, 187370

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General

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

Geological

- BGS Recorded Mineral Site

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

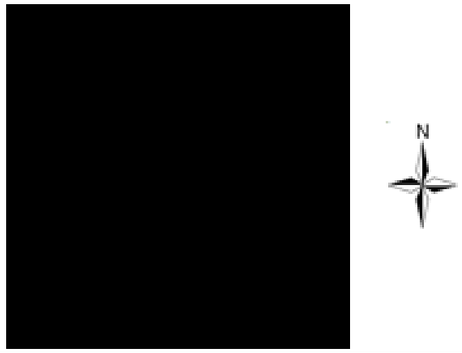
Waste

- 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
- 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

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Site Sensitivity Map - Segment A11



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Plot Buffer (m):	250

Site Details

Site at 276000, 187370

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Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:10,560

[redacted]

Ordnance Survey Plan 1:10,000

[redacted]

1:10,000 Raster Mapping

[redacted]

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Ordnance Survey mapping included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1885	2
Glamorganshire	1:10,560	1900	3
Glamorganshire	1:10,560	1921	4
Glamorganshire	1:10,560	1951	5
Ordnance Survey Plan	1:10,560	1964	6
Ordnance Survey Plan	1:10,560	1965	7
Ordnance Survey Plan	1:10,000	1980 - 1982	8
Ordnance Survey Plan	1:10,000	1982	9
Ordnance Survey Plan	1:10,000	1993	10
10K Raster Mapping	1:10,000	1999	11
10K Raster Mapping	1:10,000	2008	12

Historical Map - Slice A

[redacted]

N

Order Details

Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276120, 187390
Slice: A
Site Area (Ha): 2.95
Search Buffer (m): 1000

Site Details

Site at 276000, 187370

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

Glamorganshire

Published 1885

Source map scale - 1:10,560

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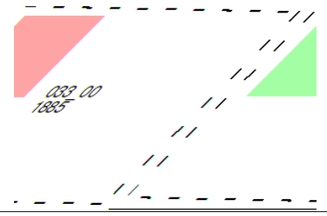
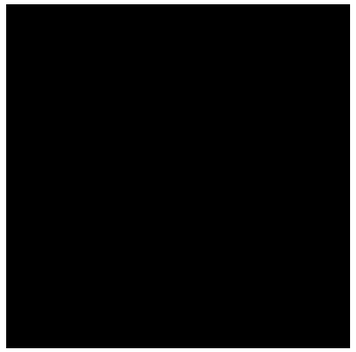
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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Glamorganshire

Published 1900

Source map scale - 1:10,560

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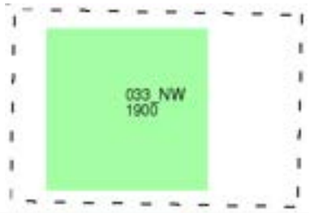
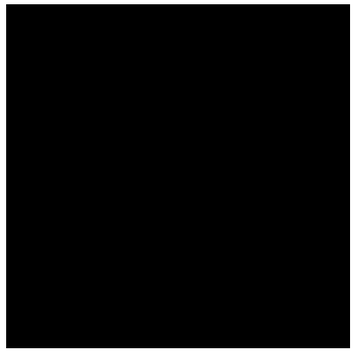
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
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Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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Glamorganshire

Published 1921

Source map scale - 1:10,560

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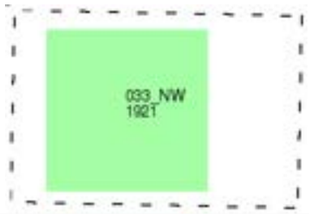
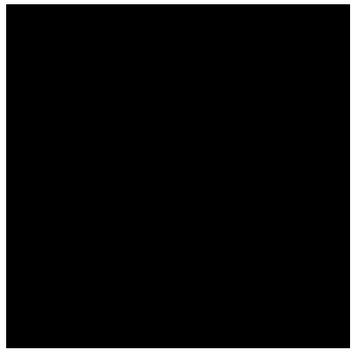
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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[redacted]

Glamorganshire

Published 1951

Source map scale - 1:10,560

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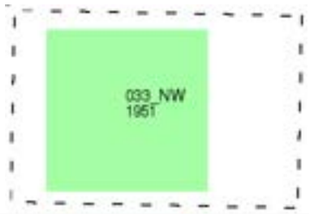
Map Name(s) and Date(s)



Historical Map - Slice A

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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Web: www.envirocheck.co.uk

Ordnance Survey Plan

Published 1964

Source map scale - 1:10,560

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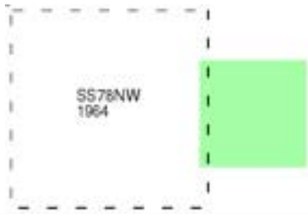
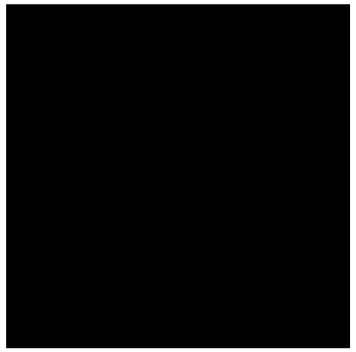
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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

Ordnance Survey Plan

Published 1965

Source map scale - 1:10,560

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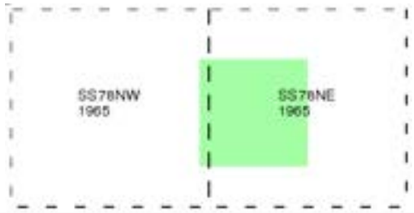
Map Name(s) and Date(s)



Historical Map - Slice A

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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

Ordnance Survey Plan

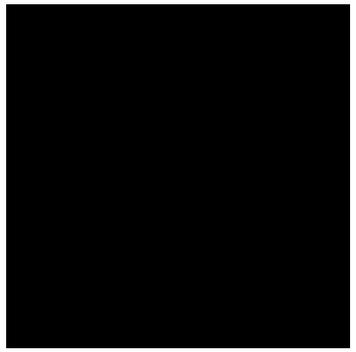
Published 1980 - 1982

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:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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

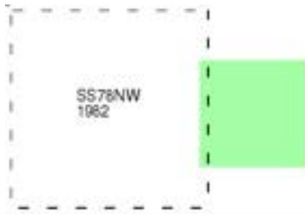
Ordnance Survey Plan

Published 1982

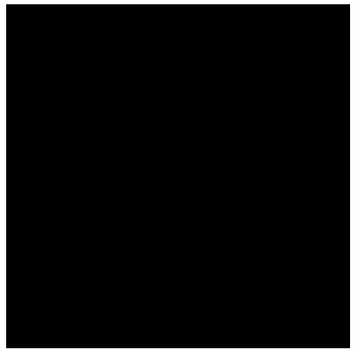
Source map scale - 1:10,000

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:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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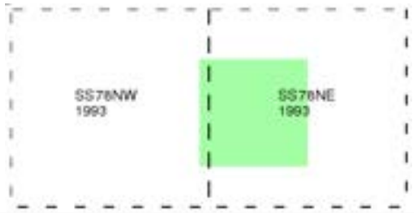
Ordnance Survey Plan

Published 1993

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

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

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[redacted]

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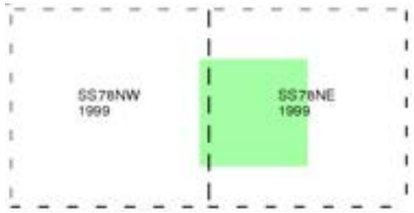
10K Raster Mapping

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

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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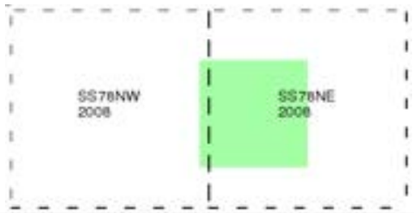
10K Raster Mapping

Published 2008

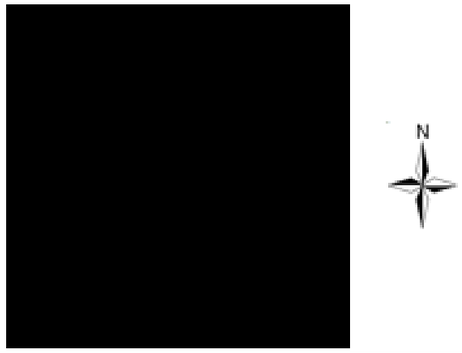
Source map scale - 1:10,000

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:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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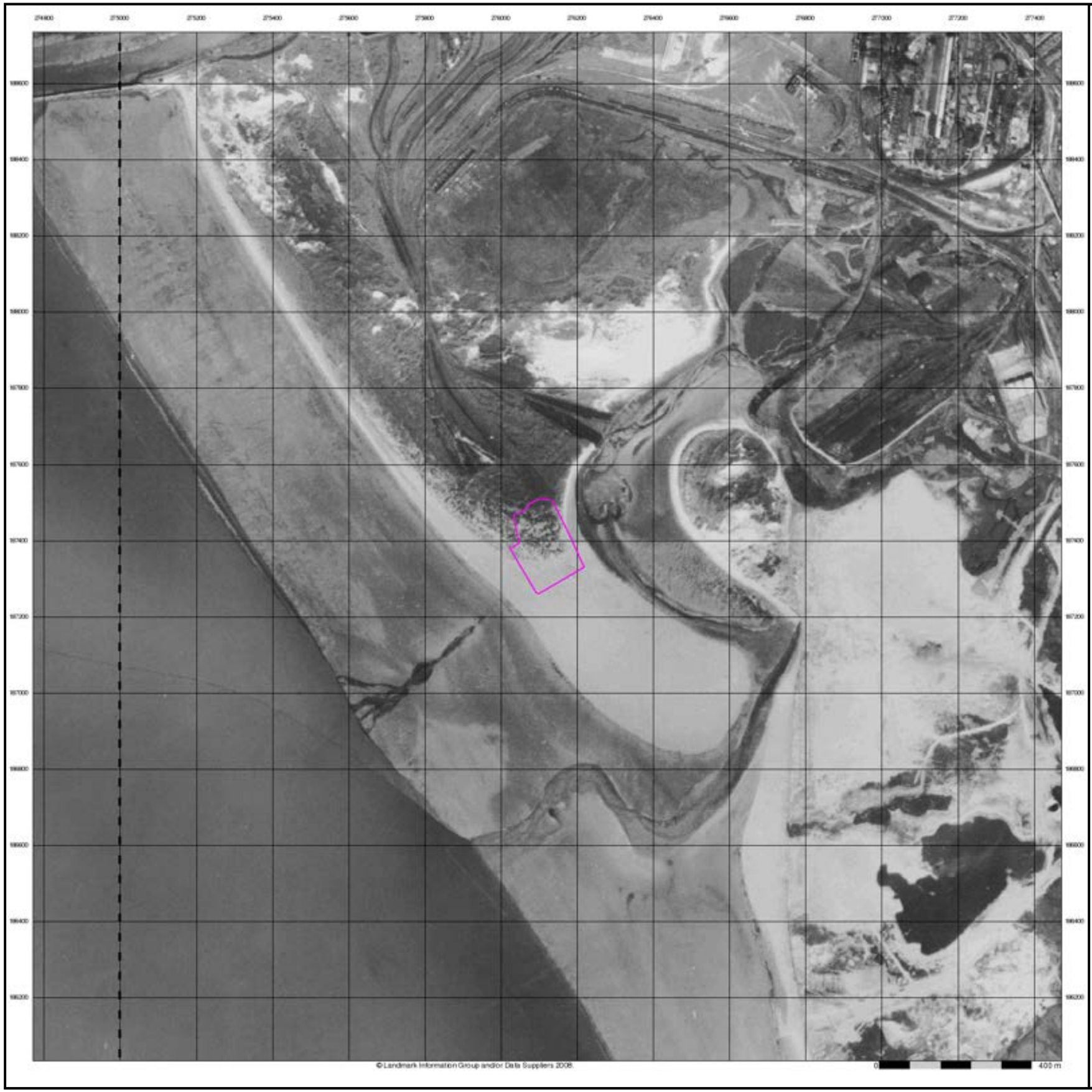
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Envirocheck® Historical Aerials
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Historical Aerial Photography

Published 1949

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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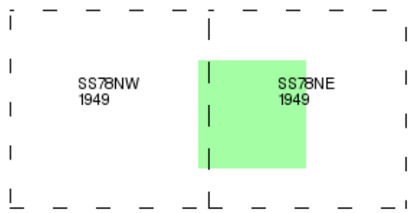
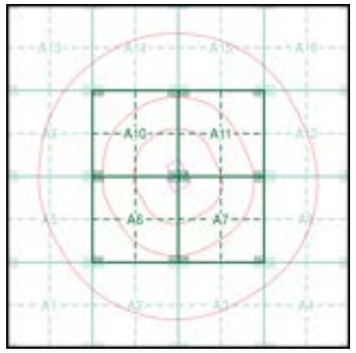
Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



N

BRITISH LIBRARY

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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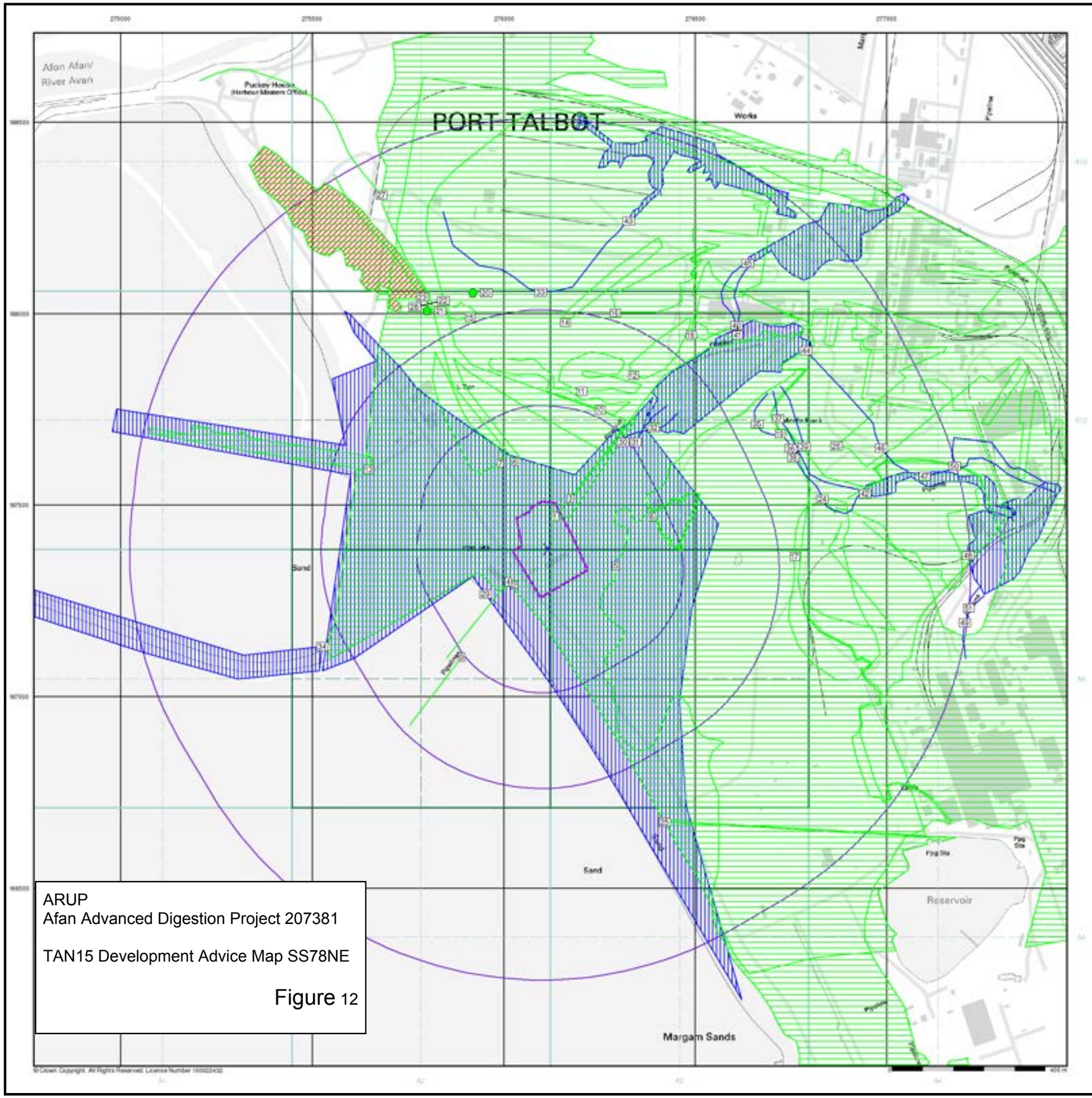
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Historical Data Report
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General

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

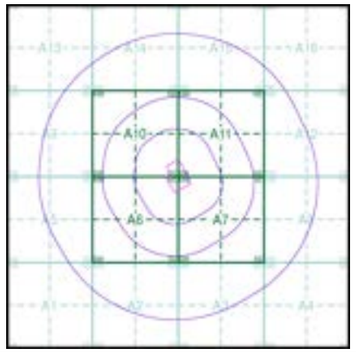
Historical Building Plans

Area Cleared due to Enemy Action

Historical Land Use

Former Marsh
Historical Flood Liability
Historical Flood Liability (Location)
Potentially Contaminative Industrial Use (Past Land Use)
Potentially Contaminative Industrial Use (Past Land Use) (Linear)
Potentially Contaminative Industrial Use (Past Land Use) (Location)
Potentially Infilled Land (Non-Water)
Potentially Infilled Land (Non-Water) (Linear)
Potentially Infilled Land (Non-Water) (Location)
Potentially Infilled Land (Water)
Potentially Infilled Land (Water) (Linear)
Potentially Infilled Land (Water) (Location)

Historical Data Report - Slice Map A



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Search Buffer (m):	1000

Site Details

Site at 276000, 187370

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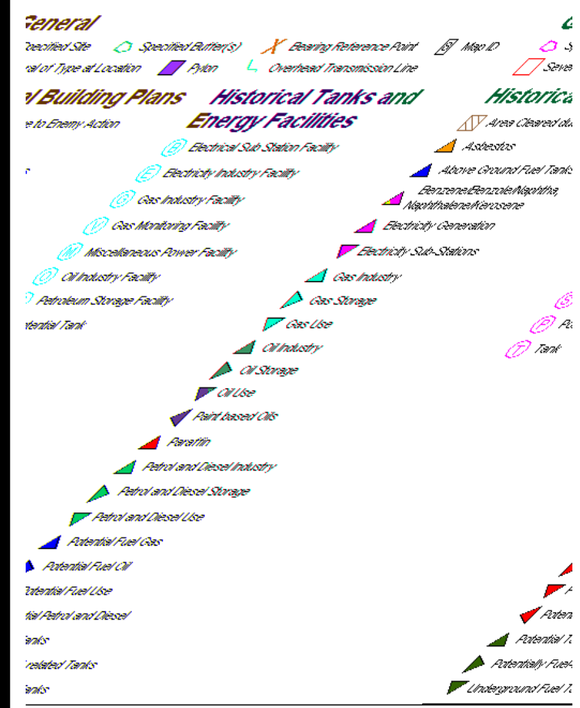

Historical Data Report - Segment A6

[redacted]

Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Plot Buffer (m):	250

Site Details

Site at 276000, 187370

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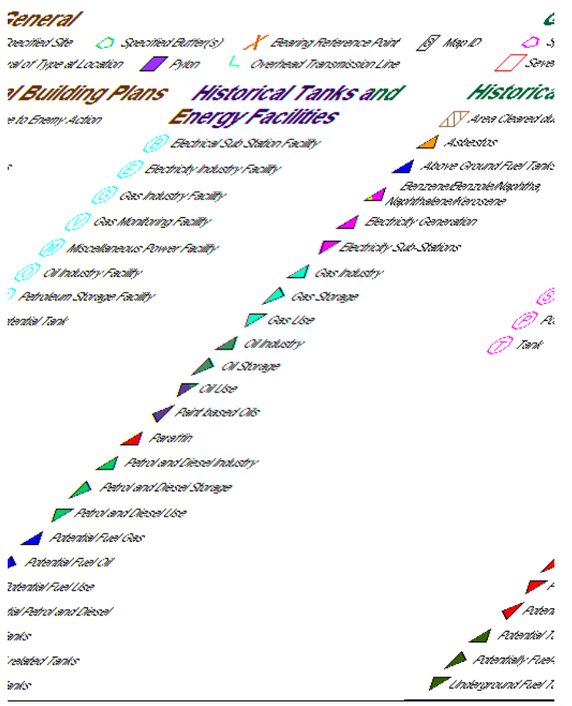
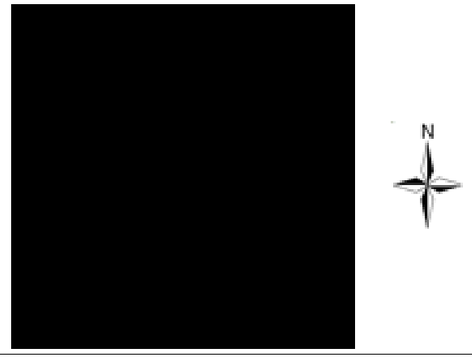


Historical Data Report - Segment A7



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Plot Buffer (m):	250

Site Details

Site at 276000, 187370

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Fax: 0844 844 9951
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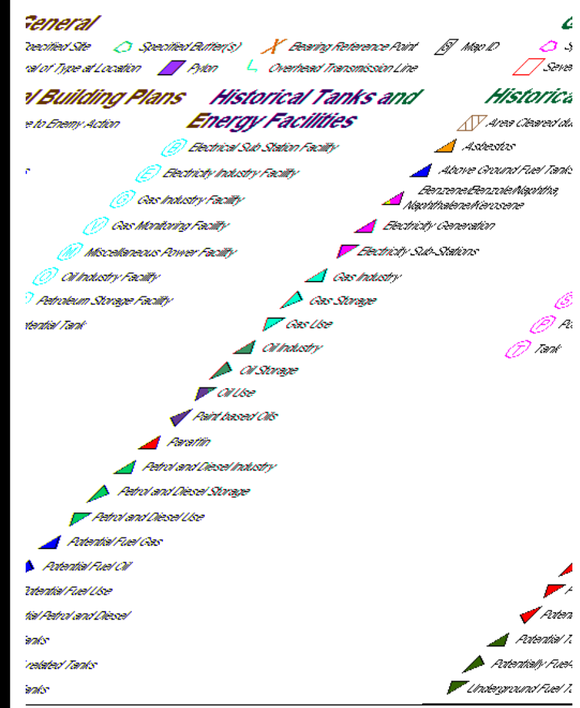
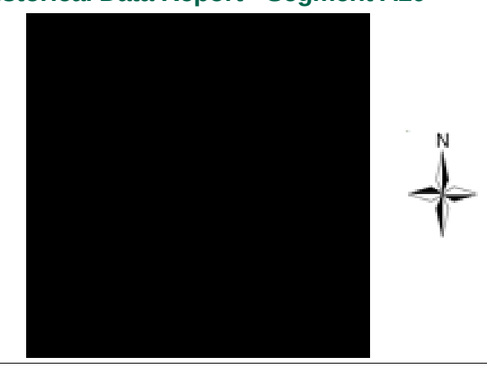


Historical Data Report - Segment A10



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Plot Buffer (m):	250

Site Details

Site at 276000, 187370

LANDMARK Information Group
Tel: 0844 844 9952
Fax: 0844 844 9951
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Historical Data Report
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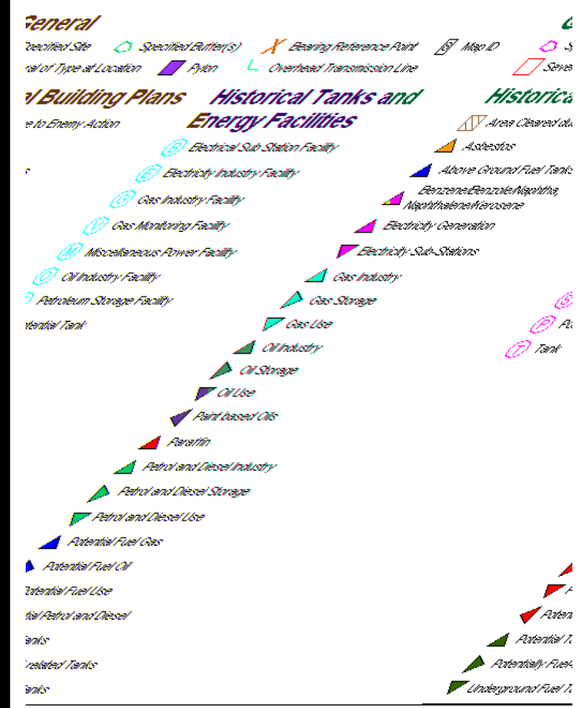
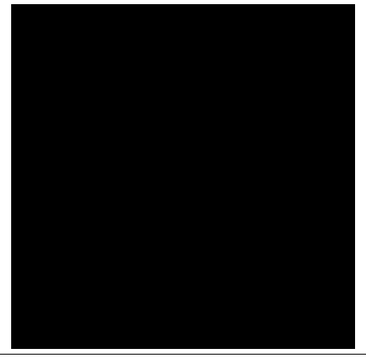


Historical Data Report - Segment A11



Order Details

Order Number:	25931460_1_1
Customer Ref:	207381
National Grid Reference:	276120, 187390
Slice:	A
Site Area (Ha):	2.95
Plot Buffer (m):	250

Site Details

Site at 276000, 187370

LANDMARK Information Group
Tel: 0844 844 9952
Fax: 0844 844 9951
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Envirocheck® Report:

Historical Data Report Datasheet

Order Details:

Order Number:
25931460_1_1

Customer Reference:
207381

National Grid Reference:
276120, 187390

Slice:
A

Site Area (Ha):
2.95

Search Buffer (m):
1000

Site Details:

Site at 276000, 187370

Client Details:

Miss L Dymock
Ove Arup & Partners International Ltd
4 Pier Head Street
Capital Waterside
Cardiff
CF10 4QP

Contents

Report Section	Page Number
Summary	-
Historical Building Plans Information	-
Historical Land Use Information	1
Historical Tanks and Energy Facilities	4
Historical Map List	5
Useful Contacts and Further Information	8

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 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 the attached 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 v36.0

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Historical Building Plans Information					
Areas Cleared Due To Enemy Action					
Above Ground Fuel Tanks				n/a	n/a
Asbestos				n/a	n/a
Benzene/Benzole/Naphtha, Naphthalene/Kerosene				n/a	n/a
Electricity Generation				n/a	n/a
Electricity Sub-Stations				n/a	n/a
Gas Industry				n/a	n/a
Gas Storage				n/a	n/a
Gas Use				n/a	n/a
Oil Industry				n/a	n/a
Oil Storage				n/a	n/a
Oil Use				n/a	n/a
Paint based Oils				n/a	n/a
Paraffin				n/a	n/a
Petrol and Diesel Industry				n/a	n/a
Petrol and Diesel Storage				n/a	n/a
Petrol and Diesel Use				n/a	n/a
Potential Fuel Gas				n/a	n/a
Potential Fuel Oil				n/a	n/a
Potential Fuel Use				n/a	n/a
Potential Petrol and Diesel				n/a	n/a
Potential Tanks				n/a	n/a
Potentially Fuel-related Tanks				n/a	n/a
Underground Fuel Tanks				n/a	n/a
Historical Land Use Information					
Former Marshes					
Historical Flood Liabilities					
Potentially Contaminative Industrial Uses (Past Land Use)	pg 1	2	6	6	13
Potentially Infilled Land (Non-Water)	pg 2				1
Potentially Infilled Land (Water)	pg 2	1	1	2	19

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Historical Tanks and Energy Facilities					
Electrical Sub Station Facilities				n/a	n/a
Electricity Industry Facilities				n/a	n/a
Gas Industry Facilities				n/a	n/a
Gas Monitoring Facilities				n/a	n/a
Miscellaneous Power Facilities				n/a	n/a
Oil Industry Facilities				n/a	n/a
Petroleum Storage Facilities				n/a	n/a
Potential Tanks				n/a	n/a
Tanks	pg 4		4	n/a	n/a

Historical Land Use Information

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
1	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1965	A11SW (N)	0	1	276136 187470
2	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Metal casting/foundries Date of Mapping: 1993	A6NE (SW)	0	1	276016 187291
3	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Pipelines [transport via] Date of Mapping: 1965	A11SW (NE)	41	1	276173 187517
4	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Pipelines [transport via] Date of Mapping: 1965 - 1993	A6NE (SW)	52	1	276011 187300
5	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1965	A7NW (E)	67	1	276291 187342
6	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1900 - 1965	A10SE (N)	124	1	276031 187613
7	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1951 - 1965	A10SE (NW)	141	1	275991 187610
8	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Factory or works - use not specified Date of Mapping: 1965	A11SW (E)	212	1	276388 187469
9	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Pipelines [transport via] Date of Mapping: 1993	A6NE (SW)	259	1	275890 187103
10	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1921	A11NW (N)	269	1	276252 187749
11	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1965	A11NW (N)	302	1	276204 187798
12	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1965	A11NW (NE)	391	1	276339 187838
13	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Metal casting/foundries Date of Mapping: 1993	A10SW (NW)	408	1	275647 187594
14	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Military Land Date of Mapping: 1885	A11NW (N)	471	1	276160 187977
15	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1921	A10NE (N)	516	1	275912 187990
16	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1965	A11NW (N)	522	1	276292 188003
17	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1885	A7NE (E)	536	1	276760 187366
18	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1965	A11NE (NE)	565	1	276490 187943
19	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Metal casting/foundries Date of Mapping: 1965 - 1993	A11SE (NE)	571	1	276722 187686
20	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Military Land Date of Mapping: 1885	A10NE (N)	574	1	275919 188054
21	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1921	A10NE (NW)	581	1	275799 188008

Historical Land Use Information

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
22	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Quarrying of sand & clay, operation of sand & gravel pits Date of Mapping: 1921	A10NE (NW)	595	1	275804 188026
23	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1965	A10NE (NW)	619	1	275787 188043
24	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Heap, unknown constituents Date of Mapping: 1965	A12SW (E)	641	1	276832 187515
25	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Metal casting/foundries Date of Mapping: 1993	A3NW (SE)	669	1	276420 186673
26	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1951	A12SW (E)	726	1	276869 187654
27	**Potentially Contaminative Industrial Uses (Past Land Use)** Use: Railways Date of Mapping: 1921 - 1965	A14SW (NW)	904	1	275681 188310
28	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A10NE (NW)	595	1	275804 188026
29	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A6NE (SW)	0	1	275953 187268
30	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A11SW (NE)	240	1	276312 187665
31	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A11SW (NE)	264	1	276345 187664
32	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11SW (NE)	324	1	276391 187702
33	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A10NE (N)	546	1	276096 188055
34	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A6NW (SW)	557	1	275526 187131
35	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A11SE (NE)	563	1	276661 187713
36	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A11SE (NE)	614	1	276748 187648
37	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A11NE (NE)	619	1	276717 187725
38	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A11SE (E)	630	1	276768 187642
39	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A11SE (E)	648	1	276784 187653
40	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A11NE (NE)	664	1	276608 187970
41	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A11NE (NE)	665	1	276610 187969
42	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12SW (E)	751	1	276943 187530

Historical Land Use Information

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
43	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A15SW (N)	762	1	276325 188243
44	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A11NE (NE)	767	1	276789 187903
45	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A15SE (NE)	804	1	276637 188132
46	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A12SW (E)	830	1	276985 187649
47	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A12SW (E)	914	1	277099 187576
48	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8NE (E)	994	1	277212 187369
49	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A8NE (E)	994	1	277203 187193
50	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A12SE (E)	995	1	277176 187602
51	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A8NE (E)	1000	1	277214 187232

Historical Tanks and Energy Facilities

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
52	**Tanks** Scale of Mapping: 1:1,250 Date of Mapping: 1978	A11SW (E)	206	1	276383 187468
52	**Tanks** Scale of Mapping: 1:1,250 Date of Mapping: 1978	A11SW (E)	215	1	276386 187479
52	**Tanks** Scale of Mapping: 1:1,250 Date of Mapping: 1978	A11SW (E)	237	1	276407 187488
53	**Tanks** Scale of Mapping: 1:1,250 Date of Mapping: 1978	A11SW (E)	240	1	276440 187423

Historical Map List

No Historical Building Plans information available.

The following mapping has been analysed for Historical Land Use Information:

1:10,560	Mapsheet	Published Date
Glamorganshire	033_00	1885
Glamorganshire	033_NW	1900
Glamorganshire	033_NW	1921
Glamorganshire	033_NW	1951

Historical Map List

The following mapping has been analysed for Historical Tanks and Energy Facilities:

1:2,500	Mapsheet	Published Date
Ordnance Survey Plan	SS7588	1953
Ordnance Survey Plan	SS7688	1953
Ordnance Survey Plan	SS7688	1953
Ordnance Survey Plan	SS7587	1964
Ordnance Survey Plan	SS7587	1964
Ordnance Survey Plan	SS7588	1964
Ordnance Survey Plan	SS7686	1964
Ordnance Survey Plan	SS7686	1964
Ordnance Survey Plan	SS7687	1964
Ordnance Survey Plan	SS7687	1964
Ordnance Survey Plan	SS7687	1964
Ordnance Survey Plan	SS7687	1964
Ordnance Survey Plan	SS7688	1964
Ordnance Survey Plan	SS7688	1964
Ordnance Survey Plan	SS7688	1969
Ordnance Survey Plan	SS7688	1969
Ordnance Survey Plan	SS7587	1981
Ordnance Survey Plan	SS7587	1981
Ordnance Survey Plan	SS7588	1982
1:1,250	**Mapsheet**	**Published Date**
Ordnance Survey Plan	SS7588SE	1952
Ordnance Survey Plan	SS7688SE	1952
Ordnance Survey Plan	SS7688SW	1952
Ordnance Survey Plan	SS7688SW	1952
Ordnance Survey Plan	SS7688SE	1961
Ordnance Survey Plan	SS7588SE	1968
Ordnance Survey Plan	SS7688SE	1968
Ordnance Survey Plan	SS7688SW	1968
Ordnance Survey Plan	SS7688SW	1968
Ordnance Survey Plan	SS7687NE	1978
Ordnance Survey Plan	SS7687NW	1978
Ordnance Survey Plan	SS7687NW	1978
Ordnance Survey Plan	SS7687SE	1978
Ordnance Survey Plan	SS7687SE	1978
Ordnance Survey Plan	SS7687SW	1978
Ordnance Survey Plan	SS7687SW	1978
Ordnance Survey Plan	SS7687SW	1978
Ordnance Survey Plan	SS7687SW	1978

Historical Map List

1:1,250	Mapsheet	Published Date
Ordnance Survey Plan	SS7587NE	1979
Ordnance Survey Plan	SS7587NW	1979
Ordnance Survey Plan	SS7587SE	1979
Ordnance Survey Plan	SS7587SE	1979
Ordnance Survey Plan	SS7587SW	1979
Ordnance Survey Plan	SS7587SW	1979
Ordnance Survey Plan	SS7588SW	1979
Ordnance Survey Plan	SS7686NE	1983
Ordnance Survey Plan	SS7686NW	1983
Ordnance Survey Plan	SS7686NW	1983

Useful Contacts and Further Information

Contact	Name and Address	Contact Details
1	**Landmark Information Group Limited** 5 - 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Telephone: 01392 441761 Fax: 01392 441709 Email: cssupport@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Historical Building Plans Information

This data set contains potentially contaminative features such as asbestos, petrol, oil and tanks captured from Historical Building Plans. The Historical Building Plans were produced by the London-based firm Charles E. Goad Ltd. as fire insurance plans, dating back to 1885. The firm ceased production of fire insurance plans in 1970. Most of the important towns and cities of the British Isles are covered. Historical Building Plans are usually at the scales of 1:480 (1 inch to 40 feet) for the British Isles. They were updated every 5-6 years by means of revision sheets designed to be pasted on to the original plans.

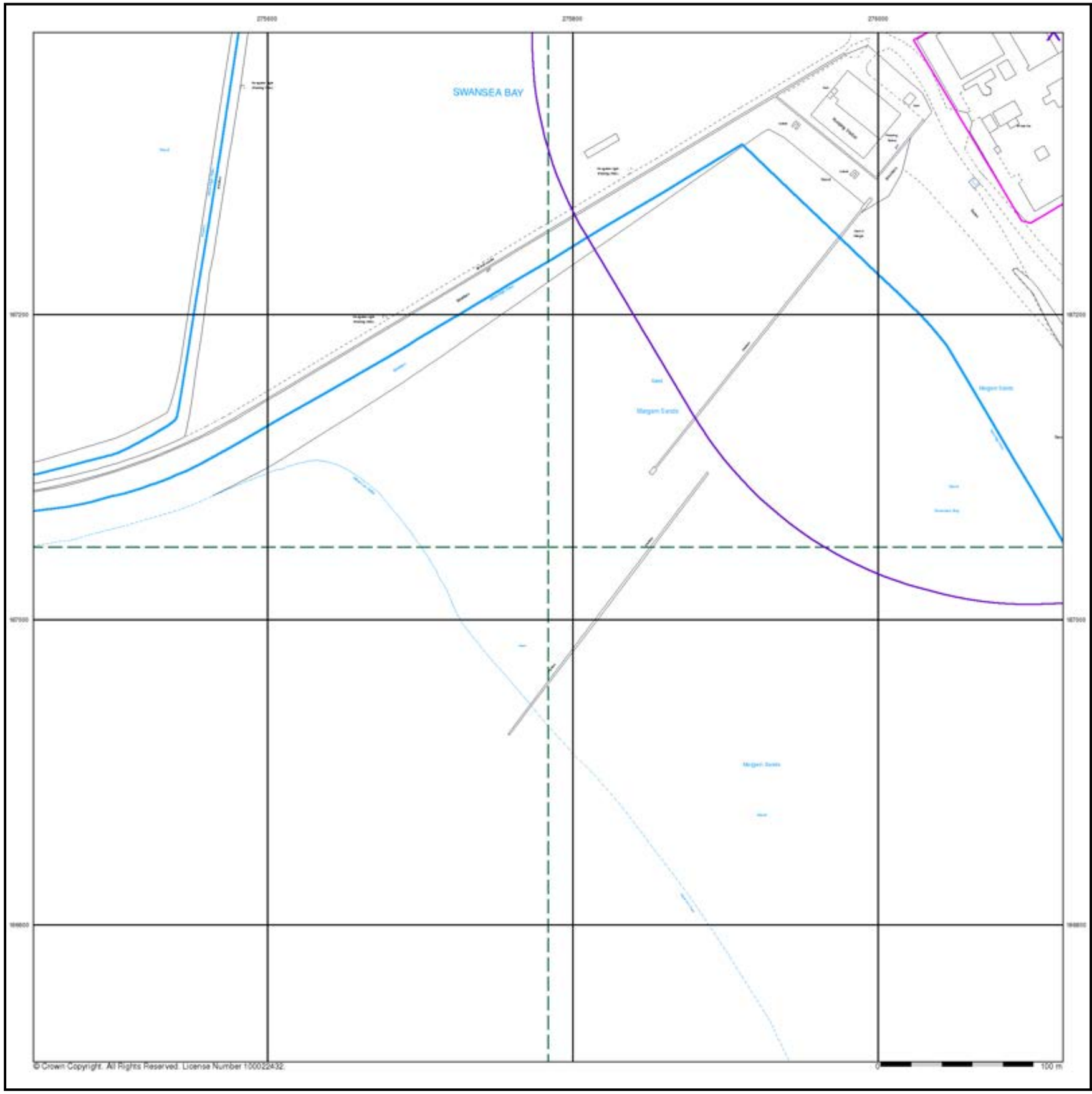
It should be noted that Historical Building Plans are only available for certain major towns and cities and in some cases there may only be partial coverage of the search area. It cannot therefore be assumed that the absence of responses under the Historical Building Plans section of this report indicates that no hazards exist. Please check the Historical Building Plans Map List table in the Historical Map List section of this report to establish if Historical Building Plans are available for this search area.

Historical Land Use Information

Landmark's Historical Land Use Data is the result of combined analysis of historical map data captured at 1:10,560 and 1:10,000. A unique comprehensive database of Historic Land Use from the 1840's to 1996 it includes 67 different types of potentially contaminated past industrial land use. This entailed analysing over 60,000 maps and is drawn from at least four, and up to six historical map editions. In addition a seventh layer was also created, known as the land use layer, containing areas of infilled land which are plotted via comparison between two or more map editions.

Historical Tanks and Energy Facilities

In addition to HLUD, additional analysis uncovered some of the most dangerous sources of contamination (past and present tanks, petrol storage, oil, gas, electricity, miscellaneous facilities). This data set covers over 390,000 Historical Tanks and Energy facilities in Great Britain and was captured from post war 1:2500 and 1:1250 Ordnance Survey historical mapping covering a period from 1943 to 1996.



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Historical Land Use Information (1:2,500)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID
Several of Type at Location | Pylon | Overhead Transmission Line

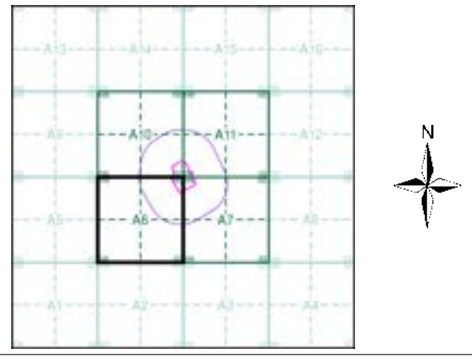
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	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 A6



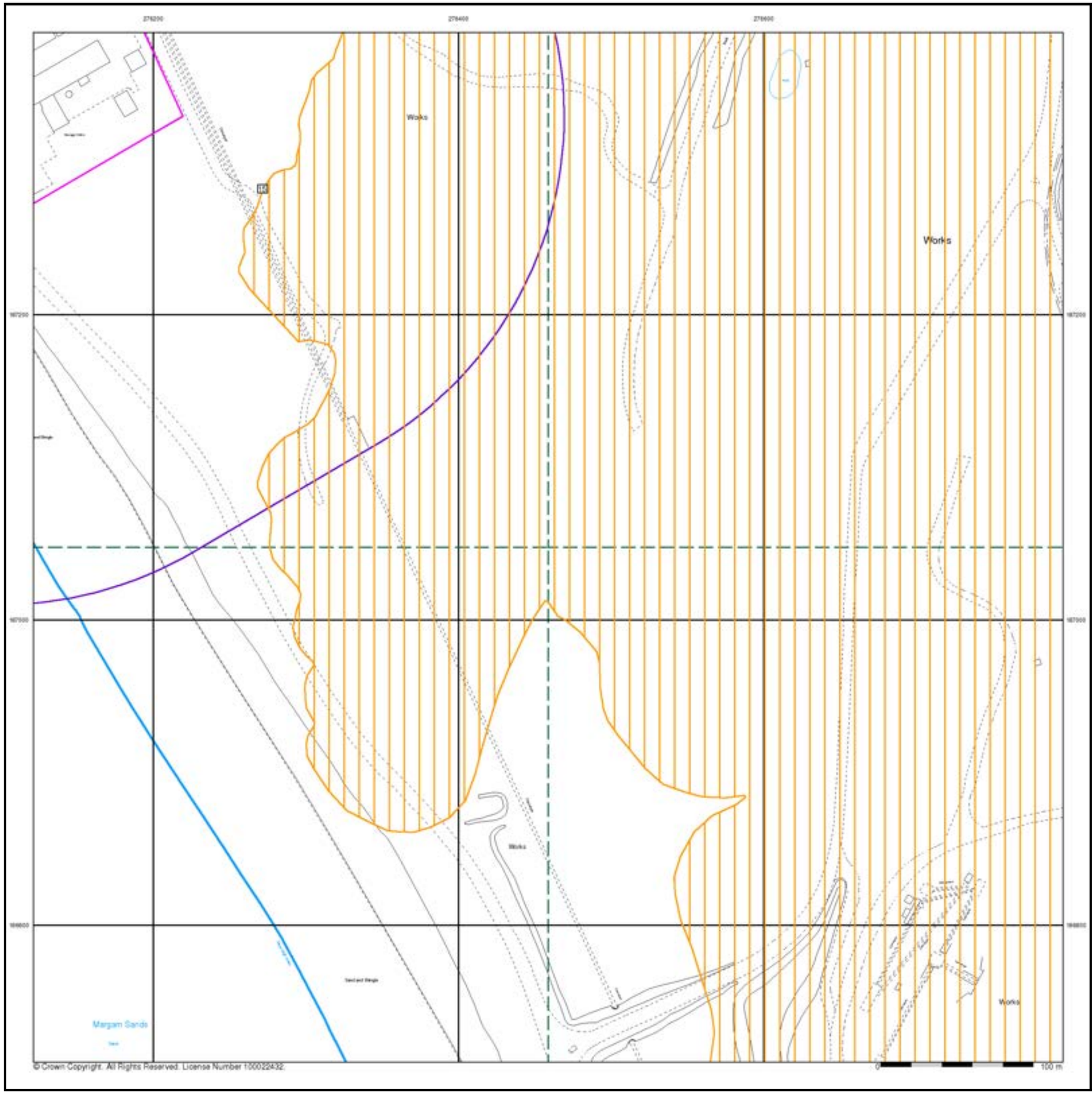
Order Details

Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276120, 187390
Slice: A
Site Area (Ha): 2.95
Plot Buffer (m): 250

Site Details

Site at 276000, 187370

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



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Historical Land Use Information (1:2,500)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID
Several of Type at Location | Pylon | Overhead Transmission Line

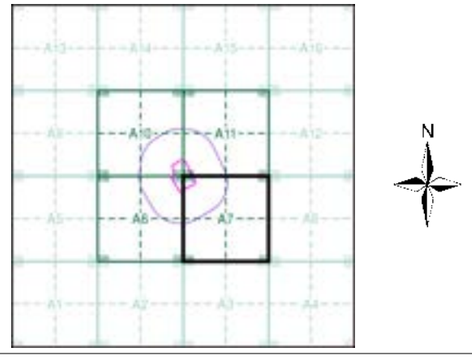
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	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 A7



Order Details

Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276120, 187390
Slice: A
Site Area (Ha): 2.95
Plot Buffer (m): 250

Site Details

Site at 276000, 187370

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

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Historical Land Use Information (1:2,500)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID
Several of Type at Location | Pylon | Overhead Transmission Line

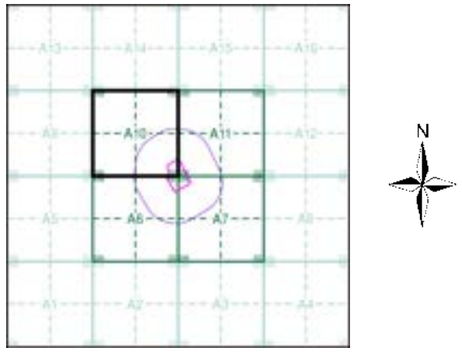
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	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 A10



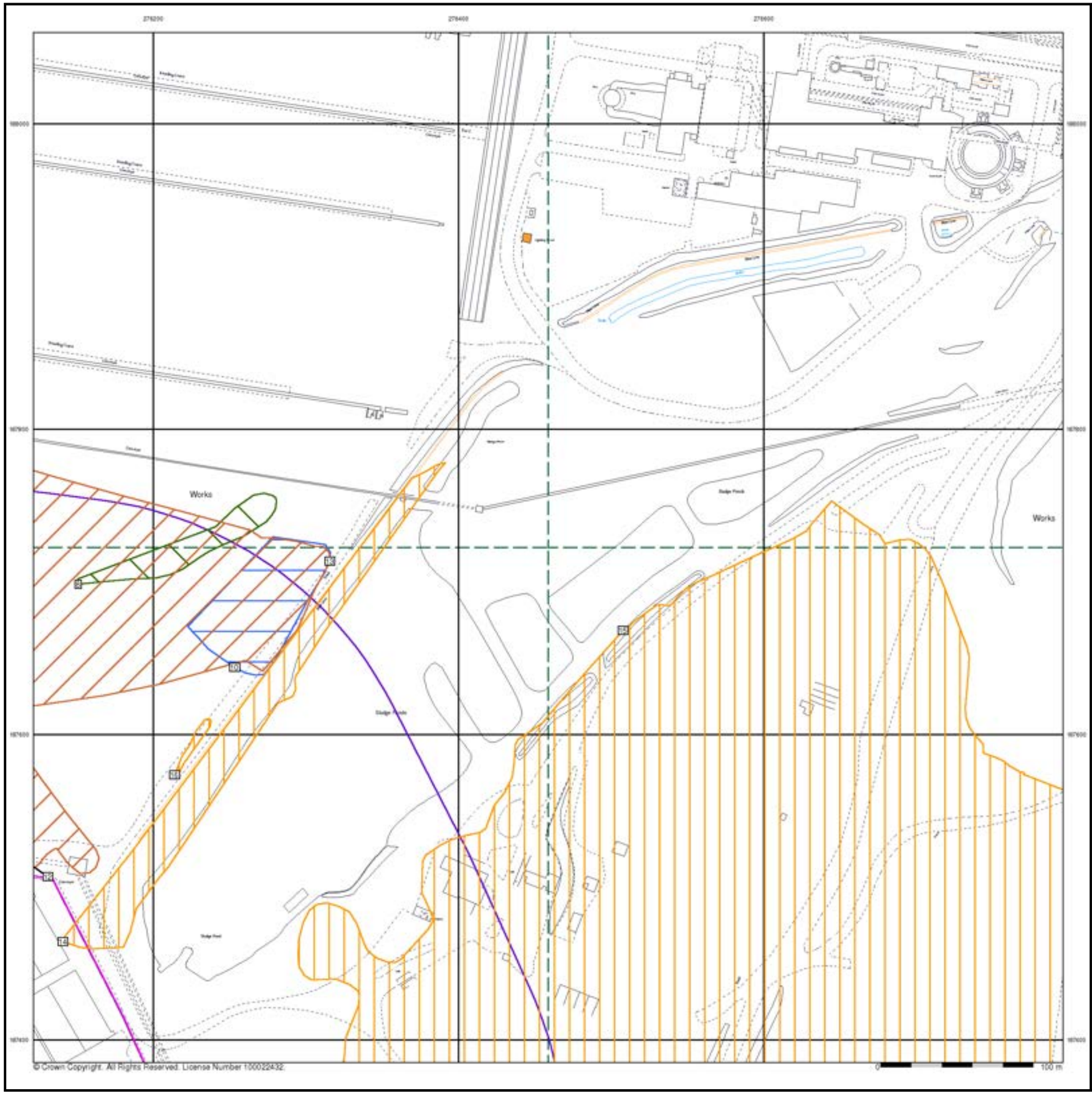
Order Details

Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276120, 187390
Slice: A
Site Area (Ha): 2.95
Plot Buffer (m): 250

Site Details

Site at 276000, 187370

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



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Historical Land Use Information (1:2,500)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID
Several of Type at Location | Pylon | Overhead Transmission Line

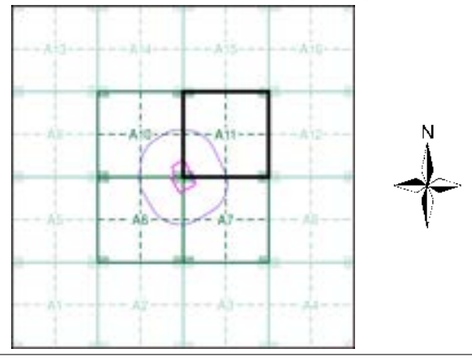
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	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 A11



Order Details

Order Number: 25931460_1_1
Customer Ref: 207381
National Grid Reference: 276120, 187390
Slice: A
Site Area (Ha): 2.95
Plot Buffer (m): 250

Site Details

Site at 276000, 187370

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

Envirocheck® Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:
25931460_1_1

Customer Reference:
207381

National Grid Reference:
276120, 187390

Slice:
A

Site Area (Ha):
2.95

Search Buffer (m):
1000

Site Details:

Site at 276000, 187370

Client Details:

Miss L Dymock
Ove Arup & Partners International Ltd
4 Pier Head Street
Capital Waterside
Cardiff
CF10 4QP

Envirocheck Mining & Ground Stability

Contents

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. 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)	**4**
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 consists of the 6 BGS Geosure data sets, each reporting potential hazards up to 250m and plotted onto the 3 separate maps. Also included in this section are the brine and salt mining data sets, of which Brine Pumping Related Features and Salt Mining Related Features are plotted.	
Historical Map List	**8**
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	**10**
Data Suppliers	**11**
Useful Contacts	**12**

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Report Version v36.0

Envirocheck Mining & Ground Stability

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites					
Coal Mining Affected Areas	pg 1	Yes	n/a	n/a	n/a
Mining Instability	pg 1	Yes	n/a	n/a	n/a
Natural and Mining Cavities					
Potential Mining Areas	pg 1		1	5	1
Shallow Mining Hazards		Yes		n/a	n/a
Historical Land Use Information (1:2,500)					
Extractive Industries Activity from 1855 - 1909				n/a	n/a
Extractive Industries Activity from 1893 - 1915	pg 2		1	n/a	n/a
Extractive Industries Activity from 1906 - 1937	pg 2		3	n/a	n/a
Extractive Industries Activity from 1924 - 1949	pg 2		2	n/a	n/a
Extractive Industries Activity from 1950 - 1980	pg 2	1	4	n/a	n/a
Subterranean Features				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying					
Heap, unknown constituents	pg 4	1	2	3	6
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits	pg 4				1
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 4				1
Potentially Infilled Land (Water)	pg 4	1	1	2	19
Ground Stability Data (1:50,000)					
Brine Compensation Area			n/a	n/a	n/a
Brine Pumping Related Features					
Potential for Collapsible Ground Stability Hazards				n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 6	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards		Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 7	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 7	Yes		n/a	n/a
Salt Mining Related Features					

Report Version v36.0

Mining and Natural Cavities Data

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A6SE (S)	0	1	276000 187000
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A6SE (S)	0	2	276000 187000
1	**Potential Mining Areas** Name: Morfa Ceased Operation: Not Supplied Commodity: Coal; North Fawr; South Fawr; Third; Six Feet; Nine Feet; Five Quarter; Cribbwr Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: Lawrence Davies and Causton, 6 Park Place, Cardiff.	A11SW (E)	35	3	276219 187412
2	**Potential Mining Areas** Name: Morfa Ceased Operation: 1913 Commodity: Coal; North Fawr; South Fawr; Six Feet; Three Feet; Clay; Four Feet; Cribbwr Fawr Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: Baldwins Ltd., 45 Wind Street, Swansea.	A7NE (E)	401	3	276621 187374
3	**Potential Mining Areas** Name: Morfa Ceased Operation: 1854-1865 Commodity: Coal; North Fawr; South Fawr; Six Feet; Three Feet; Clay Reference: Not Supplied Alternate Name/Mine: Not Supplied Custodian: Mynydd Newydd Coal Co. Ltd., Fforest Fach, Swansea.	A7NE (E)	401	3	276621 187374
4	**Potential Mining Areas** Name: Morfa Ceased Operation: 1911 Commodity: Coal; Nine Feet Reference: 5851 Alternate Name/Mine: Abbot Alternate Name/Mine: Grange Custodian: Not Supplied	A7NE (E)	401	3	276621 187374
5	**Potential Mining Areas** Name: Morfa Ceased Operation: 1914 Commodity: Coal; Cribbwr Fach; Cribbwr Fawr; Four Feet Reference: 6252 Alternate Name/Mine: Abbot Alternate Name/Mine: Grange Custodian: Not Supplied	A7NE (E)	401	3	276621 187374
6	**Potential Mining Areas** Name: Morfa Ceased Operation: 1864 Commodity: Coal; North Fawr; South Fawr; Three Feet Reference: Not Supplied Alternate Name/Mine: Abbot Alternate Name/Mine: Grange Custodian: Ed. Daniel and Co., Worcester Chambers, Swansea.	A7NE (E)	401	3	276621 187374
7	**Potential Mining Areas** Name: Morfa Ceased Operation: 1897 Commodity: Coal; Four Feet Reference: 3654 Alternate Name/Mine: Grange Custodian: Not Supplied	A8NW (E)	804	3	277023 187366
	Shallow Mining Hazards Risk: Low Source: British Geological Survey, National Geoscience Information Service	A6NE (SW)	0	4	275995 187264

Historical Land Use Information (1:2,500)

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
8	**Extractive Industries Activity from 1893 - 1915** Use: Waste - Unspecified Deposited Material - N/A First Map Published Date: 1899 Last Map Published Date: Not Applicable Status: N	A11SW (N)	193	-	276151 187698
9	**Extractive Industries Activity from 1906 - 1937** Use: Railway - Railway Embankment - N/A First Map Published Date: 1919 Last Map Published Date: Not Applicable Status: N	A10SE (N)	129	-	276030 187618
10	**Extractive Industries Activity from 1906 - 1937** Use: Railway - Railway Embankment - N/A First Map Published Date: 1919 Last Map Published Date: Not Applicable Status: N	A11SW (NE)	182	-	276254 187644
11	**Extractive Industries Activity from 1906 - 1937** Use: Railway - Railway Embankment - N/A First Map Published Date: 1919 Last Map Published Date: Not Applicable Status: N	A10NE (N)	250	-	276083 187759
12	**Extractive Industries Activity from 1924 - 1949** Use: Waste - Unspecified Deposited Material - N/A First Map Published Date: 1940 Last Map Published Date: Not Applicable Status: N	A11SW (N)	6	-	276122 187513
13	**Extractive Industries Activity from 1924 - 1949** Use: Transport - Docks - N/A First Map Published Date: 1939 Last Map Published Date: 1940 Status: N	A10SE (N)	105	-	276089 187614
14	**Extractive Industries Activity from 1950 - 1980** Use: Waste - Heap - Slag First Map Published Date: 1964 Last Map Published Date: N/A Status: N	A11SW (N)	0	-	276141 187464
15	**Extractive Industries Activity from 1950 - 1980** Use: Waste - Heap - Slag First Map Published Date: 1964 Last Map Published Date: Not Applicable Status: N	A7NW (SE)	71	-	276272 187282
16	**Extractive Industries Activity from 1950 - 1980** Use: Water - Pond - Water First Map Published Date: 1964 Last Map Published Date: N/A Status: N	A11SW (NE)	105	-	276214 187573
17	**Extractive Industries Activity from 1950 - 1980** Use: Waste - Unspecified Deposited Material - N/A First Map Published Date: 1964 Last Map Published Date: N/A Status: N	A10SE (NW)	132	-	275978 187588

Historical Land Use Information (1:2,500)

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
18	**Extractive Industries Activity from 1950 - 1980** Use: Railway - Railway Embankment - N/A First Map Published Date: 1964 Last Map Published Date: Not Applicable Status: N	A10NE (N)	243	-	276083 187752

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
19	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1965	A11SW (N)	0	-	276136 187470
20	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1965	A7NW (E)	67	-	276291 187342
21	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1951 - 1965	A10SE (NW)	141	-	275991 187610
22	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1921	A11NW (N)	269	-	276252 187749
23	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1965	A11NW (N)	302	-	276204 187798
24	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1965	A11NW (NE)	391	-	276339 187838
25	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1921	A10NE (N)	516	-	275912 187990
26	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1965	A11NW (N)	522	-	276292 188003
27	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1885	A7NE (E)	536	-	276760 187366
28	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1965	A11NE (NE)	565	-	276490 187943
29	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1921	A10NE (NW)	581	-	275799 188008
30	**Heap, unknown constituents** Use: Not Supplied Date of Mapping: 1965	A12SW (E)	641	-	276832 187515
31	**Quarrying of sand & clay, operation of sand & gravel pits** Use: Not Supplied Date of Mapping: 1921	A10NE (NW)	595	-	275804 188026
32	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A10NE (NW)	595	-	275804 188026
33	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A6NE (SW)	0	-	275953 187268
34	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A11SW (NE)	240	-	276312 187665
35	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A11SW (NE)	264	-	276345 187664
36	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A11SW (NE)	324	-	276391 187702
37	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A10NE (N)	546	-	276096 188055
38	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A6NW (SW)	557	-	275526 187131
39	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A11SE (NE)	563	-	276661 187713

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
40	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A11SE (NE)	614	-	276748 187648
41	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A11NE (NE)	619	-	276717 187725
42	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A11SE (E)	630	-	276768 187642
43	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A11SE (E)	648	-	276784 187653
44	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A11NE (NE)	664	-	276608 187970
45	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A11NE (NE)	665	-	276610 187969
46	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A12SW (E)	751	-	276943 187530
47	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A15SW (N)	762	-	276325 188243
48	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A11NE (NE)	767	-	276789 187903
49	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A15SE (NE)	804	-	276637 188132
50	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A12SW (E)	830	-	276985 187649
51	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1885	A12SW (E)	914	-	277099 187576
52	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1951	A8NE (E)	994	-	277212 187369
53	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A8NE (E)	994	-	277203 187193
54	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A12SE (E)	995	-	277176 187602
55	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A8NE (E)	1000	-	277214 187232

Ground Stability Data (1:50,000)

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
	Brine Compensation Area The site does not fall within the brine compensation area.				
	Potential for Collapsible Ground Stability Hazards No Hazard				
56	**Potential for Compressible Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	4	276115 187425
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	4	276115 187425
	Potential for Ground Dissolution Stability Hazards No Hazard				
57	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	4	276115 187425
58	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	0	4	276150 187300
59	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	4	276115 187425
60	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A6NE (SW)	53	4	276025 187275
61	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A6NE (SW)	58	4	276000 187275
62	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A6NE (SW)	61	4	276000 187300
63	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A6NE (SW)	70	4	275975 187325
64	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SE)	107	4	276250 187225
65	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	121	4	276150 187150
66	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	133	4	276175 187150
67	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	168	4	276200 187125
68	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11SW (NE)	221	4	276275 187675
69	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SE)	221	4	276425 187250
70	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	223	4	276225 187075
71	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (S)	224	4	276175 187050
72	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NW (SE)	244	4	276350 187125

Ground Stability Data (1:50,000)

Map ID	Details	Quadrant Reference (Compass	Estimated Distance From Site	Contact	NGR
73	**Potential for Running Sand Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	4	276115 187425
74	**Potential for Running Sand Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	4	276115 187425
75	**Potential for Shrinking or Swelling Clay Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	4	276115 187425
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SE (N)	0	4	276115 187425

Historical Map List

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

1:2,500	Mapsheet	Published Date
Glamorganshire	033_01	1877
Glamorganshire	033_01	1877
Glamorganshire	033_02	1877
Glamorganshire	033_05	1877
Glamorganshire	033_05	1877
Glamorganshire	033_05	1877
Glamorganshire	033_05	1877
Glamorganshire	033_06	1877
Glamorganshire	033_06	1877
Glamorganshire	033_01	1899
Glamorganshire	033_01	1899
Glamorganshire	033_02	1899
Glamorganshire	033_06	1899
Glamorganshire	033_06	1899
Glamorganshire	033_02	1917
Glamorganshire	033_06	1918
Glamorganshire	033_06	1918
Glamorganshire	033_01	1919
Glamorganshire	033_01	1919
Glamorganshire	033_01	1940
Glamorganshire	033_01	1940
Glamorganshire	033_02	1940
Glamorganshire	033_06	1940
Glamorganshire	033_06	1940
Ordnance Survey Plan	SS7588	1953
Ordnance Survey Plan	SS7587	1964
Ordnance Survey Plan	SS7587	1964
Ordnance Survey Plan	SS7686	1964
Ordnance Survey Plan	SS7686	1964
Ordnance Survey Plan	SS7687	1964
Ordnance Survey Plan	SS7687	1964
Ordnance Survey Plan	SS7687	1964
Ordnance Survey Plan	SS7687	1964

Historical Map List

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

1:10,560	Mapsheet	Published Date
Glamorganshire	033_00	1885
Glamorganshire	033_NW	1900
Glamorganshire	033_NW	1921
Glamorganshire	033_NW	1951

Data Currency

Mining Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2008	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Mining Report Service	January 2006	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural and Mining Cavities Peter Brett Associates	December 2005	Variable
Shallow Mining Hazards British Geological Survey - National Geoscience Information Service	August 2002	Not Applicable
Historical Land Use Information (1:2,500)	**Version**	**Update Cycle**
Subterranean Features Landmark Information Group Limited	June 2008	Bi-Annually
Ground Stability Data	**Version**	**Update Cycle**
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2008	Annually

Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	
The Coal Authority	
Ove Arup	
Peter Brett Associates	
Wardell Armstrong	

Useful Contacts

Contact	Name and Address	Contact Details
1	**The Coal Authority - Mining Report Service** 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0845 7626848 Email: thecoalauthority@coal.gov.uk
2	**Ove Arup & Partners** Central Square, Forth Street, Newcastle upon Tyne, Tyne and Wear, NE1 3PL	Telephone: 0191 261 6080 Fax: 0191 261 7879
3	**Landmark Information Group Limited** The Smith Centre, Henley on Thames, Oxfordshire, RG9 6AB	Telephone: 0844 844 9960 Fax: 0844 844 9951 Email: customerservice@promap.co.uk Website: www.landmarkinfo.co.uk
4	**British Geological Survey - Enquiry Service** British Geological Survey, Kingsley Dunham 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** The Smith Centre, Henley On Thames, Oxfordshire, RG9 6AB	Telephone: 0870 850 6670 Fax: 0870 850 6671 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Appendix B

Previous investigation Borehole Logs

SS78NE/100
7595 8734

Holst Soil Engineering Limited

PARKSIDE LANE
LEEDS LS11 5SX.

Contract No. S10640/F2317
Location Port Talbot
Client Port Talbot Borough Engineer

Borehole No. 6
Ground Level 7.010m AOD
Date

BOREHOLE LOG

STRATA	Legend	Depth below Ground Level	Thickness of Strata	Type of Sample	c kN/sq.m	φ deg.	m.c %	γ kg/cu.m.	N
Coarse brown SAND and medium coarse GRAVEL with large boulders		1.20	1.20						
				1.50					11
Medium dense brown SAND AND GRAVEL				3.05					15
				4.60					14
		5.50	4.30						
Medium dense brown medium SAND with shell fragments				6.10					13
				7.60					12
				9.15					15
				10.65					17
				12.20					22
				13.70					20
				14.80					26
		15.25	9.75						

Water Struck at 4.60m Maximum Observed Water Level

Undisturbed Sample []
Disturbed Sample o
Water Sample ▲
Penetration Test I

c = Cohesion
φ = Angle of Internal Friction
m.c = Moisture Content
γ = Bulk Density
N = Standard Penetration Value

Water levels are subject to seasonal or tidal variation and should not be taken as constant

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SS78NE/95 → 104, No number 7

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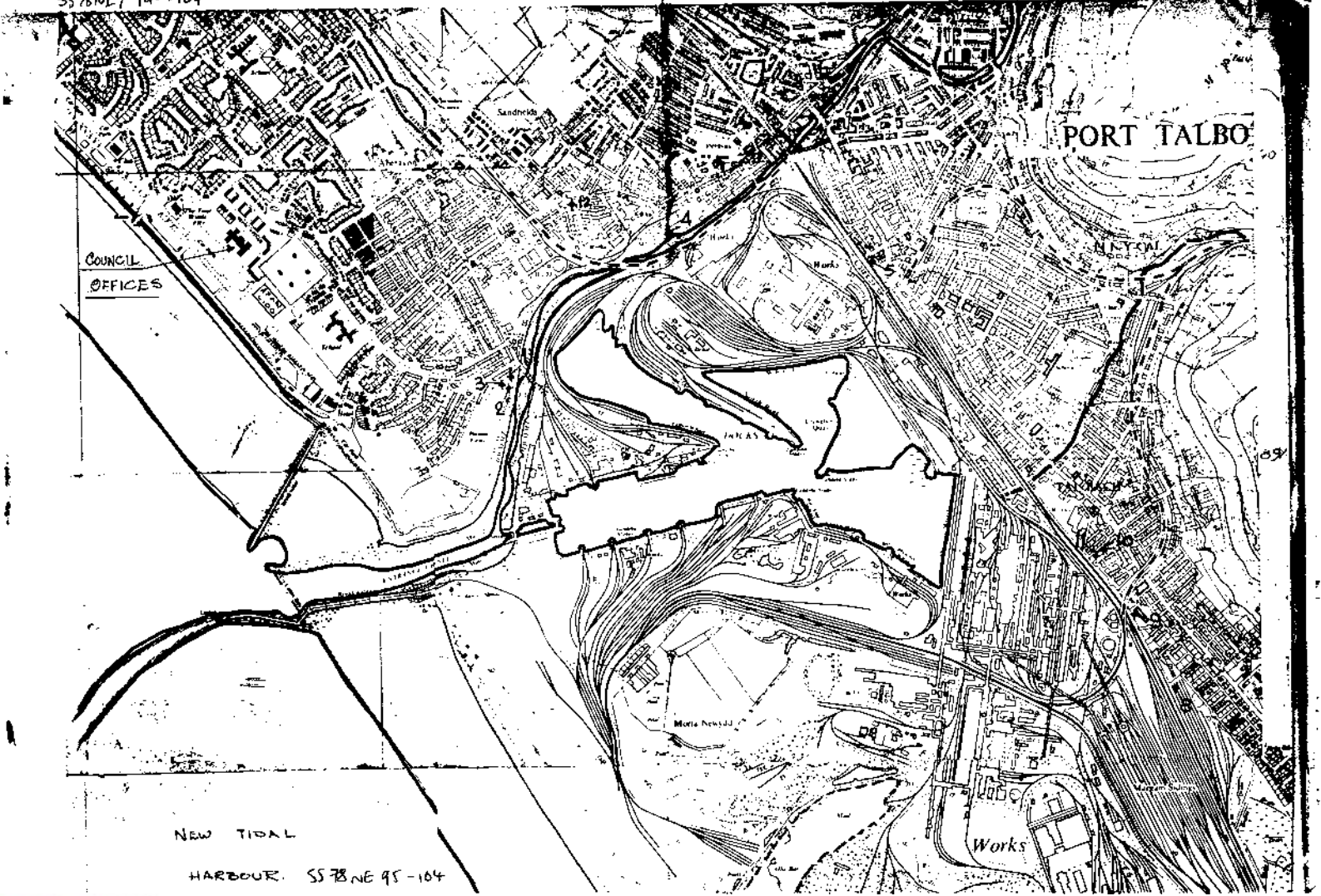
SS78NE/94→104



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SS78NE

Bh No.	Nat.Grid R.		Depth	Bore name/location	Comments
60	7505	8959	900ft	ABERAVON MARSHES (BURROWS). BH.2	WATER DEPT NO.247/63 A-C
61	7695	8985	-	UNITED DARIES WELL	NO LOG IN WATER DEPT RECORD. WATER DEPT
62	7840	8753	C	ARNALLT. BOREHOLE	CONFIDENTIAL, BUT LOG APPEARS ON PUBLISH
63	7561	8878	18m	BRITISH TRANSPORT COMMISSION, PORT TALBO	WATER DEPT NO.247/95A
64	7551	8875	23m	BRITISH TRANSPORT COMMISSION, PORT TALBO	WATER DEPT NO.247/95B
65	7526	8873	7m	BRITISH TRANSPORT COMMISSION, PORT TALBO	WATER DEPT NO.247/95C
69	7551	8966	30m	ABERAVON GASWORKS	WATER DEPT NO.247/76A
70	7551	8974	24m	ABERAVON GASWORKS	WATER DEPT NO.247/76B
71	7555	8975	24m	ABERAVON GASWORKS	WATER DEPT NO.247/76C
72	7926	8626	192ft	MORFA NO.1, MARGAM	
73	797	853	25ft	STEEL CO. OF WALES (1960) EGLWYSNYNNYDD.	PLOTTED FROM OLD 2 1/2" MAP, NOW RESERVO
74	795	855	21ft	STEEL CO. OF WALES (1960) EGLWYSNYNNYDD.	PLOTTED FROM OLD 2 1/2" MAP, NOW RESERVO
75	7935	8565	23ft	STEEL CO. OF WALES (1960) EGLWYSNYNNYDD.	PLOTTED FROM OLD 2 1/2" MAP, NOW RESERVO
76	7915	8557	28ft	STEEL CO. OF WALES (1960) EGLWYSNYNNYDD.	
77	7889	8542	53ft	STEEL CO. OF WALES (1960) EGLWYSNYNNYDD.	
78	793	851	40ft	STEEL CO. OF WALES (1960) EGLWYSNYNNYDD.	SEE NOS. 74,75
79	7810	8536	65ft	ABBEY WORKS "V" SCHEME 1959. NO.H1	
80	782	851	100ft	ABBEY WORKS "V" SCHEME 1959. NO.H3	
81	7808	8523	56ft	ABBEY WORKS "V" SCHEME 1959. NO.H5	
82	7815	8501	61ft	ABBEY WORKS "V" SCHEME 1959. NO.H6	
83	7831	8504	66ft	ABBEY WORKS "V" SCHEME 1959. NO.H8	
84	7849	8534	61ft	ABBEY WORKS "V" SCHEME 1959. NO.H9	
85	7792	8831	331ft	ARNALLT BROOK 1935	
86	7641	8910	65ft	PORT TALBOT DOCKS, LLEWELLYNQUAY. A	
87	7657	8906	63ft	PORT TALBOT DOCKS, LLEWELLYNQUAY. B	
88	7675	8905	62ft	PORT TALBOT DOCKS, LLEWELLYNQUAY. C	
89	7706	8690	120ft	STEEL CO. WALES, ABBEY WKS, 1959 SOIL ME	TRANSFERRED FROM 1:25000 MAP
90	7750	8696	80ft	ABBEY WORKS, 1957 CEMENTATION CO. LTD. N	TRANSFERRED FROM 1:25000 MAP
91	7755	8930	30ft	CWMAVON ROAD, PORT TALBOT (M.O.T)	
92	7751	8936	44ft	PARKVIEW, PORT TALBOT. (M.O.T)	
93	7720	8988	45ft	TAN-Y-GROES JUNCTION (M.O.T)	
94	7549	8930	17m	PORT TALBOT, HOLST SOIL ENGINEERING. NO.	SITE PLAN FILED
95	7548	8926	15m	PORT TALBOT, HOLST SOIL ENGINEERING. NO.	SITE PLAN FILED
96	7545	8928	17m	PORT TALBOT, HOLST SOIL ENGINEERING. NO.	SITE PLAN FILED
97	7601	8977	9m	PORT TALBOT, HOLST SOIL ENGINEERING. NO.	SITE PLAN FILED
98	7629	8966	7m	PORT TALBOT, HOLST SOIL ENGINEERING. NO.	SITE PLAN FILED
99	7570	8987	7m	PORT TALBOT, HOLST SOIL ENGINEERING. NO.	SITE PLAN FILED
100	7595	8734	10m	PORT TALBOT, HOLST SOIL ENGINEERING. NO.	SITE PLAN FILED
101	7771	8823	12m	PORT TALBOT, HOLST SOIL ENGINEERING. NO.	
102	7757	8849	11m	PORT TALBOT, HOLST SOIL ENGINEERING. NO.	
103	7748	8869	14m	PORT TALBOT, HOLST SOIL ENGINEERING. NO.	
104	7744	8867	9m	PORT TALBOT, HOLST SOIL ENGINEERING. NO.	
105	7778	8762	41ft	MORFA BANK, MARGAM. NO.1	
106	7760	8783	44ft	MORFA BANK, MARGAM. NO.2	
107	7752	8803	40ft	MORFA BANK, MARGAM. NO.3	
108	7749	8821	75ft	MORFA BANK, MARGAM. NO.4A	
109	7786	8753	64ft	MORFA BANK, MARGAM. NO.5A	
110	7750	8790	56ft	MORFA BANK, MARGAM. NO.6	
111	7765	8735	38ft	MORFA BANK, MARGAM. NO.8	
112	7773	8719	96ft	MORFA BANK, MARGAM. NO.9	
113	7781	8700	52ft	MORFA BANK, MARGAM. NO.10	
114	7779	8750	88ft	MORFA BANK, MARGAM. NO.11	
115	7792	8722	44ft	MORFA BANK, MARGAM. NO.12	
116	7808	8691	64ft	MORFA BANK, MARGAM. NO.13	
117	7763	8689	29ft	MARGAM STEEL WORKS. NO.F27	SITE 3
118	7763	8689	25ft	MARGAM STEEL WORKS. NO.F14	SITE 3
119	7765	8685	32ft	MARGAM STEEL WORKS. NO.F15	SITE 4

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The Welsh Water Authority
Consulting Engineers: Messrs Thomas Morgan & Partners

A
Sheet 1 of 2

Contract
Sea Outfall Pumping Station, Allan outfall Scheme
PORT TALBOT.

SS78NE 221

Report 74014/261

Ground Level 8.12m AOD

Type & Dia of Boring Shell & Auger 200mm dia to 10.50m, 150mm dia to 22.50m

Boring Commenced 9.10.79
Boring Completed 17.10.79

Water Strikes
1 5.00m
2
3

Water Levels Recorded During Boring (m) 7596 8728

Hole Depth	2.00	7.50	7.50	8.00	8.00	10.20	9.00	19.00	17.00
Casing Depth	1.70	7.50	7.50	9.00	9.00	10.70	10.70	15.20	15.20
Depth to Water	—	4.60	4.70	4.60	4.60	4.60	1.50	7.60	6.00
Date & Time	11/10 10.00	11/10 16.00	12/10 08.00	12/10 11.30	13/10 09.00	13/10 14.30	16/10 09.00	16/10 17.30	17/10 10.00

Remarks Water rose to 4.55m in ½hr. Chisel used to advance BH 1m to 1.5m (1hr) Sand blowing up casing whilst boring down to 11.7m. Permeability tests (falling head) undertaken at depths of 14m and 16m. Installed piezometer to 15.9m

Reduced Level	Description	Scale Depth m	Legend	Thickness m	Samples Type	Samples Depth m	S.P.T. 'N' blows/300mm
8.12	MADE GROUND (coarse brown sand, slag etc)			0.60			
7.52	MADE GROUND (rounded gravel, brown sand with occasional pieces of slag etc)	0.60		0.90			
6.62	Dense rounded GRAVEL	1.50		0.50	B	1.75	
6.12	Dense brown SAND and rounded GRAVEL	2.00		2.00	CPT	2.65-2.95	35
					B	3.25	
4.12	Brown predominantly medium SAND with shell fragments and isolated rounded gravel towards upper horizon.	4.00			CPT	4.15-4.45	42
					B	4.75	
					CPT	5.65-5.95	4
					W	(5.75)	
					B	6.25	
				7.70	CPT	7.15-7.45	37
					B	9.00	
					B	11.00	
-3.58	Grey sandy very silty CLAY with thin laminations of very silty fine SAND and partially decomposed roots	11.70		0.70		12.00-12.45	(134)
-4.28	Grey predominantly medium SAND with shell fragments.	12.40		2.40		12.50-12.95	
					B	14.00	
-6.68	see sheet 2	14.80				14.80-15.25	

CODE: ▮ UNDISTURBED SAMPLE B BULK SAMPLE • JAR SAMPLE W WATER SAMPLE

FIG 1

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NATURAL ENVIRONMENT RESEARCH COUNCIL

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Wimpey	The Welsh Water Authority Consulting Engineers: Messrs Thomas Morgan & Partners	B Sheet 1 of 2

Contract, SS78NE 222 Sea Outfall Pumping Station, Afan Outfall Scheme PORT TALBOT	Report 74014/261 Ground Level 5.2m AOD
Type & Dia of Boring Shell & Auger 200mm dia to 10.70m 150mm dia to 25.70m	Boring Commenced 25.10.79 Boring Completed 31.10.79

Water Strikes	Water Levels Recorded During Boring (m) 7601 8733								
1 *	Hole Depth	4.80	6.10	7.00	13.00	11.00	22.00	18.00	25.70
2	Casing Depth	6.00	9.00	10.70	12.00	12.00	20.00	20.00	20.00
3	Depth to Water	4.10	4.00	2.10	4.60	2.30	6.60	4.30	8.30
	Date & Time	25/10 14.30	25/10 17.30	29/10 09.00	29/10 13.00	30/10 11.00	30/10 17.30	31/10 06.30	31/10 16.00

Remarks *Depth of water strike not observed since water was added to BH in an attempt to reduce sand blowing up casing. Permeability tests (falling head) undertaken at depths of 10.7m & 13.0m. Gas encountered at 23.5m. () in 'N' col^n denotes U102 blow counts

Reduced Level	Description	SCALE Depth m	Legend	Thickness m	Samples Type	Samples Depth m	S.P.T. 'N' blows/300mm
5.2	Brown SAND and rounded GRAVEL with some shells and shell fragments.			1.00			
4.2	Rounded GRAVEL and brown SAND	1.00		1.75	CPT	1.15-1.45	60
					B	1.75	
2.45	Brown predominantly medium SAND with shell fragments	2.75			CPT	3.15-3.45	52
					B	3.75	
					CPT	4.65-4.95	35
					B	5.25	
					B	6.00	
				8.75			
					B	7.50	
					B	9.00	
						11.00-11.45	(200)
-6.3	Grey silty to very silty CLAY with pockets and bands of sandy SILT and firm grey very sandy silty CLAY with pockets of partially decomposed roots and small pockets of carbonaceous material.	11.50		2.00	B	11.75	
						12.00-12.45 12.50-12.95	(100)
						13.00 13.00-13.45 13.50-13.95	(146)
-8.3	Grey fine sandy SILT with pockets of fine sand and occasional partially decomposed roots	13.50		0.70		14.00	
-9.0	Grey fine SAND becoming silty at depth.	14.20		0.82		14.20-14.65 14.70-15.15	(89)
	cont	15.02					

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FIG 3

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The Welsh Water Authority

B
sheet 2 of 2

Contract
Sea Outfall Pumping station, Afan outfall scheme

SS78NE 222

Report 74014/261

Ground Level

Type & Dia of Boring see sheet 1

Boring Commenced 25.10.79
Boring Completed 31.10.79

Water Strikes	Water Levels Recorded During Boring										
1	Hole Depth										
2	Casing Depth										
3	Depth to Water		See	Sheet	1						
	Date & Time										

Remarks Unable to recover U102 samples from 11m, 17m & 17.5m
BH grouted from 25.7m to 20.7m to seal off gas.

Reduced Level	Description	Depth m	Thickness m	Samples Type	Samples Depth m	S.P.T. 'N' blows/300mm
-9.82	See previous page	15.02				
	Firm grey very sandy silty CLAY becoming sandy SILT with bands of peaty clay and fine sand.		1.48		15.50-15.95 16.00-16.45	
-11.30	Grey sandy SILT with pockets of peat with strong odour and bands of fine sand and silty clay	16.50			16.50	
					17.00-17.45 17.50-17.95	(45)
			5.50		18.50-18.95 19.00-19.45	(100)
					20.00-20.45 20.50-20.95	(100)
					21.00-21.45 21.50-21.95	(65)
-16.80	Grey very silty fine SAND grading to sandy SILT then silty CLAY with peaty zones.	22.00				
			1.50		22.50-22.95 23.00-23.45	
-18.30	Stiff dark brown PEAT,	23.50			23.50	
-18.55		23.75	0.25		23.60 23.75-24.20	(200)
	Grey sandy silty CLAY grading to rounded and subrounded GRAVEL and very clayey silty SAND.		(1.825)			
				CPT	25.35-25.575	55/225mm
-20.375		25.575				
	Borehole terminated at 25.575m					

CODE: ▮ UNDISTURBED SAMPLE B BULK SAMPLE ● JAR SAMPLE W WATER SAMPLE

FIG 4

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Development Authority.
(Consulting Engineers: Messrs W.S. Atkins & Partners)

-1

Contract SS78NE 223

Report 74014/166/A

Sea Outfall Pumping Station, Afan Outfall scheme, Port Talbot.

Ground Level 7.56m AOD

Type & Dia of Boring Shell & Auger: 200 mm dia 0.00 m to 6.00 m; 150 mm dia 6.00 m to 15.00 m

Boring Commenced 29/4/1978
Boring Completed 4/5/1978

Water Strikes	Water Levels Recorded During Boring									
1 8.00 m (med.)	Hole Depth	6.00 m	15.00 m							
2	Casing Depth	7.60 m	15.00 m							
3	Depth to Water	5.00 m	2.70 m							
	Date & Time	3/5 am	4/5 pm							

7597 8733

Remarks Boulders from ground level to 2.40m. Ground water not sealed from B.H. Incoming tide tended to cause 'blowing' in B.H. thus bored while tide on ebb.

Reduced Level m	Description	Depth m	Legend	Thickness m	Samples Type	Depth m	S.P.T. 'N' blows/
7.56	MADE GROUND (Grey and brown rounded GRAVEL, COBBLES, BOULDERS and medium SAND etc.)				●	0.50	
					B	1.00	
					CPT	1.075	refuse
				2.95	●	1.50	
					CPT	2.65-2.95	23
4.61	Very dense brown predominantly medium sand with a little GRAVEL, COBBLES and numerous shells. COBBLES more numerous at depth. Piece of slag in sample from 4.75m	2.95			B	2.75	
					●	3.50	
					SPT	4.15-4.375	95/22
					B	4.75	
					SPT	5.65-5.75	99/1
					B	6.25	
				8.50	SPT	7.00-7.15	71+/1
					B	7.50	
					SPT	8.00-8.135	67+/1
					B	8.50	
					●	9.00	
					SPT	9.15-9.45	78
					B	9.50	
					SPT	10.15-10.45	61
					B	10.50	
					SPT	11.15-11.45	32
-3.94	Medium dense brown silty medium SAND with pockets of blue-grey organic silty CLAY, occasional GRAVEL and shells	11.50			B	11.50	
				1.00	SPT	12.15-12.45	30
		12.50			B	12.50	
-4.94	Loose to medium dense grey-brown slightly silty medium SAND, shells and GRAVEL.				CPT	13.35-13.65	9
				(2.50)	B	13.50	
					CPT	14.15-14.45	12
					B	14.50	
-7.44	Borehole Terminated at 15.00m				CPT	14.95-15.25	13

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FIG 1

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LOGSEN

Bored for Welsh National Water Development Authority (Consulting Engineers: Messrs W.S. Atkins & Partners)

Borehole 2 sheet 1 of 2

Contract: Sea Outfall Pumping Station, Afan Outfall Scheme, Port Talbot

SS78NE 224

Report 74014/166/A

Ground Level 8·31 m AOD

Type & Dia of Boring: Shell & Auger: 200mm dia 0·00m to 8·90 m; 150 mm dia 8·90 m to 20·00m

Boring Commenced 4/5/1978
Boring Completed 5/5/1978

Water Strikes	Water Levels Recorded During Boring										
1 4·20 m (fast)	Hole Depth	10·00 m	10·00	20·00							
2	Casing Depth	10·00 m	10·00	20·00							
3	Depth to Water	4·40 m	4·90	4·30							
	Date & Time	5/5 pm	6/5 am	8/5 pm							

7602 8729

Remarks: Pit excavated from G.L. to 1·40m to remove boulders. Ground water not sealed from B.H. Falling Head Permeability Tests at 5·0, 7·0, 9·0 & 11·0m. Piezometer installed to 11·00 m.

Reduced Level m	Description	Scale Depth m	Legend	Thickness m	Samples Type	Samples Depth m	S.P.T. 'N' blows/300mm
8·31	Dense brown medium to coarse SAND with a little GRAVEL and COBBLES. BOULDERS down to 1·40m. Numerous shells at depth.				B	1·00	
					CPT	1·65 – 1·95	43
				4·00	B	2·00	
					B	3·00	
					CPT	3·15-3·45	37
4·31	Dense brown predominantly fine to medium SAND with a little GRAVEL and shells. Piece of slag in sample from 8·00m	4·00			B	4·00	
					CPT	4·65-4·95	37
					B	5·00	
					B	6·00	
					CPT	6·15-6·45	36
					B	7·00	
				7·70	CPT	7·15-7·45	35
					B	8·00	
					CPT	8·15-8·45	44
					B	9·00	
					CPT	9·15-9·45	41
					B	10·00	
					CPT	10·15-10·45	47
					B	11·00	
					CPT	11·15-11·45	26
-3·39	Grey and brown silty SAND with shells and pockets of grey organic silty CLAY. Fragment of burnt ash in sample from 12·00 m.	11·70			B	12·00	
				3·10	B	13·00	
					CPT	13·15 – 13·45	11
					B	14·00	
					CPT	14·15 – 14·45	9
-6·49	Blue-grey organic very sandy silty CLAY	14·80			B	15·00	-

CODE: ■ UNDISTURBED SAMPLE B BULK SAMPLE ⊗ JAR SAMPLE W WATER SAMPLE

FIG 2

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Appendix C

Coal Authority Report

Issued by:
The Coal Authority, Mining Reports Office, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire NG18 4RG
On-Line Service: www.coalminingreports.co.uk - Phone: 0845 762 6848 - DX 716176 MANSFIELD 5

CUSTOMER SERVICES,
LANDMARK INFORMATION GROUP LIMITED,
ABBEY COURT UNIT 5/7,
EAGLE WAY,
SOWTON INDUSTRIAL ESTATE,
EXETER,
DEVON,
EX2 7HY

Person dealing with this matter:	**Paul Heap**
Our reference:	**00052023-08**
Your reference:	25931460
Electronic Ref:	EME_00010024270005_005
RRUID:	005.00010024270005
Date of your enquiry:	**24 July 2008**
Date we received your enquiry:	**24 July 2008**
Date of issue:	**28 July 2008**

This report is for the property described in the address below and the attached plan.

Coal and Brine Report

Site At Sewage Works, Port Talbot, West Glamorgan

This report is based on and limited to the records held by, the Coal Authority, and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

Coal mining	Yes
Brine extraction	No

Information from the Coal Authority

Underground Coal Mining

Past

According to the records in our possession, the property is not within the zone of likely physical influence on the surface from past underground workings.

Present

The property is not in the likely zone of influence of any present underground coal workings.

Future

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

The property is in an area for which a licence to remove coal using underground methods was granted in September 2007. The grant of this licence is conditional on the applicant securing any other rights, permissions (including planning permission) and consents to enable operations to be carried out.

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The property is not in an area that is likely to be affected at the surface from any planned future workings.

However reserves of coal exist in the local area which could be worked at some time in the future.

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

Mine entries

There are no known coal mine entries within, or within 20 metres of, the boundary of the property.

Coal-mining geology

At the surface, there are no known faults or other lines of weakness due to coal mining that have made the property unstable.

Opencast Coal Mining

Past

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

Present

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

Future

The property is not within 800 metres of the boundary of an opencast site for which the Coal Authority is determining whether to grant a licence to remove coal by opencast methods.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

Coal-mining subsidence

The Coal Authority has not received a damage notice or claim for the property since 1 January 1984. There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority has not received a request to carry out preventive work before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

There is no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.

Withdrawal of Support

The property is not in an area for which a notice of entitlement to withdraw support has been published.

The property is not in an area for which a notice has been given under section 41 of the Coal Industry Act 1994, revoking the entitlement to withdraw support.

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Working Facilities Orders

The property is not in an area for which an Order has been made under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

Payments to Owners of Former Copyhold Land

The property is not in an area for which a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Comments on Coal Authority information

Where development proposals are being considered, technical advice should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas.

Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

Additional remarks

This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions 2006. The report is compliant with Home Information Pack requirements.

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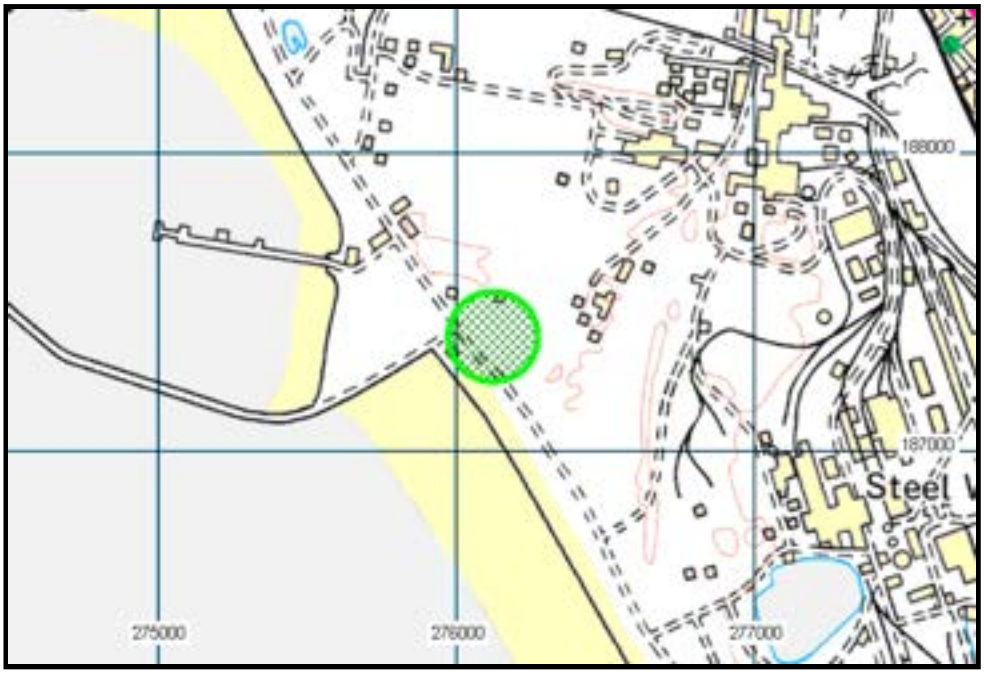
Location map

Approximate position of property



Enquiry boundary

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Key

Approximate position of enquiry boundary shown

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Appendix D

Aerial Photographs Cover Search

COVER SEARCH Date: 01/08/2008

Our ref. W-AP-PR 08-178

CENTRAL REGISTER OF AERIAL PHOTOGRAPHY FOR WALES

Welsh Assembly Government, Room G073a, Cathays Park, Cardiff CF10 3NQ Tel. 029 2082 3819 Fax 3080
Email Aerialphotoofficer@wales.gsi.gov.uk

(This form is available in larger print on request)

Name Flavia Cappelletti
Address ARUP
4 Pierhead Street,
Capital Waterside,
Postcode CARDIFF. CF10 4QP
Telephone 029 2047 2277

Location Port Talbot
National Grid Ref 2760/1873
Date of photos required All to view

Note:- NPH = No Prints Held

signed

Your ref.

VIEWING BY APPOINTMENT ONLY

WO Lib No:	Old Lib No:	Sortie Number:	Date Flown:	Scale:	Air Survey Org:	Photo Type:	Film Loc:	Prints Available to View:
6202	0	OS 62 014	14/04/1962	1:24000	Ordnance Survey	B & W	WO G022c 1/1	49 – 50
8922	0	OS 89 085	21/04/1989	1:5500	Ordnance Survey	B & W	RCAHMW	329 - 31
94133	0	OS 94 211	~~28/06/1994~~	1:5200	Ordnance Survey	B & W	RCAHMW	32 - 33
9806	0	OS 98 122	05/08/1998	1:5700	Ordnance Survey	B & W	RCAHMW	15 NPH

WO Lib No:	Old Lib No:	Sortie Number:	Date Flown:	Scale:	Air Survey Org:	Photo Type:	Film Loc:	Prints Available to View:
7026	0	Meridian 49/70	21/06/1970	1:6000	Meridian	B & W	WO M002 13/4	49/70: 139 + ~~145-146~~ 138
7027	0	Meridian 57/70	20/07/1970	1:5000	Meridian	B & W	WO M002 13/4	57/70: 88 - 89 NPH
7123	0	Meridian 26/71	25/04/1971	1:6000	Meridian	B & W	WO M002 14/1	26/71: 109 - 10 + 105 - 106
71128	0	OS 71 065	10/04/1971	1:7500	Ordnance Survey	B & W		16 - 17
7536	0	Meridian 22/75	25/04/1975	1:6000	Meridian	B & W	WO M002 14/4	22/75: 145 NPH
7541	0	Meridian 51/75	08/08/1975	1:6000	Meridian	B & W	WO M002 14/5	51/75: 27 – 26
7730	0	OS 77 011	16/04/1977	1:8000	Ordnance Survey	Infra Red	WO M002 18/3	8 – 7
7863	0	OS 78 087	11/06/1978	1:23600	Ordnance Survey	B & W	WO M002 18/3	346 – 47
8208	0	OS 82 075	27/04/1982	1:7500	Ordnance Survey	B & W	RCAHMW	8 end of run
8427	0	1 PRU RAF 0561	23/07/1984	Various	RAF	B & W	21/2, 19/1	38 - 40 (poss) 36-37
9139	0		01/08/1991	1:10000	Geonex(NRSC)	Colour	NRSC	6491: 43
9201	0		01/05/1992	1:5000	Geonex(NRSC)	Colour	NRSC	6892: 86 - 87

K SEARCH Date: 01/08/2008

Our ref. W-AP-PR 08-178

CENTRAL REGISTER OF AERIAL PHOTOGRAPHY FOR WALES

Welsh Assembly Government, Room G073a, Cathays Park, Cardiff CF10 3NQ Tel. 029 2082 3819 Fax 3080
Email Aerialphotoofficer@wales.gsi.gov.uk

(This form is available in larger print on request)

Name Flavia Cappelletti
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Note:- NPH = No Prints Held

Arthur's History.

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VIEWING BY APPOINTMENT ONLY

WO Lib No:	Old Lib No:	Sortie Number:	Date Flown:	Scale:	Air Survey Org:	Photo Type:	Film Loc:	Prints Available to View:
200029	0	Getmapping	01/01/2000	1:10000	Getmapping	Colour	APU CD rom	On screen / Available from Bluesky International
200601		COWI	01/06/2006	1:10000	COWI	Colour		On screen / Available from Bluesky International
4640	406	3G TUD UK 109	01/04/1946	1:5000	RAF	B & W	WO G022c 8/7	5121
4604	417	106G UK 1625	07/07/1946	Various	RAF	B & W	WO G022c 8/30	3292 / 6248 5 - 47 + 3292-11
4654	541	CPE UK 1871	04/12/1946	1:10000	RAF	B & W	WO G022c 6/5 x4	3139 - 41
4709	589	CPE UK 1997	13/04/1947	1:9800	RAF	B & W	WO G022c 6/5 x4	~~3128 - 29~~
4909	0	540 RAF 241	10/07/1949	1:20000	RAF	B & W IR	WO G022c 8/2	5055 - 56
4912	0	58 RAF 283	09/07/1949	1:20000 ?	RAF	B & W		5040 - 41
5213	1266	540 RAF 748	21/05/1952	1:6000	RAF	B & W	WO G022c 8/5	~~5050~~ / 5084 - 86
6001	1961	58 RAF 3506	21/04/1960	1:19999	RAF	B & W	WO G022c 4/4 x2	F22: 76 - 77
6607	0	Meridian 68/66	07/03/1966	1:6000	Meridian	B & W	WO M002 12/4,5	a.68/66: 43 b. 4/66: 66 - 67
6721	0	Meridian 66/67	09/07/1967	1:6000	Meridian	B & W	WO M002 13/1	66/67: 112 - 111
6809	0	Meridian 20/68	12/04/1968	1:6000	Meridian	B & W	WO M002 13/1	20/68: 166 - 67
6802	0	Meridian 60/68	05/08/1968	1:5000	Meridian	B & W	WO M002 13/2	60/68: 66 - 67 5
6908	0	Meridian 3/69	19/01/1969	Various	Meridian	B & W	WO M002 13/2	3/69: 150 + ~~133~~ 151
7034	0	Meridian 12/70	07/03/1970	1:2000	Meridian	B & W	WO M002 13/3	12/70: ~~48 - 49~~ (poss)
7033	0	Meridian 11/70	07/03/1970	1:2000	Meridian	B & W	WO M002 13/3	11/70: 51 - 52